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PLANNING COMMISSION AGENDA
CITY HALL AUDITORIUM, 250 NORTH 5TH STREET

TUESDAY, OCTOBER 8, 2019 @ 6:00 PM

Call to Order - 6:00 PM

1. Minutes of Previous Meeting(s) from September 24, 2019.

2. Appeal of the Director's Conditional Approval Decision of a Site Plan Review ("Application") for Karis Apartments, located at 3205 N. 12th Street, Grand Junction, Colorado.

3. Consider a request by Downtown Development Authority of Grand Junction, Colorado (DDA) to adopt the 2019 DDA Plan of Development entitled "Vibrant Together."

4. Consider a request by the City of Grand Junction to amend various sections of the Zoning and Development Code (Title 21), Greater Downtown Overlay (Title 24), 24 Road Corridor Design Standards (Title 25), and Transportation Engineering Design Standards (Title 29) to clarify administrative procedures, remove inconsistencies and modify standards.

Other Business

Adjournment

GRAND JUNCTION PLANNING COMMISSION
September 24, 2019 MINUTES
6:00 p.m.

The meeting of the Planning Commission was called to order at 6:00pm by Chairman Christian Reece.

Those present were Planning Commissioners; Chairman Christian Reece, Vice Chairman Bill Wade, George Gatseos, Kathy Deppe, Keith Ehlers, Sam Susuras and Andrew Teske.

Also present were Greg Caton (City Manager), Trent Prall (Public Works Director), Jamie Beard (Assistant City Attorney), Tamra Allen (Community Development Director), Dave Thornton (Principal Planner), Kristen Ashbeck (Principal Planner), Scott Peterson (Senior Planner), Senta Costello (Associate Planner), and Jace Hochwalt, (Associate Planner).

There were approximately 55 citizens in the audience.

1. **Meeting of Previous Meeting(s)**

The Planning Commission reviewed the meeting minutes from the August 27, 2019 meeting.

Commissioner Susuras moved to approve the minutes as written. Commissioner Wade seconded the motion.

The motion carried unanimously by a vote of 7-0.

2. **Impact Fees Text Amendment** **File # ZCA-2019-516**

Consider a request by the City of Grand Junction to Amend Multiple Sections of the Zoning and Development Code Regarding Traffic Capacity Payments, Parks and Recreation Impact Fees and Adoption of New Impact Fees for Police, Fire and Municipal Facilities.

Staff Presentation

Tamra Allen, Community Development Director, introduced exhibits into the record and gave a presentation regarding the request.

DRAFT

Questions for Staff
There was discussion regarding the TischlerBise Impact Fee Study, the proposed implementation schedule, rate of economic development, fee structures, fiscal responsibility, and level of service.

Public Comment
The public hearing was opened at 6:49pm

The following spoke against the request:
Kevin Bray, Diane Schwenke (GJ Chamber of Commerce), Rebekah Scarrow (Grand Junction Area Realtors Association), Shawna Griegor (Western Colorado Contractor's Association), Kelly Maves (Coldwell Banker Distinctive Properties), Nina Anderson (Express Employment), Jorge Pentoja (Western Colorado Latino Chamber of Commerce), Virginia Brown (Berkshire Hathaway Homeservice Western Colorado Properties), Sonia Gutierrez (Western Colorado Latino Chamber of Commerce), Constance Tremblay (Berkshire Hathaway Homeservice Western Colorado Properties), Don Pettygrove (DGP Engineering), Merritt Sixbey, Aaron Young, Steve Voytilla, Ron Abeloe, Jennifer Hudson, and Bob Puckett.

The following spoke in support of the request:
Abram Herman, Scott Beilfuss, and Eric Braa.

There was discussion regarding the Stakeholder sponsored comparison study, the Western Colorado Contractor's Association, rising construction costs, the housing market, buyers of new construction in the area, and the City redevelopment area.

Planning Commission took a break at 8:05pm.

The meeting resumed at 8:14pm.

There was discussion regarding the proposal.

The public hearing was closed at 8:33pm.

Questions for Staff
There was discussion regarding the implementation schedule of the proposed impact fees, the estimated revenue from the proposed impact fees, and timeline.

Discussion
Commissioners Susuras, Deppe, Gatseos, Reece, Ehlers, Wade, and Teske made comments regarding the proposal.

DRAFT

Motion and Vote
Commissioner Wade made the following motion:

"Madam Chairman, on the request to consider a Group of Actions Including

1. Amend Ordinance 3641 the Growth and Development Related Street Policy. The policy included in this ordinance is largely redundant or contradictory to the Zoning and Development Code regarding same; and

2. Adopt Ordinance _____, amending multiple sections of the zoning and development code to update transportation and parks and recreation impact fees and to adopt new impact fees for Fire, Police, and Municipal Facilities and requiring development to construct street safety improvements related to the direct impacts of a development.

I move that the Planning Commission forward a recommendation of approval, with the findings of fact as listed in the staff report."

Commissioner Teske seconded the motion.

Commissioners Ehlers, Gatseos, Reece and Teske made direct verbal recommendations to City Council regarding the proposed ordinance.

The motion failed 6-1 with Commissioners Gatseos, Wade, Reece, Teske, Susuras and Deppe voting NO.

Planning Commission took a break at 9:28pm.

The meeting resumed at 9:34pm.

3. Ciara's Café & Cantina CUP File # CUP-2019-489

Consider a request by P&L Entertainment, LLC for a Conditional Use Permit (CUP) for the property located 701 Main Street to allow for a bar/nightclub use.

Staff Presentation
Jace Hochwalt, Associate Planner, introduced all exhibits into the record and gave a presentation regarding the request and stated that because the Applicant anticipates to utilize the outdoor seating area that sits partially in the right-of-way, a "permitted lease" from the Downtown Development Authority will be required and is listed as a condition of approval.

DRAFT

Applicant's Presentation
The applicant, Paul Romero representing P&L Entertainment LLC, was present and made a comment in support of the request.

Questions for Staff
Commissioner Gatseos asked a question regarding the use of the public right-of-way.

Public Comment
The public hearing was opened at 9:47pm

Aaron Young and Eric Braa made statements in opposition of the request.

The Applicant, Paul Romero, responded to public comment.

The Applicant was asked about planned hours of operation and the proposed layout of the establishment.

The public hearing was closed at 9:55pm.

Questions for Staff
Chairman Reece asked Staff a question about hours of operation provided in the Staff report.

Motion and Vote
Commissioner Deppe made the following motion, "Madam Chairman, on the application for a Conditional Use Permit for Ciara's Café and Cantina located at 701 Main Street, CUP-2019-489, I move that the Planning Commission recommend conditional approval with the findings of fact and conditions as listed in the staff report."

Commissioner Susuras seconded the motion. The motion carried unanimously by a vote of 7-0.

4. Adams II Annexation File # ANX-2019-384

Consider a request by Paul Adams to zone 1.99 acres from County RSF-4 (Residential Single Family – 4 du/ac) to a City R-8 (Residential – 8 du/ac) for the Adams II Annexation located at 216 27 ½ Road.

Staff Presentation
Scott Peterson, Senior Planner, introduced exhibits into the record and gave a presentation regarding the request.

DRAFT

Applicant's Presentation
The Applicant, Paul Adams, was present and did not wish to make additional comments.

Public Comment
The public hearing was opened at 10:39pm.

There were no public comments.

The public hearing was closed at 10:39pm.

Motion and Vote
Commissioner Wade made the following motion, "Madam Chairman, on the Zone of Annexation for the Adams II Annexation to R-8 (Residential – 8 du/ac) zone district, file number ANX-2019-384, I move that the Planning Commission forward a recommendation of approval to City Council with the findings of fact listed in the staff report."

Commissioner Teske seconded the motion. The motion carried unanimously by a vote of 7-0.

5. Zona's Annexation File # ANX-2019-408
Consider a request by Roy and Marilyn Anderson to zone 1.82 acres from County RSF-R (Residential Single Family 5ac/du) to a City C-1 (Light Commercial) for Zona's Annexation located at 408 29 Road.

Staff Presentation
Senta Costello, Associate Planner, introduced exhibits into the record and gave a presentation regarding the annexation request.

Applicant's Presentation
The Applicant was not present.

Public Comment
The public hearing was opened at 10:02pm

There were no public comments.

The public hearing was closed at 10:02pm

Discussion
None.

DRAFT

Motion and Vote
Commissioner Gatseos made the following motion, "Madam Chairman, on the Zone of Annexation for Zona's Annexation to C-1 (Light Commercial) zone district, file number ANX-2019-408, I move that the Planning Commission forward a recommendation of approval to City Council with the findings of fact listed in the staff report."

Commissioner Susuras seconded the motion. The motion carried unanimously by a vote of 7-0.

6. CMU Alley Vacation File # VAC-2019-444

Consider a request by Colorado Mesa University (CMU) on behalf of the property owner, Johnny Jr. and Colleen Martin, to vacate a portion of the East-West Alley right-of-way (2,348 square feet) on the south side of the property located at 845 Orchard Avenue.

Staff Presentation
Kristen Ashbeck, Principal Planner, introduced exhibits into the record and gave a presentation regarding the request and noted that Staff recommends approval with the three conditions pertaining to finalizing the sale of the property and recording the vacation ordinance.

Applicant's Presentation
Derek Wagner, representing Colorado Mesa University, was present and made a comment regarding the request.

Public Comment
The public hearing was opened at 10:25pm

Eric Braa, property owner at 839 Orchard Avenue, had questions regarding the request and the proposed sanitation and parking abilities of surrounding properties.

There was discussion about Mr. Braa's concerns.

The public hearing closed at 10:32pm.

Questions for Staff
There was discussion about adequate sanitation availability and the estimated timeline for the development of Colorado Mesa University's track.

DRAFT

Motion and Vote
Commissioner Gatseos made the following motion, "Madam Chairman, on the Colorado Mesa University Vacation of Alley Right-of-Way located at the east-west alley along the south side of the property at 845 Orchard Avenue, City File VAC-2019-444, I move that the Planning Commission forward a recommendation of conditional approval to City Council with the findings of fact and conditions as listed in the staff report."

Commissioner Susuras seconded the motion. The motion carried unanimously by a vote of 7-0.

7. Fire Station No. 4 Cell Tower File # CUP-2019-224

Consider a request by SSC representing Verizon Wireless, for a Conditional Use Permit (CUP) for a Concealed Telecommunication Facility (Cell Tower) in a Residential – 4 du/ac (R-4) zone district on 2.69862 acres at 2884 B ½ Road.

Staff Presentation
Dave Thornton, Principal Planner, introduced exhibits into the record and gave a presentation regarding the request.

Applicant's Presentation
The Applicant, Charmaine Dregalla representing SSC on behalf of Verizon Wireless, was present and made a comment in support of the request.

Public Comment
The public hearing was opened at 10:17pm.

There were no public comments.

The public hearing was closed at 10:17pm.

Motion and Vote
Commissioner Wade made the following motion, "Madam Chairman, on the request to approve a Conditional Use Permit (CUP) for an 82 ft. tall concealed telecommunication tower facility on 2.7 acres as presented in file CUP-2019-224, I move that the Planning Commission approve the Conditional Use Permit with the findings of fact, conclusions and conditions listed in the staff report."

Commissioner Susuras seconded the motion. The motion carried unanimously by a vote of 7-0.

DRAFT

8. **Other Business**

There was discussion regarding upcoming Planning Commission meeting dates.

Commissioner Wade asked to discuss the implementation of a consent agenda at the October 3rd workshop agenda.

9. **Adjournment**

The meeting was adjourned at 10:41pm.

DRAFT

Grand Junction Planning Commission

Regular Session

Item #2.

Meeting Date: October 8, 2019

Presented By: Tamra Allen, Community Development Director

Department: Community Development

Submitted By: Tamra Allen, Community Development Director

Information

SUBJECT:

Appeal of the Director's Conditional Approval Decision of a Site Plan Review ("Application") for Karis Apartments, located at 3205 N. 12th Street, Grand Junction, Colorado.

RECOMMENDATION:

The Appellant has failed to show that the Director's approval of the Application was contrary to applicable law, that she made inappropriate findings of fact and/or failed to consider facts that are relevant to the determination, acted arbitrarily or capriciously, and/or she failed to consider mitigating measures. Therefore, the Director recommends the Planning Commission affirm the conditional approval of the Application for the Karis Apartments.

EXECUTIVE SUMMARY:

With the attached letter Community Development Department Director Tamra Allen ("Director") conditionally approved an Application for Karis Apartments consisting of a 34, 1-bedroom unit, multi-family residential development in an existing R-16 (Residential -16 du/ac) zone district. The Director's approval was timely appealed. The Appellants allege (1) that the Director abused her discretion in determining the off-street parking requirements (allowing a total of 25 off-street parking spaces) and (2) made erroneous findings of fact concerning the projects property line (adjacent to Lakeside Drive.)

BACKGROUND OR DETAILED INFORMATION:

Pursuant to § 21.02.210 (c) of the Grand Junction Zoning & Development Code

("Code"), the Planning Commission is to consider the evidence in the record to determine whether the Director's conditional approval of the Karis Apartments project (1) was inconsistent with the Code or other applicable law, or (2) was based on erroneous findings of fact, or (3) failed to consider mitigating measures, or (4) acted arbitrarily, capriciously or abused her discretion. The Appellants bear the burden of proof.

Consistent with the findings in Colorado State Board of Medical Examiners v. Johnson, 68 P.3d 500 (Colo. App. 2002), if the Planning Commission finds the Director acted contrary to the Code or other applicable law, then the Planning Commission may 1) overrule the Director, or 2) remand the application for further findings. Should the Appellant fail to demonstrate the Director's decision was made in contravention of the Code, the decision must be upheld. Under Colorado law administrative decisions are accorded a presumption of validity and regularity. All reasonable doubts as to the correctness of administrative rulings must be resolved in favor of the agency. The Director's decision, including findings of fact and legal conclusions, must be affirmed if supported by a reasonable basis.

The standard of review for an administrative decision is whether, on the basis of the whole record, the governmental body or officer exceeded its jurisdiction or abused its discretion, and if the findings of the agency are supported by any competent evidence. No competent evidence" means the record is devoid of evidentiary support for the decision. Puckett v. City of County of Denver, 12 P.3d 313 (Colo. App. 2000).

PROCEDURAL HISTORY

Applicant, Karis Inc., proposed a multi-family residential development located at 3205 N. 12th Street known as Karis Apartments, consisting of 34, 1-bedroom units. A General Meeting was held on May 14, 2018 and a Pre-Application Meeting was held on January 23, 2019. Applicant submitted for a Site Plan Review application on April 4, 2019. The application went through three (3) rounds of comments and was conditionally approved by the Director on August 1, 2019. Appellants, the Lakeside Community Association represented by Ms. Karen Rowe, Community Association Manager, filed an appeal of the administrative approval on August 9, 2019. All documents referenced herein are in the project file #SPN-2019-174, ("File") which File is incorporated herein in its entirety by this reference.

FACTUAL BACKGROUND AND APPLICABLE LAW

The Director in accordance with §21.04.010 (e) of the Code had authority to determine the appropriate land use category for the proposed development; the Director determined the project to be Multi-Family Residential. The parking standard for that land use is 1.25 parking spaces per 1-bedroom unit pursuant to § 21.06.050 (c) of the

Zoning & Development Code. In accordance with this section, the required parking for a Multi-Family Residential use would equate to a total of 43 parking spaces as required for 34, 1-bedroom units (1.25 x 34 units = 42.5 parking spaces). The Director approved an Alternative Parking Plan allowing for 25 on-site parking spaces, based on information and argument provided by the Applicant. The Director found the Applicant's position to be persuasive and adequately supportive of and consistent with the type of use and occupancy.

Each of the 34, one-bedroom individual living units will contain a kitchen, bathroom and will collectively function as a multi-family apartment building. The Applicant's project narrative included that the apartments are to provide housing opportunities for very low-income families and individuals who have disabilities, between the ages of 18 and 24 and/or who are homeless or at risk of experiencing homelessness, also referred herein as permanent supportive housing. Based on the Applicant's representations, the Director classified the project as a Residential, Multi-Family land use in accordance with the Code.

APPELLANTS' CLAIMS:

Claim #1: The Director acted in a manner inconsistent with the provisions of the Code to allow approval of less than the required number parking spaces as being inconsistent with the requirements for any other low income development in the City.

In accordance with §21.06.050 (c) of the Code, Off-Street Required Parking, Multi-family, 1-bedroom unit, requires 1.25 parking spaces per unit. Therefore, for this Application, a total of 43 parking spaces (1.25 x 34 units = 42.5) would be required; however, pursuant to §21.06.050 (e) of the Code, the applicant proposed 25 parking spaces under an Alternative Parking Plan.

§21.06.050 (e) of the Code allows the Director to consider an Alternative Parking Plan and allows for the parking ratios to be modified whereby the applicant's data illustrates that required ratios do not accurately apply to specific development. The data submitted for an alternative parking plan shall include, at a minimum, the size and type of the proposed development, the mix of uses, the anticipated rate of parking turnover and the anticipated peak parking and traffic loads of all uses. The Applicant submitted this information in a memo dated April 3, 2019.

This memo provided Karis Parking Statistics which indicated, based on existing and similar projects developed by Karis, Inc, that total maximum demand for parking of 28 spaces but that daily demand was 8 cars which includes ten percent vehicle ownership by residents (3 to 4 vehicles).

As part of the applicant's submittal, the applicant cited as part of their application, several sources in justifying their request for an Alternative Parking Plan, including the Institute of Transportation Engineers (ITE), Parking Generation 4th Edition whereby the ITE manual concludes that a 34-unit multi-family project creates a 35 space demand with a ratio of .92 spaces per unit. The Code requires 1.25 spaces per unit. The ITE Parking Generation calculations are completed through assessment of built projects. As noted, however, this study only included four (4) of forty (40) low income/affordable multi-family projects in the calculation but is relevant in that it demonstrates that the ratio for multi-family projects based on study by ITE are lower than the required parking spaces for the type (multi-family) of proposed development.

Further, the Applicant cited two studies, the San Diego Affordable Housing Parking Study commissioned by the City of San Diego and a study commissioned by the City of Los Angeles. These studies provided that parking demand was based on walkability and proximity to transit but given the variation in access to these alternative modes of transportation resulted in a range of .29 to .5 parking spaces per unit for affordable housing projects.

A summary of the San Diego Affordable Housing Parking Study provided by Fox Tuttle Hernandez Transportation Group, LLC a Colorado consultancy specializing in transportation (in a report produced for a project in Aurora, Colorado but is generally applicable) found that parking demand for affordable housing projects was "about half of that for typical rental units and almost 50% of the units surveyed had no vehicle." The study also showed that household vehicle availability varies significantly with income and parking demand is less in areas with walkable destinations and more transit services."

A summary of the study commissioned by the City of Los Angeles titled "LADOT Measuring the Miles Study, provided similar findings and as summarized by Fox Tuttle Hernandez Transportation Group, LLC in the same report provided "permanent support affordable housing has a parking demand of .29 to .43 per unit depending on proximity to the transit area."

Lastly, Fox Tuttle Hernandez Transportation Group, LLC, in the same report noted "it is generally agreed that affordable housing communities generate less automobile trips and subsequent parking demand than other residential uses and that lower-income residents are also less likely to own a vehicle." The Director took this into consideration as the project proposed a use serving very low income residents.

Though not submitted by the applicant, in considering the request to reduce the number of on-site parking spaces, the Director looked to previously approved City projects with similar characteristics including multi-family apartments and serving as permanent supportive house for those with low and very low incomes. The Director

reviewed St. Benedict's Place located at 217 White Avenue (behind the previous downtown City Market) as well as St. Martin's Place project located at 415 S 3rd Street. St. Benedicts, a 24-unit apartment project, approved in 2007 pursuant to §21.060.050(e) of the Code required 30 parking spaces. The project was approved for an alternative parking plan and allowed for nine (9) on-site parking spaces resulting in a parking ratio of .357 parking spaces per unit. St. Martin's Place, a 40-unit apartment project for low income residents was approved by the City in 2011 and 2014. In total (Phase 1 and 2), St. Martin's place was approved for and provided eleven (11) on-site spaces. An alternative parking plan was approved for this project which otherwise would have been required to provide 50 parking spaces pursuant to the Code. This plan resulted in a parking ratio of .275 parking spaces per unit.

These projects were not reviewed in light of establishing precedent but to test the findings of the studies to assist in validating that the local conditions did not otherwise result in a finding that was inconsistent with the conclusions of the cited studies and/or parking demands as provided by the applicant in the Karis Parking Statistics. In review of these projects, the Director found that the on-site parking ratio for these projects was adequately serving the parking demand for these projects.

The Director factored into her decision proximity to public transit (Grand Valley Transit serves Route 1 on 12th street with stops within 150 feet of the proposed project. Additionally, facilities for walking (sidewalks) are provided in the area and commercial services and employment opportunities are within proximate distance of the site.

As required by Code, an Alternative Parking Plan document was drafted for the project in accordance with §21.06.050 (e) (6) for property owner's signature. The Alternative Parking Plan document is required to be recorded in the Mesa County land title records and provides notices that the project does not meet City standards for a multi-family residential development and that, should a change of use occur in the future or change of purpose from low income housing owned and operated by Karis, Inc., that additional on-site parking may be required to be developed.

Because the national parking studies and data represent "best practices" the Director's determination of a lesser parking requirement reducing 43 parking spaces to 25 parking spaces and resulting in a ratio of 0.73 parking spaces per unit is reasonable and should be sustained on appeal.

Claim #2: The Director failed to take into consideration the true property lines of the Lakeside Subdivision in relation to the proposed pedestrian path connection to Lakeside Drive.

The Appellant's second claim is, in essence, that the Applicant's project will result in a trespass on Lakeside Subdivision property by connecting a proposed pedestrian path

to the existing public sidewalk located within the Lakeside Drive right-of-way. The Appellant submitted a photo of the property pin in question which shows the pin located approximately 2 feet from the public sidewalk located within the right-of-way (see attached.) The City Surveyor has determined that, based on the witness corner, the corner pin may be 2 feet closer to the public sidewalk. The reason for the witness corner is that there is an existing railroad tie retaining wall located at the back of the sidewalk, which would prohibit the placement of the property corner pin at what is/may be determined to be the property line. The Application, which includes an Improvement Survey, Subdivision Plat and Site Plan supports a conclusion that the Applicant's property line does extend to the back of the public sidewalk and the right-of-way of Lakeside Drive.

The Appellant claims landscaping improvements and maintenance of the same as well as a separate agreement with the current land owner of the property, Unity Church, have rendered the area the property of Lakeside. The Director has no legal basis to recognize that claim.

The Director's conclusion, based on evidence in the record and the opinion of the City Surveyor is that a Witness Corner may show that the property line does extend to the right-of-way of Lakeside Drive, is proper and that the Appellant's claim is unfounded.

SUGGESTED MOTION:

Section 21.02.210 (c) (2) of the Code states: "The appellate body shall affirm, reverse or remand the decision. In reversing or remanding a decision, the appellate body shall state the rationale for its decision. An affirmative vote of four (4) members of the appellate body shall be required to reverse the Director's action."

Madam Chair, I move the Planning Commission (affirm/reverse/remand) the conditional approval of the Karis Apartments development, Located at 3205 N. 12th Street. (If reverse or remand, state reasons).

Attachments

1. Exhibit List - Karis Aparrtments Appeal
2. Exhibit 2 - Lakeside Neighborhood - Appeal Letter
3. Exhibit 3A - Karis Response Letter to Appeal
4. Exhibit 3B - Karis Response Letter to Appeal - Corrected Version
5. Exhibit 4 - Approval Letter
6. Exhibit 5 - Alternative Parking Plan Memo
7. Exhibit 6 - Construction Plan Set Drawings(3)
8. Exhibit 7 - Site Location & Zoning Maps, etc.
9. Exhibit 8 - Recording Memo - Alternative Parking Plan
10. Exhibit 9 - GVT System Map

11. Exhibit 10 - LA Affordable Housing Parking Rates
12. Exhibit 11 - Providence at the Heights Traffic Impact Study
13. Karis Apartments - Round 1 Review Documents
14. Karis Apartments - Round 2 Review Documents
15. Karis Subdivision - Round 2 Review Documents
16. Karis Apartments - Round 3 Review Documents
17. Karis Subdivision - Round 3 Review Documents
18. Karis Subdivision - Approval Review Documents
19. Karis Apartments - Approval Review Documents
20. Karis Subdivision - Round 1 Review Documents - Tom Dixon
21. Karis Apartments - Round 1 Review Documents - Tom Dixon

EXHIBIT LIST

KARIS APARTMENTS APPEAL
FILE NO. APL-2019-460

Exhibit Item #	Description
1	Staff Report dated October 8, 2019
2	Lakeside Neighborhood – Appeal Letter
3A	Karis Response Letter to Appeal – Original Version
3B	Karis Response Letter to Appeal – Corrected Version
4	Approval Letter
5	Alternative Parking Plan Memo
6	Construction Plan Set Drawings – Version 3
7	Site Location & Zoning Maps, etc.
8	Recording Memo – Alternative Parking Plan
9	GVT System Map
10	LA Affordable Housing Parking Rates
11	Providence at the Heights Traffic Impact Study
12	Powerpoint Presentation dated October 8, 2019

Exhibit 2

Lakeside
3150 Lakeside Drive, #101
Grand Junction, Colorado 81506
(970) 243-8910

August 9, 2019

Scott Peterson & the Grand Junction City Planning Commission
250 N 5th St.
Grand Junction, CO 81501

Re: Karis Apartments
File No: SPN – 2019 – 174 & SSU – 2019 – 182

Dear Mr. Peterson,

The Lakeside Community is filing an appeal of the conditional approval of the above referenced project. It is our understanding that in hearing an appeal of an administrative development permit, the appellate body shall consider, based on the information in the record before the Director, four (4) different measures of criteria. We are basing our appeal on two of those measures.

In part (i) it asks whether the Director acted in a manner inconsistent with the provisions of this code or other applicable local, State or Federal law. We protest that the approval of less than the required number of parking spaces is inconsistent with the requirements set forth by the Commission for any other low income development in our city.

- Up until the Karis Apartment Project, the city has adamantly enforced the parking ordinance (21.06.050) which requires 1.25 parking spaces per unit. It is understandable that the older apartment complexes in the city have the required number of spaces; after all, they weren't built to accommodate low income individuals and or families. However, the Highlands complex, which is still under construction, was approved to be built as low income apartments for the elderly. This developer was required by the Commission to have 1.25 parking spaces. The Village Park was built in 2013 to house low income individuals and or families. They too were required by the Commission to have 1.25 parking spaces.
- The Karis Apartment project asked for reduced parking ratios for the project based on (a) national data, (b) location of the site, (c) project specific demand and (d) overall impact on the quality of the project.
    - (a) The Commission had, or should have had knowledge regarding the national data and yet, they still required the 1.25 parking spaces for all other low income developments in recent years.
    - (b) The other low income complexes are in the same general area, have access to the same public transportation and are in the same proximity to necessary central services as the Karis Apartment project will be.
    - (c) The Karis Project specific demand is for low income people, same as any other low income complexes that have been approved by the Commission.

- (d) The overall quality of the Highlands and Village Park developments haven't been impacted by having to follow the time-tested ordinance. (21.06.050) They are beautiful developments.

- There is an allowance to the parking plan ordinance if the applicants submitted alternative parking data illustrates that the required parking ratios do not accurately apply to a specific development. Karis Apartments has not proved in their application that the individuals and or families that will be living in their low income complex will be any different than other individuals living in other low income developments throughout our city.

- Finally, what a development starts out as and what it ends up as can be two different things. All one has to do is drive around the city and see how the original intended use of a building has changed as time goes on and the needs of our city changes. One day our city may again be that of a prosperous community with little need for low income housing. What happens when the future use of the Karis Apartment development doesn't have even the minimum required parking?

In part (ii) it asks if there were erroneous findings of fact based on the evidence and testimony on the record. We protest the approval of the decision made by the Commission in regards to the pedestrian walk path as it does not take into consideration the true property lines of the Lakeside Subdivision.

- The Lakeside Subdivision filing number 2 was filed by T.L. Benson on the 31st of July 1972 and was granted approval by the City of Grand Junction on the 28th of December 1972. It describes the legal boundaries of the lakeside subdivision.
- The Articles of Incorporation of the Lake View Estates Venture Homeowners' Association that was filed on August 3, 1973, Reception 1051923, again notes the legal boundaries of the subdivision and are in agreement with the above property filing.
- The Karis Apartment project had a legal survey done to identify the property boundaries. They placed the property stakes and pins using legal boundary coordinates. A photo was submitted to Tom Dixon showing that the property pin was not at the sidewalk as the City states but North of the sidewalk approximately three feet.
- I have attached two photos showing the property stake and pin. As anyone can see the Lakeside Subdivision property lies well north of the sidewalk and is consistent with the fence line that divides the two parcels along the backside of the El Dorado Building.
- This area of land joins the two parcels that have been maintained for over twenty (20) years by an agreement made between Lakeside and the owner of the church property. The residents of the Lakeside Subdivision protest the City's laisez-faire acquisition of our land.
- In addition, Tim Patty, the City Engineer in charge of sidewalks stated that there was NO documentation of any City repairs or maintenance of the Lakeside Drive sidewalks; and within the past ten (10) years during his tenure in the department, he personally knew of no work having been done.
- In the past five (5) years there have been at least six (6) separate projects which have been undertaken to complete repairs to Lakeside Drive Sidewalks, proving that the City has not assumed any responsibility for our privately maintained sidewalks, to which they are now laying claim.

The residents of Lakeside have been told;

- That the Karis project was going to be used to house homeless youth between the ages of 18 and 24.
- Subsequently, the City Planner and the City Attorney designated it as a group home.
- Now the Karis Apartment project states that they will house low income individuals and families who have disabilities, who are homeless or at risk of experiencing homelessness and that a preference will be given to those people in need of behavioral health services.

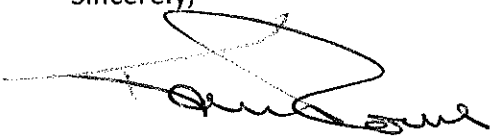
Also, is there a legal difference between a low income housing apartment as opposed to a homeless facility, as opposed to a home for people with mental health issues, and are the guidelines, zoning requirements and legal criteria consistant with each designation? Is there a possibility that the residents of Lakeside might know what is going to be built there or do we just have to wait and see?
The residents of Lakeside have been led to believe;

- That there was going to be on-site staff to supervise the youths.
- Now the Planning Commission affirms that there will only a "manager" will be on site and no services will be rendered.

Again, is there a clear picture of what is being planned for this complex and how it is going to look in the future, and if so, could we be informed?

In closing, it seems odd that each time a required filing date draws near, the City Planner in charge of this project was on vacation. The amount of time given to us to contact our Attorney was very limited so we reserve the right to have our claims represented by an attorney in the future regarding this appeal. There are 291 taxpaying units and twice as many voters who would like to know exactly what is going to be built in their back yard. Lakeside has several attractive amenities, including two bodies of water where a person could drown. If the city insists on leading the relatively unstable population of the Karis Apartment project onto our land, are they willing to accept the liability of their possible death by drowning, or other misadventure when they walk onto what is our private posted property?

Sincerely,



Karen Rowe
Community Association Manager

Attachements:
Letter from Mike Gazdak
Two (2)) pictures of property pins showing property pin
Article of Incorporation with legal description of boundary

State of the State of Colorado
MARY A. ANDERSON
Secretary of State

JUL 20 1973

CERTIFICATE OF INCORPORATION Book 1000 Page 836

OF

LAKE VIEW ESTATES VENTURE HOMEOWNER'S ASSOCIATION,

A Corporation Not For Profit

In compliance with the requirements of C.R.S. 1963, 31-19-1 and the following statutes, the undersigned, all of whom are residents of the State of Colorado, and all of whom are of full age, have this day voluntarily associated themselves together for the purposes of forming a corporation not for profit and do hereby certify:

ARTICLE 1 - NAME

The name of this corporation is LAKE VIEW ESTATES VENTURE HOMEOWNER'S ASSOCIATION.

ARTICLE 2 - PURPOSES AND POWERS

The corporation does not contemplate pecuniary gain or profit, direct or indirect, to its members. The purposes for which it is formed are:

To promote the health, safety and welfare of the residents within the following described tract of land, to-wit:

All of the NE¼ SE¼ of Section 2, Township 1 South, Range 1 West of the Ute Meridian, EXCEPT the following:

1. Commencing at the Northeast corner of said NE¼ SE¼ of said Section 2, thence North 89°59' West 528 feet, thence South 330 feet, thence South 89°59' East 528 feet, thence North to the point of beginning.

2. Right of way for the Grand Valley Irrigation Company, recorded in Book 71 at Page 430 of the records of Mesa County.

3. Conveyance to Mesa County recorded in Book 877 at Page 361 of the records of Mesa County.

4. Conveyance to Mesa County recorded in Book 877 at Page 363 of the records of Mesa County.

5. Right of way granted to the Grand Valley Rural Power Lines in Book 399 at Page 326 of the records of Mesa County.

and such additions thereto as may hereafter be brought within the jurisdiction of this corporation by annexation as provided in

Close

Download Print

Properties

Name: Scan2019-08-08_154...
Type: image/jpeg
Size: ~448 KB

August 8, 2019

City of Grand Junction Planning Division
250 N. 5th Street
Grand Junction, CO 81501

Dear City Planner,

As a City Resident and owner of two properties in the Lakeside Subdivision I obje
reduction in the required number of parking spaces (=> 1.5 spaces per unit) for the
Karis Apartments located on or about 3205 N. 12th Street Grand Junction, CO 815

The project owner, Jon Mok-Lamme, stated during a public meeting at Lakeside th
residents would not typically drive vehicles but would walk, ride bicycles or use pu
transportation. I'm guessing this is the justification for requesting fewer than the
required parking spaces. This rationale does not account for future changes in the
property back to a "regular" apartment complex where residents primarily rely on
automobiles for transportation.

To permit a reduction in the required number of parking spaces may place a future
Lakeside residents and City streets when "overflow" vehicles are parked in Lakesi
parking lots or on nearby streets. Thank you.

Respectfully submitted,

Mike Gazdak
2370 E. Piazza Place
Grand Junction, CO 81506

2D WITNESS CORNER PROPERTY

Exhibit 3A

OTTENJOHNSON
ROBINSON NEFF + RAGONETTI PC

August 28, 2019

BRIAN J. CONNOLLY
303 575 7589
BCONNOLLY@OTTENJOHNSON.COM

VIA E-MAIL AND FEDEX

Planning Commission
City of Grand Junction
250 North 5th Street
Grand Junction, Colorado 81501
Attn: Scott Peterson

Re: Appeal of Administrative Decision with respect to applications for Major Site Plan Review (SPN-2019-174) and Simple Subdivision Plan (SSU-2019-182)

Dear Commissioners:

This firm represents Karis Apartments, LLLP, a Colorado limited liability limited partnership ("**Applicant**"), with respect to its contemplated development of real property located at 3205 N. 12th Street (the "**Property**") in the City of Grand Junction, Colorado (the "**City**"). On behalf of Applicant, Kyle Mead of Shopworks Architecture submitted applications to the City for approval of a 34-unit multi-family housing development (the "**Project**"), which the Director of Community Development for the City (the "**Director**") conditionally approved by its letter dated August 1, 2019 (the "**Conditional Approval**").

Although not relevant to the analysis of the Project's permissibility pursuant to the City's Zoning and Development Code (the "**Code**"), the Project will provide affordable housing, supported by 34 project-based vouchers awarded by the Colorado Division of Housing, for very low income families and individuals with disabilities, who are between the ages of 18 and 24 and/or who are experiencing or at risk of experiencing homelessness (collectively, the "**Affordable Component**").

We have prepared this letter in response to that certain letter dated August 9, 2019, from Karen Rowe on behalf of the Lakeside Community Association (the "**HOA**"), appealing the Conditional Approval of the Project (the "**Appeal**"). The Appeal cites concerns regarding parking, an alleged property boundary dispute and, more generally, the "relatively unstable" people who will ultimately occupy the Project.

As discussed herein, it is our position that the Conditional Approval should be upheld because it is consistent with the applicable provisions of the Code. In addition, the Applicant and prospective residents of the Project are protected under the provisions of the Fair Housing Amendments Act of 1988 (42 U.S.C. § 3601 *et seq.*) (the "**FHA**") and/or the Americans With Disabilities Act (42 U.S.C. § 12101 *et seq.*) (the "**ADA**"). Therefore, on behalf of the Applicant, we respectfully request that the City of Grand Junction Planning Commission (the "**Commission**") affirm and uphold the Conditional Approval.

Applicable Standard of Review

On an appeal from a decision by the Director, the Commission must consider, based on the information in the record before the Director, whether the Director (a) acted in a manner inconsistent with applicable law, (b) made erroneous findings of fact, (c) failed to fully consider mitigating measures or revisions offered by the applicant that would have brought the proposed project into compliance, and (d) acted arbitrarily or capriciously (Code § 21.02.210(c)(1)). With respect to (c), it is important to note that the mitigating measures the Director is required to consider are those that would bring a non-compliant project into compliance, not just any measure that would mitigate impacts or concerns of neighbors. In making its decision, the Commission must determine whether the Director acted as set forth in the foregoing criteria, as opposed to substituting its judgment for that of the Director (Code § 21.02.210(c)(3)(v)).

Consistency with Applicable Terms and Provisions of the Code

As set forth in Sections 21.02.070(g) and 21.02.070(p) of the Code, both the Major Site Plan and Simple Subdivision Plan are administrative development permits; since the Project contemplates creating only one additional lot, it qualifies for the latter pursuant to Section 21.02.070(p)(2)(ii) of the Code. As such, the approval criteria set forth in Section 21.02.070(a)(6) of the Code govern City staff's decision. As referenced in the Conditional Approval, the Project meets the applicable approval criteria as follows:

1. Compliance with the Comprehensive Plan and any applicable adopted plan.

The City's Comprehensive Plan, adopted in 2009 (the "**Plan**"), on the first page, discusses the City's problematic "sprawling growth pattern" and frames the rest of the Plan in the context of various considerations related to managing growth, specifically asking the question "how can we make sure we have affordable housing?" Repeatedly, the Plan stresses the importance of "infill and redevelopment of underutilized land" and "more compact development" (Plan, pp. 11-12), while providing a "broader mix of housing types in the community to meet the needs of a variety of incomes, family types and life stages" and "identification of locations for increased density" (Plan, p. 8).

More specifically, the Plan's Future Land Use Map designates the Property as Residential High Mixed Use, which is characterized by a "mix of residential development types with gross densities of 8 to 16 dwelling units per acre," but expressly allows for even larger and denser multifamily developments (Plan, pp. 30-33). Similarly, the Plan's Blended Residential Land Use Categories Map designates the Property as "Residential High Density," which includes residential development with densities of 16 to 24 or more dwelling units per acre (Plan, pp. 36-37)—meaning that the Property is specifically appropriate for the most intense residential development in the City. The Property is also designated as a "Village Center" due to its proximity to the 12th Street and Horizon Drive intersection, which further supports the relatively dense residential development (Plan, p. 47).

With 34 dwelling units proposed for the 1.487-acre Property, the Project's residential density of approximately 22.8[1] lands squarely within the range set forth in the Plan. Similarly, the Project's infill nature and redevelopment

[1] Note that this calculation does not include one-half of the adjoining rights-of-way per Section 21.03.040(i)(2)(i) of the Code, which would result in a slightly lower density that would be even more squarely within the range for Residential High Density as set forth in the Plan.

of an underutilized site within the City's Service Area Boundary, together with its provision of the Affordable Component, is wholly consistent with the Plan.

2. Compliance with this zoning and development code.

The Property is zoned Residential-16 ("**R-16**"), the purpose of which is "to provide for high density residential use" and may "serve as a transitional district between single-family and trade zones" (Code § 21.03.040(i)(1)). Like the Plan, the R-16 district encourages the provision of "a balance of housing opportunities in the community" and is specifically appropriate for areas designated as "Village Centers" by the Plan (Code § 21.03.040(i)(1)). As set forth in more detail in the application materials submitted with respect the Project, the Project fully meets and satisfies the development standards applicable to the R-16 district, and squares firmly with the purpose of the R-16 district.

With respect to the use, "multifamily" household living is an allowed use within the R-16 district (Code § 21.04.010). We note that there appears to be some confusion regarding the designation of the Project as a multifamily household living use as opposed to "group living"[2]; however, the analysis of the applicable Code provisions is quite simple. Pursuant to the definition of "group living" uses set forth in Section 21.04.020(b)(1) of the Code, "group living" is very simply any residential occupancy "by a group of people who do not meet the definition of household living." Given the foregoing, the only analysis that matters in determining whether a use would fall into the group living category or the household living category is whether the particular use falls within the scope of the "household living" category of uses. Those uses, as described in Section 21.04.020(c) of the Code, contemplate residential occupancy of a dwelling "by a household" where "tenancy is arranged on a month-to-month or longer basis."

Based on those definitions, so long as a residential use provides for tenancy of one month or longer terms, a residential use is only considered group living if the people living there cannot be considered a "household." The Code defines a household as "a family, or a group of not more than four unrelated persons, living together in a single dwelling unit, with common access to and common use of all living and eating areas and all areas and facilities for the preparation and serving of food within the dwelling unit." In laymen's terms, the Code requires that each unit provide its own kitchen and common areas to be considered household living. As evidenced in every application narrative submitted to the City in connection with the Project, the individual dwelling units within the Project will each include a refrigerator, an oven and range, a dish disposal and microwave—i.e., the basic components needed to "prepare and serve food within the dwelling unit." Accordingly, there is no question that the Project is a "multifamily household living" use under the Code.

As noted in the Conditional Approval, the Applicant applied for, and the Director approved, an alternative parking plan in accordance with Section 21.06.050(c) of the Code. The Appeal, however, questions the number of parking spaces provided for the Project, suggesting that the Project should be required to either provide the same parking ratio as two other projects within the City or indicate in its application what makes the Project different from those other projects. The Code requires no such analysis, nor is it relevant to the requirements of Section 21.06.050(c). Instead, that section provides that parking ratios "may be modified where applicant-submitted parking data

[2] Note that both multifamily household living and group living uses are allowed uses within the R-16 district (Code § 21.04.010).

the Appeal's claims to the Landscaped Strip are in error. In any event, the conditional approval of the TEDS Exception will require the Sidewalk to be located within much of the Landscaped Strip.

Public Engagement

As an additional matter, we note that in December of 2018, prior to submitting any applications in connection with the Project, the Applicant held a neighborhood meeting regarding the Project, providing written notice to property owners in the vicinity of the Property, including the HOA. Copies of these written notices are submitted herewith. The purpose of the neighborhood meeting was to provide a forum for interested neighbors to ask questions and obtain a better understanding of the Project and its possible impacts on the surrounding area. Not one person attended this neighborhood meeting, nor did the Applicant receive any responses to the meeting notifications. The Applicant's design team then held an additional meeting with the HOA in February of 2019, at which members of the HOA received information on the Project, including the proposed Sidewalk Despite the allegations in the Appeal that the members of the HOA have not had an opportunity to obtain "a clear picture of what is being planned for this complex," the HOA has had ample opportunities to discuss the Project with the Applicant, along with its alleged impacts on the neighboring properties and any possible ways in which the Sidewalk could accommodate the HOA's preferences with respect to the Landscaped Strip.

Additional Concerns Regarding Residents with Disabilities (FHA and ADA Implications)

The crux of the Appeal appears to relate to the possibility that residents of the Project will have one or more disabilities and/or have lesser income than their neighbors. However, the Code does not make any distinction (nor could it lawfully do so) for multi-family housing based on the characteristics of the future residents. Such a distinction would be prohibited by the FHA and the ADA. Likewise, the Director and this Commission cannot base its decision on such factors. As discussed below, the Applicant and prospective residents of the Project are protected classes under the FHA and ADA. Insofar as the Appeal was apparently brought in part due to what the HOA characterized as "the relatively unstable population of the [Project]," these laws demand that the Commission reject the Appeal.

Prospective residents of the Project are members of a protected class under the FHA and the ADA. The FHA prohibits discrimination on the basis of seven protected classes, including race, color, national origin, familial status, and disability. 42 U.S.C. § 3604(a), (f). While the first four of these classes are self-explanatory, "handicap" is defined is the FHA as "(1) a physical or mental impairment which substantially limits one or more of such person's major life activities, (2) a record of having such an impairment, or (3) being regarded as having such an impairment." 42 U.S.C. § 3602(h). Past addiction has been conclusively determined to constitute a handicap or disability—both in federal regulations, 24 C.F.R. § 100.201, and by courts, including the U.S. District Court for the District of Colorado, *see St. Paul Sober Living, LLC v. Bd. of Cnty. Comm'rs of Garfield Cnty.*, 896 F. Supp. 2d 982 (D. Colo. 2012)—under the FHA and the ADA.

The FHA prohibits discrimination on the basis of any of the foregoing protected classes where an action or policy causes a dwelling to be made unavailable or denied—which may include erecting procedural or substantive barriers to occupancy that contribute to making housing unavailable, *see, e.g., Ave. 6E Invs., LLC v. City of Yuma*, 818 F.3d 493, 509 (9th Cir. 2016)—on the basis of the protected class. 42 U.S.C. § 3604(a)(1), (f)(1). Federal courts have universally found that zoning or other land use controls that make unavailable or deny housing to

6. **Any changes to existing easements or right-of-way have been completed in accordance with this code or otherwise allowed by law (additional easements or right-of-way may be dedicated).**

The Project does not purport to change any existing easements or rights-of-way. Additional easements, including an easement for the Sidewalk, are intended to be dedicated as shown on the plat for the Karis Subdivision that is included within the Conditional Approval.

7. **The right-of-way shown on the Grand Junction Circulation Plan is not changed.**

The Project does not purport to change any right-of-way as shown on the Grand Junction Circulation Plan.

8. **If a new lot is being created, no portion of the property may have been the subject of a previous simple subdivision creating a new lot within the preceding 10 years or a minor exemption subdivision.**

No portion of the Property has been the subject of a previous simple subdivision creating a new lot within the preceding 10 years or a minor exemption subdivision.

Other Matters

The Appeal also suggests that the Conditional Approval "does not take into consideration the true property lines of the Lakeside Subdivision," asserting that the landscaped area between the right-of-way for Lakeside Drive and the Property (the "**Landscaped Strip**") has been "maintained for over twenty (20) years by an agreement made between Lakeside and the owner of the church property." The Appeal refers to the HOA's governing instruments and original subdivision plat,[3] as well as an assertion that the survey that formed the basis of the subdivision plat, and the pins placed in connection therewith, inaccurately described the boundary of the Property. This assertion is incorrect for several reasons:

- The Property was professionally surveyed as part of the application process for the Project. Such survey, which formed the basis for the subdivision plat for the Project, confirms that there is no gap between the northern boundary of the right-of-way for Lakeside Drive and the southern boundary of the Property. It is our understanding that the City's surveyor has verified, on behalf of the City, that such boundaries are correct, meaning that the Property does indeed extend to the right-of-way for Lakeside Drive. A copy of the relevant portions of the survey and subdivision plat were submitted with the application materials for the Project.
- Second, the Appeal misunderstands the nature and purpose of the "witness corners" shown in the photographs submitted with the Appeal. In common surveying practice, when a surveying stake cannot be placed in the true location, a witness corner is used "a reference point for the location of an inaccessible corner."[4] As written on the witness corners depicted in the Appeal, these particular witness corners

[3] This plat was recorded in 1972 and, based on the Mesa County clerk and recorder's records, is recorded at Reception No. 1027471, with replats recorded in the same year at Reception Nos. 1039892 and 1045212. However, due to the age of the documents, they are not available for viewing on the website, and the Appeal did not include a copy of the same.

[4] *See* Merriam Webster definition of "witness corner" available at https://www.merriam-webster.com/dictionary/witness%20corner.

indicate that the actual corner of the Property is two feet south of the witness corner—that is, on the northern edge of the right-of-way for Lakeside Drive.

- Third, the actual property boundary has not been, and could not have been, modified by any "agreement." Although the Appeal letter references an "agreement" by which the HOA historically maintained the Landscaped Strip, the HOA has not produced a written copy of such agreement or any other evidence of its existence. In the absence of a written agreement: (a) there could be no effective conveyance of the Landscaped Strip to the HOA, as such agreements must be in writing per C.R.S. § 38-10-108, (b) any verbal agreement would be deemed, at most, a revocable license, which the grantor (in this case, the owner of the Property) may revoke at any time through an express revocation or though actions inconsistent with the grant of license, *see Radke v. Union Pacific Railroad Company, 138 Colo. 189, 334 P.2d 1077 (1959)*, and (c) such agreement, whether written or verbal, would negate any potential claim of adverse possession, *see Welsch v. Smith, 113 P.3d 1284, 1289 (Colo. App. 2005)*.

It is not clear what the relevance of the City's maintenance schedule has on the Appeal's claims regarding the Landscaped Strip; however, the property records and factual circumstances, as addressed above, make clear that the Appeal's claims to the Landscaped Strip are in error. In any event, the conditional approval of the TEDS Exception will require the Sidewalk to be located within much of the Landscaped Strip.

As an additional matter, we note that in December of 2018, prior to submitting any applications in connection with the Project, the Applicant held a neighborhood meeting regarding the Project, providing written notice to property owners in the vicinity of the Property, including the HOA. Copies of these written notices are submitted herewith. The purpose of the neighborhood meeting was to provide a forum for interested neighbors to ask questions and obtain a better understanding of the Project and its possible impacts on the surrounding area. Not one person attended this neighborhood meeting, nor did the Applicant receive any responses to the meeting notifications. The Applicant's design team then held an additional meeting with the HOA in February of 2019, at which members of the HOA received information on the Project, including the proposed Sidewalk Despite the allegations in the Appeal that the members of the HOA have not had an opportunity to obtain "a clear picture of what is being planned for this complex," the HOA has had ample opportunities to discuss the Project with the Applicant, along with its alleged impacts on the neighboring properties and any possible ways in which the Sidewalk could accommodate the HOA's preferences with respect to the Landscaped Strip.

The crux of the Appeal appears to relate to the possibility that residents of the Project will have one or more disabilities and/or have lesser income than their neighbors. However, the Code does not make any distinction (nor could it lawfully do so) for multi-family housing based on the characteristics of the future residents. Such a distinction would be prohibited by the FHA and the ADA. Likewise, the Director and this Commission cannot base its decision on such factors. As discussed below, the Applicant and prospective residents of the Project are protected classes under the FHA and ADA. Insofar as the Appeal was apparently brought in part due to what the HOA characterized as "the relatively unstable population of the [Project]," these laws demand that the Commission reject the Appeal.

Prospective residents of the Project are members of a protected class under the FHA and the ADA. The FHA prohibits discrimination on the basis of seven protected classes, including race, color, national origin, familial status, and disability. 42 U.S.C. § 3604(a), (f). While the first four of these classes are self-explanatory, "handicap" is defined is the FHA as "(1) a physical or mental impairment which substantially limits one or more

of such person's major life activities, (2) a record of having such an impairment, or (3) being regarded as having such an impairment." 42 U.S.C. § 3602(h). Past addiction has been conclusively determined to constitute a handicap or disability—both in federal regulations, 24 C.F.R. § 100.201, and by courts, including the U.S. District Court for the District of Colorado, *see St. Paul Sober Living, LLC v. Bd. of Cnty. Comm'rs of Garfield Cnty.*, 896 F. Supp. 2d 982 (D. Colo. 2012)—under the FHA and the ADA.

The FHA prohibits discrimination on the basis of any of the foregoing protected classes where an action or policy causes a dwelling to be made unavailable or denied—which may include erecting procedural or substantive barriers to occupancy that contribute to making housing unavailable, *see, e.g., Ave. 6E Invs., LLC v. City of Yuma*, 818 F.3d 493, 509 (9th Cir. 2016)—on the basis of the protected class. 42 U.S.C. § 3604(a)(1), (f)(1). Federal courts have universally found that zoning or other land use controls that make unavailable or deny housing to persons on the basis of these protected classes constitute violations of the FHA. See, e.g., *Tex. Dept. of Housing & Cmty. Affairs v. Inclusive Communities Project, Inc.*, 135 S. Ct. 2507, 2521-22 (2015); *City of Edmonds v. Oxford House, Inc.*, 514 U.S. 725 (1995).

Similarly, the ADA requires that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of services, programs, or activities of a public entity, or be subjected to discrimination by any such entity." 42 U.S.C. § 12132. In turn, the ADA defines "qualified individual with a disability" as "an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity." 42 U.S.C. § 12131(2). As with the FHA, services, programs, or activities of a public entity have been universally interpreted by courts to include zoning and other land use controls. *Innovative Health Sys. v. City of White Plains*, 117 F.3d 37, 44-45 (2d Cir. 1997).

The proposed Project will house individuals who are unquestionably protected by the FHA. The Applicant has represented to the HOA and the City that the Project will house individuals with various disabilities. As a developer and prospective operator of a residential facility for persons with disabilities, the Applicant is protected under the FHA and ADA, as are the future residents of the Project. Moreover, given the strong correlation between poverty and particular racial and ethnic groups both locally and in the United States more broadly, the Applicant and future residents of the Project may be otherwise protected under the FHA.

The Project is a "dwelling" within the meaning of the FHA. It is beyond question that the Project and its individual housing units constitute a "dwelling" under the FHA. 42 U.S.C. § 3602(b); *see also Lakeside Resort Enters. v. Bd. of Supervisors of Palmyra Twp.*, 455 F.3d 154 (3d Cir. 2006). The prospective residents of the Project will reside in the apartment units.

The reversal of the Conditional Approval would constitute disparate treatment under the FHA and would be a discriminatory action under the ADA. A governmental body violates the ADA and the FHA when it engages in disparate treatment, including facial discrimination or intentional discrimination, against a protected group. *See Inclusive Communities*, 135 S. Ct. 2507, 2533 (2015); *Raytheon Co. v. Hernandez*, 540 U.S. 44, 53 (2003). Proof of disparate treatment can be demonstrated by showing that the governmental body acted because of the protected characteristic, *see Cinnamon Hills Youth Crisis Ctr. v. St. George City*, 685 F.3d 917, 920 (10th Cir. 2012), or by "simply produc[ing] direct or circumstantial evidence demonstrating that a discriminatory reason more likely than

not motivated the defendant," *see Pacific Shores Props. v. City of Newport Beach*, 730 F.3d 1142, 1158 (9th Cir. 2013). The discriminatory purpose need only be one motivating factor behind the challenged action for the local government to be held liable under the FHA or ADA. *Arce v. Douglas*, 793 F.3d 968, 977 (9th Cir. 2015). The use of discriminatory "code words" by members of the community precipitating an action of a local government adverse to people with disabilities is supportive of the conclusions that the local government is engaging in disparate treatment. *Ave. 6E*, 818 F.3d 493, 505-06 (9th Cir. 2016) ("[T]he relevant cases clearly hold that a city's denial of a zoning change following discriminatory statements by members of the public supports a claim of discriminatory intent.").

In this case, the Appeal itself contains express and/or implied discriminatory statements regarding the proposed residents of the Project. The Appeal letter references the disabilities of the prospective residents, goes on to describe these residents as "relatively unstable," and implies that they will do damage to neighboring properties or themselves. These discriminatory communications indicate that the Appeal is intended to preclude the location of housing for people with disabilities, and other members of protected classes, on the Property. Given that these statements would necessarily precipitate any decision by the Commission's decision to reverse the Interpretation Letter, the Board would also be liable for engaging in disparate treatment. *See, e.g., Ave. 6E*, 818 F.3d at 505-06.

What's more, the Project is not a Group Living Facility under the Code. As described above, it contains household living arrangements. Classification of the Project as a Group Living Facility by virtue of the disabilities of individuals who might reside in residential units in the Project would further constitute facially discriminatory action in violation of the FHA and ADA. *See Pac. Shores*, 730 F.3d at 1158.

The only discernible distinction between the Project and any other multi-family residential use is the fact that residents of the Project will be lower-income persons, many with disabilities or other characteristics protected by law. The City has a duty to treat the Project and its prospective residents on an equal basis with multi-family residential uses, which are permitted uses on the Property, for people without disabilities or other protected characteristics.

Conclusion

On behalf of the Applicant, we respectfully request that the Commission deny the Appeal.

Sincerely,

Brian J. Connolly
For the Firm

cc: John Mok-Lamme
Oriana Sanchez
William S. DeFord
Kyle Mead

Invoice

Date	Invoice #
12/15/2018	4165664

PAID
01/04/2019

Bill To

KARIS INC
PO BOX 2837
GRAND JUNCTION CO 81502

REMIT TO:
MAIL MANAGERS INC
2520 WESLO CT
PO BOX 832
GRAND JUNCTION CO 81502
1(970) 241-1612
mm@mailmgr.net

PAST DUE INVOICES ARE SUBJECT TO AN 18% ANNUAL INTEREST CHARGE

Terms	Due Date
	12/15/2018

Description	Qty	Rate	Amount
PRSRT 1ST CLASS 11/30/18 150 CLOSEST TO UNITY CHURCH	150	0.415	62.25
LIST FOR 150 ABOVE	1	50.00	50.00
SERVICE FEES	150	0.065	9.75
PRSRT 1ST CLASS 12/13/18 APPEAL LETTER	452	0.415	187.58
SERVICE FEES	452	0.065	29.38
NON-PROFIT STD MAILING 12/13/18	12,730	0.105	1,336.65
SERVICE FEES	12,730	0.065	827.45
LIST FOR APPEAL LETTER	1	300.00	300.00

Total	$2,803.06
Payments/Credits	-$2,803.06
Balance Due	$0.00

Karis inc.

11/30/2018

Dear Neighbors,

My name is John Mok-Lamme and I am the executive director of Karis, Inc. Karis is a local non-profit that provides housing and services to homeless youth in Mesa County. You may know us better as the organization that operates The House, A Safe Place for Western Slope Teens.

I am writing to let you know that Karis is working towards building a 34-unit apartment building southwest of the Unity Church building off of 12th street. The building will provide housing, extensive services and boatloads of hope to youth ages 18 to 24.

I am hoping we can meet to discuss the project with you on the evening of December 10th at the Unity Church at 7:00 PM. We will provide desserts, a short presentation and there will be members of our board of directors and our development team present to answer questions.

In hope,

John Mok-Lamme
Executive Director

Exhibit 3B

OTTEN JOHNSON
ROBINSON NEFF + RAGONETTI PC

August 28, 2019

BRIAN J. CONNOLLY
303 575 7589
BCONNOLLY@OTTENJOHNSON.COM

VIA E-MAIL AND FEDEX

Planning Commission
City of Grand Junction
250 North 5th Street
Grand Junction, Colorado 81501
Attn: Scott Peterson

Re: Appeal of Administrative Decision with respect to applications for Major Site Plan Review (SPN-2019-174) and Simple Subdivision Plan (SSU-2019-182)

Dear Commissioners:

This firm represents Karis Apartments, LLLP, a Colorado limited liability limited partnership ("**Applicant**"), with respect to its contemplated development of real property located at 3205 N. 12th Street (the "**Property**") in the City of Grand Junction, Colorado (the "**City**"). On behalf of Applicant, Kyle Mead of Shopworks Architecture submitted applications to the City for approval of a 34-unit multi-family housing development (the "**Project**"), which the Director of Community Development for the City (the "**Director**") conditionally approved by its letter dated August 1, 2019 (the "**Conditional Approval**").

Although not relevant to the analysis of the Project's permissibility pursuant to the City's Zoning and Development Code (the "**Code**"), the Project will provide affordable housing, supported by 34 project-based vouchers awarded by the Colorado Division of Housing, for very low income families and individuals with disabilities, who are between the ages of 18 and 24 and/or who are experiencing or at risk of experiencing homelessness (collectively, the "**Affordable Component**").

We have prepared this letter in response to that certain letter dated August 9, 2019, from Karen Rowe on behalf of the Lakeside Community Association (the "**HOA**"), appealing the Conditional Approval of the Project (the "**Appeal**"). The Appeal cites concerns regarding parking, an alleged property boundary dispute and, more generally, the "relatively unstable" people who will ultimately occupy the Project. For the reasons more particularly set forth in this letter, such concerns are unfounded and inconsistent with the applicable provisions of the Code, and in certain instances, consideration of the same constitute violations of applicable law.

Applicable Standard of Review

On an appeal from a decision by the Director, the Commission must consider, based on the information in the record before the Director, whether the Director (a) acted in a manner inconsistent with applicable law, (b) made erroneous findings of fact, (c) failed to fully consider mitigating measures or revisions offered by the applicant

that would have brought the proposed project into compliance, and (d) acted arbitrarily or capriciously (Code § 21.02.210(c)(1)). With respect to (c), it is important to note that the mitigating measures the Director is required to consider are those that would bring a non-compliant project into compliance, not just any measure that would mitigate impacts or concerns of neighbors. In making its decision, the Commission must determine whether the Director acted as set forth in the foregoing criteria, as opposed to substituting its judgment for that of the Director (Code § 21.02.210(c)(3)(v)).

As discussed herein, it is our position that the Conditional Approval should be upheld because it is consistent with the applicable provisions of the Code and other applicable law. In addition, the Applicant and prospective residents of the Project are protected under the provisions of the Fair Housing Amendments Act of 1988 (42 U.S.C. § 3601 *et seq.*) (the "**FHA**") and/or the Americans With Disabilities Act (42 U.S.C. § 12101 *et seq.*) (the "**ADA**"). Therefore, on behalf of the Applicant, we respectfully request that the City of Grand Junction Planning Commission (the "**Commission**") affirm and uphold the Director's decision to issue the Conditional Approval.

Relevant to the factors for the Commission to consider in connection with an appeal from the Director's decision set forth above, the allegations in the Appeal are unfounded and inconsistent with the facts and circumstances of the application. On the contrary, the Director acted consistently with the Code and other applicable laws in issuing the Conditional Approval. Each such allegation made in the Appeal is addressed in the following sections.

Parking

As noted in the Conditional Approval, the Applicant applied for, and the Director approved, an alternative parking plan in accordance with Section 21.06.050(c) of the Code. The Appeal, however, questions the number of parking spaces provided for the Project, suggesting that the Project should be required to either provide the same parking ratio as two other projects within the City or indicate in its application what makes the Project different from those other projects. The Code requires no such analysis, nor is it relevant to the requirements of Section 21.06.050(c). Instead, that section provides that parking ratios "may be modified where applicant-submitted parking data illustrates that required parking ratios *do not accurately apply to a specific development*. The data submitted for an alternative parking plan shall include, at a minimum, the size and type of the proposed development, the mix of uses, the anticipated rate of parking turnover and the anticipated peak parking and traffic loads of all uses" (*emphasis added*). Notably, the Code does not require a comparison to other similarly situated (or not) developments that may or may not have applied for an alternative parking plan.

The materials submitted by the Applicant, as determined by City staff in the Conditional Approval, satisfied the foregoing Code requirements with respect to the alternative parking plan. Pursuant to Section 21.06.050(c)(6), the Conditional Approval required that the Applicant record a copy of the approved alternative parking plan on the form provided by City staff. Applicable to the Appeal's question as to how the alternative parking plan would address the possibility that "one day our city may again be that of a prosperous community with little need for low income housing," the City's form of approved alternative parking plan requires any applications to eliminate the Affordable Component from the Project to either comply with the Code's standard parking requirements or submit an application for a new alternative parking plan for the proposed new use.

Alleged Boundary Issue

The Appeal also suggests that the Conditional Approval "does not take into consideration the true property lines of the Lakeside Subdivision," asserting that the landscaped area between the right-of-way for Lakeside Drive and the Property (the "**Landscaped Strip**") has been "maintained for over twenty (20) years by an agreement made between Lakeside and the owner of the church property." The Appeal refers to the HOA's governing instruments and original subdivision plat,[1] as well as an assertion that the survey that formed the basis of the subdivision plat, and the pins placed in connection therewith, inaccurately described the boundary of the Property. This assertion is incorrect for several reasons:

- The Property was professionally surveyed as part of the application process for the Project. Such survey, which formed the basis for the subdivision plat for the Project, confirms that there is no gap between the northern boundary of the right-of-way for Lakeside Drive and the southern boundary of the Property. It is our understanding that the City's surveyor has verified, on behalf of the City, that such boundaries are correct, meaning that the Property does indeed extend to the right-of-way for Lakeside Drive. A copy of the relevant portions of the survey and subdivision plat were submitted with the application materials for the Project.
- Second, the Appeal misunderstands the nature and purpose of the "witness corners" shown in the photographs submitted with the Appeal. In common surveying practice, when a surveying stake cannot be placed in the true location, a witness corner is used "a reference point for the location of an inaccessible corner."[2] As written on the witness corners depicted in the Appeal, these particular witness corners indicate that the actual corner of the Property is two feet south of the witness corner—that is, on the northern edge of the right-of-way for Lakeside Drive.
- Third, the actual property boundary has not been, and could not have been, modified by any "agreement." Although the Appeal letter references an "agreement" by which the HOA historically maintained the Landscaped Strip, the HOA has not produced a written copy of such agreement or any other evidence of its existence. In the absence of a written agreement: (a) there could be no effective conveyance of the Landscaped Strip to the HOA, as such agreements must be in writing per C.R.S. § 38-10-108, (b) any verbal agreement would be deemed, at most, a revocable license, which the grantor (in this case, the owner of the Property) may revoke at any time through an express revocation or though actions inconsistent with the grant of license, *see Radke v. Union Pacific Railroad Company, 138 Colo. 189, 334 P.2d 1077 (1959)*, and (c) such agreement, whether written or verbal, would negate any potential claim of adverse possession, *see Welsch v. Smith, 113 P.3d 1284, 1289 (Colo. App. 2005)*.

It is not clear what the relevance of the City's maintenance schedule has on the Appeal's claims regarding the Landscaped Strip; however, the property records and factual circumstances, as addressed above, make clear that

[1] This plat was recorded in 1972 and, based on the Mesa County clerk and recorder's records, is recorded at Reception No. 1027471, with replats recorded in the same year at Reception Nos. 1039892 and 1045212. However, due to the age of the documents, they are not available for viewing on the website, and the Appeal did not include a copy of the same.

[2] *See* Merriam Webster definition of "witness corner" available at https://www.merriam-webster.com/dictionary/witness%20corner.

the Appeal's claims to the Landscaped Strip are in error. In any event, the conditional approval of the TEDS Exception will require the Sidewalk to be located within much of the Landscaped Strip.

Public Engagement

As an additional matter, we note that in December of 2018, prior to submitting any applications in connection with the Project, the Applicant held a neighborhood meeting regarding the Project, providing written notice to property owners in the vicinity of the Property, including the HOA. Copies of these written notices are submitted herewith. The purpose of the neighborhood meeting was to provide a forum for interested neighbors to ask questions and obtain a better understanding of the Project and its possible impacts on the surrounding area. Not one person attended this neighborhood meeting, nor did the Applicant receive any responses to the meeting notifications. The Applicant's design team then held an additional meeting with the HOA in February of 2019, at which members of the HOA received information on the Project, including the proposed Sidewalk Despite the allegations in the Appeal that the members of the HOA have not had an opportunity to obtain "a clear picture of what is being planned for this complex," the HOA has had ample opportunities to discuss the Project with the Applicant, along with its alleged impacts on the neighboring properties and any possible ways in which the Sidewalk could accommodate the HOA's preferences with respect to the Landscaped Strip.

Additional Concerns Regarding Residents with Disabilities (FHA and ADA Implications)

The crux of the Appeal appears to relate to the possibility that residents of the Project will have one or more disabilities and/or have lesser income than their neighbors. However, the Code does not make any distinction (nor could it lawfully do so) for multi-family housing based on the characteristics of the future residents. Such a distinction would be prohibited by the FHA and the ADA. Likewise, the Director and this Commission cannot base its decision on such factors. As discussed below, the Applicant and prospective residents of the Project are protected classes under the FHA and ADA. Insofar as the Appeal was apparently brought in part due to what the HOA characterized as "the relatively unstable population of the [Project]," these laws demand that the Commission reject the Appeal.

Prospective residents of the Project are members of a protected class under the FHA and the ADA. The FHA prohibits discrimination on the basis of seven protected classes, including race, color, national origin, familial status, and disability. 42 U.S.C. § 3604(a), (f). While the first four of these classes are self-explanatory, "handicap" is defined is the FHA as "(1) a physical or mental impairment which substantially limits one or more of such person's major life activities, (2) a record of having such an impairment, or (3) being regarded as having such an impairment." 42 U.S.C. § 3602(h). Past addiction has been conclusively determined to constitute a handicap or disability—both in federal regulations, 24 C.F.R. § 100.201, and by courts, including the U.S. District Court for the District of Colorado, *see St. Paul Sober Living, LLC v. Bd. of Cnty. Comm'rs of Garfield Cnty.*, 896 F. Supp. 2d 982 (D. Colo. 2012)—under the FHA and the ADA.

The FHA prohibits discrimination on the basis of any of the foregoing protected classes where an action or policy causes a dwelling to be made unavailable or denied—which may include erecting procedural or substantive barriers to occupancy that contribute to making housing unavailable, *see, e.g., Ave. 6E Invs., LLC v. City of Yuma*, 818 F.3d 493, 509 (9th Cir. 2016)—on the basis of the protected class. 42 U.S.C. § 3604(a)(1), (f)(1). Federal courts have universally found that zoning or other land use controls that make unavailable or deny housing to

persons on the basis of these protected classes constitute violations of the FHA. See, e.g., *Tex. Dept. of Housing & Cmty. Affairs v. Inclusive Communities Project, Inc.*, 135 S. Ct. 2507, 2521-22 (2015); *City of Edmonds v. Oxford House, Inc.*, 514 U.S. 725 (1995).

Similarly, the ADA requires that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of services, programs, or activities of a public entity, or be subjected to discrimination by any such entity." 42 U.S.C. § 12132. In turn, the ADA defines "qualified individual with a disability" as "an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity." 42 U.S.C. § 12131(2). As with the FHA, services, programs, or activities of a public entity have been universally interpreted by courts to include zoning and other land use controls. *Innovative Health Sys. v. City of White Plains*, 117 F.3d 37, 44-45 (2d Cir. 1997).

The proposed Project will house individuals who are unquestionably protected by the FHA. The Applicant has represented to the HOA and the City that the Project will house individuals with various disabilities. As a developer and prospective operator of a residential facility for persons with disabilities, the Applicant is protected under the FHA and ADA, as are the future residents of the Project. Moreover, given the strong correlation between poverty and particular racial and ethnic groups both locally and in the United States more broadly, the Applicant and future residents of the Project may be otherwise protected under the FHA.

The Project is a "dwelling" within the meaning of the FHA. It is beyond question that the Project and its individual housing units constitute a "dwelling" under the FHA. 42 U.S.C. § 3602(b); *see also Lakeside Resort Enters. v. Bd. of Supervisors of Palmyra Twp.*, 455 F.3d 154 (3d Cir. 2006). The prospective residents of the Project will reside in the apartment units.

The reversal of the Conditional Approval would constitute disparate treatment under the FHA and would be a discriminatory action under the ADA. A governmental body violates the ADA and the FHA when it engages in disparate treatment, including facial discrimination or intentional discrimination, against a protected group. *See Inclusive Communities*, 135 S. Ct. 2507, 2533 (2015); *Raytheon Co. v. Hernandez*, 540 U.S. 44, 53 (2003). Proof of disparate treatment can be demonstrated by showing that the governmental body acted because of the protected characteristic, *see Cinnamon Hills Youth Crisis Ctr. v. St. George City*, 685 F.3d 917, 920 (10th Cir. 2012), or by "simply produc[ing] direct or circumstantial evidence demonstrating that a discriminatory reason more likely than not motivated the defendant," *see Pacific Shores Props. v. City of Newport Beach*, 730 F.3d 1142, 1158 (9th Cir. 2013). The discriminatory purpose need only be one motivating factor behind the challenged action for the local government to be held liable under the FHA or ADA. *Arce v. Douglas*, 793 F.3d 968, 977 (9th Cir. 2015). The use of discriminatory "code words" by members of the community precipitating an action of a local government adverse to people with disabilities is supportive of the conclusions that the local government is engaging in disparate treatment. *Ave. 6E*, 818 F.3d 493, 505-06 (9th Cir. 2016) ("[T]he relevant cases clearly hold that a city's denial of a zoning change following discriminatory statements by members of the public supports a claim of discriminatory intent.").

In this case, the Appeal itself contains express and/or implied discriminatory statements regarding the proposed residents of the Project. The Appeal letter references the disabilities of the prospective residents, goes on to

describe these residents as "relatively unstable," and implies that they will do damage to neighboring properties or themselves. These discriminatory communications indicate that the Appeal is intended to preclude the location of housing for people with disabilities, and other members of protected classes, on the Property. Given that these statements would necessarily precipitate any decision by the Commission's decision to reverse the Interpretation Letter, the Board would also be liable for engaging in disparate treatment. *See, e.g., Ave. 6E*, 818 F.3d at 505-06.

What's more, the Project is not a Group Living Facility under the Code. As described above, it contains household living arrangements. Classification of the Project as a Group Living Facility by virtue of the disabilities of individuals who might reside in residential units in the Project would further constitute facially discriminatory action in violation of the FHA and ADA. *See Pac. Shores*, 730 F.3d at 1158.

The only discernible distinction between the Project and any other multi-family residential use is the fact that residents of the Project will be lower-income persons, many with disabilities or other characteristics protected by law. The City has a duty to treat the Project and its prospective residents on an equal basis with multi-family residential uses, which are permitted uses on the Property, for people without disabilities or other protected characteristics.

Consistency with Applicable Terms and Provisions of the Code

As noted above, the Director acted consistently with the Code and other applicable laws in issuing the Conditional Approval. Specifically, as set forth in Sections 21.02.070(g) and 21.02.070(p) of the Code, both the Major Site Plan and Simple Subdivision Plan are administrative development permits; since the Project contemplates creating only one additional lot, it qualifies for the latter pursuant to Section 21.02.070(p)(2)(ii) of the Code. As such, the approval criteria set forth in Section 21.02.070(a)(6) of the Code governed the Director's decision. As referenced in the Conditional Approval, the Project meets the applicable approval criteria as follows:

1. Compliance with the Comprehensive Plan and any applicable adopted plan.

The City's Comprehensive Plan, adopted in 2009 (the "**Plan**"), on the first page, discusses the City's problematic "sprawling growth pattern" and frames the rest of the Plan in the context of various considerations related to managing growth, specifically asking the question "how can we make sure we have affordable housing?" Repeatedly, the Plan stresses the importance of "infill and redevelopment of underutilized land" and "more compact development" (Plan, pp. 11-12), while providing a "broader mix of housing types in the community to meet the needs of a variety of incomes, family types and life stages" and "identification of locations for increased density" (Plan, p. 8).

More specifically, the Plan's Future Land Use Map designates the Property as Residential High Mixed Use, which is characterized by a "mix of residential development types with gross densities of 8 to 16 dwelling units per acre," but expressly allows for even larger and denser multifamily developments (Plan, pp. 30-33). Similarly, the Plan's Blended Residential Land Use Categories Map designates the Property as "Residential High Density," which includes residential development with densities of 16 to 24 or more dwelling units per acre (Plan, pp. 36-37)—meaning that the Property is specifically appropriate for the most intense residential development in the City. The Property is also designated as a "Village Center" due to its proximity to the 12th Street and Horizon Drive intersection, which further supports the relatively dense residential development (Plan, p. 47).

With 34 dwelling units proposed for the 1.487-acre Property, the Project's residential density of approximately 22.8[3] lands squarely within the range set forth in the Plan. Similarly, the Project's infill nature and redevelopment of an underutilized site within the City's Service Area Boundary, together with its provision of the Affordable Component, is wholly consistent with the Plan.

2. Compliance with this zoning and development code.

The Property is zoned Residential-16 ("**R-16**"), the purpose of which is "to provide for high density residential use" and may "serve as a transitional district between single-family and trade zones" (Code § 21.03.040(i)(1)). Like the Plan, the R-16 district encourages the provision of "a balance of housing opportunities in the community" and is specifically appropriate for areas designated as "Village Centers" by the Plan (Code § 21.03.040(i)(1)). As set forth in more detail in the application materials submitted with respect the Project, the Project fully meets and satisfies the development standards applicable to the R-16 district, and squares firmly with the purpose of the R-16 district.

With respect to the use, "multifamily" household living is an allowed use within the R-16 district (Code § 21.04.010). We note that there appears to be some confusion regarding the designation of the Project as a multifamily household living use as opposed to "group living"[4]; however, the analysis of the applicable Code provisions is quite simple. Pursuant to the definition of "group living" uses set forth in Section 21.04.020(b)(1) of the Code, "group living" is very simply any residential occupancy "by a group of people who do not meet the definition of household living." Given the foregoing, the only analysis that matters in determining whether a use would fall into the group living category or the household living category is whether the particular use falls within the scope of the "household living" category of uses. Those uses, as described in Section 21.04.020(c) of the Code, contemplate residential occupancy of a dwelling "by a household" where "tenancy is arranged on a month-to-month or longer basis."

Based on those definitions, so long as a residential use provides for tenancy of one month or longer terms, a residential use is only considered group living if the people living there cannot be considered a "household." The Code defines a household as "a family, or a group of not more than four unrelated persons, living together in a single dwelling unit, with common access to and common use of all living and eating areas and all areas and facilities for the preparation and serving of food within the dwelling unit." In laymen's terms, the Code requires that each unit provide its own kitchen and common areas to be considered household living. As evidenced in every application narrative submitted to the City in connection with the Project, the individual dwelling units within the Project will each include a refrigerator, an oven and range, a dish disposal and microwave—i.e., the basic components needed to "prepare and serve food within the dwelling unit." Accordingly, there is no question that the Project is a "multifamily household living" use under the Code.

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[3] Note that this calculation does not include one-half of the adjoining rights-of-way per Section 21.03.040(i)(2)(i) of the Code, which would result in a slightly lower density that would be even more squarely within the range for Residential High Density as set forth in the Plan.

[4] Note that both multifamily household living and group living uses are allowed uses within the R-16 district (Code § 21.04.010).

3. Conditions of any prior approvals.

Prior to submitting the applications that are subject to the Appeal, the Applicant submitted, and received the City's approval of a Transportation Engineering Design Standards exception ("**TEDS Exception**") pursuant to Section 21.02.070(w) of the Code, to allow the Project to use only a single access point from North 12th Street. The Applicant's intent with respect to this TEDS Exception was to lessen the traffic that would be added to the adjacent neighborhood (*i.e.*, the HOA's neighborhood) in the event that a second access point were required at the southwest corner of the Property at Lakeside Drive. The City approved the TEDS Exception pursuant to a letter dated April 2, 2019, subject to the conditions that (a) a deed restriction or similar document is required, which will restrict the applicability of the TEDS Exception to the Project (similar to the use-specific approval of the alternative parking plan noted above), and (b) a pedestrian sidewalk (the "**Sidewalk**") be installed to provide pedestrian access from the adjacent neighborhood to North 12th Street. As more fully set forth in the application materials submitted with respect to the Project, the Sidewalk has been incorporated into the Project, thus satisfying any conditions of any prior approvals.

4. Public facilities and utilities shall be available concurrent with the development.

As noted above, the Property is currently served by public facilities and utilities.

5. Received all applicable local, State and federal permits.

The Project has obtained all applicable local, state and federal permits that are required to be obtained prior to the Conditional Approval. Upon satisfaction of the remaining conditions of the Conditional Approval, the Applicant intends to proceed to obtain the remaining permits required to commence construction and, ultimately, operation of the Project.

In addition to the foregoing, pursuant to Section 21.02.070(p)(3) of the Code, the Project meets the following approval criteria applicable to the Simple Subdivision Plan:

6. Any changes to existing easements or right-of-way have been completed in accordance with this code or otherwise allowed by law (additional easements or right-of-way may be dedicated).

The Project does not purport to change any existing easements or rights-of-way. Additional easements, including an easement for the Sidewalk, are intended to be dedicated as shown on the plat for the Karis Subdivision that is included within the Conditional Approval.

7. The right-of-way shown on the Grand Junction Circulation Plan is not changed.

The Project does not purport to change any right-of-way as shown on the Grand Junction Circulation Plan.

8. If a new lot is being created, no portion of the property may have been the subject of a previous simple subdivision creating a new lot within the preceding 10 years or a minor exemption subdivision.

No portion of the Property has been the subject of a previous simple subdivision creating a new lot within the preceding 10 years or a minor exemption subdivision.

Conclusion

For the foregoing reasons, it is clear that the Director acted consistently with the Code and other applicable laws in issuing the Conditional Approval. Relevant to the factors for the Commission to consider in connection with an appeal from the Director's decision set forth above, the allegations in the Appeal are unfounded, and inconsistent with the facts and circumstances of the application. As such, on behalf of the Applicant, we respectfully request that the Commission deny the Appeal and uphold the Conditional Approval.

Sincerely,

Brian J. Connolly
For the Firm

cc: John Mok-Lamme
Oriana Sanchez
William S. DeFord
Kyle Mead

CITY OF Grand Junction COLORADO
COMMUNITY DEVELOPMENT

Exhibit 4

CITY OF GRAND JUNCTION
MAJOR SITE PLAN REVIEW/SIMPLE SUBDIVISION PLAN

FOR	)	**ADMINISTRATIVE DECISION**
Karis Inc.	)	**APPROVING**
Attn: John Mok-Lamme	)	
P. O. Box 2837	)	**File# SPN-2019-174**
Grand Junction, CO 81502	)	**SSU-2019-182**

An application has been submitted by Karis Inc., requesting a Major Site Plan Review to construct a 23,676 +/- sq. ft., 34-unit multi-family residential development and also Simple Subdivision Plan to subdivide the existing property into two (2) lots all on 3.67 +/- acres (Unplatted) located at 3205 N. 12th Street. The property is currently zoned R-16 (Residential – 16 du/ac) and the Comprehensive Plan Future Land Use Map identifies the property as Residential High Mixed Use (16 – 24 du/ac). Multi-family is an "Allowed" land use within the existing R-16 zone district. Proposed residential density for the multi-family development would be 15.5 dwelling units to the acre. The Site Plan Review and Simple Subdivision Plan applications were considered administratively by the City of Grand Junction Community Development Department on August 1, 2019 in accordance with Section 21.02.070 (g) and (p) of the Grand Junction Zoning & Development Code. After considering all pertinent data, the Administrator **CONDITIONALLY APPROVES** the Major Site Plan Review and Simple Subdivision Plan applications upon finding that the proposal complies with all applicable sections of the Grand Junction Zoning & Development Code. The Major Site Plan Review and Simple Subdivision Plan approvals are subject to the following conditions and payment of fees:

1. Developer is responsible for contacting the City of Grand Junction and requesting a final inspection of all on/off - site improvements upon completion, prior to occupancy of the building(s). Occupancy shall not be allowed until all required improvements have been installed or guaranteed with a Development Improvements Agreement (DIA) and financial security.

2. All applicable Building Permits are required to be obtained through the Mesa County Building Dept.

3. All landscaping must be maintained in a healthy manner. Should any of the plantings die or become unhealthy for any reason, they must be replaced. Once proposed landscaping is installed, the Landscape Architect must provide a letter to the City Project Manager stating that all landscaping has been installed per the approved Landscaping Plan prior to Certificate of Occupancy of the building or guaranteed with a Development Improvements Agreement (DIA) and financial security.

4. Applicant proposed 25 parking spaces in accordance with Section 21.06.050 (e) of the Zoning & Development Code, Alternative Parking Plan for this application. Community Development Director has reviewed and approved the Applicant's submitted narrative and statistics regarding the parking plan and was supportive of the request to reduce the required on-site parking spaces to 25 in this instance (Off-Street Parking Requirements for this application would have been determined using the following formula: Multi-Family Units – 1 bedroom: 1.25 parking spaces per dwelling unit which would trigger 43 parking spaces (1.25 x 34 units = 42.5) for this proposal). A recorded Alternative Parking Plan Document will be prepared by the City Attorney's Office at time of Planning Clearance issuance in accordance with Section 21.06.050 (e) (6) of the Zoning & Development Code for property owner's signature. Applicant will be responsible for all recording fees.

5. Pay applicable fees as follows at time of Planning Clearance issuance (check made payable to the "City of Grand Junction" with the exception of Ute Water fees):

a. Transportation Capacity Payment (TCP): $60,146.00 (34-units x $1,769 per unit).
b. City Inspection Fee: $4,080.00 (MF -Residential @ $120-unit x 34-units).
c. City Park Fee: $7,650.00 (34-units x $225 per dwelling unit).
d. City Open Space Fee: Submit MAI Appraisal Report for determination of this fee (10% of the value of the raw land).
e. Planning Inspection Fee: $50.00.
d. School Impact Fee: $31,280.00 (34-units x $920 per unit).
f. Recording Fee for Alternative Parking Plan document: TBD
g. Plant Investment Fees: Contact City Customer Service Division for sewer fees. Contact Ute Water Conservancy District for water tap fees.

6. Schedule a Pre-Construction Meeting with Mark Barslund, City Development Inspector at (970) 201-1362, prior to any site/construction activity.

7. Project shall be constructed in accordance with the signed and approved plans. Once plans are signed by City staff, City Project Manager will need one 24" x 36" paper copy and one electronic copy.

8. Per Round 3 Review Comments dated August 1, 2019; revise applicable documents as necessary per stated comments.

Prior to recording of the subdivision plat for Karis Subdivision, SSU-2019-182, the following items must be completed.

Subdivision Plat:

1. Submit an original mylar of the final plat(s) with owner's signatures (signed in black ink only - Sharpie), Surveyor's Final Mylar Checklist and current Title Commitment Report (which covers all properties within the subdivision boundary) dated no older than 5 days from the anticipated date of recording. Please note that all property corner pins must be set in concrete and inspected by the City Property Agent before the plat may be recorded. The electronic version of the plat (.dwg file) must be emailed to chrisd@gjcity.org

2. See Review Comments Round 3 dated August 1, 2019 and revise respective documents as necessary prior to recording and final signatures.

3. At time of subdivision plat recording, payment of applicable recording fees are required as follows (check made payable to the "City of Grand Junction"):

    a. Recording fee for Final Plat will be $23.00.
    b. Recording fee for Declaration of Easements document: TBD

All uses which are subject to a Major Site Plan Review must commence construction within two (2) years from the date of approval. If a building permit is obtained prior to expiration of the Major Site Plan Review, the approval shall be valid for as long as the building permit remains valid. Failure to develop or establish such use accordingly shall constitute sufficient basis to revoke this approval.

CITY OF
Grand Junction
COLORADO

COMMUNITY
DEVELOPMENT

In accordance with Section 21.02.070 (a) (9) (i) of the Zoning & Development Code, the applicant will have up to two (2) years from the approval date of August 1, 2019 in order to record the Simple Subdivision Plan with the Mesa County Clerk and Recorder.

If you should have any further questions, please feel free to contact me at (970) 244-1447.

Scott D. Peterson
Senior Planner

Date: August 1, 2019

Exhibit 5

MEMO 4/3/2019

To: Tom Dixon, City of Grand Junction Planning Department
From: Kyle Mead, Shopworks Architecture
Regarding: Karis Apartments – Alternative Parking Plan

CC: File

Message

Tom,

The proposed Karis Apartments, located at 3175 N. 12th street, proposes to use reduced parking ratios from those identified in section 21.06.050 of the City of Grand Junction Development Regulations. We propose to provide 25 total parking stalls (23 standard stalls, and 2 ADA accessible parking stalls). All stalls will conform with the City of Grand Junction design requirements. This memo is to serve as rationale for this request in accordance with *21.06.050 (e) Alternative Parking Plan*.

We believe that a reduced quantity of parking stalls is appropriate for this project based on a combination of factors, including national data, location of the site, project specific demand, and overall impact on the quality of the project.

Our office has experience analyzing parking demand for affordable housing projects and has employed the services of transportation engineering firms in the past to conduct studies specific to affordable multi-unit apartment projects. These studies generally cite a few means of calculating parking demand specific to affordable housing projects.

The first of these methods is a calculation developed by the Institute of Transportation Engineers, *Parking Generation (4th Edition)*, whereby Peak Parking demand = 0.92x + 4; where x equals the number of dwelling units (DU). Applying this formula to our project = 0.92(34) + 4 = **35 space**s; however, traffic engineers conclude that of the 40 sites studied to generate this calculation method, only 4 were considered affordable housing. Thus, this method tends to be conservatively high for use in calculating affordable housing demand.

The second method is generated from the *San Diego Affordable Housing Parking Study* which was commissioned by the City of San Diego and examined 265 projects including 21 affordable projects. The results represent the most comprehensive data collection of affordable housing projects in the country, and the found that in affordable housing projects, demand was around half of what market-rate apartments experienced, and nearly half of the dwelling units had no vehicle at all. The study resulted in a calculation method for affordable housing based on the 'walkability' of a site. For the purposes of this analysis, we considered the Karis Apartments a 'medium' walkable site because of the proximity to commercial amenities downtown, and the adjacency to the Route 1 bus line and multi-modal routes along 12th St. and Horizon Dr. For medium walkable sites, the San Diego model provides parking ratios of 0.5/DU, 0.15/DU, and 0.05/DU for resident, visitor, and staff parking respectively. Applying this formula to the proposed 34 one-bedroom apartments = (34 x 0.5) + (34 x 0.15) + (34 x 0.05) = **23.7 spaces.**

The third method is based on findings from a study commissioned by the City of Los Angeles intended to inform parking requirements for municipal guidelines related to Affordable Housing projects. The findings of the studies found that again, based on walkability and proximity to transit, affordable housing parking ratios ranged between 0.29/DU to 0.43/DU. Applying this calculation to our project, we find that 34 x 0.29 = 10 and 34 x 0.15, or an average of **12.5 spaces.**

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architecture

Finally, we surveyed the existing Karis facilities for current parking demand, and tabulated the anticipated trips generated to the site by staff, service providers and partners. This study found that on average 10% of residents would own a vehicle, and that various staff and service providers would visit the site on a daily, weekly, and monthly basis. We found that if every service provider, plus 10 % of residents had a vehicle on site at the same exact time, the parking demand would be 28 spaces. However, the likelihood of this happening is very unlikely given the nature in which service providers are staggered throughout the month. This information is presented in an attached table.

In conclusion, we believe that the 25 proposed spaces are adequate and appropriate for the Karis Apartments. We believe this is supported by the four different means of analysis presented here, which suggest the parking demand for this project to be between 12.5 spaces and 35 spaces, or an average of 24 spaces.

Please let me know if you have any questions about this analysis.

Thank you,

Kyle Mead
Shopworks Architecture

End of Memo

Karis Parking Statistics

Frequency of visits	**9a-5p M-F**	Daily	Weekly	Monthly		**weekends/nights**
Partner						
DHS			1			
WestCAP				2		
Medicaid HW						
Substance use CM			2			
Cooking matters			1			
MH Case Mngr				2		
Parents as Teachers						
Staff						
Peer Specialist		1.5				1.5 (24 hrs per day)
Leasing			3			
Maintenance			3			
Services		2				1 (8 hrs. per day)
Nurse			1			
Residents						
10%		4				4
Visitor/Volunteers						
Youth Advocate			1			1x per week
Program Coor.			4			
Totals		**7.5**	**16**	**4**		6.5
						1 additional per wk

Breakout

Daily M-F 8-5 8 cars

Maximum 28

*It would be rare to have every partner/ staff/resident on site with cars at the same time

*Most partner visits will happen between 10a-4p during non-peak hours

Off peak hours 8 cars

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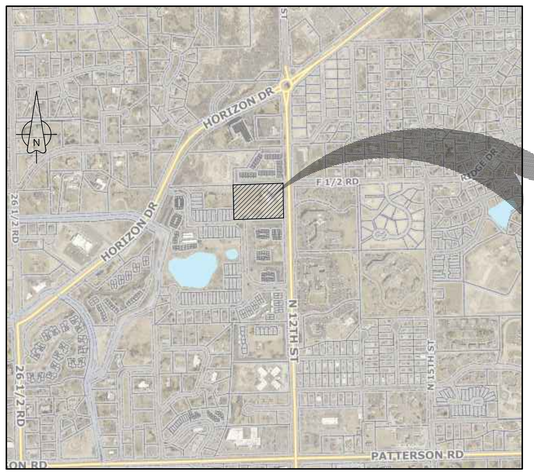
Denver, Colorado 80216
(303) 433-4094

Exhibit 6

PLANS FOR
CONSTRUCTION OF

KARIS APARTMENTS

MARCH 26, 2019



PROJECT LOCATION

VICINITY MAP
NTS

NO.	TITLE
C1.00	COVER
C2.00	TYPICAL CONSTRUCTION NOTES
C3.00	DEMOLITION PLAN
C4.00	SITE PLAN
C5.00	UTILITY COMPOSITE PLAN
C6.00	OUTLET STRUCTURE & POND DETAILS
C7.00	HORIZONTAL CONTROL PLAN
C7.10	HORIZONTAL CONTROL PLAN
C7.20	HORIZONTAL CONTROL PLAN
C8.00	OVERALL GRADING PLAN
C8.10	GRADING AND DRAINAGE PLAN
C8.20	GRADING AND DRAINAGE PLAN
C8.30	GRADING AND DRAINAGE PLAN
LS101	LANDSCAPE SITE PLAN
LS102	LANDSCAPE SCHEDULES AND DETAILS
LS103	LANDSCAPE DETAILS
A2.0	ELEVATIONS
A2.1	ELEVATIONS
E1	SITE PHOTOMETRIC PLAN
E2	SITE PHOTOMETRIC DETAILS
E3	SITE PHOTOMETRIC DETAILS

KARIS APARTMENTS

TAX PARCEL #: 2945-024-00-059
LOT SIZE: 3.675 ACRES

OWNER: UNITY CHURCH, PO BOX 1904, GRAND JUNCTION, COLORADO 81502

DEVELOPER: KARIS, INC., JOHN MOK-LAMME, PO BOX 2837, GRAND JUNCTION, COLORADO 81502

DEVELOPMENT PARTNER: BLUELINE DEVELOPMENT, ORIANA SANCHEZ, 1004 SOUTH AVENUE WEST, MISSOULA, MT 59801

ARCHITECT OF RECORD: SHOPWORKS ARCHITECTURE, CHAD HOLTZINER, 301 W 45TH AVENUE, DENVER, COLORADO 80216

CIVIL ENGINEER: AUSTIN CIVIL GROUP, INC., SCOTT SORENSEN, 123 NORTH 7TH STREET, SUITE 300, GRAND JUNCTION, CO 81501

LANDSCAPE ARCHITECT: FLOW DESIGN COLLABORATIVE, CHRISTOPHER HOY, 301 W 45TH AVENUE, DENVER, COLORADO 80216

STRUCTURAL ENGINEER: MONROE & NEWELL ENGINEERS, DAVE KAST, 1400 GLENARM PLACE, STE 101, DENVER, COLORADO 80202

MECHANICAL ENGINEER: ABLE CONSULTING GROUP, MARC ABLE, 2468 S CLAYTON STREET, DENVER, COLORADO 80210

ELECTRICAL ENGINEER: MV CONSULTING INC, MARCUS VAHLING, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

PLUMBING ENGINEER: MEC, INC, BRYAN MOEN, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
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XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS IN THE PLANS. THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER _____ DATE _____

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(970) 242-7540

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SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019
CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
COVER

SCALE: NTS

NO. C1.00

M:\PROJECTS\1364\0001 - Karis Multi-family\Drawings\CDs\Production Drawings\PROD SITE KARIS.dwg, 7/11/2019 1:49:38 PM, DWG To PDF.pc3

GENERAL CONSTRUCTION NOTES

1. Contractor shall contact Mark Barslund, City of Grand Junction Development Inspector and 521 Drainage Authority Representative, 970–201–1362, a minimum of 72 hours in advance of beginning any site work for a pre–construction meeting

2. Locations of existing utilities shown on these plans are approximate only. Contractor is to contact affected utility for specific locations before digging.

3. The Contractor shall notify the engineer if unanticipated conditions area encountered during completion of the work which require modifications to the contract drawings. The engineer can be reached at 970–242–7540.

4. Contractor shall give 48–hour notice to all authorized inspectors, superintendents, or person in charge of public and private utilities affected by his operations prior commencement of work. Contractor shall assure himself that all construction permits are current.

5. Contractor shall confine his construction operations to the right–of–way, easements, and lots, as shown on plans and plat. Any damage to private facilities outside these limits shall be repaired by the Contractor at no expense to the Owner.

6. All road construction, related work, materials, performance and quality of work provided shall conform to the requirements of the City of Grand Junction Standard Specifications and Drawings and the applicable sections of the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standard Plans, Division of Highways M & S Standards.

7. Contractor shall familiarize himself with the geotechnical testing requirements of the City of Grand Junction. The results of the required types of tests and numbers of passing tests shall be furnished to the Engineer for verification before final acceptance by the Owner will be granted. All failing tests shall be brought to the immediate attention of the Engineer and retests shall be performed until passing results are obtained. All utility lines, including service lines falling shall be tested.

8. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for utility trench back fill unless otherwise approved by the Engineer.

9. All utility installations are to be performed in accordance with the City of Grand Junction Standard Specifications for the Construction of Underground Utilities and Standard Details.

10. All sewer lines must be tested and approved PRIOR to street construction. Contractor is required to notify the Owner's representative PRIOR to testing. The Owner's representative must be present to witness testing of water and sewer lines or the City will not approve the installation.

11. In the event of a descrepancy between the construction notes contained herein and the notes and details in the City of Grand Junction Standard Contract Documents for Capital Improvements Construction manual, the City's manual shall control.

12. All work within the City of Grand Junction Right–of–Way shall required a "Work in the Right–of–Way" Permit. All construction work shall be in accordance with the latest edition of the City of Grand Junction Standard Specifications.

13. All concrete in driveways to be 6" minimum, Class VI ABC, unless otherwise noted.

14. All finished grades around the building perimeter shall slope a minimum of 2% away from the building for a minimum of 10–ft.

15. All roof drains that discharge to the finished ground surface shall be provided with splash blocks that extend beyond the building foundation excavation zone.

16. The Contractor shall be required to comply with the requirements and recommendations of Huddleston–Berry Geotechnical report titled Geotechnical and Geologic Investigation Karis Affordable Housing, Project # 01892–0001 dated January 16, 2019, unless otherwise noted.

17. All fill, building, concrete or asphalt pavement areas shall be stripped of a minimum 6–inches of topsoil.

PAVING CONSTRUCTION NOTES

1. All road widths and radii are to flow line unless noted otherwise. Any "spot" design elevations are to flow line of curb and gutter unless otherwise noted.

2. Prior to pavement placement, the pavement prism should be stripped of all unsuitable materials. It is recommended that the subgrade soils be scarified to a depth of 12–inches, moisture conditioned, and recompacted to a minimum of 95% of the standard Proctor maximum dry density, within ±2% of optimum moisture as determined by AASHTO T–99.

3. Contractor to protect existing utilities and appurtenances. Manholes, drainage inlets, utility lines, etc., damaged, covered, or filled with dirt or debris by the Contractor shall be cleaned and repaired at no expense to the Owner.

4. Where proposed pavement is to match existing pavement, existing pavement is to be squared cut, full base thickness is to be brought to match line and existing surface is to be tack–coated before proposed surface is placed.

5. All handicap ramps, sidewalks and curb and gutter are to be constructed where indicated on the plans and in accordance The City of Grand Junction requirements..

6. Curb, gutter, and drainage pans are to have expansion joints at each change in horizontal alignment of curb and gutter, but in no case at a greater distance apart than 100 feet. Locate dummy grooved joints between expansion joints at intervals not exceeding 10 feet. Where length of pour precludes 10 foot intervals, the end sections may be less then 10 feet but not less than 5 feet.

7. PAVEMENT SECTION: "Hot–Mix Asphalt" 4–inch HMA over 7–inch CDOT Class 6 over 12–inch scarified & recompacted subgrade. " Rigid Pavement" 6–inch Portland Cement Concrete w/ #4 bars @ 16" cntrs., E.W. over 6–inch CDOT Class 6 over 12–inch scarified & recompacted subgrade.

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

WATER LINE CONSTRUCTION

1. All water line construction shall be constructed in accordance with the Ute Water District Standards and Specifications.

2. Contractor shall notify the Ute Water Conservancy 48 hours prior to the beginning of construction.

3. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined by AASHTO T–99. Contractor shall be required to perform all necessary compaction tests through a certified soils lab.

4. Minimum cover required over top of new waterlines is 4'–6".

5. All water mains to be DR–18 PVC, Class 150 conforming to AWWA C–900.

6. Ductile Iron fittings to conform to AWWA C–110.

7. Fire Hydrants shall conform to AWWA C–502, Mueller Super Centurian or Kennedy Guardian.

8. All materials labor and equipment required for testing and disinfection of water lines shall be furnished by Contractor. Disinfection of water lines shall conform to AWWA C–651–86 or latest revision thereof. No separate pay.

9. All pipe bends/angle points, both horizontal and vertical, as called for on the plans are to be thrust blocked per Ute Water Conservancy District details and Technical Specifications.

10. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for water line trench backfill unless otherwise approved by the Engineer.

11. All Ute Water Mains are to be bedded per City of Grand Junction Standards.

12. All customer water service lines 2" or less shall be 200 psi rated "Pure Core" Blue HDPE, or approved equal.

STORM SEWER CONSTRUCTION NOTES

1. All storm sewer line construction shall be in accordance with the City of Grand Junction Standards and Specifications.

2. All Reinforced Concrete storm sewer pipe shall conform to ASTM Standard Specifications, C–76, Class III unless otherwise noted.

3. All polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM Standard Specifications, D3034 and F679, SDR–35 unless otherwise noted.

4. All High Density Polyethylene (HDPE) pipe and fittings shall be smooth bore and shall conform to the following:
12 inch to 36 inch shall meet ASSHTO M294
42 inch to 48 inch shall meet ASSHTO MP6
All HDPE pipe up to 30" shall be backfilled to springline with Class–6.

FUGITIVE DUST CONTROL PLAN

1. Before stripping of the site preparation for overlot grading, the surface is to be pre–wet to control dust.

2. Any stockpiles of stripping materials are to be periodically sprayed with water or a crusting agent to stabilize potentially wind blown material.

3. Haul road both into and around the site are to be sprayed as needed to suppress dust.

4. The Storm Water Management Plan and permit shall be obtained and kept onsite before starting any construction work. Gravel pads are to be constructed at the entrances to the site to help in removing mud from the wheels of haulage trucks before they enter onto City streets.

5. Trucks hauling import fill are to be tarped to aid in the control of airborne dust.

LEGEND

PROPERTY LINE	PROPOSED INLINE DRAIN
ADJACENT PROPERTY LINE	EXISTING 8" WATER MAIN
EXISTING EASEMENT	PROPOSED 2" DOMESTIC SERVICE
PROPOSED EASEMENT	PROPOSED 4" FIRE LINE
EXISTING BUILDING	EXISTING FIRE HYDRANT
PROPOSED BUILDING	PROPOSED FIRE HYDRANT
EXISTING CURB/GUTTER	EXISTING WATER METER
PROPOSED CURB/GUTTER	PROPOSED WATER METER
PROPOSED SPILL CURB/GUTTER	PROPOSED METER/BACKFLOW VAULT
PROPOSED TRANSITION CURB/GUTTER	PROPOSED IRRIGATION MANHOLE
EXISTING RETAINING WALL	PROPOSED FENCE
EXISTING 1–FT CONTOUR	EXISTING FENCE
EXISTING 5–FT CONTOUR	PROPOSED TRAFFIC FLOW
PROPOSED 1–FT CONTOUR	GRADE BREAK
PROPOSED 5–FT CONTOUR	ROOF DRAIN (RD)
EXISTING ASPHALT	STREET LIGHT POLE
PROPOSED ASPHALT	FIRE DEPARTMENT CONNETION
PROPOSED HEAVY DUTY ASPHALT	PARKING LOT LIGHT
EXISTING CONCRETE	PROPOSED BUILDING LIGHT
PROPOSED CONCRETE	POWER POLE
PROPOSED HEAVY DUTY CONCRETE	FL FLOWLINE
EXISTING SANITARY SEWER	EOP EDGE OF PAVEMENT
PROPOSED SANITARY SEWER	TOC TOP OF CONCRETE
EXISTING SANITARY SEWER MANHOLE	TOW TOP OF WALL
PROPOSED SANITARY SEWER MANHOLE	BOW BOTTOM OF WALL
PROPOSED SANITARY SEWER CLEANOUT	TBW TOP BACK OF WALK
EXISTING STORM SEWER	TC TOP OF CURB
PROPOSED STORM SEWER	BOC BACK OF CURB
EXISTING STORM SEWER INLET	LS LANDSCAPE AREA
PROPOSED STORM SEWER INLET	UTILITY PEDESTALS
EXISTING STORM SEWER MANHOLE	
PROPOSED STORM SEWER MANHOLE	

SANITARY SEWER CONSTRUCTION NOTES

1. All materials and workmanship shall comply to the Standards and Specifications of the City of Grand Junction. The City of Grand Junction reserves the right to accept or reject any materials and or workmanship that does not conform.

2. The Contractor shall have one signed copy of plans and a copy of the City of Grand Junction Standards and Specifications at the job site at all times.

3. All sanitary sewer pipe shall be PVC SDR–35 (ASTM 3034) unless otherwise specified.

4. All sewer lines to be laid to grade utilizing a "pipe laser".

5. All connections to the new sewer lines shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed, except as noted.

6. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined AASHTO T–99.

7. A minimum of 10 ft. of separation shall be maintained at all times between the waterline and sewer line except at specified crossings.

8. The contractor is responsible for all required sewer line testing to be completed in accordance with the City of Grand Junction Standards and Specifications. Final testing to be accomplished only after all other infrastructure has been installed. This includes waterlines, gas lines, electric lines, etc. Testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will also be accomplished after paving is completed to insure that the line is clean. These tests will be the basis for issuing the initial acceptance of the seer line extension.

9. Manholes shall be constructed as shown on the City of Grand Junction Standard Sanitary Sewer Detail sheets SS–02 of SS–03 as appropriate.

10. Water stop gaskets and clamp assemblies are to be furnished and installed at all connections to manholes. No separate pay.

11. Metal grade rings are NOT to be used on tip of manhole rings to adjust to finish pavement elevations. All adjustments to finish grade on new manholes shall be made using concrete grade rings and grout as shown on the standard details.

12. Where sanitary sewers cross under a water line with less than 18 inches of vertical separation, and in all cases where the sanitary sewer crosses over the waterline at any depth, provide total concrete encasement of pipe for a length of 10 feet to either side of the waterline.

13. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for sewer line trench backfill unless otherwise approved by the Engineer.

14. To inhibit the movement of ground water through sewer bedding and haunching material, clay cutoff wall of native material are to be constructed approximately 10 feet upstream from each manhole and shown on sanitary sewer plan and profiles.

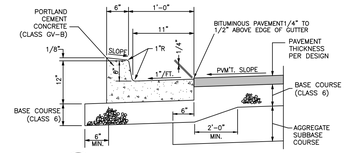
15. Notify the City of Grand Junction 48 hours prior to the construction of the sanitary sewer facilities.

16. The contractor shall obtain a City of Grand Junction Street Cut Permit for all work within existing City right–of–way prior to construction.

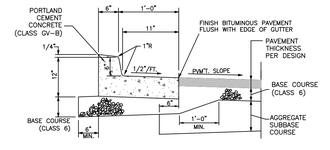
UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244–1429
UTE WATER	JIM DAUGHERTY	242–7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242–2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256–4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201–1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201–1362
XCEL ENERGY	BRENDA BOES	244–2681
CENTURY LINK	CHRIS JOHNSON	244–4333
CHARTER	JOHN VALDEZ	245–8750

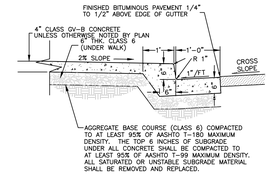
TYPICAL CONCRETE SECTIONS



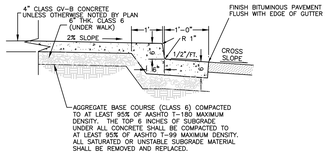
A *STANDARD 1'-6" CURB AND GUTTER*
NOT TO SCALE



B *1'-6" SPILL CURB AND GUTTER*
NOT TO SCALE



C *CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE



D *SPILL CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE

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(970) 242–7540

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SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
GENERAL CONSTRUCTION NOTES

SCALE: NTS

NO. C2.00

ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS ON THE PLANS, NOR FOR THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

M:\PROJECTS\13640001 - Karis Multi-family\Drawings\CDR\Production Drawings\PROD-SITE KARIS.dwg, 7/5/2019 3:10:46 PM, DWG To PDF.pc3

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CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12th STREET

N

0 20 40 60

FOUND No.5 REBAR IN CONCRETE DISTURBED (NOT HELD) REPLACED WITH No. 5 REBAR AND 2" ALUMINUM CAP PLS 37904

SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

BASIS OF BEARING
NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

OWNER: H.O.A
NORTHWOODS CONDOMINIUMS
RECEPTION No. 1944089

N89° 52' 33"E 488.00'

218.00'

7' EASEMENT

EX. IRRIGATION

POINT OF BEGINNING PARCEL 2
FOUND MCSM No. 113-2
EAST ¼ CORNER SECTION 2 T1S R1W
UTE-FOUND 3.25" ALUMINUM CAP IN RANGE BOX 0.5 BELOW ASPHALT SURFACE.
PROJECT BENCHMARK
EL.4692.86 [NAVD88]

40.00'

IRR CONTROL BOX

IRR CONTROL BOXES

IRR PUMP

ELEC TRANS

10' BY 20' UTILITY EASEMENT

15' ST

REMOVE AND RELOCATE OF TREES

20' SEWER EASEMENT

GRAVEL PARKING

UNTIY CHURCH

FF=4594.11

240.00'

N0° 04' 43"W

10' DEEDED ROW

30' DEEDED ROW

SIGN

PROTECT LIGHT

FF=4584.90

REMOVE AND DISPOSE OF ±22 SY CONCRETE DRIVE, CURB & GUTTER

REMOVE AND RELOCATE PER CHURCH OWNER

SHED

LIFT STATION

CONCRETE CURB

REMOVE AND DISPOSE OF ±68 LF CURB & GUTTER

12TH STREET

S0° 04' 43"W 1318.41'

REMOVE AND DISPOSE OF ±51 SY CONCRETE

S89° 52' 33"W 10.00'

40.00'

FIELD VERIFY VERTICAL LOCATION LOCATE OF SANITARY SEWER SERVICE LINE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER

GRAVEL PARKING

REMOVE AND RELOCATE OF TREES

REMOVE AND RELOCATE OF TREES

50' STORM INLET
RIM=4686.33
INV=4677.03

STORM OVERFLOW INLET
RIM=4686.38
INV IN(E)=4676.88
INV OUT(SW)=4676.78

90.00'

S0° 04' 43"W

OWNER: HASKINS LIVING TRUST

REMOVE AND DISPOSE OF ±32 LF RETAINING WALL

10' PUBLIC SERVICE EASEMENT

SANITARY SEWER MH
RIM=4694.04
INV IN(N)=4684.14
INV OUT(S)=4683.94

RETAINING WALLS

FENCE DEMO

S89° 52' 33"W 478.00'

50.00'

POINT OF COMMENCEMENT PARCEL 1

EAST LINE OF THE NE¼ SE¼ SECTION 2

FOUND No.5 REBAR
2.00' WITNESS CORNER
PLACED 2" ALUMINUM CAP PLS 37904

LAKESIDE DRIVE

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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SCALE VERIFICATION
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IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS

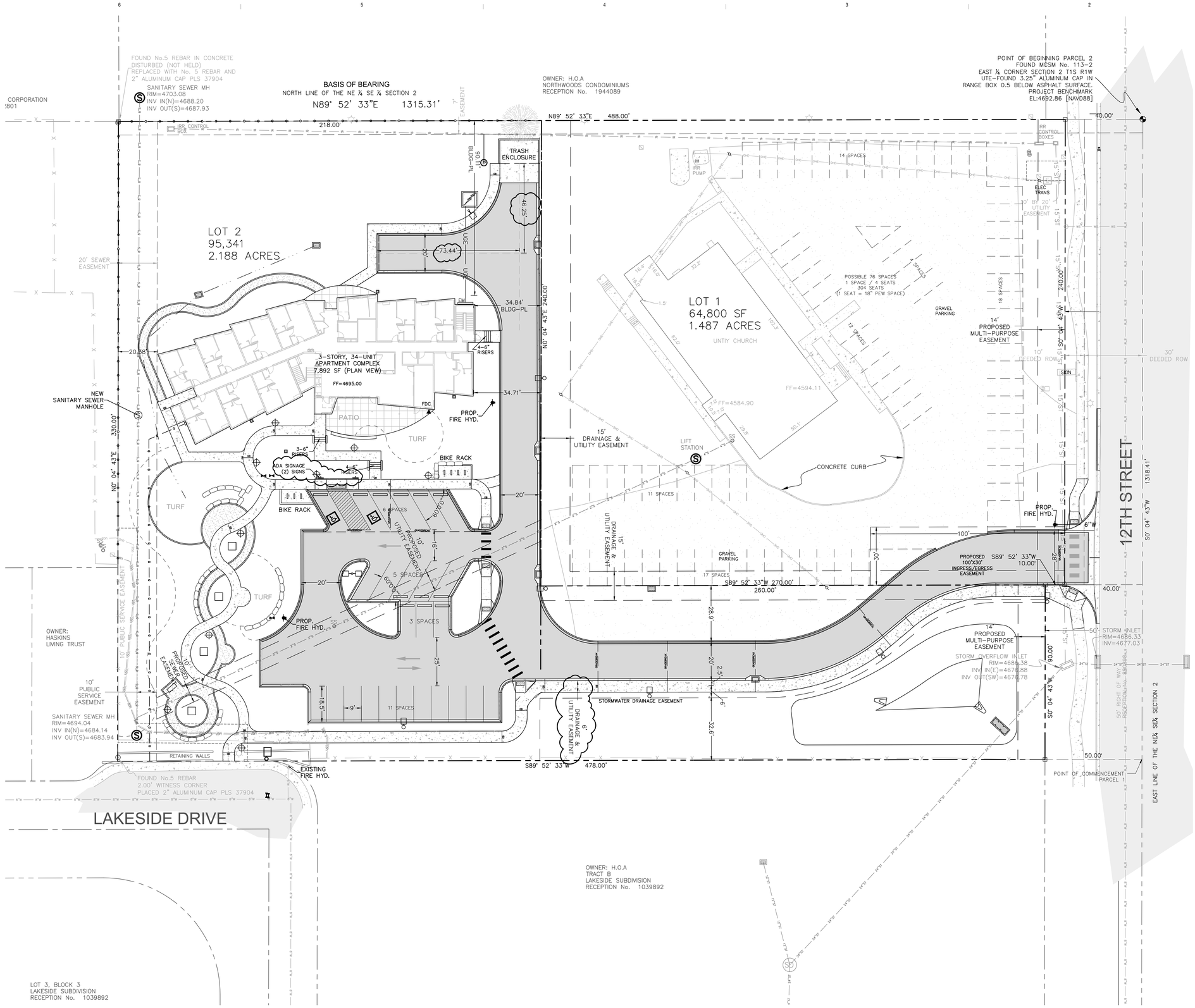
DATE: 3/21/19

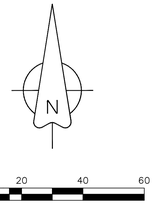
PROJECT #: 18007
FILE:
SHEET TITLE:
DEMOLITION PLAN

SCALE: 1"=20'

NO. C3.00

M:\PROJECTS\18000\001 - Karis Multi-Family\Drawings\CDS\Production Drawings\PROD-SITE 6ARS.dwg, 7/9/2019 11:09 PM, DWG To PDF.pc3





GENERAL NOTES:

1. ALL PARKING SPACES ARE 9-FT WIDE X 18.5-FT LONG UNLESS NOTED AS 60° PARKING WHICH ARE PER TEDS.
2. ALL SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
3. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET.
4. FOURTEEN (14) BICYCLE PARKING SPACES ARE PROVIDED ON SITE THAT ARE ACCOMPLISHED BY SEVEN (7) BICYCLE RACKS.

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

LAND USE SUMMARY		
USE	SQUARE FT	PERCENT
BUILDING	7,892	8.3%
LANDSCAPE	55,109	57.8%
ASPHALT/PKG/CONC	32,340	33.9%
TOTAL	95,341	100%

PARKING SUMMARY
*7,892 SF Multi-Family = 25
Total Parking Required = 25 Spaces
Total Parking Provided On Site = 25 Spaces
*Project is utilizing an affordable housing parking reduction

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

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CITY DEVELOPMENT ENGINEER DATE

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3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019
CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

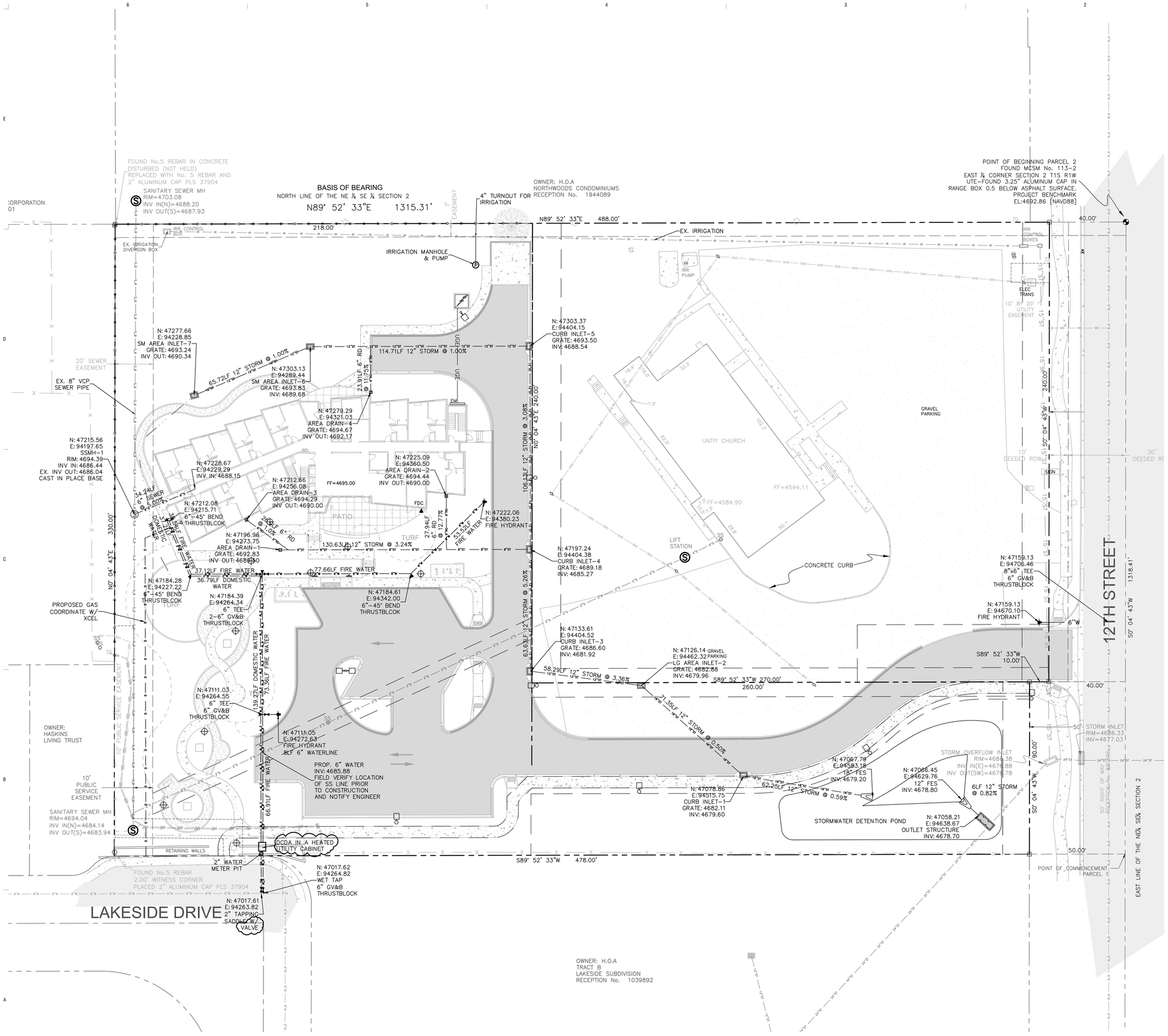
DATE: 3/21/19

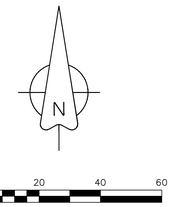
PROJECT #: 18007
FILE:
SHEET TITLE:
SITE PLAN

SCALE: 1"=20'

NO. C4.00

M:\PROJECTS\1160.0001 - Karis Multi-family\Drawings\CSD\Production Drawings\PROD SITE KARIS.dwg, 7/10/2019 1:14:01 PM, DWG To PDF.pc3

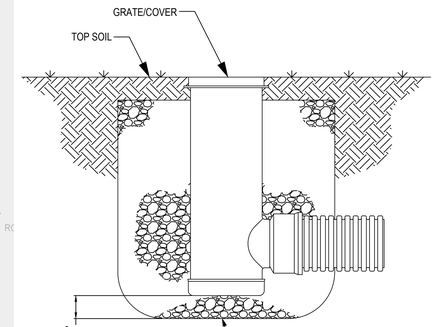




NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET
2. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

DRAIN BASIN



UTILITIES AND AGENCIES

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521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

UTE WATER DISTRICT

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY:_____ DATE:_____

ACCEPTED AS CONSTRUCTED

BY:_____ DATE:_____

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER DATE

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3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019
CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE:
UTILITY COMPOSITE PLAN
SCALE: 1"=20'

NO. C5.00

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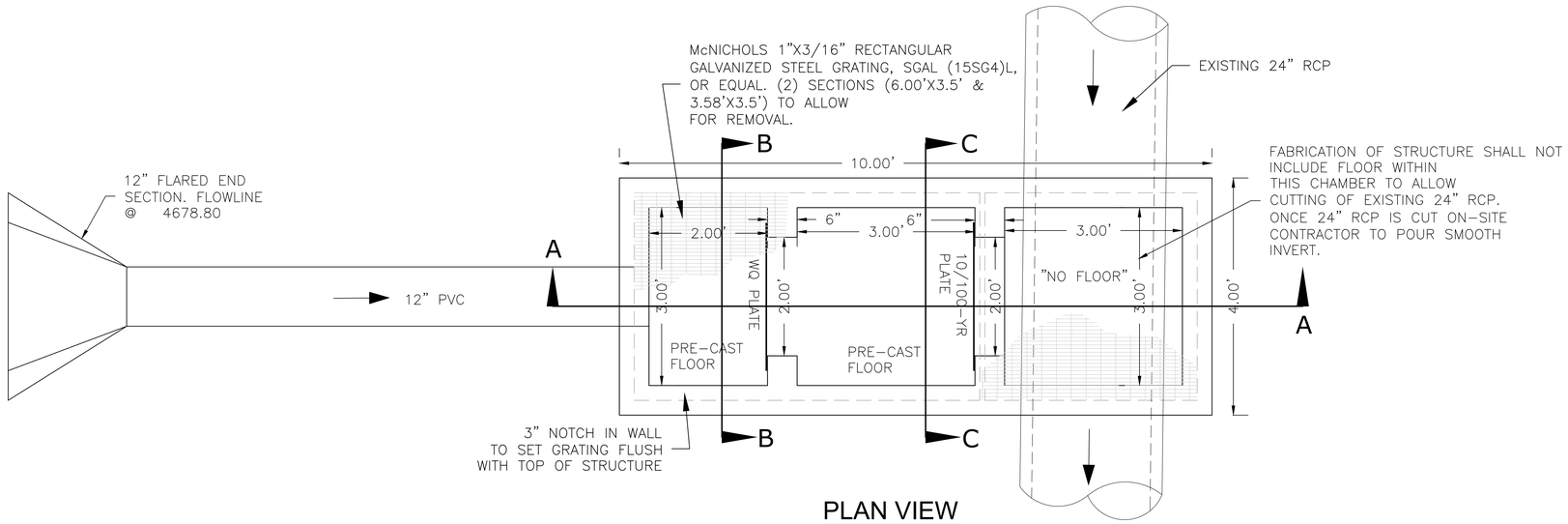
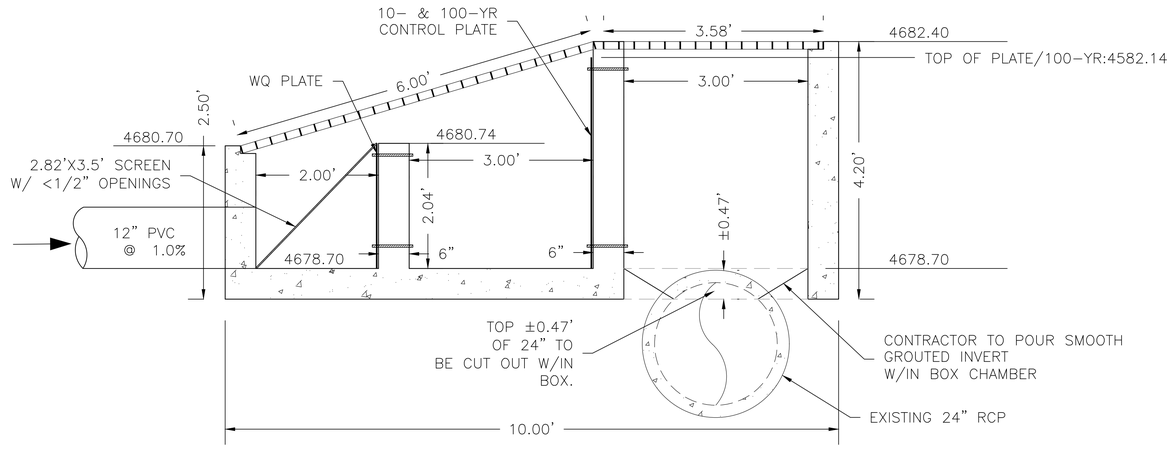
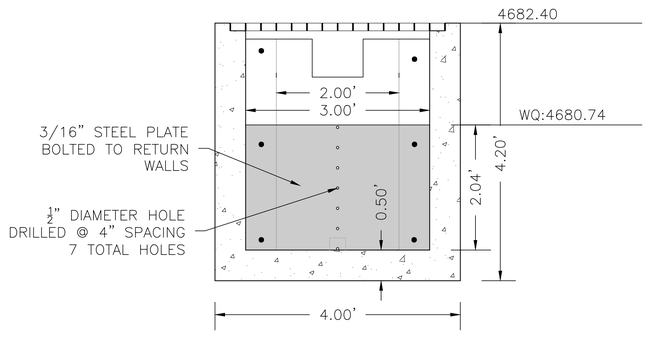


PLAN VIEW

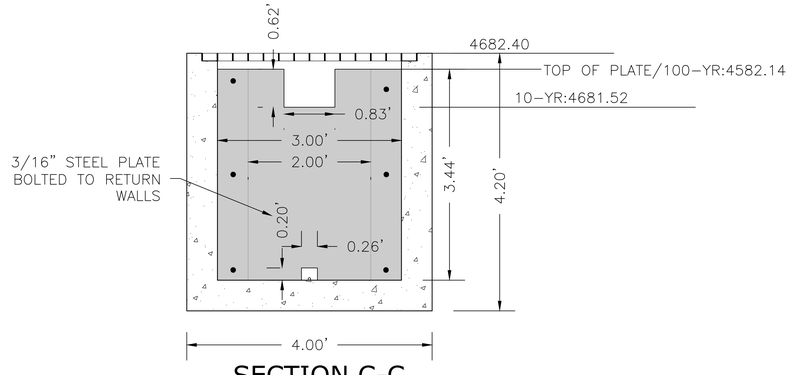


SECTION A-A



SECTION B-B

WQ PLATE



SECTION C-C

10- & 100-YR PLATE

OUTLET STRUCTURE

NTS

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE: OUTLET STRUCTURE

SCALE: NTS

NO. C6.00

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER _____ DATE _____

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SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

RECEPTION No.

7' EASEMENT

N89° 52' 33"

218.00'

IRR CONTROL BOX

EX. IRRIGATION DIVERSON BOX

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

TRASH ENCLOSURE

3-STORY, 34-UNIT APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

PATIO

TURF

FDC

PROP. FIRE HYD.

BIKE RACK

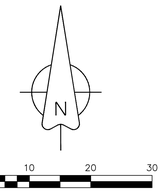
GRADEBREAK

NEW SANITARY SEWER MANHOLE

N0° 04' 43"E 330.00'

N0° 04' 43"E 240.00'

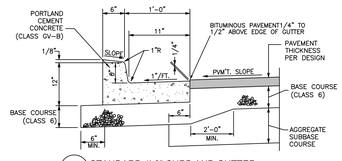
PUBLIC SERVICE EASEMENT



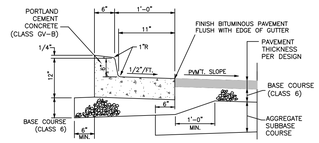
LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

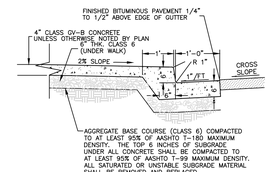
TYPICAL CONCRETE SECTIONS



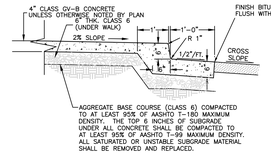
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

ACCEPTANCE BLOCK
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CITY DEVELOPMENT ENGINEER _____ DATE _____

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3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.00

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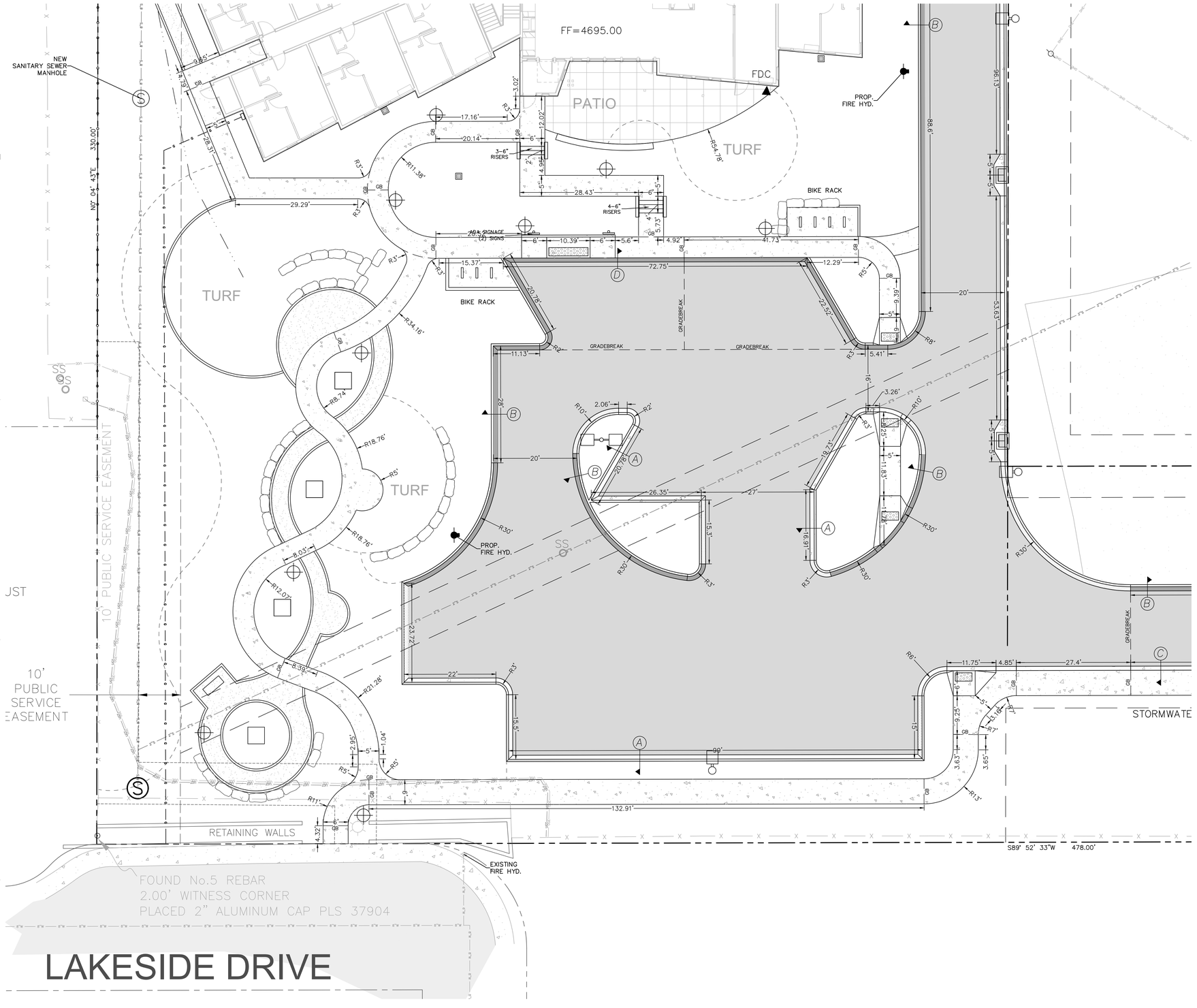
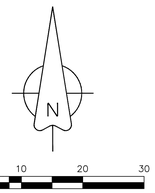
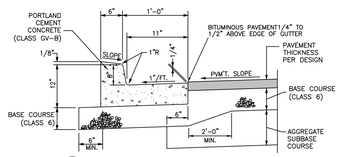




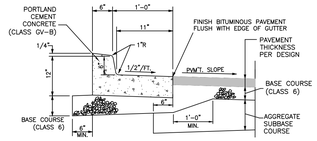
LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

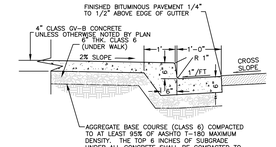
TYPICAL CONCRETE SECTIONS



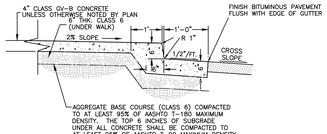
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.10

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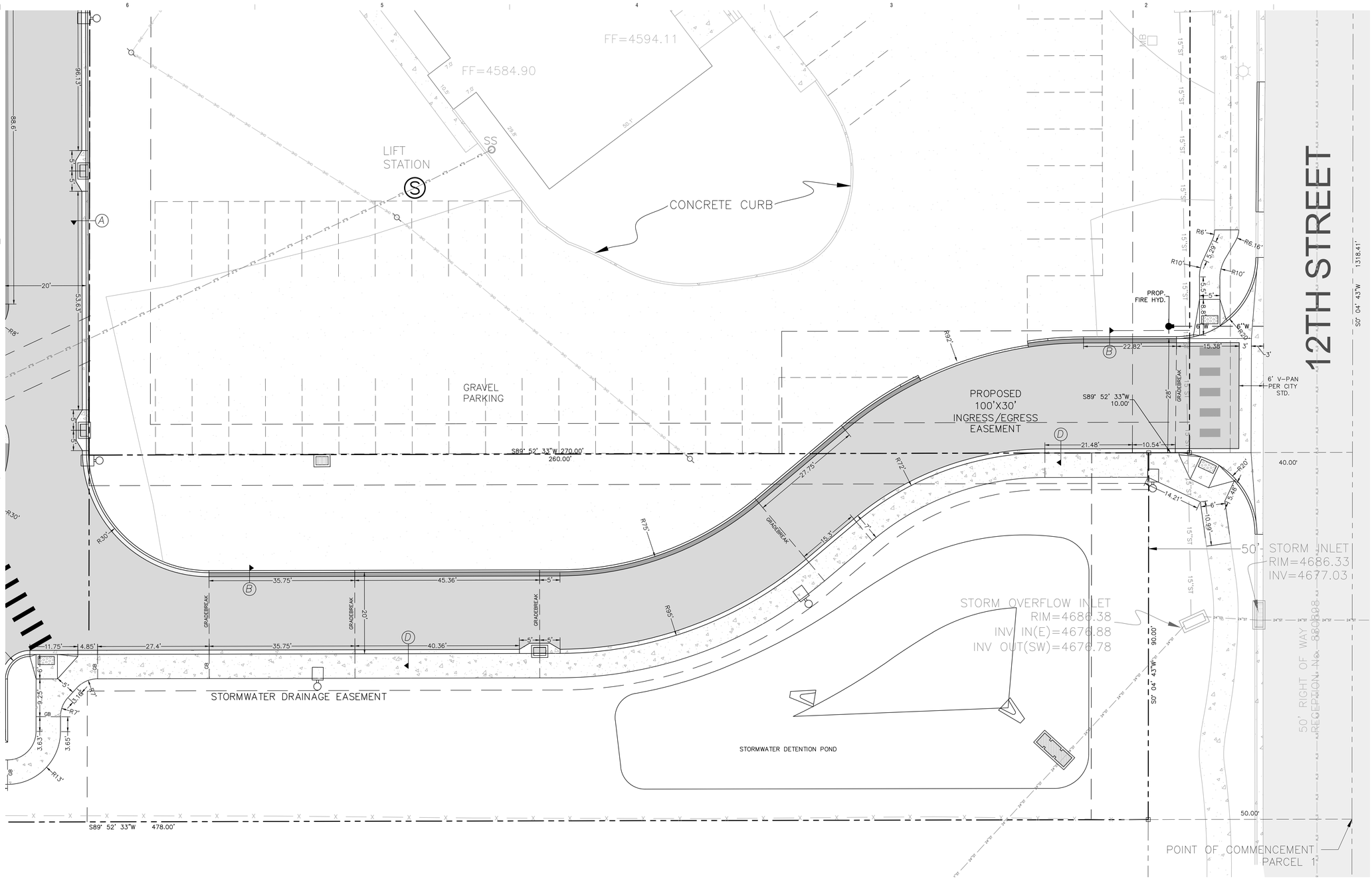

LEGEND

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- PROPOSED BUILDING
- EXISTING CURB/GUTTER
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- PROPOSED SANITARY SEWER CLEANOUT
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- ST — PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
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- x — PROPOSED FENCE
- EXISTING FENCE
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- GB — GRADE BREAK
- ROOF DRAIN (RD)
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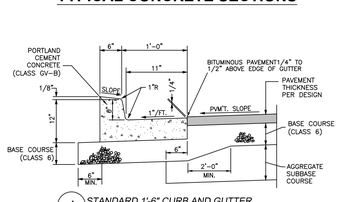
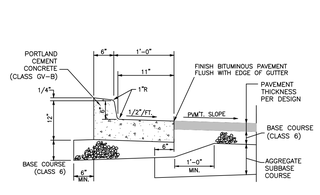
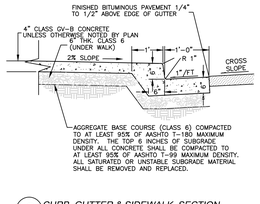
TYPICAL CONCRETE SECTIONS



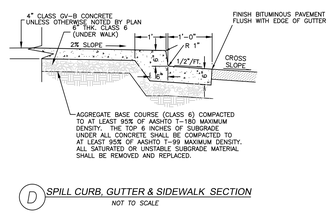
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER _____ DATE _____

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.20

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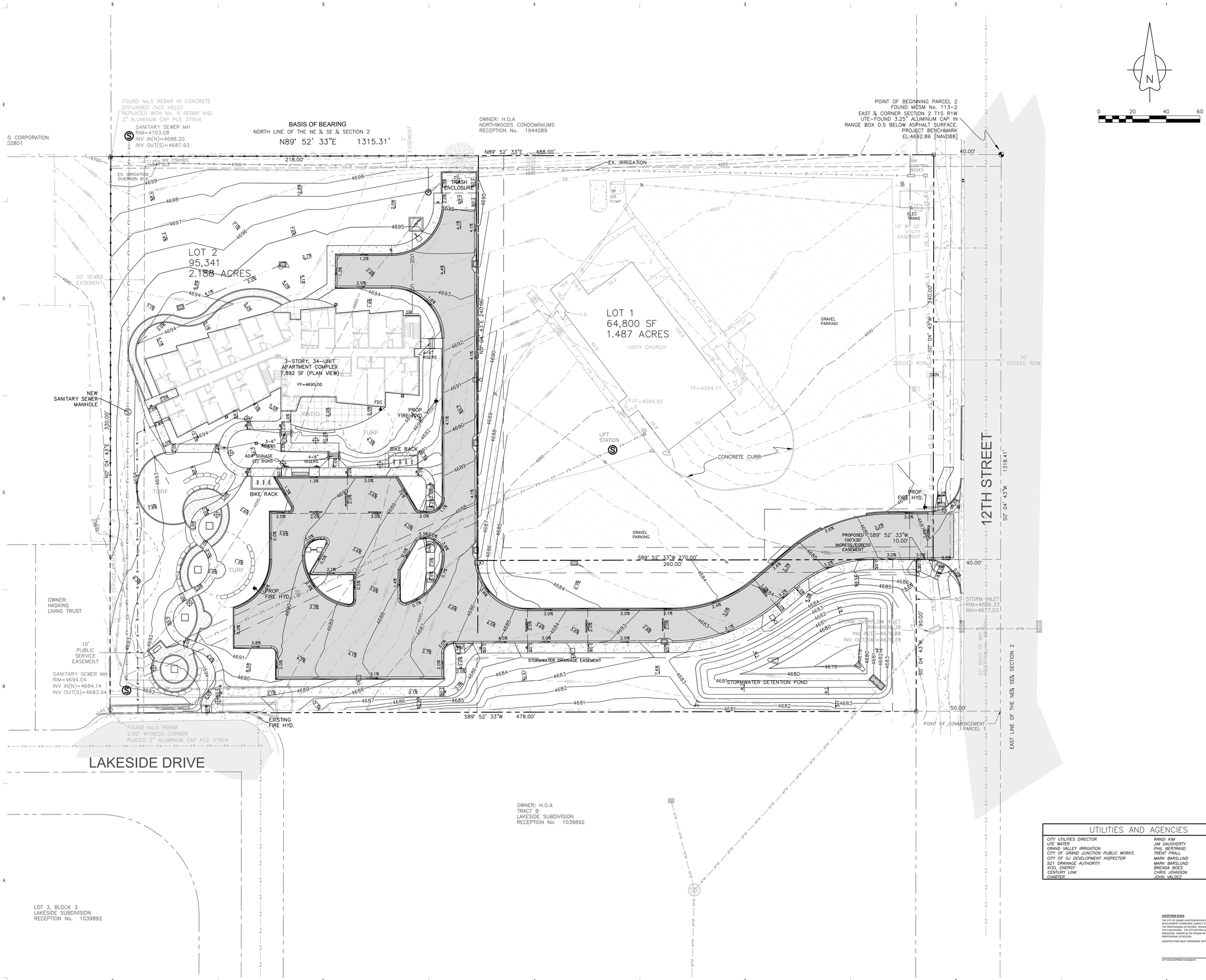

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CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

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Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
OVERALL GRADING PLAN

SCALE: 1"=20'

NO. C8.00

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SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

7' EASEMENT

RECEPTION No.

N89° 52' 33"E

218.00'

IRR CONTROL BOX

EX. IRRIGATION DIVERSON BOX

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

3-STORY, 34-UNIT
APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

TRASH ENCLOSURE

PATIO

TURF

BIKE RACK

FDC

PROP. FIRE HYD.

EM

4-6" RISERS

GRADEBREAK

ADA SIGNAGE (2) SIGNS

NEW SANITARY SEWER MANHOLE

N0° 04' 43"E 330.00'

N0° 04' 43"E 240.00'

PUBLIC SERVICE EASEMENT

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8250

ACCEPTANCE BLOCK

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3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:

GRADING AND DRAINAGE PLAN

SCALE: 1"=10'

NO. C8.10

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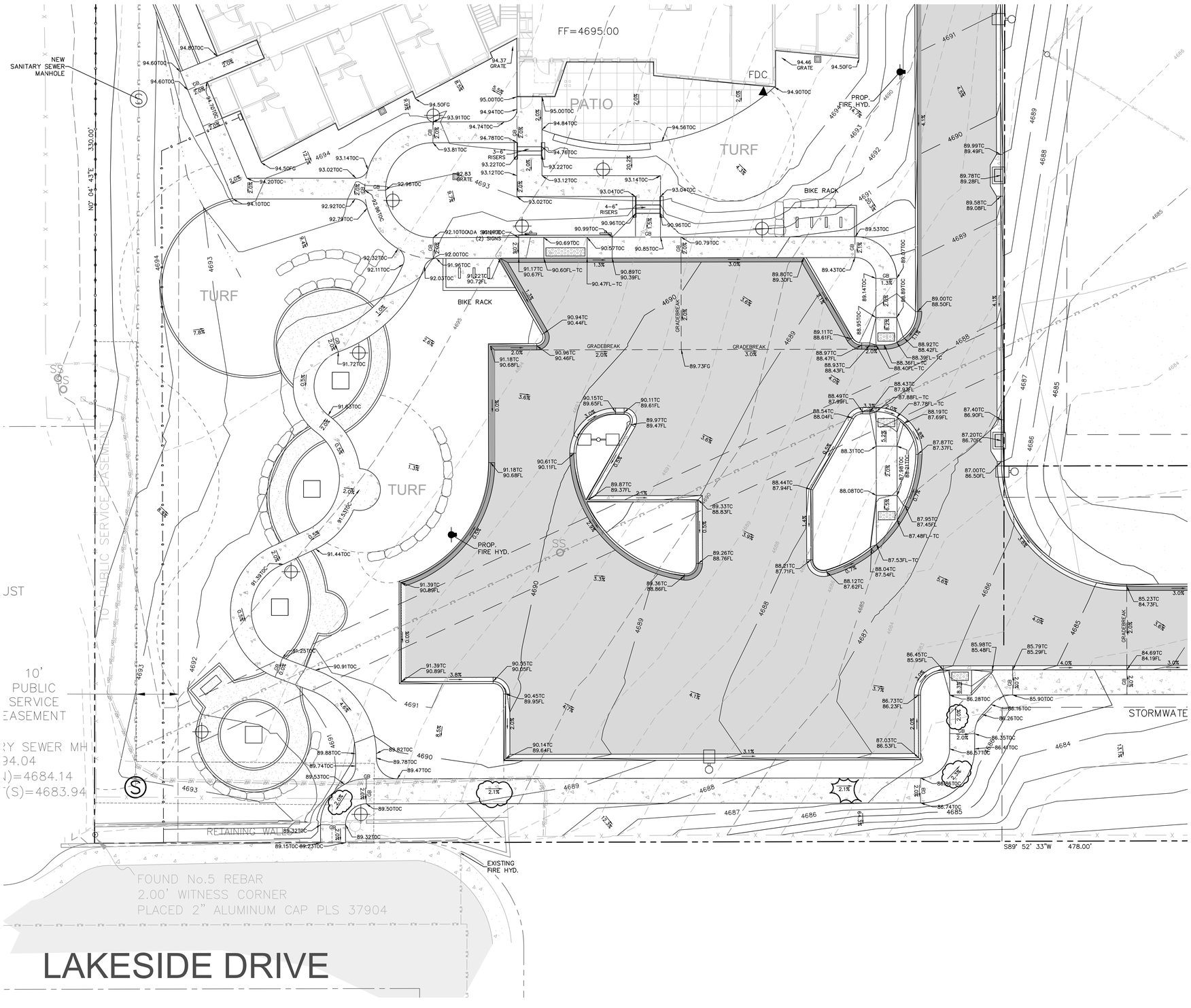

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CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

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3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:

GRADING AND DRAINAGE PLAN

1"=10'

NO. C8.20

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:	CITY COMMENTS RD1	6/7/2019

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE:
GRADING AND DRAINAGE PLAN
1"=10'

NO. C8.30

CITY DEVELOPMENT ENGINEER DATE

ASSISTANCE RISES
THE CITY'S REVIEW OF THIS CONSTRUCTION DRAWING CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS. SUBMITTED DETAILS THAT HAVE BEEN REVISED, ADDED, AND/OR DELETED BY THE CITY DURING THE REVIEW PROCESS ARE SUBJECT TO FIELD VERIFICATION AND ACCEPTANCE. ERRORS IN THE DESIGN CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PREPARER OF RECORD.
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UTE WATER	JIM DAUGHERTY	242-7491
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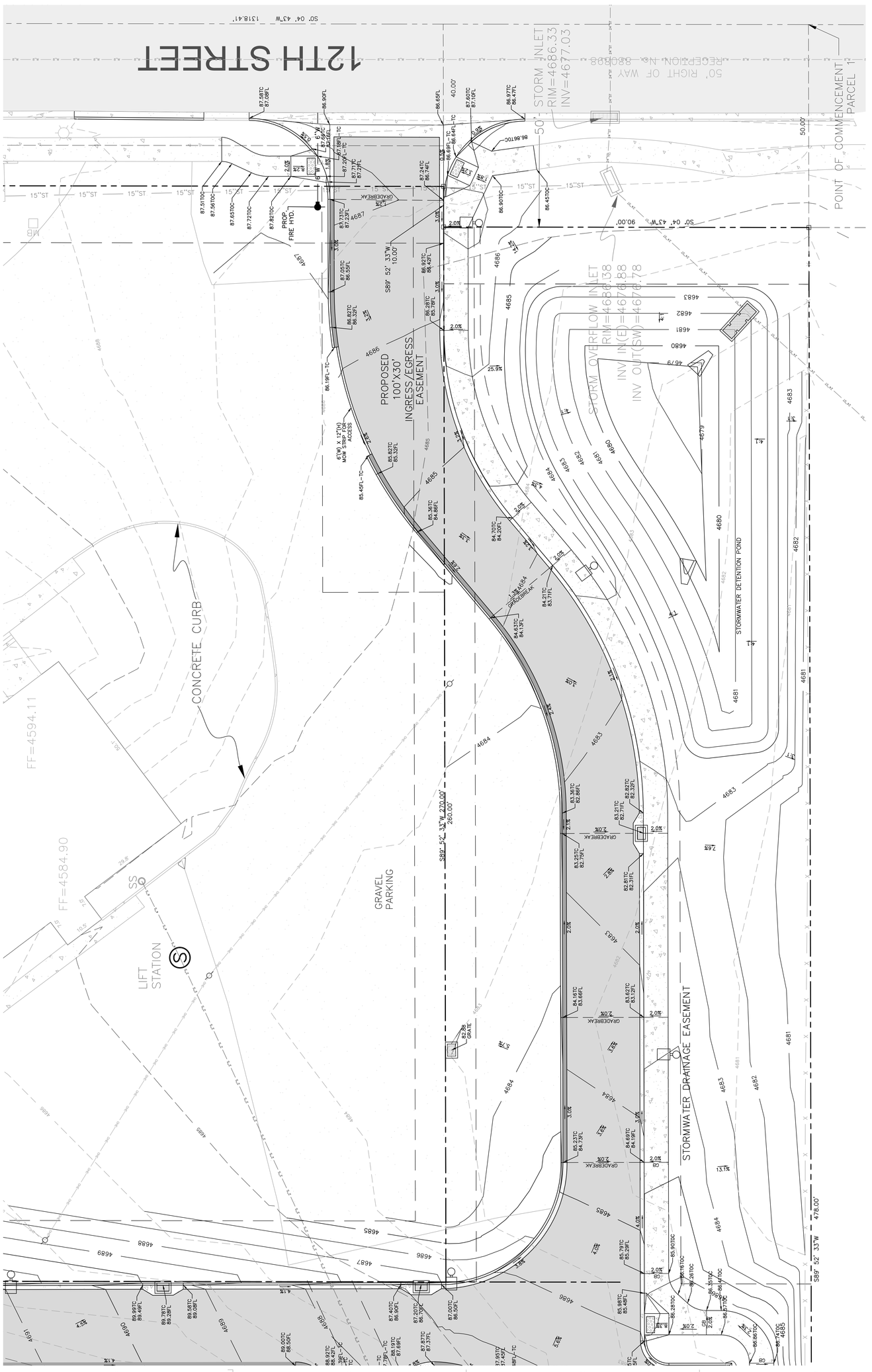
GJ DRAINAGE AUTHORITY	LANCE GILLILAND	241-8707
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JODI JAMES	245-9252



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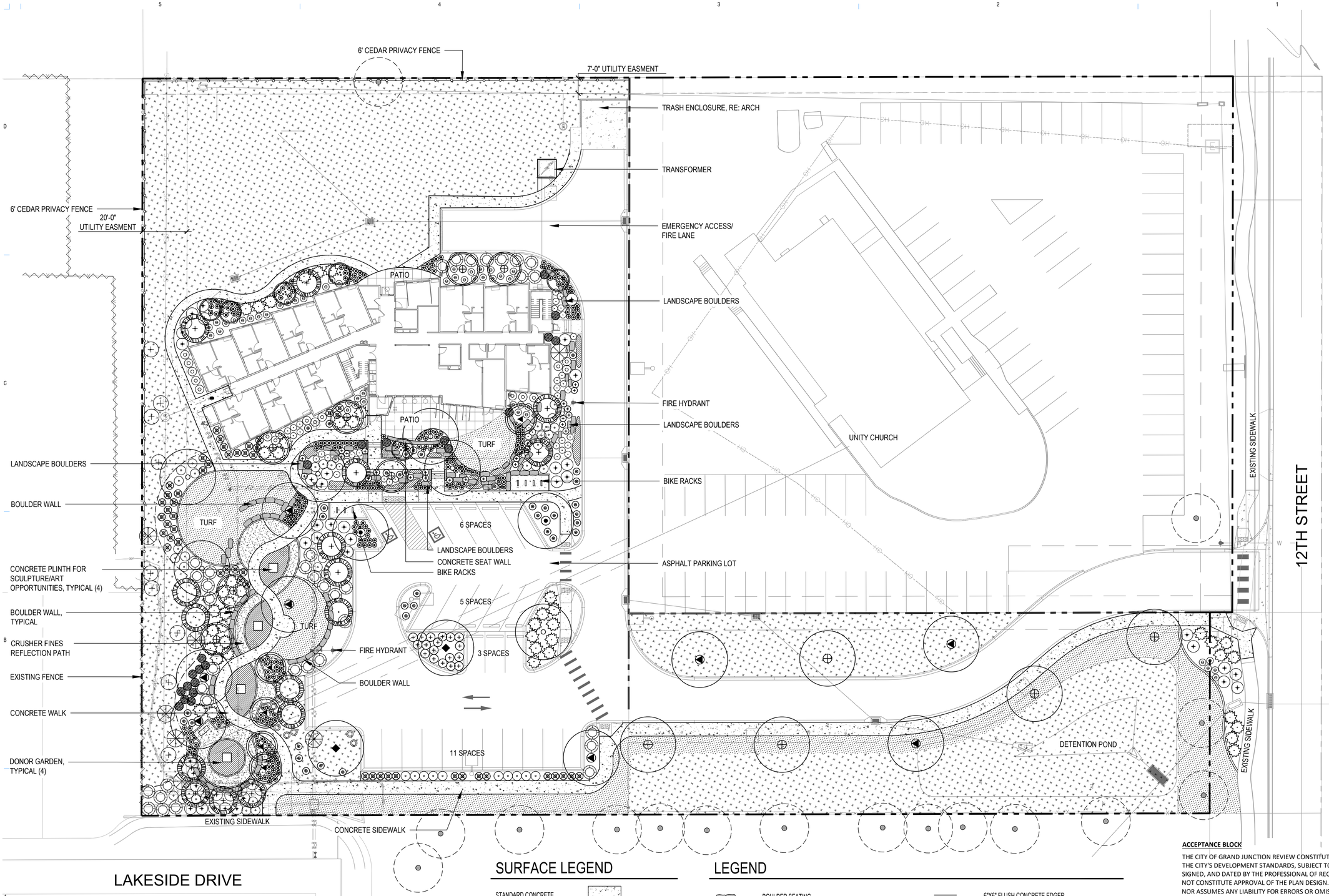

SURFACE LEGEND

- STANDARD CONCRETE
- CRUSHER FINES
- TURF
- NATIVE GRASS
- PERENNIALS

LEGEND

- BOULDER SEATING
- EXISTING PRIVACY FENCE TO REMAIN
- 6' PRIVACY FENCING
- BOULDER WALL
- CONCRETE SEAT WALL W/ STONE CAP
- BICYCLE PARKING
- 6"X6" FLUSH CONCRETE EDGER
- LIGHTING FIXTURES
- EXISTING TREE TO REMAIN

0 10 20 40 80
SCALE: 1"=20'-0"

NORTH

shoPworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
301 West 45th Avenue
Denver, CO 80216
303.406.1075

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER _____ DATE _____

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
6/06/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape
Site Plan

SCALE:

NO. LS101

LANDSCAPE PLANTING SCHEDULE

EVERGREEN TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
PIN	5	Piñon Pine	Pinus edulis	6' Height	Very Low
AUS	11	Austrian Pine	Pinus nigra	8' Height	Very Low

DECIDUOUS TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
OAK	8	Chinkapin Oak	Quercus muehlenbergii	2.5" Caliper	Low
HKB	2	Common Hackberry	Celtis occidentalis	2.5" Caliper	Very Low
SHA	6	Shademaster Honeylocust	Gleditsia triacanthos inermis	2.5" Caliper	Very Low
BOX	2	Sensation Boxelder	Acer n egundo 'Sensation'	2.5" Caliper	Low
LPT	5	London Planetree	Platanus x acerifolia	2.5" Caliper	Low
	20	Species to be Determined	Species to be Determined	2" Caliper	

ORNAMENTAL & SMALL TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
ABS	6	Autumn Brilliance Serviceberry	Amelanchier x grandiflora	6'-8' Clump	Moderate
WKH	7	Winter King Hawthorn	Crataegus viridis 'Winter King'	2" Caliper	Low
RBC	5	Eastern Redbud	Cercis canadensis	6'-8' Clump	Low

DECIDUOUS SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
RLC	46	Red Lake Currant	Ribes sativum 'Red Lake'	5 Gal. Cont.	Low
AAS	45	Autumn Amber Sumac	Rhus trilobata 'Autumn Amber'	5 Gal. Cont.	Low
RSA	44	Russian Sage	Perovskia artiplicifolia	5 Gal. Cont.	low
DRB	45	Dwarf Rabbitbrush	Chrysothamnus nauseosus var.	5 Gal. Cont.	Very Low
LEA	17	Leadplant	Amorpha canescens	5 Gal. Cont.	Very Low
RAB	9	Rabbitbrush	Chrysothamnus nauseosus	5 Gal. Cont.	Very Low
PBS	36	Pawnee Buttes Sandcherry	Prunus besseyi 'Pawnee Buttes'	5 Gal. Cont.	Low
PAN	44	Panchito Manzanita	Arctostaphylos x coloradoensis	5 Gal. Cont.	Low
RLR	7	Red Leaf Rose	Rosa glauca	5 Gal. Cont.	Low

EVERGREEN SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
BCJ	45	Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	5 Gal. Cont.	Low

ORNAMENTAL GRASSES/PERENNIALS / GROUNDCOVERS

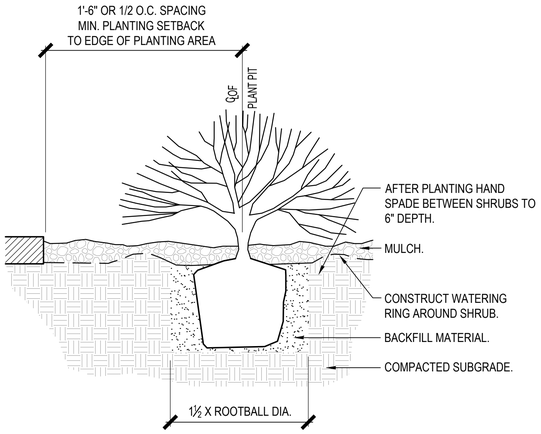
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
YUC	36	Soapweed Yucca	Yucca glauca	1 Gal. Cont.	Low
FRG	50	Feather Reed Grass	Calamagrostis acutiflora 'Avalanche'	1 Gal. Cont.	Low
DMG	21	Dwarf Maiden Grass	Miscanthus sinensis 'Yaku Jima'	1 Gal. Cont.	Low
BGG	284	Blue Gramma Grass	Bouteloua gracilis	1 Gal. Cont.	Low
AST	150	Assorted Perennials & Groundcovers		1 Gal. Cont.	Low

Site Landscape Requirements: 2.19 Acre Lot

Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 Tree/2,500 SF		0	39	57
			Shrubs Required	Shrubs Provided
1 Shrub/300 SF			318	318

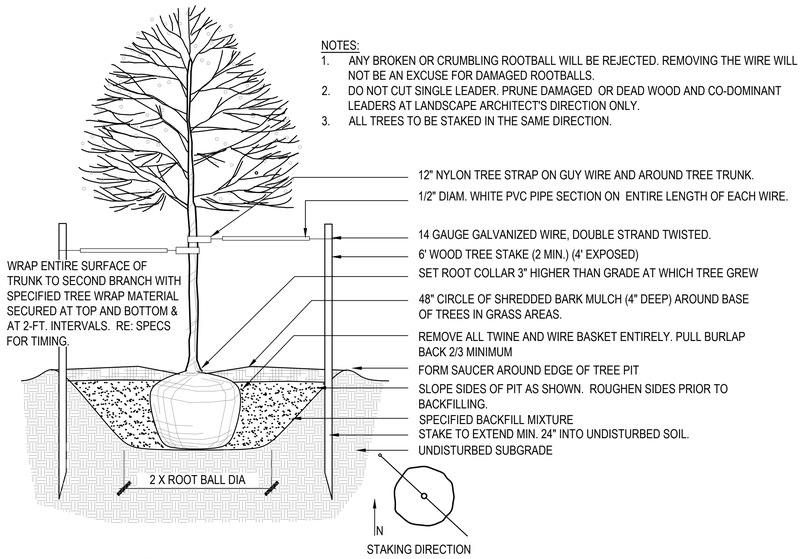
Street Frontage Landscape Requirements

Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 tree/40' Street Frontage	90' Street Frontage (N. 112th)	2	3	1
		Shrubs Existing	Shrubs Required	Shrubs Provided
		0	n/a	22



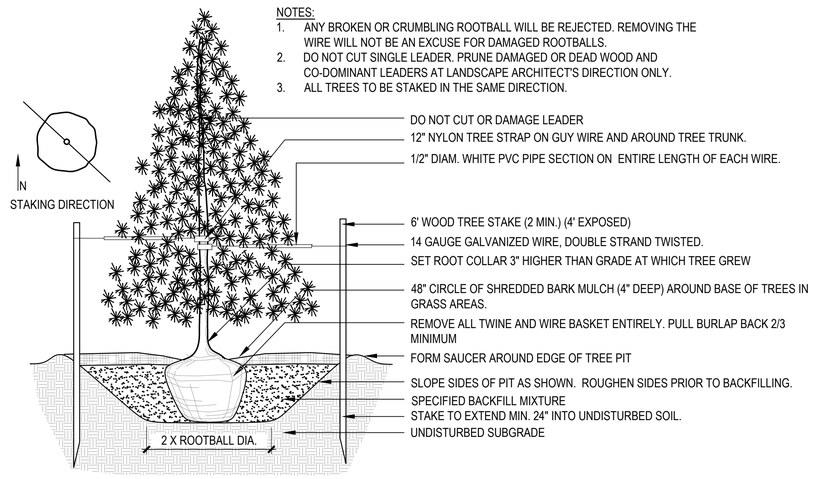
1 SHRUB PLANTING

SCALE: NTS shrb.dwg



2 DECIDUOUS TREE PLANTING

SCALE: NTS



3 EVERGREEN TREE PLANTING

SCALE: NTS

ACCEPTANCE BLOCK

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7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape Schedules & Details

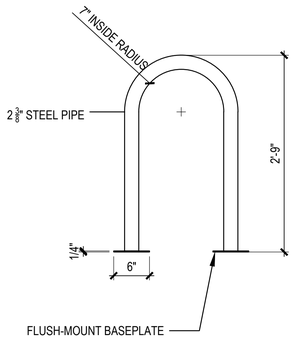
SCALE:

NO. LS102

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

shop WORKS architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
301 West 45th Avenue
Denver, CO 80216
303.406.1075



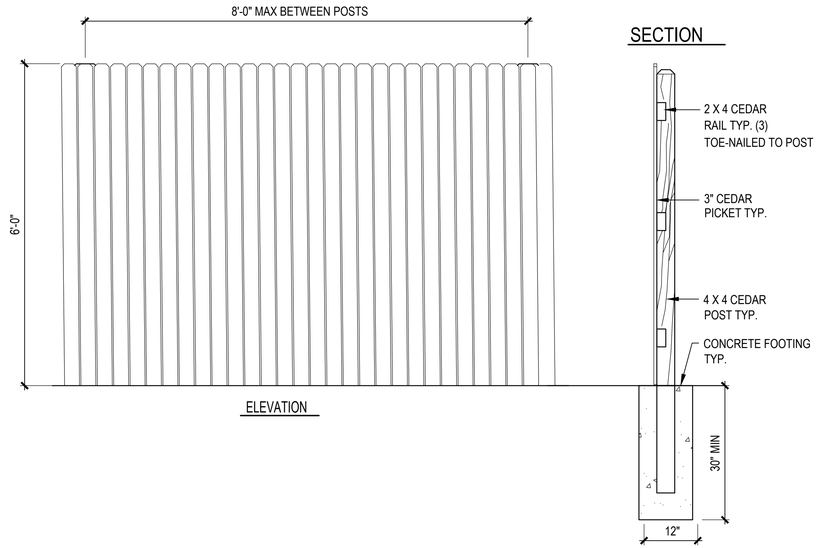
ELEVATION

NOTES:
DIMENSIONS:
1. HEIGHT - 33" FROM THE GROUND
2. CONTINUOUS BEND INSIDE RADIUS = 7"

MATERIALS AND CONSTRUCTION:
1. 2 3/8" SCHEDULE 40 STEEL PIPE
2. SOLID ONE-PIECE CONSTRUCTION; CONTINUOUS BEND; LEGS 14"-18" APART
3. FINISH TO BE DETERMINED BY OWNER
4. FLUSH MOUNTED WITH WELDED BASE PLATES. HIDDEN OR VANDAL RESISTANT FASTENERS (SCREWS OR EXPANSION BOLTS) PAINT TO MATCH BIKE RACK FINISH

1 BIKE RACK

SCALE: 1"=0"



2 6' PRIVACY FENCE

SCALE: 3/4"=1'-0"

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7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CH/JH
PROJECT #: 18007

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

SHEET TITLE:
Landscape
Site Plan

SCALE:

NO. LS103

2 N. ELEV

1/8" = 1'-0"

FLAGNOTES PER SHEET

5.23 SCREEN FOR ROOFTOP MECHANICAL EQUIP. - PREFINISHED DECKING ON TUBE STEEL STRUCTURE

7.07 PREFINISHED SHEETMETAL GUTTER WITH CONTINUOUS CLEAT, TO DOWNSPOUT & SPLASHBLOCK

7.33 PREFINISHED, CONTINUOUS METAL PARAPET WALL CAP, COUNTER FLASHING AND CLEAT, 24 GAUGE, FACTORY FINISHED. FASTEN WITH POWDER ACTUATED FASTENERS @ 16" O.C., RE: ROOF PLAN AND ELEVATIONS

8.10 EXTERIOR LOUVERS, RE: MECHANICAL

8.25 THERMALLY BROKEN GLASS AND ALUMINUM SECTIONAL OVERHEAD DOOR

9.06 EXTERIOR PRE-FINISHED CEMENTITIOUS LAP SIDING OVER SHEATHING, RE: EXTERIOR WALL TYPES

9.08 EXTERIOR PRE-FINISHED CEMENTITIOUS TRIM BOARD, RE: EDEVATIONS AND EXTERIOR DETAILS

9.09 PRE-FINISHED CEMENTITIOUS TRIM BOARD, 1.65" WIDTH, COLOR AND FINISH TO MATCH ADJACENT CEMENTITIOUS LAP SIDING, RE: WINDOW AND DOOR DETAILS

23.06 42" PTAC UNIT, RE: WINDOW DETAILS AND MECHANICAL

26.15 EXTERIOR WALL SCONCE, RE: ELECTRICAL

26.22 SURFACE MOUNTED FIXTURE, RE: ELECTRICAL

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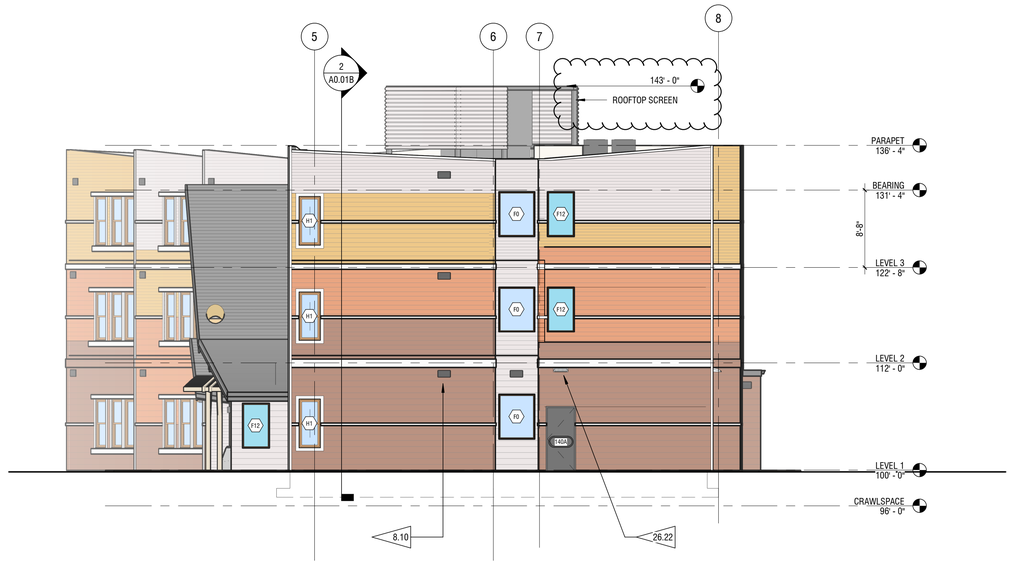
3 ELEVATION - ENLARGED DETAIL

1/4" = 1'-0"



1 E. ELEV

1/8" = 1'-0"

ACCEPTANCE BLOCK

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CITY PLANNER DATE

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

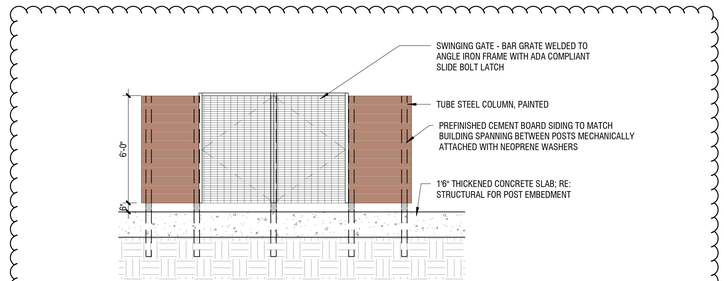
SCALE: As indicated

NO. A2.0

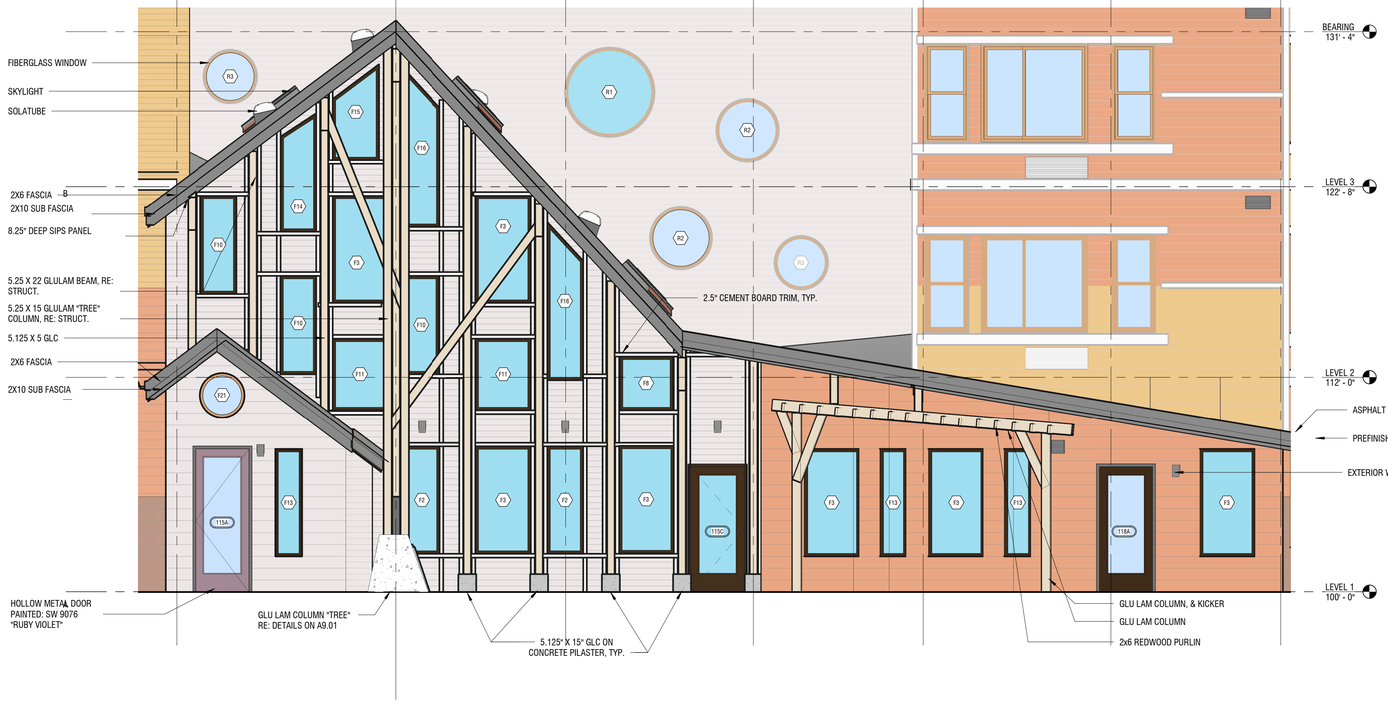
3 S. ELEV.
1/8" = 1'-0"

FLAGNOTES PER SHEET

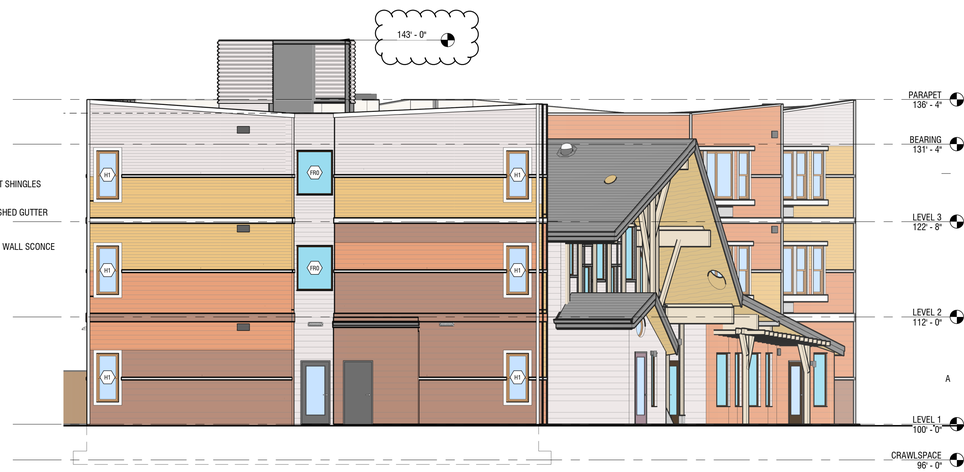
8.01	24" TUBULAR DAYLIGHTING DEVICE
8.03	VINYL WINDOW, TYP. @ UNITS & UPPER LEVELS, ALMOND COLORED, RE: WINDOW TYPES AND ELEVATIONS
8.10	EXTERIOR LOUVERS, RE: MECHANICAL
9.06	EXTERIOR PRE-FINISHED CEMENTITIOUS LAP SIDING OVER SHEATHING, RE: EXTERIOR WALL TYPES
9.08	EXTERIOR PRE-FINISHED CEMENTITIOUS TRIM BOARD, RE: ELEVATIONS AND EXTERIOR DETAILS
23.06	42" PTAC UNIT, RE: WINDOW DETAILS AND MECHANICAL
26.22	SURFACE MOUNTED FIXTURE, RE: ELECTRICAL



4 TRASH ENCLOSURE FRONT ELEVATION
1/4" = 1'-0"



2 ENLARGED ENTRY ELEV.
1/4" = 1'-0"



1 W. ELEV.
1/8" = 1'-0"

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

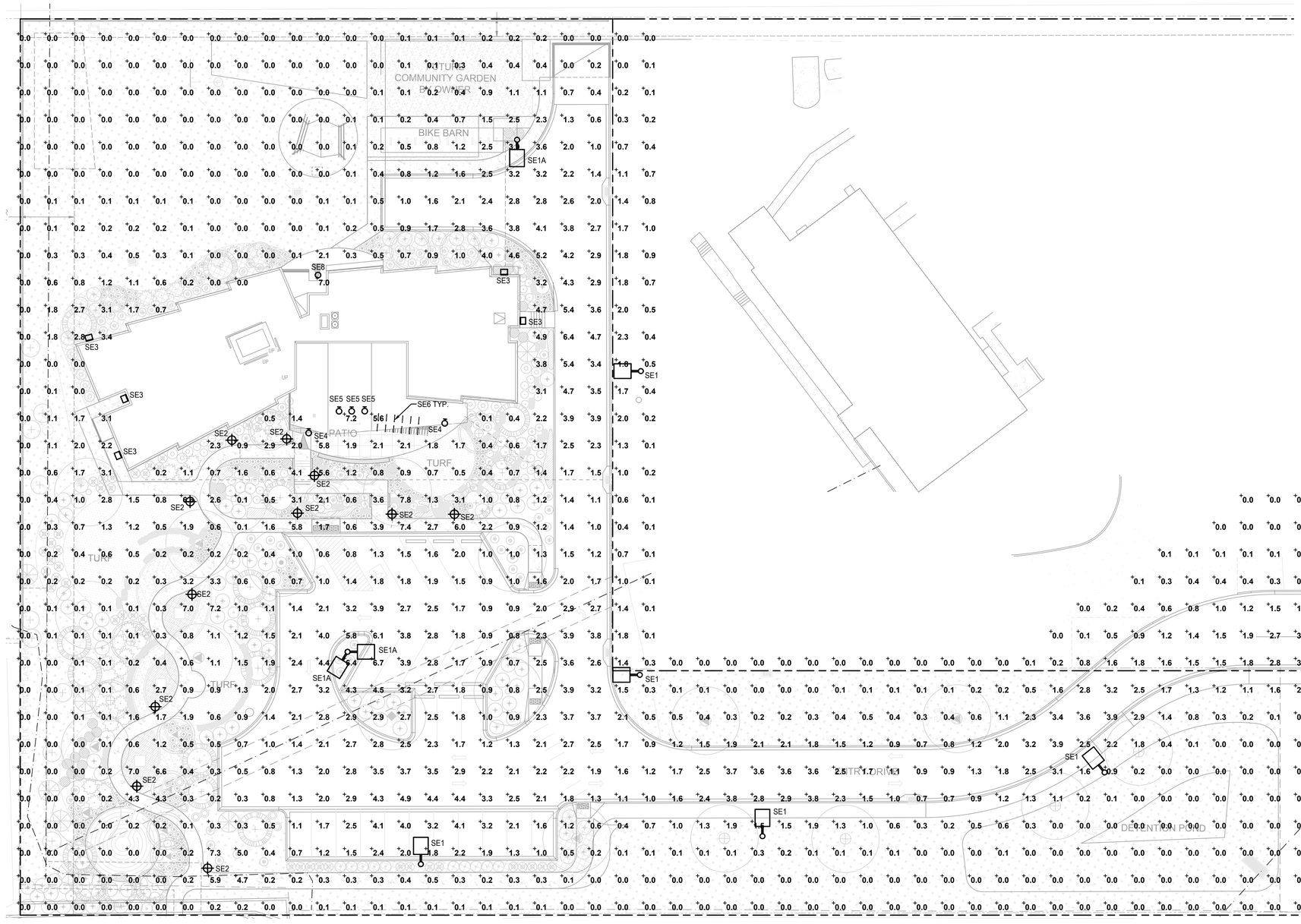
DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

SCALE: As indicated

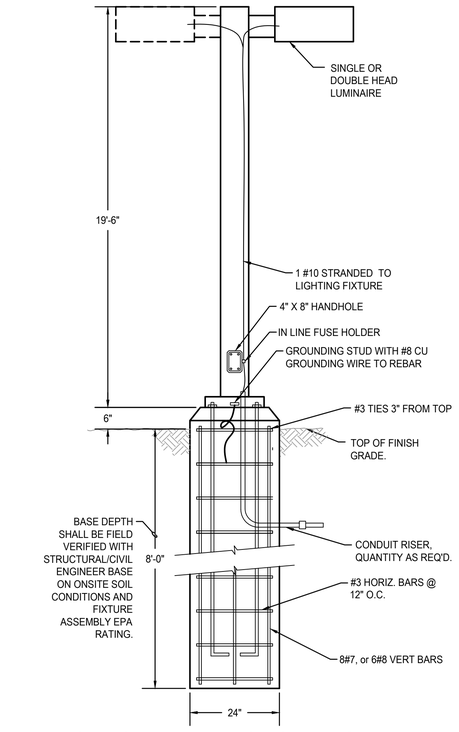
NO. A2.1



1 ELECTRICAL PHOTOMETRIC PLAN
E-1
1" = 20'-0"

GENERAL NOTES

1. ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC ROW, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.
2. ALL OUTSIDE LIGHTING SHALL COMPLY WITH SECTION 21.06.080 OF THE ZONING AND DEVELOPMENT CODE.



2 SE1, SE1A PARKING POLE BASE DETAIL
N.T.S.

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CONSULTING INC
4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC PLAN

SCALE: AS NOTED

NO.

E1

C:\Users\jonk\appdata\local\temp\AcPublish_9592\PH-PHOTOMETRIC.dwg jonk 07.11.19 1:48 pm

Catalog # :	Project :
Prepared By :	Date :

Mirada Medium - MRM
Outdoor LED Area Light

The Mirada's sleek design makes it perfectly-suited for architectural & commercial applications, while its cost-effective die-cast aluminum housing makes its acquisition cost very competitive. The Mirada offers high performance factory-rotatable silicone optics, 5 standard CCTs, 42,000+ delivered lumens, and is available with integral Airlink™ Wireless Controls.

IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

Features & Specifications

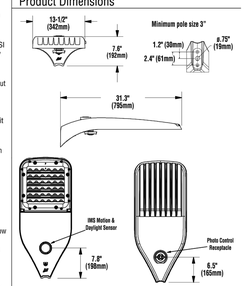
Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, SW, FT and FTA.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance. See page 5 for more details.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L lumen package rated to +40°C.
- Power factor: > .90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Product Dimensions



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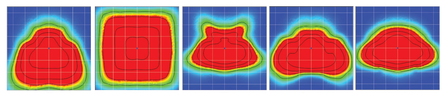
Performance (Cont.)

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada (MRM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Ordering Guide

TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Luminaire Prefix	Light Source	Lumen Package*	Light Output	Distribution	Orientation*	Voltage	Driver
MRM Mirada	**LED**	7L - 7,000 lms **9L** - 9,000 lms **12L** - 12,000 lms **18L** - 18,000 lms **24L** - 24,000 lms **30L** - 30,000 lms **36L** - 36,000 lms **42L** - 42,000 lms * Consult factory for programmable wattages and lumen packages	**SIL** - Silicone	**2** - Type 2 **3** - Type 3 **SW** - Type 5 Wide **FT** - Forward Throw **FTA** - Forward Throw Automotive	**(Blank)** - standard **L** - Optics rotated left 90 **R** - Optics rotated right 90	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347-480V)	**DIM** - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5,000 CCT **40** - 4,000 CCT **30** - 3,000 CCT* **27** - 2,700 CCT* **AMB** - Phosphor Converted Amber[2,3]	**70CRI** - 70 CRI	**(Blank)** - None **Wireless Controls System.** **ALSC** - AirLink Synapse Control System [4] **ALSCH** - AirLink Synapse Control System Host / Satellite [4,5] **ALSCS01** - AirLink Synapse Control System with 8-12' Motion Sensor [4] **ALSCHS01** - AirLink Synapse Control System Host / Satellite with 8-12' Motion Sensor [4,5] **ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor [4] **ALSCHS02** - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor [4,5] **ALSCS04** - AirLink Synapse Control System with 20-40' Motion Sensor [4] **ALSCHS04** - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor [4,5] **Stand-Alone Controls** **EXT** - 0-10v Dimming (from external signal) **IMSSM01** - Integral Motion Sensor 8-12' 120-277V [4,6] **IMSSM02** - Integral Motion Sensor 12-20' 120-277V [4,6] **IMSSM04** - Integral Motion Sensor 20-40' 120-277V [4,6] **IMSSM01HV** - Integral Motion Sensor 8-12' 347-480V [4,6] **IMSSM02HV** - Integral Motion Sensor 12-20' 347-480V [4,6] **IMSSM04HV** - Integral Motion Sensor 20-40' 347-480V [4,6] **CR7P** - 7 Pin Control Receptacle ANSI C136.41 [7] **Button Type Photocells** **PC3120** - 120V **PC2090-277** - 208-277V **PC347** - 347V	**BRZ** - Bronze **BLK** - Black **GPT** - Graphite **MSV** - Metallic Silver **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green	**(Blank)** - None **IL** - Integral Louver HSS[8]

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Catalog # :	Project :
Prepared By :	Date :

Mirada Bollard - MRB
LED Architectural Bollard

The Mirada Architectural Bollard combines superior engineering with purity of design & attention to detail. The durable construction & virtually maintenance free qualities makes it ideal for illuminating low level mounting height areas, such as entryways, pathways and most pedestrian-scale applications, requiring unique aesthetics in tandem with outstanding performance.

Features & Specifications

Optical System

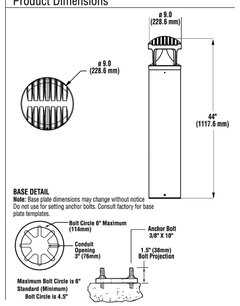
- Available in two optical distributions, symmetrical and asymmetrical.
- High transmission clear flat acylic lens seals the luminaire's optical chamber to IP66.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also available in Phosphor Converted Amber. Consult Factory for other color temperature requirements.
- Minimum CRI of 70. Consult Factory for Higher CRI requirements.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347-480 Vac Input available.
- L91 Calculated Life: >100k Hours calculated @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F); Cold-weather emergency battery backup rated for -20°C minimum ambient.
- Power factor: > .90
- Input power stays constant over life.
- High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
- Driver components are fully encased in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Electrical components are mounted on a removable power tray.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Optional 120v-277v integral emergency battery pack is available. The 90-minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance.

Dimmable · IDA DARK-SKY FRIENDLY · IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

Product Dimensions



BASE DETAIL
Note: Base plate dimensions may change without notice. Do not use for setting anchor bolts. Consult factory for base plate template.

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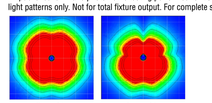
Performance

DELIVERED LUMENS*													
				AMB CCT		2700K CCT		3000K CCT		4000K CCT		5000K CCT	
Lumen Package	Lens Type	Distribution	CRI	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Wattage
25L	ACR	S	70	1713	56	2242	74	2156	71	2487	82	2485	81	30.5
30L	ACR	S	70	2110	55	2761	71.9	2655	69	3063	80	3061	80	38.4
25L	ACR	A	70	1327	58	1736	75.5	1670	73	1926	84	1925	84	23.0
30L	ACR	A	70	1634	56	2138	73.5	2056	71	2372	82	2370	81	29.1

*LED Chips are frequently updated therefore values are nominal.

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the (MRB) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Luminaire Ordering Information

TYPICAL ORDER EXAMPLE: **MRB LED 30L ACR S UNV DIM 40 PCI120 BB BRZ HSS**

Prefix	Source	Lumen Package	Lens	Distribution	Voltage	Driver
MRB (Mirada Bollard)	**LED**	**25L** - 2,500 lm **30L** - 3,000 lm	**ACR** - Acrylic	**A** - Asymmetric **S** - Symmetrical	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347 - 480v)	**DIM** - 0-10v Dimming (10-100%)

Color Temp	CRI	Controls (Choose one)	Battery Backup*	Finish	Options
50 - 5,000K **40** - 4,000K **30** - 3,000K **27** - 2,700K **AMB** - Phosphor Converted Amber[1]	**(Blank)** - 70CRI	Button Type Photocells **PC3120** - 120V **PC2090-277** - 208-277V **PC347** - 347V	**BB** - Battery Backup **CWBB** - Cold Weather Battery Backup	**BRZ** - Bronze **BLK** - Black **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green **GPT** - Graphite **MSV** - Metallic Silver	**H** - XX (Specify Height)[4] **GFR** - GFI Duplex Receptacle **LAB** - Less Anchor Bolts **RR** - Roughneck Heavy Duty Mtg Plate **HSS** - House Side Shield

Accessory Ordering Information[3]

Description	Order Number
HSS - House Side Shield	699105
Galvanized anchor Bolt kit	285560

FOOTNOTES:
1 - Consult Factory for availability.
2 - Standard height is 44". Non Standard heights are available in 6" increments. Minimum height is 26", 32" with battery backup option. Maximum height is 62".
3 - Accessories are shipped seperately and field installed.
4 - Not available in HV Voltage.

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1 FIXTURE TYPE SE1, SE1A
N.T.S.

2 FIXTURE TYPE SE2
N.T.S.

MIRADA WALL SCONCE (XWM)

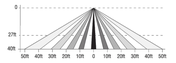
DOE LIGHTING FACTS
Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

LIGHT OUTPUT - XWM - 3 5000K CCT			
	Lumens	Wattage	LPW
03	3410	29	117
04	4417	40	111
06	6609	59	113
08	8610	82	105

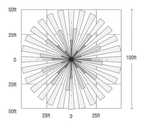
LED Chips are frequently updated therefore values may increase.

COVERAGE DIAGRAM

SIDE VIEW



TOP VIEW



US & Int'l. patents pending

SMARTTEC™ - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature

ENERGY SAVING CONTROL OPTIONS - DIM - 0-10 volt dimming enabled with LSI wireless controls.

OPTIONAL INTEGRAL MOTION SENSOR - Passive infrared motion sensor activates switching of luminaire light levels. High level light is activated when passersby enter target zone and increased to full bright in 1-2 seconds. Low light level (30% of maximum drive current) is activated when target zone is absent of motion activity for 5 minutes and is gradually ramped down (10 seconds) to low level. Sensor detection range 110° horizontal x 93° vertical x 10 meters maximum distance.

LEDS - Available with 5000K, 4000K or 3000K color temperature, 70 CRI min.

OPTICS/DISTRIBUTIONS - Ultra-high efficiency reflectors provide three distributions. Choose from Type 2, Type 3 or Type FT.

HOUSING - Three-piece die-cast aluminum housing is smoothly contoured low-profile shape. Mounting hardware is stainless steel or electro-zinc plated steel. Housing and optical unit are sealed with extruded silicone gasket; supply conductors with molded EPDM bushing.

OPTICAL UNIT - Proprietary silicone refractor optics provide exceptional coverage and uniformity. Pressure stabilizing breather allows super-tight protection while preventing cycling from building up internal pressures and vacuums that can stress optical unit seals

WALL MOUNTING - Galvanized-steel universal wall mounting plate easily mounts directly to 4" octagonal or square junction box. EPDM gasket is supplied to be installed between mounting plate and junction box, sealing junction box from entrance of water. Universal plate permits fixture to be mounted in uplighting (indoor only) or downlighting position. Optional pole-mounting bracket permits mounting to standard poles (XPMA).

ELECTRICAL - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (50/60Hz input) or 347-480VAC.

DRIVER - Drivers are dimming, standard. Components are fully encased in potting material for IP65 moisture resistance. Driver complies with IEC and FCC standards. Driver can be easily accessed.

EMERGENCY OPTIONS - Optional integral emergency battery-back-up options are available. BB option operates in 0°C to 60°C ambient temperature and CWBB operates in -20°C to 60°C ambient temperature. When primary AC power failure occurs, both options operate 10 LEDs for minimum of 90 minutes.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F)

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT (in carton) - 30 lbs./13.6Kg

LISTING - UL listed to ANSI/UL1598, UL8750 and other U.S. and international safety standards. Suitable for wet locations in downlight position. IDA compliant; with 3000K color temperature selection

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · cULus LISTED wet location · CE · ARRA Funding Compliant · IP65 · FC · IDA DARK-SKY FRIENDLY · DLC

Project Name _____ Fixture Type _____
Catalog # _____

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MIRADA WALL SCONCE (XWM)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XWM FT LED 08L 50 UE WHT IMS**

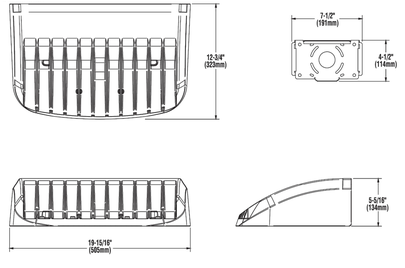
Prefix	Distribution	Light Source	Output*	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XWM - Mirada Wall Sconce	2 - Type 2 3 - Type 3 FT - Type 4 (Wide Throw) FT - Type 4 (Forward Throw)	LED	05L - 4,400 Lumens 08L - 8,600 Lumens 08L - 8,600 Lumens	50 - 5000K 40 - 4000K 30 - 3000K	UE - Universal Voltage (120-277) HV - 347-480	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus WHT - White	**Wireless Control System[1,2]** (Blank) - None PCM - Platinum Control System SCM - Gold Control System DIM - 0-10 volt dimming (required for satellite fixtures) ALSC - AirLink Synapse Control System **Stand-Alone Control** (Blank) - None DIM - 0-10 volt dimming[3] (from external signal)	**Sensor** IMS - Integral Motion Sensor[4,7] **Options** BB - Battery Back-up[5] CWBB - Cold Weather Battery Back-up[5] XPMA - Pole Mounting Bracket

ACCESSORY ORDERING INFORMATION[1] (Accessories are field installed)

Description	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	3069158BLK	DPK208 – Double Fusing	DPK208
FK120 – Single Fusing	FK120	DFK240 – Double Fusing	DFK240
FK277 – Single Fusing	FK277	DFK480 – Double Fusing	DFK480
FK347 - Single Fusing	FK347	IMS/PC Remote Configurator Tool[7]	584929

FOOTNOTES:
1 – For wireless controls information and accessories, see Controls Section.
2 – Requires a SiteManager and override switch. Not compatible with battery back-up, IMS or HL Option.
3 – Not compatible with IMS Option
4 – Not compatible with DIM or Wireless Control System
5 – Not compatible with Wireless Control System
6 – Not available with BB, CWBB, IMS Option or Wireless Control System
7 – IMS is the NetStopper Dual Sensor (Daylight & Motion) which is field adjustable, via a handheld remote configurator tool
8 – Output based on type 3 optics in cool white color temperature, see IES files for exact delivered lumens

DIMENSIONS



Project Name _____ Fixture Type _____
Catalog # _____

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3 FIXTURE TYPE SE3
N.T.S.

Luminaire Schedule

Symbol	Label	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	SE1	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-3-30-70CRI-IL	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE TYPE 3 OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	8626.55	1	94
	SE1A	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-FT-30-70CRI	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	11448.25	1	94
	SE2	LSI INDUSTRIES, INC	MRB-LED-30L-ACR-S-30	LED BOLARD LIGHT GROUND MOUNTED 42" SYMETRICAL OPTICS 3000K CCT		1	2655.92	1	38.4
	SE3	LSI INDUSTRIES, INC	XWM-FT-LED-04-30	LED WALL MOUNT LIGHT 12'-0" AFG FORWARD THROW OPTICS 3000K CCT		1	4207.454	1	38
	SE4	PROGRESS	P563000-143-30K	3" Wall-Mount Cylinder, Graphite w/ Textured, Opal Glass Lens; Tested as Down-Light 8'-0" AFG MOUNTING HEIGHT 3000K CCT	22- Nichia 3000K LEDs	1	906.9812	1	12.204
	SE5	PROGRESS	P563001-143-30K	3" Wall Mount Up/Down Cylinder - Graphite 12'-0" AFG MOUNTING HEIGHT 3000K CCT	44- Nichia 3000K LEDs	1	1765.549	1	24
	SE6	MARKET LITE	ML2000-CA-24-LED-30K-GSFL-WET	LED STRING LIGHT 24" OC. WITH CUTOFF SHADE MOUNTED 10'-0"AFG 3000K CCT	44- Nichia 3000K LEDs	1	91.35894	1	0.97
	SE8	LSI INDUSTRIES, INC	LCD4_LAD4_LAD4R-LED-14L-30-NF-TR4R-SF-HAZ	4" APERTURE LED DOWNLIGHT 3000K CCT RECESSED CEILING MOUNT.		1	1142.191	0.8	13.9

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER _____ DATE _____

LSI INDUSTRIES
architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

CONSULTING INC
4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E2

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PROGRESS LIGHTING

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Downlight Cylinder

Wall mounted · Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

Number of Modules	1
Input Power	12w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	907/75 (LM-79)
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563000-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 5-5/8"
H/CTR: 3"

PROGRESS LIGHTING

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Up/ Down Cylinder

Wall mounted · Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount up/downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

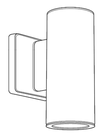
Number of Modules	2
Input Power	24w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	1766/73 (LM-79) per module
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563001-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 8-1/4"
H/CTR: 5"



marketLITE™

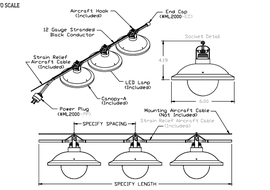
Manufactured in the U.S.A.

MODEL NUMBER: **ML2000-CA**

FINISH TYPE:

1 of 2

NOT TO SCALE



FEATURES

APPLICATIONS	Indoor and Outdoor
VOLTAGE	120V
LAMP	LED Lamp Included
DIMMING	Forward Phase
WATTS	1W or 3W
LENGTH	Built to Order
FINISH	Black
FEED	Standard 6' Leads
STRAIN RELIEF	Aircraft Cable Included
MOUNTING	Aircraft Cable Not Included
LISTING	Dry or Wet Location (ANSI/UL1598 CSA 22.2 No. 250.0-04, 2nd Edition
OPTIONS	Mesh, Cages, Canopies
LED LAMP LIFE	50,000 hrs. (GSF, GSC, SSF, SSC) 20,000 hrs. (GSFL)
UV RATING	SunLight Resistance
MAXIMUM RUN	250 Feet

APPLICATIONS

Designed for indoor and outdoor use, *marketLITE* is ideal for many applications including the amusement, recreation, and architectural industries.

marketLITE is used in: Restaurants, Casinos, Street Decorations, Amusement Parks, Shopping Malls, Promenades, and more.

ELECTRICAL

marketLITE with LEDs is available in 120 Volts. *marketLITE* is a 20 amp system (12 gauge wire). No transformers or drivers are required.

INSTALLATION

marketLITE is an easy-to-install lighting product that can be field cut to meet your lighting requirements. See installation instructions for additional details.

LED SPECIFICATIONS

LAMP NUMBER	DESCRIPTION
LED-2.4K*1	2400K Warm White
LED-2.7K	2700K Warm White
LED-3.0K*1	3000K Warm White
LED-5.0K	5000K Cool White
LED-A*1	Amber
LED-R*1	Red
LED-G*1	Green
LED-B*1	Blue

Note: MarketLITE can be hardwired for Dry and Wet Location
See installation instructions for additional information

ACCESSORIES (Not included)

End Cap (#ML2000-EC)

Power Plug (#ML2000-PP)

Mounting Aircraft Cable (#ML2000-AC-1/8")

SPECIFY PRODUCT CODE (Use drop down menu to complete table or fill in the blanks)

ML2000-CA - ____ - ____ - ____ - ____ - ____ - ____

SERIES	SPACING	LAMP	LAMP TYPE	DRY OR WET	DIMMING	CANOPY INSIDE	CANOPY OUTSIDE
Ex: ML2000-CA	*12"*	*LED-2.7K*	*GSF**	*WET*	*DM*	*BK*	*BK*
ML2000-CA	12" O/C	LED-2.4K*1	GSF*2	Indoor (DRY)	Forward Phase (DM)	Natural (NA)	Natural (NA)
	18" O/C	LED-2.7K	GSC			Polished (PA)	Polished (PA)
	24" O/C	LED-3.0K*1	GSFL	Outdoor (WET)		White (WH)	White (WH)
	36" O/C	LED-5.0K	SSF		Leave blank for Non-Dimming	Black (BK)	Black (BK)
	48" O/C	LED-A*1	SSC			Green (GN)	Green (GN)
	60" O/C	LED-R*1				Bronze (BR)	Bronze (BR)
		LED-G*1				Satin (SA)	Satin (SA)
		LED-B*1				Silver (SR)	Silver (SR)
						Red (RD)	Red (RD)

*1 Standard bulb if left blank
*2 Only available in GSFL
*3 Only available in SSC and GSC

CALIFORNIA ACCENT LIGHTING, INC.
2034 E. Lincoln Ave. #431, Anaheim, CA 92806
ph. 800.921.CALI (2254) or 714.535-7900 \ fx. 714.535.7902
info@calilighting.com \ calilighting.com

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2017.12.04 B2

FIXTURE TYPE SE4
N.T.S.

FIXTURE TYPE SE5
N.T.S.

FIXTURE TYPE SE6
N.T.S.

Catalog # :	Project :
Prepared By :	Date :

LCD4
4" LED Commercial Downlight

4 inch LED new construction downlight delivers superior performance and energy efficiency. Designed to use anodized aluminum reflectors delivering even illumination and low glare. The high performance luminaire offers 1000 up to 2000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K at 80 CRI. Standard driver offers universal (120-277V) and 0 -10V dimming down to 1%. The LCD series is ideal for low to medium ceiling heights for retail, hospitality and commercial applications.

Origin™

Features & Specifications

Optical System

- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Available in 4000K, 3500K, 3000K, and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80.

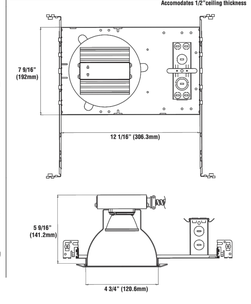
Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Compatible with Triac (forward-phase or leading-edge), ELV (reverse-phase or trailing edge) dimming only at 120 Vac.
- Driver can be accessed from below plenum for servicing.
- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) field installed is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance,To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions located on website.

Title 24 2013 · ETL Intertek · Dimmable · RoHS COMPLIANT · damp location

Dimensions

Accomodates 1/8" ceiling thickness



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LCD4
4" LED Commercial Downlight

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **LCD4 LED 24L UNV DIM1 35 NF TR4R HAZ**

Family/ Size	LED Gen	Lumen Package	Voltage	Driver	Color Temperature	CRI	Beam Optics[2]
LCD4 - 4" New Construction[1]	**LED**	**10L** - 1400 **24L** - 2400	**UNV** - 120-277V	**DIM1** - Dims to 1% (0-10V dimming)	**27** - 2700K **30** - 3000K **35** - 3500K **40** - 4000K	**Blank** - 80 CRI	**NF** - Spot **MF** - Narrow Flood **FL**[3] - Wide Flood **WF** - Wide Flood

	Reflector	Finish
Self-Flange	TR4R - Open Reflector	**SF HAZ** - Haze semi- diffused
		SF SPC - Specular clear
	TR4RWW - Wall Wash[4]	**SF HAZ** - Haze semi-diffused
Flangeless (ship standard w/ white plastic trim ring)	TR4R - Open Reflector	**HAZ** - Haze semi-diffused, white trim ring
		SPC - Specular clear, white trim ring
	TR4RFL - Frosted Floating Lens[5]	**HAZ** - Haze semi-diffused Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible)
		SPC - Specular Clear Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional ring not compatible)
	TR4RWW - Wall Wash[4]	**HAZ** - Haze semi-diffused wall wash reflector, white trim ring
	TR4B - Baffle	**HAZ** - Haze semi-diffused reflector	**WH** - White baffle and white trim ring
			BL - Black Baffle and white trim ring
	TR4BL - Baffle w/ Regressed Lens[6]	**HAZ** - Hazed semi-diffused	**WH** - White baffle and white trim ring
		SPC - Specular clear	**BL** - Black baffle and white trim ring
	TR4RL - Regressed Lens[6]	**HAZ** - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring
		SPC - Specular clear reflector w/ specular clear regressed lens and white trim ring

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
WH - White metal trim ring (only compatible w/flangeless trims)	616105
EM - Emergency Battery	616633

NOTES:
1. Regressed lens trims are wet location listed. All other trims are rated for damp location.
2. TR4WW wall wash reflector comes with 40° integrated optic; additional beam optics not compatible
3. TR4RFL frosted floating lens comes with integrated white metal trim; accessory white metal trim ring not required)
4. Housing can ship ahead of the light-engine and reflector
5. 90 CRI requires 55 day leadtime & 100 MOQ, Consult Factory
6. Refer to IES Files for Beam Spread.

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FIXTURE TYPE SE8
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303.325.3271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E3

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

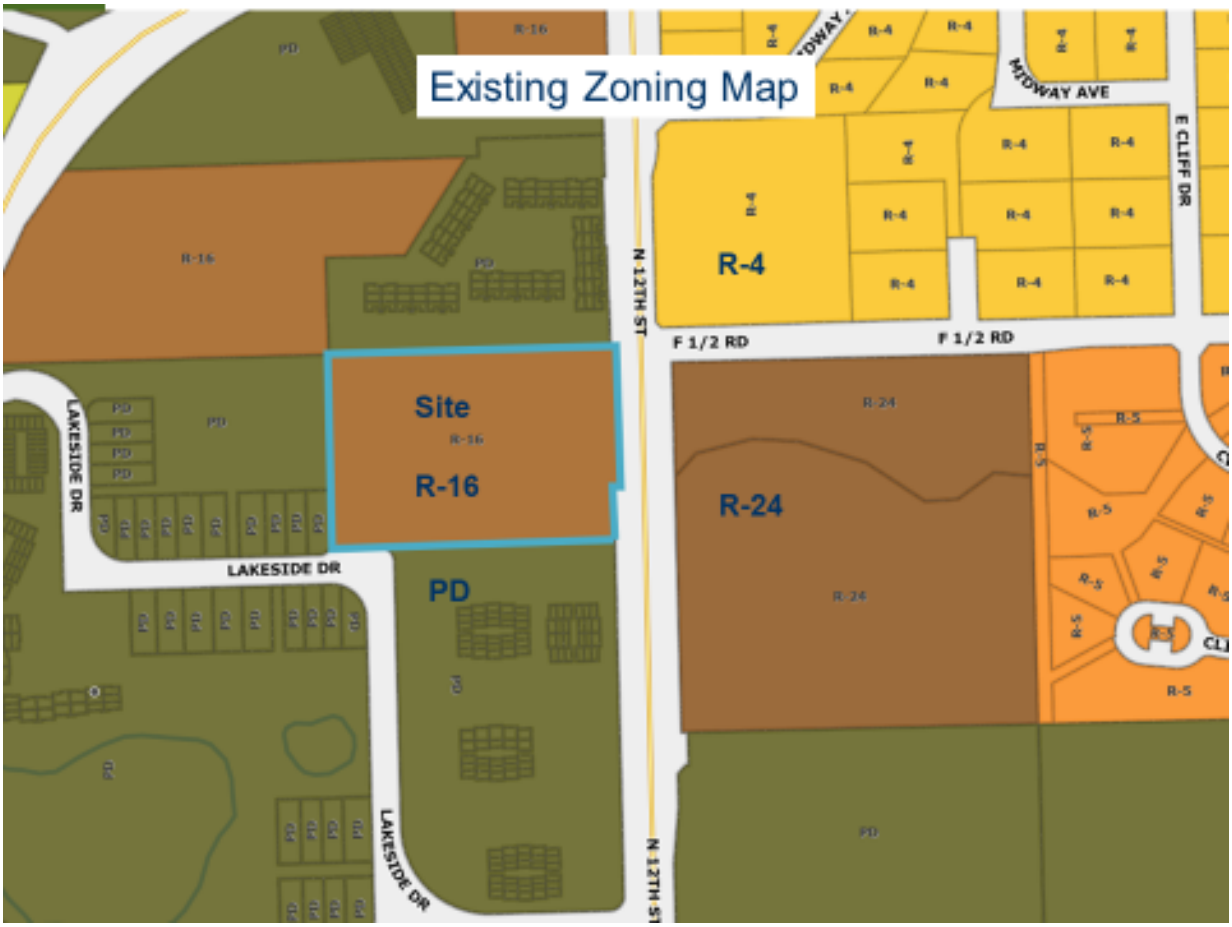
CITY PLANNER DATE

C:\Users\jonk\appdata\local\temp\AcPublish_9592\PH-DETAILS 2.dwg jonk 07.11.19 1:48 pm

Exhibit 7

Site Location Map
MIDWAY AVE
N 12TH ST
F 1/2 RD
F 1/2 RD
Unity Church
Site
LAKESIDE DR
LAKESIDE DR
The Atrium of Grand Valley
Lakeside Subdivision
Primary Care Partners

Closer Aerial Photo
3205
Site
LAKESIDE DR


Existing Zoning Map
Site
R-16
R-4
R-24
PD
LAKESIDE DR
N 12TH ST
F 1/2 RD
MIDWAY AVE
E CLIFF DR

View of property from Lakeside Drive

Exhibit 8

RECORDING MEMORANDUM
ALTERNATIVE PARKING PLAN

City of Grand Junction
Community Development Department
File: # SPN-2019-174

This memorandum relates to the Karis Apartments located at 3205 North 12th Street located in the City of Grand Junction, Colorado ("PROJECT") whereby 34 multi-family dwelling units are proposed for Low Income residents. This project has provided documentation and analysis that the PROJECT will create a lower parking demand than is otherwise required by the City Zoning and Development Code.

This Memorandum shall serve as notice to prospective purchasers of the PROJECT that the parking on the project does not meet City standards for multi-family and a change of use or change of purpose from low income housing owned and operated by Karis, Inc. may require additional parking to be constructed.

1. City Code at time of PROJECT approval requires 43 parking stalls.

2. An Alternative Parking Plan providing 23 standard parking stalls and 2 ADA parking stalls has been approved.

NOW THEREFORE, the Owner of the PROJECT and an official of the City of Grand Junction, both possessing and representing by their signatures that they possess sufficient authority, do hereby agree to the statements herein and to the recording of this memorandum with the Mesa County Clerk and Recorder.

City of Grand Junction: _____ Date: _____

Owner: _____ Date: _____

Printed Name: _____

SYSTEM MAP

Exhibit 9

Grand Valley Transit

TRANSFER FACILITY ROUTE SCHEDULES	ARRIVE	DEPART	FIRST	LAST
DOWNTOWN FACILITY				
1 3 5 6 7 9 11	:05	:15	5:15 AM	7:15 PM
The Dash 4:15pm-12:05am Thursday, Friday, & Saturday 1	:05 & :35	:15 & :45	4:15 PM	12:15 AM
WEST FACILITY				
2	:10	:15	6:15 AM	7:15 PM
8	:35	:45	4:45 AM	7:45 PM
7 11	:35	:45	5:45 AM	7:45 PM
CLIFTON FACILITY				
4 10	:35	:45	4:45 AM	7:45 PM
2 3 9	:35	:45	5:45 AM	7:45 PM

SOCIAL SECURITY OFFICE
Service Only Mon/Tue/Thu/Fri
8:00AM-5:00PM
Wed 8:00AM-1:00PM

ROUTES / LEGEND / TIME SCHEDULE

- 1 Airport & The Dash
- 2 Patterson Road
- 3 Orchard Avenue
- 4 Palisade
- 5 Midtown
- 6 Orchard Mesa
- 7 College Connector
- 8 Fruita
- 9 North Avenue
- 10 Clifton
- 11 Shopping Malls

Bus stop
Arrow indicates street side
Color indicates route

Stop serves multiple routes
One direction only
Transfer location
School
Fire station
Medical facility
Police station
Parks

:05 :15 :25 :35 :45 :(Minutes after every hour
note first and last route times

Ottley Ave
K Road
Shelledy Elementary
Colorado Canyons
Fruita Middle
Maple St
Pabor Ave
Aspen Ave
Rimrock Elementary
Coulson Ave
Plum St
Elm St
McCune Ave
Sycamroe St
Pine St
J 2/10 Rd
Jurassic
Kokopelli Blvd
J Rd
Fruita Monument High
Fruita 8-9
City of Fruita

Grand Junction Regional Airport
N Crest Dr
Walker Field Dr
Crossroads Blvd
IntelliTec College
Horizon Drive
Horizon Drive @ SAFEWAY

Arrowest Rd
23 Rd
& 20 Rd
& 22 Rd (Pilot)
Fruita
G Rd
Community Hospital
24 Rd
F 1/2 Rd
Market St
Caprock Academy
G Road
24 1/2 Rd
25 Rd
Juniper Ridge
Western Colorado Community College
F 1/4 Rd
Blichman Ave
Foresight Circle
Patterson Rd
MESA MALL
WEST TRANSFER FACILITY
24 1/2 Rd
Frontage Rd
Independent Ave
GRAND MESA CENTER
Community Food Bank
25 1/2 Rd
W Pinyon Ave
Pomona Elementary
St. Mary's Hospital
Bookcliff Ave
Tope Elementary
West Middle School
1st St
Orchard Ave
GJHS
Sherwood
Independent Ave
Rimrock Ave
Base Rock St
Maldonado St
Colorado River
W Gunnison Ave
Mulberry Ave
Power Rd
Broadway Ave / Hwy 340
D.J. Academy
1st St
4th St
5th St
7th St
Colorado Mesa University
12th St
15th St
VA Medical Center
Grand Ave
Main St
Ute Ave
Pitkin Ave
South Ave
DOWNTOWN TRANSFER FACILITY
Grand Junction
Riverside Parkway
5th St
Gunnison River
Santa Clara Ave
New Emerson Elementary
Orchard Mesa Middle School
Unaweep Ave
Linden Ave
B 3/4 Rd
27 Rd
27 1/2 Rd
Dos Rios Elementary
B 1/2 Rd
27 3/4 Rd
Lincoln Orchard Mesa Elementary
28 1/2 Rd
29 Rd
Chipeta Golf Course
Mesa View Elementary
Hermosa Ave
12th St
27 1/2 Rd
Wellington Ave
Walnut Ave
Orchard Ave Elementary
20th
Orchard Ave
Nisley Elementary
28 1/4 Rd
28 3/4
North Ave
23rd St
24th St
Bookcliff Middle
29 Rd
Community Services Campus
Independence Academy
Patterson Rd
Fruitvale Elementary
29 1/2 Rd
30 Rd
31 Rd
Thunder Mountain Elementary
31 1/2 Rd
Grand Mesa Middle School
32 Rd
Central High
E 1/2 Rd
F Rd
CLIFTON TRANSFER FACILITY
I-70B
E Rd
32 1/2 Rd
33 Rd
Chatfield Elementary
Carson Lake
Rocky Mtn Elementary
D 1/2 Rd
Pear Park Elementary
D Rd
32 1/2 Rd
Clifton Elementary
1st St
Front St
33 Rd
34 Rd
34 1/2 Rd
Mt Garfield Middle
35 Rd
Palisade →

Need a closer look? Call GVT today to request a large format print of this map, or view our system wide map online at http://gvt.mesacounty.us/maps/
¿Necesitas una mirada más cercana? Llame a GVT hoy mismo para solicitar una impresión en gran formato de este mapa, o vea nuestro mapa de todo el sistema en línea en http://gvt.mesacounty.us/maps/

Town of Palisade
G Rd
36 Rd
Front St
35 1/2 Rd
Palisade High School
1st St
3rd St
7th St
Main St
Elberta Ave
Crawford Ln
Kluge Ave
Iowa Ave
Bower
Taylor Elementary
Pendleton St
Colorado River

Downtown Grand Junction
Independent Ave
Rimrock Ave
Base Rock St
Maldonado St
Mulberry Ave
W Gunnison Ave
Belford
GJHS
Colorado Mesa University
East Middle School
Chipeta Elementary
Lincoln Park Elementary
RS H.S.
North Ave
VA Medical Center
Grand
Main St
Ute Ave
Pitkin Ave
South Ave
Dual Immersion Academy
Amtrak Station
Greyhound & Bustang Station
DOWNTOWN TRANSFER FACILITY

NORTH
1/2 Mile

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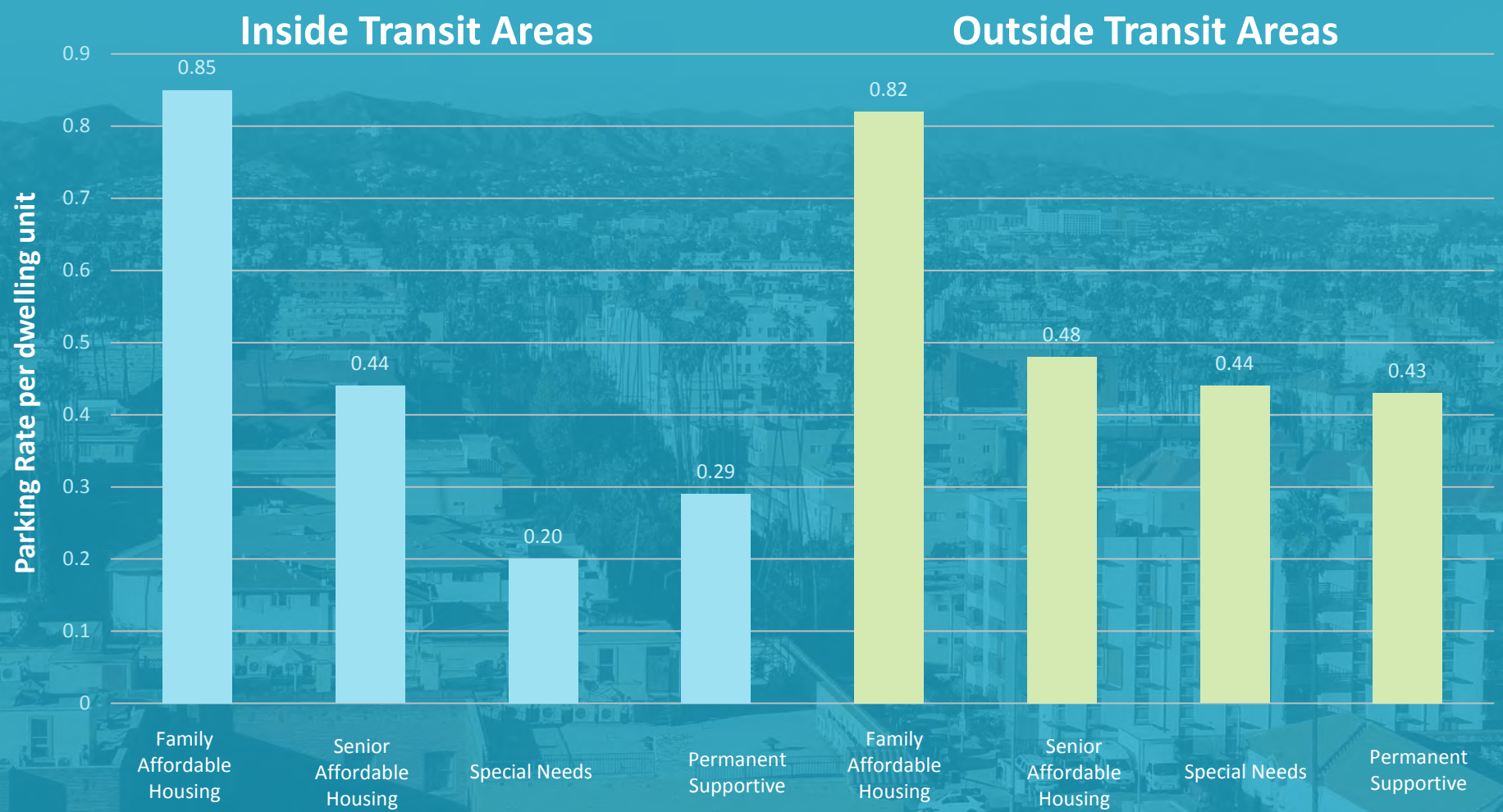
Exhibit 10

LA Affordable Housing Parking Rates



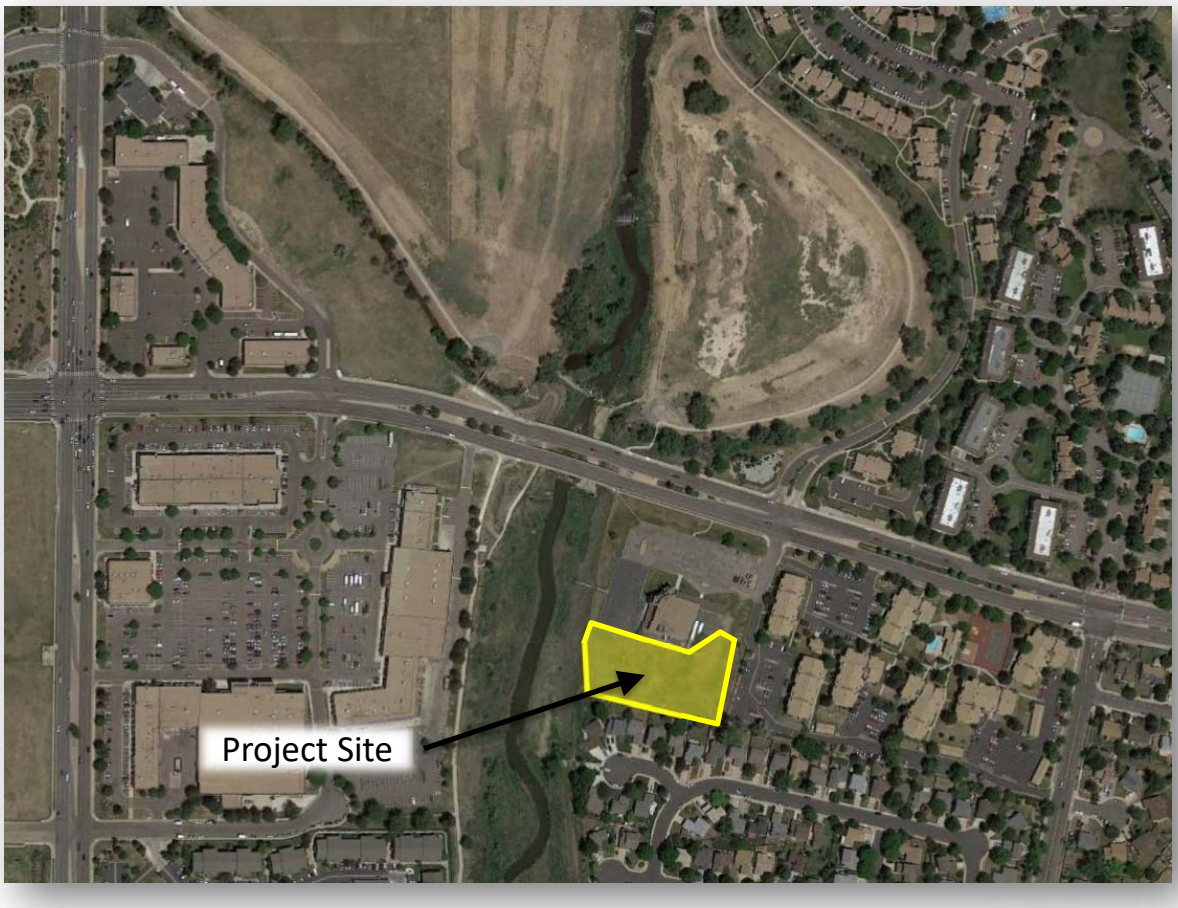
Measuring the Miles

Exhibit 11

Providence at the Heights

TRAFFIC IMPACT STUDY

Aurora, CO



PREPARED FOR:

Providence Heights, LLLP
9722 East 16th Avenue | Aurora | CO 80010

COLORADO LICENSED
CASSANDRA R. SLADE
44414
PROFESSIONAL ENGINEER

PREPARED BY: Cassie Slade, PE
ORIGINAL DATE: March 9, 2018
UPDATED DATE: May 22, 2018
FTH PROJECT: #18018

FOX TUTTLE HERNANDEZ
TRANSPORTATION GROUP

P.O. BOX 19768, BOULDER, CO 80308-2768
PHONE: 303-652-3571 | FAX: 303-652-6574

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APPENDIX

Level of Service Definitions
Existing Traffic Data
Research Data
Intersection Capacity Worksheets
Shared Parking Agreement

PROVIDENCE AT THE HEIGHTS APARTMENTS

TRAFFIC IMPACT STUDY

1.0 INTRODUCTION

The Fox Tuttle Hernandez Transportation Group has prepared this traffic impact study for a proposed affordable housing project in Aurora, CO. The project site is located east of Chambers Road along Alameda Parkway, just south of the existing Elevation Christian Church. The Providence at the Heights project proposes to develop an apartment building to provide permanent supportive housing for those at or below 30% of the area median income (AMI).

The purpose of this study is to assist in identifying potential traffic impacts within the study area as a result of this project. The traffic study addresses existing, short-term (Year 2020), and long-term (Year 2040) peak hour intersection conditions in the study area with and without the project generated traffic. The information contained in this study is anticipated to be used by the City of Aurora in identifying any intersection or roadway deficiencies and potential improvements for the future scenarios.

The traffic impact study is consistent with the City of Aurora requirements as defined in the *Traffic Impact Study Guidelines (June 2015)* and addresses the comments provided by City staff in the pre-application meeting (November 2017).

2.0 PROJECT DESCRIPTION

The project proposes to construct 50 multi-family units (40 one-bedroom units and 10 two-bedroom units) on currently undeveloped land. There will be on-site counseling service for residents as well as other support services. Access to the site is planned via one proposed driveway onto the local street that currently serves the Elevation Christian Church and Terrace Park apartments and connects to Alameda Parkway. The proposed driveway will lead into the parking aisle for the multi-family housing and provide pedestrian access to the existing sidewalks. A vicinity map is shown on **Figure 1**. The site and access plan is provided on **Figure 2**.

3.0 DATA COLLECTION

Weekday AM and PM peak hour turning movement volumes were collected in late February 2018 at one existing intersection. Average daily traffic (ADT) counts were collected for 24-hours on Alameda Parkway and on the local access street adjacent to the church. Historic and projected traffic volumes for the arterial was gathered from the City database and the DRCOG forecasting models. The existing traffic volumes are illustrated on **Figure 3**. The existing intersection geometry and traffic control are also shown on this figure. Count data sheets are provided in the **Appendix**.

4.0 EXISTING CONDITIONS

4.1 Roadways

The study area boundaries are based on the amount of traffic to be generated by the project and potential impact to the existing roadway network. The existing study area street network consists of one major arterial and one local street as shown on **Figure 1**. The primary public roadways that serve the project site are discussed in the following text:

Alameda Parkway is a six-lane east/west major arterial that provides regional access through the City of Aurora. This roadway connects neighborhood communities to the Civic Center, Town Center Mall, and I-225. The posted speed limit is 40 miles per hour (mph) near the site. Alameda Parkway currently serves approximately 32,300 vehicles per day (vpd) just west of Joplin Street/Elevation Christian Church Access. Just east of Airport Boulevard/Buckley Road, Alameda Parkway currently serves approximately 26,600 vpd. Alameda Parkway is approximately 86-feet wide adjacent to the Elevation Christian Church property, which includes 11-foot travel lanes, three per direction, and a 20-foot center median/left-turn lane. This roadway is the northern boundary of the study area.

Joplin Street is a north/south, two-lane local street that extends north of Alameda Parkway into multi-family communities. There is indirect access to Airport Boulevard if Joplin Street were used as a cut-through route. The posted speed limit is 25 mph and there are speed bumps along the way. Joplin Street aligns with the existing Elevation Christian Church access, but it is not anticipated to serve the traffic of the proposed housing residents.

Elevation Christian Church/Terrace Park Apartments Access *(referred to as Access Street in the report)* is a two-lane private street that provides access to Alameda Parkway. The project proposes to add an access to this street just south of the church. The posted speed limit is 25 mph and it serves approximately 850 vpd.

4.2 Intersections

The study area includes one existing intersection: Alameda Parkway at Joplin Street/Access Street. This intersection is side-street stop-controlled with full-movement access. The existing lane configuration is illustrated on **Figure 3**.

4.3 Pedestrian and Bicycle

There are many walkable and bikeable destinations including neighborhood retail (0.25 miles), civic services at the municipal center (0.50 miles) and regional commercial and retail (1.0 miles) near the site. Currently, Alameda Parkway provides an attached sidewalk on both sides (ranging from five feet to 10 feet) and there are no sidewalks along the church/apartment access road. There are no designated on-street bike facilities on Alameda Parkway near the proposed development site; however, it is not illegal in the City of Aurora for people to bike on the sidewalks. There is an on-street bike lane on Kalispell Way, which is located just east of the existing Terrace Park Apartments.

Adjacent to the project site is the TollGate Creek, which has a multi-use trail on the west side of the creek that can be accessed via the sidewalk on Alameda Parkway. The Toll Gate Creek Trail leads south to other recreational areas and trails throughout the City of Aurora, including the Cherry Creek Reservoir. At Alameda Parkway, the Toll Gate Creek Trail travels north under the roadway to link to the 71-mile regional multi-use path, the Highline Canal Trail as well as the Colorado Front Range Trail. Both multi-use trails provide local and regional connections to neighborhoods, civic centers, commercial developments, and transit services.

4.4 Transit

The project site is located less than 500 feet from two existing bus stops along Alameda Parkway with service via the 3L and 133 routes. These bus routes provide connectivity to retail, civic and employment centers in the City of Aurora and connectivity to the regional Front Range area. The Aurora Metro Center R-Line is located less than one mile from the site. Currently, there are four bus routes that serve the area near the project site and link to local and regional destinations as described on the following page.

- **Route 3L (East Alameda Limited)** – Connects the east Alameda Parkway community to the Aurora Metro Center Station (light rail and transit hub), Havana & Alameda park-n-ride, Cherry Creek Shopping Center, and downtown Denver Civic Center Station. Route 3L travels along Alameda Parkway through Aurora and Alameda Avenue through Denver. Route 3L has bus stops on Alameda Parkway just east of the Access Street.

- **Route 133 (Hampden/Tower)** – Loops through the City of Aurora connecting the Nine Mile Station (light rail and transit hub) to the Aurora Metro Center Station (light rail and transit hub). Route 133 travels along Tower Road and winding to Buckley Road to then access Alameda Parkway. There are bus stops near the project site on Alameda Parkway just east of the Access Street (same stops as for Route 3L).

- **Route 169 (Buckley Road)** – Connects the Arapahoe Crossing Shopping Center in south Aurora to the 40th Avenue & Airport Road Station (light rail and transit hub). Route 169 travels along Buckley Road/Airport Boulevard and has bus stops north and south of Alameda Parkway, which is roughly ¾ mile to the east of the proposed project access.

- **Route 169L (Buckley Road / Tower DIA Limited)** – Extends Route 169 to the north to connect to Denver International Airport. This route has the same bus stops as Route 169 on Buckley Road and Airport Boulevard.

5.0 FUTURE CONDITIONS

5.1 Annual Growth Factor and Future Volume Methodology

In order to forecast the future peak hour traffic volumes, background traffic growth assumptions were estimated based on a variety of resources: the Denver Regional Council of Governments (DRCOG) regional FOCUS model, City of Aurora historic traffic volumes, and previous traffic impact studies near the study area. Based on the data, a 1% annual growth rate[1] was assumed to provide a conservative evaluation of future traffic within the vicinity of the project.

[1] DRCOG Focus Model had the following daily volume estimates: Year 2015 – 38,024; Year 2035 – 44,662; Year 2040 – 45,317. This equates to a 0.8% annual growth to Year 2035 and 0.7% to Year 2040.

The estimated trips for the East Creek project and the recently studied development in the northeast corner of Alameda Parkway at Airport Boulevard/Buckley Road were also added to the background traffic. Trips were assigned as documented in the traffic impact studies: *East Creek Traffic Impact Study (LSC, 2017)* and *Northeast Corner of Alameda Parkway at Airport Boulevard/Buckley Road Development Traffic Impact Study (FTH, 2018, under review by the City)*. Both projects plan to construct mixed-use developments.

This study developed future traffic volumes from the annual growth rate and approved developments to determine the short-term (Year 2020) and long-term (Year 2040) conditions. The Year 2020 background traffic is summarized on **Figure 4** and Year 2040 background traffic is summarized on **Figure 5**.

6.0 FUTURE CONDITIONS WITH DEVELOPMENT

6.1 Literature Review

The *Institute of Transportation Engineers (ITE) Trip Generation Manual*[2] is the national standard for estimating trips generated by new developments and is based on data collected by transportation professionals across the country. This methodology has limitations regarding the sensitivity to socio-demographics, non-auto transportation choices, lower-income impacts, and proximity to urban areas.

Affordable housing projects typically generate less automobile trips than most other residential sites. Professionals across the country have been studying the transportation impact for a variety of housing types based on income, socio-demographics, vehicle ownership, and proximity to transit services.

Majority of the studies were conducted in California and a few of the studies specifically studied supportive housing. A research group out of Portland studied data from the 2010-2012 California Household Travel Survey to investigate the differences in transportation impacts between residents of affordable and market-rate housing. The study was published in *The Journal of Transportation and Land Use*[3] and estimated the trip reduction rates by income level.

---

[2] Trip Generation 10th Edition, Institute of Transportation Engineers, 2017.

[3] Howell, A., Currans, K., Gehrke, S., Norton, G., and Clifton, K., Transportation Impacts of Affordable Housing: Informing Development Review with Travel Behavior Analysis, The Journal of Transport and Land Use, Volume 11 No. 1, pp. 103-118. Available January 2018.

Providence at the Heights aims to serve those individuals with an income of 30% of the AMI or less; the study identifies this level as "extremely low-income". Based on the data in the travel survey, the daily automobile trip generation for multi-family dwellings (apartment or townhome) in urban districts with extremely low-income represent 37% of the daily trips for 'above moderate income' dwellings located in a suburban neighborhood.

The City of Los Angeles staff gathered similar vehicle trip data at affordable housing throughout the city for families, seniors, special needs, and permanent supportive housing for an update to their *Transportation Impact Study Guidelines (LADOT, December 2016)*[4]. The City's study determined that supportive housing has a daily rate of 1.27 vehicle trips per dwelling unit, which is 20% of the ITE daily rate for a low-rise multi-family housing. In summary, the existing research found that affordable multi-family housing generates vehicle trips at a rate of 20% and 37% of the national standard defined in the *ITE Trip Generation Manual*.

6.2 Trip Generation

A trip generation estimate was performed to determine the traffic characteristics of the proposed Providence at the Heights. Based on the literature review, it was confirmed that affordable housing projects generate fewer trips due to limited means which creates fewer choices in how the individuals can travel. The vehicle trip generation rates established by the LADOT were multiplied by the proposed number of dwelling units to estimate the trips associated with Providence at the Heights, as shown in **Table 1**.

The proposed project is expected to experience mostly new trips, known as 'primary trips', as discussed below:

> Primary Trips. These trips are made specifically to visit the site and are considered "new" trips. Primary trips would not have been made if the proposed project did not exist. Therefore, this is the only trip type that increases the total number of trips made on a regional basis.
>
> Non-Auto Trips. These trips are those that are completed by walking, biking, or transit. The existing transit, pedestrian, and bicycle amenities will encourage residents and employees to make non-auto trips to/from the apartments. According to the travel patterns of the existing Second Chance Centers around Aurora and Denver, 75% of the clients ride the bus, walk or bike to their destinations. The Providence at the Heights

[4] City of Los Angeles Transportation Impact Study Guidelines, Los Angeles Department of Transportation, 2016.

affordable apartments are located near transit services and walkable/bikeable destinations. The rate provided by the LADOT accounts for non-auto trips; therefore, an additional reduction was not applied.

Table 1 provides the trip generation estimate for the proposed development. The Providence at the Heights affordable housing was estimated to generate the following new vehicular trips by residents, visitors, volunteers, and employees:

- 64 average daily automobile trips
- 6 weekday AM peak hour automobile trips
- 6 weekday PM peak hour automobile trips

6.3 Trip Distribution and Assignment

The estimated trip volumes were distributed onto the study area street network based on existing traffic characteristics, land uses, and traffic patterns in the area, as well as location of potential employment areas. The overall assumed distributions are listed, as well as presented on **Figures 6**:

- 50% to/from East Alameda Parkway (East Aurora, Business/Industrial Park along I-70, and possibly Denver International Airport)
- 50% to/from West Alameda Parkway (Aurora Civic Center, Town Center Retail, Medical Campus, R-Line Light Rail, I-225 to Denver)

Using the distribution assumptions, the projected site traffic was assigned to the study area roadway network for the weekday AM and PM peak hours. The site-generated volumes are shown on **Figure 6**.

7.0 EVALUATION

It should be noted that the existing peak hour factor (PHF) per approach was utilized in the existing and 2020 scenarios. For Year 2040 scenarios, the average intersection PHF was inputted unless the approach's existing PHF is greater than the average intersection. Data is unavailable regarding the percent of heavy vehicles on Alameda Parkway. CDOT data from 6th Avenue and Parker Road were reviewed, and it was assumed that Alameda Parkway has 4%

heavy vehicles. The turning and side-street movements were assumed to have 1% heavy vehicles.

7.1 Level of Service Capacity Analysis

The traffic operations analysis addressed intersection operations using the procedures and methodologies set forth by the *Highway Capacity Manual (HCM)*[5]. Study intersections were evaluated using Synchro (version 9) software. A level of service analysis was conducted to determine the existing and future performance of the study intersection and to determine the most appropriate lane configuration and traffic control device.

To measure and describe the operational status of an intersection, transportation engineers and planners commonly use a grading system referred to as "Level of Service" (LOS) that is defined by the *HCM.* LOS characterizes the operational conditions of an intersection's traffic flow, ranging from LOS A (indicating very good, free flow operations) and LOS F (indicating congested and sometimes oversaturated conditions). These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with traveling through the intersection. LOS is represented as a delay in seconds per vehicle for the intersection as a whole and for each turning movement.

Typically, LOS A through C is considered to be good for the overall intersection operations and the desired standard for overall intersection performance is LOS D, while individual movements may be allowed to fall to LOS E depending on the circumstances per the City of Aurora's *Traffic Impact Study Guidelines (Year 2015)*. At stop-controlled intersections the left-turns onto major arterials may be allowed to fall below LOS D depending on the situation. Criteria contained in the *HCM* was applied for these analyses in order to determine existing and future peak hour LOS. A more detailed discussion of LOS methodology is contained in the **Appendix** for reference.

5 Highway Capacity Manual, Highway Research Board Special Report 209, Transportation Research Board, National Research Council, 2010.

7.2 Year 2018 Existing Intersection Capacity Analysis

The existing volumes, lane configuration, and traffic control are illustrated on **Figure 3**. The results of the LOS calculations for the study intersections are summarized in **Table 2**. The intersection level of service worksheets are attached in the **Appendix**.

Overall, the study intersection of Alameda Parkway at Joplin Street/Access Street operates at LOS A in both peak hours; however, the side-street left-turns currently operate at LOS F in both periods. A summary of the operations of the critical movements associated with the proposed development are listed below:

- *Eastbound Through + Right* – operates at LOS A in both peak periods with an estimate of zero delay and queues less than 15 feet (less than one vehicle).

- *Westbound Left* – operates at LOS A in the AM peak hour and LOS B in the PM peak hour with the 95th percentile queues measuring 25 feet or less (less than one vehicle). The existing storage length is 120 feet with a 50-foot taper located in the existing raised median.

- *Northbound Left* – operates at LOS F in both peak hours. The 95th percentile queue is estimated to be 38 feet (about two vehicles) in the AM peak hour and 74 feet (about three vehicles) in the PM peak hour. The queues do not impact the arterial operations but temporarily block the access into the Terrace Apartments north parking lot. This parking lot has direct right-out access onto Alameda Parkway just 215 feet to the east of the study intersection.

- *Northbound Through + Right* – operates at LOS A in the AM peak hour and LOS B in the PM peak hour. The 95th percentile queue is estimated to be 30 feet (about one vehicle) in the AM peak hour and 112 feet (about five vehicles) in the PM peak hour. The northbound approach does not have pavement markings to distinguish lanes; however, it is wide enough to accommodate two outbound lanes allowing through and right-turn movements to be minimally impacted by left-turns.

Recommendation: No mitigation measures recommended. High side-street approach delays during both peak hours are typical of unsignalized approaches along a major arterial roadway. The side-street volumes are not yet approaching traffic signal warrant thresholds.

7.3 Year 2020 Background Intersection Capacity Analysis Without Project

The study area intersections were evaluated to determine baseline operations for the Year 2020 background scenario and to identify any capacity constraints associated with background traffic. As discussed in **Section 5.0**, the background traffic was estimated by growing the existing traffic and adding the development trips from East Creek and NE Corner of Alameda Parkway/Airport Boulevard. The Year 2020 background volumes, lane configuration, and traffic control are illustrated on **Figure 4**.

The level of service criteria discussed previously was applied to the study area intersections to determine the impacts with the short-term background volumes. The results of the LOS calculations for the intersections are summarized in **Table 2**. The intersection level of service worksheets are attached in the **Appendix**.

Overall, the study intersection of Alameda Parkway at Joplin Street/Access Street is anticipated to operate at LOS A in both peak hours; however, the side-street left-turns continue to operate at LOS F in both periods. A summary of the short-term future operations of the critical movements is as follows:

- *Eastbound Through + Right* – will continue to operate at LOS A in both peak periods with queues less than 26 feet (about one vehicle).

- *Westbound Left* – will continue to operate at LOS A in the AM peak hour and begin to operate at LOS C in the PM peak hour. The 95th percentile queues are anticipated to be similar to existing conditions.

- *Northbound Left* – will continue to operate at LOS F in both peak hours. The 95th percentile queue is estimated to be 51 feet (about two vehicles) in the AM peak hour and 85 feet (about four vehicles, one more than existing) in the PM peak hour.

- *Northbound Through + Right* – will begin to operate at LOS B in the AM peak hour and remain LOS B in the PM peak hour. The 95th percentile queue is the same as existing in the AM peak hour (30 feet, about one vehicle) and 179 feet (about seven vehicles, two more than existing) in the PM peak hour.

Recommendation: No mitigation measures recommended. High side-street approach delays during both peak hours are typical of unsignalized approaches along a major arterial roadway. The side-street volumes are not approaching traffic signal warrant thresholds. If

the delay on the northbound approach becomes uncomfortable, the drivers can access Alameda Parkway via Kalispell Way, to the east, by utilizing the Terrace Park Apartments internal roadway. Kalispell Way is a two-lane collector street that has a signal at the intersection with Alameda Parkway.

7.4 Year 2040 Background Intersection Capacity Analysis Without Project

The study area intersections were evaluated to determine baseline operations for the Year 2040 background scenario and to identify any capacity constraints associated with background traffic. The Year 2040 background volumes, lane configuration, and traffic control are illustrated on **Figure 5**.

The level of service criteria discussed previously was applied to the study intersection to determine the impacts with the long-term background volumes. The results of the LOS calculations are summarized in **Table 2**. The intersection level of service worksheets are attached in the **Appendix**.

Overall, the study intersection of Alameda Parkway at Joplin Street/Access Street is anticipated to begin operating at LOS C in the AM peak hour and LOS E in the PM peak hour. The side-street left-turns continue to operate at LOS F in both periods. A summary of the long-term future operations of the critical movements are listed below:

- *Eastbound Through + Right* – will continue to operate at LOS A in both peak periods with queues less than 50 feet (about two vehicles).

- *Westbound Left* – will continue to operate at LOS A in the AM peak hour and LOS C in the PM peak hour. The 95th percentile queues are anticipated to be similar to existing conditions and less than 32 feet (about two vehicles, one more than existing).

- *Northbound Left* – will continue to operate at LOS F in both peak hours. The 95th percentile queue is estimated to be 73 feet (about three vehicles, two more than existing) in the AM peak hour and 74 feet (about three vehicles) in the PM peak hour.

- *Northbound Through + Right* – will continue to operate at LOS B in both peak hours. The 95th percentile queue becomes 113 feet (about five vehicles, four more than existing) in the AM peak hour and 149 feet (about six vehicles, one more than existing) in the PM peak hour.

Recommendation: No mitigation measures recommended. High side-street approach delays during both peak hours are typical of unsignalized approaches along a major arterial roadway. The side-street volumes are not approaching traffic signal warrant thresholds. The southbound approach is just under the peak hour signal warrant threshold in the AM peak hour; therefore, the City of Aurora should monitor the intersection if long-term background traffic growth and operations are realized. If the delay on the northbound approach becomes uncomfortable, the drivers can access Alameda Parkway via Kalispell Way,

7.5 Year 2020 Background + Project Intersection Capacity Analysis With Project

This section discusses impacts associated with the addition of the Providence at the Heights affordable apartment trips in the short-term scenario. The site-generated volumes were added to the projected Year 2020 background volumes and are illustrated on **Figure 7**. The results of the LOS calculations for the study intersections are summarized in **Table 2**. The intersection level of service worksheets are attached in the **Appendix**.

Overall the project trips do not significantly impact the study area for the short-term scenario. All movements will operate with the same LOS letter grade as the Year 2020 background at the study intersection of Alameda Parkway at Joplin Street/Access Street. The proposed access into the proposed apartment complex is estimated to operate overall at LOS A in both peak hours with the 95th percentile queues less than 16 feet (less than one vehicle).

7.6 Year 2040 Background + Project Intersection Capacity Analysis With Project

This section discusses impacts associated with the addition of the apartment trips in the long-term scenario. The site-generated volumes were added to the projected Year 2040 background volumes and are illustrated on **Figure 8**. The results of the LOS calculations for the intersections are summarized in **Table 2**. The intersection level of service worksheets are attached in the **Appendix**.

Due to the predicted high through volume and nearing the capacity of an unsignalized intersection at Alameda Parkway, the south Joplin Street (Access Street) approach will continue to be delayed with additional trips and impacting the overall intersection LOS. The PM peak hour continues to be LOS E and operating similarly to the background condition. Although the northbound delay may be higher with the project trips, the queues remain within three vehicles or less of the queues estimated in Year 2040 background. It should be noted that the side-street volumes do not meet the peak hour signal warrant threshold and drivers have alternative routes if the delay is perceived to be too great.

The proposed access is estimated to operate overall at LOS A in both peak hours with the 95th percentile queues less than 35 feet (about two vehicles).

8.0 QUEUING ANALYSIS

A queuing analysis was performed to determine if the average and 95th percentile queues would be accommodated by the existing or future storage length and if any of the queues impact an upstream intersection/access. **Table 3a** provides the storage lengths or distance to nearest intersection/access, and the average and 95th percentile queues for each scenario as calculated by Synchro and **Table 3b** summarizes the queues from SimTraffic (v9).

The project trips increase queue lengths by three vehicles or less per movement during the weekday peak hours. The additional queue lengths do not require extending existing storage lengths. As shown in **Tables 3a and 3b**, all the queues are shorter than the provided storage length or nearest upstream intersection/access, except those highlighted with **blue bold** font. It should be noted that the 95th percentile queue length is a theoretical queue that is 1.65 standard deviations above the average queue length. In theory, the 95th percentile queue would be exceeded 5% of the time based on the average queue length, but it is also possible that a queue this long may not occur.

9.0 SENSITIVITY ANALYSIS

A sensitivity analysis was performed to provide the City of Aurora additional information if the multi-family apartments generated as many trips as estimated with the ITE *Trip Generation Manual*. Utilizing the ITE equations for multi-family housing (#220) and applying a conservative 15% non-auto reduction, the apartments would generate approximately: 286 average daily trips; 21 weekday AM peak hour trips; 27 weekday PM peak hour trips. **Table 4** provides the trip generation estimate for the proposed development with the ITE equations. The LOS and queue analysis for Alameda Parkway and Joplin Street/Access Street is detailed in **Tables 5 and 6a and 6b**, respectively.

In summary, the additional trips on the northbound approach increase the delays, impacting the overall LOS, and lengthening the queues by up to three vehicles. It should be noted that the 95th percentile queue on the westbound left-turn movement is a maximum of 45 feet which is contained within the existing 110 feet of storage.

The sensitivity analysis does not change the findings and recommendations of this study and would not trigger mitigation measures at the study intersection. The northbound volumes are not approaching signal warrant thresholds and the southbound approach continues to have the higher side-street volume.

10.0 PARKING STUDY

The Providence at the Heights project anticipates impacting 10 existing parking spaces in the church parking lot that will be replaced at 1:1. It is proposed that the site will provide 38 new parking spaces to accommodate residents, visitors, and staff. During the work day, there will be a maximum of five staff members at the Providence at the Heights. In off-peak periods (night and weekends), there will be one security guard.

The following text discusses the City of Aurora requirements, national standard for estimating parking demand, and best practices for adjusting for affordable housing communities.

10.1 City Parking Requirements

The City of Aurora Parking Ordinance requires 1.5 spaces per one-bedroom unit and 2.0 parking spaces per two-bedroom units, plus 1 visitor space per five units, totaling a **code requirement of 90 parking spaces** for the units proposed. A variance is thus required to support the proposed parking reduction.

10.2 Estimated Trips and Peak Parking Demand

It is generally agreed that affordable housing communities generate less automobile trips, and subsequent parking demand, than other residential uses. This observation is supported by various field studies that have been conducted nationally, field studies that we have conducted in the region for other projects, and field studies that Shopworks Architecture has conducted at similar projects in the Aurora and Denver areas. Unfortunately, there is no industry standard for how to reduce typical residential trip generation and parking rates for lower-income residential uses. The reduction of auto trips and parking demand for affordable housing communities is due to these projects typically being located in more urban conditions with better access to transit use and closer proximity to retail, schools, and employment use where non-auto modes can be effectively utilized. Lower-income residents are also less likely to own a vehicle, or multiple vehicles, given these factors as well as the cost of automobiles and maintenance.

To estimate the parking demand and supply for this project, the following industry guidance and best practices were reviewed:

1. *Institute of Transportation Engineers, Parking Generation[6] (4th Edition).* This publication contains peak parking demand data and parking rates based on field studies or parking at a variety of existing sites. The Parking Generation report data for a "Low/Mid-Rise Apartment" use in urban conditions was utilized for this analysis as it was determined to be the closest/most relevant for this project. However, only four of the 40 sites that were studied to develop this data were identified as affordable housing. Thus, the ITE data is considered conservatively high with respect to parking generation estimates specific to an affordable housing use. The ITE data provides a formula for calculated peak parking demand based on the number of units:

   Peak Parking Demand = 0.92x +4, where "x" equals the number of dwelling units

   The ITE report also notes that the urban data was based on 40 sites with an average size of 1.9 bedrooms per unit, but that the data demonstrated a correlation between number of bedrooms and peak parking demand. The report further offered that study sites with an average of less than 1.5 bedrooms per unit reported peak parking demand at 92% of the average peak parking demand for all study sites.

   Applying the ITE formula and reduction based on the site having an average bedroom count of 1.2 bedrooms per units, the **peak parking demand is calculated at (0.92 x 50 +4) x 0.92 = 46 spaces**, or 0.92 spaces per unit. As mentioned above, as only four of the 40 sites used to develop this data were considered affordable housing, which would be anticipated to generate much less parking demand than a typical residential apartment, this estimate is considered to be conservatively high.

2. *San Diego Affordable Housing Parking Study[7]*. This study was commissioned by the City of San Diego, California with the purpose of determining links between affording housing variables (income, age, transit accessibility, lane use context and housing type) to develop a corresponding regulatory framework for City parking requirements. Screening was conducted at 265 projects and the study included field parking observations at 21 affordable housing communities. The San Diego study represents the most

[6] Parking Generation, 4th Edition. Institute of Transportation Engineers. Washington DC. 2010.
[7] San Diego Affordable Housing Parking Study. Wilbur Smith Associates. December 2011.

comprehensive field data collection effort performed specifically for affordable housing parking requirements in the country.

The findings of the study showed that parking demand for affordable projects was about half of that for typical rental units and almost 50% of the units surveyed had no vehicle. The study also showed that household vehicle availability varies significantly with income and parking demand is less in areas with walkable destinations and more transit services.

Based on the data collected and findings in the statistical analysis for the San Diego Study, a parking model was developed to provide empirically-based rates for four types of affordable housing. The parking requirements are determined based on type of affordable housing and its context in terms of transit availability and walkability ("low", "medium" and "high"). The report provides an index to score each site for walkability/transit based on specific site characteristics, such a proximity to commercial uses, density of nearby commercial uses, office/civic/education services, and frequency and proximity of transit services. Using this index, the Providence at the Heights project would score right on the cusp between a "medium" and "high" walkability/transit site per the San Diego study criteria.

Applying the San Diego model for the "studio-1 bedroom" type (for one-bedroom units) and "family housing" type (for two-bedroom units) and showing both the "medium" and "high" transit and walkability factors for comparison, yields the following results:

Table 7: Parking Requirement based on San Diego Affordable Housing Parking Study

Unit Type	# DU	Base Rate for "Medium" Walkability Transit	Base Rate for "High" Walkability Transit	Subtotal for "Medium" Transit / Availability	Subtotal for "High" Transit / Availability	Visitor Parking (0.15)	Staff Parking (0.05)	Total for "Medium" Transit / Availability	Total for "High" Transit / Availability	Average (between "Medium" and "High)
1-bed	40	0.5	0.1	20	4	6	2	28	12	20
2-bed	10	1.1	0.5	11	5	1.5	0.5	13	7	10
Total	**50**	**-**	**-**	**31**	**9**	**7.5**	**2.5**	**41**	**19**	**30**

As shown on **Table 7** above, using the San Diego criteria and data and incorporating parking spaces for visitors and staff parking, the **projected parking requirement is between 19 and 41 parking spaces, or an average of 30 parking spaces**. This would correspond to an effective parking rate of 0.38 to 0.82 spaces per unit, or 0.60 average between "medium" and "high" walkability/transit.

3. *LADOT Measuring the Miles*[8]*.* This study was commissioned by the City of Los Angeles, California with the purpose of determining links between affording housing variables (income, age, transit accessibility, lane use context and housing type) to develop adjusted trip generation rates and parking requirements for affordable housing for their *Traffic Impact Study Guidelines*. The data was collected for four affordable housing categories: family, senior, special needs, and permanent support.

   Based on the data collected and findings of the parking analysis of the LADOT Study, permanent support affordable housing has a parking demand that is 0.29 to 0.43 per unit depending on the proximity to the transit area.

   Using the LADOT rates, the **projected parking demand is between 15 and 22 parking spaces, or an average of 19 parking spaces**.

4. *Local Data.* Field data was also recently compiled by Shopworks at six examples (similar) affordable (income restricted) housing apartment sites in Aurora and Denver. These existing projects ranged from 30 to 120 apartment units. Based the field studies conducted during evenings at peak parking periods, it was calculated that these projects had peak parking demand rates ranging from 0.46 to 1.06 spaces per unit.

Table 8 summarizes the parking demand rates based on the city requirements, national standards, and localized studies.

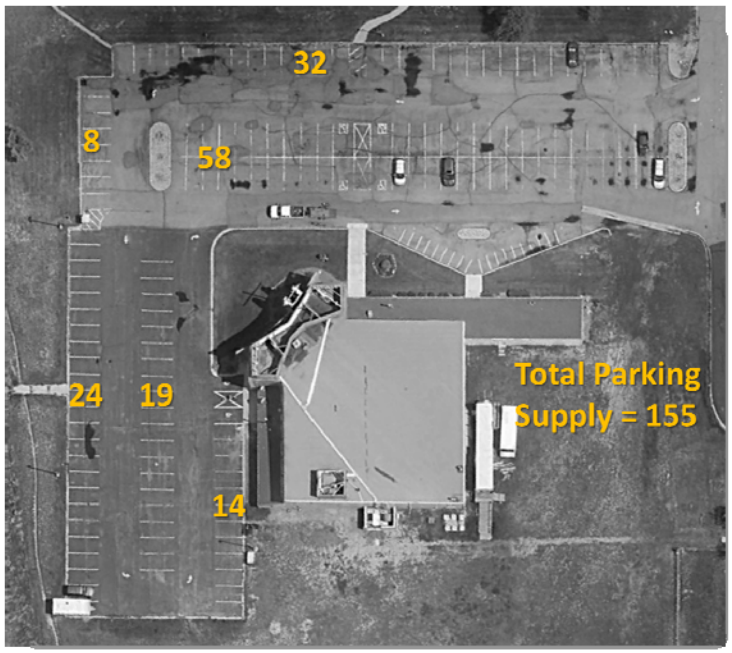
[8] LADOT Measuring the Miles Study. Portland State University. 2015.

Table 8: Parking Rates and Demand Summary

No.	Study	Parking Rate	Parking Demand
n/a	City of Aurora Standards	1.5 (1-bedroom) 2.0 (2-bedroom) 1 visitor space per 5 units	(40 x 1.5) + (10 x 2.0) + (50 / 5) = 90
1	ITE Parking Generation	0.92	0.92 x (50 x 0.92 + 4) = 46
2	San Diego Study	0.38 (“medium” walkability/transit) 0.82 (“high” walkability/transit)	50 x 0.38 = 19 50 x 0.82 = 41 Average = 30
3	LADOT Study	0.29 (inside transit area “high”) 0.43 (outside transit area “moderate”)	50 x 0.29 = 15 50 x 0.43 = 22 Average = 19
4	Local Data by Shopworks Architecture	0.46 to 1.06	Range = 23 to 53 Average = 38

10.3 Elevation Christian Church Parking

The existing church is just north of the Providence at the Heights property. There are currently 155 parking spaces that serve those attending the church. On Sunday, May 20, 2018 the church’s parking demand was gathered during the second service. The parking lot had 152, which equates to 98% utilized with two unoccupied spaces. Outside the peak three hours on Sunday, the church parking lot is mostly empty. The next peak period for the church is Wednesday evenings (6:25-8:35 PM) when youth group is in session, which has parking demand up to 40 (26% utilized, 115 unoccupied spaces). Typically, during the rest of the week,



there are no more than 15 vehicles in the lot (10% utilized, 145 unoccupied spaces). The Providence at the Heights has developed a draft shared parking agreement with the Elevation Christian Church to provide 24 overflow parking spaces as needed. This agreement is subject to change and will be executed and recorded upon finalization of the project.

10.4 Summary of Parking Demand

Taking into account the ITE parking demand projections, San Diego data, LADOT results, and field data provided by Shopworks for similar local sites, **the anticipated parking demand for this project would fall between 0.38 and 1.06 spaces per unit, but closest to 0.60 (30 spaces)** given data and applicability of the San Diego data, which represents the most comprehensive field data collection effort performed specifically for affordable housing parking requirements in the country.

On this basis, we anticipate that the proposed parking provisions for the project (38 spaces or 0.75 spaces per unit) will be sufficient to accommodate the peak parking demand for the Providence at the Heights community. It is anticipated that the estimated demand of 30 parking spaces provides an additional eight spaces for staff members and/or future parking demand.

Given that the residential use would likely experience peak parking demand in the evenings or early mornings when the church parking lot would be expected to be underutilized, the project would not be expected to result in any off-site parking intrusion should parking demand temporarily exceed the site parking supply for any reason. A copy of the draft shared parking agreement with the Elevation Christian Church is provided in the **Appendix**.

11.0 CONCLUSIONS

The project proposes to construct 50 affordable apartments (40 one-bedroom units and 10 two-bedroom units) on currently undeveloped land. The target tenants are those with an AMI at 30% or less. There will be on-site counseling and support services for residents. Access to the site is planned via one proposed driveway onto the local street that currently serves the Elevation Christian Church and Terrace Park apartments. The Access Street leads to Alameda Parkway where full-movement is allowed at the side-street stop-controlled intersection.

The project proposes to be developed within the next two years and is estimated to generate approximately 64 daily trips with 6 trips occurring in the AM peak hour and 6 trips occurring in

the PM peak hour. The site trips are fewer than a typical rental apartment due to the anticipated lower-income that limits the residents' ability to own a vehicle and higher probability of utilizing the transit system and other non-automobile modes of travel.

It was determined that the current roadway system can adequately accommodate the traffic volumes at buildout conditions of the Providence of the Heights and will not trigger intersection or roadway improvements. The proposed 38 parking spaces are anticipated to accommodate the peak demand for this land use. There will be 24 overflow spaces available in the Elevation Christian Church's parking lot.

Tables and Figures:

Table 1 – Trip Generation Summary

Table 2 – Peak Hour Intersection Level of Service Summary

Table 3a – Peak Hour Average and 95th Percentile Queues (Synchro)

Table 3b – Peak Hour Average and 95th Percentile Queues (SimTraffic)

Table 4 – Trip Generation Summary for the Sensitivity Analysis

Table 5 – Peak Hour Intersection Level of Service Summary for the Sensitivity Analysis

Table 6a – Peak Hour Average and 95th Percentile Queues for the Sensitivity Analysis (Synchro)

Table 6b – Peak Hour Average and 95th Percentile Queues for the Sensitivity Analysis (SimTraffic)

Figure 1 – Vicinity Map

Figure 2 – Conceptual Site Plan

Figure 3 – Year 2018 Existing Traffic Volumes

Figure 4 – Year 2020 Background Traffic Volumes

Figure 5 – Year 2040 Background Traffic Volumes

Figure 6 – Site Trip Distribution and Site-Generated Traffic Volumes

Figure 7 – Year 2020 Background + Site-Generated Traffic Volumes

Figure 8 – Year 2040 Background + Site-Generated Traffic Volumes

Providence at the Heights
Traffic Impact Study

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Table 1 - Trip Generation Summary

Generator	Land Use Code	Size	Unit	Average Daily Trips			AM Peak Hour				PM Peak Hour			
				Rate[1]	Total	In	Out	Rate[1]	Total	In	Out	Rate[1]	Total	In	Out
Multi-Family Housing (Apartments)	220	50	DU	1.27	64	32	32	0.12	6	3	3	0.12	6	4	2
Total New Auto Trips for Site:					**64**	**32**	**32**		**6**	**3**	**3**		**6**	**4**	**2**

[1] *Source: City of Los Angeles Transportation Impact Study Guidelines, Los Angeles Department of Transportation, 2016.*

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Table 2 - Peak Hour Intersection Level of Service Summary

Intersection and Lanes Groups	Existing				2020 Background				2020 Background + Project				2040 Background				2040 Background + Project			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
STOP SIGN CONTROL																				
Alameda Parkway at Joplin Street / Access Street	**4**	**A**	**7**	**A**	**6**	**A**	**12**	**B**	**7**	**A**	**14**	**B**	**14**	**B**	**36**	**E**	**14**	**B**	**39**	**E**
Eastbound Left	*16*	*C*	*11*	*B*	*19*	*C*	*13*	*B*	*19*	*C*	*13*	*B*	*27*	*D*	*15*	*C*	*27*	*D*	*15*	*C*
Eastbound Through+Right	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*
Westbound Left	*9*	*A*	*14*	*B*	*10*	*A*	*16*	*C*	*10*	*A*	*17*	*C*	*10*	*A*	*20*	*C*	*10*	*A*	*20*	*C*
Westbound Through+Right	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*
Northbound Left	*113*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*
Northbound Through+Right	*10*	*A*	*13*	*B*	*10*	*B*	*14*	*B*	*10*	*B*	*14*	*B*	*10*	*B*	*15*	*B*	*10*	*B*	*15*	*B*
Southbound Left	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*
Southbound Through+Right	*17*	*C*	*16*	*C*	*19*	*C*	*22*	*C*	*19*	*C*	*22*	*C*	*23*	*C*	*51*	*F*	*23*	*C*	*52*	*F*
Access Street at Proposed Driveway	**0**	**A**	**0**	**A**	**0**	**A**	**0**	**A**	**1**	**A**	**1**	**A**	**0**	**A**	**0**	**A**	**1**	**A**	**1**	**A**
Eastbound Left+Right	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*9*	*A*	*9*	*A*	*0*	*A*	*0*	*A*	*9*	*A*	*9*	*A*
Northbound Left+Through	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*
Southbound Through+Right	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*

Note: Delay represented in average seconds per vehicle.

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Table 3a - 95th Percentile Queue Summary (Synchro)

Intersection and Lanes Groups	Storage Length or Dist. to Adj. Int	Existing		2020 Background		2020 Bkgrd + Project		2040 Background		2040 Bkgrd + Project	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
STOP SIGN CONTROL											
Alameda Parkway at Joplin Street / Access Street											
Eastbound Left	150'	12'	18'	15'	23'	15'	23'	26'	35'	26'	35'
Eastbound Through+Right	770'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Westbound Left	110'	0'	1'	0'	1'	0'	2'	1'	3'	1'	4'
Westbound Through+Right	740'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Northbound Left	70'	21'	66'	31'	**77'**	37'	**85'**	59'	*	66'	*
Northbound Through+Right	245'	1'	2'	1'	3'	1'	3'	1'	2'	1'	2'
Southbound Left	140'	63'	52'	78'	74'	78'	75'	93'	102'	94'	102'
Southbound Through+Right	420'	42'	21'	49'	32'	49'	33'	55'	73'	55'	74'
Access Street at Proposed Driveway											
Eastbound Left+Right	75'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Northbound Left+Through	50'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Southbound Through+Right	90'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

FOX TUTTLE HERNANDEZ
TRANSPORTATION GROUP

Table 3b - Peak Hour Average and 95th Percentile Queues (SimTraffic)

Intersection and Lanes Groups	Storage Length or Dist. to Adj. Int	Existing				2020 Background				2020 Bkgrd + Project				2040 Background				2040 Bkgrd + Project			
		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM	
		Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th
STOP SIGN CONTROL																					
Alameda Parkway at Joplin Street / Access Street																					
Eastbound Left	150'	26'	59'	41'	78'	30'	65'	49'	91'	30'	69'	47'	86'	46'	109'	64'	124'	51'	117'	63'	120'
Eastbound Through+Right	770'	1'	11'	1'	13'	1'	8'	4'	26'	1'	10'	1'	11'	3'	43'	5'	48'	8'	78'	6'	44'
Westbound Left	110'	2'	12'	6'	24'	2'	11'	7'	26'	3'	16'	6'	24'	3'	18'	9'	32'	4'	19'	10'	36'
Westbound Through+Right	740'	1'	14'	3'	21'	3'	20'	3'	21'	3'	22'	2'	19'	2'	17'	3'	21'	3'	20'	1'	12'
Northbound Left	70'	12'	38'	37'	**74'**	21'	51'	43'	**85'**	20'	56'	36'	**79'**	42'	**73'**	45'	**74'**	54'	**85'**	35'	**74'**
Northbound Through+Right	245'	8'	30'	32'	112'	7'	30'	67'	179'	9'	44'	39'	127'	30'	113'	47'	149'	108'	**255'**	79'	224'
Southbound Left	140'	48'	131'	40'	103'	73'	**153'**	88'	**185'**	70'	**162'**	111'	**197'**	125'	**198'**	124'	**206'**	127'	**195'**	105'	**201'**
Southbound Through+Right	420'	93'	334'	62'	209'	111'	378'	255'	**663'**	132'	**422'**	149'	**456'**	352'	**775'**	**461'**	**826'**	327'	**726'**	390'	**795'**
Access Street at Proposed Driveway																					
Eastbound Left+Right	75'	0'	0'	0'	0'	0'	0'	0'	0'	2'	16'	2'	16'	0'	0'	0'	0'	4'	21'	3'	17'
Northbound Left+Through	50'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	5'	32'	1'	9'
Southbound Through+Right	90'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

FOX TUTTLE HERNANDEZ
TRANSPORTATION GROUP

Table 4 - Trip Generation Summary for Sensitivity Analysis (ITE Equation)

Generator	Land Use Code	Size	Unit	Average Daily Trips				AM Peak Hour				PM Peak Hour			
				Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Multi-Family Housing (Apartments)	220	50	DU	[a]	337	169	168	[a]	25	6	19	[a]	32	20	12
Non-Auto Mode Choice:				*15%*	*(51)*	*(25)*	*(26)*		*(4)*	*(1)*	*(3)*		*(5)*	*(3)*	*(2)*
Total New Auto Trips for Site:					**286**	**144**	**142**		**21**	**5**	**16**		**27**	**17**	**10**

Source: ITE Trip Generation 10th Edition, 2017.

[a] ITE equation used instead of rate. Daily: T = 7.56(X) - 40.86; AM Peak: Ln(T) = 0.95 Ln(X) - 0.51; PM Peak: Ln(T) = 0.89 Ln(X) - 0.02
where T = Trip Ends and X = number of dwelling units

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Table 5 - Peak Hour Intersection Level of Service Summary for Sensitivity Analysis (ITE Equations)

Intersection and Lanes Groups	2020 Background + Project				2040 Background + Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
STOP SIGN CONTROL								
Alameda Parkway at Joplin Street / Access Street	**8**	**A**	**95**	**F**	**17**	**C**	**61**	**F**
Eastbound Left	*19*	*C*	*13*	*B*	*27*	*D*	*15*	*C*
Eastbound Through+Right	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*
Westbound Left	*10*	*A*	*17*	*C*	*10*	*A*	*20*	*C*
Westbound Through+Right	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*
Northbound Left	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*
Northbound Through+Right	*10*	*B*	*14*	*B*	*10*	*B*	*15*	*C*
Southbound Left	*>120*	*F*	*>120*	*F*	*>120*	*F*	*>120*	*F*
Southbound Through+Right	*19*	*C*	*23*	*C*	*23*	*C*	*57*	*F*
Access Street at Proposed Driveway	**4**	**A**	**2**	**A**	**3**	**A**	**1**	**A**
Eastbound Left+Right	*9*	*A*	*9*	*A*	*9*	*A*	*9*	*A*
Northbound Left+Through	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*
Southbound Through+Right	*0*	*A*	*0*	*A*	*0*	*A*	*0*	*A*

Note: Delay represented in average seconds per vehicle.

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Table 3a - 95th Percentile Queue Summary (ITE equation from Synchro)

Intersection and Lanes Groups	Storage Length or Dist. to Adj. Int	Existing		2020 Background		2020 Bkgrd + Project		2040 Background		2040 Bkgrd + Project	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
STOP SIGN CONTROL											
Alameda Parkway at Joplin Street / Access Street											
Eastbound Left	150'	12'	18'	15'	23'	15'	23'	26'	35'	26'	35'
Eastbound Through+Right	770'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Westbound Left	110'	0'	1'	0'	1'	1'	4'	1'	3'	1'	6'
Westbound Through+Right	740'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Northbound Left	70'	21'	66'	31'	**77'**	58'	*	59'	*	**86'**	*
Northbound Through+Right	245'	1'	2'	1'	3'	2'	5'	1'	2'	2'	4'
Southbound Left	140'	63'	52'	78'	74'	79'	79'	93'	102'	94'	104'
Southbound Through+Right	420'	42'	21'	49'	32'	49'	34'	55'	73'	55'	79'
Access Street at Proposed Driveway											
Eastbound Left+Right	75'	0'	0'	0'	0'	1'	1'	0'	0'	1'	1'
Northbound Left+Through	50'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Southbound Through+Right	90'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

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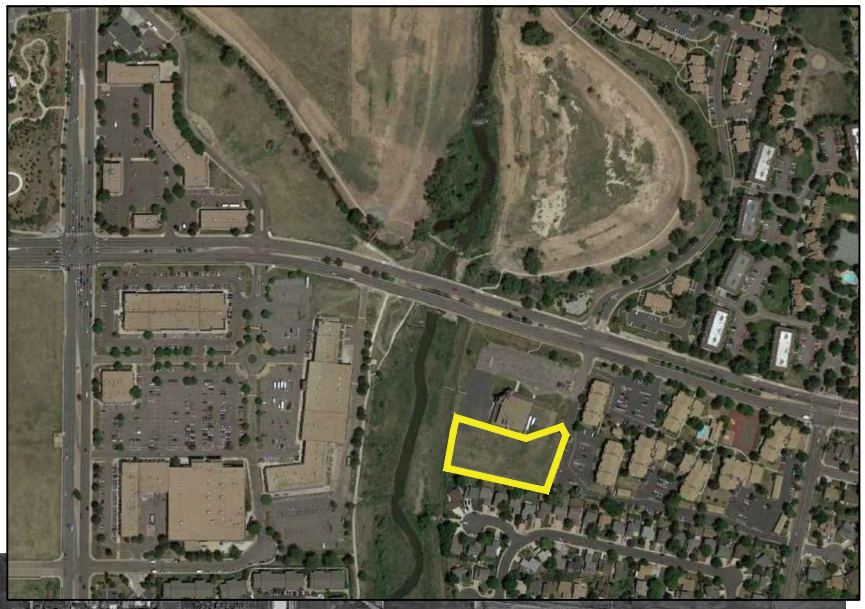
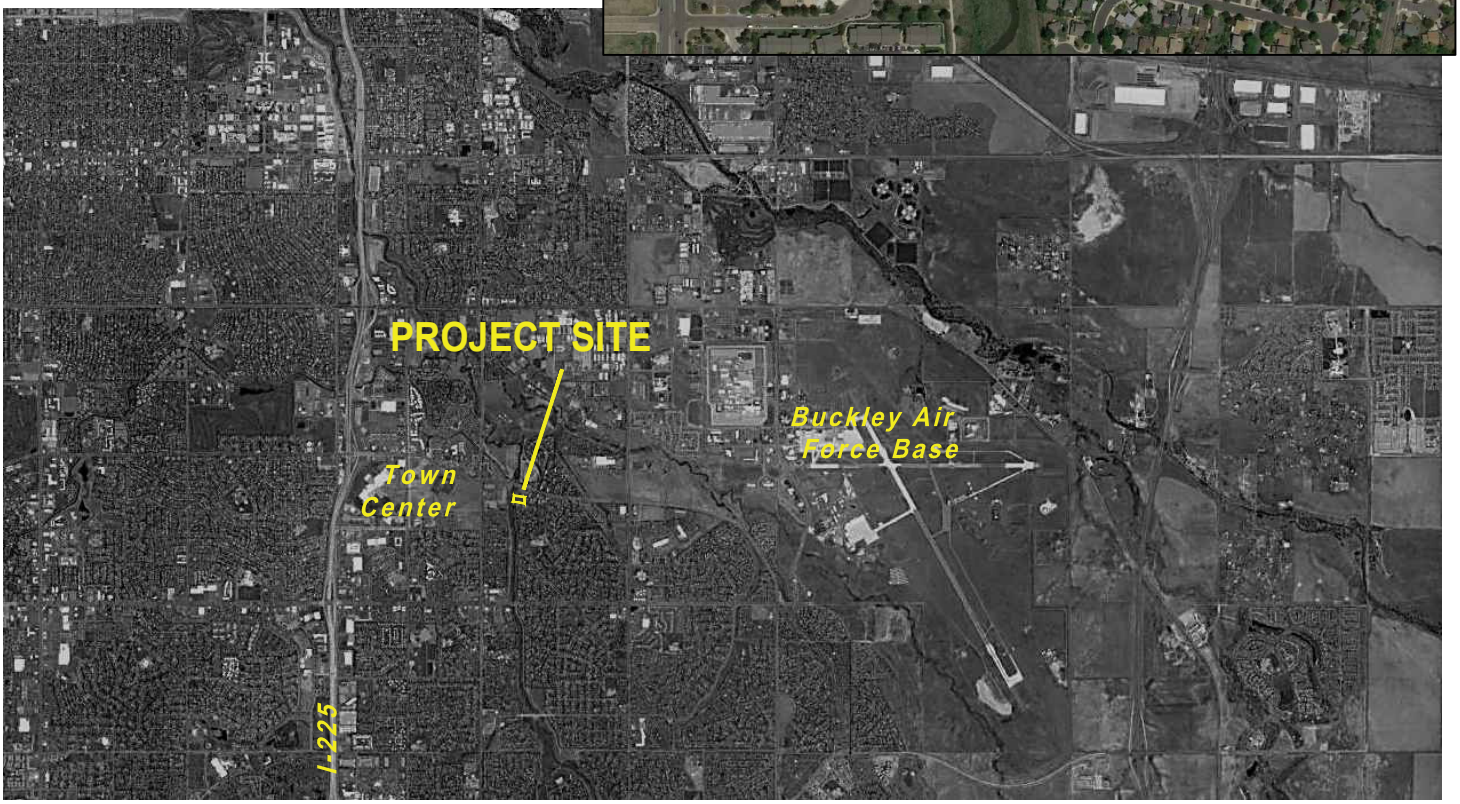
Table 6b - Average and 95th Percentile Queues for Sensitivity Analysis (ITE Equations from SimTraffic)

Intersection and Lanes Groups	Storage Length or Dist. to Adj. Int	2020 Bkgrd + Project (ITE Eq.)				2040 Bkgrd + Project (ITE Eq.)			
		AM		PM		AM		PM	
		Avg.	95th	Avg.	95th	Avg.	95th	Avg.	95th
STOP SIGN CONTROL									
Alameda Parkway at Joplin Street / Access Street									
Eastbound Left	150'	29'	65'	49'	93'	46'	97'	67'	127'
Eastbound Through+Right	770'	1'	13'	2'	16'	3'	29'	6'	55'
Westbound Left	110'	5'	22'	12'	36'	5'	22'	16'	45'
Westbound Through+Right	740'	5'	27'	2'	17'	3'	21'	2'	19'
Northbound Left	70'	40'	**82'**	59'	**79'**	53'	**88'**	57'	**78'**
Northbound Through+Right	245'	47'	169'	144'	**284'**	152'	**306'**	152'	**301'**
Southbound Left	140'	70'	**164'**	115'	**202'**	105'	**198'**	116'	**186'**
Southbound Through+Right	420'	139'	**443'**	256'	**667'**	249'	**670'**	353'	**776'**
Access Street at Proposed Driveway									
Eastbound Left+Right	75'	13'	40'	17'	57'	31'	**84'**	24'	69'
Northbound Left+Through	50'	2'	14'	11'	48'	20'	**66'**	15'	**54'**
Southbound Through+Right	90'	0'	0'	0'	0'	0'	0'	0'	0'





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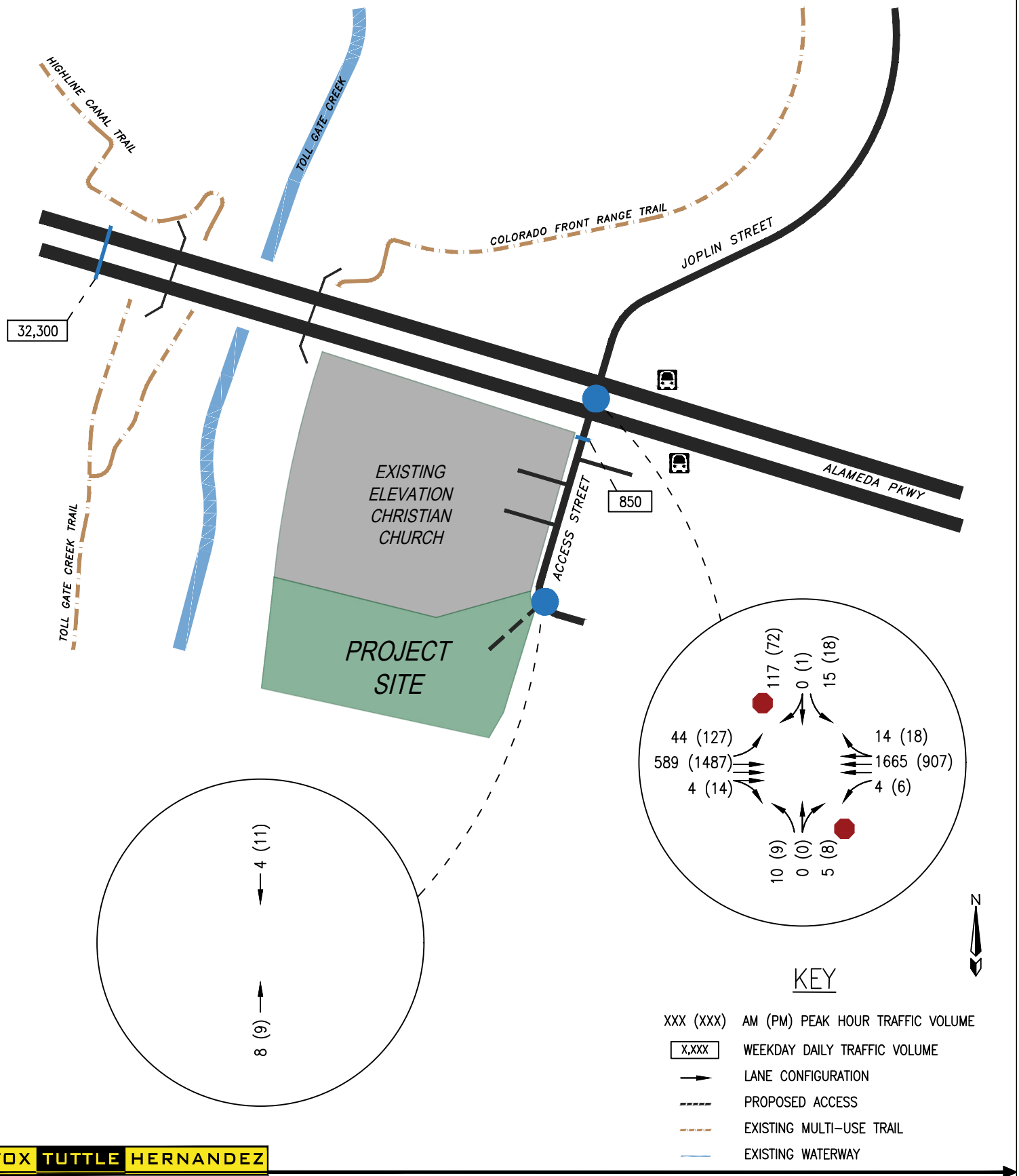
PROVIDENCE AT THE HEIGHTS TRAFFIC IMPACT STUDY

VICINITY MAP

Project #	18018	Original Scale	NTS	Date	5/22/18	Drawn by	CRS	Figure #	1



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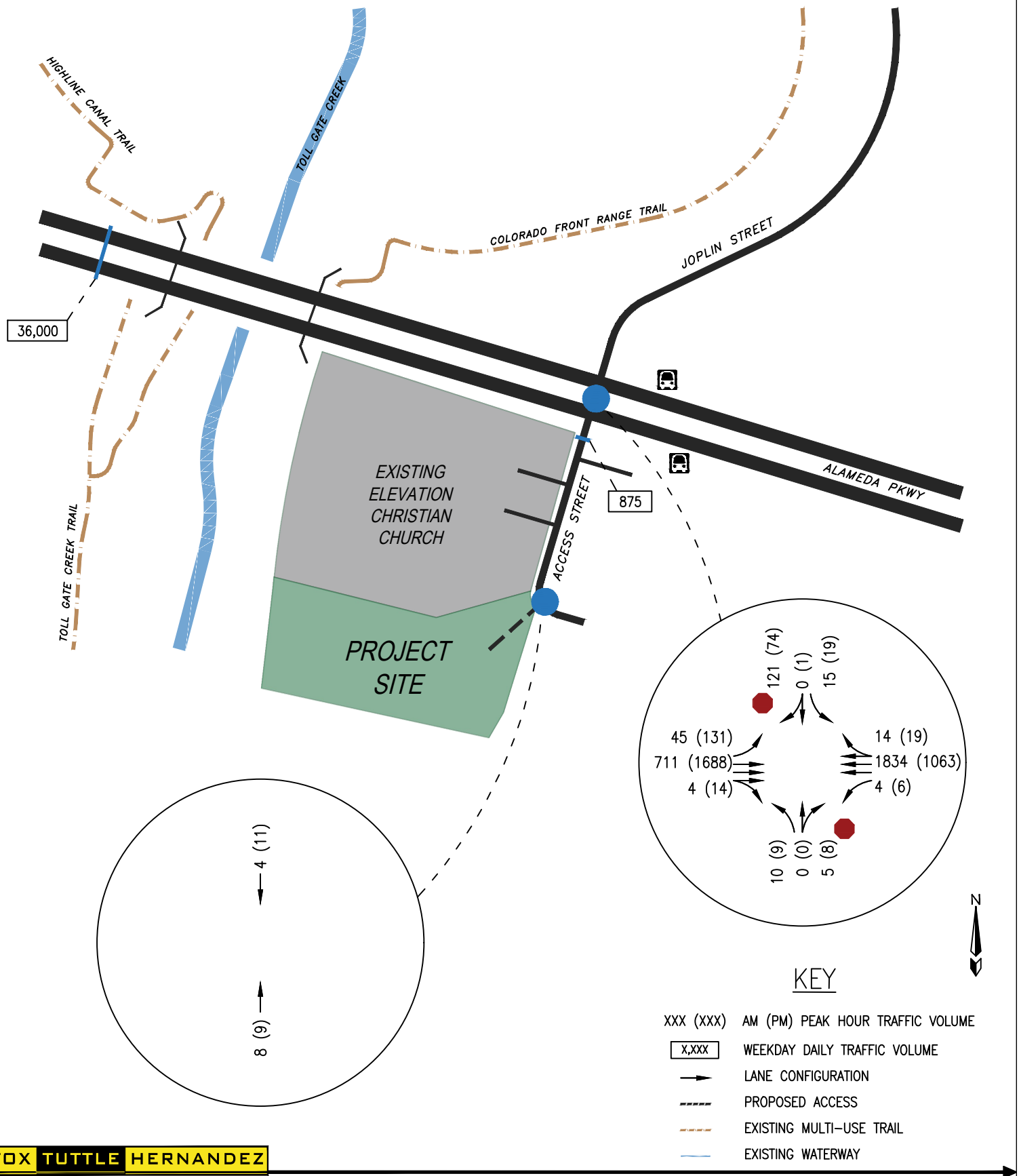
PROVIDENCE AT THE HEIGHTS TRAFFIC IMPACT STUDY

YEAR 2018 EXISTING WEEKDAY TRAFFIC VOLUMES

Project #	18018	Original Scale	NTS	Date	5/22/18	Drawn by	CRS	Figure #	3



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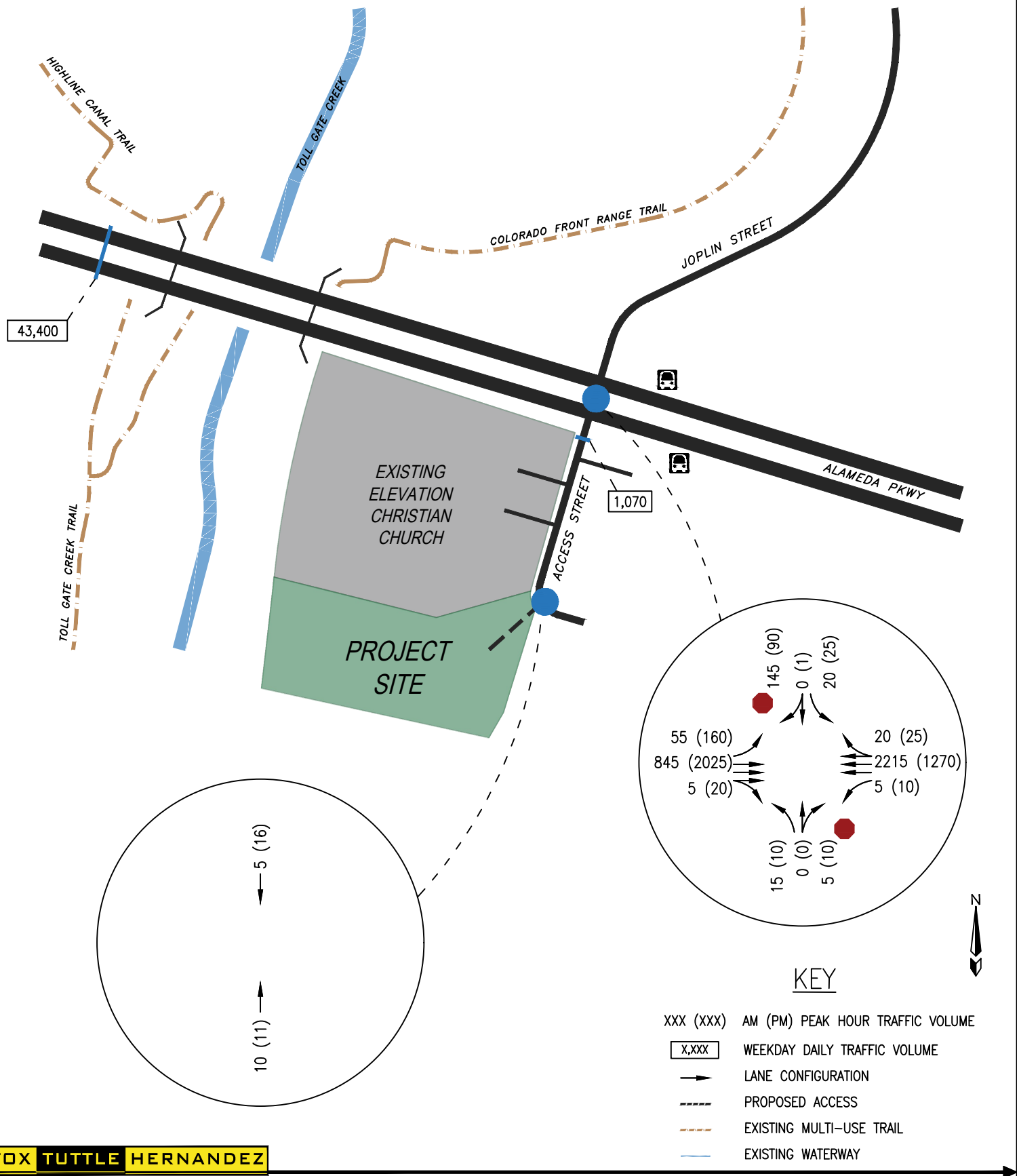
PROVIDENCE AT THE HEIGHTS TRAFFIC IMPACT STUDY

YEAR 2020 BACKGROUND WEEKDAY TRAFFIC VOLUMES

Project #	18018	Original Scale	NTS	Date	5/22/18	Drawn by	CRS	Figure #	4



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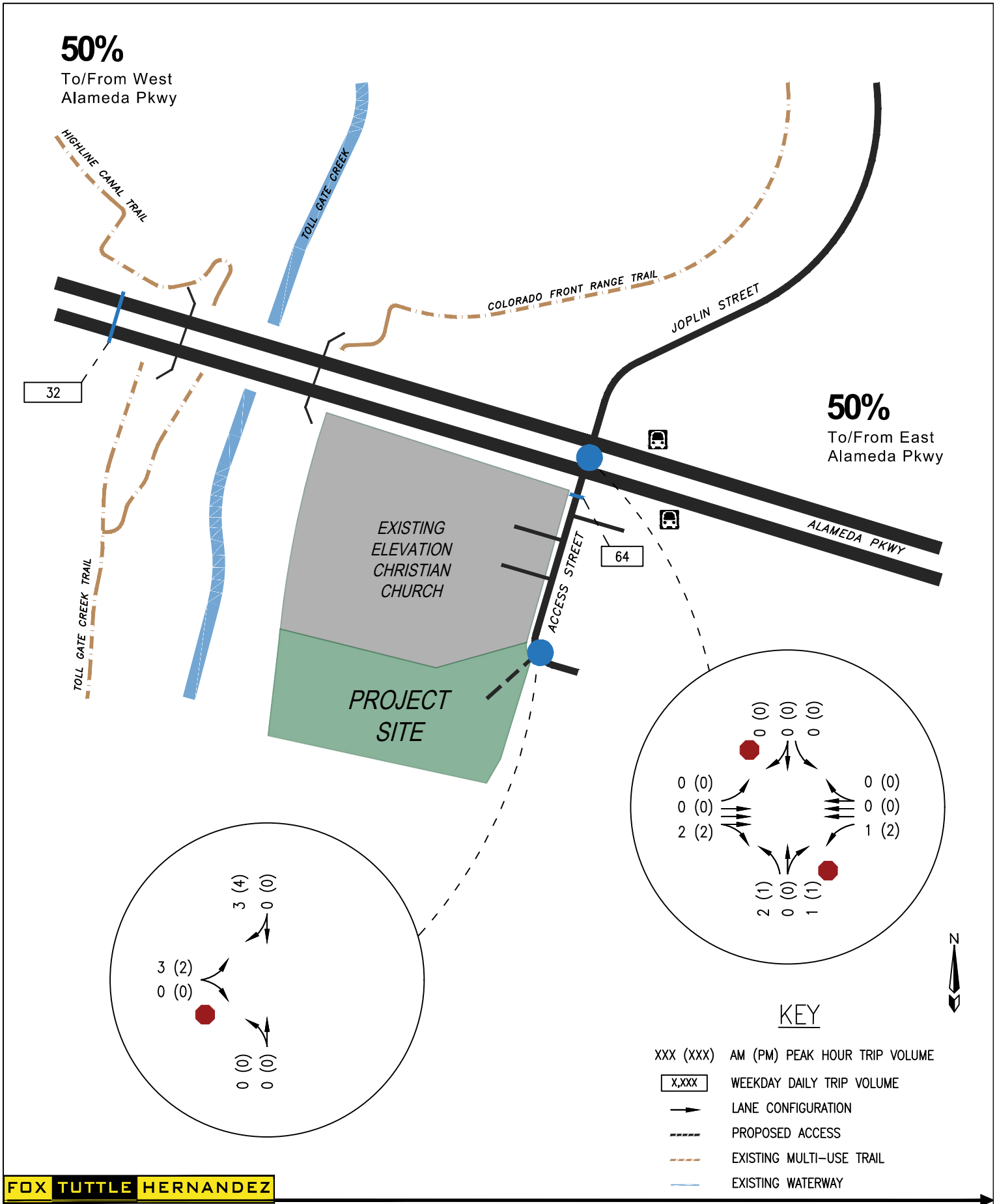
PROVIDENCE AT THE HEIGHTS TRAFFIC IMPACT STUDY

YEAR 2040 BACKGROUND WEEKDAY TRAFFIC VOLUMES

Project #	18018	Original Scale	NTS	Date	5/22/18	Drawn by	CRS	Figure #	5



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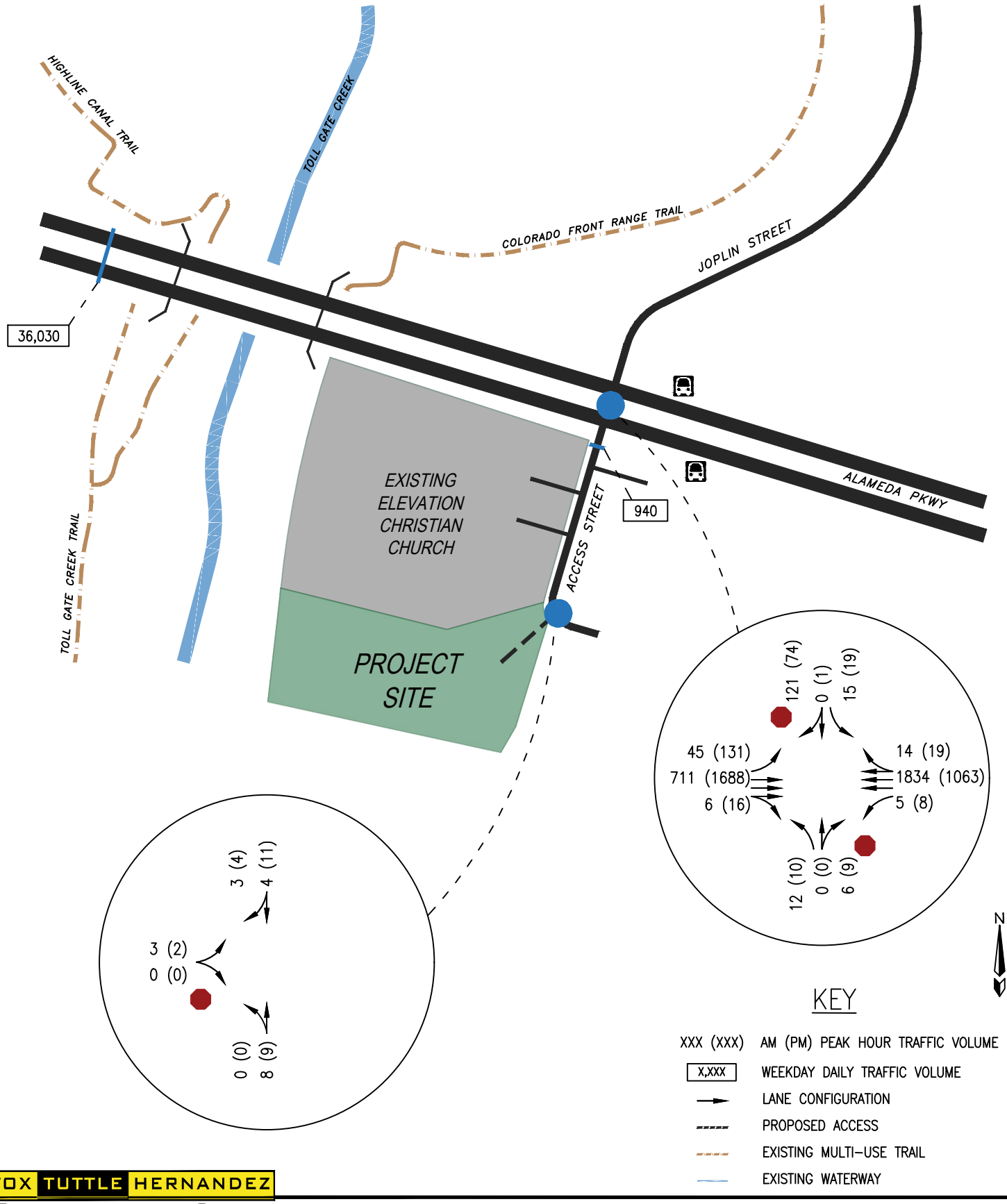
PROVIDENCE AT THE HEIGHTS TRAFFIC IMPACT STUDY

SITE TRIP DISTRIBUTION AND SITE-GENERATED TRAFFIC VOLUMES

Project #	18018	Original Scale	NTS	Date	5/22/18	Drawn by	CRS	Figure #	6



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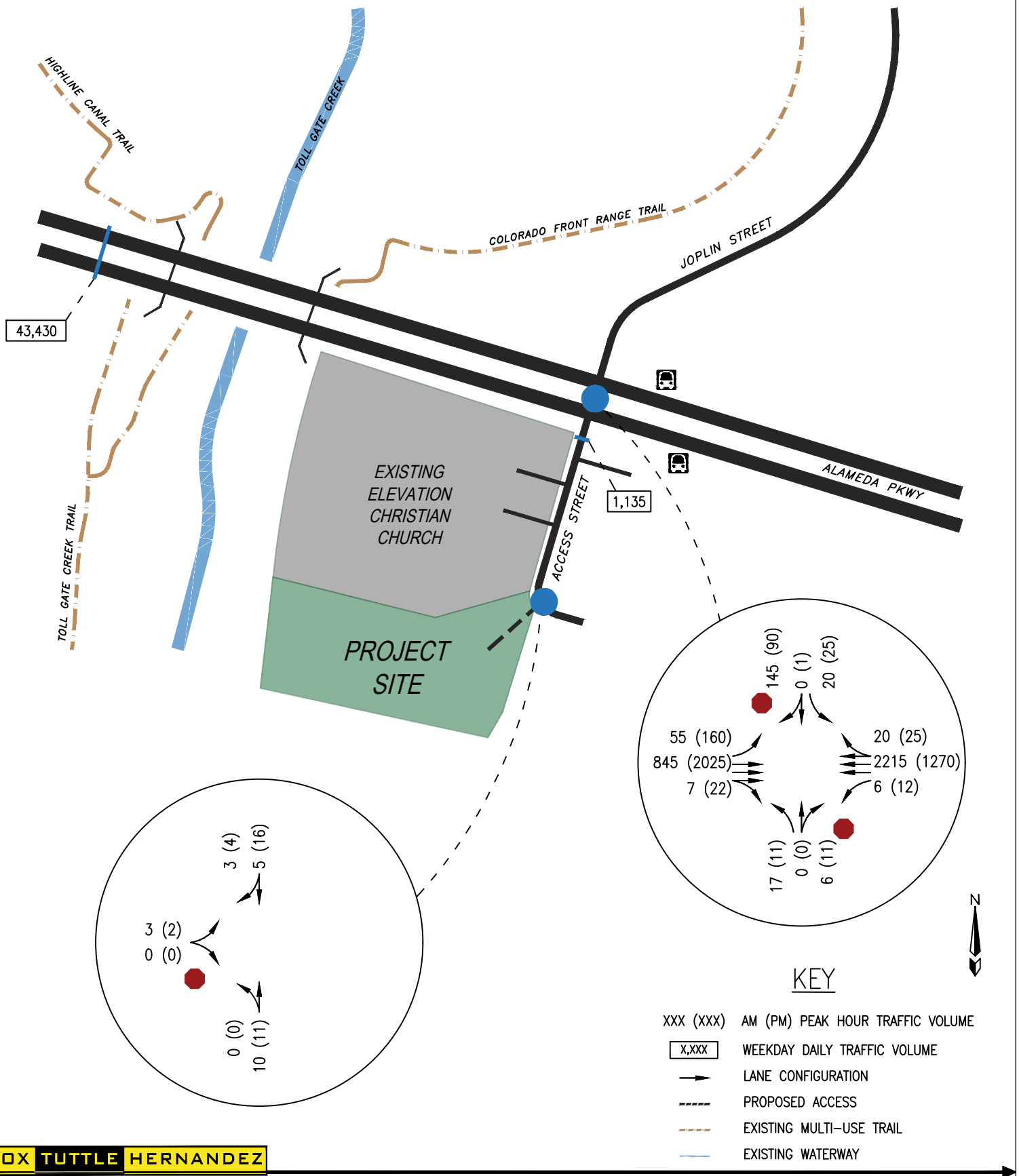
PROVIDENCE AT THE HEIGHTS TRAFFIC IMPACT STUDY

YEAR 2020 BACKGROUND + SITE-GENERATED TRAFFIC VOLUMES

Project #	18018	Original Scale	NTS	Date	5/22/18	Drawn by	CRS	Figure #	7



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PROVIDENCE AT THE HEIGHTS TRAFFIC IMPACT STUDY

YEAR 2040 BACKGROUND + SITE-GENERATED TRAFFIC VOLUMES

Project #	18018	Original Scale	NTS	Date	5/22/18	Drawn by	CRS	Figure #	8

Appendix:

Level of Service Definitions

Existing Traffic Data

Research Data

Intersection Capacity Worksheets

Shared Parking Agreement

Level of Service Definitions

LEVEL OF SERVICE DEFINITIONS

In rating roadway and intersection operating conditions with existing or future traffic volumes, "Levels of Service" (LOS) A through F are used, with LOS A indicating very good operation and LOS F indicating poor operation. Levels of service at signalized and unsignalized intersections are closely associated with vehicle delays experienced in seconds per vehicle. More complete level of service definitions and delay data for signal and stop sign controlled intersections are contained in the following table for reference.

Level of Service Rating	Delay in seconds per vehicle *(a)*		Definition
	Signalized	Unsignalized	
A	0.0 to 10.0	0.0 to 10.0	Low vehicular traffic volumes; primarily free flow operations. Density is low and vehicles can freely maneuver within the traffic stream. Drivers are able to maintain their desired speeds with little or no delay.
B	10.1 to 20.0	10.1 to 15.0	Stable vehicular traffic volume flow with potential for some restriction of operating speeds due to traffic conditions. Vehicle maneuvering is only slightly restricted. The stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	20.1 to 35.0	15.1 to 25.0	Stable traffic operations, however the ability for vehicles to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail, but adverse signal coordination or longer vehicle queues cause delays along the corridor.
D	35.1 to 55.0	25.1 to 35.0	Approaching unstable vehicular traffic flow where small increases in volume could cause substantial delays. Most drivers are restricted in ability to maneuver and selection of travel speeds due to congestion. Driver comfort and convenience are low, but tolerable.
E	55.1 to 80.0	35.1 to 50.0	Traffic operations characterized by significant approach delays and average travel speeds of one-half to one-third the free flow speed. Vehicular flow is unstable and there is potential for stoppages of brief duration. High signal density, extensive vehicle queuing, or corridor signal progression/timing are the typical causes of vehicle delays at signalized corridors.
F	> 80.0	> 50.0	Forced vehicular traffic flow and operations with high approach delays at critical intersections. Vehicle speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion.

(a) Delay ranges based on 2010 Highway Capacity Manual criteria.

Existing Traffic Data

COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: JOPLIN ST / CHURCH ACCESS
E/W STREET: ALAMEDA PKWY
CITY: AURORA
COUNTY: ARAPAHOE

File Name : JOPLALAM
Site Code : 00000026
Start Date : 2/21/2018
Page No : 1

Groups Printed- VEHICLES

	JOPLIN ST Southbound				ALAMEDA PKWY Westbound				CHURCH ACCESS Northbound				ALAMEDA PKWY Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	3	0	24	0	0	349	3	0	4	0	0	1	13	115	0	0	512
07:15 AM	7	0	41	0	1	412	6	0	1	0	2	2	12	149	1	1	635
07:30 AM	2	0	32	0	0	432	0	0	3	0	1	1	13	176	0	0	660
07:45 AM	3	0	16	0	2	416	6	0	3	0	2	0	7	122	2	0	579
Total	15	0	113	0	3	1609	15	0	11	0	5	4	45	562	3	1	2386
08:00 AM	3	0	28	0	1	405	2	1	3	0	0	0	12	142	1	0	598
08:15 AM	6	0	30	0	0	390	6	0	4	0	0	0	15	162	0	0	613
08:30 AM	12	0	15	0	1	368	6	0	2	0	1	0	15	131	0	0	551
08:45 AM	5	0	11	0	0	299	1	0	0	0	0	0	11	121	0	0	448
Total	26	0	84	0	2	1462	15	1	9	0	1	0	53	556	1	0	2210
04:00 PM	3	0	17	0	1	207	7	1	1	0	0	0	40	332	1	2	612
04:15 PM	6	0	22	1	2	239	5	0	4	0	4	0	34	372	4	0	693
04:30 PM	4	0	16	1	0	233	5	2	2	0	0	0	30	363	3	0	659
04:45 PM	7	1	15	0	1	231	2	6	3	0	2	0	29	343	3	2	645
Total	20	1	70	2	4	910	19	9	10	0	6	0	133	1410	11	4	2609
05:00 PM	1	0	19	0	3	204	6	2	0	0	2	1	34	409	4	0	685
05:15 PM	11	0	23	0	0	213	7	1	2	0	1	0	42	352	2	1	655
05:30 PM	6	0	30	0	1	229	6	0	0	0	0	2	39	337	3	1	654
05:45 PM	8	0	26	1	5	209	6	0	2	0	2	0	25	251	3	5	543
Total	26	0	98	1	9	855	25	3	4	0	5	3	140	1349	12	7	2537
Grand Total	87	1	365	3	18	4836	74	13	34	0	17	7	371	3877	27	12	9742
Apprch %	19.1	0.2	80.0	0.7	0.4	97.9	1.5	0.3	58.6	0.0	29.3	12.1	8.7	90.4	0.6	0.3	
Total %	0.9	0.0	3.7	0.0	0.2	49.6	0.8	0.1	0.3	0.0	0.2	0.1	3.8	39.8	0.3	0.1	

COUNTER MEASURES INC.
1889 YORK STREET
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N/S STREET: JOPLIN ST / CHURCH ACCESS
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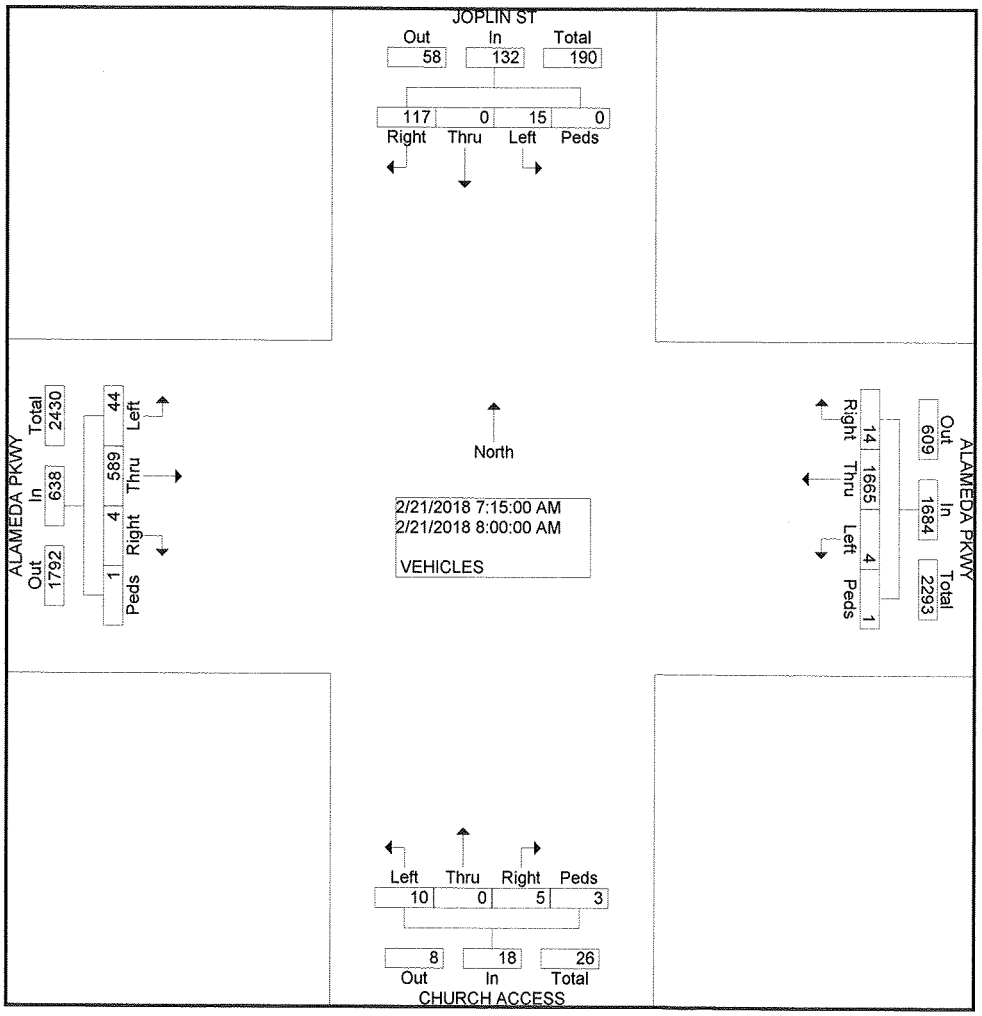
CITY: AURORA
COUNTY: ARAPAHOE

File Name : JOPLALAM
Site Code : 00000026
Start Date : 2/21/2018
Page No : 2

	JOPLIN ST Southbound					ALAMEDA PKWY Westbound					CHURCH ACCESS Northbound					ALAMEDA PKWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 09:00 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	15	0	117	0	132	4	1665	14	1	1684	10	0	5	3	18	44	589	4	1	638	2472
Percent	11.4	0.0	88.6	0.0		0.2	98.9	0.8	0.1		55.6	0.0	27.8	16.7		6.9	92.3	0.6	0.2		
07:30 Volume	2	0	32	0	34	0	432	0	0	432	3	0	1	1	5	13	176	0	0	189	660
Peak Factor																					0.936
High Int.	07:15 AM					07:30 AM					07:15 AM					07:30 AM					
Volume	7	0	41	0	48	0	432	0	0	432	1	0	2	2	5	13	176	0	0	189	
Peak Factor					0.688					0.975					0.900					0.844	



COUNTER MEASURES INC.
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CITY: AURORA
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File Name : JOPLALAM
Site Code : 00000026
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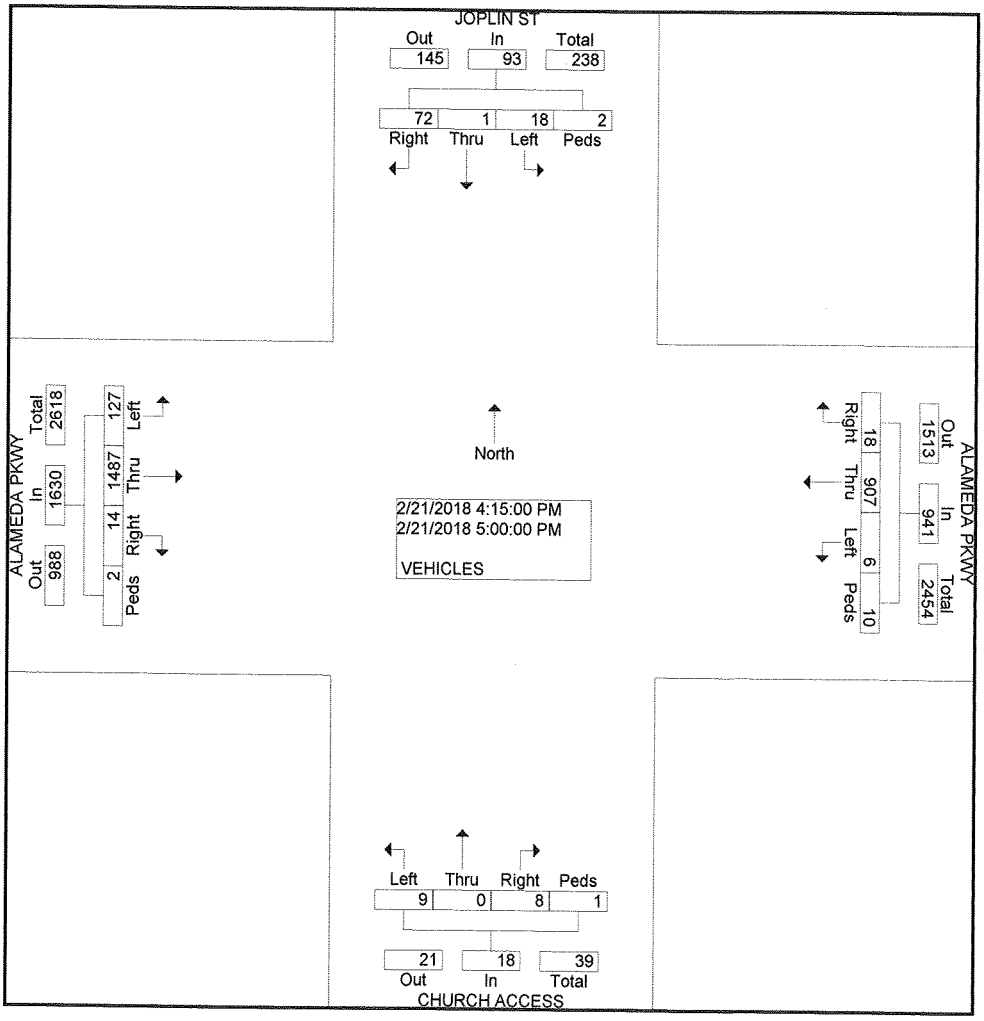
	JOPLIN ST Southbound					ALAMEDA PKWY Westbound					CHURCH ACCESS Northbound					ALAMEDA PKWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	18	1	72	2	93	6	907	18	10	941	9	0	8	1	18	127	1487	14	2	1630	2682
Percent	19.4	1.1	77.4	2.2		0.6	96.4	1.9	1.1		50.0	0.0	44.4	5.6		7.8	91.2	0.9	0.1		
04:15 Volume	6	0	22	1	29	2	239	5	0	246	4	0	4	0	8	34	372	4	0	410	693
Peak Factor																					0.968
High Int.	04:15 PM					04:15 PM					04:15 PM					05:00 PM					
Volume	6	0	22	1	29	2	239	5	0	246	4	0	4	0	8	34	409	4	0	447	
Peak Factor					0.802					0.956					0.563					0.912	



COUNTER MEASURES INC.

1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Location: ALAMEDA PKWY W/O JOPLIN ST
City: AURORA
County: ARAPAHOE
Direction: EASTBOUND-WESTBOUND

Site Code: 022212
Station ID: 022212

Start Time	22-Feb-1 Thu	EB	WB	Total
12:00 AM		158	77	235
01:00		83	44	127
02:00		63	63	126
03:00		47	71	118
04:00		57	161	218
05:00		136	498	634
06:00		331	1136	1467
07:00		**810**	**1936**	**2746**
08:00		612	1286	1898
09:00		567	847	1414
10:00		594	828	1422
11:00		746	853	1599
12:00 PM		870	882	1752
01:00		804	735	1539
02:00		1088	920	2008
03:00		1496	1058	2554
04:00		**1840**	**1121**	**2961**
05:00		1836	1036	2872
06:00		1330	814	2144
07:00		899	516	1415
08:00		785	400	1185
09:00		578	318	896
10:00		380	218	598
11:00		262	126	388
Total		16372	15944	32316
Percent		50.7%	49.3%	
AM Peak	-	07:00	07:00	07:00
Vol.	-	810	1936	2746
PM Peak	-	16:00	16:00	16:00
Vol.	-	1840	1121	2961
Grand Total		16372	15944	32316
Percent		50.7%	49.3%	

ADT ADT 31,312 AADT 31,312

COUNTER MEASURES INC.

1889 YORK STREET
DENVER,COLORADO 80206
303-333-7409

Location: CHURCH ACCESS S/O ALAMEDA PKWY
City: AURORA
County: ARAPAHOE
Direction: SOUTHBOUND-NORTHBOUND

Site Code: 022213
Station ID: 022213

Start Time	22-Feb-1 Thu	SB	NB	Total
12:00 AM		8	5	13
01:00		0	0	0
02:00		3	2	5
03:00		4	3	7
04:00		1	1	2
05:00		4	0	4
06:00		16	15	31
07:00		**24**	**21**	**45**
08:00		16	11	27
09:00		18	12	30
10:00		18	18	36
11:00		17	16	33
12:00 PM		34	**40**	**74**
01:00		34	36	70
02:00		30	28	58
03:00		**40**	33	73
04:00		27	22	49
05:00		32	23	55
06:00		36	24	60
07:00		39	30	69
08:00		28	26	54
09:00		10	6	16
10:00		11	9	20
11:00		10	6	16
Total		460	387	847
Percent		54.3%	45.7%	
AM Peak	-	07:00	07:00	07:00
Vol.	-	24	21	45
PM Peak	-	15:00	12:00	12:00
Vol.	-	40	40	74
Grand Total		460	387	847
Percent		54.3%	45.7%	
ADT		ADT 612	AADT 612	

Research Data

Land Use: 221
Low/Mid-Rise Apartment

Description

Low/mid-rise apartments are rental dwelling units located within the same building with at least three other dwelling units: for example, quadraplexes and all types of apartment buildings. The study sites in this land use have one, two, three, or four levels. High-rise apartment (Land Use 222) is a related use.

Database Description

The database consisted of a mix of suburban and urban sites. Parking demand rates at the suburban sites differed from those at urban sites and, therefore, the data were analyzed separately.

- Average parking supply ratio: 1.4 parking spaces per dwelling unit (68 study sites). This ratio was the same at both the suburban and urban sites.
- Suburban site data: average size of the dwelling units at suburban study sites was 1.7 bedrooms, and the average parking supply ratio was 0.9 parking spaces per bedroom (three study sites).
- Urban site data: average size of the dwelling units was 1.9 bedrooms with an average parking supply ratio of 1.0 space per bedroom (11 study sites).

Saturday parking demand data were only provided at two suburban sites. One site with 1,236 dwelling units had a parking demand ratio of 1.33 vehicles per dwelling unit based on a single hourly count between 10:00 and 11:00 p.m. The other site with 55 dwelling units had a parking demand ratio of 0.92 vehicles per dwelling unit based on counts between the hours of 12:00 and 5:00 a.m.

Sunday parking demand data were only provided at two urban sites. One site with 15 dwelling units was counted during consecutive hours between 1:00 p.m. and 5:00 a.m. The peak parking demand ratio at this site was 1.00 vehicle per dwelling unit. The peak parking demand occurred between 12:00 and 5:00 a.m. The other site with 438 dwelling units had a parking demand ratio of 1.10 vehicles per dwelling unit based on a single hourly count between 11:00 p.m. and 12:00 a.m.

Four of the urban sites were identified as affordable housing.

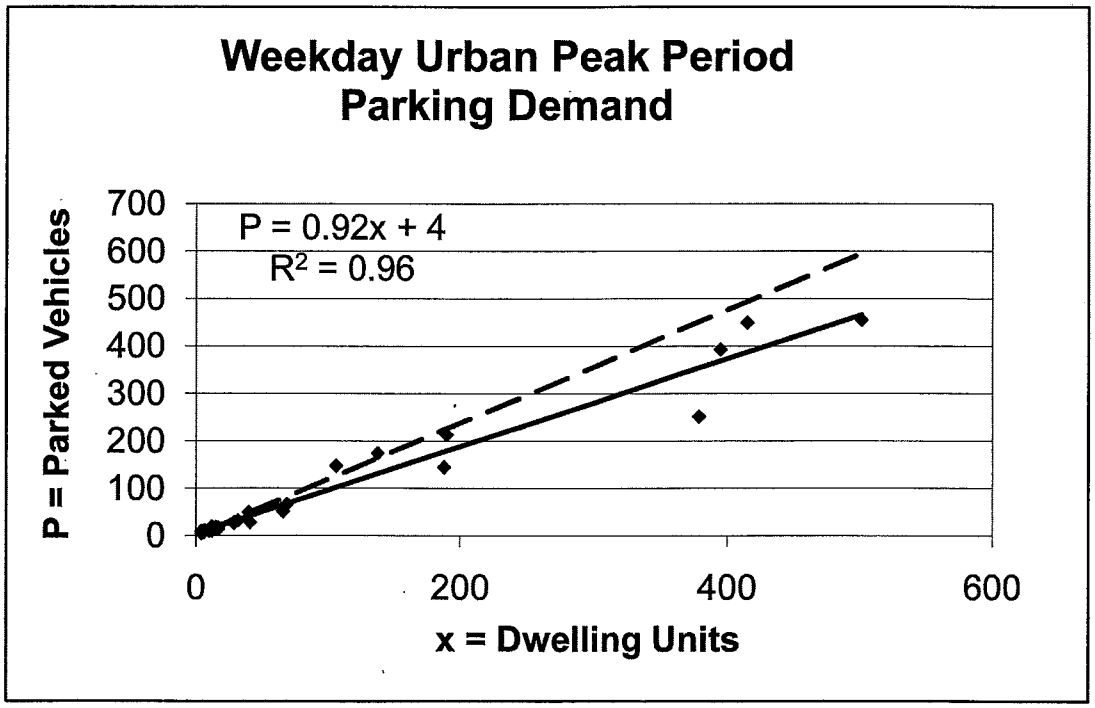
Several of the suburban study sites provided data regarding the number of bedrooms in the apartment complex. Although these data represented only a subset of the complete database for this land use, they demonstrated a correlation between number of bedrooms and peak parking demand. Study sites with an average of less than 1.5 bedrooms per dwelling unit in the apartment complex reported peak parking demand at 92 percent of the average peak parking demand for all study sites with bedroom data. Study sites with less than 2.0 but greater than or equal to 1.5 bedrooms per dwelling unit reported peak parking demand at 98 percent of the average. Study sites with an average of 2.0 or greater bedrooms per dwelling unit reported peak parking demand at 13 percent greater than the average.

For the urban study sites, the parking demand data consisted of single or discontinuous hourly counts and therefore a time-of-day distribution was not produced. The following table presents a time-of-day distribution of parking demand at the suburban study sites.

Land Use: 221
Low/Mid-Rise Apartment

Average Peak Period Parking Demand vs. Dwelling Units
On a: Weekday
Location: Urban

Statistic	Peak Period Demand
Peak Period	10:00 p.m.–5:00 a.m.
Number of Study Sites	40
Average Size of Study Sites	70 dwelling units
Average Peak Period Parking Demand	1.20 vehicles per dwelling unit
Standard Deviation	0.42
Coefficient of Variation	35%
95% Confidence Interval	1.07–1.33 vehicles per dwelling unit
Range	0.66–2.50 vehicles per dwelling unit
85th Percentile	1.61 vehicles per dwelling unit
33rd Percentile	0.93 vehicles per dwelling unit



Executive Summary

Type of project		A. Total units	B. Studio Low/Med/ High	C. 1 BR Low/Med/ High	D. 2 BR Low/Med/ High	E. 3 BR Low/Med/ High	F. Subtotal for units (sum B3 – E3)	G. Visitor parking (G2*A1)	H. Staff parking (H2*A1)	I. Subtotal w/ staff + visitor (F3+G3+H3)	J. Total requirement with vacancy factor adjustment (I3*J2) Vacancy adj./no vacancy adj.
Family Housing	1. Units										
	2. Rate		N/A	1.0/0.6/ 0.33	1.3/1.1/ 0.5	1.75/1.4/0. 75		0.15	0.05		1.1/1.0
	3. Spaces										
Living Unit/ SRO	1. Units										
	2. Rate		0.5/0.3/0.1	N/A	N/A	N/A		0.15	0.05		1.1/1.0
	3. Spaces										
Senior Housing	1. Units										
	2. Rate		0.5/0.3/ 0.1	0.75/0.6/ 0.15	1.0/0.85/0.2	N/A		0.15	0.05		1.1/1.0
	3. Spaces										
Studio – 1 bed-room	1. Units										
	2. Rate		0.5/0.2/ 0.1	0.75/0.5/ 0.1	N/A	N/A		0.15	0.05		1.1/1.0
	3. Spaces										
Special Needs	1. Units										
	2. Rate		0.5/0.2/ 0.1	0.75/0.5/ 0.1	N/A	N/A		0.15	0.10		1.1/1.0
	3. Spaces										

Notes on Model & Parking Requirements:

1. Requirements should be developed based on the four housing types outlined in this table.
2. Requirements are based on mean (average) vehicle availability.
3. Requirements should be based on walkability/transit indices (Suburban, urban and core designations have been simplified to low, medium and high, respectively).
4. 10% base vacancy factor is adjustable if using unassigned parking. Unassigned parking is the preferred method.
5. Visitor parking = 0.15 spaces/unit, or zero for dense urban areas, or unassigned lots.
6. Staff Parking should be considered on a case by case basis, with 0.1 for staff intensive developments.
7. Parking management tools and travel demand management strategies should be considered for appropriate developments to supplement minimum requirements.

Table 4: Predicted home-based vehicle trips (Model 1) relative to base case scenario

Income Category	Non-Urban	Suburban Neighborhood	Urban Neighborhood	Urban District	Urban Core
Single-Family Dwellings					
Extremely Low-Income	46%	55%	52%	44%	27%
Very Low-Income	60%	71%	67%	56%	35%
Low-Income	72%	85%	81%	68%	42%
Median/Moderate-Income	77%	92%	87%	73%	46%
Above Moderate-Income	84%	**100%**	95%	80%	50%
Multifamily Dwellings					
Extremely Low-Income	39%	46%	44%	37%	23%
Very Low-Income	50%	60%	57%	47%	30%
Low-Income	60%	71%	68%	57%	36%
Median/Moderate-Income	65%	77%	73%	61%	38%
Above Moderate-Income	71%	84%	80%	67%	42%

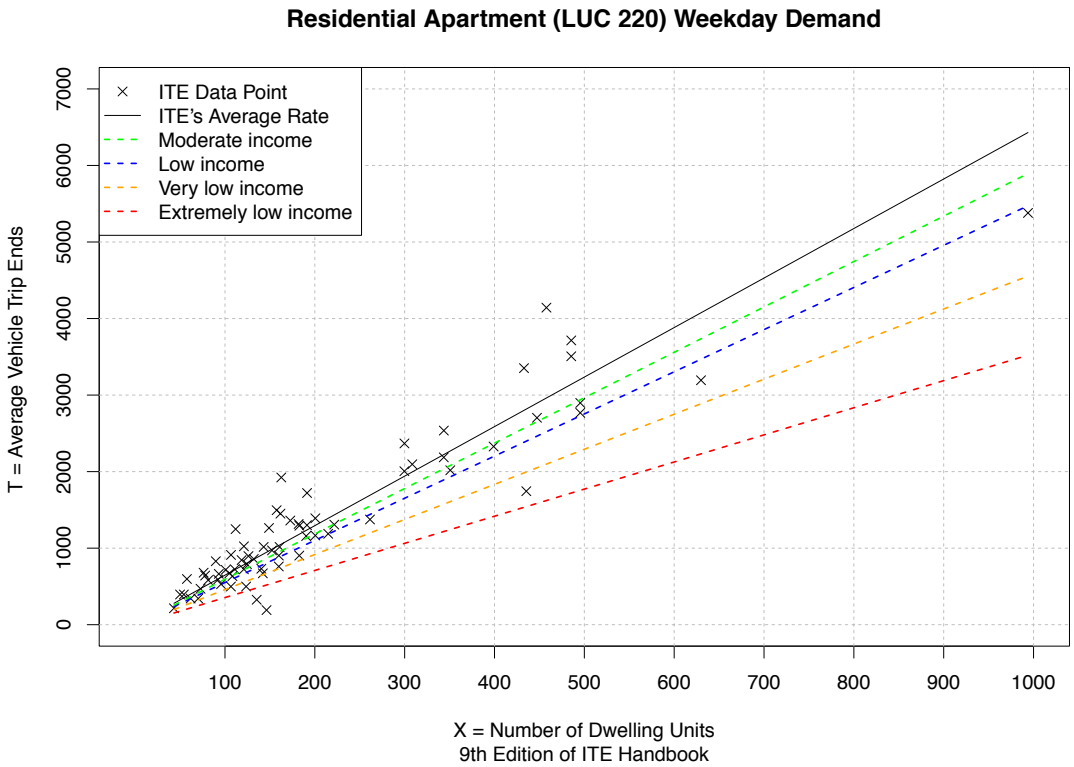


Figure 2: ITE residential apartment (LUC 220) weekday vehicle trips compared to home-based vehicle trip estimates from Model 1

8 Implications for affordable housing development

Many impact fee rates are developed using methodologies based upon vehicle trip estimates from ITE. If these rates are not sensitive to the issues we have been discussing—urban context and socioeconomics—they assume that all housing development will have same impact. Some fee structures fail to distinguish

  - » Provide continuous paved sidewalks / walkways with adequate lighting from all buildings in the Project to nearby transit services and stops. This may include mid-block paseos.
  - » Implement transit shelter enhancements.
- If the Development Project is not within ¼-mile walking distance of a transit station or a RapidBus stop, the Project may still qualify for up to 10% trip generation adjustment. To be eligible for this adjustment, the Project should include design features that promote alternative travel modes and provide certain amenities to tenants and employees. Features and amenities that may qualify a Project for this adjustment include the following:
  - » An on-site transit information kiosk and/or on-site transit pass sales;
  - » On-site facilities such as ATM machines, cafeteria, convenience shopping, showers, and changing rooms;
  - » Pricing for single-occupancy auto parking;
  - » Publicly accessible car share or bike share station, contingent on LADOT approval;
  - » Bicycle racks or amenities for people traveling by bicycle;
  - » Provision of on-site concierge service to facilitate use of transit, taxis, or private shuttles by employees/ residents;
  - » Provision of shuttle service for employees and/or customers.

  Transit trip adjustment will not be automatically granted to Development Projects located in an area with infrequent transit service. However, all reasonable efforts by the developer to promote the use of public transit or walking will be considered for transit adjustments on a case-by-case basis.

  NOTE: Refer to ***Section 4.2*** of these TIS Guidelines for transit-related impact mitigation measures.

- Affordable Housing Projects

  Residential or mixed-use developments that include Affordable Housing Units [as defined in LAMC 12.22-A.25 (b)] are eligible to use the trip generation rates presented in **Table 5**, which are based on the total number and type of dwelling units reserved as affordable. These trip generation rates are based on vehicle trip count data collected at affordable housing sites in the City of Los Angeles in 2016. These trip generation rates for Affordable Housing units are not subject to any of the aforementioned adjustments in this Section.

Table 5: Trip Generation Rates for Affordable Housing Projects

Affordable Housing Type	***Daily Rate*** *(Trips per DU)*	***Average AM Peak Hr Rate*** *(Trips per DU)*	***% AM Trips In***	***% AM Trips Out***	***Average PM Peak Hr Rate*** *(Trips per DU)*	***% PM Trips In***	***% PM Trips Out***
Family	4.08	0.50	40%	60%	0.34	55%	45%
Seniors	1.72	0.12	38%	62%	0.15	52%	48%
Permanent Supportive Housing / Special Needs	1.27	0.12	44%	56%	0.12	59%	41%

Family affordable housing offers affordable dwelling units designed for households with children. Senior affordable

housing provides affordable dwelling units designed for mature residents. Permanent supportive housing provides long-term housing with supportive services designed to enable homeless persons and individuals/families at risk of homelessness to ensure that they remain housed and live as independently as possible.

3.3C TRAFFIC COUNTS

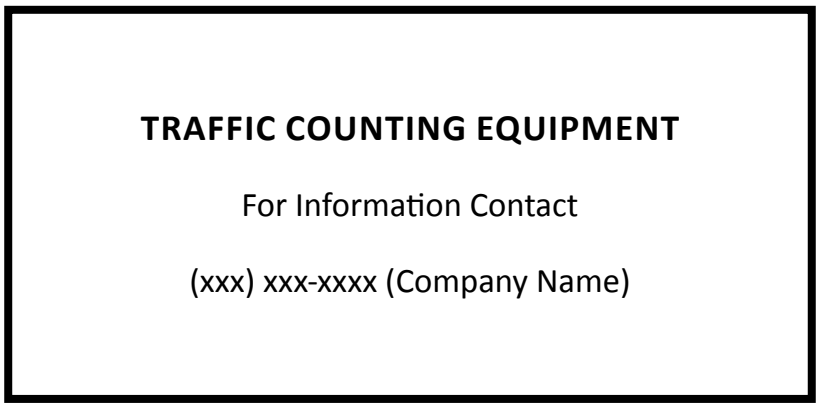
The LADOT traffic count database should be searched for any recent traffic counts at the Study intersections. The TIS should not use any traffic counts that are more than two years old. If recent LADOT traffic counts are not available, then new traffic counts shall be collected by a qualified data collection firm. Turning movement data at the study intersections should be collected in 15-minute intervals during the hours of 7:00 a.m. to 10:00 a.m. and 3:00 p.m. to 6:00 p.m., unless LADOT specifies other hours (e.g., for a signal warrant determination or weekend analysis). Unless otherwise required, all traffic counts should generally be conducted when local schools or colleges are in session, on days of good weather, on Tuesdays through Thursdays during non-Summer months, and should avoid being taken on weeks with a holiday. Relative to the proposed Project description, the TIS may be required to collect traffic data on and evaluate special circumstances, such as:

- Summer weekend activity in recreational areas
- Holidays or special events
- Alternative Project scenarios if required by another City Department or adjacent jurisdiction

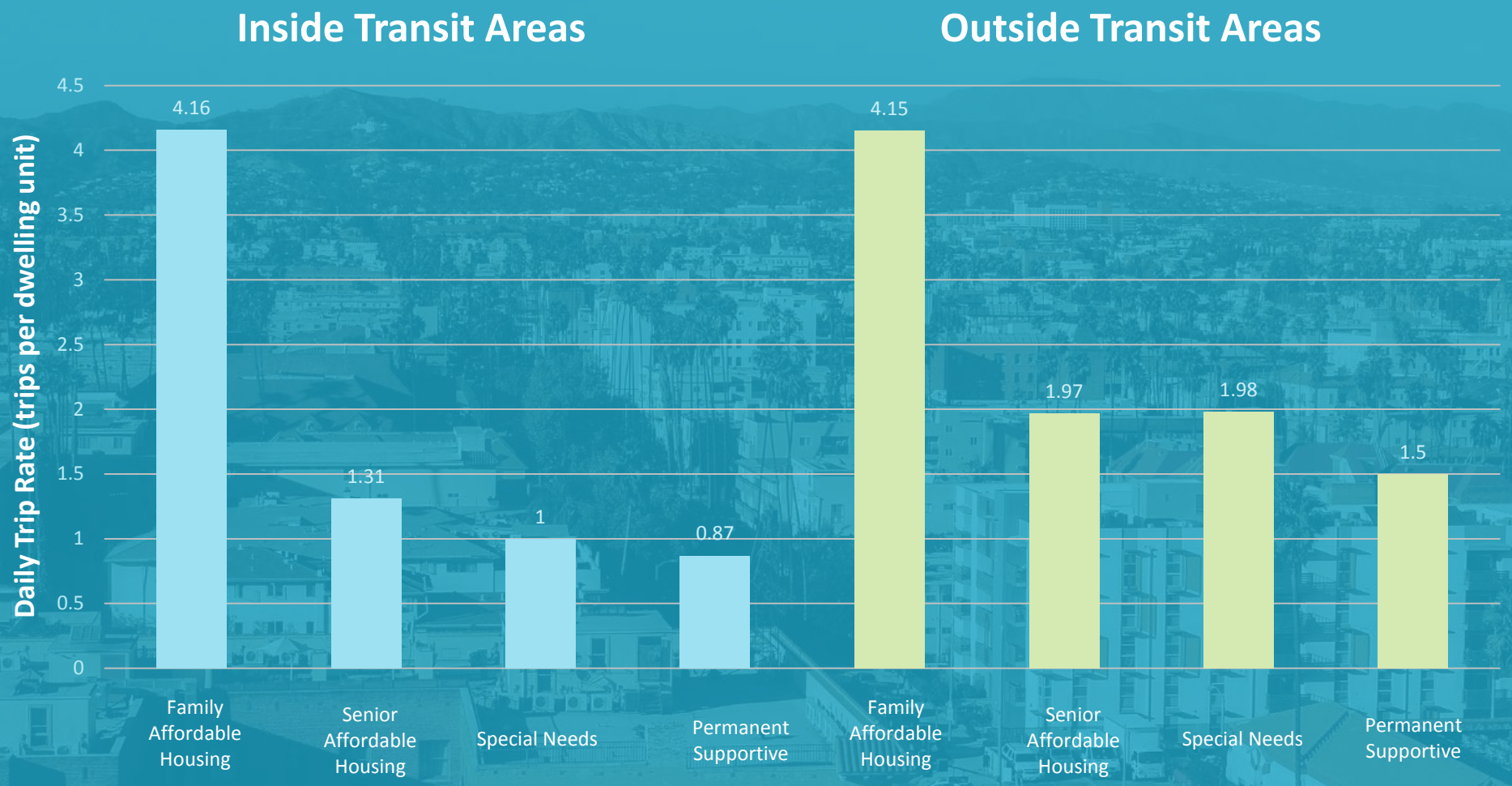
Traffic counts should include vehicle classifications, pedestrian volume counts, and bicycle counts. If traffic count data is collected utilizing video technology equipment that is left unattended in the public right-of-way, the video equipment should be clearly labeled as traffic counting equipment and should include the name and contact information of the company conducting the count, as shown in **Figure 2**. All traffic data collected should be summarized and presented in the standard LADOT format depicting turning movement volumes for all required modes as shown in **Attachments G and H**, and submitted in digital and hard copy formats.

The TIS should include map(s) showing the "existing" (specify base year) traffic volumes for both the a.m. and p.m. peak hours at the study intersections and the average daily traffic (ADT) on any analyzed street segments. Additionally, the TIS should include map(s) showing future traffic volumes with ambient growth without Project at the Study intersections and street segments. This map should specify the future year used in the impact analysis and should be based on the expected date of project buildout. The future year identified in this step shall remain consistent for all other analyses and maps used to illustrate future traffic projections.

Figure 2: Sample Label for Traffic Counting Equipment

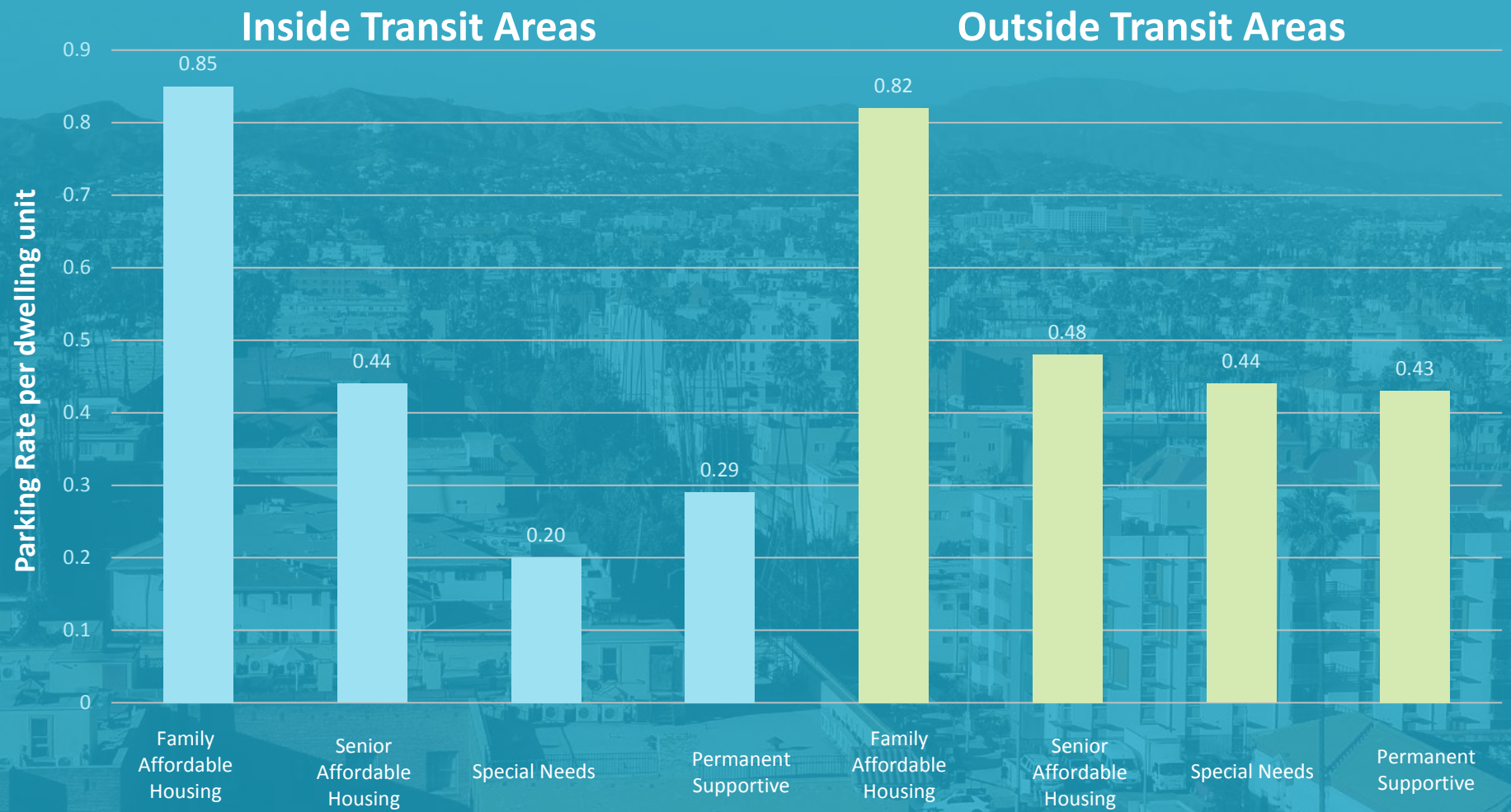


LA Affordable Housing Trip Generation



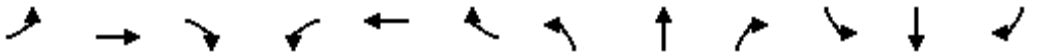
Measuring the Miles

LA Affordable Housing Parking Rates



Measuring the Miles

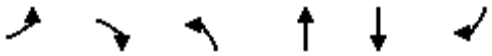
Intersection Capacity Worksheets: 2018 Existing



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	589	4	4	1665	14	10	0	5	15	0	117
Future Volume (Veh/h)	44	589	4	4	1665	14	10	0	5	15	0	117
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.98	0.98	0.98	0.90	0.90	0.90	0.69	0.69	0.69
Hourly flow rate (vph)	52	701	5	4	1699	14	11	0	6	22	0	170
Pedestrians					3			1			1	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1714			707			1553	2530	240	2062	2526	574
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1714			707			1553	2530	240	2062	2526	574
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			100			75	100	99	22	100	63
cM capacity (veh/h)	370			893			44	23	761	28	24	464

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	52	280	280	145	4	680	680	354	11	6	22	170
Volume Left	52	0	0	0	4	0	0	0	11	0	22	0
Volume Right	0	0	0	5	0	0	0	14	0	6	0	170
cSH	370	1700	1700	1700	893	1700	1700	1700	44	761	28	464
Volume to Capacity	0.14	0.16	0.16	0.09	0.00	0.40	0.40	0.21	0.25	0.01	0.78	0.37
Queue Length 95th (ft)	12	0	0	0	0	0	0	0	21	1	63	42
Control Delay (s)	16.3	0.0	0.0	0.0	9.0	0.0	0.0	0.0	113.3	9.8	301.2	17.2
Lane LOS	C				A				F	A	F	C
Approach Delay (s)	1.1				0.0				76.7		49.7	
Approach LOS									F		E	

Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	51.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	8	4	0
Future Volume (Veh/h)	0	0	0	8	4	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	9	4	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	13	4	4			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	13	4	4			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1006	1080	1618			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	9	4
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1618	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

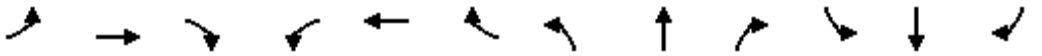
Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	78	21	6	22	51	11	22	48	31	118	299
Average Queue (ft)	26	1	0	2	1	0	1	12	8	48	93
95th Queue (ft)	59	11	4	12	14	6	10	38	30	131	334
Link Distance (ft)		891	891		792	792	792		227		605
Upstream Blk Time (%)											5
Queuing Penalty (veh)											0
Storage Bay Dist (ft)	150			110				50		140	
Storage Blk Time (%)								4	0	13	0
Queuing Penalty (veh)								0	0	22	0

Intersection: 2: Access St. & Proposed Access

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

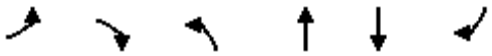
Network wide Queuing Penalty: 23



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	1487	14	6	907	18	9	0	8	18	1	72
Future Volume (Veh/h)	127	1487	14	6	907	18	9	0	8	18	1	72
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.56	0.56	0.56	0.80	0.80	0.80
Hourly flow rate (vph)	140	1634	15	6	945	19	16	0	14	23	1	90
Pedestrians		2			1			2			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	974			1651			2343	2910	555	1816	2908	336
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	974			1651			2343	2910	555	1816	2908	336
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	80			98			0	100	97	41	92	86
cM capacity (veh/h)	703			391			13	12	476	39	12	655

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	140	654	654	342	6	378	378	208	16	14	23	91
Volume Left	140	0	0	0	6	0	0	0	16	0	23	0
Volume Right	0	0	0	15	0	0	0	19	0	14	0	90
cSH	703	1700	1700	1700	391	1700	1700	1700	13	476	39	415
Volume to Capacity	0.20	0.38	0.38	0.20	0.02	0.22	0.22	0.12	1.22	0.03	0.59	0.22
Queue Length 95th (ft)	18	0	0	0	1	0	0	0	66	2	52	21
Control Delay (s)	11.4	0.0	0.0	0.0	14.4	0.0	0.0	0.0	721.7	12.8	184.6	16.1
Lane LOS	B				B				F	B	F	C
Approach Delay (s)	0.9				0.1				390.9		50.1	
Approach LOS									F		F	

Intersection Summary				
Average Delay	6.6			
Intersection Capacity Utilization	50.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	9	11	0
Future Volume (Veh/h)	0	0	0	9	11	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	10	12	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	22	12	12			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	22	12	12			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	995	1069	1607			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	10	12
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1607	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	120	28	20	6	32	45	22	26	68	123	114	201
Average Queue (ft)	41	1	1	0	6	3	1	1	37	32	40	62
95th Queue (ft)	78	13	11	4	24	21	11	12	74	112	103	209
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	0								48	0	1	6
Queuing Penalty (veh)	0								6	0	1	1

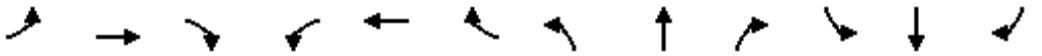
Intersection: 2: Access St. & Proposed Access

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 8

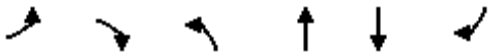
Intersection Capacity Worksheets: 2020 Background



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	711	4	4	1834	14	10	0	5	15	0	121
Future Volume (Veh/h)	45	711	4	4	1834	14	10	0	5	15	0	121
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.98	0.98	0.98	0.90	0.90	0.90	0.69	0.69	0.69
Hourly flow rate (vph)	54	846	5	4	1871	14	11	0	6	22	0	175
Pedestrians					3			1			1	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1886			852			1764	2852	288	2286	2847	632
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1886			852			1764	2852	288	2286	2847	632
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			99			60	100	99	0	100	59
cM capacity (veh/h)	317			788			27	14	708	18	14	425

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	54	338	338	174	4	748	748	388	11	6	22	175
Volume Left	54	0	0	0	4	0	0	0	11	0	22	0
Volume Right	0	0	0	5	0	0	0	14	0	6	0	175
cSH	317	1700	1700	1700	788	1700	1700	1700	27	708	18	425
Volume to Capacity	0.17	0.20	0.20	0.10	0.01	0.44	0.44	0.23	0.40	0.01	1.19	0.41
Queue Length 95th (ft)	15	0	0	0	0	0	0	0	31	1	78	49
Control Delay (s)	18.7	0.0	0.0	0.0	9.6	0.0	0.0	0.0	206.1	10.1	569.4	19.3
Lane LOS	C				A				F	B	F	C
Approach Delay (s)	1.1				0.0				136.9		80.7	
Approach LOS									F		F	

Intersection Summary				
Average Delay	6.4			
Intersection Capacity Utilization	52.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	8	4	0
Future Volume (Veh/h)	0	0	0	8	4	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	9	4	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	13	4	4			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	13	4	4			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1006	1080	1618			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	9	4
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1618	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

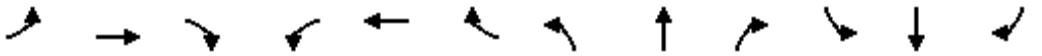
Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	72	16	5	21	38	34	9	53	43	142	341
Average Queue (ft)	30	1	0	2	3	1	0	21	7	73	111
95th Queue (ft)	65	8	4	11	20	13	5	51	30	153	378
Link Distance (ft)		891	891		792	792	792		227		605
Upstream Blk Time (%)											8
Queuing Penalty (veh)											0
Storage Bay Dist (ft)	150			110				50		140	
Storage Blk Time (%)								18	0	20	0
Queuing Penalty (veh)								1	0	32	0

Intersection: 2: Access St. & Proposed Access

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

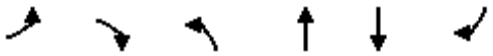
Network wide Queuing Penalty: 33



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	1688	14	6	1063	19	9	0	8	19	1	74
Future Volume (Veh/h)	131	1688	14	6	1063	19	9	0	8	19	1	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.56	0.56	0.56	0.80	0.80	0.80
Hourly flow rate (vph)	144	1855	15	6	1107	20	16	0	14	24	1	93
Pedestrians		2			1			2			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1137			1872			2629	3302	629	2060	3299	391
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1137			1872			2629	3302	629	2060	3299	391
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	76			98			0	100	97	3	84	85
cM capacity (veh/h)	610			321			7	6	426	25	6	604

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	144	742	742	386	6	443	443	241	16	14	24	94
Volume Left	144	0	0	0	6	0	0	0	16	0	24	0
Volume Right	0	0	0	15	0	0	0	20	0	14	0	93
cSH	610	1700	1700	1700	321	1700	1700	1700	7	426	25	302
Volume to Capacity	0.24	0.44	0.44	0.23	0.02	0.26	0.26	0.14	2.28	0.03	0.97	0.31
Queue Length 95th (ft)	23	0	0	0	1	0	0	0	77	3	74	32
Control Delay (s)	12.7	0.0	0.0	0.0	16.4	0.0	0.0	0.0	1590.0	13.7	398.6	22.2
Lane LOS	B				C				F	B	F	C
Approach Delay (s)	0.9				0.1				854.4		98.7	
Approach LOS									F		F	

Intersection Summary				
Average Delay	11.9			
Intersection Capacity Utilization	54.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	9	11	0
Future Volume (Veh/h)	0	0	0	9	11	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	10	12	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	22	12	12			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	22	12	12			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	995	1069	1607			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	10	12
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1607	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	118	55	24	34	36	40	27	19	71	174	164	589
Average Queue (ft)	49	4	1	2	7	3	2	1	43	67	88	255
95th Queue (ft)	91	26	11	18	26	21	13	7	85	179	185	663
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)										1		22
Queuing Penalty (veh)										0		0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	0								64	0	29	28
Queuing Penalty (veh)	0								8	0	26	6

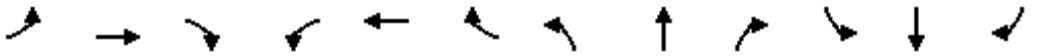
Intersection: 2: Access St. & Proposed Access

Movement	NB
Directions Served	LT
Maximum Queue (ft)	10
Average Queue (ft)	0
95th Queue (ft)	8
Link Distance (ft)	66
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 41

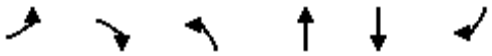
Intersection Capacity Worksheets: 2040 Background



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	845	5	5	2215	20	15	0	5	20	0	145
Future Volume (Veh/h)	55	845	5	5	2215	20	15	0	5	20	0	145
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	59	899	5	5	2260	20	16	0	5	21	0	154
Pedestrians					3			1			1	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2281			905			1938	3312	306	2707	3304	764
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2281			905			1938	3312	306	2707	3304	764
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			99			9	100	99	0	100	56
cM capacity (veh/h)	222			753			18	6	690	8	6	348

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	59	360	360	185	5	904	904	472	16	5	21	154
Volume Left	59	0	0	0	5	0	0	0	16	0	21	0
Volume Right	0	0	0	5	0	0	0	20	0	5	0	154
cSH	222	1700	1700	1700	753	1700	1700	1700	18	690	8	348
Volume to Capacity	0.27	0.21	0.21	0.11	0.01	0.53	0.53	0.28	0.91	0.01	2.63	0.44
Queue Length 95th (ft)	26	0	0	0	1	0	0	0	59	1	93	55
Control Delay (s)	26.9	0.0	0.0	0.0	9.8	0.0	0.0	0.0	481.3	10.3	1641.1	23.3
Lane LOS	D				A				F	B	F	C
Approach Delay (s)	1.7				0.0				369.2		217.4	
Approach LOS									F		F	

Intersection Summary				
Average Delay	13.8			
Intersection Capacity Utilization	64.9%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	10	5	0
Future Volume (Veh/h)	0	0	0	10	5	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	11	5	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	16	5	5			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	16	5	5			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1002	1078	1616			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	11	5
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1616	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

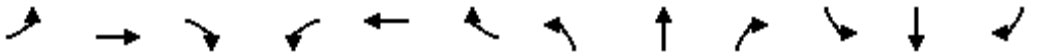
Movement	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	148	87	32	37	16	10	73	142	161	624
Average Queue (ft)	46	3	3	2	1	0	42	30	125	352
95th Queue (ft)	109	43	18	17	10	5	73	113	198	775
Link Distance (ft)		891		792	792	792		227		605
Upstream Blk Time (%)										42
Queuing Penalty (veh)										0
Storage Bay Dist (ft)	150		110				50		140	
Storage Blk Time (%)	2						64	0	72	5
Queuing Penalty (veh)	6						3	0	109	1

Intersection: 2: Access St. & Proposed Access

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

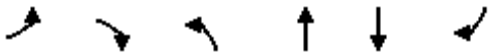
Network wide Queuing Penalty: 119



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2025	20	10	1270	25	10	0	10	25	1	90
Future Volume (Veh/h)	160	2025	20	10	1270	25	10	0	10	25	1	90
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	165	2088	21	10	1309	26	10	0	10	26	1	93
Pedestrians		2			1			2			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1345			2111			2982	3796	710	2389	3793	461
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1345			2111			2982	3796	710	2389	3793	461
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	68			96			0	100	97	0	61	83
cM capacity (veh/h)	508			259			3	3	377	13	3	544

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	165	835	835	439	10	524	524	288	10	10	26	94
Volume Left	165	0	0	0	10	0	0	0	10	0	26	0
Volume Right	0	0	0	21	0	0	0	26	0	10	0	93
cSH	508	1700	1700	1700	259	1700	1700	1700	3	377	13	168
Volume to Capacity	0.32	0.49	0.49	0.26	0.04	0.31	0.31	0.17	3.79	0.03	2.08	0.56
Queue Length 95th (ft)	35	0	0	0	3	0	0	0	Err	2	102	73
Control Delay (s)	15.4	0.0	0.0	0.0	19.5	0.0	0.0	0.0	Err	14.8	1107.0	50.9
Lane LOS	C				C				F	B	F	F
Approach Delay (s)	1.1				0.1				5006.9		279.7	
Approach LOS									F		F	

Intersection Summary				
Average Delay	36.3			
Intersection Capacity Utilization	61.3%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	11	16	0
Future Volume (Veh/h)	0	0	0	11	16	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	12	17	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	29	17	17			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	29	17	17			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	986	1062	1600			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	0	12	17
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1600	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	166	105	24	27	42	46	24	21	67	170	165	624
Average Queue (ft)	64	5	1	1	9	3	1	1	45	47	124	461
95th Queue (ft)	124	48	17	14	32	21	13	9	74	149	206	826
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)										1		56
Queuing Penalty (veh)										0		0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	1	0							73	0	74	14
Queuing Penalty (veh)	6	0							7	0	69	4

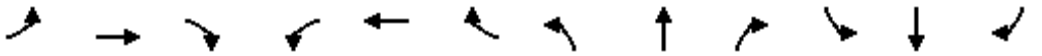
Intersection: 2: Access St. & Proposed Access

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 85

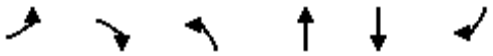
Intersection Capacity Worksheets: 2020 Background + Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	711	6	5	1834	14	12	0	6	15	0	121
Future Volume (Veh/h)	45	711	6	5	1834	14	12	0	6	15	0	121
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.98	0.98	0.98	0.90	0.90	0.90	0.69	0.69	0.69
Hourly flow rate (vph)	54	846	7	5	1871	14	13	0	7	22	0	175
Pedestrians					3			1			1	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1886			854			1767	2854	290	2289	2851	632
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1886			854			1767	2854	290	2289	2851	632
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			99			52	100	99	0	100	59
cM capacity (veh/h)	317			787			27	14	707	18	14	425

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	54	338	338	176	5	748	748	388	13	7	22	175
Volume Left	54	0	0	0	5	0	0	0	13	0	22	0
Volume Right	0	0	0	7	0	0	0	14	0	7	0	175
cSH	317	1700	1700	1700	787	1700	1700	1700	27	707	18	425
Volume to Capacity	0.17	0.20	0.20	0.10	0.01	0.44	0.44	0.23	0.48	0.01	1.20	0.41
Queue Length 95th (ft)	15	0	0	0	0	0	0	0	37	1	78	49
Control Delay (s)	18.7	0.0	0.0	0.0	9.6	0.0	0.0	0.0	224.8	10.1	575.7	19.3
Lane LOS	C				A				F	B	F	C
Approach Delay (s)	1.1				0.0				149.7		81.4	
Approach LOS									F		F	

Intersection Summary				
Average Delay	6.7			
Intersection Capacity Utilization	54.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	0	0	8	4	3
Future Volume (Veh/h)	3	0	0	8	4	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	0	0	9	4	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	14	6	7			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	14	6	7			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1004	1077	1614			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	3	9	7
Volume Left	3	0	0
Volume Right	0	0	3
cSH	1004	1614	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.6	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

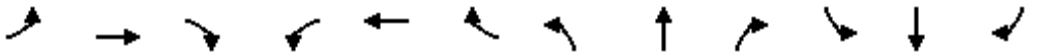
Movement	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	82	21	28	61	42	29	56	52	139	248
Average Queue (ft)	30	1	3	3	2	2	20	9	70	132
95th Queue (ft)	69	10	16	22	22	14	56	44	162	422
Link Distance (ft)		891		792	792	792		227		605
Upstream Blk Time (%)										8
Queuing Penalty (veh)										0
Storage Bay Dist (ft)	150		110				50		140	
Storage Blk Time (%)							19	0	22	1
Queuing Penalty (veh)							1	0	36	0

Intersection: 2: Access St. & Proposed Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	2
95th Queue (ft)	16
Link Distance (ft)	84
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

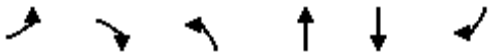
Network wide Queuing Penalty: 38



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	1688	16	8	1063	19	10	0	9	19	1	74
Future Volume (Veh/h)	131	1688	16	8	1063	19	10	0	9	19	1	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.56	0.56	0.56	0.80	0.80	0.80
Hourly flow rate (vph)	144	1855	18	8	1107	20	18	0	16	24	1	93
Pedestrians		2			1			2			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1137			1875			2634	3307	630	2066	3306	391
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1137			1875			2634	3307	630	2066	3306	391
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	76			98			0	100	96	1	84	85
cM capacity (veh/h)	610			320			7	6	425	24	6	604

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	144	742	742	389	8	443	443	241	18	16	24	94
Volume Left	144	0	0	0	8	0	0	0	18	0	24	0
Volume Right	0	0	0	18	0	0	0	20	0	16	0	93
cSH	610	1700	1700	1700	320	1700	1700	1700	7	425	24	300
Volume to Capacity	0.24	0.44	0.44	0.23	0.02	0.26	0.26	0.14	2.61	0.04	0.99	0.31
Queue Length 95th (ft)	23	0	0	0	2	0	0	0	85	3	75	33
Control Delay (s)	12.7	0.0	0.0	0.0	16.5	0.0	0.0	0.0	1754.3	13.8	411.1	22.4
Lane LOS	B				C				F	B	F	C
Approach Delay (s)	0.9				0.1				935.2		101.5	
Approach LOS									F		F	

Intersection Summary				
Average Delay	13.8			
Intersection Capacity Utilization	54.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	0	0	9	11	4
Future Volume (Veh/h)	2	0	0	9	11	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	10	12	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	24	14	16			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	24	14	16			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	992	1066	1602			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	2	10	16
Volume Left	2	0	0
Volume Right	0	0	4
cSH	992	1602	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.6	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	103	26	21	10	28	50	21	13	70	132	154	486
Average Queue (ft)	47	1	1	0	6	2	0	0	36	39	111	149
95th Queue (ft)	86	11	11	7	24	19	6	6	79	127	197	456
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)												3
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)									47	0	57	3
Queuing Penalty (veh)									7	0	50	1

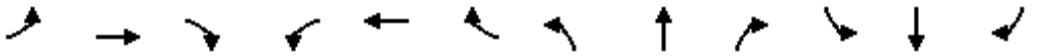
Intersection: 2: Access St. & Proposed Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	2
95th Queue (ft)	16
Link Distance (ft)	84
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 58

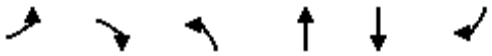
Intersection Capacity Worksheets: 2040 Background + Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	845	7	6	2215	20	17	0	6	20	0	145
Future Volume (Veh/h)	55	845	7	6	2215	20	17	0	6	20	0	145
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	59	899	7	6	2260	20	18	0	6	21	0	154
Pedestrians					3			1			1	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2281			907			1941	3314	307	2710	3308	764
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2281			907			1941	3314	307	2710	3308	764
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			99			0	100	99	0	100	56
cM capacity (veh/h)	222			752			17	6	689	8	6	348

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	59	360	360	187	6	904	904	472	18	6	21	154
Volume Left	59	0	0	0	6	0	0	0	18	0	21	0
Volume Right	0	0	0	7	0	0	0	20	0	6	0	154
cSH	222	1700	1700	1700	752	1700	1700	1700	17	689	8	348
Volume to Capacity	0.27	0.21	0.21	0.11	0.01	0.53	0.53	0.28	1.03	0.01	2.65	0.44
Queue Length 95th (ft)	26	0	0	0	1	0	0	0	66	1	94	55
Control Delay (s)	26.9	0.0	0.0	0.0	9.8	0.0	0.0	0.0	528.6	10.3	1656.5	23.3
Lane LOS	D				A				F	B	F	C
Approach Delay (s)	1.6				0.0				399.0		219.3	
Approach LOS									F		F	

Intersection Summary				
Average Delay	14.4			
Intersection Capacity Utilization	66.5%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	0	0	10	5	3
Future Volume (Veh/h)	3	0	0	10	5	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	0	0	11	5	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	18	6	8			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	18	6	8			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1000	1076	1612			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	3	11	8
Volume Left	3	0	0
Volume Right	0	0	3
cSH	1000	1612	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.6	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

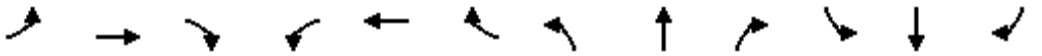
Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	158	180	64	6	28	32	33	34	74	227	163	620
Average Queue (ft)	51	8	4	0	4	3	2	2	54	108	127	327
95th Queue (ft)	117	78	61	4	19	19	20	18	85	255	195	762
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)										13		41
Queuing Penalty (veh)										2		0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	4	0							82	0	72	2
Queuing Penalty (veh)	11	0							5	0	110	0

Intersection: 2: Access St. & Proposed Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	34	20
Average Queue (ft)	4	5
95th Queue (ft)	21	32
Link Distance (ft)	84	66
Upstream Blk Time (%)		7
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

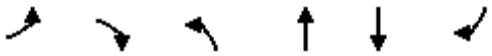
Network wide Queuing Penalty: 127



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2025	22	12	1270	25	11	0	11	25	1	90
Future Volume (Veh/h)	160	2025	22	12	1270	25	11	0	11	25	1	90
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	165	2088	23	12	1309	26	11	0	11	26	1	93
Pedestrians		2			1			2			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1345			2113			2987	3800	710	2394	3799	461
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1345			2113			2987	3800	710	2394	3799	461
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	68			95			0	100	97	0	60	83
cM capacity (veh/h)	508			259			3	3	377	12	3	544

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	165	835	835	441	12	524	524	288	11	11	26	94
Volume Left	165	0	0	0	12	0	0	0	11	0	26	0
Volume Right	0	0	0	23	0	0	0	26	0	11	0	93
cSH	508	1700	1700	1700	259	1700	1700	1700	3	377	12	166
Volume to Capacity	0.32	0.49	0.49	0.26	0.05	0.31	0.31	0.17	4.26	0.03	2.11	0.57
Queue Length 95th (ft)	35	0	0	0	4	0	0	0	Err	2	102	74
Control Delay (s)	15.4	0.0	0.0	0.0	19.6	0.0	0.0	0.0	Err	14.8	1132.0	52.0
Lane LOS	C				C				F	B	F	F
Approach Delay (s)	1.1				0.2				5006.9		286.0	
Approach LOS									F		F	

Intersection Summary				
Average Delay	39.1			
Intersection Capacity Utilization	61.3%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	0	0	11	16	4
Future Volume (Veh/h)	2	0	0	11	16	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	12	17	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	31	19	21			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	31	19	21			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	983	1059	1595			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	2	12	21
Volume Left	2	0	0
Volume Right	0	0	4
cSH	983	1595	1700
Volume to Capacity	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	146	103	40	20	45	17	15	27	65	174	141	616
Average Queue (ft)	63	6	2	1	10	1	1	1	35	79	105	390
95th Queue (ft)	120	44	16	13	36	10	7	12	74	224	201	795
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)										10		42
Queuing Penalty (veh)										1		0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	1	0			0				56	0	57	24
Queuing Penalty (veh)	4	0			0				6	0	53	6

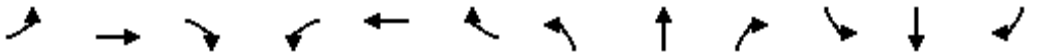
Intersection: 2: Access St. & Proposed Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	18	16
Average Queue (ft)	3	1
95th Queue (ft)	17	9
Link Distance (ft)	84	66
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 71

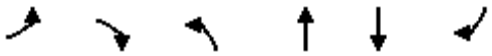
Intersection Capacity Worksheets: Sensitivity Analysis



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	711	6	7	1834	14	18	0	13	15	0	121
Future Volume (Veh/h)	45	711	6	7	1834	14	18	0	13	15	0	121
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.98	0.98	0.98	0.90	0.90	0.90	0.69	0.69	0.69
Hourly flow rate (vph)	54	846	7	7	1871	14	20	0	14	22	0	175
Pedestrians					3			1			1	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1886			854			1771	2858	290	2300	2855	632
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1886			854			1771	2858	290	2300	2855	632
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			99			26	100	98	0	100	59
cM capacity (veh/h)	317			787			27	14	707	18	14	425

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	54	338	338	176	7	748	748	388	20	14	22	175
Volume Left	54	0	0	0	7	0	0	0	20	0	22	0
Volume Right	0	0	0	7	0	0	0	14	0	14	0	175
cSH	317	1700	1700	1700	787	1700	1700	1700	27	707	18	425
Volume to Capacity	0.17	0.20	0.20	0.10	0.01	0.44	0.44	0.23	0.74	0.02	1.24	0.41
Queue Length 95th (ft)	15	0	0	0	1	0	0	0	58	2	79	49
Control Delay (s)	18.7	0.0	0.0	0.0	9.6	0.0	0.0	0.0	298.5	10.2	602.1	19.3
Lane LOS	C				A				F	B	F	C
Approach Delay (s)	1.1				0.0				179.8		84.3	
Approach LOS									F		F	

Intersection Summary				
Average Delay	7.9			
Intersection Capacity Utilization	58.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	0	0	8	4	5
Future Volume (Veh/h)	16	0	0	8	4	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	0	0	9	4	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	16	6	9			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	16	6	9			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	100	100			
cM capacity (veh/h)	1003	1076	1611			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	17	9	9
Volume Left	17	0	0
Volume Right	0	0	5
cSH	1003	1611	1700
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

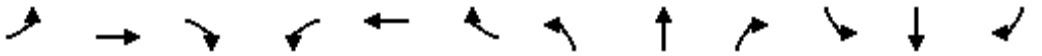
Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	75	26	16	31	51	37	10	70	106	128	351
Average Queue (ft)	29	1	1	5	5	2	1	40	47	70	139
95th Queue (ft)	65	13	7	22	27	16	7	82	169	164	443
Link Distance (ft)		891	891		792	792	792		227		605
Upstream Blk Time (%)									5		7
Queuing Penalty (veh)									1		0
Storage Bay Dist (ft)	150			110				50		140	
Storage Blk Time (%)								52	0	25	2
Queuing Penalty (veh)								7	0	41	0

Intersection: 2: Access St. & Proposed Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	43	14
Average Queue (ft)	13	2
95th Queue (ft)	40	14
Link Distance (ft)	84	66
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

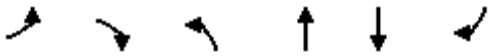
Network wide Queuing Penalty: 49



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	1688	22	15	1063	19	17	0	16	19	1	74
Future Volume (Veh/h)	131	1688	22	15	1063	19	17	0	16	19	1	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.56	0.56	0.56	0.80	0.80	0.80
Hourly flow rate (vph)	144	1855	24	16	1107	20	30	0	29	24	1	93
Pedestrians		2			1			2			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1137			1881			2654	3326	633	2095	3328	391
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1137			1881			2654	3326	633	2095	3328	391
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	76			95			0	100	93	0	83	85
cM capacity (veh/h)	610			318			6	6	423	22	6	604

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	144	742	742	395	16	443	443	241	30	29	24	94
Volume Left	144	0	0	0	16	0	0	0	30	0	24	0
Volume Right	0	0	0	24	0	0	0	20	0	29	0	93
cSH	610	1700	1700	1700	318	1700	1700	1700	6	423	22	291
Volume to Capacity	0.24	0.44	0.44	0.23	0.05	0.26	0.26	0.14	4.63	0.07	1.10	0.32
Queue Length 95th (ft)	23	0	0	0	4	0	0	0	Err	5	79	34
Control Delay (s)	12.7	0.0	0.0	0.0	16.9	0.0	0.0	0.0	Err	14.1	480.2	23.2
Lane LOS	B				C				F	B	F	C
Approach Delay (s)	0.9				0.2				5091.2		116.1	
Approach LOS									F		F	

Intersection Summary				
Average Delay	94.6			
Intersection Capacity Utilization	54.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	0	0	14	12	17
Future Volume (Veh/h)	10	0	0	14	12	17
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	15	13	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	37	22	31			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	37	22	31			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	100			
cM capacity (veh/h)	975	1055	1582			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	11	15	31
Volume Left	11	0	0
Volume Right	0	0	18
cSH	975	1582	1700
Volume to Capacity	0.01	0.00	0.02
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	108	40	41	10	42	44	26	13	74	235	164	563
Average Queue (ft)	49	2	2	1	12	2	1	1	59	144	115	256
95th Queue (ft)	93	16	16	8	36	17	13	7	79	284	202	667
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)										30		17
Queuing Penalty (veh)										8		0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	0								95	1	57	1
Queuing Penalty (veh)	1								24	0	51	0

Intersection: 2: Access St. & Proposed Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	59	47
Average Queue (ft)	17	11
95th Queue (ft)	57	48
Link Distance (ft)	84	66
Upstream Blk Time (%)	6	12
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

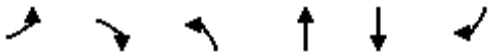
Network Summary

Network wide Queuing Penalty: 84

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	845	7	8	2215	20	23	0	13	20	0	145
Future Volume (Veh/h)	55	845	7	8	2215	20	23	0	13	20	0	145
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	59	899	7	8	2260	20	24	0	14	21	0	154
Pedestrians					3			1			1	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					3.5			3.5			3.5	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2281			907			1945	3318	307	2722	3312	764
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2281			907			1945	3318	307	2722	3312	764
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			99			0	100	98	0	100	56
cM capacity (veh/h)	222			752			17	6	689	8	6	348

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	59	360	360	187	8	904	904	472	24	14	21	154
Volume Left	59	0	0	0	8	0	0	0	24	0	21	0
Volume Right	0	0	0	7	0	0	0	20	0	14	0	154
cSH	222	1700	1700	1700	752	1700	1700	1700	17	689	8	348
Volume to Capacity	0.27	0.21	0.21	0.11	0.01	0.53	0.53	0.28	1.39	0.02	2.75	0.44
Queue Length 95th (ft)	26	0	0	0	1	0	0	0	86	2	94	55
Control Delay (s)	26.9	0.0	0.0	0.0	9.8	0.0	0.0	0.0	672.2	10.3	1727.5	23.3
Lane LOS	D				A				F	B	F	C
Approach Delay (s)	1.6				0.0				428.4		227.8	
Approach LOS									F		F	

Intersection Summary				
Average Delay	16.7			
Intersection Capacity Utilization	68.0%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	0	0	15	5	5
Future Volume (Veh/h)	16	0	0	15	5	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	0	0	16	5	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	24	8	10			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	24	8	10			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	100	100			
cM capacity (veh/h)	993	1075	1610			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	17	16	10
Volume Left	17	0	0
Volume Right	0	0	5
cSH	993	1610	1700
Volume to Capacity	0.02	0.00	0.01
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

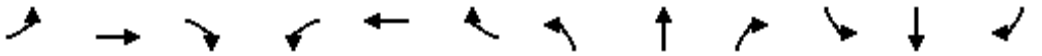
Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	122	65	21	6	33	54	44	10	74	244	139	410
Average Queue (ft)	46	3	1	0	5	3	2	1	53	152	105	249
95th Queue (ft)	97	29	8	4	22	21	18	6	88	306	198	670
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)										42		31
Queuing Penalty (veh)										14		0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	1	0							80	0	55	0
Queuing Penalty (veh)	2	0							11	0	84	0

Intersection: 2: Access St. & Proposed Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	83	63
Average Queue (ft)	31	20
95th Queue (ft)	84	66
Link Distance (ft)	84	66
Upstream Blk Time (%)	22	18
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

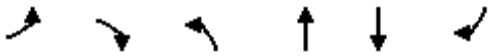
Network wide Queuing Penalty: 111



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2025	28	19	1270	25	18	0	18	25	1	90
Future Volume (Veh/h)	160	2025	28	19	1270	25	18	0	18	25	1	90
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	165	2088	29	20	1309	26	19	0	19	26	1	93
Pedestrians		2			1			2			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1345			2119			3006	3820	714	2418	3821	461
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1345			2119			3006	3820	714	2418	3821	461
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	68			92			0	100	95	0	58	83
cM capacity (veh/h)	508			257			2	2	375	11	2	544

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	165	835	835	447	20	524	524	288	19	19	26	94
Volume Left	165	0	0	0	20	0	0	0	19	0	26	0
Volume Right	0	0	0	29	0	0	0	26	0	19	0	93
cSH	508	1700	1700	1700	257	1700	1700	1700	2	375	11	158
Volume to Capacity	0.32	0.49	0.49	0.26	0.08	0.31	0.31	0.17	8.02	0.05	2.31	0.60
Queue Length 95th (ft)	35	0	0	0	6	0	0	0	Err	4	104	79
Control Delay (s)	15.4	0.0	0.0	0.0	20.2	0.0	0.0	0.0	Err	15.1	1266.5	56.7
Lane LOS	C				C				F	C	F	F
Approach Delay (s)	1.1				0.3				5007.1		318.9	
Approach LOS									F		F	

Intersection Summary				
Average Delay	61.0			
Intersection Capacity Utilization	61.5%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	0	0	11	16	17
Future Volume (Veh/h)	10	0	0	11	16	17
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	0	12	17	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	38	26	35			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	38	26	35			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	100			
cM capacity (veh/h)	974	1050	1576			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	11	12	35
Volume Left	11	0	0
Volume Right	0	0	18
cSH	974	1576	1700
Volume to Capacity	0.01	0.00	0.02
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Access St./Joplin St. & Alameda Pkwy.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	155	95	36	21	57	46	10	21	74	238	157	585
Average Queue (ft)	67	6	2	1	16	2	0	1	57	152	116	353
95th Queue (ft)	127	55	16	11	45	19	5	10	78	301	186	776
Link Distance (ft)		891	891	891		792	792	792		227		605
Upstream Blk Time (%)										44		37
Queuing Penalty (veh)										10		0
Storage Bay Dist (ft)	150				110				50		140	
Storage Blk Time (%)	1				0				94	0	53	22
Queuing Penalty (veh)	7				0				18	0	50	6

Intersection: 2: Access St. & Proposed Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	76	57
Average Queue (ft)	24	15
95th Queue (ft)	69	54
Link Distance (ft)	84	66
Upstream Blk Time (%)	9	13
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 90

Draft Shared Parking Agreement

LICENSE AGREEMENT

_____, a _____ ("Elevation"), and Providence Heights, LLLP, a Colorado limited liability limited partnership ("PATH" and, together with Elevation, the "Parties"), make this License Agreement (this "Agreement") effective as of _____ __, 2018.

RECITALS

A. The Parties are owners of contiguous parcels of real estate located in the City of Aurora, Colorado.

B. Elevation is the owner of real estate located at _____, as further described in Exhibit A, attached hereto (the "Elevation Parcel").

C. PATH is the owner of real estate located at 15602 E. Alameda Parkway, Aurora, Colorado, as further described in Exhibit B, attached hereto (the "PATH Parcel").

D. The Elevation Parcel includes ____ parking spaces, and Elevation desires to provide the PATH Parties (as defined below), access and use of 24 of those spaces (the "Shared Spaces"), as depicted on Exhibit C, attached hereto.

E. The PATH Parcel has physical access to Alameda Parkway via an existing paved surface running through the Elevation Parcel (the "Shared Roadway" and, together with the Shared Spaces, the "License Area"), as depicted on Exhibit C, attached hereto, and Elevation desires to provide the PATH Parties (as defined below), access and use of the Shared Roadway.

AGREEMENT

For good and valuable consideration, the receipt and sufficiency of which the parties acknowledge, the parties agree as follows:

1. **GRANT OF LICENSE BY Elevation**. Elevation hereby grants to PATH, and its respective tenants, occupants, invitees, permitees, licensees, contractors, successors and assigns, including its lenders in the case of foreclosure or by deed in lieu of foreclosure (collectively the "PATH Parties"), for the benefit of the PATH Parcel a non-exclusive use license over and upon the Shared Roadway and a non-exclusive use license for the Shared Spaces (the "License") .

2. **LICENSE PURPOSE**. Elevation is granting the License solely for ingress, egress, the parking of vehicles, and for other vehicular purposes.

3. **LICENSE TERMS AND CONDITIONS**. During the term of the License, the License shall be subject to the following terms and conditions:

(a) Except with the prior written approval of the other party, neither of the Parties will erect any fences or other structures over, under, on, through,

across, or within the License Area, nor will either of the Parties cause or permit any obstruction or planting to be placed over, under, on, through, across or within the License Area which will in any manner materially interfere with the rights set forth in this Agreement.

(b) The Parties will have the right of use, enjoyment and access to the License Area and will have the rights of ingress and egress reasonably necessary for the use and enjoyment of the License.

(c) The Parties and their respective successors and assigns, shall maintain the License Area in a commercially reasonable manner and each of the Parties shall maintain their respective portion of the License Area at their own expense.

4. **TERM**. This Agreement and the rights under it shall have a perpetual duration unless terminated by the mutual decision of the Parties or their respective successors and assigns.

5. **JURISDICTION**. This Agreement shall be construed and governed by the laws of the State of Colorado.

6. **NO RECORDING**. Neither this Agreement nor any memorandum or notice thereof shall be recorded without the prior written consent of the parties, which consent may be withheld in either party's sole and absolute discretion.

7. **COUNTERPARTS**. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed effective as of the date first above written.

_____, a
_____

By: _____

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed effective as of the date first above written.

PROVIDENCE HEIGHTS, LLLP,
a Colorado limited liability limited partnership

By: Providence Residences LLC, a Colorado limited liability company, its General Partner

By: Second Chance Center, Inc., a Colorado nonprofit corporation, its Manager

By: _____
Hassan Latif
Executive Director

EXHIBIT A

Legal Description of Elevation Parcel

EXHIBIT B

Legal Description of PATH Parcel

EXHIBIT C

Depiction of License Area

(attached)

15393783v1

MEMO 4/3/2019

To: Tom Dixon, City of Grand Junction Planning Department
From: Kyle Mead, Shopworks Architecture
Regarding: Karis Apartments – Alternative Parking Plan

CC: File

architecture

Message

Tom,

The proposed Karis Apartments, located at 3175 N. 12th street, proposes to use reduced parking ratios from those identified in section 21.06.050 of the City of Grand Junction Development Regulations. We propose to provide 25 total parking stalls (23 standard stalls, and 2 ADA accessible parking stalls). All stalls will conform with the City of Grand Junction design requirements. This memo is to serve as rationale for this request in accordance with *21.06.050 (e) Alternative Parking Plan*.

We believe that a reduced quantity of parking stalls is appropriate for this project based on a combination of factors, including national data, location of the site, project specific demand, and overall impact on the quality of the project.

Our office has experience analyzing parking demand for affordable housing projects and has employed the services of transportation engineering firms in the past to conduct studies specific to affordable multi-unit apartment projects. These studies generally cite a few means of calculating parking demand specific to affordable housing projects.

The first of these methods is a calculation developed by the Institute of Transportation Engineers, *Parking Generation (4th Edition)*, whereby Peak Parking demand = 0.92x + 4; where x equals the number of dwelling units (DU). Applying this formula to our project = 0.92(34) + 4 = 35 spaces; however, traffic engineers conclude that of the 40 sites studied to generate this calculation method, only 4 were considered affordable housing. Thus, this method tends to be conservatively high for use in calculating affordable housing demand.

The second method is generated from the *San Diego Affordable Housing Parking Study* which was commissioned by the City of San Diego and examined 265 projects including 21 affordable projects. The results represent the most comprehensive data collection of affordable housing projects in the country, and the found that in affordable housing projects, demand was around half of what market-rate apartments experienced, and nearly half of the dwelling units had no vehicle at all. The study resulted in a calculation method for affordable housing based on the 'walkability' of a site. For the purposes of this analysis, we considered the Karis Apartments a 'medium' walkable site because of the proximity to commercial amenities downtown, and the adjacency to the Route 1 bus line and multi-modal routes along 12th St. and Horizon Dr. For medium walkable sites, the San Diego model provides parking ratios of 0.5/DU, 0.15/DU, and 0.05/DU for resident, visitor, and staff parking respectively. Applying this formula to the proposed 34 one-bedroom apartments = (34 x 0.5) + (34 x 0.15) + (34 x 0.05) = 23.7 spaces.

The third method is based on findings from a study commissioned by the City of Los Angeles intended to inform parking requirements for municipal guidelines related to Affordable Housing projects. The findings of the studies found that again, based on walkability and proximity to transit, affordable housing parking ratios ranged between 0.29/DU to 0.43/DU. Applying this calculation to our project, we find that 34 x 0.29 = 10 and 34 x 0.15, or an average of 12.5 spaces.

2882 Wyandot St. Denver, CO 80211 303 433-4094
shopworks

architecture

Finally, we surveyed the existing Karis facilities for current parking demand, and tabulated the anticipated trips generated to the site by staff, service providers and partners. This study found that on average 10% of residents would own a vehicle, and that various staff and service providers would visit the site on a daily, weekly, and monthly basis. We found that if every service provider, plus 10 % of residents had a vehicle on site at the same exact time, the parking demand would be 28 spaces. However, the likelihood of this happening is very unlikely given the nature in which service providers are staggered throughout the month. This information is presented in an attached table.

In conclusion, we believe that the 25 proposed spaces are adequate and appropriate for the Karis Apartments. We believe this is supported by the four different means of analysis presented here, which suggest the parking demand for this project to be between 12.5 spaces and 35 spaces, or an average of 24 spaces.

Please let me know if you have any questions about this analysis.

Thank you,

Kyle Mead
Shopworks Architecture

End of Memo

Karis Parking Statistics

Frequency of visits	**9a-5p M-F**	Daily	Weekly	Monthly		**weekends/nights**
Partner						
DHS			1			
WestCAP				2		
Medicaid HW						
Substance use CM			2			
Cooking matters			1			
MH Case Mngr				2		
Parents as Teachers						
Staff						
Peer Specialist		1.5				1.5 (24 hrs per day)
Leasing			3			
Maintenance			3			
Services		2				1 (8 hrs. per day)
Nurse			1			
Residents						
10%		4				4
Visitor/Volunteers						
Youth Advocate			1			1x per week
Program Coor.			4			
Totals		**7.5**	**16**	**4**		6.5
						1 additional per wk

Breakout

Daily M-F 8-5 8 cars

Maximum 28

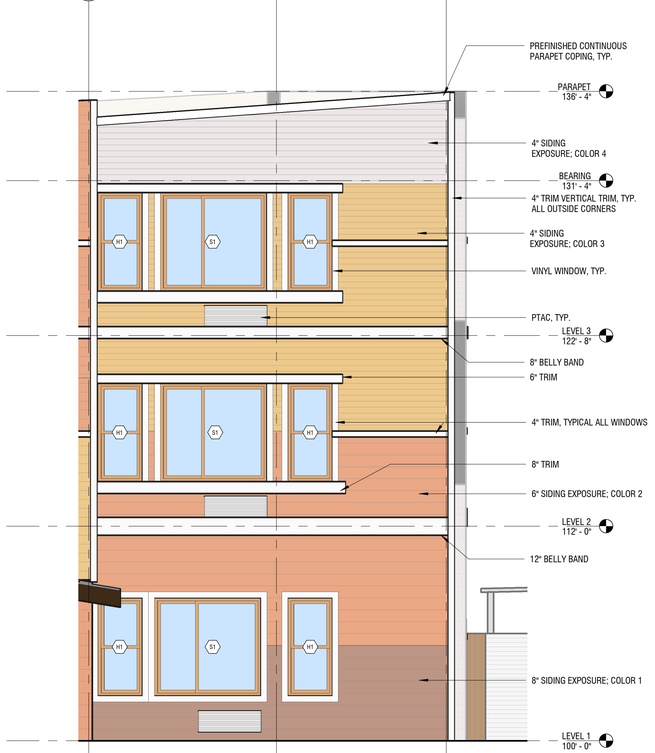
*It would be rare to have every partner/ staff/resident on site with cars at the same time

*Most partner visits will happen between 10a-4p during non-peak hours

Off peak hours 8 cars

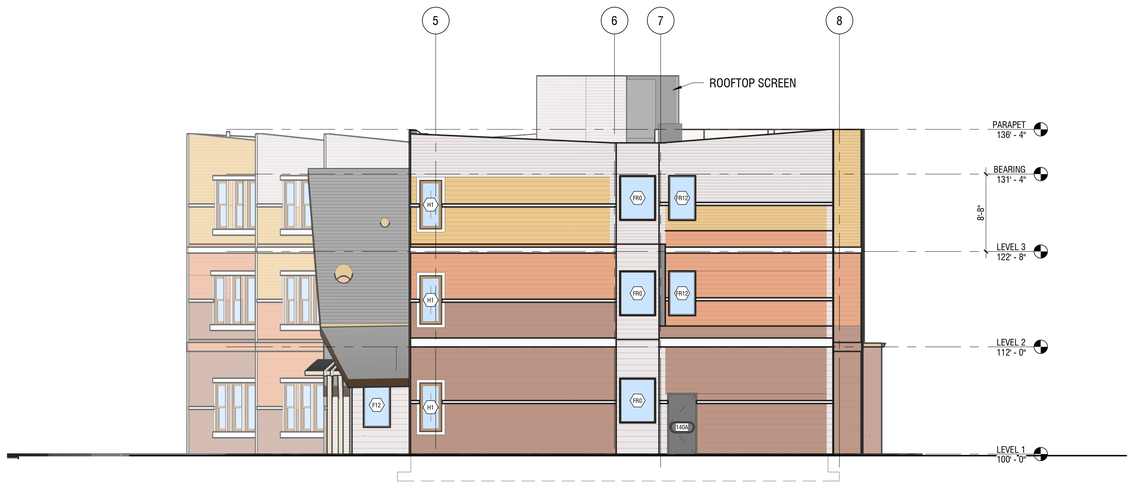
2 N. ELEV

1/8" = 1'-0"



3 ELEVATION - ENLARGED DETAIL

1/4" = 1'-0"



1 E. ELEV

1/8" = 1'-0"

shopworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4004

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

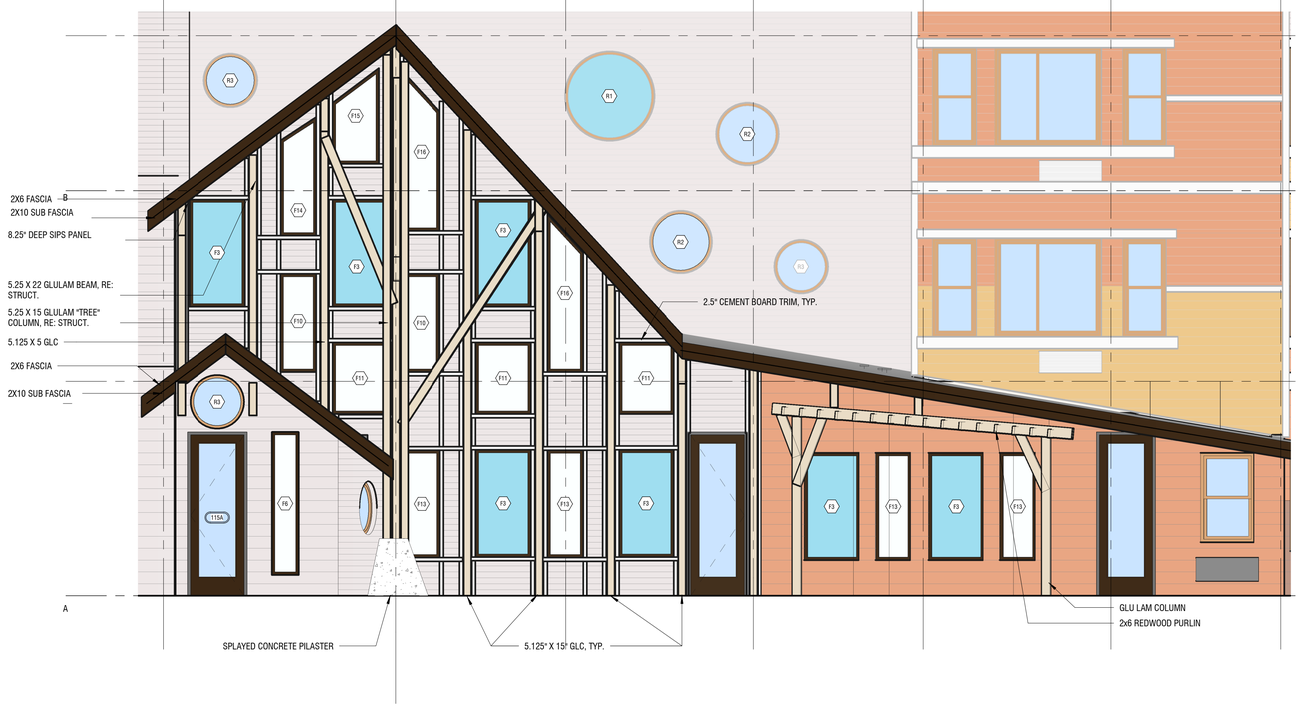
SHEET TITLE:
ELEVATIONS

SCALE: As indicated

NO. A2.0

3 S. ELEV.

1/8" = 1'-0"



2 ENLARGED ENTRY ELEV.

1/4" = 1'-0"

1 W. ELEV.

1/8" = 1'-0"

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KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

SCALE: As indicated

NO. A2.1

ATRIUM VIEW 1

ATRIUM VIEW 2

ENTRY PERSPECTIVE

ATRIUM VIEW 3

SOUTH ELEVATION

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KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

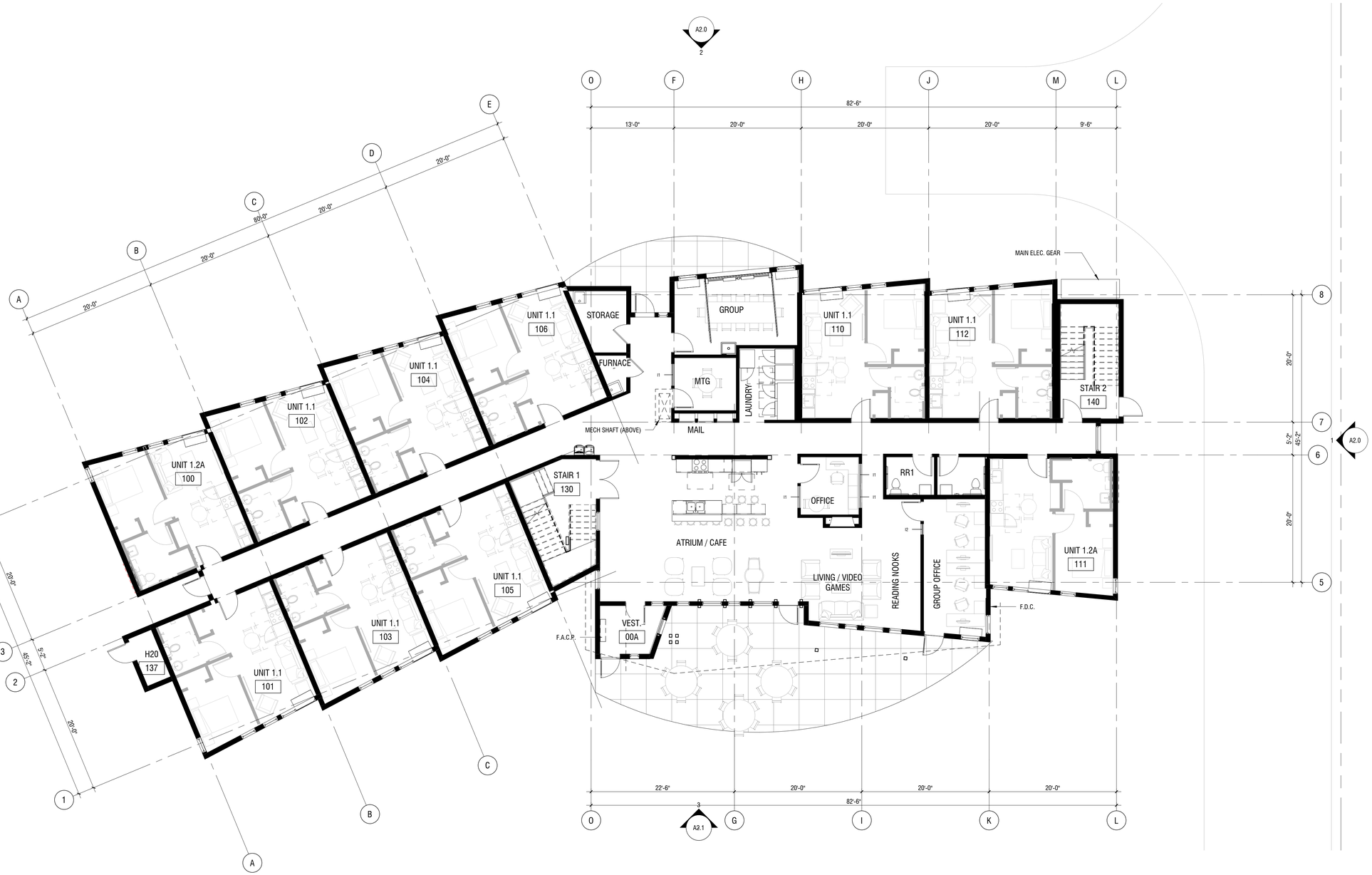
DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
3d VIEWS

SCALE:

NO. A3.0



1 FIRST FLOOR
1/8" = 1'-0"

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

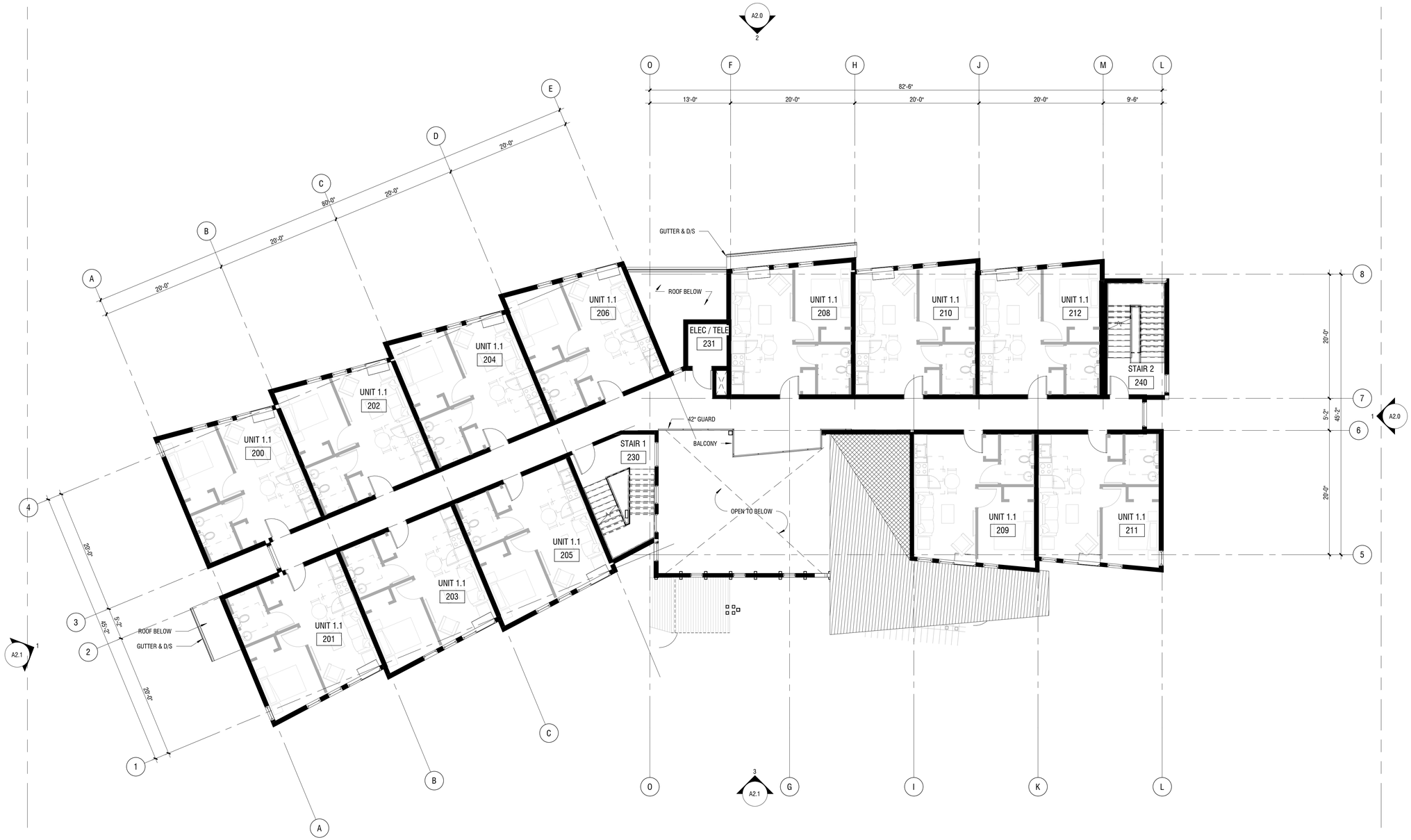
DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
LEVEL1 FLOORPLAN

SCALE: 1/8" = 1'-0"

NO. A1.0



1 SECOND FLOOR
1/8" = 1'-0"

N

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
LEVEL2 FLOORPLAN

SCALE: 1/8" = 1'-0"

NO. A1.2

1 THIRD FLOOR

1/8" = 1'-0"

N

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KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
LEVEL3 FLOORPLAN

SCALE: 1/8" = 1'-0"

NO. A1.3

1 ROOF
1/8" = 1'-0"

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ROOF PLAN

SCALE: 1/8" = 1'-0"

NO. A1.4

ALTA/ NSPS LAND TITLE SURVEY

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

TABLE A

OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

1. Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner.
- shown hereon

2. Address(es) of the surveyed property if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork.
- 3205 N. 12th Street Grand Junction, Colorado 81506

3. Flood zone classification (with proper annotation based on federal Flood Insurance Rate Maps or the state or local equivalent) depicted by scaled map location and graphic plotting only.
The Property described on this Survey does not lie within a Special Flood Hazard Area ("SFHA") as defined by the Federal Emergency Management Agency; the Property lies within Zone(s) X of the Flood Insurance Rate Map identified as Community Panel No 08077C0806 Suffix G, bearing an effective date of October 16, 2012.

4. Gross land area.
- 3.676 acres

6. (a) If set forth in a zoning report or letter provided to the surveyor by the client, list the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements. Identify the date and source of the report or letter.
- letter not provided

7. (a) Exterior dimensions of all buildings at ground level.
- shown hereon

8. Substantial features observed in the process of conducting the fieldwork (in addition to the improvements and features required pursuant to Section 5 above) (e.g., parking lots, billboards, signs, swimming pools, landscaped areas, substantial areas of refuse).
- shown hereon

9. Number and type (e.g., disabled, motorcycle, regular and other marked specialized types) of clearly identifiable parking spaces on surface parking areas, lots and in parking structures. Striping of clearly identifiable parking spaces on surface parking areas and lots.
- gravel parking no marked spaces

10. (a) As designated by the client, a determination of the relationship and location of certain division or party walls with respect to adjoining properties (client to obtain necessary permissions).
- no walls were designated

11. Location of utilities existing on or serving the surveyed property as determined by:
- shown hereon
- observed evidence collected pursuant to Section 5.E.iv.
- evidence from plans requested by the surveyor and obtained from utility companies, or provided by client (with reference as to the sources of information), and
- markings requested by the surveyor pursuant to an 811 utility locate or similar request

Representative examples of such utilities include, but are not limited to:
- Manholes, catch basins, valve vaults and other surface indications of subterranean uses;
- Wires and cables (including their function, if readily identifiable) crossing the surveyed property, and all poles on or within ten feet of the surveyed property. Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the dimensions of all encroaching utility pole crossmembers or overhangs; and
- Utility company installations on the surveyed property.

Note to the client, insurer, and lender – With regard to Table A, item 11, source information from plans and markings will be combined with observed evidence of utilities pursuant to Section 5.E.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response, in which case the surveyor shall note on the plat or map how this affected the surveyor's assessment of the location of the utilities. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary.

12. As specified by the client, Governmental Agency survey–related requirements (e.g., HUD surveys, surveys for leases on Bureau of Land Management managed lands).
- none specified

13. Names of adjoining owners according to current tax records. If more than one owner, identify the first owner's name listed in the tax records followed by "et al."
- shown hereon

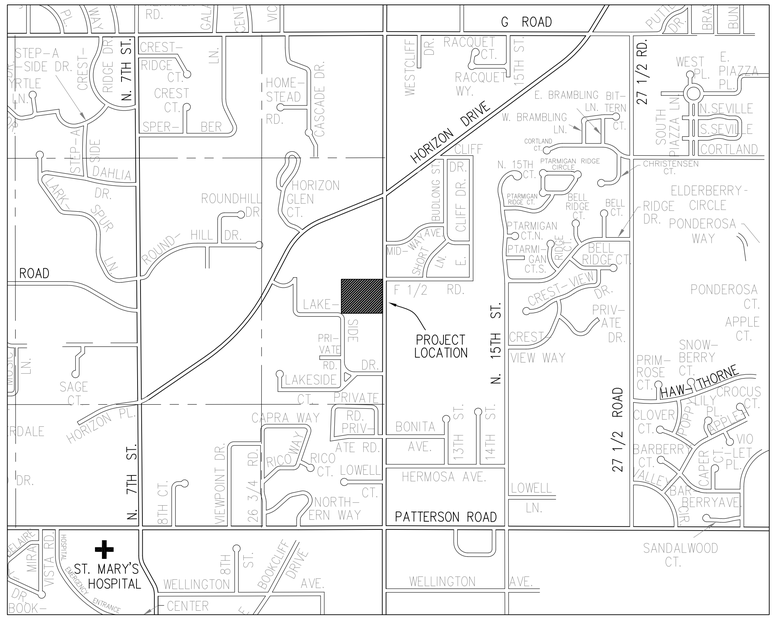
14. As specified by the client, distance to the nearest intersecting street.
- non specified

16. Evidence of recent earth moving work, building construction, or building additions observed in the process of conducting the fieldwork.
- none observed

17. Proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction. Evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.
- none observed

18. If there has been a field delineation of wetlands conducted by a qualified specialist hired by the client, the surveyor shall locate any delineation markers observed in the process of conducting the fieldwork and show them on the face of the plat or map. If no markers were observed, the surveyor shall so state.
- no field delineation was conducted

19. Include any plottable offsite (i.e., appurtenant) easements or servitudes disclosed in documents provided to or obtained by the surveyor as a part of the survey pursuant to Sections 5 and 6 (and applicable selected Table A items) (client to obtain necessary permissions).
- shown hereon



VICINITY MAP
N.T.S

SURVEYORS CERTIFICATION:

To Land Title Guarantee Company, Caprock Building Corporation, Sunflower Bank n.a., and Kline Alvarado Veio PC, Caprock Academy, Colorado Educational and Cultural Facilities Authority, UMB Bank, n.a., as Trustee, Sunflower Public Finance, LLC,

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17, and 19 of Table A thereof. The fieldwork was completed on December 7, 2018.

Date of Plat or Map: December 20, 2018
Patrick W. Click

Dated: December 20, 2018 Registration No. 37904

SCHEDULE B SECTION TWO EXCEPTIONS

1. Rights or claims of parties in possession, not shown of public record.
2. Easements, or claims of easements, not shown by the public record.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land and not shown by the public records.
4. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
5. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the Effective Date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment.
6. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) Minerals of whatsoever kind, subsurface and surface substances, in, on, under and that may be produced from the Land, together with all rights, privileges, and immunities relating thereto, whether or not the matters excepted under (a), (b) or (c) are shown by the Public Records or listed in Schedule B.
7. Water rights, claims or title to water.
8. Any and all unpaid taxes and assessments and any unredeemed tax sales.
9. Reservations and exceptions in Patents, or Acts authorizing the issuance thereof, including the reservations of the right of way for ditches or canals constructed by the authority of the United States, as reserved in United States Patent recorded July 28, 1891 at Reception No. 12022.
10. Reservations and exceptions in Patents, or Acts authorizing the issuance thereof, including the reservations of the right of proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to penetrate or intersect the premises as reserved in United States Patent recorded July 28, 1891 at Reception No. 12022.
11. Terms, conditions, provisions, agreements and obligations as contained in Agreement with Destination Properties, Inc. recorded May 28, 1981 at Reception No. 1258383.
12. Easement granted to The City of Grand Junction by instrument recorded May 28, 1981 at Reception No. 1258384.
13. Easement granted to Public Service Company of Colorado by instrument recorded November 13, 2012 at Reception No. 2633146.
14. Right of way granted to Grand Valley Rural Power Lines, Inc. by instrument recorded July 31, 1941 at Reception No. 387756.
15. Utility easement granted to the City of Grand Junction by instrument recorded at Reception No. 1872316.

LEGAL DESCRIPTION:

Parcel 1:
Beginning at a point from whence the Northeast corner of the SE1/4 of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears S89°59'E 310 feet and due North a distance of 330 feet;
thence from said point of beginning N89°59'W 218 feet;
thence due North 330 feet;
thence S89°59'E 218 feet;
thence due South 310 feet to the point of beginning;
AND
Commencing at a point from whence the E1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears North a distance of 330 feet;
thence running from said point of beginning N89°59'W 310 feet;
thence due North 90 feet;
thence S89°59'E 310 feet;
thence due South 90 feet to the point of beginning.
EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880898.
County of Mesa, State of Colorado

Parcel 2:
Beginning at the East 1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, which point is the Northeast Corner of the tract:
thence due South 240.00 feet to the Southeast Corner;
thence North 89°59' West 310.00 feet to the Southwest Corner;
thence due North 240.00 feet to the Northwest Corner;
thence South 89°59' East 310.00 feet to the place of beginning.
EXCEPT the East 30 feet for right of way,
AND EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880896.
County of Mesa, State of Colorado

General Notes:

1. OWNERSHIP, RECORDED RIGHTS–OF–WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

ALTA/NSPS LAND TITLE SURVEY
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: SL
DATE: 12/20/18 DRAWING NAME: 2018162 DRAWN BY: MDM

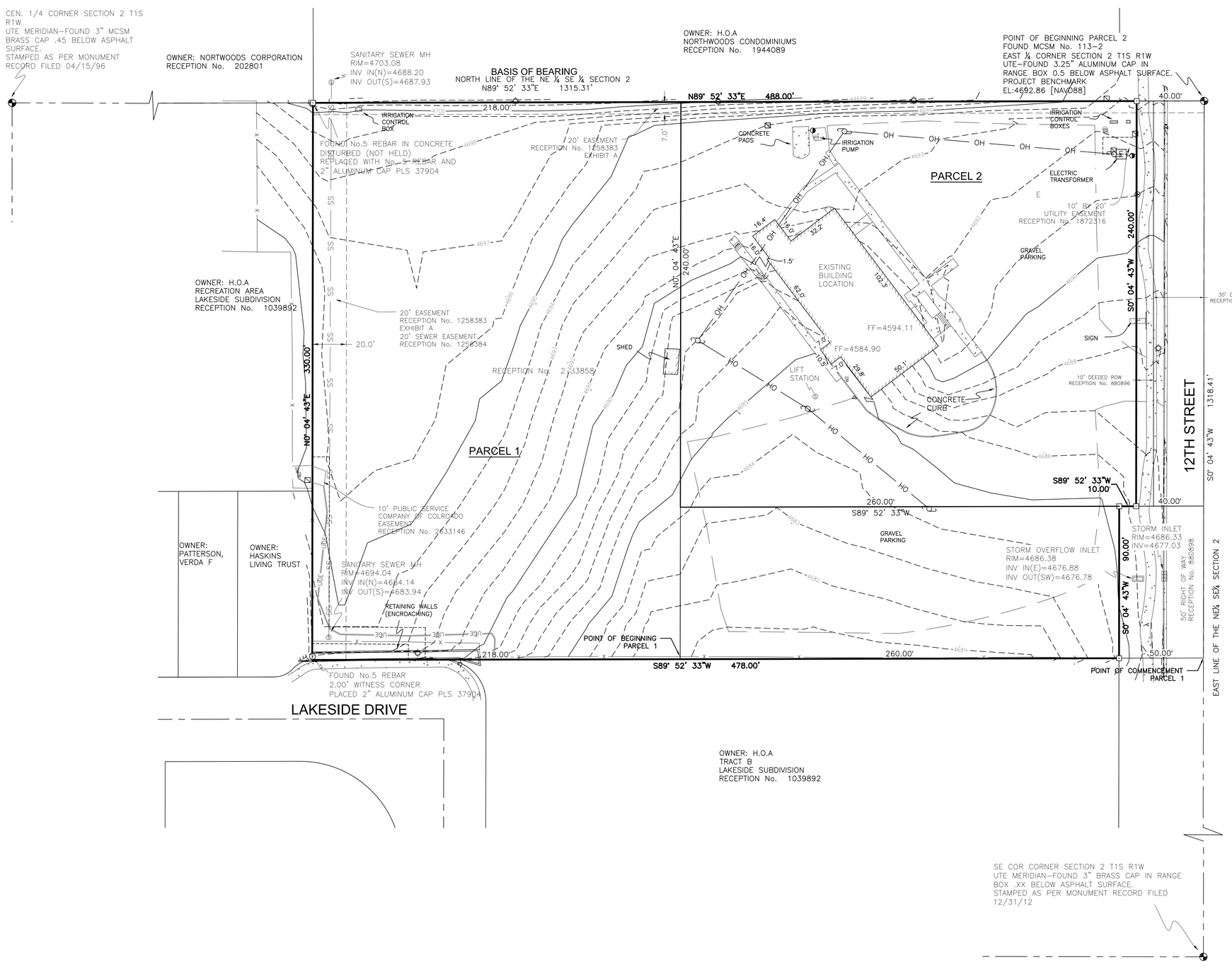
POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434–7038

SH: 1 OF 2

ALTA/NSPS LAND TITLE SURVEY

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO



N

GRAPHIC SCALE:
1"=30'

30' 0 30' 60'

LINEAR UNITS ARE U.S. SURVEY FEET

LEGEND:

FOUND CITY SURVEY MARKER AS DESCRIBED	⊕
FOUND No. 5 REBAR AS DESCRIBED HEREON	⊙
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904	▲
EXISTING UTILITY POLE	
EXISTING GUY WIRE	GUY
EXISTING SIGN	
EXISTING UTILITY PEDESTAL	
EXISTING ELECTRIC TRANSFORMER	E
EXISTING SANITARY SEWER MANHOLE	S
EXISTING SANITARY SEWER CLEANOUT	
EXISTING WATER VALVE	
EXISTING FIRE HYDRANT	
EXISTING WATER METER	
EXISTING LIGHT POLE	
EXISTING IRRIGATION STRUCTURE	RIS

EXISTING UNDERGROUND GAS LINE	GAS GAS
EXISTING OVERHEAD UTILITY LINE	OH OH
EXISTING FENCE LINE	X
EXISTING UNDERGROUND ELECTRIC	UGE UGE UGE
EXISTING UNDERGROUND TELEPHONE	T T T

COLORADO REGISTERED
12/20/18
37904
PROFESSIONAL LAND SURVEYOR

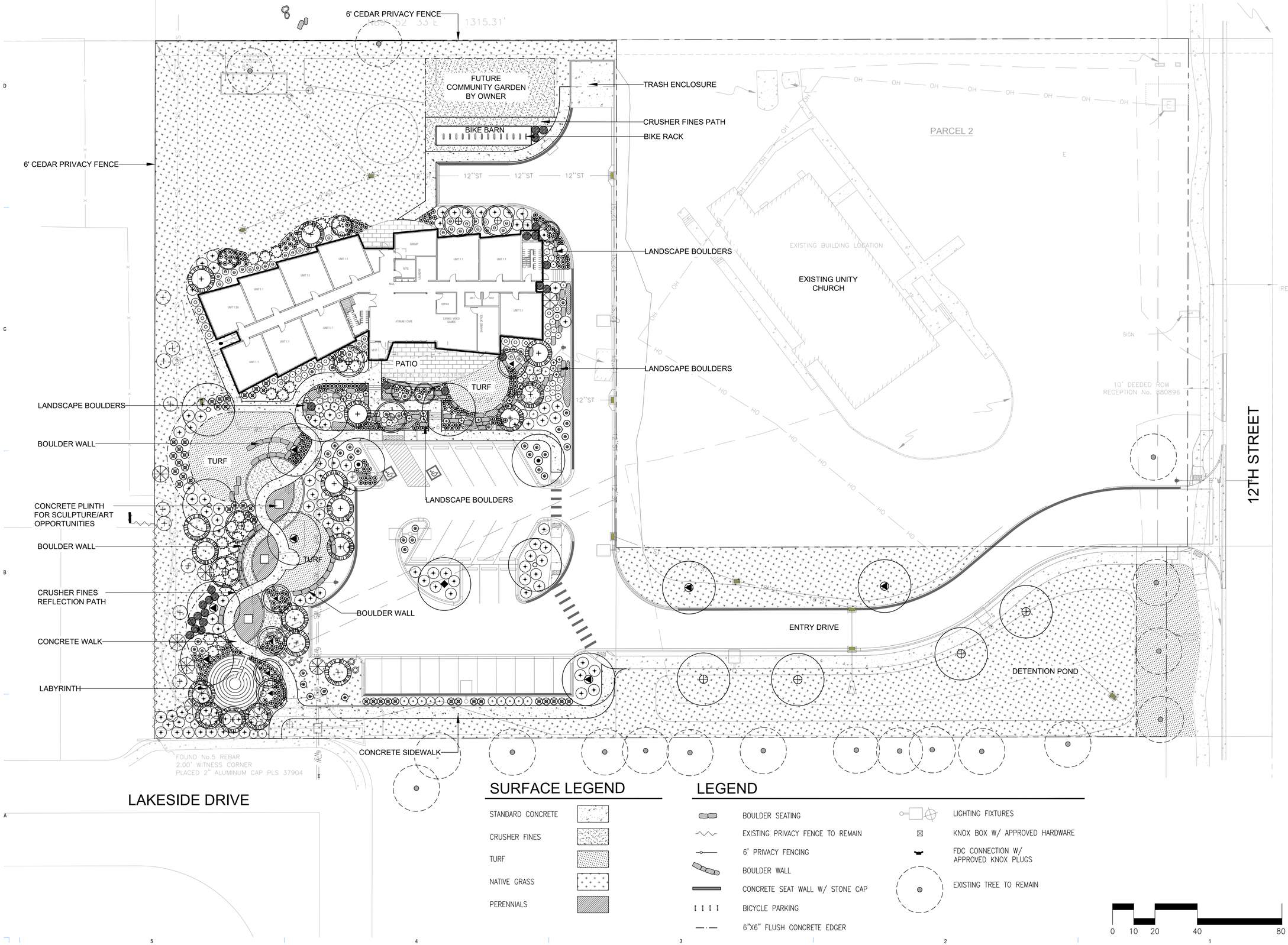
ALTA/NSPS LAND TITLE SURVEY

SITUATED IN THE SE¼ SE¼ SECTION 33
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: SL
DATE: 12/20/18 DRAWING NAME: 2018162 DRAWN BY: MDM

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434-7038

SH: 2 OF 2



SURFACE LEGEND

- STANDARD CONCRETE
- CRUSHER FINES
- TURF
- NATIVE GRASS
- PERENNIALS

LEGEND

- BOULDER SEATING
- EXISTING PRIVACY FENCE TO REMAIN
- 6' PRIVACY FENCING
- BOULDER WALL
- CONCRETE SEAT WALL W/ STONE CAP
- BICYCLE PARKING
- 6"X6" FLUSH CONCRETE EDGER
- LIGHTING FIXTURES
- KNOX BOX W/ APPROVED HARDWARE
- FDC CONNECTION W/ APPROVED KNOX PLUGS
- EXISTING TREE TO REMAIN

0 10 20 40 80

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301 West 45th Avenue
Denver, CO 80216
303.406.1075

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
Landscape Site Plan

SCALE:

NO. LS101

LANDSCAPE PLANTING SCHEDULE

EVERGREEN TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
PIN	2	Piñon Pine	Pinus edulis	6' Height	Very Low
AUS	14	Austrian Pine	Pinus nigra	8' Height	Very Low

DECIDUOUS TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
OAK	7	Chinkapin Oak	Quercus muehlenbergii	2.5" Caliper	Low
HKB	2	Common Hackberry	Celtis occidentalis	2.5" Caliper	Very Low
SHA	5	Shademaster Honeylocust	Gleditsia triacanthos inermis	2.5" Caliper	Very Low
BOX	2	Sensation Boxelder	Acer negundo 'Sensation'	2.5" Caliper	Low
LPT	4	London Planetree	Platanus x acerifolia	2.5" Caliper	Low

ORNAMENTAL & SMALL TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
ABS	6	Autumn Brilliance Serviceberry	Amelanchier x grandiflora	6'-8' Clump	Moderate
WKH	6	Winter King Hawthorn	Crataegus viridis 'Winter King'	2" Caliper	Low
RBC	2	Eastern Redbud	Cercis canadensis	6'-8' Clump	Low

DECIDUOUS SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
RLC	41	Red Lake Currant	Ribes sativum 'Red Lake'	5 Gal. Cont.	Low
AAS	102	Autumn Amber Sumac	Rhus trilobata 'Autumn Amber'	5 Gal. Cont.	Low
RSA	38	Russian Sage	Perovskia artiplicifolia	5 Gal. Cont.	low
XXX	49	XXX	XXX	5 Gal. Cont.	Low
LEA	17	Leadplant	Amorpha canescens	5 Gal. Cont.	Very Low
RAB	9	Rabbitbrush	Chrysothamnus nauseosus	5 Gal. Cont.	Very Low
PAN	22	Panchito Manzanita	Arctostaphylos x coloradoensis	5 Gal. Cont.	Low
RLR	7	Red Leaf Rose	Rosa glauca	5 Gal. Cont.	Low

EVERGREEN SHRUBS

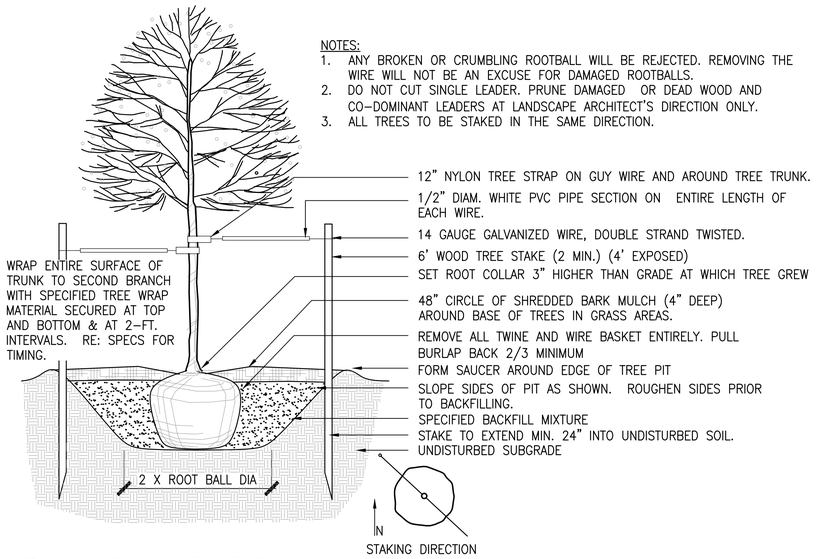
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
BCJ	35	Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	5 Gal. Cont.	Low

ORNAMENTAL GRASSES/PERENNIALS / GROUNDCOVERS

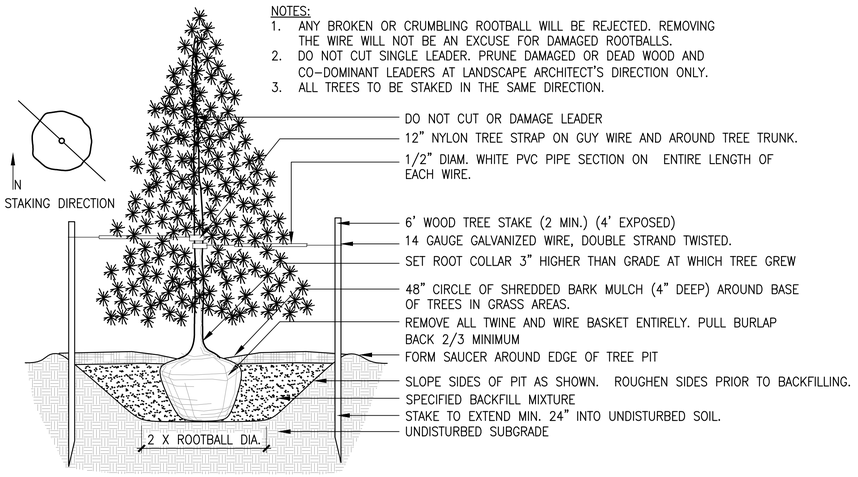
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
YUC	41	Soapweed Yucca	Yucca glauca	1 Gal. Cont.	Low
FRG	45	Feather Reed Grass	Calamagrostis acutiflora 'Avalanche'	1 Gal. Cont.	Low
DMG	25	Dwarf Maiden Grass	Miscanthus sinensis 'Yaku Jima'	1 Gal. Cont.	Low
BGG	262	Blue Gramma Grass	Bouteloua gracilis	1 Gal. Cont.	Low
AST	150	Assorted Perennials & Groundcovers		1 Gal. Cont.	Low

LANDSCAPE NOTES

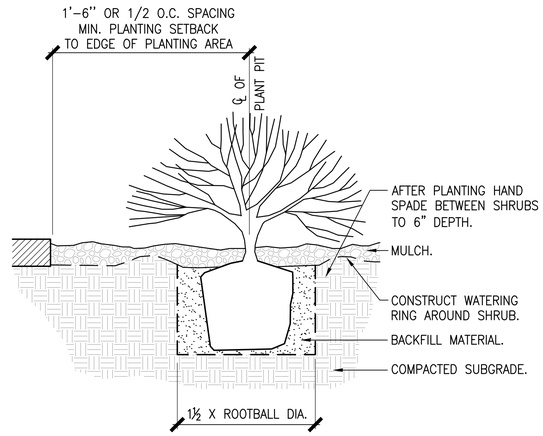
1. STAKE ALL TREES AND SHRUBS BASED ON THESE DRAWINGS. EXACT LOCATIONS OF PLANT MATERIALS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD PRIOR TO INSTALLATION. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST TO EXACT LOCATIONS IN THE FIELD.
2. ALL TREES TO MEET THE CITY OF GRAND JUNCTION LAND USE CODE STANDARDS FOR SIZE AND SPECIES.
3. PROVIDE MATCHING FORM AND SIZES FOR PLANT MATERIALS WITHIN EACH SPECIES AND SIZE AS DESIGNATED ON THE DRAWINGS.
4. ALL LANDSCAPE MATERIAL TO BE DISEASE AND INSECT FREE. LANDSCAPE ARCHITECT TO REVIEW PLANT MATERIAL AT SOURCE OR BY PHOTOGRAPHS PRIOR TO DIGGING OR SHIPPING OF PLANT MATERIAL.
5. ALL PLANTING BEDS ADJACENT TO THE BUILDING AND WITHIN THE OUTDOOR WALKS SHALL BE MULCHED WITH A 3/4"-6" LOCAL RIVER COBBLE BLEND. A WOVEN GEOTEXTILE WEED BARRIER IS REQUIRED UNDER COBBLE AND RIVER ROCK PLANTING BEDS. AREAS OF PERENNIALS, GROUNDCOVERS AND TREES IN TURF OR NATIVE AREAS TO BE MULCHED WITH 4" DEPTH OF WASHINGTON SHREDDED CEDAR MULCH WITH NO WEED BARRIER NECESSARY.
6. ALL LANDSCAPE BEDS AND TURF AREAS ARE TO RECEIVE ORGANIC SOIL AMENDMENTS AT A RATE OF 4 CY/1000 S.F. OF LANDSCAPE AREA. AMENDMENTS ARE TO BE TILLED TO A DEPTH OF 8" AND FINE GRADED TO A SMOOTH SURFACE WITH POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES.
8. 6"X6" FLUSH CONCRETE HEADER SHALL OCCUR BETWEEN CRUSHER FINES AND ALL OF THE FOLLOWING SURFACE MATERIALS: SOD & SEED, GARDEN MULCH & SOD, CRUSHER FINES & SOD, CRUSHER FINES & OR AS INDICATED ON THE DRAWINGS.
9. MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION WITH PRIOR APPROVAL FROM THE CITY OF GRAND JUNCTION, AS REQUIRED BY SITE CONDITIONS. OVERALL QUANTITY AND QUALITY TO BE CONSISTENT WITH APPROVED PLANS.
10. LOCATE ALL UTILITIES PRIOR TO ANY DIGGING OR LANDSCAPE PLANTING.



1 DECIDUOUS TREE PLANTING
SCALE: NTS



2 EVERGREEN TREE PLANTING
SCALE: NTS



3 SHRUB PLANTING
SCALE: NTS

shrb.dwg

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
Landscape Schedules & Details

SCALE:

NO. LS102

Legal Description

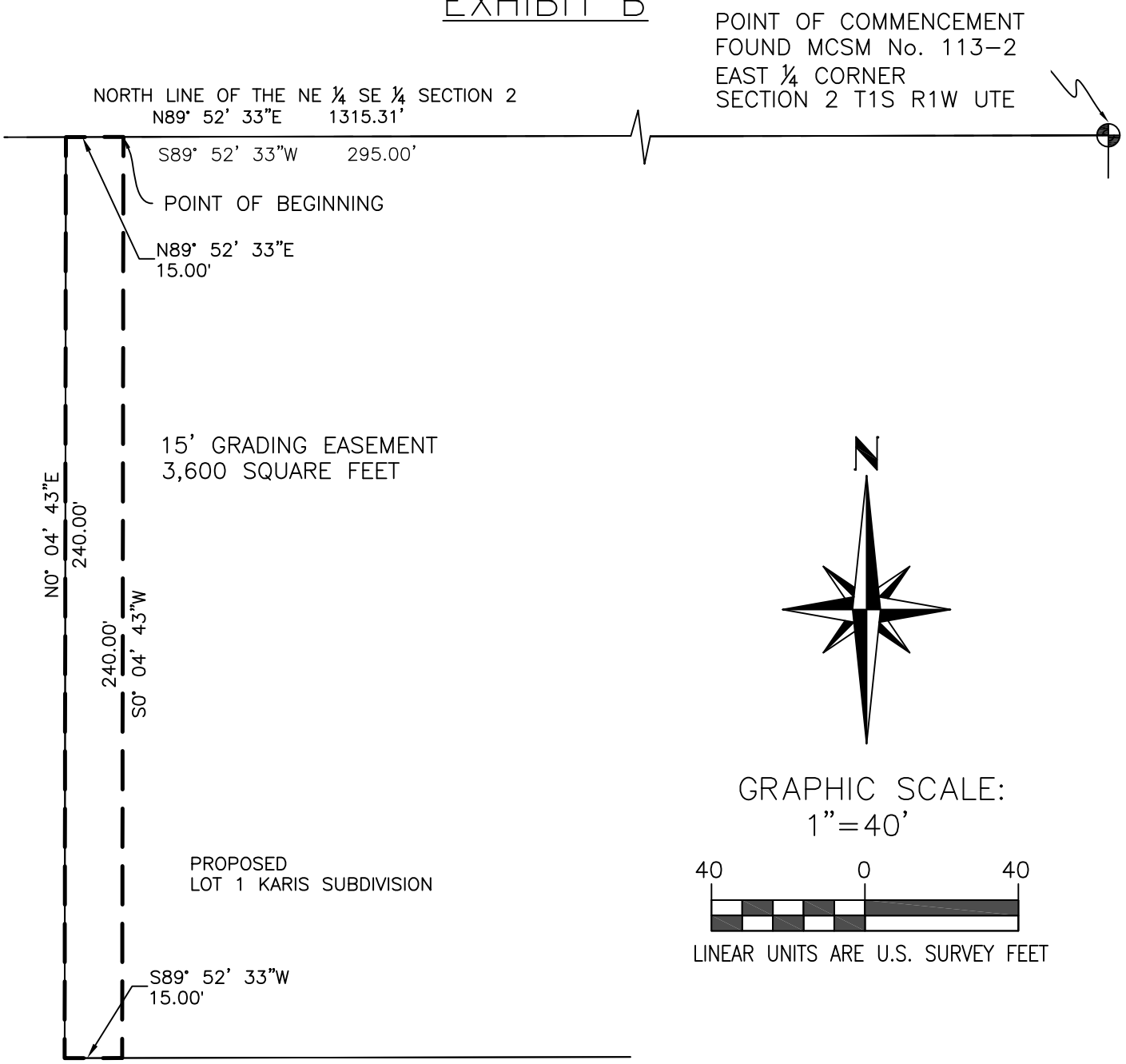
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04’43” W, thence S 89°52’33” W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 295.00 feet to the Point of Beginning:

Thence S 0°04’43” W a distance 240.00 feet;
Thence S 89°52’33” W a distance of 15.00 feet;
Thence N 0°04’43” E a distance of 240.00 feet;
Thence N 89°52’33” E a distance of 15.00 feet to the Point of Beginning.

Said parcel contains 3,600 square feet as described.

EXHIBIT B



Legal Description Sketch

Karis Subdivision

15' Grading Easement

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434-7038

Legal Description

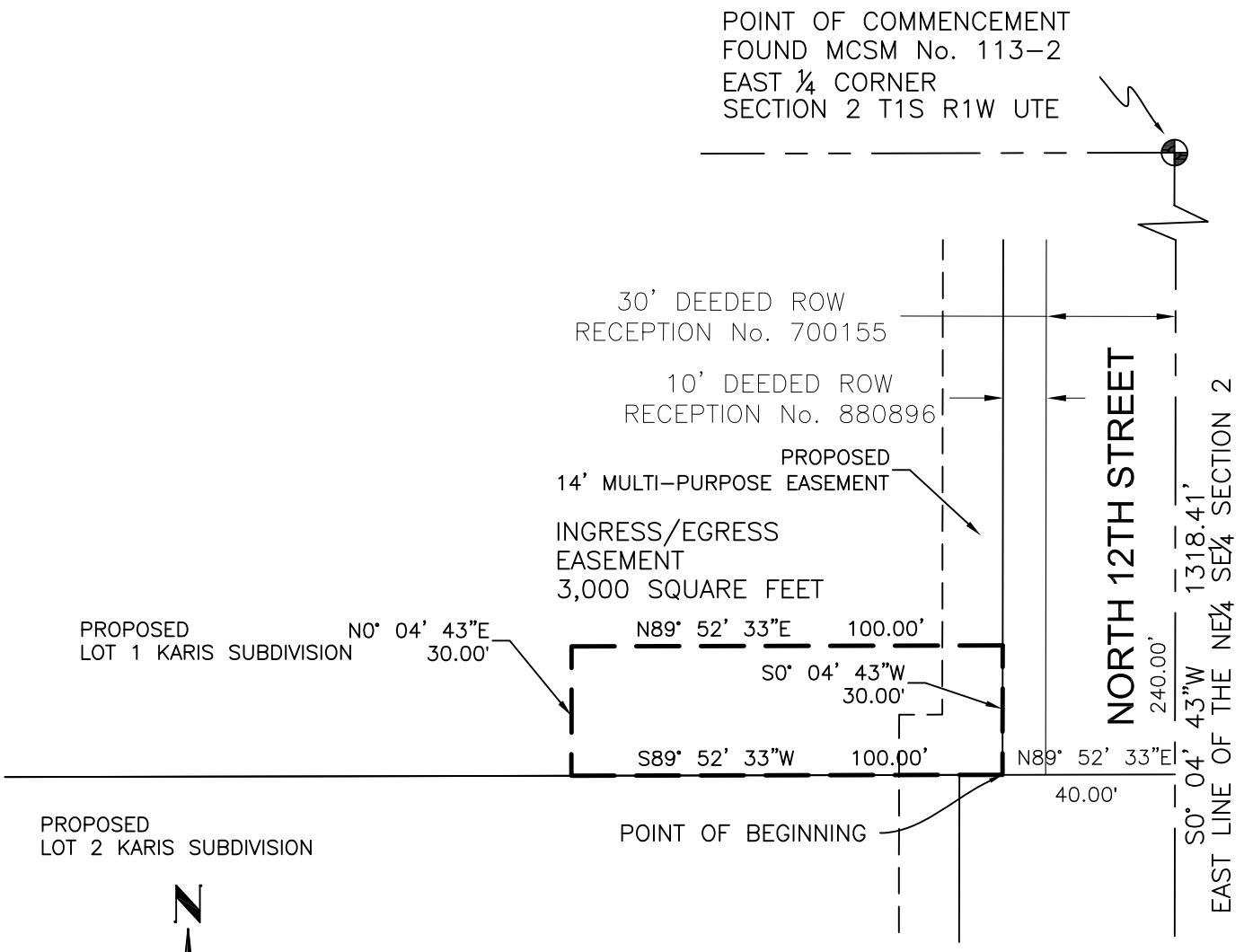
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

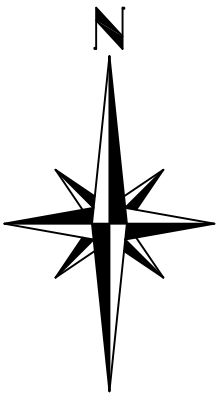
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 240.00 feet; thence S 89°52'33" W a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W a distance 100.00 feet;
Thence N 0°04'43" E a distance of 30.00 feet;
Thence N 89°52'33" E a distance 100.00 feet;
Thence S 0°04'43" W a distance of 30.00 feet to the Point of Beginning;

Said parcel contains 3,000 square feet as described.

EXHIBIT B

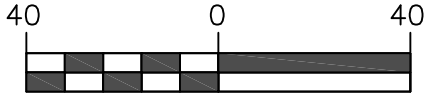




Legal Description Sketch

Karis Subdivision
Ingress/Egress Easement

GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434–7038

Legal Description

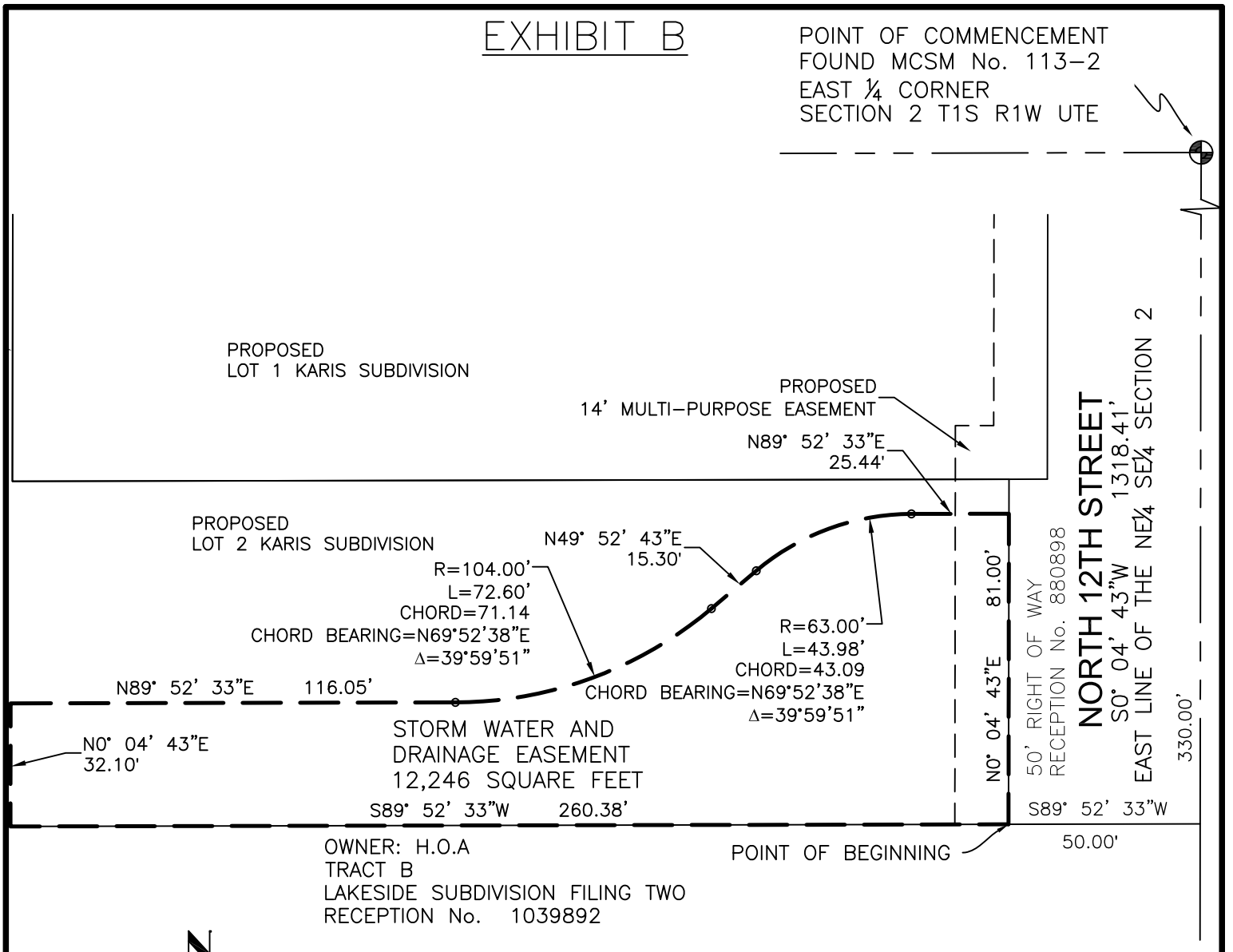
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

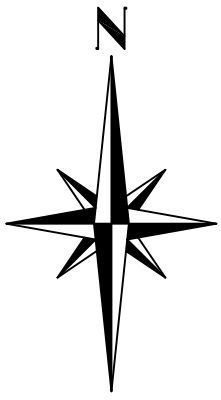
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 330.00 feet; thence S 89°52'33" W a distance of 50.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880898, the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W along the North Line of said Lakeside Subdivision Filing Two a distance 260.38 feet;
Thence N 0°04'43" E a distance of 32.10 feet;
Thence N 89°52'33" E a distance 116.05 feet to the start of a curve to the left;
Thence 72.60 feet along said curve to the left with a radius of 104.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 71.14 feet;
Thence N 49°52'43" E a distance of 15.30 feet to the start of a curve to right;
Thence 43.98 feet along said curve to the right with a radius of 63.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 43.09 feet;
Thence N 89°52'33" E a distance of 25.44 feet to the West Right of Way for said 12th Street;
Thence S 0°04'43" W along said Right of Way a distance of 81.00 feet to the Point of Beginning.

Said parcel contains 12,246 square feet as described.

EXHIBIT B





Legal Description Sketch

Karis Subdivision

Storm Water and Drainage Easement

GRAPHIC SCALE:

1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434–7038

Legal Description

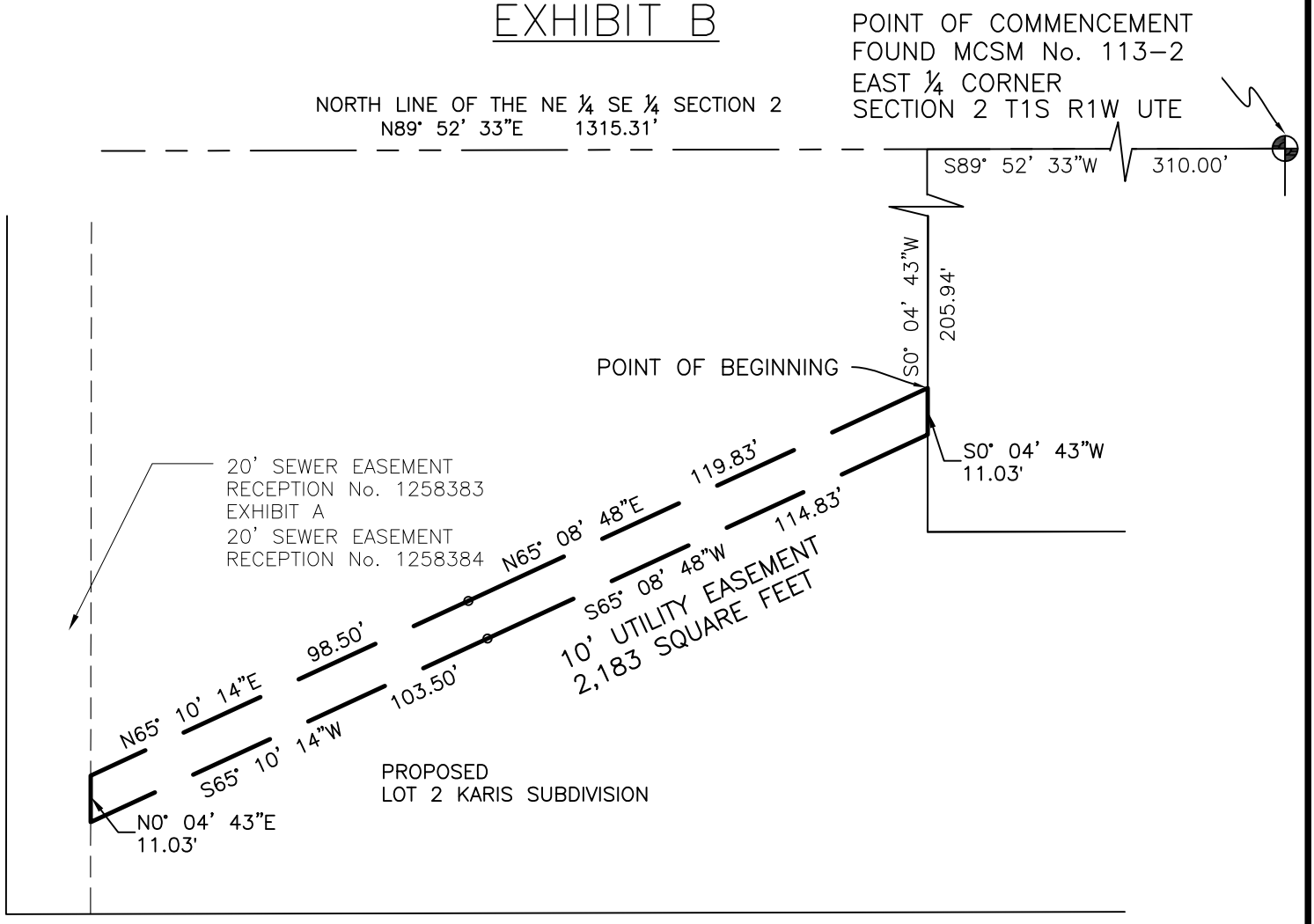
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

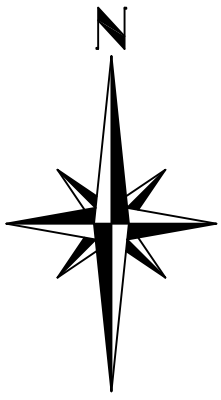
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 89°52'33" W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 310.00 feet; thence S 0°04'43" W a distance of 205.94 feet to the Point of Beginning:

Thence S 0°04'43" W a distance 11.03 feet;
Thence S 65°08'48" W a distance of 114.83 feet;
Thence S 65°10'14" W a distance 103.50 feet to the East Line of an existing 20' Sewer Easement as recorded at Reception Numbers 1258383 and 1258384 of the Mesa County Clerk's Office;
Thence N 0°04'43" E along said East Line a distance of 11.03 feet;
Thence N 65°10'14" E a distance of 98.50 feet;
Thence N65°08'48" E a distance of 119.83 feet to the Point of Beginning.

Said parcel contains 2,183 square feet as described.

EXHIBIT B

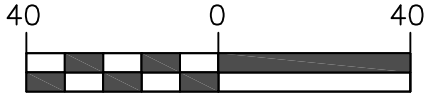




Legal Description Sketch

Karis Subdivision
10' Utility Easement

GRAPHIC SCALE:
1"=40'



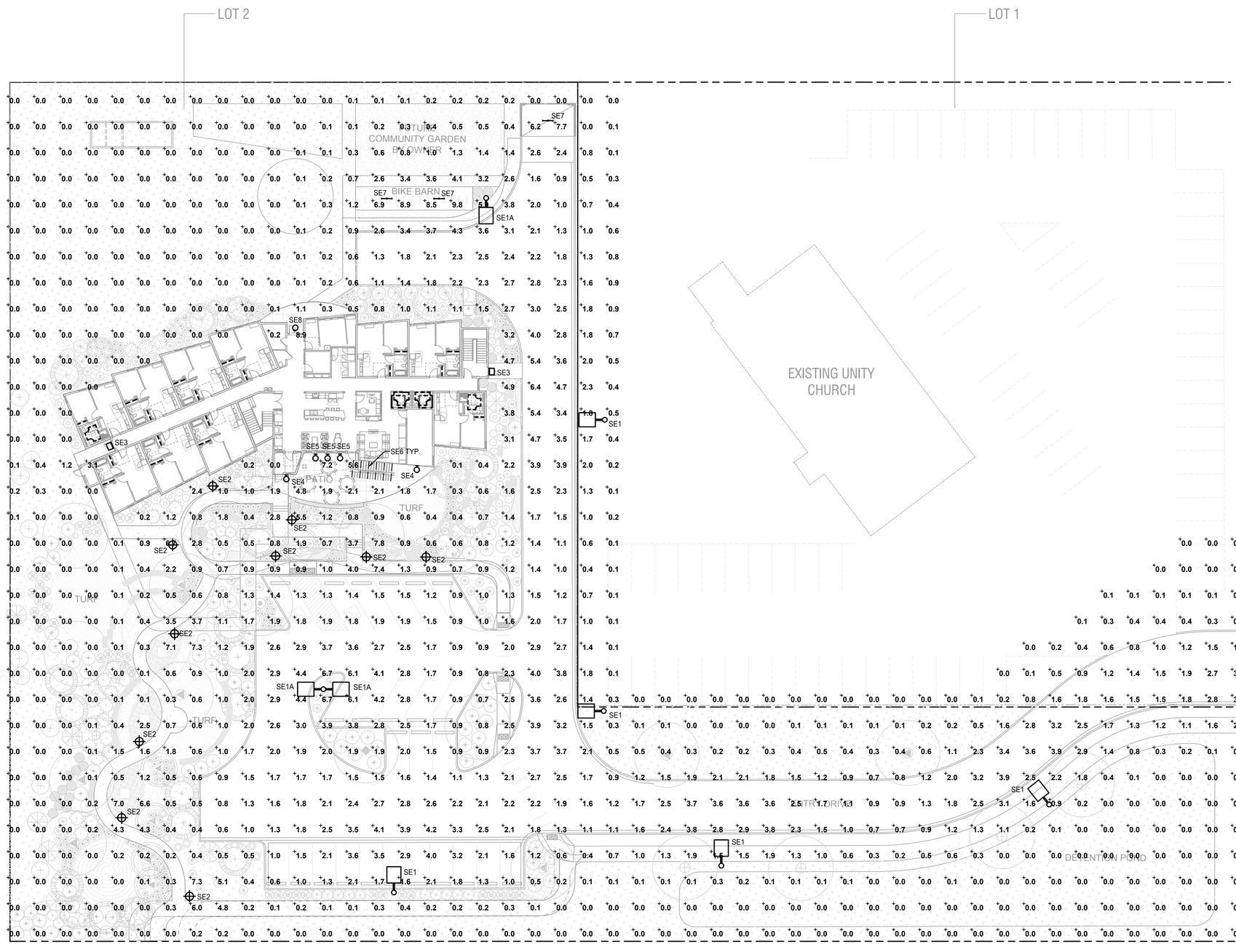
LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434–7038

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Calc Zone #1	+	1.1 fc	9.0 fc	0.0 fc	N/A	N/A	0.1:1

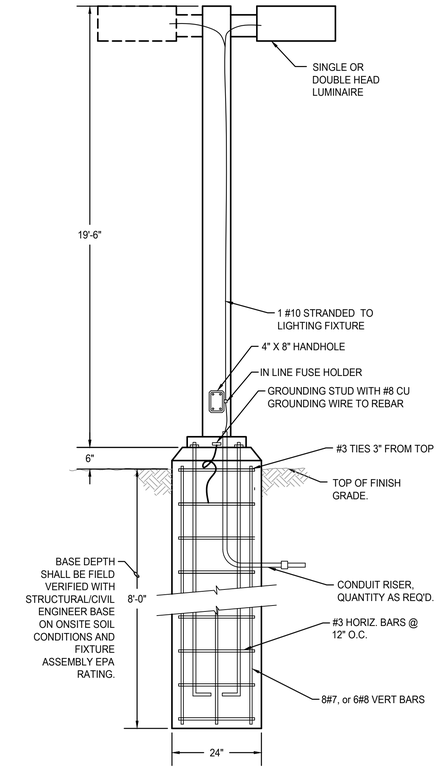
GENERAL NOTES

1. ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC ROW, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.



1 E-1 ELECTRICAL PHOTOMETRIC PLAN

1" = 20'-0"



2 SE1, SE1A PARKING POLE BASE DETAIL

N.T.S.

shoPworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

CONSULTING INC
4649 PECOS STREET UNIT F DENVER, COLORADO 80211
303.935.9271 MVC-NET

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC PLAN

SCALE: AS NOTED

NO. E1

J:\2018\2018-108-00\Cad\Elec\PH-PHOTOMETRIC.dwg jonk 03.27.19 4:06 pm

Catalog # :	Project :
Prepared By :	Date :

Mirada Medium - MRM
Outdoor LED Area Light

The Mirada's sleek design makes it perfectly-suited for architectural & commercial applications, while its cost-effective die-cast aluminum housing makes its acquisition cost very competitive. The Mirada offers high performance factory-rotatable silicone optics, 5 standard CCTs, 42,000+ delivered lumens, and is available with integral Airlink™ Wireless Controls.

Features & Specifications

Optical System

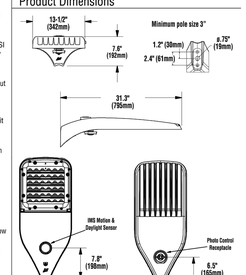
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, SW, FT and FTA.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance. See page 5 for more details.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L lumen package rated to +40°C.
- Power factor: ≥ .90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA · Title 24 2013 · IDA DARK SKY APPROVED · DLC Premium · DLC Premium

Product Dimensions



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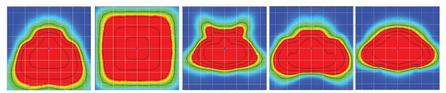
Mirada Medium - MRM
Outdoor LED Area Light

Performance (Cont.)

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada (MRM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Ordering Guide

TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Luminaire Prefix	Light Source	Lumen Package[4]	Light Output	Distribution	Orientation[5]	Voltage	Driver
MRM Mirada	**LED**	7L - 7,000 lms **9L** - 9,000 lms **12L** - 12,000 lms **16L** - 16,000 lms **24L** - 24,000 lms **30L** - 30,000 lms **36L** - 36,000 lms **42L** - 42,000 lms * Consult factory for programmable wattages and lumen packages	**SIL** - Silicone	**2** - Type 2 **3** - Type 3 **SW** - Type 5 Wide **FT** - Forward Throw - Symmetrical **FTA** - Forward Throw - Automotive	**(Blank)** - standard **L**- Optics rotated left 90 **R** - Optics rotated right 90	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347-480V)	**DIM** - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5,000 CCT **40** - 4,000 CCT **30** - 3,000 CCT **27** - 2,700 CCT **AMB** - Phosphor Converted Amber[2,3]	**70CRI** - 70 CRI	**(Blank)** - None **Wireless Controls System.** **ALSC** - AirLink Synapse Control System [4] **ALSCH** - AirLink Synapse Control System Host / Satellite [4,5] **ALSCS01** - AirLink Synapse Control System with 8-12' Motion Sensor [4] **ALSCH501** - AirLink Synapse Control System Host / Satellite with 8-12' Motion Sensor [4,5] **ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor [4] **ALSCH502** - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor [4,5] **ALSCS04** - AirLink Synapse Control System with 20-40' Motion Sensor [4] **ALSCH504** - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor [4,5] **Stand-Alone Controls** **EXT** - 0-10v Dimming (from external signal) **IMS09M1** - Integral Motion Sensor 8-12' 120-277V [4,6] **IMS09M2** - Integral Motion Sensor 12-20' 120-277V [4] **IMS09M4** - Integral Motion Sensor 20-40' 120-277V [4] **IMS09M1HV** - Integral Motion Sensor 8-12' 347-480V [4,6] **IMS09M2HV** - Integral Motion Sensor 12-20' 347-480V [4,6] **IMS09M4HV** - Integral Motion Sensor 20-40' 347-480V [4,6] **CRTP** - 7 Pin Control Receptacle ANSI C136.41 [7] **Button Type Photocells** **PC3120** - 120V **PC3200-277** - 208 -277V **PC3347** - 347V	**BRZ** - Bronze **BLK** - Black **GPT** - Graphite **MSV** - Metallic Silver **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green	**(Blank)** - None **IL** - Integral Louver HSS[8]

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Catalog # :	Project :
Prepared By :	Date :

Mirada Bollard - MRB
LED Architectural Bollard

The Mirada Architectural Bollard combines superior engineering with purity of design & attention to detail. The durable construction & virtually maintenance free qualities makes it ideal for illuminating low level mounting height areas, such as entryways, pathways and most pedestrian-scale applications, requiring unique aesthetics in tandem with outstanding performance.

Features & Specifications

Optical System

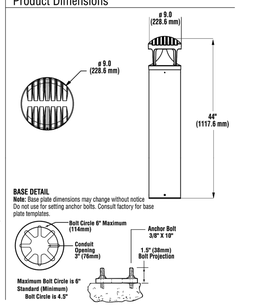
- Available in two optical distributions, symmetrical and asymmetrical.
- High transmission clear flat acylic lens seals the luminaire's optical chamber to IP66.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also available in Phosphor Converted Amber. Consult Factory for other color temperature requirements.
- Minimum CRI of 70. Consult Factory for Higher CRI requirements.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347-480 Vac Input available.
- L91 Calculated Life: >100k Hours calculated @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F); Cold-weather emergency battery backup rated for -20°C minimum ambient.
- Power factor: ≥ .90
- Input power stays constant over life.
- High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
- Driver components are fully encased in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Electrical components are mounted on a removable power tray.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Optional 120v-277v integral emergency battery pack is available. The 90-minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance.

Dimmable · IDA DARK SKY APPROVED · IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

Product Dimensions



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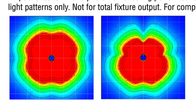
Mirada Bollard - MRB
LED Architectural Bollard

Performance

DELIVERED LUMENS*													
				AMB CCT		2700K CCT		3000K CCT		4000K CCT		5000K CCT	
Lumen Package	Lens Type	Distribution	CRI	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Wattage
25L	ACR	S	70	1713	56	2242	74	2156	71	2487	82	2485	81	30.5
30L	ACR	S	70	2110	55	2761	71.9	2655	69	3063	80	3061	80	38.4
25L	ACR	A	70	1327	58	1736	75.5	1670	73	1926	84	1925	84	23.0
30L	ACR	A	70	1634	56	2138	73.5	2056	71	2372	82	2370	81	29.1

*LED Chips are frequently updated therefore values are nominal.

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the (MRB) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Luminaire Ordering Information

TYPICAL ORDER EXAMPLE: **MRB LED 30L ACR S UNV DIM 40 PCI120 BB BRZ HSS**

Prefix	Source	Lumen Package	Lens	Distribution	Voltage	Driver
MRB (Mirada Bollard)	**LED**	**25L** - 2,500 lm **30L** - 3,000 lm	**ACR** - Acrylic	**A** - Asymmetric **S** - Symmetrical	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347 - 480v)	**DIM** - 0-10v Dimming (10-100%)

Color Temp	CRI	Controls (Choose one)	Battery Backup[4]	Finish	Options
50 - 5,000K **40** - 4,000K **30** - 3,000K **27** - 2,700K **AMB** - Phosphor Converted Amber[1]	**(Blank)** - 70CRI	Button Type Photocells **PCI120** - 120V **PCI208-277** - 208-277V **PCI347** - 347V	**BB** - Battery Backup **CWBB** - Cold Weather Battery Backup	**BRZ** - Bronze **BLK** - Black **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green **GPT** - Graphite **MSV** - Metallic Silver	**H** - XX (Specify Height)[4] **GFR** - GFI Duplex Receptacle **LAB** - Less Anchor Bolts **RR** - Roughneck Heavy Duty Mtg Plate **HSS** - House Side Shield

Accessory Ordering Information[3]

Description	Order Number
HSS - House Side Shield	699100
Galvanized anchor Bolt kit	285560

FOOTNOTES:
1 - Consult Factory for availability.
2 - Standard height is 44". Non Standard heights are available in 6" increments. Minimum height is 26", 32" with battery backup option. Maximum height is 62".
3 - Accessories are shipped seperately and field installed.
4 - Not available in HV Voltage.

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1 FIXTURE TYPE SE1, SE1A
N.T.S.

2 FIXTURE TYPE SE2
N.T.S.

MIRADA WALL SCONCE (XWM)

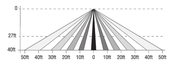
DOE LIGHTING FACTS
Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

LIGHT OUTPUT - XWM - 3 5000K CCT			
	Lumens	Wattage	LPW
03	3410	29	117
04	4417	40	111
06	6609	59	113
08	8610	82	105

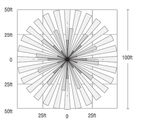
LED Chips are frequently updated therefore values may increase.

COVERAGE DIAGRAM

SIDE VIEW



TOP VIEW



US & Int'l. patents pending

SMARTTEC™ - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature

ENERGY SAVING CONTROL OPTIONS - DIM - 0-10 volt dimming enabled with LSI wireless controls.

OPTIONAL INTEGRAL MOTION SENSOR - Passive infrared motion sensor activates switching of luminaire light levels. High level light is activated when passersby enter target zone and increased to full bright in 1-2 seconds. Low light level (30% of maximum drive current) is activated when target zone is absent of motion activity for 5 minutes and is gradually ramped down (10 seconds) to low level. Sensor detection range 110° horizontal x 93° vertical x 10 meters maximum distance.

LEDS - Available with 5000K, 4000K or 3000K color temperature, 70 CRI min.

OPTICS/DISTRIBUTIONS - Ultra-high efficiency reflectors provide this distributions. Choose from Type 2, Type 3 or Type FT.

HOUSING - Three-piece die-cast aluminum housing is smoothly contoured low-profile shape. Mounting hardware is stainless steel or electro-zinc plated steel. Housing and optical unit are sealed with extruded silicone gasket; supply conductors with molded EPDM bushing.

OPTICAL UNIT - Proprietary silicone refractor optics provide exceptional coverage and uniformity. Pressure stabilizing breather allows super-tight protection while preventing cycling from building up internal pressures and vacuums that can stress optical unit seals

WALL MOUNTING - Galvanized-steel universal wall mounting plate easily mounts directly to 4" octagonal or square junction box. EPDM gasket is supplied to be installed between mounting plate and junction box, sealing junction box from entrance of water. Universal plate permits fixture to be mounted in uplighting (indoor only) or downlighting position. Optional pole-mounting bracket permits mounting to standard poles (XPMA).

ELECTRICAL - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (50/60Hz input) or 347-480VAC.

DRIVER - Drivers are dimming, standard. Components are fully encased in potting material for IP65 moisture resistance. Driver complies with IEC and FCC standards. Driver can be easily accessed.

EMERGENCY OPTIONS - Optional integral emergency battery-back-up options are available. BB option operates in 0°C to 60°C ambient temperature and CWBB operates in -20°C to 60°C ambient temperature. When primary AC power failure occurs, both options operate 10 LEDs for minimum of 90 minutes.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F)

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT (in carton) - 30 lbs./13.6Kg

LISTING - UL listed to ANSI/UL1598, UL8750 and other U.S. and international safety standards. Suitable for wet locations in downlight position. IDA compliant; with 3000K color temperature selection

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · cULus wet location · CE · ARRA Funding Compliant · IP65 · FC · IDA DARK SKY APPROVED · DLC Premium

Project Name _____ Fixture Type _____
Catalog # _____
3/13/19
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MIRADA WALL SCONCE (XWM)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XWM FT LED 08L 50 UE WHT IMS**

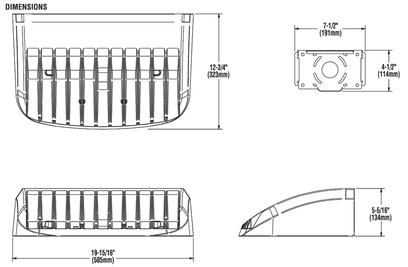
Prefix	Distribution	Light Source	Output[6]	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XWM - Mirada Wall Sconce	2 - Type 2 3 - Type 3 (Wide Throw) FT - Type 4 (Forward Throw)	LED	05L - 3,400 Lumens 08L - 4,400 Lumens 09L - 6,600 Lumens 08L - 8,600 Lumens	50 - 5000K 40 - 4000K 30 - 3000K	UE - Universal Voltage (120-277) HV - 347-480	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus WHT - White	**Wireless Control System[1,4]** (Blank) - None PCM - Platinum Control System SCM - Gold Control System DIM - 0-10 volt dimming (required for satellite fixtures) ALSC - AirLink Synapse Control System **Stand-Alone Control** (Blank) - None DIM - 0-10 volt dimming[2] (from external signal)	**Sensor** IMS - Integral Motion Sensor[4,7] **Options** BB - Battery Back-up[3] CWBB - Cold Weather Battery Back-up[3] XPMA - Pole Mounting Bracket

ACCESSORY ORDERING INFORMATION[1] (Accessories are field installed)

Description	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	3069158LA	DPK208 – Double Fusing	DPK208
FX120 – Single Fusing	PX120	DFK240 – Double Fusing	DFK240
FX277 – Single Fusing	PX277	DFK480 – Double Fusing	DFK480
FK347 - Single Fusing	PK347	IMS/PC Remote Configurator Tool[7]	584929

FOOTNOTES:
1 – For wireless controls information and accessories, see Controls Section.
2 – Requires a SiteManager and override switch. Not compatible with battery back-up, IMS or HL Option.
3 – Not compatible with IMS Option
4 – Not compatible with DIM or Wireless Control System
5 – Not compatible with Wireless Control System
6 – Not available with BB, CWBB, IMS Option or Wireless Control System
7 – IMS is the WattStopper Dual Sensor (Daylight & Motion) which is field adjustable, via a handheld remote configurator tool
8 – Output based on type 3 optics in cool white color temperature, see IES files for exact delivered lumens

DIMENSIONS



Project Name _____ Fixture Type _____
Catalog # _____
3/13/19
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3 FIXTURE TYPE SE3
N.T.S.

Luminaire Schedule

Symbol	Label	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	SE1	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-3-30-70CRI-IL	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE TYPE 3 OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	8626.55	1	94
	SE1A	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-FT-30-70CRI	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	11448.25	1	94
	SE2	LSI INDUSTRIES, INC	MRB-LED-30L-ACR-S-30	LED BOLARD LIGHT GROUND MOUNTED 42" SYMETRICAL OPTICS 3000K CCT		1	2655.92	1	38.4
	SE3	LSI INDUSTRIES, INC	XWM-FT-LED-04-30	LED WALL MOUNT LIGHT 12'-0" AFG FORWARD THROW OPTICS 3000K CCT		1	4207.454	1	38
	SE4	PROGRESS	P563000-143-30K	3" Wall-Mount Cylinder, Graphite w/ Textured, Opal Glass Lens; Tested as Down-Light 8'-0" AFG MOUNTING HEIGHT 3000K CCT	22- Nichia 3000K LEDs	1	906.9812	1	12.204
	SE5	PROGRESS	P563001-143-30K	3" Wall Mount Up/Down Cylinder - Graphite 12'-0" AFG MOUNTING HEIGHT 3000K CCT	44- Nichia 3000K LEDs	1	1765.549	1	24
	SE6	MARKET LITE	ML2000-CA-24-LED-30K-GSFL-WET	LED STRING LIGHT 24" OC. WITH CUTOFF SHADE MOUNTED 10'-0"AFG 3000K CCT	44- Nichia 3000K LEDs	1	91.35894	1	0.97
	SE7	LSI INDUSTRIES, INC	S4-LED-40L-30	4'-0" LINEAR STRIP LIGHT DAMP LISTED SURFACE MOUNTED 3000K CCT	44- Nichia 3000K LEDs	1	4013.724	0.8	27.7
	SE8	LSI INDUSTRIES, INC	LCD4_LAD4_LAD4R-LED-14L-30-NF-TR4R-SF-HAZ	4" APERTURE LED DOWNLIGHT 3000K CCT RECESSED CEILING MOUNT.		1	1142.191	0.8	13.9

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E2

shop drawings
architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094
CONSULTING INC
4640 PECOS STREET UNIT F DENVER, COLORADO 80211
303.525.0271 MV-C-NET

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PROGRESS LIGHTING™

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Downlight Cylinder

Wall mounted • Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

Number of Modules	1
Input Power	12w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	907/75 (LM-79)
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563000-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 5-5/8"
H/CTR: 3"

4 FIXTURE TYPE SE4
N.T.S.

PROGRESS LIGHTING™

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Up/ Down Cylinder

Wall mounted • Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount up/downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

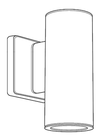
Number of Modules	2
Input Power	24w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	1766/73 (LM-79) per module
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563001-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 8-1/4"
H/CTR: 5"

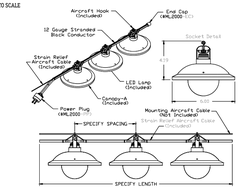


5 FIXTURE TYPE SE5
N.T.S.

marketLITE™
Manufactured in the U.S.A.

MODEL NUMBER: ML2000-CA
FIXTURE TYPE:

NOT TO SCALE



FEATURES

APPLICATIONS	Indoor and Outdoor
VOLTAGE	120V
LAMP	LED Lamp Included
DIMMING	Forward Phase
WATTS	1W or 3W
LENGTH	Built to Order
FINISH	Black
FEED	Standard 6' Leads
STRAIN RELIEF	Aircraft Cable Included
MOUNTING	Aircraft Cable Not Included
LISTING	Dry or Wet Location ANSI/UL1598 CSA 22.2 No. 250.0-04, 2nd Edition
OPTIONS	Mesh, Cages, Canopies
LED LAMP LIFE	50,000 hrs. (GSF, GSC, SSF, SSC) 20,000 hrs. (GSFL)
UV RATING	SunLight Resistance
MAXIMUM RUN	250 Feet

APPLICATIONS

Designed for indoor and outdoor use, *marketLITE* is ideal for many applications including the amusement, recreation, and architectural industries.

marketLITE is used in: Restaurants, Casinos, Street Decorations, Amusement Parks, Shopping Malls, Promenades, and more.

ELECTRICAL

marketLITE with LEDs is available in 120 Volts. *marketLITE* is a 20 amp system (12 gauge wire). No transformers or drivers are required.

INSTALLATION

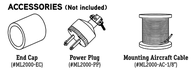
marketLITE is an easy-to-install lighting product that can be field-cut to meet your lighting requirements. See installation instructions for additional details.

LED SPECIFICATIONS

LAMP NUMBER	DESCRIPTION
LED-2.4K*†	2400E Warm White
LED-2.7K	2700K Warm White
LED-3.0K*†	3000K Warm White
LED-5.0K	5000K Cool White
LED-A*†	Amber
LED-R*†	Red
LED-G*†	Green
LED-B*†	Blue

Note: *marketLITE* can be hardwired for Dry and Wet Location
See installation instructions for additional information

ACCESSORIES (Not included)



End Cap (ML2000-EC) | Power Plug (ML2000-PP) | Mounting Aircraft Cable (ML2000-AC-120')

SPECIFY PRODUCT CODE (Use drop down menu to complete table or fill in the blanks)

ML2000-CA - - - - - -

SERIES	SPACING	LAMP	LAMP TYPE	DRY OR WET	DIMMING	CANOPY INSIDE	CANOPY OUTSIDE
Ex: ML2000-CA	12"	LED-2.7K	GSF	WET	DM	BK	BK
ML2000-CA	12" O/C	LED-2.4K*†	GSF*†	Indoor (DRY)	Forward Phase (DM)	Natural (NA)	Natural (NA)
	18" O/C	LED-2.7K	GSC			Polished (PA)	Polished (PA)
	24" O/C	LED-3.0K*†	GSFL	Outdoor (WET)		White (WH)	White (WH)
	36" O/C	LED-5.0K	SSF		Leave blank for Non-Dimming	Black (BK)	Black (BK)
	48" O/C	LED-A*†	SSC			Green (GN)	Green (GN)
	60" O/C	LED-R*†				Bronze (BR)	Bronze (BR)
		LED-G*†				Satin (SA)	Satin (SA)
		LED-B*†				Silver (SR)	Silver (SR)
						Red (RD)	Red (RD)

*† Standard bulb if left blank
** Only available in GSFL
*** Only available in SSC and GSC

CALIFORNIA ACCENT LIGHTING, INC.
2034 E. Lincoln Ave. #431, Anaheim, CA 92806
ph. 800.921.CALI (2254) or 714.535-7900 \ fx. 714.535.7902
info@calilighting.com \ calilighting.com

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2017.12.04 R7

6 FIXTURE TYPE SE6
N.T.S.

Catalog # :	Project :
Prepared By :	Date :

S4'
LED Strip

The sleek architectural S is designed with tooless entry features saving time and money on installation. Optimizing industry leading LED technology, the S series delivers unparalleled performance and efficiency meeting stringent energy requirements. Offering 3000K, 3500K, 4000K and 5000K color temperatures. Innovative programmable drivers offer expansive lumen packages and cones standard with 0-10V dimming down to 1%. Designed with uncompromised aesthetics, the high-performance luminaire is well suited for commercial, industrial, retail and residential applications.

Features & Specifications

Optical System

- Use of closely spaced medium-power, high brightness chips provides uniform luminance.
- Available in 5000K, 4000K, 3500K, and 3000K color temperatures per ANSI C78.377. Consult Factory for other color temperature requirements.
- Minimum CRI of 80.

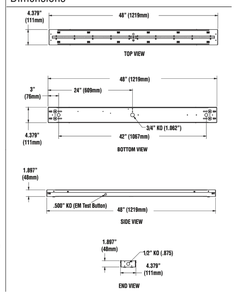
Electrical

- Class 2 high-performance programmable driver features short circuit, open circuit protection for LED + and LED - and temperature foldback. Driver complies with FCC standards.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal voltage (120-277 Vac) Input 50/60 Hz. Optional high Voltage 347 Vac Input available, consult factory for lead time and DLC® qualification information. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- L70 Calculated Life: >60k Hours @ 25°C per IESNA TM-21-11. (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Optional (120-277V) integral 10 watt battery backup is available. The 90-minute batteries provide constant power to the LED system. The fixture delivers 1300 lumens during emergency mode. A test switch/indicator button is installed in the housing for ease of maintenance.

Controls

- Optional Bolt-on integral passive infrared motion and/or daylight sensor activates switching of luminaire light levels (see page 5 for more details).
- Optional Step-level dimming driver allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Dimensions



7 FIXTURE TYPE SE7
N.T.S.

S4'
LED Strip

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **S4 LED 40L UNV DIM1 35 80CRI**

Family Size	LED Gen	Lumen Package	Lens	Voltage	Driver	Color Temp	CRI	Controls	Options	Packaging
S4 - 4' Strip	**LED**	**20L** - 2000 **30L** - 3000 **40L** - 4000 **50L** - 5000 **60L** - 6000 **70L** - 7000 **80L** - 8000 *Consult factory for programmable wattages and lumen packages	**(Blank)** - None	**UNV** - 120-277V[1] **347** - 347V[2]	**DIM1** - Dims to 1%(0-10V) **8D50** - Step dimming to 50%[1]	**30** - 3000K **35** - 3500K **40** - 4000K **50** - 5000K	**80CRI** - 80 CRI	**(Blank)** - None **OCSUE** - Occupancy Sensor 120-277V[1] **DHSUE** - Daylight harvesting/Occupancy Sensor 120-277V[1]	**(Blank)** - None **EM10** - 10W Battery Backup (1300 Lumens)[1] **PM1** - SFT Pre-wired plug in assembly (standard)[1] **PM1TLV** - SFT Pre-wired plug in assembly (0-10V Dimming)[1] **PM2** - SFT Pre-wired plug in assembly (S2S0 or EM10)[1] **PM2LV** - SFT Pre-wired plug in assembly (S2S0 or EM10 with 0-10V Dimming)[1]	**(Blank)** - Single Pack

NOTES:
1. Consult factory for leadtime & DLC qualifications.
2. Not available with 347V

Accessory Ordering Information (Accessories are field installed)

Description: T-Grid Hanger Kit
Order Number: (Qty 2) - 671560

Description: T-Grid Collar (including junction box, wire collar & grid hanger)
Order Number: (Qty 1) - 559851

Description: Chain Hanger Set (36" length)
Order Number: (Qty 2) - M38258

Description: 24" Pendant
Order Number: (Qty 1) - 667400

Description: Chain Hanger Set (60" length)
Order Number: (Qty 2) - 251057

Description: 36" Pendant
Order Number: (Qty 1) - 681509

Description: Wire Guard - 4 foot
Order Number: (Qty 1) - 549301

Description: 48" Pendant
Order Number: (Qty 1) - 667382

8 FIXTURE TYPE SE8
N.T.S.

Catalog # :	Project :
Prepared By :	Date :

LCD4
4" LED Commercial Downlight

4 inch LED new construction downlight delivers superior performance and energy efficiency. Designed to use anodized aluminum reflectors delivering even illumination and low glare. The high performance luminaire offers 1000 up to 2000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K at 80 CRI. Standard driver offers universal (120-277V) and 0 -10V dimming down to 1%. The LCD series is ideal for low to medium ceiling heights for retail, hospitality and commercial applications.

Origin™

Features & Specifications

Optical System

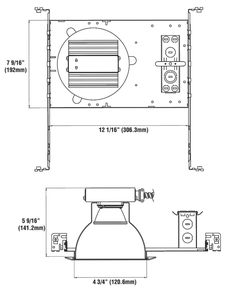
- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Available in 4000K, 3500K, 3000K, and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80.

Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Compatible with Triac (forward-phase or leading-edge), ELV (reverse-phase or trailing edge) dimming only at 120 Vac.
- Driver can be accessed from below plenum for servicing.
- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) field installed is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance.To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions located on website.

Dimensions

Accomodates 1/2" ceiling thickness



LCD4
4" LED Commercial Downlight

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **LCD4 LED 24L UNV DIM1 35 NF TR4R HAZ**

Family/ Size	LED Gen	Lumen Package	Voltage	Driver	Color Temperature	CRI	Beam Optics[2]
LCD4 - 4" New Construction[1]	**LED**	**14L** - 1400 **24L** - 2400	**UNV** - 120-277V	**DIM1** - Dims to 1% (0-10V dimming)	**27** - 2700K **30** - 3000K **35** - 3500K **40** - 4000K	**Blank** - 80 CRI	**SF** - Spot **FL** - Flood **WF** - Wide Flood

	Reflector	Finish
Self-Flange	TR4R - Open Reflector	SF HAZ - Haze semi-diffused
		SF SPC - Specular clear
	TR4RWW - Wall Wash[3]	SF HAZ - Haze semi-diffused
Flangeless (ship standard w/ white plastic trim ring)	TR4R - Open Reflector	HAZ - Haze semi-diffused, white trim ring
		SPC - Specular clear, white trim ring
	TR4RFL - Frosted Floating Lens[4]	HAZ - Haze semi-diffused Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible)
		SPC - Specular Clear Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional ring not compatible)
	TR4RWW - Wall Wash[3]	HAZ - Haze semi-diffused wall wash reflector, white trim ring
	TR4R - Baffle	HAZ - Haze semi-diffused reflector	WH - White baffle and white trim ring
		BL - Black Baffle and white trim ring
	TR4RL - Baffle w/ Regressed Lens[5]	HAZ - Hazed semi-diffused	WH - White baffle and white trim ring
		SPC - Specular clear	BL - Black baffle and white trim ring
	TR4RL - Regressed Lens[5]	HAZ - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring
		SPC - Specular clear reflector w/ specular clear regressed lens and white trim ring

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
WH - White metal trim ring (only compatible w/flangeless trims)	616105
EM - Emergency Battery	658633

NOTES:
1. Regressed lens trims are wet location listed. All other trims are rated for damp location.
2. TR4RWW wall wash reflector comes with 40° integrated optic additional beam optics not compatible
3. TR4RFL frosted floating lens comes with integrated white metal trim; accessory white metal trim ring not required)
4. Housing can ship ahead of the light engine and reflector
5. 90 CRI requires 55 day leadtime & 100 MOQ; Consult Factory
6. Refer to IES Files for Beam Spread.

shop WORKS architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

MV CONSULTING INC
#464 PECOS STREET UNIT F DENVER, COLORADO 80211
303.505.0271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E3

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PROJECT NUMBER: SPN-2019-174
PROJECT NAME: Karis Affordable Housing Project
PROJECT ADDRESS: 3205 North 12th Street
REVIEW AGENCY: City of Grand Junction, Community Development, Engineering Division
REPRESENTATIVE: Jarrod Whelan, P.E., Development Engineer (ph. 244-1443)
Rachel Wall, Intern, Development Engineering
DATE: 2019-06-28

Review Comments

2nd Review

PLANS

Review Comment: C1.00

Sheet index is missing C8.30

This plan set shall include the Landscaping Plans, include in sheet index.

Applicant's Response:
Document Reference:

Review Comment: C4.00 & C7.00

Dimension hammerhead parking from the western end to centerline of drive aisle and from the trash enclosure to centerline of the hammerhead.

Applicant's Response:
Document Reference:

Review Comment: C5.00

Please call to discuss the storm drain design, RE: Is there a catch basin on the property line of the existing church and the proposed development for future development of the parking lot? Also,

Applicant's Response:
Document Reference:

Review Comment: C8.00

Please provide topo a minimum of 50 feet south of the southern property line (into 3154 Lakeside). Based on the drawing, it appears runoff will continue to flow south across the PL. Please provide grading or cutoff wall to maintain stormwater in the Tract and into basin.

Applicant's Response:
Document Reference:

Review Comment: C8.20/8.30

Provide grade/slope arrows along the walkway's path of travel.

Applicant's Response:
Document Reference:

DRAINAGE REPORT

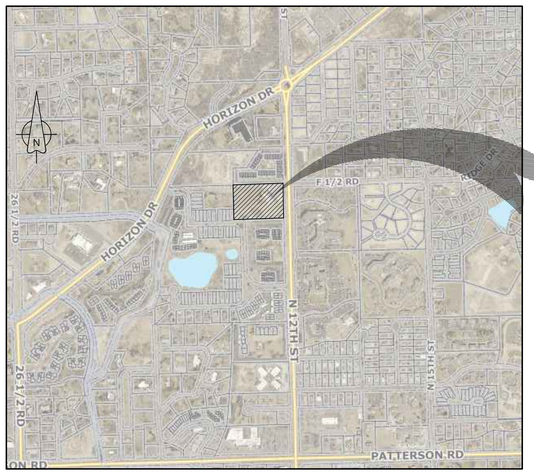
Review Comment: No Exceptions Taken

Shop Works Architecture
301 W. 45th Ave.
Denver, Colorado 80216
(303) 433-4094

PLANS FOR
CONSTRUCTION OF

KARIS APARTMENTS

MARCH 26, 2019



VICINITY MAP
NTS

PROJECT LOCATION

NO.	TITLE
C1.00	COVER
C2.00	TYPICAL CONSTRUCTION NOTES
C3.00	DEMOLITION PLAN
C4.00	SITE PLAN
C5.00	UTILITY COMPOSITE PLAN
C6.00	OUTLET STRUCTURE & POND DETAILS
C7.00	HORIZONTAL CONTROL PLAN
C7.10	HORIZONTAL CONTROL PLAN
C7.20	HORIZONTAL CONTROL PLAN
C8.00	GRADING AND DRAINAGE PLAN
C8.10	GRADING AND DRAINAGE PLAN
C8.20	GRADING AND DRAINAGE PLAN

KARIS APARTMENTS

TAX PARCEL #: 2945-024-00-059
LOT SIZE: 3.675 ACRES

OWNER: UNITY CHURCH, PO BOX 1904, GRAND JUNCTION, COLORADO 81502

DEVELOPER: KARIS, INC., JOHN MOK-LAMME, PO BOX 2837, GRAND JUNCTION, COLORADO 81502

DEVELOPMENT PARTNER: BLUELINE DEVELOPMENT, ORIANA SANCHEZ, 1004 SOUTH AVENUE WEST, MISSOULA, MT 59801

ARCHITECT OF RECORD: SHOPWORKS ARCHITECTURE, CHAD HOLTZINER, 301 W 45TH AVENUE, DENVER, COLORADO 80216

CIVIL ENGINEER: AUSTIN CIVIL GROUP, INC.

LANDSCAPE ARCHITECT: FLOW DESIGN COLLABORATIVE, CHRISTOPHER HOY, 301 W 45TH AVENUE, DENVER, COLORADO 80216

STRUCTURAL ENGINEER: MONROE & NEWELL ENGINEERS, DAVE KAST, 1400 GLENARM PLACE, STE 101, DENVER, COLORADO 80202

MECHANICAL ENGINEER: ABLE CONSULTING GROUP, MARC ABLE, 2468 S CLAYTON STREET, DENVER, COLORADO 80210

ELECTRICAL ENGINEER: MV CONSULTING INC, MARCUS VAHLING, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

PLUMBING ENGINEER: MEC, INC, BRYAN MOEN, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
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XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

COLORADO LICENSED 42780 PROFESSIONAL ENGINEER 6/7/19

ACCEPTANCE BLOCK
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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

shopworks architecture
2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

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AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

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SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
COVER

SCALE: NTS

NO. C1.00

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GENERAL CONSTRUCTION NOTES

1. Contractor shall contact Mark Barslund, City of Grand Junction Development Inspector and 521 Drainage Authority Representative, 970-201-1362, a minimum of 72 hours in advance of beginning any site work for a pre-construction meeting

2. Locations of existing utilities shown on these plans are approximate only. Contractor is to contact affected utility for specific locations before digging.

3. The Contractor shall notify the engineer if unanticipated conditions area encountered during completion of the work which require modifications to the contract drawings. The engineer can be reached at 970-242-7540.

4. Contractor shall give 48-hour notice to all authorized inspectors, superintendents, or person in charge of public and private utilities affected by his operations prior commencement of work. Contractor shall assure himself that all construction permits are current.

5. Contractor shall confine his construction operations to the right-of-way, easements, and lots, as shown on plans and plat. Any damage to private facilities outside these limits shall be repaired by the Contractor at no expense to the Owner.

6. All road construction, related work, materials, performance and quality of work provided shall conform to the requirements of the City of Grand Junction Standard Specifications and Drawings and the applicable sections of the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standard Plans, Division of Highways M & S Standards.

7. Contractor shall familiarize himself with the geotechnical testing requirements of the City of Grand Junction. The results of the required types of tests and numbers of passing tests shall be furnished to the Engineer for verification before final acceptance by the Owner will be granted. All failing tests shall be brought to the immediate attention of the Engineer and retests shall be performed until passing results are obtained. All utility lines, including service lines falling shall be tested.

8. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for utility trench back fill unless otherwise approved by the Engineer.

9. All utility installations are to be performed in accordance with the City of Grand Junction Standard Specifications for the Construction of Underground Utilities and Standard Details.

10. All sewer lines must be tested and approved PRIOR to street construction. Contractor is required to notify the Owner's representative PRIOR to testing. The Owner's representative must be present to witness testing of water and sewer lines or the City will not approve the installation.

11. In the event of a descrepancy between the construction notes contained herein and the notes and details in the City of Grand Junction Standard Contract Documents for Capital Improvements Construction manual, the City's manual shall control.

12. All work within the City of Grand Junction Right-of-Way shall required a "Work in the Right-of-Way" Permit. All construction work shall be in accordance with the latest edition of the City of Grand Junction Standard Specifications.

13. All concrete in driveways to be 6" minimum, Class VI ABC, unless otherwise noted.

14. All finished grades around the building perimeter shall slope a minimum of 2% away from the building for a minimum of 10-ft.

15. All roof drains that discharge to the finished ground surface shall be provided with splash blocks that extend beyond the building foundation excavation zone.

16. The Contractor shall be required to comply with the requirements and recommendations of Huddleston-Berry Geotechnical report titled Geotechnical and Geologic Investigation Karis Affordable Housing, Project # 01892-0001 dated January 16, 2019, unless otherwise noted.

17. All fill, building, concrete or asphalt pavement areas shall be stripped of a minimum 6-inches of topsoil.

PAVING CONSTRUCTION NOTES

1. All road widths and radii are to flow line unless noted otherwise. Any "spot" design elevations are to flow line of curb and gutter unless otherwise noted.

2. Prior to pavement placement, the pavement prism should be stripped of all unsuitable materials. It is recommended that the subgrade soils be scarified to a depth of 12-inches, moisture conditioned, and recompacted to a minimum of 95% of the standard Proctor maximum dry density, within ±2% of optimum moisture as determined by AASHTO T-99.

3. Contractor to protect existing utilities and appurtenances. Manholes, drainage inlets, utility lines, etc., damaged, covered, or filled with dirt or debris by the Contractor shall be cleaned and repaired at no expense to the Owner.

4. Where proposed pavement is to match existing pavement, existing pavement is to be squared cut, full base thickness is to be brought to match line and existing surface is to be tack-coated before proposed surface is placed.

5. All handicap ramps, sidewalks and curb and gutter are to be constructed where indicated on the plans and in accordance The City of Grand Junction requirements..

6. Curb, gutter, and drainage pans are to have expansion joints at each change in horizontal alignment of curb and gutter, but in no case at a greater distance apart than 100 feet. Locate dummy grooved joints between expansion joints at intervals not exceeding 10 feet. Where length of pour precludes 10 foot intervals, the end sections may be less then 10 feet but not less than 5 feet.

7. PAVEMENT SECTION: "Hot-Mix Asphalt" 4-inch HMA over 7-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade. " Rigid Pavement" 6-inch Portland Cement Concrete w/ #4 bars @ 16" cntrs., E.W. over 6-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade.

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

WATER LINE CONSTRUCTION

1. All water line construction shall be constructed in accordance with the Ute Water District Standards and Specifications.

2. Contractor shall notify the Ute Water Conservancy 48 hours prior to the beginning of construction.

3. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined by AASHTO T-99. Contractor shall be required to perform all necessary compaction tests through a certified soils lab.

4. Minimum cover required over top of new waterlines is 4'-6".

5. All water mains to be DR-18 PVC, Class 150 conforming to AWWA C-900.

6. Ductile Iron fittings to conform to AWWA C-110.

7. Fire Hydrants shall conform to AWWA C-502, Mueller Super Centurian or Kennedy Guardian.

8. All materials labor and equipment required for testing and disinfection of water lines shall be furnished by Contractor. Disinfection of water lines shall conform to AWWA C-651-86 or latest revision thereof. No separate pay.

9. All pipe bends/angle points, both horizontal and vertical, as called for on the plans are to be thrust blocked per Ute Water Conservancy District details and Technical Specifications.

10. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for water line trench backfill unless otherwise approved by the Engineer.

11. All Ute Water Mains are to be bedded per City of Grand Junction Standards.

12. All customer water service lines 2" or less shall be 200 psi rated "Pure Core" Blue HDPE, or approved equal.

STORM SEWER CONSTRUCTION NOTES

1. All storm sewer line construction shall be in accordance with the City of Grand Junction Standards and Specifications.

2. All Reinforced Concrete storm sewer pipe shall conform to ASTM Standard Specifications, C-76, Class III unless otherwise noted.

3. All polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM Standard Specifications, D3034 and F679, SDR-35 unless otherwise noted.

4. All High Density Polyethylene (HDPE) pipe and fittings shall be smooth bore and shall conform to the following:
12 inch to 36 inch shall meet ASSHTO M294
42 inch to 48 inch shall meet ASSHTO MP6
All HDPE pipe up to 30" shall be backfilled to springline with Class-6.

FUGITIVE DUST CONTROL PLAN

1. Before stripping of the site preparation for overlot grading, the surface is to be pre-wet to control dust.

2. Any stockpiles of stripping materials are to be periodically sprayed with water or a crusting agent to stabilize potentially wind blown material.

3. Haul road both into and around the site are to be sprayed as needed to suppress dust.

4. The Storm Water Management Plan and permit shall be obtained and kept onsite before starting any construction work. Gravel pads are to be constructed at the entrances to the site to help in removing mud from the wheels of haulage trucks before they enter onto City streets.

5. Trucks hauling import fill are to be tarped to aid in the control of airborne dust.

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

SANITARY SEWER CONSTRUCTION NOTES

1. All materials and workmanship shall comply to the Standards and Specifications of the City of Grand Junction. The City of Grand Junction reserves the right to accept or reject any materials and or workmanship that does not conform.

2. The Contractor shall have one signed copy of plans and a copy of the City of Grand Junction Standards and Specifications at the job site at all times.

3. All sanitary sewer pipe shall be PVC SDR-35 (ASTM 3034) unless otherwise specified.

4. All sewer lines to be laid to grade utilizing a "pipe laser".

5. All connections to the new sewer lines shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed, except as noted.

6. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined AASHTO T-99.

7. A minimum of 10 ft. of separation shall be maintained at all times between the waterline and sewer line except at specified crossings.

8. The contractor is responsible for all required sewer line testing to be completed in accordance with the City of Grand Junction Standards and Specifications. Final testing to be accomplished only after all other infrastructure has been installed. This includes waterlines, gas lines, electric lines, etc. Testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will also be accomplished after paving is completed to insure that the line is clean. These tests will be the basis for issuing the initial acceptance of the seer line extension.

9. Manholes shall be constructed as shown on the City of Grand Junction Standard Sanitary Sewer Detail sheets SS-02 of SS-03 as appropriate.

10. Water stop gaskets and clamp assemblies are to be furnished and installed at all connections to manholes. No separate pay.

11. Metal grade rings are NOT to be used on tip of manhole rings to adjust to finish pavement elevations. All adjustments to finish grade on new manholes shall be made using concrete grade rings and grout as shown on the standard details.

12. Where sanitary sewers cross under a water line with less than 18 inches of vertical separation, and in all cases where the sanitary sewer crosses over the waterline at any depth, provide total concrete encasement of pipe for a length of 10 feet to either side of the waterline.

13. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for sewer line trench backfill unless otherwise approved by the Engineer.

14. To inhibit the movement of ground water through sewer bedding and haunching material, clay cutoff wall of native material are to be constructed approximately 10 feet upstream from each manhole and shown on sanitary sewer plan and profiles.

15. Notify the City of Grand Junction 48 hours prior to the construction of the sanitary sewer facilities.

16. The contractor shall obtain a City of Grand Junction Street Cut Permit for all work within existing City right-of-way prior to construction.

UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
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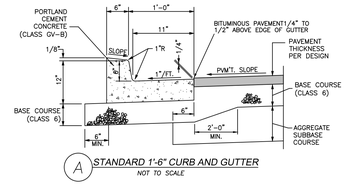
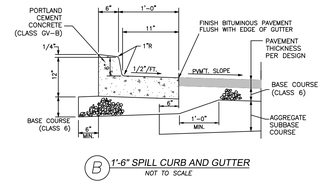
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

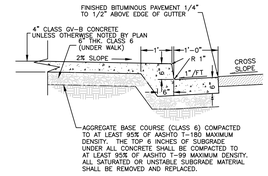
TYPICAL CONCRETE SECTIONS



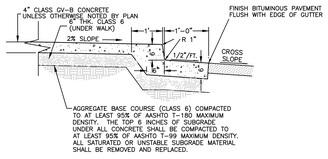
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

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2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

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AUSTIN CIVIL GROUP, INC.
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SCALE VERIFICATION
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NOT ONE INCH ON THIS SHEET
IF NOT SCALE ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

COLORADO LICENSED CHRISTOPHER T. STARR 42780 6/7/19 PROFESSIONAL ENGINEER

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
GENERAL CONSTRUCTION NOTES

SCALE: NTS

NO. C2.00

ACCEPTANCE BLOCK
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CITY DEVELOPMENT ENGINEER DATE

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UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
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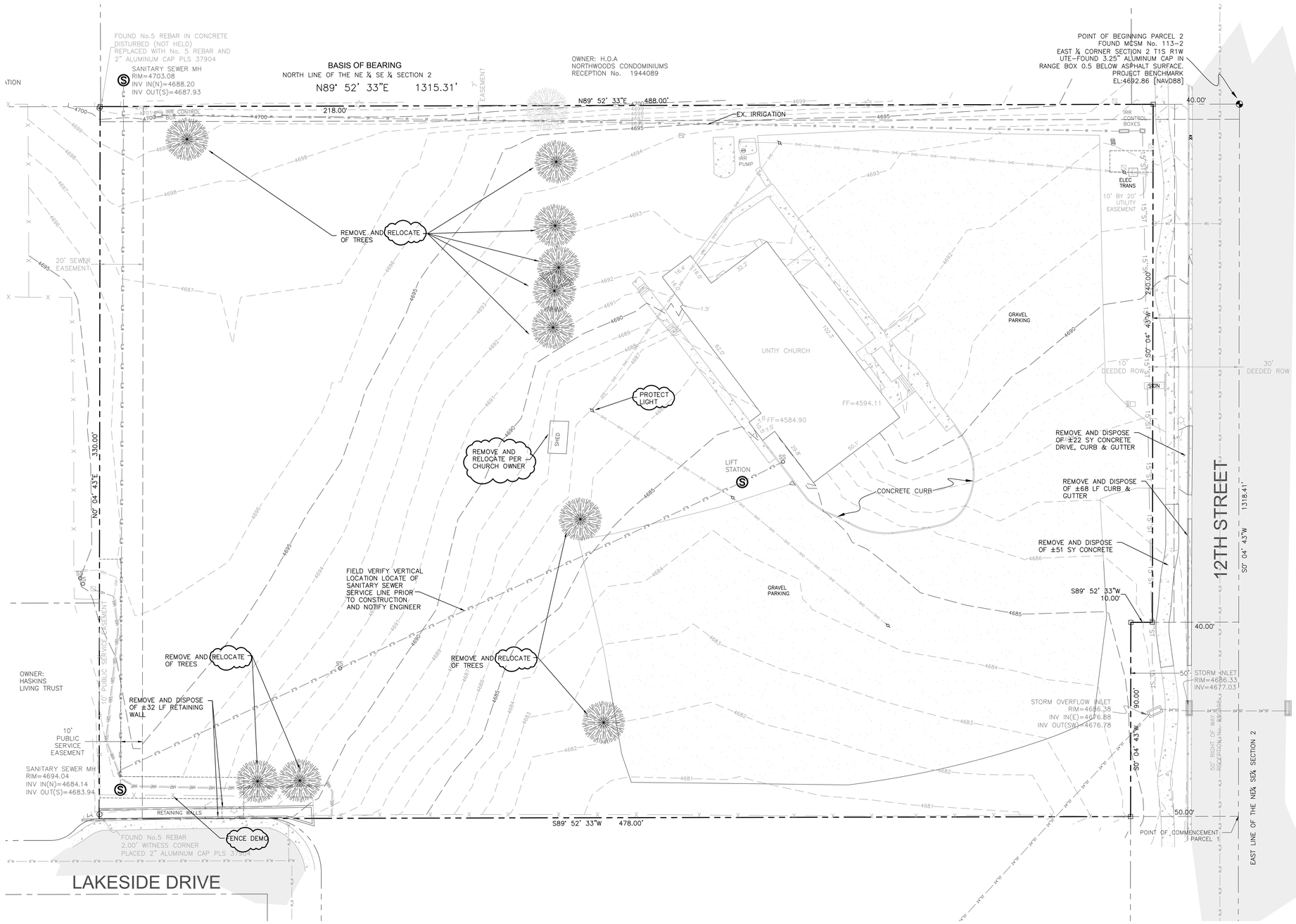
CHARTER	JOHN VALDEZ	245-8750

NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12th STREET



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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
DEMOLITION PLAN

SCALE: 1"=20'

NO. C3.00

COLORADO LICENSED
CHRISTOPHER T. SHOOP
42760
6/7/19
PROFESSIONAL ENGINEER

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER DATE

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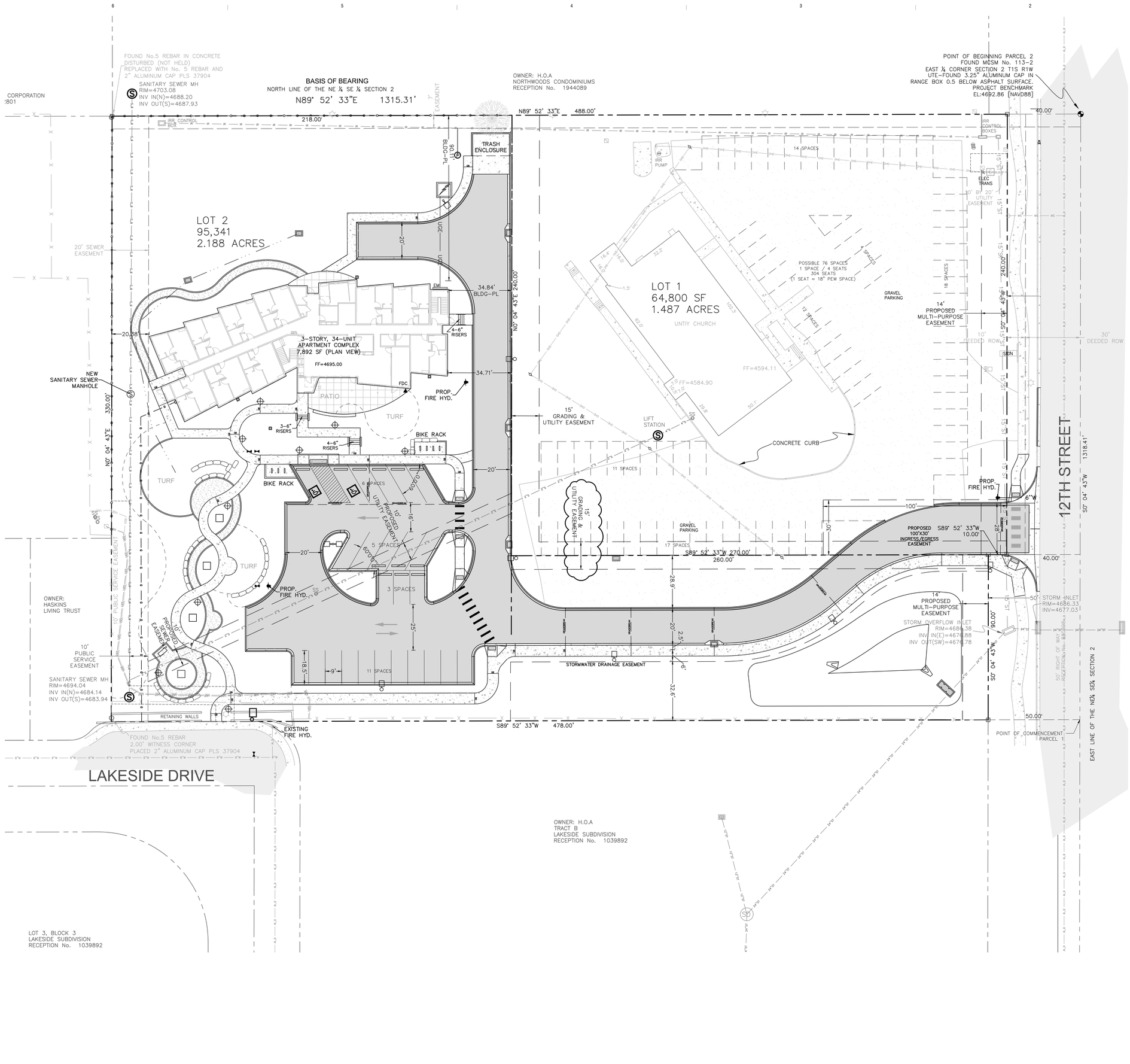

GENERAL NOTES:

1. ALL PARKING SPACES ARE 9-FT WIDE X 18.5-FT LONG UNLESS NOTED AS 60° PARKING WHICH ARE PER TEDS.
2. ALL SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
3. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
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- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
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- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
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- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
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- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
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- PROPOSED METER/BACKFLOW VAULT
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- FLOWLINE
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- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

LAND USE SUMMARY		
USE	SQUARE FT	PERCENT
BUILDING	7,892	8.3%
LANDSCAPE	55,109	57.8%
ASPHALT/PKG/CONC	32,340	33.9%
TOTAL	95,341	100%

PARKING SUMMARY
*7,892 SF Multi-Family = 25
Total Parking Required = 25 Spaces
Total Parking Provided On Site = 25 Spaces
*Project is utilizing an affordable housing parking reduction

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

shop works architecture
2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

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KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

COLORADO LICENSED CONSULTANTS
SCOTT T. STOMP
42760
6/7/19
PROFESSIONAL ENGINEER

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
SITE PLAN

SCALE: 1"=20'

NO. C4.00

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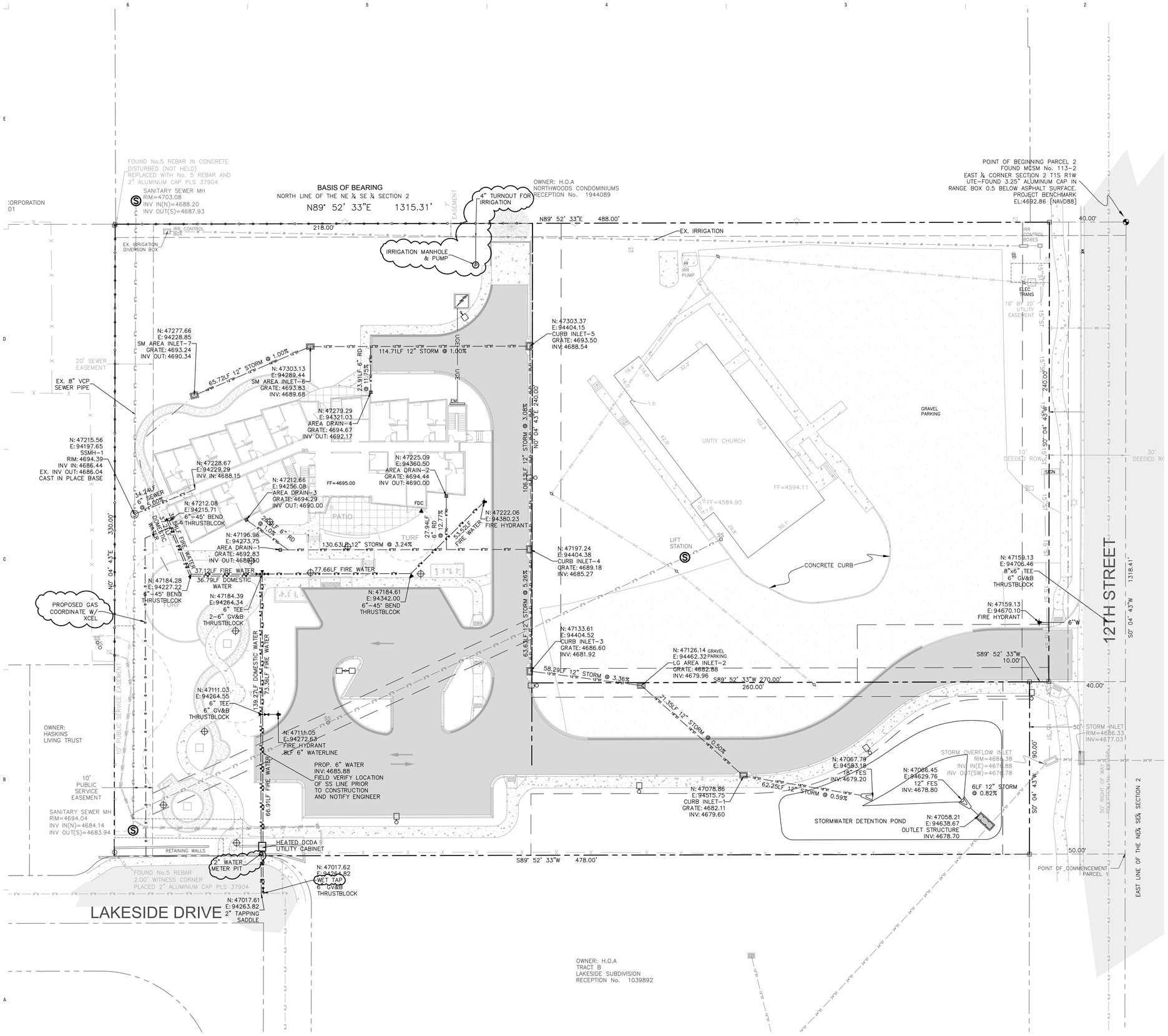
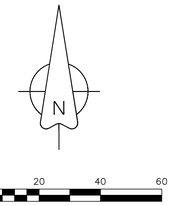
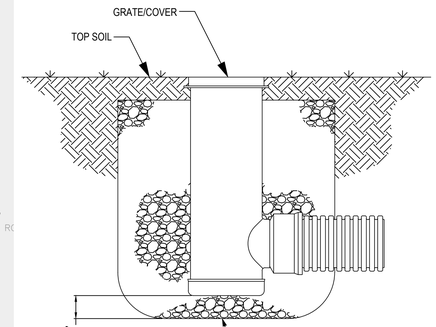




NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET
2. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

DRAIN BASIN



UTILITIES AND AGENCIES

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XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

UTE WATER DISTRICT

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY:_____ DATE:_____

ACCEPTED AS CONSTRUCTED

BY:_____ DATE:_____

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

COLORADO LICENSED 42780 PROFESSIONAL ENGINEER 6/7/19

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2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
UTILITY COMPOSITE PLAN

SCALE: 1"=20'

NO. C5.00

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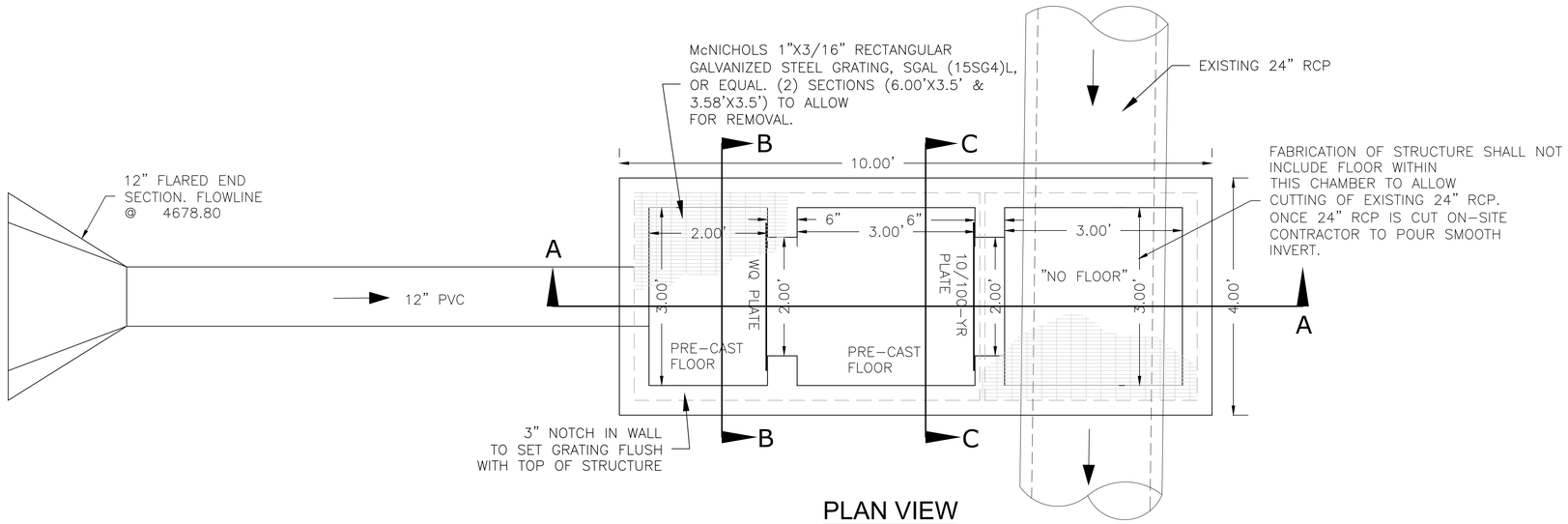
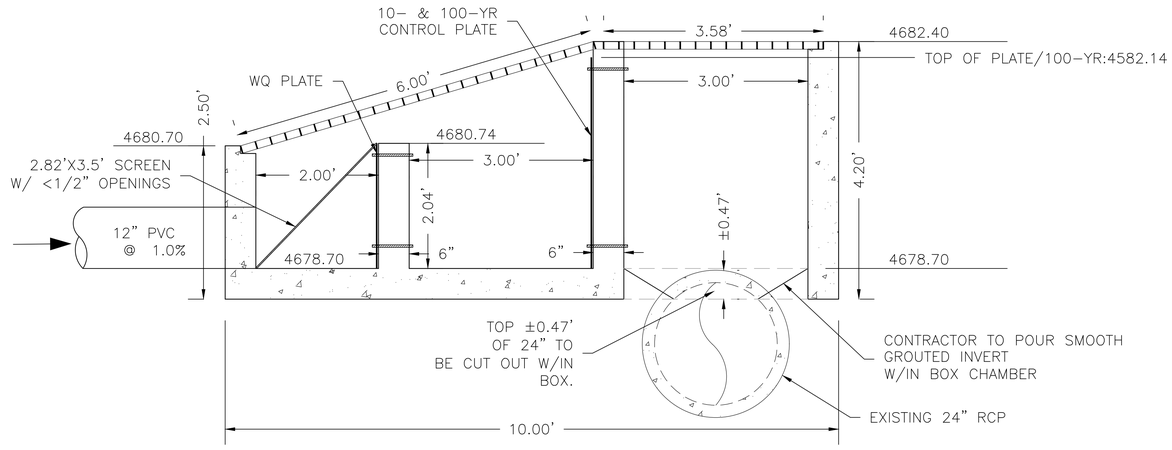
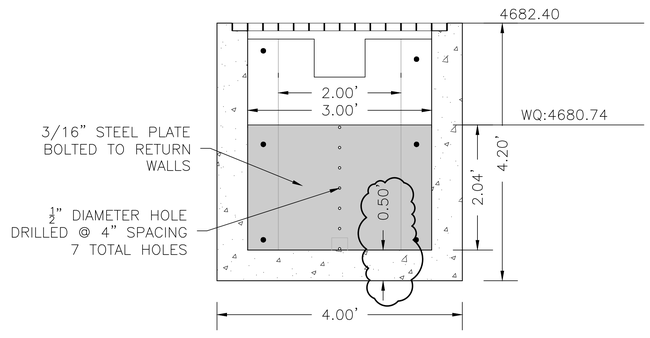


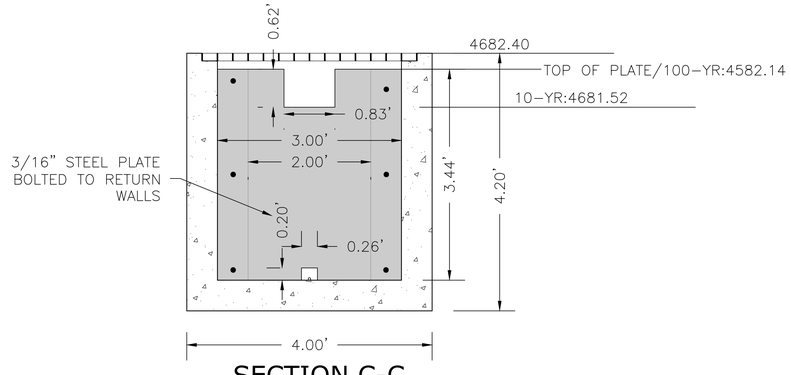
PLAN VIEW



SECTION A-A



SECTION B-B
WQ PLATE



SECTION C-C
10- & 100-YR PLATE

OUTLET STRUCTURE

NTS

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KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE:
OUTLET STRUCTURE

SCALE: NTS

NO. C6.00

ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS, ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

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CITY DEVELOPMENT ENGINEER DATE

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SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

RECEPTION No.

7' EASEMENT

N89° 52' 33"

218.00'

IRR CONTROL BOX

EX. IRRIGATION DIVERSON BOX

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

TRASH ENCLOSURE

12'

10'

6'

GB

IR

27.06'

R30'

33.44'

20'

5'

12.62'

R33.45'

EM

4.96'

3'

22'

4–6" RISERS

N0° 04' 43"E 240.00'

3–STORY, 34–UNIT
APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

FDC

PROP. FIRE HYD.

PATIO

TURF

R54.78'

NEW SANITARY SEWER MANHOLE

N0° 04' 43"E 330.00'

9.85'

28.31'

3.02'

12.02'

17.16'

20.14'

3–6" RISERS

4.95'

R11.38'

28.43'

4–6" RISERS

BIKE RACK

20.52'

10.39'

5.6'

4.92'

41.73'

15.37'

72.75'

12.29'

BIKE RACK

TURF

R34.16'

GRADEBREAK

GRADEBREAK

GRADEBREAK

20.78'

22.52'

11.13'

5.41'

R8.74

R18.76'

R5'

TURF

R18.76'

8.03'

R12.5'

2.06'

R10'

R2'

20.78'

26.35'

27'

3.26'

9.25'

18.73'

11.83'

1.26'

16.91'

R30'

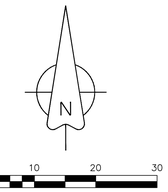
PROP. FIRE HYD.

88.6'

96.17'

PUBLIC SERVICE EASEMENT

SS



LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1–FT CONTOUR
- EXISTING 5–FT CONTOUR
- PROPOSED 1–FT CONTOUR
- PROPOSED 5–FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
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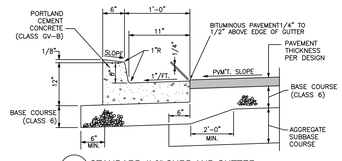
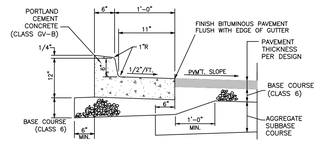
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

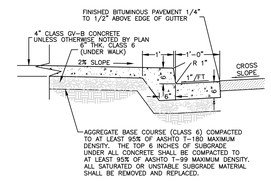
TYPICAL CONCRETE SECTIONS



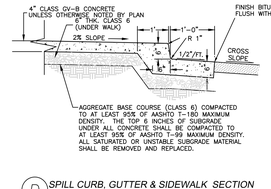
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

COLORADO LICENSED CONTRACTOR
42760
6/7/19
PROFESSIONAL ENGINEER

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER _____ DATE _____

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3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.00

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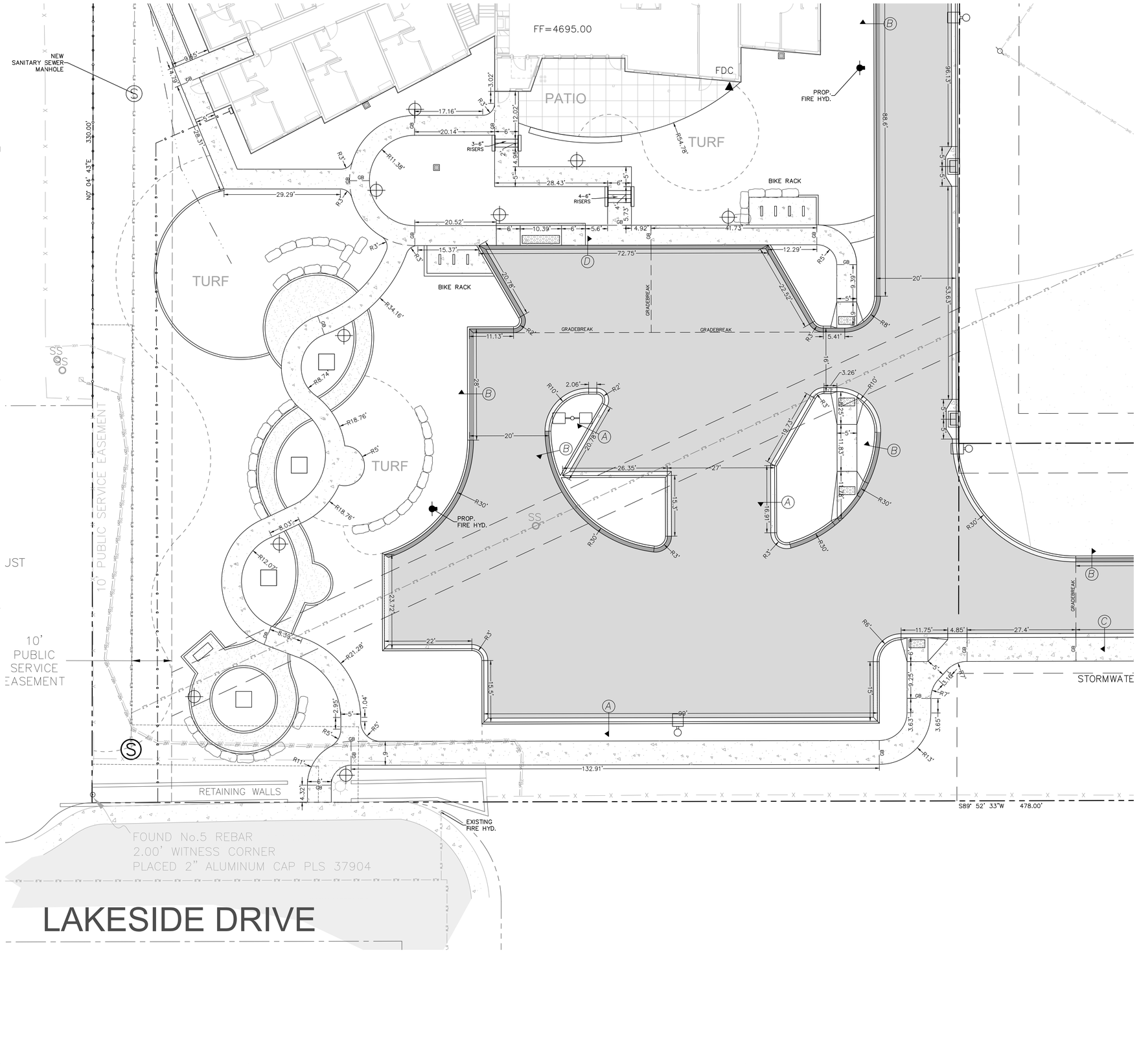

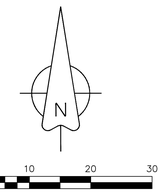

LEGEND

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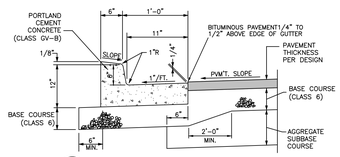
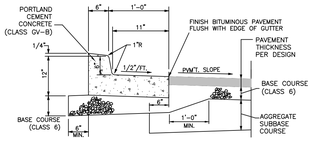
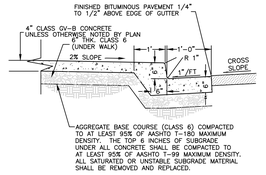
TYPICAL CONCRETE SECTIONS



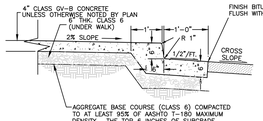
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



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REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.10

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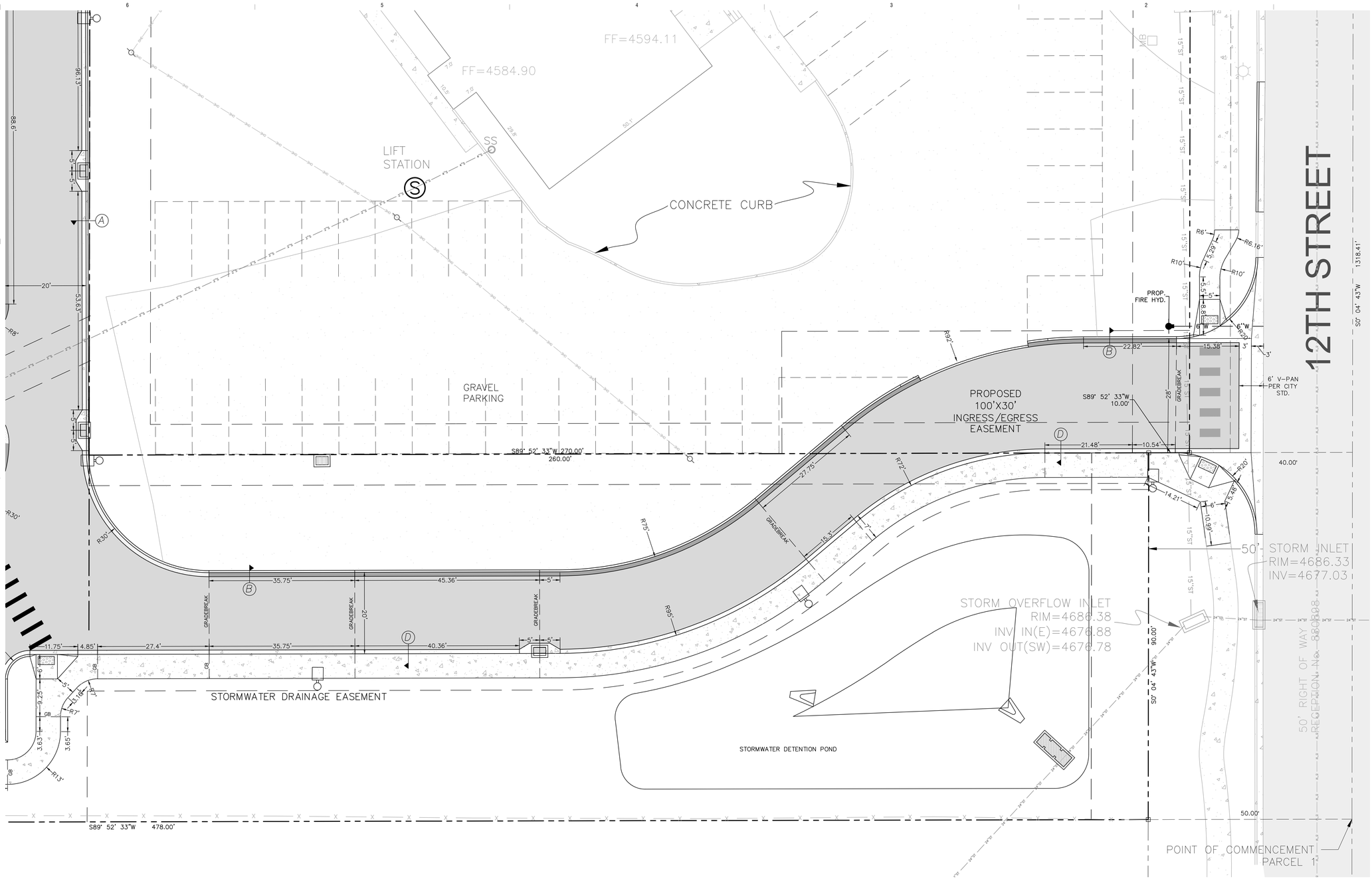

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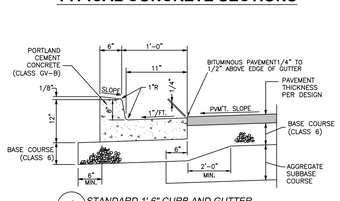
SCALE: 1"=10'

NO. C7.20

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

TYPICAL CONCRETE SECTIONS



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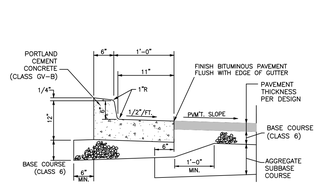

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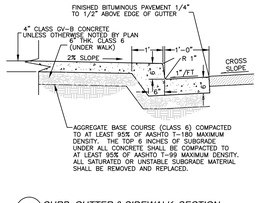

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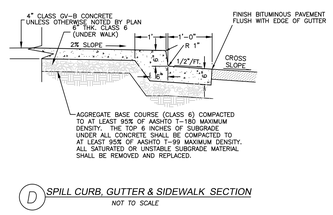

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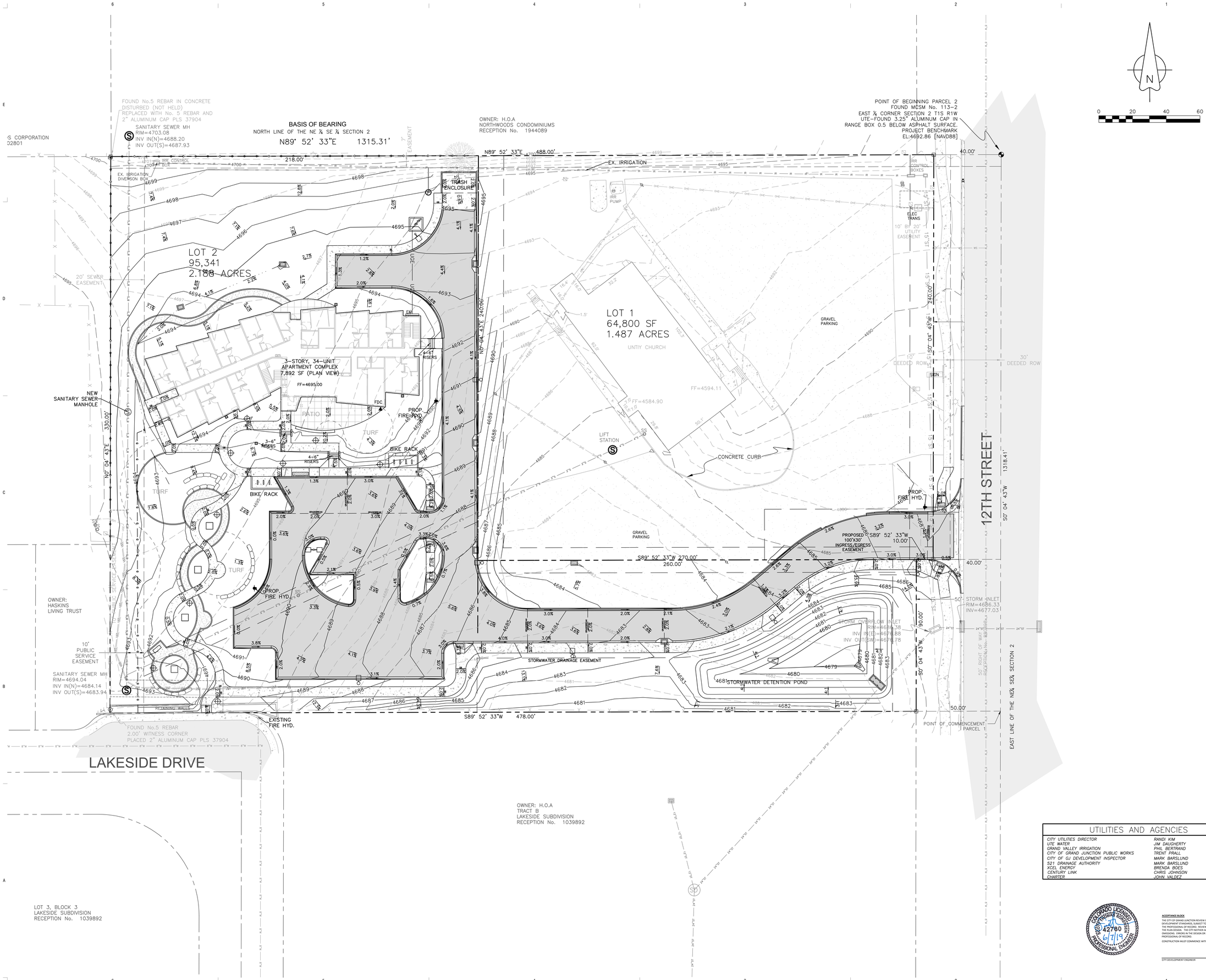

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521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
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CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

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FILE:
SHEET TITLE:
OVERALL GRADING PLAN

SCALE: 1"=20'

NO. C8.00

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SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

RECEPTION No.

7' EASEMENT

N89° 52' 33"E

218.00'

IRR CONTROL BOX

EX. IRRIGATION DIVERSON BOX

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

3-STORY, 34-UNIT
APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

TRASH ENCLOSURE

PATIO

TURF

BIKE RACK

FDC

PROP. FIRE HYD.

EM

4-6" RISERS

GRADEBREAK

NEW SANITARY SEWER MANHOLE

N0° 04' 43"E 330.00'

N0° 04' 43"E 240.00'

PUBLIC SERVICE EASEMENT

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TIMOTHY S. SCHOMBURG
42760
6/7/19
PROFESSIONAL ENGINEER

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FILE:
SHEET TITLE:
GRADING AND DRAINAGE PLAN

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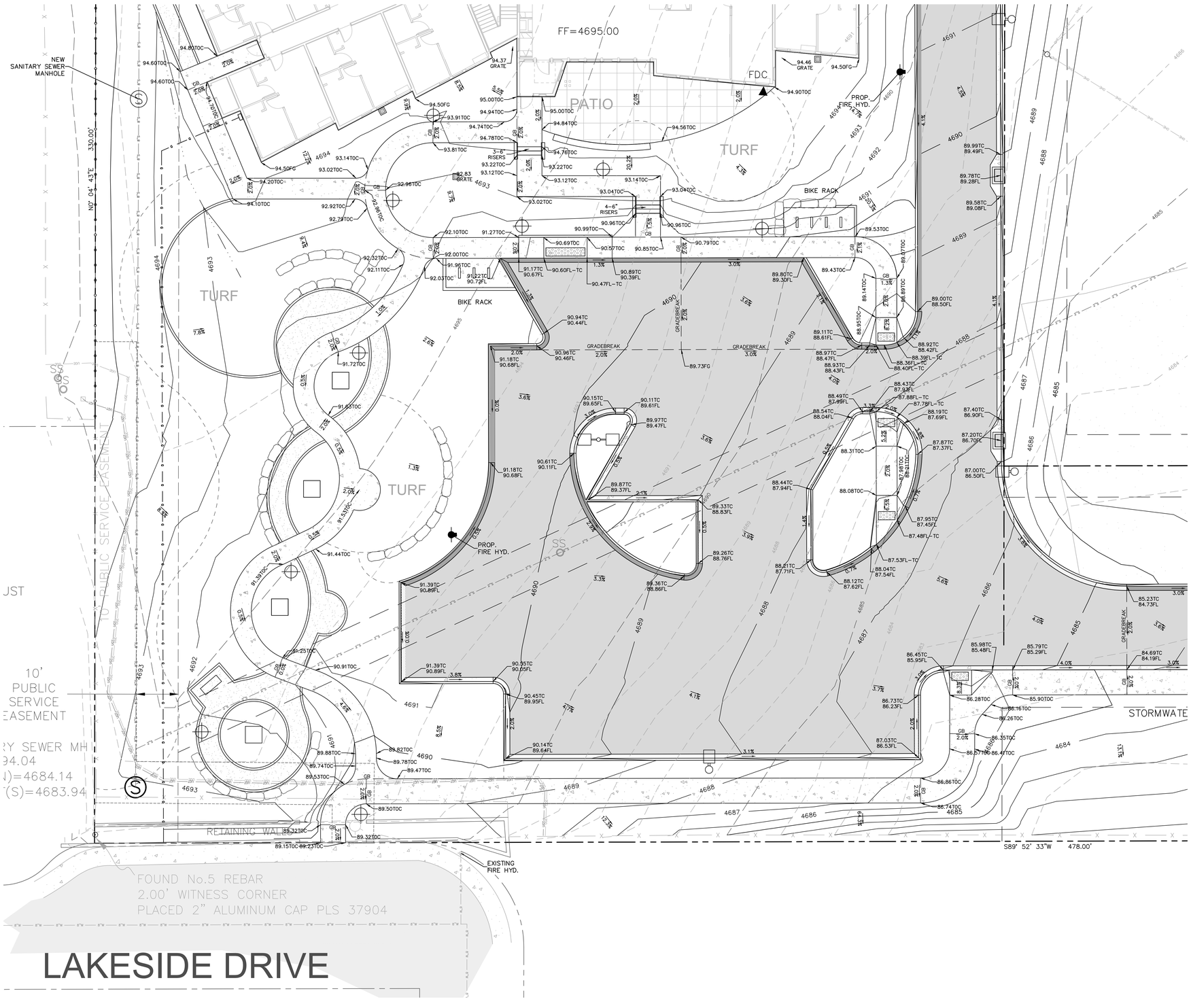

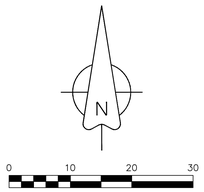

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FILE:
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MEMO 6/10/2019

To: Tom Dixon / Scott Peterson, City of Grand Junction Planning Department
From: Kyle Mead, Shopworks Architecture
Regarding: Karis Apartments, 3175 N. 12th Street, first formal Site Plan Submittal

CC: File

Tom & Scott,

Thank you for your consideration and review of our first formal Site Plan submittal. We have considered your comments and prepared this response. Please note that items which did not garner comments or change between the time of our first submittal and now, have not been re-submitted. If myself, or anyone from our team can clarify or provide any further information, please do not hesitate to contact me.

Our submittal includes the following documents based on the City of Grand Junction review comments dated May 3, 2019:

1. Applicant's Response to Comments Narrative
2. Updated Project Narrative
3. Revised Civil Engineering Plans
4. Revised Landscape design plans
5. Signed Drainage Report
6. Updated Subdivision Plat
7. New Drainage & Utility Easement Exhibit
8. New Drainage & Utility Legal Description

If you have any questions, please feel free to reach out to me directly.

Sincerely,

Kyle Mead
Shopworks Architecture

End of Memo

2882 Wyandot St. Denver, CO 80211 303 433-4094
shopworks

architecture

Scott Peterson

From: Tom Dixon
Sent: Monday, June 10, 2019 2:11 PM
To: Oriana Sanchez; Kyle Mead; John Mok-Lamme; dscanga@hfak.com
Cc: Scott Peterson
Subject: Operation plan description

Oriana et alia

Tamra passed on your message and I just called but left no message. I thought that, perhaps, it might be better to e-mail what we talked about a couple of weeks ago when we met with John and David. We all concurred what the project is going to be and how it needs to be described as an apartment building. To that end we concluded with the basic synopsis:

The summary report will be updated to reflect the specific project that Karis is proposing for development. Karis is proposing a multifamily apartment building which will include some common rooms/areas for use by the tenants. The apartment complex will include a building manager. The targeted tenants for the building will be young adults between 18 and 24 years of age with housing needs.

We thought this, or some variation of it, would clearly define the apartment building proposed and keep it out of the classification of 'group living facility'. I hope that helps your approach and allows you to finish that portion of the response to comments.

One final note. Scott Peterson will be taking over this project going forward. I am finally able to retire and rest assured that this project had nothing to do with that. Rather, my wife and I have decided to travel most of the summer and her school schedule limits her window of opportunity. She is going to retire in one more year but we have had some nice opportunities spring up over the course of the past few months and I decided I didn't want them to get by-passed. Anyway, Scott is the City's most capable project planner so you will be in good hands. After the plethora of mean-spirited comments that have come my way (some of which I have defused), it will be a walk in the park for Scott, or something like that. Scott's e-mail is scottp@gjcity.org and his phone number is 970 256-4031.

I wish you all well and success with this much desired community project.

Tom Dixon
City of Grand Junction
Community Development Department
250 North 5th Street
Grand Junction, CO 81501
970-244-1422
tomdi@gjcity.org

Final Drainage Report
for
Karis Apartments
3205 North 12th Street
Grand Junction, Colorado

Prepared For:
Karis, Inc.

Prepared By:
AUSTIN CIVIL GROUP, INC.
336 Main Street, Suite 203
Grand Junction, Colorado 81501
(970) 242-7540

ACG Job No. 1360.0001
March 27, 2019 (REVISED 6-4-19)

I hereby certify that this *Final Drainage Report* (plan) for the design of 3205 N 12th Street was prepared by me (or under my direct supervision) in accordance with the provisions of the *Stormwater Management Manual* for the owners thereof. I understand that the City of Grand Junction does not and will not assume liability for drainage facilities designed by others.

Scott T. Sorensen
Registered Professional Engineer
State of Colorado No. 42780

I, Karis, Inc., hereby certify that the drainage facilities for 3205 N 12th Street shall be constructed according to the design presented in this report. I understand that the City of Grand Junction does not and will not assume liability for the drainage facilities designed and/or certified by my engineer. I understand that the City of Grand Junction reviews drainage plans but cannot, on behalf of Karis, Inc, guarantee that final drainage design will absolve Karis, Inc.. and/or their successors and/or assigns of the future liability for improper design. I further understand that approval of the Final Development Plan does not imply approval of my engineer's drainage design.

Karis, Inc.
Name of Developer

6/4/2019

Authorized Signature **Date**

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Appendix A. Location Map

Appendix B. NRCS Soil Information & Geotechnical Report Information

Appendix C. Existing Drainage

Appendix D. Proposed Drainage

Appendix E. Hydrologic Calculations

Appendix F. Hydraulic Calculations

Appendix G. Stormwater Detention Pond & WQCV Calculations

Appendix H. Outlet Structure Design

Appendix I. Drainage Report Checklist

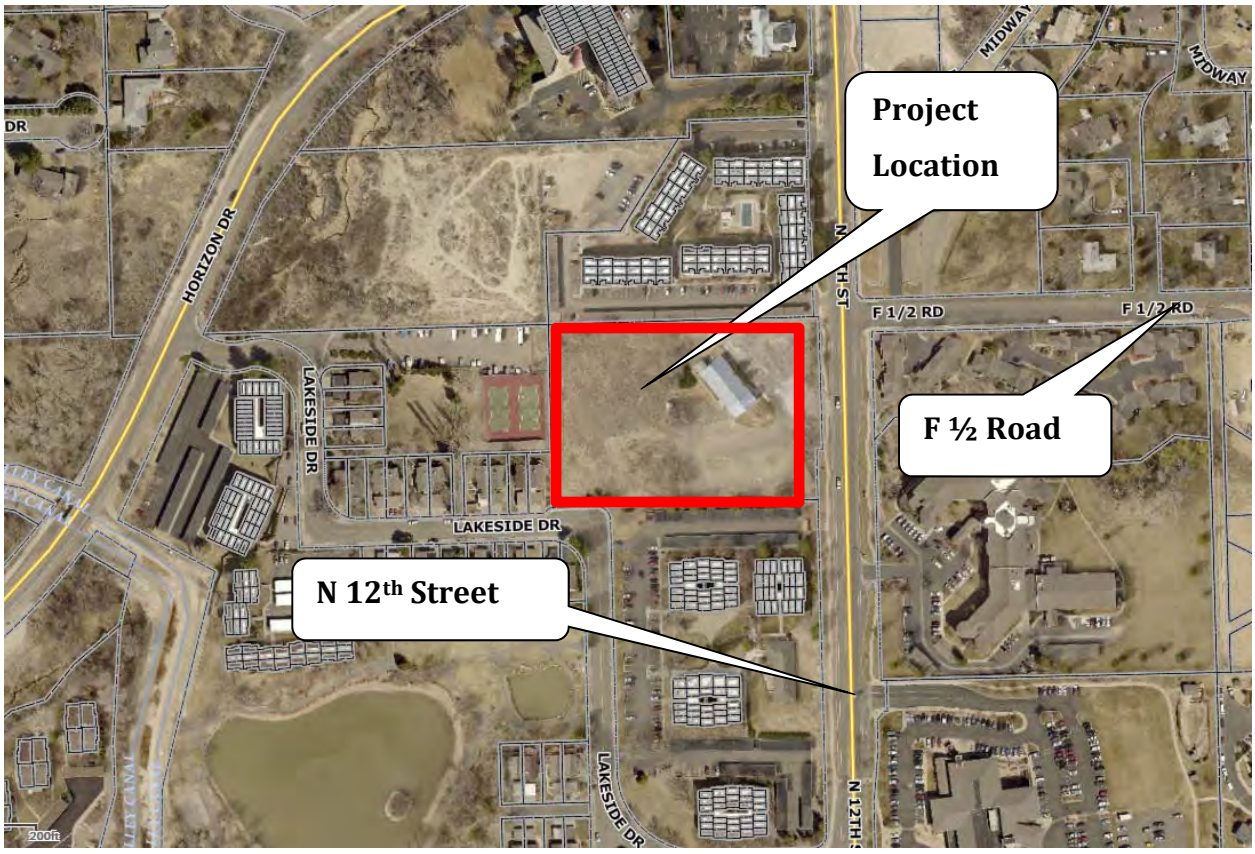
I. INTRODUCTION

A. Background

Austin Civil Group, Inc. is the sole report preparer. The purpose of this report is to identify proposed drainage conditions and potential drainage problems, which may occur on-site or off-site because of the development, investigate or refine conceptual solutions to drainage problems, and present final design and details for drainage facilities. This report will specifically address drainage criteria for the Karis Apartments located at 3205 North 12th Street.

B. Project Location

The Karis Apartments is proposed to be located at 3205 North 12th Street in Grand Junction, Colorado. The property is situated in the NE1/4 SE1/4 Section 2 Township 1 South, Range 1 West of the Ute Meridian, in the County of Mesa, State of Colorado. A map depicting the project location is included in **Appendix A** and listed below:



PROJECT LOCATION

C. Property Description

Currently the property consists of approximately 3.68 acres and contains Unity Church located on the east side of the property. The remaining site is bareground with decent vertical relief from the northwest to the southeast. Site topography show that grades fall within the 4% range sloping towards the southern boundary.

According to the Natural Resources Conservation Service (NRCS) the subject property consists of Fruita clay loam, 2 to 5 percent slopes (Ff)[1]. These soils tend to have a slow infiltration rate when thoroughly wet and consist of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission. NRCS classifies the soils having a Hydrologic Soil Type "C". The NRCS soil information is included in **Appendix B**.

According to Huddleston-Berry Engineering & Testing, LLC's., "Geotechnical and Geologic Hazards Investigation for Karis Affordable Housing", dated January 16, 2019 [3] groundwater was not encountered in the subsurface at the time of investigation.

Stormwater sheets flows towards the southern end of the site where it drains off site to discharge into an existing storm sewer system located within the Lakeside Apartment Complex. Ultimate discharge is the Lakeside ponds.

Irrigation water currently runs along the north property line. A diversion box near the northwest of the property directs water in to the east and west direction. Excess irrigation water discharges into a storm water system located along the west side of N 12th Street.

D. Previous Investigations

There are no known previous drainage investigations affecting the subject property.

II. DRAINAGE SYSTEM DESCRIPTION

A. Existing Drainage Conditions

Site topography of the property shows that grades fall within the 4.0% range and slope towards to the south. A map showing existing topography is in **Appendix C**. A photo generally showing topography is also shown below [2]:

AREA TOPOGRAPHY

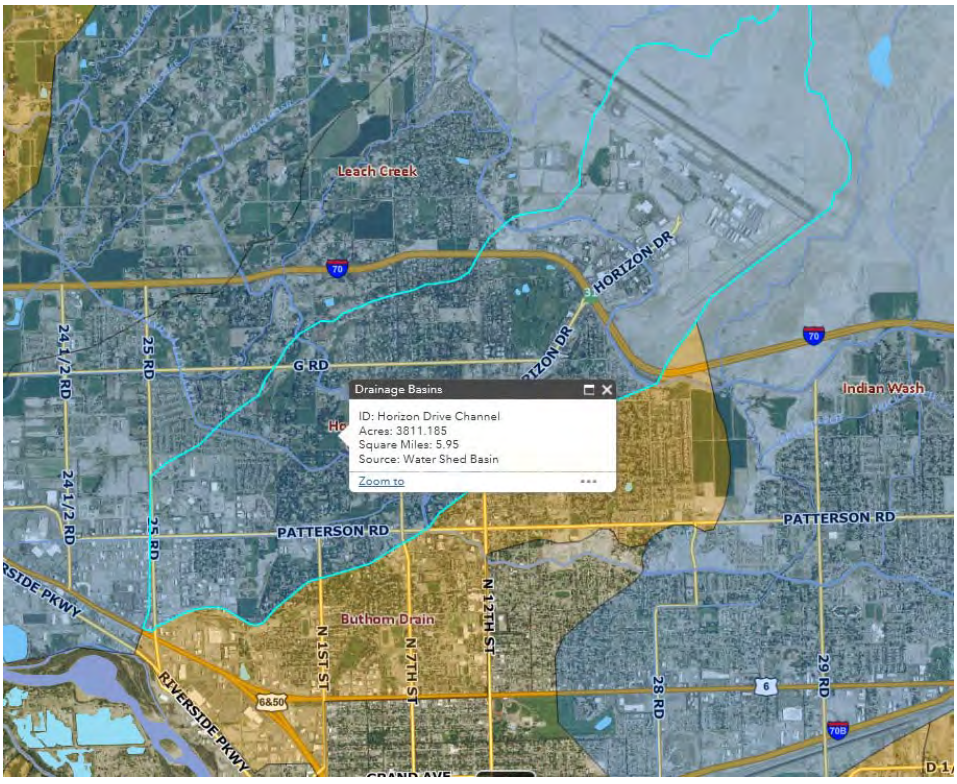
Historically, the site has one drainage basin. Drainage Basin H-1 includes the entire 3.68-acre site and which flows to the south end of the site and is eventually collected by the Lakeside storm sewer system. A map showing existing drainage basin is in **Appendix C**.

Calculations for the historic flow from the property are further discussed in **Section III** of this report and are summarized in the table below:

TABLE I: Historic Drainage Basin Summary

Pre-Developed Basin	Storm Event	Total Basin Area (acres)	Composite (C)	Q (cfs)
H-1	10-Year	3.68	0.33	1.87
	100-Year	3.68	0.55	6.55

The subject property is located within the Horizon Drive Channel Drainage Basin according to the City of Grand Junction GIS[2]. A map depicting the drainage basin is provided below and included in **Appendix C**. Horizon Drive Channel flows southwesterly and conveys to the Colorado River near the 25 Road and Hwy 6 & 50 intersection.



Horizon Drive Channel

B. Master Drainage Plan

There is no known master drainage plan affecting the site. No master drainage plan was used to prepare this report.

C. Offsite Tributary Area

Offsite flow contributing to the site is a very small area located on the Northwoods Apartment Complex. A dirt side hill on the far south end drains onto the subject property. The area is considered minimal and not considered in project's drainage analysis.

D. Proposed Drainage System Description

The project is proposing to develop approximately 2.22 acres of the 3.68 acre property at this time with a 7,900 square foot (plan view) 3-story apartment building with associated site improvements (i.e, parking lot, landscaping and utility infrastructure). The remaining area will remain as is with existing church building and gravel parking lot.

For the purpose of this report the entire 3.68 acre property will be considered in the runoff and drainage calculations. In addition, the majority of the existing gravel parking lot has been analyzed as if it was asphalt to account for future improvements. Full detention and water quality will be provided for the entire site.

Drainage basin D-1 is the only proposed drainage basin for the development and includes the majority of the 3.68-acre site. Runoff conveys via sheet flow and underground storm sewer system to discharge into a proposed stormwater detention / water quality pond. Runoff is controlled released to an existing 24-inch storm pipe at allowable discharge rates through an two-stage outlet structure A proposed drainage basin map has been provided in **Appendix D** of this report.

Calculations for the developed flows affecting the property are further discussed in **Section III** of this report and are summarized in the table below:

TABLE III: Developed Drainage Basin Summary

Post-Developed Basin	Storm Event	Total Basin Area (acres)	Composite (C)	Q (cfs)
D-1	10-Year	3.68	0.45	2.69
	100-Year	3.68	0.60	7.58

A small "landscape" area, 0.22 acres, located along the south end of the site is an undetained drainage area. Though this area drains off-site without being routed through the stormwater detention facility it is considered similar in nature to historic conditions and shall not do more harm than formerly.

The site detention pond is located at the southeast corner of the site. The detention pond collects runoff contributed by Drainage Basin D-1. Detailed detention pond and water quality calculations are provided in **Appendix G** and summarized below:

TABLE IV: Detention Pond Summary

STORM EVENT	DETENTION VOLUME REQUIREMENT (CF)	RELEASE RATE	POND ELEVATION
Water Quality	2,125		4680.74
10-YEAR, 24 HOUR	3,986	0.44	4681.52(1)
100-YEAR, 24 HOUR	5,899	1.84	4682.14

(1) Pond Elevation based off WQCV + 10-Year, 24—Hour Volume (2,125 cf + 1,861 cf = 3,986 cf)

The stormwater pond will be approximately 4.5-ft below the existing ground surface. According to Huddleston-Berry's Geotechnical Report, groundwater was not encountered in the subsurface [3].

Stormwater discharge will be controlled by a proposed outlet structure located in the detention pond. An orifice – weir plate attached to the structure will release runoff at allow rates to the existing 24-inch RCP that clips the southeast corner of the site. The existing 24" RCP is a combination irrigation tailwater and storm sewer system that conveys runoff to the Lakeside Community ponds. The proposed outlet structure will be placed directly on top of the existing 24" RCP to minimize backflow conditions into the site's detention facility. Detail calculations for the outlet structure are provided in **Appendix H**.

Stormwater quality will also be provided by the outlet structure. A perforated steel plate attached to the outlet structure will control release the require volume over a 40-hour period. This will allow for sediment and debris to fall out prior to being released.

Maintenance access to the stormwater pond outlet structure will be available from the east side of the pond via a 6:1 side slope.

There are no easements or tracts placing limitations on drainage use for this project.

E. Drainage Facility Maintenance

To insure adequate maintenance, operation and repair of the site's detention pond and outlet structure, in perpetuity, by the owners of the property, the following mutual covenants contained herein shall be followed:

- The Post-Construction Outlet Structure and pond shall be constructed by the Landowner in accordance with the plans and specifications and described in this report and Final Construction plans.
- The Post-Construction Outlet Structure and pond shall operate and be maintained in good working order as reasonably determined by the 521 Drainage Authority, the Qualified Erosion Control Specialist (QECS) and this report.
- The Post-Construction Outlet Structure and pond shall be inspected quarterly and after any significant rainfall during the 1st (first) year of operation by the QECS. At any time during the inspections the QECS finds a significant collection of sediment and/or debris that inhibits the facility from functioning properly, appropriate means shall be selected by the QECS to clean and maintain the facility to its original working order.
- After the 1st year of operation, the QECS has the option to reduce the interval of inspections based on the 1st year's reports.
- The Post-Construction Stormwater Control Operations and Maintenance Agreement entered into by the Landowner and the 521 Drainage Authority shall constitute a covenant running with the Property and shall be an equitable servitude binding on present and subsequent owners of the Property in whole or in part, and their administrators, executors, assigns, heirs and successors in interest.

III. DRAINAGE ANALYSIS AND DESIGN CRITERIA

A. Regulations

The calculations performed for this drainage analysis were prepared following the Mesa County/ City of Grand Junction Stormwater Management Manual (SWMM) [4]. No other regulations or criteria have been used to prepare analysis or design this project.

B. Development Criteria

There are no identified drainage constraints placed on the project with regards to major drainage studies, floodplain studies, or other drainage reports relevant to the project. The site will discharge stormwater to the existing 24" RCP located at the southeast corner of the site.

C. Hydrologic Criteria

The Rational Method demonstrated in SWMM (Section 700) has been used to determine the peak historic, offsite tributary, and developed runoff rates for the site. Storm intensities were calculated in accordance with SWMM Section 604. The 10-year, 24-hour storm even was used for the minor flood analysis and the 100-year, 24-hour storm event was used for the major storm flood analysis. Detention pond sizing and allowable release rates followed SWMM Section 1400. The methodology used to calculate the required water quality capture volume (WQCV) follows procedures outlined in SWMM Section 1604.2 [4].

Imperviousness area determinations for the existing drainage basin (H-0) were based on aerial photography and topographic survey information. Impervious area determinations for the proposed drainage basin (D-0) were determined by the proposed site design. Storm intensities were calculated in accordance with SWMM Section 604.

Hydrologic criteria in SWMM were followed without deviation. Detailed hydrologic calculations are included in **Appendix E**.

D. Hydraulic Criteria

The detention pond volume and allowable release rates for the 10-year and 100-year storm events were determined in accordance with the Rational Method provide in SWMM Section 1407.2. Orifice and weir design for the outlet structure followed SWMM Section 1408 [4].

Hydraulic calculation details are included in **Appendix F**.

E. Variance from Criteria

No variances to the Mesa County Stormwater Management Manual are being requested.

IV. POST CONSTRUCTION STORMWATER MANAGEMENT

A. Stormwater Quality Control Measures

The post-construction BMP to control discharge of pollutants from the project site is a water quality capture volume (WQCV). A perforated steel plate attached to the outlet structure will control release the WQCV over a 40-hour period. This will allow time for sediment and/or debris to fall out before being released.

B. Calculations

The WQCV was determined using SWMM Section 1604. The impervious area used in calculating the WQCV was determined from Basin D-0. Supporting calculations for the WQCV are included in **Appendix G**.

V. CONCLUSIONS

A. Compliance with the Manual

This report complies with the Manual.

Civil Law Rule places a natural easement or servitude upon the lower land for the drainage of surface water in its natural course, and the natural flow of the water cannot be obstructed by the servient owner to the detriment of the dominant owner. Colorado has modified this rule as such, the owner of the upper lands has an easement over lower lands for drainage or surface waters, and natural drainage conditions can be altered by an upper proprietor provided the water is not sent down in a manner or quantity to do more harm than formerly. The small 0.22 acre undetained drainage area as described in Section D of this report states the area will be landscaped and discharge rates will mirror that of the historic drainage characteristics.

B. Design Effectiveness

This report demonstrates a design to effectively detain the 10- and 100-year, 24-hour storm event with one-foot of free board on-site. The detention pond and water quality design mitigate downstream runoff and water quality impacts (i.e., sediment pollutants).

C. Areas in Flood Hazard Zone

The site is located outside of any mapped Special Flood Hazard Area, as depicted on the Flood Insurance Rate Map (FIRM), Map Number 08077C0806G [5]. A copy of the FIRM is included in **Appendix C**.

D. Variances from Manual

There are no requested variances for this report.

VI. REFERENCES

[1] Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. *Web Soil Survey*. Internet: http://websoilsurvey.nrcs.usda.gov/. Accessed [1/20/2012].

[2] "City of Grand Junction GIS – Development Map," Internet: http://gjcity.org, Accessed [5/10/2012].

[3] Huddleston-Berry Engineering & Testing LLC, *Geotechnical and Geologic Hazards Investigation for Karis Affordable Housing*, Grand Junction, Colorado, [12/16/19].

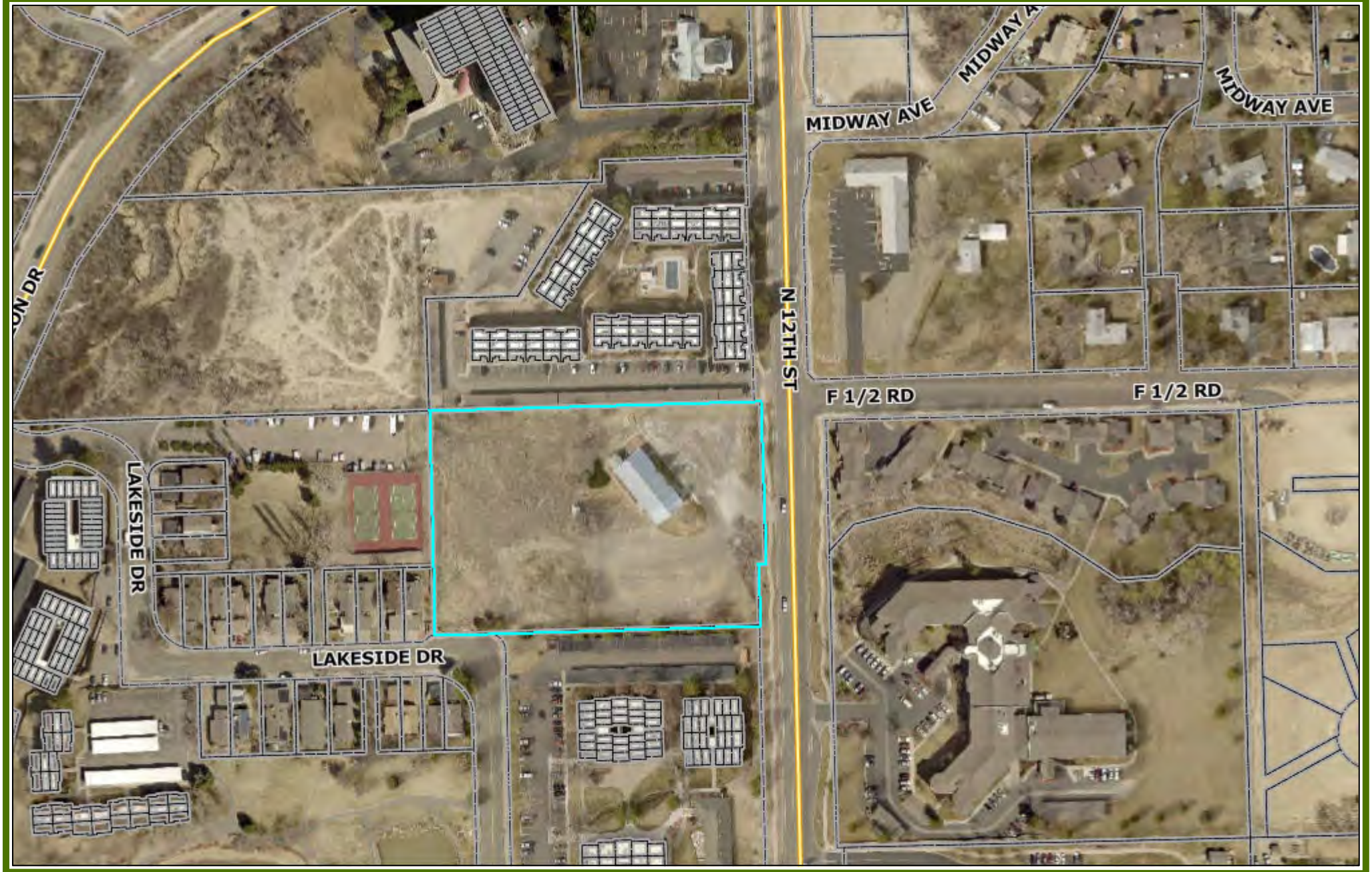
[4] Mesa County/City of Grand Junction, *Storm Water Management Manual* (SWMM), Mesa County, Colorado, December 2007.

[5] Federal Emergency Management Agency (FEMA), *Flood Insurance Rate Map*, Map Number: 08077CO806G, Mesa County, Colorado, Revised Date October 16, 2012.

Appendix A

Location Map

Location Map



N

0 0.05 0.1 mi

Printed: 3/26/2019

1 inch = 188 feet

CITY OF Grand Junction COLORADO GEOGRAPHIC INFORMATION SYSTEM

Appendix B

NRCS Soil Information &

Geotechnical Report Information

108° 33' 15" W
108° 33' 8" W
711490
711510
711530
711550
711570
711590
711610
711630
711650
711670
39° 5' 57" N
39° 5' 53" N
4330620
4330600
4330580
4330560
4330540
4330520
BkD
Cc
Ff
BkD
N 12th St
12th
Soil Map may not be valid at this scale.
Map Scale: 1:850 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 10 20 40 60
Feet
0 40 80 160 240
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 9, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 13, 2010—Aug 8, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BkD	Blackston very gravelly loam, 5 to 25 percent slopes	C	0.1	2.3%
Cc	Persayo silty clay loam, 5 to 12 percent slopes	D	0.7	18.3%
Ff	Fruita clay loam, 2 to 5 percent slopes	C	3.0	79.4%
Totals for Area of Interest			**3.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Huddleston-Berry
Engineering & Testing, LLC

GEOTECHNICAL AND GEOLOGIC HAZARDS INVESTIGATION
KARIS AFFORDABLE HOUSING
3205 N 12TH STREET
GRAND JUNCTION, COLORADO
PROJECT#01892-0001

KARIS APARTMENTS, LLLP
1004 SOUTH AVENUE WEST
MISSOULA, MONTANA 59801

JANUARY 16, 2019

Huddleston-Berry Engineering and Testing, LLC
640 White Avenue,
Grand Junction, Colorado 81501

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

A geologic hazards and geotechnical investigation was conducted for the new Karis Affordable Housing project in Grand Junction, Colorado. The project location is shown on Figure 1 – Site Location Map. The purpose of the investigation was to evaluate the surface and subsurface conditions at the site with respect to geologic hazards, foundation design, pavement design, and earthwork for the proposed construction. This summary has been prepared to include the information required by civil engineers, structural engineers, and contractors involved in the project.

Subsurface Conditions (p. 2)

The current subsurface investigation consisted of five borings, drilled on December 7th, 2018. The locations of the borings are shown on Figure 2 – Site Plan. The borings generally encountered native clay and silt soils in the shallow subsurface. Shale bedrock was encountered at depths of between 2.5 and 7.0 feet. Groundwater was not encountered in the subsurface at the time of the investigation.

The native soils are anticipated to be slightly collapsible to slightly expansive. The shale bedrock is anticipated to be slightly to moderately expansive.

Geologic Hazards and Constraints (p. 3)

The primary geologic hazard and constraint at the site is the presence of moisture sensitive soils and bedrock.

Summary of Foundation Recommendations

Micro Piles or Drilled Piers

- *Minimum Length* – 25 feet. (p. 4)
- *Free Length* – 15 feet (p. 4)
- *Skin Friction Capacity* – 1,500 psf. (p. 5)
- *Allowable End Bearing Capacity* – 15,000 psf for drilled piers. (p. 5)

Spread Footings, Voided Spread Footings, or Isolated Pads and Grade Beams

- *Structural Fill* – Minimum of 48-inches below foundations. The low plasticity native soils are suitable for re-use as structural fill. Imported structural fill should consist of crusher fines, CDOT Class 6 base course, or other granular material approved by the engineer. (p. 5)
- *Maximum Allowable Bearing Capacity* – 2,500 psf. (p. 6)
- *Minimum Dead Load* – 750 pcf. (p. 6)

Other Foundation Criteria

- *Seismic Design* – Site Class D. (p. 6)
- *Lateral Earth Pressure* – 55 pcf active. 75 pcf at-rest. (p. 7)

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

FIGURE 2
Site Plan

N

CONCEPTUAL SITE PLAN
SCALE = 1:40

shopworks architecture

Karis Affordable Housing
Grand Junction, CO • 05/30/18

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-1

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION ---- **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES ----
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		GRAVEL Pavement										
		Lean CLAY (CL), brown, moist, very stiff										
		*** Lab Classified SS1										
2.5			SS 1	100	11-15-15 (30)			13	47	21	26	93
5.0												
7.5		SHALE, grey, soft to medium hard, highly weathered	SS 2	100	15-17-19 (36)							
10.0			SS 3	100	16-20				38	21	17	
		Bottom of hole at 11.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-2

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ML) to Sandy Lean CLAY (cl), brown, moist, medium stiff to hard										
		*** Lab Classified SS1										
2.5			SS 1	89	14-17-18 (35)			4	21	19	2	63
5.0												
7.5		SHALE, grey, soft to medium hard, highly weathered	SS 2	100	9-11-16 (27)							
10.0												
		Bottom of hole at 11.0 feet.	SS 3	100	16-24				32	17	15	

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-3

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	89	8-11-12 (23)							
5.0												
7.5			SS 2	100	14-29							
10.0												
12.5			SS 3	100	12-21							
		Bottom of hole at 13.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-4

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	94	9-10-10 (20)							
5.0												
7.5			SS 2	94	12-16-26 (42)							
10.0												
12.5			SS 3	100	22-36							
		Bottom of hole at 13.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

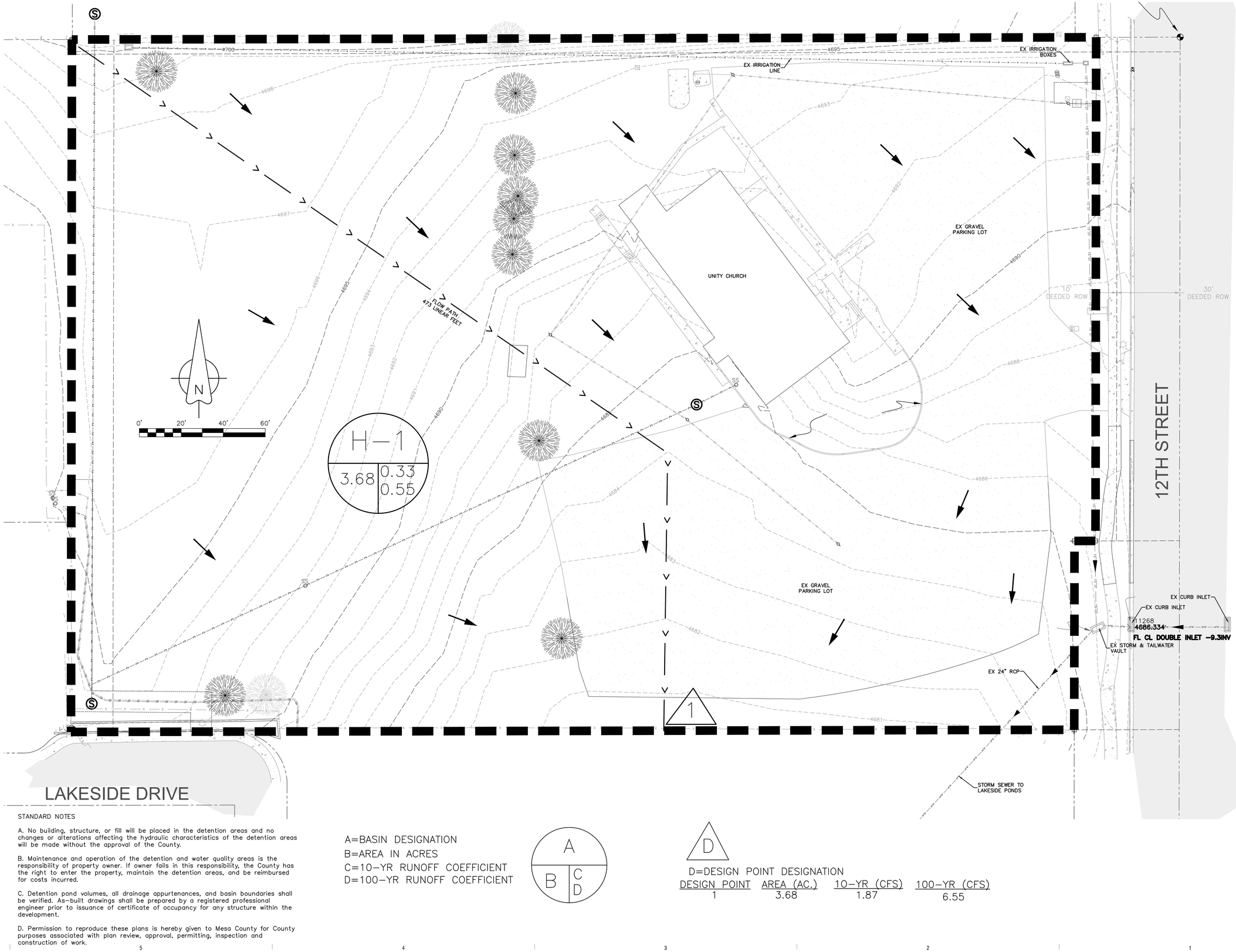
Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-5

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	83	5-6-9 (15)							
5.0												
7.5			SS 2	89	14-14-20 (34)							
10.0												
12.5			SS 3	100	20-30							
		Bottom of hole at 13.0 feet.										

Appendix C
Existing Drainage



STANDARD NOTES

A. No building, structure, or fill will be placed in the detention areas and no changes or alterations affecting the hydraulic characteristics of the detention areas will be made without the approval of the County.

B. Maintenance and operation of the detention and water quality areas is the responsibility of property owner. If owner fails in this responsibility, the County has the right to enter the property, maintain the detention areas, and be reimbursed for costs incurred.

C. Detention pond volumes, all drainage appurtenances, and basin boundaries shall be verified. As-built drawings shall be prepared by a registered professional engineer prior to issuance of certificate of occupancy for any structure within the development.

D. Permission to reproduce these plans is hereby given to Mesa County for County purposes associated with plan review, approval, permitting, inspection and construction of work.

A=BASIN DESIGNATION
B=AREA IN ACRES
C=10-YR RUNOFF COEFFICIENT
D=100-YR RUNOFF COEFFICIENT

A
B | C D

D

D=DESIGN POINT DESIGNATION

DESIGN POINT	AREA (AC.)	10-YR (CFS)	100-YR (CFS)
1	3.68	1.87	6.55

shopworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4068

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL

DRAWN: STS
REVIEWED: STS
PROJECT #: 18007 (ACG-1360.0001)

SHEET TITLE:
HISTORIC DRAINAGE

SCALE:

NO. C.20

M:\PROJECTS\1360\0001 - Karis Multi-Family\Drawings\CSD\Production Drawings\PROD-HISTORIC.dwg, 3/26/2019 2:11:55 PM, DWG To PDF.pc3

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 12. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov/.

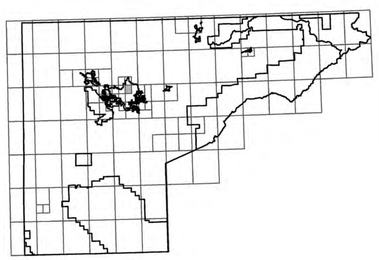
Base map information on this FIRM was derived from multiple sources. Data was provided by Mesa County GIS Dept., derived from ½ ft digital orthophotos, dated March 2010. Additional imagery was provided by the US Dept. of Agriculture, derived from 1 meter digital orthophotos, dated 2009.

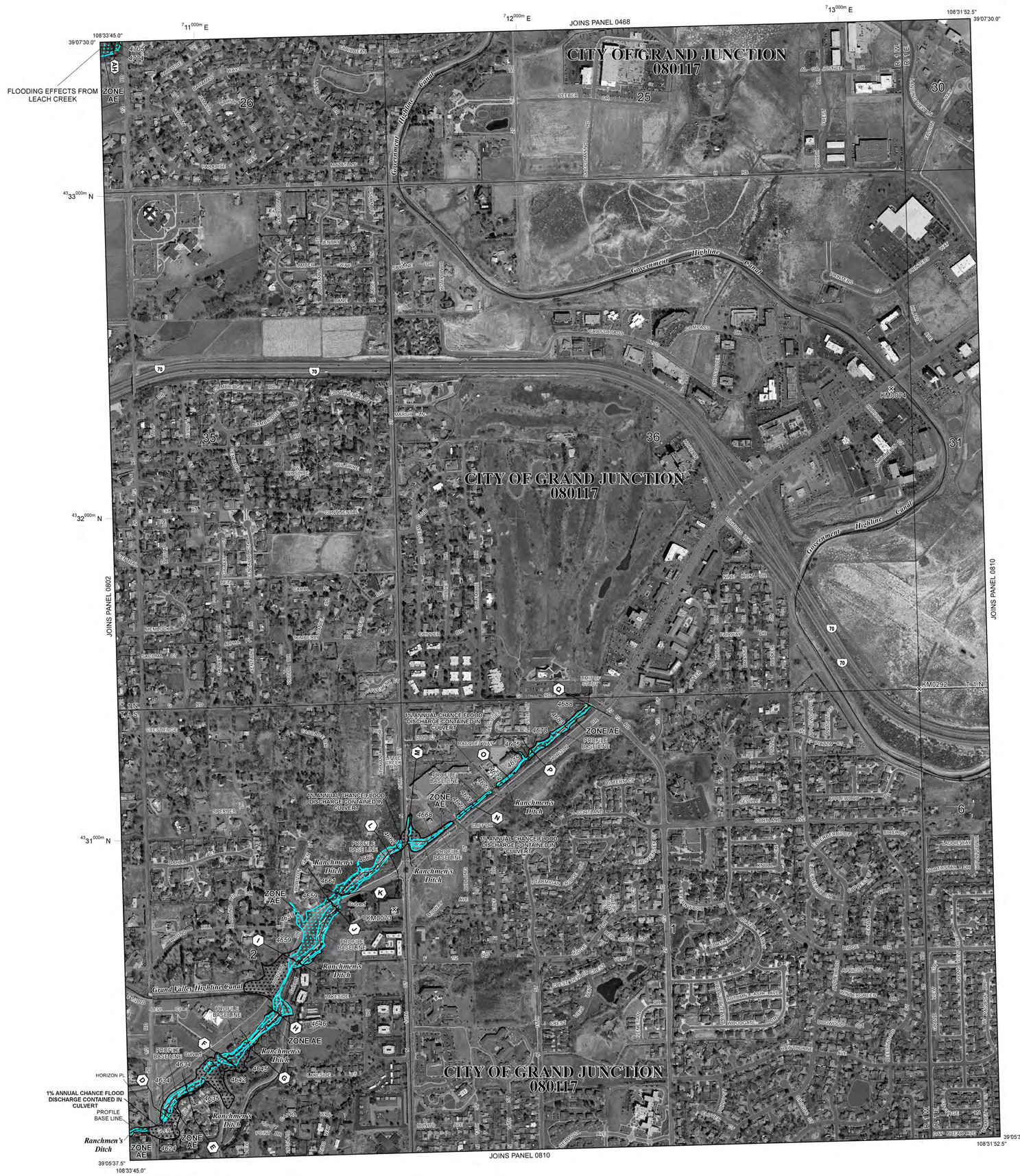
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the **FEMA Map Service Center** website at http://msc.fema.gov. Available products may include previously issued Letters ofMap Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the **FEMA Map Service Center** website or by calling the FEMA Map Information eXchange.





LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275 000m N — 1000-meter Universal Transverse Mercator grid ticks, zone 12
- 6000000 FT — 5000-foot grid ticks: Colorado State Plane coordinate system, central zone (FIPSZONE 0502), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 6, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
October 16, 2012 - to update corporate limits, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to add roads and road names, to change floodway, to decrease Base Flood Elevations, and to increase Base Flood Elevations.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0806G

FIRM
FLOOD INSURANCE RATE MAP

MESA COUNTY, COLORADO
AND INCORPORATED AREAS

PANEL 806 OF 1725
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GRAND JUNCTION, CITY OF	080117	0806	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

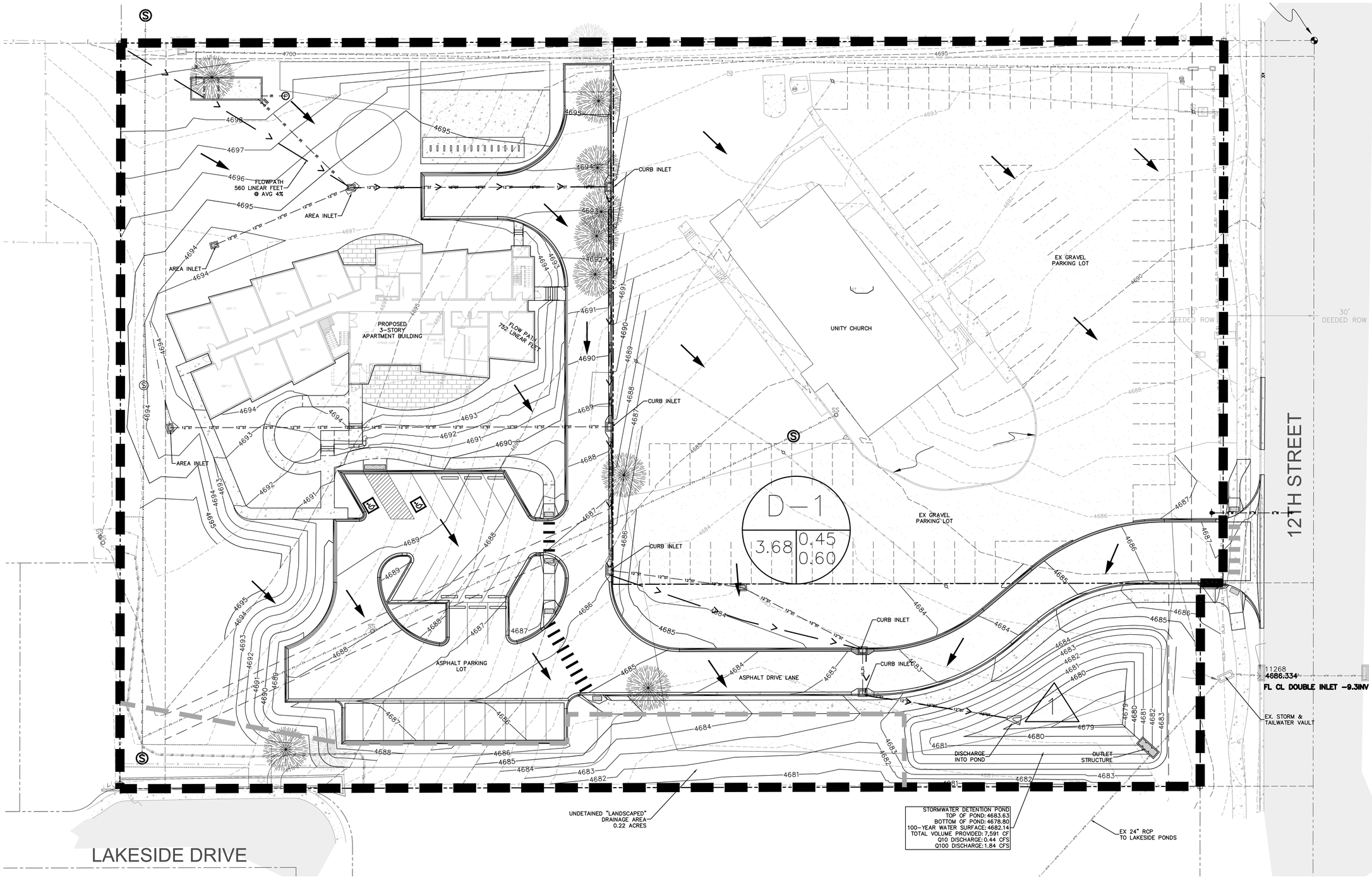
MAP NUMBER
08077C0806G

MAP REVISED
OCTOBER 16, 2012

Federal Emergency Management Agency

Appendix D

Proposed Drainage



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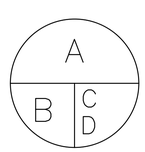
B=AREA IN ACRES
C=10-YR RUNOFF COEFFICIENT
D=100-YR RUNOFF COEFFICIENT



D=DESIGN POINT DESIGNATION

DESIGN POINT	AREA (AC.)	10-YR (CFS)	100-YR (CFS)
1	3.68	2.69	7.58

shop works architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4068

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL

DRAWN: STS
REVIEWED: STS
PROJECT #: 18007 (ACG-1360.0001)

SHEET TITLE:
DEVELOPED DRAINAGE

SCALE:

NO.
C.30

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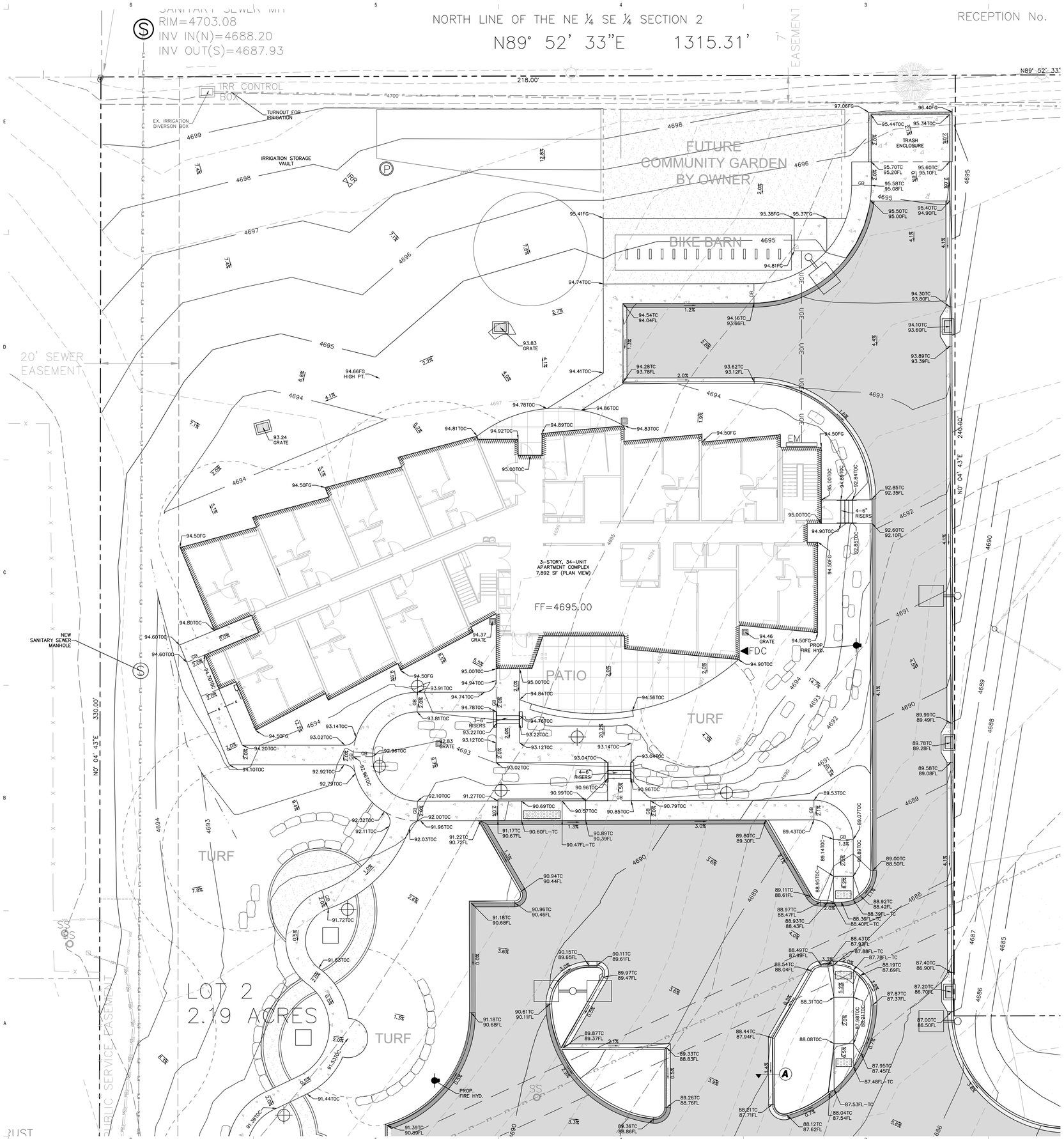

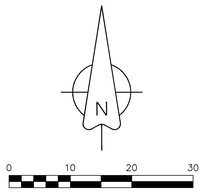

UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

811 Know what's below. Call before you dig.

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

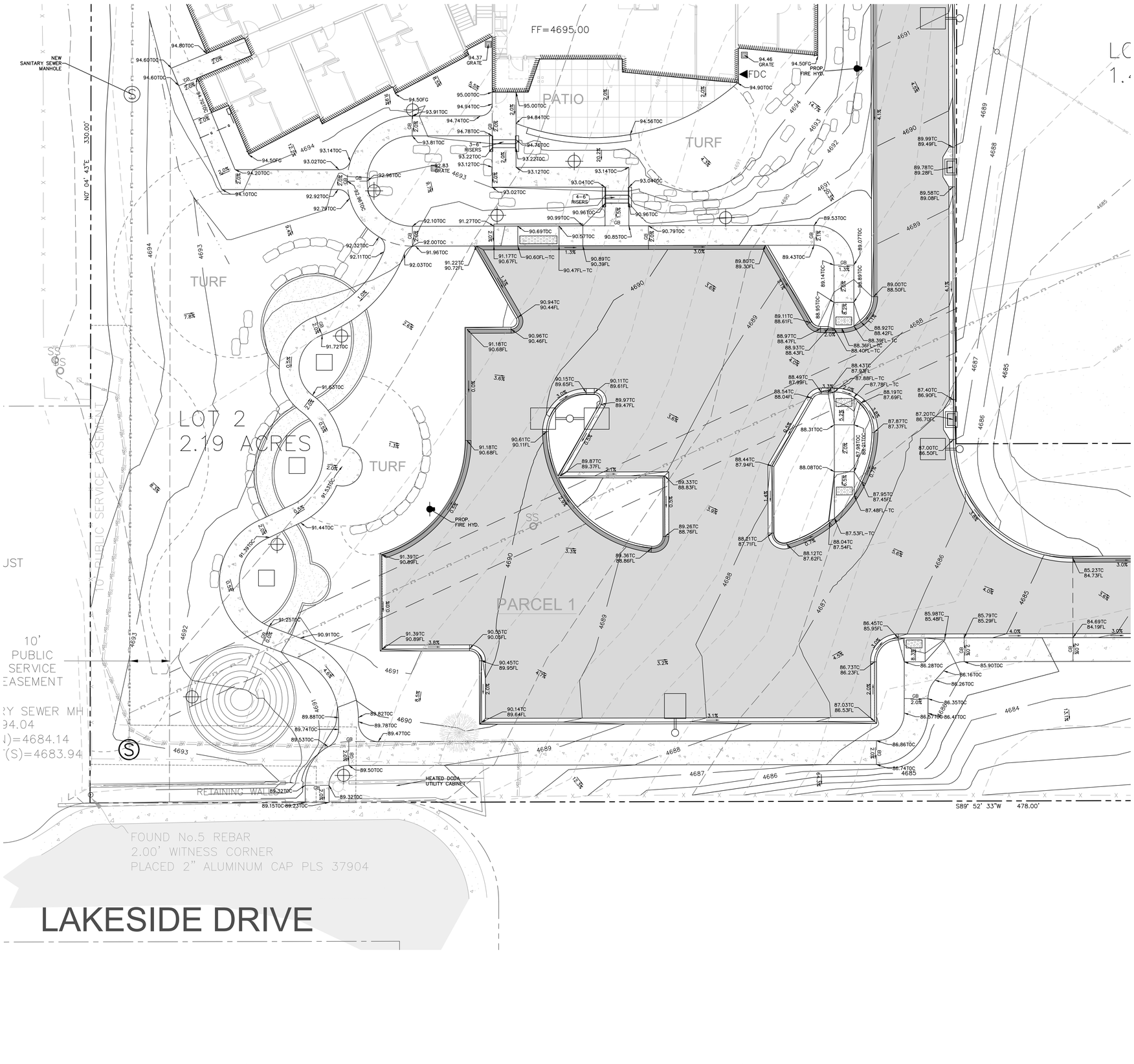
DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
GRADING AND DRAINAGE PLAN

SCALE: 1"=10'

NO. C8.00



UTILITIES AND AGENCIES		
CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

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3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C8.10

snop works architecture
2882 WAZNDOT ST. • DENVER, CO 80211 • 303.433.4094

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KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN
SCALE: 1"=10'

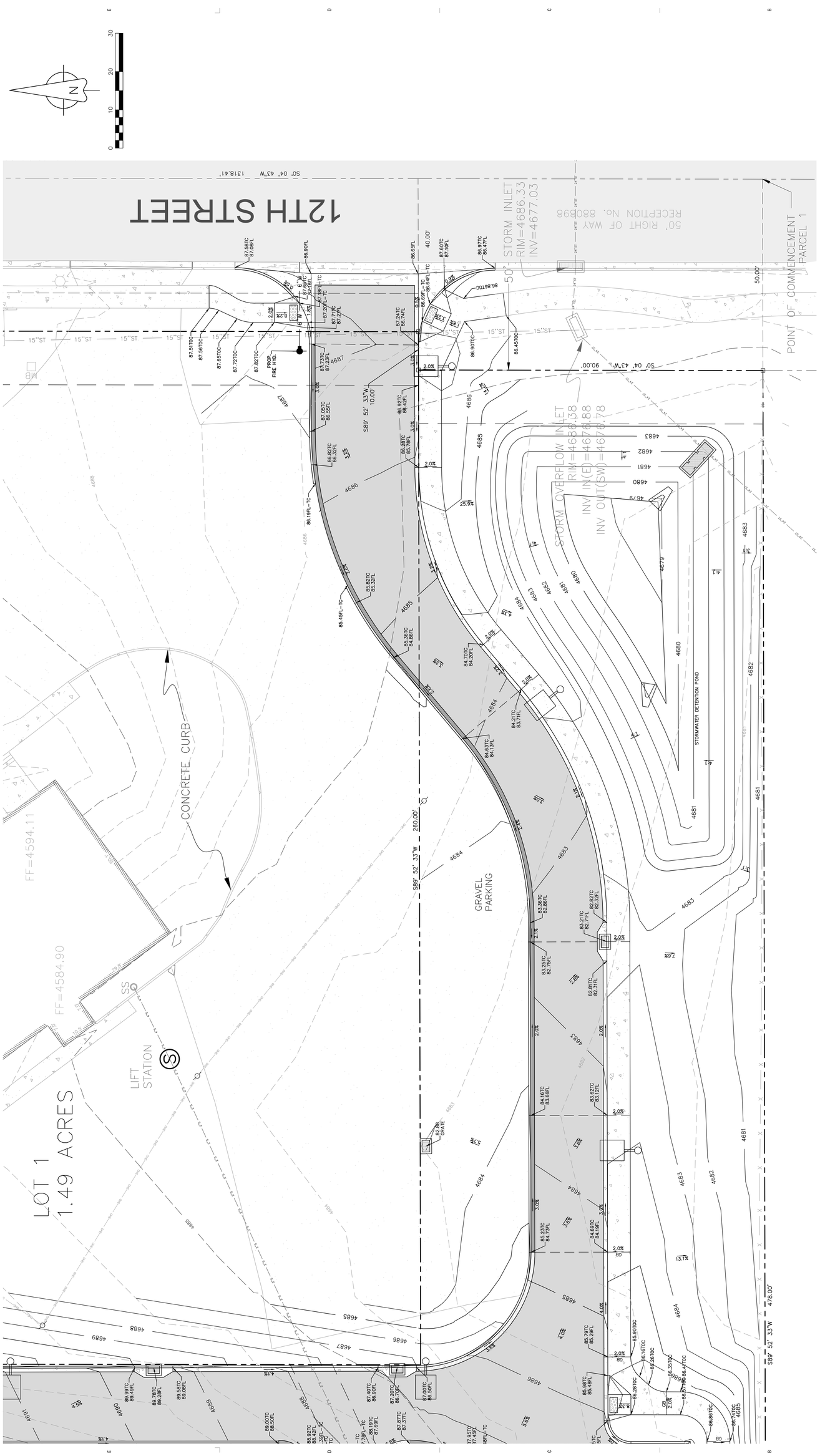
NO. C8.20

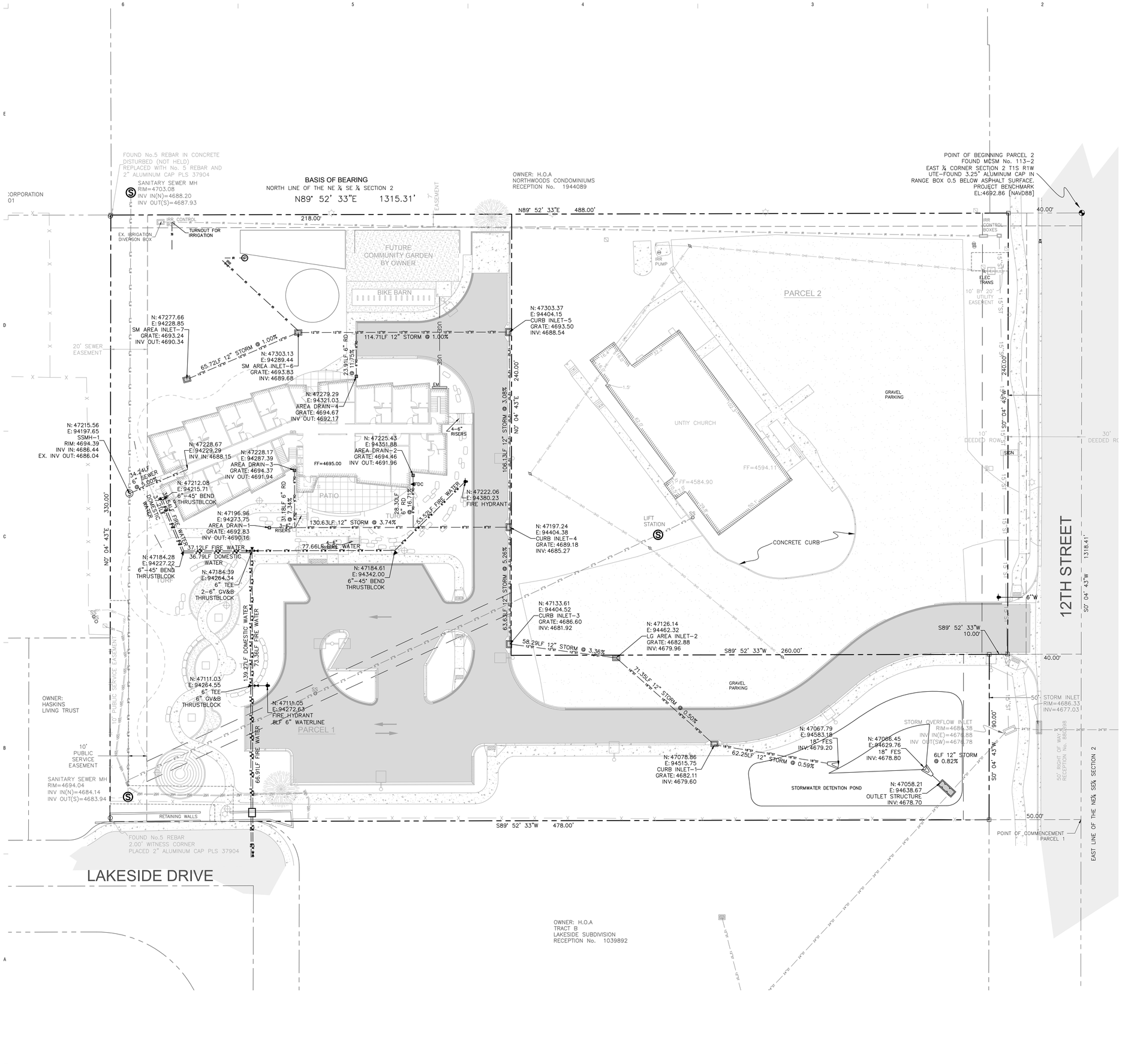
ASSISTANCE NOTICE
THE DEVELOPMENT CONSTRUCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING ISSUED, SIGNED, AND UNDER THE CONDITIONS OF THE DEVELOPMENT AGREEMENT. THE CITY'S REVIEW DOES NOT RELIEVE THE DESIGNERS, ENGINEERS, THE DESIGN CALCULATIONS FROM THE RESPONSIBILITY OF THE PROJECT DESIGN.
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

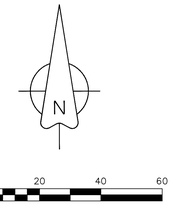
CITY DEVELOPMENT ENGINEER DATE

UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
CITY WATER	JIM BAUGHMAN	242-7491
GRAND VALLEY IRRIGATION	TRENT PRALL	244-1554
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	RANDAL REISS	244-5681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750







NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET
2. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

UTE WATER DISTRICT

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY:_____ DATE:_____

ACCEPTED AS CONSTRUCTED

BY:_____ DATE:_____

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS ON THE PLANS. THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER _____ DATE _____

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(970) 242-7540

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SCALE VERIFICATION
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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
UTILITY COMPOSITE PLAN

SCALE: 1"=20'

NO. C5.00

Appendix E

Hydrologic Calculations

Karis Apartments
CIA Analysis

AREA + RUNOFF CURVE NUMBER CALCULATIONS																			TIME OF CONCENTRATION & RATE OF RUNOFF												
BASIN	STORM EVENT	SOIL	Total Basin Area (1)	Landscape / Bareground		Roof		Gravel		Impervious		Undeveloped		Commercial		Composite i(3)	Composite C(4)	Composite CN(5)	K(6)	Intitial Flow			Travel Time-Surface					Totals			
																				Length	Slope	t_i(7)	Length	S_w	Cv(8)	Vel(9)	t_t(10)	Average Slope(11)	T_c(12)	Intensity, I(13)	Runoff, Q(14)
				i(2)	A(1)	i(2)	A(1)	i(2)	A(1)	i(2)	A(1)	i(2)	A(1)	i(2)	A(1)					feet	%	min.	feet	ft/ft		ft/sec	min.		min.	in./hr.	cfs
H-1	10-YEAR	C	3.68	0.02		0.9	0.13	0.40	1.07	1.00	0.04	0.02	2.44	0.95		0.17	0.33	78	0.25	300	4.7	11.67	173	0.030	10	1.7	1.66	4.08	13.33	1.53	1.87
	100-YEAR	C	3.68	0.02		0.9	0.13	0.40	1.07	1.00	0.04	0.02	2.44	0.95		0.17	0.55	78	0.25	300	4.7	11.67	173	0.030	10	1.7	1.66	4.08	13.33	3.26	6.55
D-1	10-YEAR	C	3.68	0.02	1.87	0.9	0.34	0.40		1.00	1.47	0.02		0.95		0.49	0.45	86	0.39	115	4.8	8.14	445	0.010	20	2.0	3.71	1.78	11.85	1.61	2.69
	100-YEAR	C	3.68	0.02	1.87	0.9	0.34	0.40		1.00	1.47	0.02		0.95		0.49	0.60	86	0.39	115	4.8	8.14	445	0.010	20	2.0	3.71	1.78	11.85	3.43	7.58

(1) Area in acres

(2) Imperviousness Value from Table 701 of SWMM as a decimal

(3) Composite Impervious Value as a decimal - ((i1*A1)+(i2*A2)+(i3*A3)+(i4*A4)+(i5*A5)+(i6*A6))/(A1+A2+A3+A4+A5+A6)

(4) Runoff Coefficient from Table 702 in SWMM

ms pline

(6) Flow Resistance Coefficients = Table 702 of SWMM with $C_{5\text{-}yr}$ Value Based on Soil Type and Imperviousness Value in (4)

(7) Initial or Overland Flow Time (minutes): $t_i = (1.8 * (1.1\text{-}K) * L_o^{1/2}) / S^{1/3}$ - Limited to 300-ft max = Per SWMM, Equation 702; $t_{imin} = 5$ minutes; $t_{imax} = (L/180) + 10$ (urbanized watersheds) Equation 704

(8) Travel Time Conveyance Coefficient per Table 703 of SWMM

(9) $V = C_v * S_w^{1/2}$ -- per SWMM Equation 703

(10) Travel Time in Concentrated Flow: $t_t = L/(V*60)$

(11) Average Slope as a Percentage

(12) Total $T_c = t_i + t_t$

(13) Average Intensity (in./hr.); $I_{10yr} = (28.9 * 0.63)/(10 + T_c)^{0.786}$; $I_{100yr} = (28.9 * 1.34)/(10 + T_c)^{0.786}$ -- per SWMM 604

(14) Storm Runoff: $Q_{cfs} = C * I_{(in/hr)} * A_{(acres)}$ -- per SWMM Equation 710

Appendix F

Hydraulic Calculations

ALLOWABLE STORM EVENT RELEASE RATE			
Control Frequency	Soil Group[1]	Area[2]	Release Rate[3]
		acres	cfs
10-year	C	3.68	0.44
100-year	C	3.68	1.84

(1) NRCS Hydrologic Soil Group

(2) Tributary watershed area in acres

(3) Allowable Release Rates for Detention Ponds (cfs) --- per SWMM Table 1402

Appendix G

Stormwater Detention Pond & WQCV Calculations

REQUIRED DETENTION POND SIZING						
BASIN	STORM EVENT	A[1]	P[2]	X[3]	K[4]	V[5]
		acres	%			cubic feet
D-1	10 YEAR	3.68	49.00	0.26	0.0116	1,861
	100 YEAR	3.68	49.00	0.42	0.0368	5,899

(1) Area in acres (Basin D-0 + O-1)

(2) Developed Basin Imperviousness (%)

(3) Mesa County and the other local jurisdictions adjustment Factor -- per SWMM Table 1401

(4) $K_{10} = ((0.95*P_{10}) - 1.90) * (X_{10}/1000)$; $K_{100} = ((1.78*P_{100}) - (0.002*P_{100}^{2}) - 3.56) * (X_{100}/900)$

(5) Minimum Detention Volumes: $V_{\text{cubic feet}} = (K * A) * 43{,}560$

WATER QUALITY CAPTURE VOLUME (WQCV)

LOCATION	K[(1)]	a[(2)]	I[(3)]	WQCV[(4)]	A[(5)]	Design Volume[(6)]
			decimal	inches	acres	cubic feet
D-1	0.65	1.00	0.49	0.13	3.68	2,125

(1) Adjustment to equation for Mesa County area = $d_6/0.43$; where d_6 =0.28, therefore K = 0.65 --- per SWMM 1604.2

(2) Adjustment for BMPs drain time --- per SWMM 1604.2

(3) Watershed impervious as a decimal

(4) Water Quality Capture Volume is in watershed inches = $K(a((0.91*I^3) - (1.19*I^2) + (0.78*I)))$ ---- per SWMM 1604.2

(5) Tributary watershed area in acres

(6) Design Volume is 120% of the WQCV = WQCV * A * 1.2 * (1/12) * 43,560

STAGE STORAGE TABLE						
ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
4,678.800	29.08	N/A	N/A	0.00	N/A	0.00
4,678.900	103.71	0.100	6.64	6.64	6.26	6.26
4,679.000	202.82	0.100	15.33	21.97	15.05	21.31
4,679.100	331.53	0.100	26.72	48.68	26.45	47.76
4,679.200	487.29	0.100	40.94	89.62	40.69	88.46
4,679.300	653.29	0.100	57.03	146.65	56.83	145.28
4,679.400	814.94	0.100	73.41	220.07	73.26	218.55
4,679.500	972.24	0.100	89.36	309.42	89.24	307.79
4,679.600	1,082.00	0.100	102.71	412.14	102.66	410.45
4,679.700	1,149.32	0.100	111.57	523.70	111.55	522.00
4,679.800	1,219.10	0.100	118.42	642.12	118.40	640.41
4,679.900	1,291.33	0.100	125.52	767.65	125.50	765.91
4,680.000	1,366.02	0.100	132.87	900.51	132.85	898.76
4,680.100	1,443.17	0.100	140.46	1040.97	140.44	1039.20
4,680.200	1,522.78	0.100	148.30	1189.27	148.28	1187.48
4,680.300	1,604.84	0.100	156.38	1345.65	156.36	1343.84
4,680.400	1,689.35	0.100	164.71	1510.36	164.69	1508.54
4,680.500	1,776.33	0.100	173.28	1683.64	173.27	1681.80
4,680.600	1,866.48	0.100	182.14	1865.78	182.12	1863.92
4,680.700	1,958.85	0.100	191.27	2057.05	191.25	2055.17
4,680.800	2,052.38	0.100	200.56	2257.61	200.54	2255.71
4,680.900	2,147.10	0.100	209.97	2467.59	209.96	2465.67
4,681.000	2,242.99	0.100	219.50	2687.09	219.49	2685.16
4,681.100	2,340.06	0.100	229.15	2916.24	229.14	2914.29
4,681.200	2,438.31	0.100	238.92	3155.16	238.90	3153.20
4,681.300	2,537.73	0.100	248.80	3403.96	248.79	3401.98
4,681.400	2,638.32	0.100	258.80	3662.77	258.79	3660.77
4,681.500	2,740.10	0.100	268.92	3931.69	268.91	3929.67
4,681.600	2,843.37	0.100	279.17	4210.86	279.16	4208.83
4,681.700	2,948.06	0.100	289.57	4500.43	289.56	4498.39
4,681.800	3,053.82	0.100	300.09	4800.53	300.08	4798.46
4,681.900	3,160.65	0.100	310.72	5111.25	310.71	5109.17
4,682.000	3,268.55	0.100	321.46	5432.71	321.44	5430.62
4,682.100	3,377.52	0.100	332.30	5765.01	332.29	5762.90
4,682.200	3,487.56	0.100	343.25	6108.27	343.24	6106.14
4,682.300	3,598.67	0.100	354.31	6462.58	354.30	6460.44
4,682.400	3,710.86	0.100	365.48	6828.05	365.46	6825.90
4,682.500	3,824.11	0.100	376.75	7204.80	376.73	7202.64
4,682.600	3,938.42	0.100	388.13	7592.93	388.11	7590.75
4,682.700	4,053.69	0.100	399.61	7992.54	399.59	7990.34
4,682.800	4,169.92	0.100	411.18	8403.72	411.17	8401.51
4,682.900	4,287.11	0.100	422.85	8826.57	422.84	8824.35
4,683.000	4,405.27	0.100	434.62	9261.19	434.61	9258.95
4,683.100	4,524.39	0.100	446.48	9707.67	446.47	9705.42
4,683.200	4,644.48	0.100	458.44	10166.11	458.43	10163.85
4,683.300	4,765.53	0.100	470.50	10636.61	470.49	10634.34
4,683.400	4,887.54	0.100	482.65	11119.27	482.64	11116.98
4,683.500	5,010.52	0.100	494.90	11614.17	494.89	11611.87
4,683.600	5,150.31	0.100	508.04	12122.21	508.03	12119.89

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Proposed Detention Pond
Outlet Structure

Karis Apartments

Job #: 1360.0001
3/25/2019

Given:

Q_{10yr}=	0.44	cfs
$Q_{max100yr}$=	1.84	cfs
h_{10} =	0.2	ft
Invert Elevation=	4678.70	ft
10_{yr} Elevation=	4681.52	ft
100_{yr} Elevation=	4682.14	ft
g =	32.2	ft/sec^2

10_{yr} Orifice Design:

10_{yr} Orifice Control Equation= $Q=C_{10}*A*(2*g*H_{10})^{0.5}$

Solve for A = Area = $(h \times w)ft^2$

H_{10} =	2.72		$H_{10} = (10_{yr\ Elevation}$ - Invert of Intake - (h/2))
C_{10} =	0.630		(Type II, Table K-4)
A_{10} =	0.053	ft^2	
w=	0.26	ft	(length of orifice opening)

10-YEAR ORIFICE	
h_{10} =	**0.2 ft**
w_{10} =	**0.26 ft**

For 100_{yr} Storm Event:

Solving for Q_{100yr}= $C*A*(2*g*H_{100})^{0.5}$

A=	0.05	sf	(h10 x w10)
H_{100}=	3.34	ft	$H_{100} = (100_{yr\ Elevation}$ - Invert of Intake - (h/2))
C_{100}=	0.628		(Type II-B, Table K-4)
$Q_{orifice\text{-}100yr}$=	0.49	cfs	(100_{yr} Discharge for the 10_{yr} Orifice Control)

Top Weir Control for 100_{yr} Storm Event:

100-yr Weir Equation= $Q=C*L*(Ht)^{1.5}$

Solve for L :

Q_{100yr}=	1.35	cfs	($Q_{max100yr}$ - $Q_{orifice\text{-}100yr}$)
H_t=	0.62	ft	$H_t = (100_{yr\ Elevation}$ - $10_{yr\ Elevation}$)
C=	3.33		Francis Weir Coefficient
L =	0.83	ft	(length of weir opening)

100-YEAR WEIR LENGTH	
L =	**0.83 ft**

Karis Apartments
Water Quality Control Plate
Job #: 1360.0001
3/25/2019

Given:

WQCV =	2,125	cubic feet
Box Invert Elevation=	4678.70	ft
WQCV elevation =	4680.74	ft
10_{yr} Elevation=	4681.52	ft
100_{yr} Elevation=	4682.14	ft

Urban Drainage & Flood Control District Equation EDB-3 for 40-hr Drain Time, 4" Hole Spacing

A = (88*(WQCV^(0.95/H^0.085)))/(Td*S^0.09*H^(2.6*S^0.3))

A =	Hole Area in Square Inches for holes at 4" On Center
WQCV =	Water Quality Capture Volume in Acre-Feet
H =	Depth of Volume in feet (WQCV - Box Invert Elevation)
Td =	Time to Drain the WQCV Volume in hours
S =	Slope in feet vertical / feet horiziontal

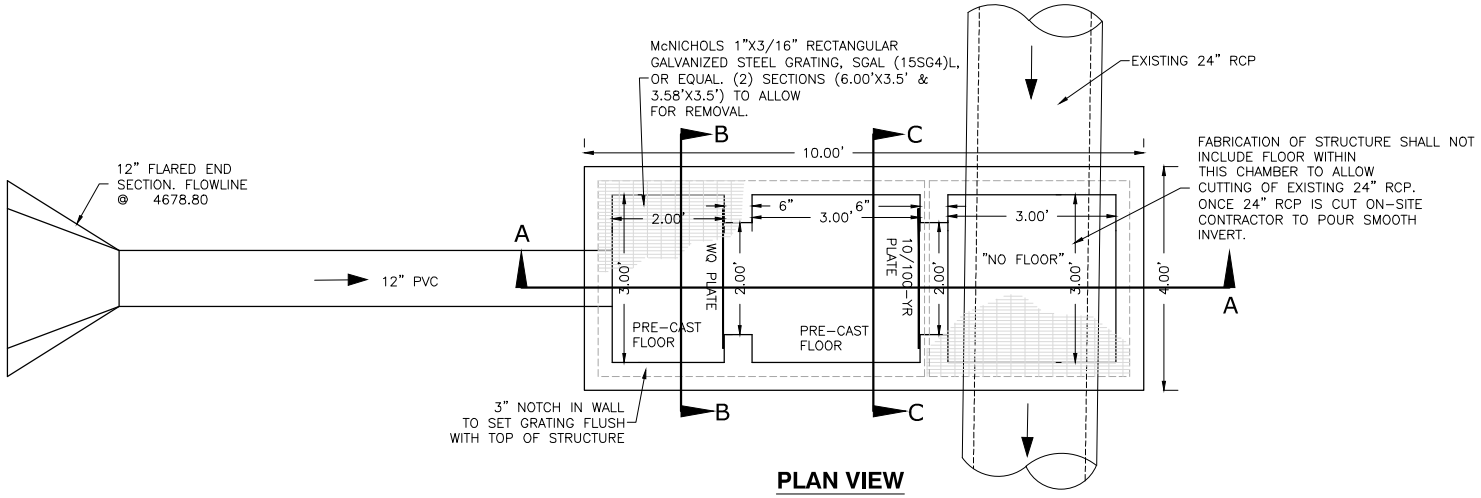
Solving for A:

WQCV =	0.05	Acre-Ft
H =	2.04	ft
Td =	40.000	
S =	0.020	ft/ft
A =	0.118	Area of Hole In Square inches

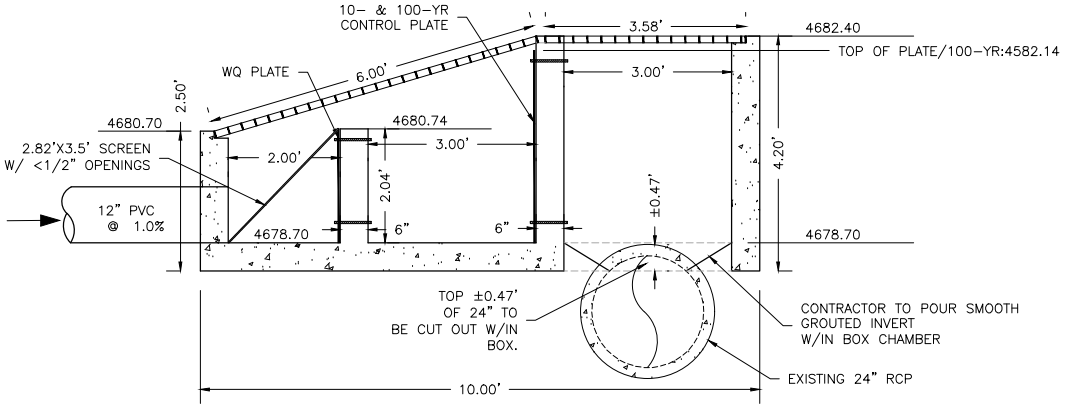
Hole Diameter In Inches = 0.388341 = Approx. 1/2"

Appendix H

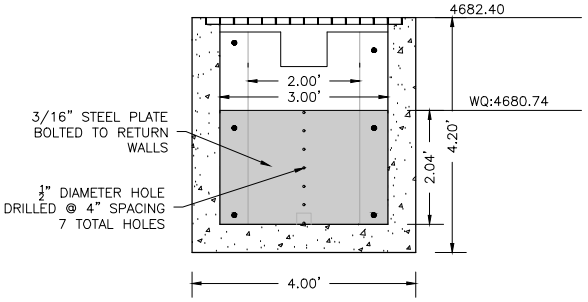
Outlet Structure Design



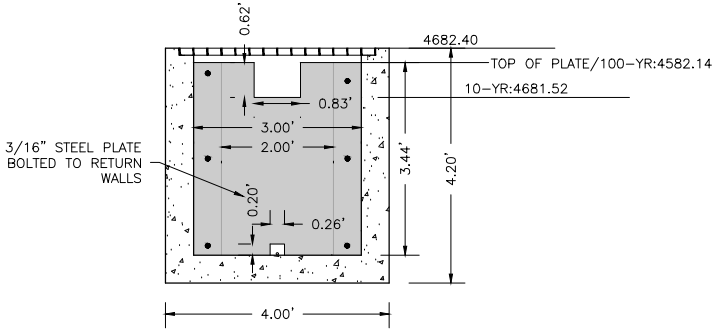
PLAN VIEW



SECTION A-A



SECTION B-B
WQ PLATE



SECTION C-C
10- & 100-YR PLATE

OUTLET STRUCTURE

NTS

Appendix I

Drainage Report Checklist

Table 302
Stormwater Management Manual
Drainage Report Checklist

Instructions:
1. Applicant to identify with a "check-mark" if information is provided with report. If applicant believes information is not required, indicate with "n/a" and attach separate sheet with explanation
2. The reviewer will determine if information labeled "n/a" is required and whether information must be submitted.
3. Those items noted with an "asterisk" are not typically required for conceptual/ preliminary report. Applicant shall confirm this with local jurisdiction.
4. Submit three (3) copies of report and include copy of check list bound with report.

TITLE PAGE

A. Type of report (Conceptual/Preliminary or Final Drainage Report).
B. Project Name.
C. Preparer name, firm, address, number, and date.
D. Professional Engineer's seal of preparer.
E. Certifications (see SWMM Section 303.1)

I. INTRODUCTION

A. Background
- ✓ 1. Identify report preparer and purpose.
- ✓ 2. Identify date of letter with previous County comments.

B. Project Location
- ✓ 1. Identify Township, Range, and Section.
- ✓ 2. Identify adjacent street and subdivision names.
- ✓ 3. Reference to General Location Map.

C. Property Description
- ✓ 1. Identify area in acres of entire contiguous ownership.
- ✓ 2. Describe existing ground cover, vegetation, soils, topography and slopes.
- ✓ 3. Describe existing drainage facilities, such as channels, detention areas, or structures.
- ✓ 4. Describe existing irrigation facilities, such as ditches, head-gates, or diversions.
- ✓ 5. Identify proposed types of land use and encumbrances.

D. Previous Investigations
- ✓ 1. Identify drainage master plans that include the project area, including floodplain studies.
- ✓ 2. Identify drainage reports for adjacent development.

II. DRAINAGE SYSTEM DESCRIPTION

A. Existing Drainage Conditions
- ✓ 1. Describe existing topography and provide map with contours extending a minimum of 100 feet beyond property limits.
- ✓ 2. Identify major drainageway or outfall drainageway and describe map showing location of proposed development within the drainageways.
- ✓ 3. Identify pre-developed drainage patterns and describe map showing pre-developed sub-basins and concentrated discharge locations. Provide calculations of pre-developed peak flows entering and leaving the site.

B. Master Drainage Plan
- ✓ 1. Describe location of the project relative to a previously prepared master drainage plan, including drainage plans prepared for adjacent development.

C. Offsite Tributary Area

1. Identify all offsite drainage basins that are tributary to the project.
2. Identify assumptions regarding existing and future land use and effects of offsite detention on peak flows.

D. Proposed Drainage System Description

1. Identify how offisite stormwater is collected and conveyed through the site and ultimately to the receiving water(s).
2. Identify sub-basins and describe, in general terms, how onsite stormwater is collected and conveyed through the site for each location where stormwater is discharged from the site.
3. Describe detention volumes, release rates and pool elevations. *
4. Identify the difference in elevation between pond invert and the groundwater table. *
5. Describe how stormwater is discharged from the site, including both concentrated and dispersed discharges and rates.
6. Describe stormwater quality facilities.
7. Describe maintenance access aspects of design. *
8. Describe easements and tracts for drainage purposes, including limitation on use. *

E. Drainage Facility Maintenance

1. Identify responsible parties for maintenance of each drainage and water quality facility. *
2. Identify general maintenance activities and schedules. *

III. DRAINAGE ANALYSIS AND DESIGN CRITERIA

A. Regulations

1. Identify that analysis and design was prepared in accordance with the provisions of the Manual.
2. Identify other regulations or criteria which have been used to prepare analysis and design.

B. Development Criteria

1. Identify drainage constraints placed on the project, such as by a major drainage study, floodplain study or other drainage reports relevant to the project.
2. Identify drainage constraints placed on the project, such as from major street alignments, utilities, existing structures, and other developments.

C. Hydrologic Criteria

(If Manual was followed without deviation, then a statement to that effect is all that is required. Otherwise provide the following information where the criteria used deviates from the Manual.)

1. Identify developed storm runoff peak flows and volumes and how they were determined, including rainfall intensity or design storm.
2. Identify which storm events were used for minor and major flood analysis and design.
3. Identify how and why any other deviations from the Manual occurred.

D. Hydraulic Criteria

(If Manual was followed without deviation, then a statement to that effect is all that is required. Otherwise provide the following information where the criteria used deviates from the Manual.)

1. Identify type(s) of streets within and adjacent to development and source for allowable street capacity. N4 *
2. Identify which type(s) of storm inlets were analyzed or designed and source for allowable capacity. N4 *
3. Identify which type of storm sewers which were analyzed or designed and

✓ * Manning's n-values used.

4. ✓ * Identify which method was used to determine detention volume requirements and how allowable release rates were determined.
5. NA * Identify how the capacity of open channels and culverts were determined.
6. ✓ * Identify any special analysis or design requirements not contained with the Manual.
7. ✓ Identify how and why any other deviations from the Manual occurred.

E. Variance from Criteria

1. ✓ Identify any provisions of the Manual for which a variance is requested.
2. ✓ Identify pre-existing conditions which cause the variance request.

*IV. POST CONSTRUCTION STORMWATER MANAGEMENT. See Manual Section 1600 for requirements.

Note: This section of the Final Drainage Report identifies additional information required by Mesa County's, City of Grand Junction's, and Town of Palisade's, Permit for Stormwater Discharges Associated with Municipal Separate Storm Sewer Systems (MS4s), permit No. COR-090000. The Final Drainage Plan and the Construction SWMP (see SWMM Section 1500) meets the requirements of the MS4s Permit. In general, this section identifies permanent BMP practices to control the discharge of pollutants after construction is complete.

*A. Stormwater Quality Control Measures

1. ✓ * Describe the post-construction BMPs to control discharge of pollutants from the project site.
2. NA * If compensating detention is provided, discuss practices to address water quality from area not tributary to detention area.
3. NA * If underground detention is proposed, discuss how water quality facilities will be provided on the surface.
4. NA If proprietary BMPs are proposed, provide the justification and sizing requirements (see SWMM Section 1603.3).

*B. Calculations

1. ✓ Provide methods and calculations for WQCV, sediment storage, and water quality outlet structure.

V. CONCLUSIONS

A. Compliance with Manual

✓ Compliance with Manual and other approved documents, such as drainage plans and floodplain studies.

B. Design Effectiveness

✓ Effectiveness of drainage design to control impacts of storm runoff.

C. Areas in Flood Hazard Zone

✓ Meet requirements of Floodplain Regulations: Mesa County Land Development Code, Section 7.13; City of Grand Junction Zoning and Development Code, Section 7.1.

D. Variances from Manual

✓ Applicant shall identify any requested variances and provide basis for approving variance. If no variances are requested, applicant shall state that none are requested.

VII. REFERENCES

✓ Provide a reference list of all criteria, master plans, drainage reports, and technical information used.

TABLES

✓ Include copy of all tables prepared for report.

FIGURES

✓ A. General Location Map (See Section 303.2a)

✓ B. Flood Plain Information
✓ C. Drainage Plan (See Section 303.2b)
✓ D. Other pertinent figures.

APPENDICIES

A. DESIGN CHARTS
   1. ✓ Provide copy of all design charts (i.e.: tables, figures, charts from other criteria) used for the report.

B. HYDROLOGIC CALCULATIONS (see Manual Sections 600 and 700)
   1. ✓ Land use assumptions for off-site runoff calculations.
   2. ✓ Time of concentration and runoff coefficients for pre-existing and post development conditions.
   3. ✓ Pre-developed hydrologic computations.
   4. ✓ Developed conditions hydrologic computations.

C. HYDRAULIC CALCULATIONS
   1. NA Capacity of existing channels, streets, storm sewers, inlets, culverts and other facilities.
   2. NA Calculations for existing storm sewer and open channel.
   3. NA Irrigation ditch flows and ditch system capacity.
   4. ✓ * Detention pond design (see Manual, Section 1400 for requirements).
      a. ✓ * Storage volume, release rates, and pool elevations for 10-year and 100-year storm.
      b. ✓ * Outlet structure dimensions, orifice diameter, weir lengths, pipe headwater and other data.
      c. NA * Outlet velocity and energy dissipation requirements.
      d. NA * Routing of outlet flows and emergency spillway flows.
   5. NA * Street capacity calculations, if data in Manual not used (see Section 1100).
   6. NA * Storm inlet capacity calculations, if data in Manual not used (see Section 1100).
   7. NA * Storm sewer capacity calculations, if data in Manual not used (see Section 1000).
   8. NA * Channel capacity calculations, if data in Manual not used (see Section 800).
   9. NA * Culvert capacity calculations (see Manual, Section 1200).
   10. NA * Other hydraulic structure calculations (see Manual, Section 900).

D. STORMWATER QUALITY CALCULATIONS
   1. ✓ Water Quality Capture Volume (WQCV).
   2. ✓ * Storage volume for sediment volume and pool elevations for WQCV.
   3. ✓ * Outlet calculations for required area per row, diameter of individual holes, number of holes per row, and number of holes per column.

✓ **CERTIFICATION – PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE**

ACKNOWLEDGEMENTS

Drainage Report checklist was prepared by: _____

Table 303
Stormwater Management Manual

Drainage Plan Checklist

Instructions:
1. Applicant to identify with a "check-mark" if information is provided. If applicant believes information is not required, indicate with "n/a".
2. County will determine if information labeled "n/a" is required and whether information must be submitted.

I. EXISTING FACILITIES

- ✓ A. Contours at two foot intervals, based on USGS datum. Contours to extend at least 50 feet past property line.
- ✓ B. Location and elevation of USGS benchmarks or benchmarks referenced to USGS.
- ✓ C. Property lines.
- ✓ D. Drainage easements.
- ✓ E. Street names.
- ✓ F. Major and minor channels and floodplains.
- ✓ G. A historic drainage plan including historic basin boundaries and flow paths.

II. PROPOSED FACILITIES

- ✓ A. Contours at two-foot intervals, based on USGS datum.
- ✓ B. Property lines.
- ✓ C. Drainage easements.
- ✓ D. Street names and grades.
- ✓ E. Right of way and easement.
- ✓ F. Finished floor elevations for protection from major storm run-off.
- ✓ G. Detention pond information:
  1. ✓ Location of each detention pond with site at 1"=50' scale or larger with 2-foot contour intervals.
  2. ✓ Inlet and outlet structure, and trickle channel design details.
  3. N/A Details of emergency spillway and channel.
  4. ✓ Landscape information, including side slopes, vegetation and planting requirements.
  5. ✓ Details of water quality outlet structure.
- N/A H. Channel Information:
  1. N/A Profiles with existing and proposed grades.
  2. ✓ Cross sections on 100-foot stations showing existing and proposed topography and required rights of way.
  3. N/A Locations and size of all existing and proposed structures.
  4. N/A Locations and profiles of adjacent utilities.
  5. Typical channel section and lining details.
- ✓ I. Storm sewer information:
  1. ✓ Alignment and location of manholes, inlets, and outlet structures.
  2. ✓ Profile of invert and pipe crown.
  3. ✓ Invert elevations at manholes and inlets.
  4. ✓ Lengths and grades between manholes and inlets.
  5. ✓ Locations and elevations of utilities adjacent to and crossing storm sewer.
  6. ✓ Easement and other O&M access geometry.
  7. ✓ Outlet details, such as end sections, headwall and wingwalls, erosion control, and vegetation.
- N/A J. Street cross sections with design 100-year flood depth.
- ✓ K. Other drainage related structures and facilities, including underdrains and sump pump discharge lines.
- ✓ L. Other permanent BMP measures to control pollutant discharges to the County's MS4 system.

III. HYDRAULIC AND HYDROLOGIC INFORMATION

A. Routing and accumulative runoff peaks at upstream and downstream ends of the site and at various critical points onsite for initial and major storms. Inflow and outflow from each subbasin shall be shown for both initial and major storms. ✓

B. Street cross sections showing 100-year flood levels. N/A

C. Major and minor channels and floodplains. ✓

D. Detention pond data: ✓

1. Release rates for 10- and 100-year storm events. ✓
2. Required and provided volumes for 10- and 100-year storm events. ✓
3. Design depths for 10- and 100-year storm events. ✓
4. Water quality capture volume and pool elevation. ✓

E. Channel data: N/A

1. Water surface profiles. N/A
2. Representative 100-year flow velocity and Froude number.

F. Storm sewer data: N/A

1. Profile of water surface for design flow rate. ✓
2. Peak flows for design flow, 2-year and 100-year storm events.

IV. STANDARD NOTES

A. No building, structure, or fill will be placed in the detention areas and no changes or alterations affecting the hydraulic characteristics of the detention areas will be made without the approval of the County. ✓

B. Maintenance and operation of the detention and water quality areas is the responsibility of property owner. If owner fails in this responsibility, the County has the right to enter the property, maintain the detention areas, and be reimbursed for costs incurred. ✓

C. Detention pond volumes, all drainage appurtenances, and basin boundaries shall be verified. As-built drawings shall be prepared by a registered professional engineer prior to issuance of certificate of occupancy for any structure within the development. ✓

D. Permission to reproduce these plans is hereby given to Mesa County for County purposes associated with plan review, approval, permitting, inspection and construction of work. ✓

V. PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE

VI. OTHER

A. Horizontal and vertical control information and ties to existing and proposed features. ✓

ACKNOWLEDGEMENTS

Drainage Plan checklist was prepared by: _____

Karis Apartments: Operations Plan

Karis Apartments Overview

Karis Apartments will be a 34-unit multi-family apartment housing development (affordable, multifamily rental housing with multi-purpose common spaces) which will provide housing opportunities for very low-income families and individuals who have disabilities, who are between the ages of 18 and 24, and/or who are homeless or at risk of experiencing homelessness.

Resident households will sign 12-month lease agreements that are renewable annually, in one-year increments.

Karis Apartments, LLLP ("LLLP") will be the owner of the building and Karis Inc. (dba the House) will be the managing partner. The Grand Junction Housing Authority will be the voucher administrator and the LLLP will select a property management company for the project.

Affordable Housing Requirements

This building will be comprised of 34 one bedroom affordable rental dwelling units, with all residents identified as earning at or below 30% of annual median income limits for Mesa County for relevant household size. Construction will be financed through the Low-Income Housing Tax Credit Program (LIHTC) and supported by Project Based Vouchers (PBV) from the Colorado Department of Local Affairs.

The policy of Equal Housing Opportunity for prospective applicants regardless of race, color, religion, sex, handicap, familial status, national origin, age, creed, sexual orientation, gender identity, marital status, and status with regard to public assistance shall be fully enforced.

Community and Building Description

Karis Apartments is a medium multi-family dwelling building of 34 total apartments and is compliant with the City's zoning code. The unit mix will include 34 one-bedroom / one-full bath dwelling units. Each dwelling unit will have an Energy Star refrigerator, oven/range, disposal, and microwave.

The building will include ample daylight, access to the outdoors, warm colors, and open space plans. The apartment units will have "porches" at the unit entries. The units all feature very open floor plans that create long site-lines and are devoid of hallways.

All units and public spaces are designed to accommodate residents with disabilities, including clearances around fixtures, appliances, and doorways, and feature blocking for the installation of grab bars. Some of the units have been designed to accommodate residents with visual and hearing disabilities as well. The interior and exterior circulation paths have gentle grades and feature ample clearance, and automatic door actuators have been included to ease access to the building. Finally, accessible parking stalls have been included in the parking lot, including a stall for vans.

Staff parking will be within the community's parking area. All other parking will be available for the use of the few residents who will own vehicles and visitors who drive to visit the community.

Community Amenities

Building amenities include a number of multi-use spaces, such as reading nooks, multi-use rooms, central laundry, and a community room that includes an informal coffee counter. The lobby will feature a unique window wall and roof structure to create a sense of wonder and intrigue for residents and visitors alike. This area will transition the community room to the outdoor plaza that will include seating, a shade structure, and large south facing patio. The landscape design was divided such that the front yard is more passive, including a walking path with informal seating that provides space for residents to find solace in the landscape of the site. The plants will be native and drought resistant. The back yard will be reserved for more active uses such as, games, pets, and gardening.

Building Management

The apartment building management will oversee building and landscape maintenance, leasing of apartments, and coordinate with community groups, service providers, residents and individuals who want to use common spaces. The apartment building manager shall perform services limited to managing the facility, leasing apartments, and LIHTC file compliance monitoring.

Multi-use rooms in the apartment building, when available, may be used by Tenants for accessing voluntary services, meeting with neighbors, playing games, or participating in activities.

Resident Placement

Resident placement information is provided for informational purposes only.

All applicants will be referred through the community's Coordinated Entry System (CES). A preference will be made for

Any person who qualifies for a housing voucher is eligible to apply at Karis Apartments. Additional screening for residents will include screening from Grand Junction Housing Authority to determine if they are eligible for the vouchers.

When a unit designated as ADA accessible becomes available, the first person on the waiting list who has indicated a verifiable need for the features of a accessible unit will be contacted for an interview. If the applicant meets the minimum screening criteria, they will be offered the unit before other applicants.

This Operations Plan is prepared and delivered for zoning and planning use only. Other terms and phrases used to describe the supportive service plans may be used with applications for funding in relation to Karis Apartments, which do not affect the use of the building or zoning designation. Supportive services are not a primary function of the building and participation by residents is not a condition to living at the building.

6' CEDAR PRIVACY FENCE

7'-0" UTILITY EASMENT

TRASH ENCLOSURE, RE: ARCH

TRANSFORMER

6' CEDAR PRIVACY FENCE

20'-0"
UTILITY EASMENT

EMERGENCY ACCESS/
FIRE LANE

PATIO

LANDSCAPE BOULDERS

UNITY CHURCH

FIRE HYDRANT

PATIO

LANDSCAPE BOULDERS

TURF

LANDSCAPE BOULDERS

BIKE RACKS

BOULDER WALL

TURF

6 SPACES

LANDSCAPE BOULDERS

CONCRETE SEAT WALL

BIKE RACKS

ASPHALT PARKING LOT

CONCRETE PLINTH FOR
SCULPTURE/ART
OPPORTUNITIES, TYPICAL (4)

BOULDER WALL,
TYPICAL

TURF

5 SPACES

CRUSHER FINES
REFLECTION PATH

FIRE HYDRANT

3 SPACES

BOULDER WALL

CONCRETE WALK

DONOR GARDEN,
TYPICAL (4)

11 SPACES

DETENTION POND

EXISTING SIDEWALK

CONCRETE SIDEWALK

EXISTING SIDEWALK

EXISTING SIDEWALK

12TH STREET

LAKESIDE DRIVE

SURFACE LEGEND

- STANDARD CONCRETE
- CRUSHER FINES
- TURF
- NATIVE GRASS
- PERENNIALS

LEGEND

- BOULDER SEATING
- EXISTING PRIVACY FENCE TO REMAIN
- 6' PRIVACY FENCING
- BOULDER WALL
- CONCRETE SEAT WALL W/ STONE CAP
- BICYCLE PARKING
- 6"X6" FLUSH CONCRETE EDGER
- LIGHTING FIXTURES
- EXISTING TREE TO REMAIN

0 10 20 40 80
SCALE: 1"=20'-0"

NORTH

shopworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
301 West 45th Avenue
Denver, CO 80216
303.406.1075

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
6/06/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape
Site Plan

SCALE:

NO. LS101

LANDSCAPE PLANTING SCHEDULE

EVERGREEN TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
PIN	2	Piñon Pine	Pinus edulis	6' Height	Very Low
AUS	20	Austrian Pine	Pinus nigra	8' Height	Very Low

DECIDUOUS TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
OAK	12	Chinkapin Oak	Quercus muehlenbergii	2.5" Caliper	Low
HKB	4	Common Hackberry	Celtis occidentalis	2.5" Caliper	Very Low
SHA	9	Shademaster Honeylocust	Gleditsia triacanthos inermis	2.5" Caliper	Very Low
BOX	2	Sensation Boxelder	Acer n egundo 'Sensation'	2.5" Caliper	Low
LPT	9	London Planetree	Platanus x acerifolia	2.5" Caliper	Low
	20	Species to be Determined	Species to be Determined	2" Caliper	

ORNAMENTAL & SMALL TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
ABS	6	Autumn Brilliance Serviceberry	Amelanchier x grandiflora	6'-8' Clump	Moderate
WKH	7	Winter King Hawthorn	Crataegus viridis 'Winter King'	2" Caliper	Low
RBC	5	Eastern Redbud	Cercis canadensis	6'-8' Clump	Low

DECIDUOUS SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
RLC	41	Red Lake Currant	Ribes sativum 'Red Lake'	5 Gal. Cont.	Low
AAS	106	Autumn Amber Sumac	Rhus trilobata 'Autumn Amber'	5 Gal. Cont.	Low
RSA	36	Russian Sage	Perovskia artiplicifolia	5 Gal. Cont.	low
DRB	45	Dwarf Rabbitbrush	Chrysothamnus nauseosus var.	5 Gal. Cont.	Very Low
LEA	17	Leadplant	Amorpha canescens	5 Gal. Cont.	Very Low
RAB	14	Rabbitbrush	Chrysothamnus nauseosus	5 Gal. Cont.	Very Low
PAN	26	Panchito Manzanita	Arctostaphylos x coloradoensis	5 Gal. Cont.	Low
RLR	7	Red Leaf Rose	Rosa glauca	5 Gal. Cont.	Low

EVERGREEN SHRUBS

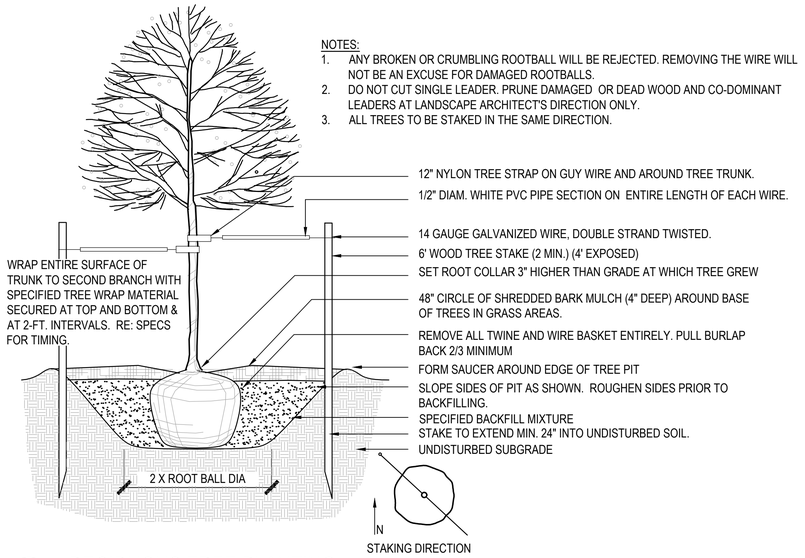
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
BCJ	26	Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	5 Gal. Cont.	Low

ORNAMENTAL GRASSES/PERENNIALS / GROUNDCOVERS

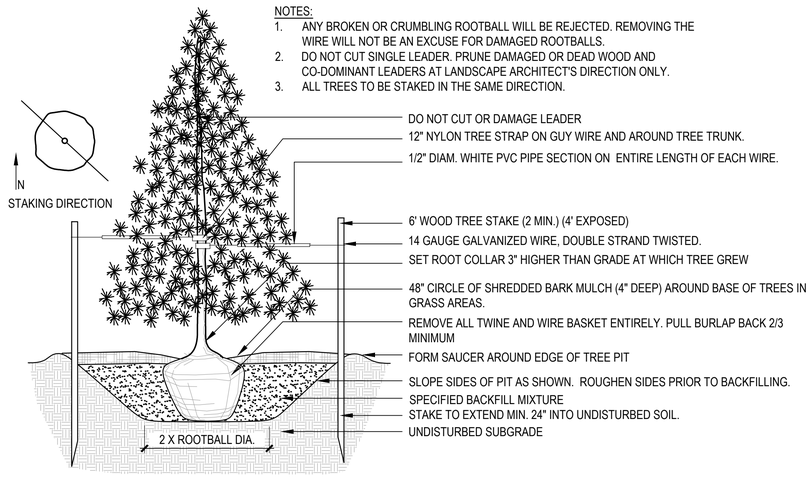
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
YUC	36	Soapweed Yucca	Yucca glauca	1 Gal. Cont.	Low
FRG	46	Feather Reed Grass	Calamagrostis acutiflora 'Avalanche'	1 Gal. Cont.	Low
DMG	23	Dwarf Maiden Grass	Miscanthus sinensis 'Yaku Jima'	1 Gal. Cont.	Low
BGG	284	Blue Gramma Grass	Bouteloua gracilis	1 Gal. Cont.	Low
AST	150	Assorted Perennials & Groundcovers		1 Gal. Cont.	Low

LANDSCAPE NOTES

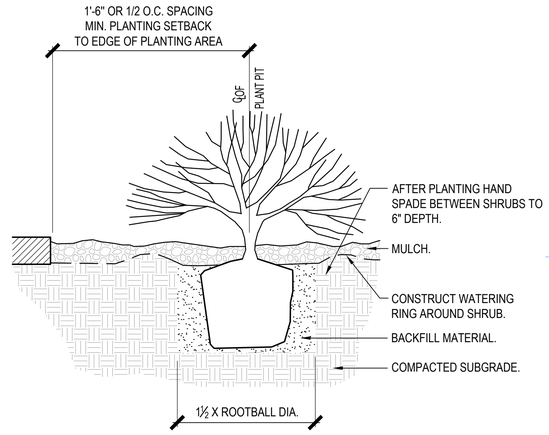
1. STAKE ALL TREES AND SHRUBS BASED ON THESE DRAWINGS. EXACT LOCATIONS OF PLANT MATERIALS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD PRIOR TO INSTALLATION. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST TO EXACT LOCATIONS IN THE FIELD.
2. ALL TREES TO MEET THE CITY OF GRAND JUNCTION LAND USE CODE STANDARDS FOR SIZE AND SPECIES.
3. PROVIDE MATCHING FORM AND SIZES FOR PLANT MATERIALS WITHIN EACH SPECIES AND SIZE AS DESIGNATED ON THE DRAWINGS.
4. ALL LANDSCAPE MATERIAL TO BE DISEASE AND INSECT FREE. LANDSCAPE ARCHITECT TO REVIEW PLANT MATERIAL AT SOURCE OR BY PHOTOGRAPHS PRIOR TO DIGGING OR SHIPPING OF PLANT MATERIAL.
5. ALL PLANTING BEDS ADJACENT TO THE BUILDING AND WITHIN THE OUTDOOR WALKS SHALL BE MULCHED WITH A ¾" TO 6" LOCAL RIVER COBBLE BLEND. A WOVEN GEOTEXTILE WEED BARRIER IS REQUIRED UNDER COBBLE AND RIVER ROCK PLANTING BEDS. AREAS OF PERENNIALS AND GROUNDCOVERS SHOULD BE MULCHED WITH ¾" LOCAL RIVER ROCK. TREES IN LAWN OR NATIVE AREAS TO BE MULCHED WITH A 4' DIAMETER RING OF 4" DEPTH WASHINGTON SHREDDED CEDAR MULCH WITH NO WEED BARRIER.
6. ALL LANDSCAPE BEDS AND TURF AREAS ARE TO RECEIVE ORGANIC SOIL AMENDMENTS AT A RATE OF 5 CY/1000 S.F. OF LANDSCAPE AREA. AMENDMENTS ARE TO BE TILLED TO A DEPTH OF 8" AND FINE GRADED TO A SMOOTH SURFACE WITH POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES.
8. 6"X6" FLUSH CONCRETE HEADER SHALL OCCUR BETWEEN CRUSHER FINES AND ALL OF THE FOLLOWING SURFACE MATERIALS: SOD & SEED, GARDEN MULCH & SOD, CRUSHER FINES & SOD, CRUSHER FINES & OR AS INDICATED ON THE DRAWINGS.
9. MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION WITH PRIOR APPROVAL FROM THE CITY OF GRAND JUNCTION, AS REQUIRED BY SITE CONDITIONS. OVERALL QUANTITY AND QUALITY TO BE CONSISTENT WITH APPROVED PLANS.
10. LOCATE ALL UTILITIES PRIOR TO ANY DIGGING OR LANDSCAPE PLANTING.
11. ALL LANDSCAPE AREAS ARE TO BE IRRIGATED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.



1 DECIDUOUS TREE PLANTING
SCALE: NTS



2 EVERGREEN TREE PLANTING
SCALE: NTS



3 SHRUB PLANTING
SCALE: NTS
shrb.dwg

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
6/06/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CH/JH
PROJECT #: 18007

SHEET TITLE:
Landscape Schedules & Details

SCALE:

NO. LS102

City of Grand Junction
Review Comments - RESPONSE

Date: May 3, 2019 **Comment Round No.** 1 **Page No.** 1
Project Name: Karis project **File No:** SPN-2019-174
Project Location: 3205 North 12th Street

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s): Unity Church
[ ] **Mailing Address:** 3205 North 12th Street, Grand Junction, CO 81502
[ ] **Email:** **Telephone:** 970 243-3550
[ ] **Date Picked Up:** _____ **Signature:** _____

Representative(s): Shopworks Architecture
[ ] **Mailing Address:** 301 West 45th Avenue, Denver, CO 80216
[X] **Email:** kyle@shopworksarc.com **Telephone:** 303 433-4094
[ ] **Date Picked Up:** _____ **Signature:** _____

Developer(s): Karis Inc.
[ ] **Mailing Address:** P.O. Box 2837, Grand Junction, CO 8150
[X] **Email:** jmoklamme@karisinc.org **Telephone:** 970 234-1810
[ ] **Date Picked Up:** _____ **Signature:** _____

CITY CONTACTS

Project Manager: Tom Dixon
Email: tomdi@gjcity.org **Telephone:** 970 244-1422

Dev. Engineer: Jarrod Whelan
Email: jarrodw@gjcity.org **Telephone:** 970 244-1443

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING – Tom Dixon

Comments:

- In the course of the Site Plan Review and the specifics of the multiple aspects of proposed operations within the apartment building, it was determined by the Community Development Director and the City Attorney that the Karis project is defined as a group living facility under Section 21.04.020(b) and the use-specific standards of Section 21.04.030(p)(2) Group Living Facility of the City of Grand Junction Zoning and Development Code.

- One of the requirements for such a use is found under subsection (iv) Process (A) Neighborhood Meeting which specifies a 1,000-foot notification area surrounding the proposed group living facility, details of which can be found under a., b. and c. Initial information stating that a neighborhood meeting would not be required was based on a less intense and less regulated use. It appears that previous voluntary neighborhood meetings probably did not

meet the 1,000-foot standard. If they did, confirmation of the notification area would be needed.

- Based on elevated levels of intensity and comments regarding this project, such a meeting would be accommodated by multiple staff and security personnel were the applicants interested in such.

Applicant's Response:

In the weeks subsequent to these written comments, members of the Development Team met with representatives from the Community Planning department, as well as The City Attorney's office. There was confusion between parties about how this building would operate. The objective of these meetings was to clarify the intended use of the building. This project is proposing a multifamily apartment project for very low-income individuals. It is our understanding that the consensus from all parties at the conclusion of these meetings is that the proposed project is not an appropriate fit for a 'group living' designation. The Karis Apartments are multifamily apartments with building management and resident amenities for voluntary use by the tenants. The operations narrative included with this resubmittal has been revised to clarify the operations of the building. We do not intend to hold additional community meetings.

CITY DEVELOPMENT ENGINEER – Jarrod Whelan jarrodw@gjcity.org (970) 244-1443

FEES
Review Comment: Transportation Capacity Payment (TCP) – To be determined and collected at the time of planning clearance for individual building permits. Current fee is $2,254 per Unit for SFR and $1,769 per Unit for Multi-Family; Street Classifications and Developer's responsibility for constructing streets, as well as these fees are subject to change without notice in the near future.

TCP Fee = $1,769 per Unit * 34 Units = $60,146

Inspection Fee – 34 MF residential units x $120/unit = $4080.00

Applicant's Response:
Noted, if possible, we would like to pay this fee upon closing of the financial partnership, which will occur at the time of permit issuance.

Document Reference:
N/A

GENERAL
Review Comment: Utility and Agencies box- changes/Additions (Typical ALL Sheets):

Utilities Director: Randi Kim @ 244-1429
Public Works Director: Trent Prall @ 256-4047
City of GJ Development Inspector: Mark Barslund @ 201-1362
5-2-1 Drainage Authority Representative: Mark Barslund @ 201-1362

Applicant's Response: **Utility Agency Box updated as requested.**

Document Reference: **All required.**

FDC
EM

Applicant's Response: **See above**

Document Reference: **See above**

PLANS
Review Comment: Sheet 2.00

Under 'General Construction Notes,' please add the following as note #1:
"CONTRACTOR SHALL CONTACT MARK BARSLUND, CITY OF GRAND JUNCTION'S DEVELOPMENT INSPECTOR AND 5-2-1 DRAINAGE AUTHORITY REPRESENTATIVE, AT (970) 201-1362, A MINIMUM OF 72 HOURS IN ADVANCE, FOR A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING WORK."

Applicant's Response: **Note added to Sheet C200.**

Document Reference: **Sheet C2.00.**

Review Comment: Sheet C4.00

Dimension diagonal parking. As a reminder, CGJDR 21.06.090(b) Parking states 60-degree parking shall have a minimum 9-feet wide stalls and 21-feet in length with a 16-foot drive aisle. Modify General Notes on this sheet as necessary.

Applicant's Response: **Noted revised as requested.**

Document Reference: **Sheet C4.00.**

Review Comment: Sheet C6.00

Please review and revise elevations on section views as necessary. The numbers do not match according to the dimensions in each view.

Section A-A:

The bottom elevation is stated as 78.70 feet. The 12-inch pipe enters the concrete structure through a 2.50-foot tall box with a stated elevation of 80.70-feet elevation. The elevation listed for the WQ Plate/Weir is 80.74. Even though the WQ Plate wall has a 7.5 x 10-inch notch (Assumed the same size as the 10&100-yr plate), in the event the box is filled, it will spill over the entry wall. Please clarify or correct as needed. I know it's only a half-inch, but I want to make sure this was intended and not an oversight. **It just happens that the elevation of the front of structure and WQCV elevation is only 0.04' different. No reason to modify.**

Section B-B:
Add dimension to bottom thickness of structure and dimension the weir/notch section. **6" thick bottom noted. Weir above WQ plat is dimensioned at 2-foot (distance between the two concrete return walls).**

The steel plate is called out to be 2.04 feet and the overall structure to the top has a dimension of 4.20 feet. According to the Section A-A View of the structure, this is on the hypotenuse of the grate and will be less than 4.20 feet. Please clarify. **Spoke with Development Engineer and comment was clarified. No changes made.**

Applicant's Response: **See above**

Document Reference: **N/A**

Review Comment: Sheets C7.00, 7.10, 7.20

Recommend a mow strip or v-pan concrete backing along the curved entry to the church parking lot area.

Applicant's Response: **Mow Strip added.**

Document Reference: **Sheet C8.30**

DRAINAGE REPORT
Review Comment: Owner/Developer signature required on Acknowledgement sheet

Applicant's Response: **Signature provided.**

Document Reference: **Cover sheet of drainage report.**

Review Comment: Pre and Post development run-off calculations (Q) utilized the Grand Valley Area Table 601 for the P1, point rainfall value for 1-hr duration. This is within the Leach Creek/Horizon Drive Watershed and should use Table 602. Based on my spreadsheet, this should lower your overall Q by almost 20%. Verify and amend as needed.

Applicant's Response: **Thank you for identifying. In lieu of adjusting all hydrologic and hydraulic calculations (CIA spreadsheet and outlet structure design) engineer of record suggest over designing and providing a conservative design utilizing the Grand Valley point rainfall information. Drain time has been reviewed and is still in compliance with SWMM.**

Document Reference: **N/A**

Review Comment: Page 8: Table III: Developed Drainage Basin Summary has the basin area, D-1, listed as Pre-Developed.

Applicant's Response: **Revised.**

Document Reference: **Table III of drainage report.**

Review Comment: All detention basins and infiltration-based retention basins must be registered on the State of Colorado Stormwater Detention and Infiltration Facility portal. The design engineer must visit the website and follow the directions to register the new basin. The web portal address is: https://maperture.digitaldataservices.com/gvh/?viewer=cswdif
This must be complete and accepted prior to plan approval.

Applicant's Response: **Standard practice with the City/County on past projects is that the registration is provided after the construction of the detention pond facility. This provides an "as-built" condition rather than a "design" condition. Registration is included with the detention pond certification letter. In addition, it avoids the registration of a facility that may never be constructed. Spoke with Development Engineer and this is an acceptable approach.**

Document Reference: **N/A**

STORMWATER
Review Comment: Obtain the 5-2-1 permit.

Applicant's Response: **CDPHE and 521 Permit will be provided prior to approval of application.**

Document Reference: **N/A**

CITY SURVEYOR – Peter Krick – peterk@gjcity.org (970) 256-4003

Comment:

No comment.
Applicant Response: **Simple subdivision has been re-submitted to illustrate drainage & utility easement.**

CITY FIRE DEPARTMENT – Steve Kollar – stevek@gjcity.org (970) 549-5800

Comments:

GJFD has no objections to the proposed project.

Fire Flow. Fire flow form indicates 2963 gpm at 20 psi and is acceptable.

Fire Hydrants. Location of proposed fire hydrant(s) are accepted.

Fire Apparatus Access. Location of proposed fire apparatus access is accepted.

Applicant's Response: **Thank you for your review of our project.**

CITY ATTORNEY – John Shaver

Comment:

See Planner's comments.

Applicant's Response: **See response provided to Planning Comments.**

CITY ADDRESSING – Pat Dunlap – patd@gjcity.org (970) 256-4030

Comment:

Assuming that the numbers in the boxes of the floor plan represent room numbers, they are exactly as I would have suggested.

Applicant's Response: **Thank you for your review of our proposal.**
:

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Mesa County Building Department
Contact Name: Darrell Bay
Email / Telephone Number: Darrell.bay@mesacounty.us (970) 244-1651

Comments:

MCBD has no objections to this project.

All building code related items will be addressed during plan review.

Applicant's Response: **Noted.**

Review Agency: Xcel Energy
Contact Name: Brenda Boes
Email / Telephone Number: Brenda.k.boes@xcelenergy.com (970) 244-2698

Comments:

Xcel has no objections.

Developer needs to be aware that cost to bring utilities to lots will be at their costs.

Additional cost may be incurred if reinforcement is determined by area engineer due to added load for existing main.

Completion of this City/County review approval process does not constitute an application with Xcel Energy for utility installation. Applicant will need to contact Xcel Energy's Builder's Call Line/Engineering Department to request a formal design for the project.

A full set of plans, contractor, and legal owner information is required prior to starting any part of the construction. Failure to provide required information prior to construction start will result in delays providing utility services to your project. Acceptable meter and/or equipment locations will be determined by Xcel Energy as a part of the design process. Additional easements may be required

depending on final utility design and layout. Engineering and Construction lead times will vary depending on workloads and material availability. Relocation and/or removal of existing facilities will be made at the applicant's expense and are also subject to lead times referred to above. All Current and future Xcel Energy facilities' must be granted easement

Applicant's Response: **Noted, development team has made primary application to Xcel to request formal design.**

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

Comments:

• Change connection to existing main, show as a wet tap not a tee. **Wet tap identified.**

• Show water meter for culinary water just north of lot line and south of the utility cabinet. **Water meter shown as requested.**

• A survey may be found at the following link (http://www.utewater.org/backflow) and must be submitted along with a mechanical drawing to the District for further review and approvals. **Noted.**

• Installation of all backflow equipment shall be per Ute standard, developer will be required to purchase, install and maintain all necessary equipment. **Noted.**

• An initial test on the BFPD will be made by the District at no cost for the developer; arrangements for this first test should be made with District personnel for final approval. **Noted.**

• Submit mechanical drawing and a completed survey to: **Noted.**

Nick Bierman
Cross Connection Program Administrator
Ute Water Conservancy District

Applicant's Response: **See above.**

Review Agency: Grand Valley Drainage District
Contact Name: Tim Ryan
Email / Telephone Number: tim.admin@gvdd.org (970) 242-4343

Comments:

GVDD has no comments or objections. The project is outside the District.

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

Comment:

To be sent Response to Comments with resubmittal.

REVIEW RESPONSE

Date due: **August 3, 2019**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Kyle Mead, Shopworks Architecture — 6/10/2019

Applicant's Signature — **Date**

City of Grand Junction
Review Comments

Date: June 28, 2019 **Comment Round No.** 2 **Page No.** 1 of 6
SPN-2019-174
Project Name: Karis Apartments & Karis Subdivision **File No:** SSU-2019-182
Project Location: 3205 N. 12th Street

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s):
Mailing Address:
Email: **Telephone:**
Date Picked Up: **Signature:**

Representative(s): Shopworks Architecture – Attn: Kyle Mead
Mailing Address: 301 W. 45th Avenue, Denver, CO 80216
[X] **Email:** kyle@shopworksarc.com **Telephone:** (303) 433-4094 Ext. 105
Date Picked Up: **Signature:**

Developer(s): Karis Inc. – Attn: John Mok-Lamme
Mailing Address: P. O. Box 2837, Grand Junction, CO 81502
[X] **Email:** jmoklamme@karisinc.org **Telephone:** (970) 234-1810
Date Picked Up: **Signature:**

CITY CONTACTS

Project Manager: Scott D. Peterson, Senior Planner
Email: scottp@gjcity.org **Telephone:** (970) 244-1447

Dev. Engineer: Jarrod Whelan
Email: jarrodw@gjcity.org **Telephone:** (970) 244-1443

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING

1. Building Elevations (Sheets A2.0 & A2.1):
a. Label building elevation to the top of the Rooftop Equipment Screen to verify overall maximum building height. FYI. The maximum building height in the existing R-16 zone district is 60'.
b. See Review Comment #3 c. and submit Elevation Drawing for review of garbage enclosure. Requirement: V-4 of the SSIDS Manual.
Applicant's Response:
Document Reference:

2. Lighting Plan (Sheets E1, E2 & E3):
a. Add a general note to the Lighting Plan that states that; "All outside lighting shall comply with Section 21.06.080 of the Zoning and Development Code."
b. Provide City Planning Approval Signature Blocks on all applicable sheets.

Code Reference: Section 21.06.080 of the Zoning and Development Code & V-11 of the SSIDS Manual.
Applicant's Response:
Document Reference:

3. Site Plan (Sheet C4.00):
a. Off-Street Parking Requirements: Multi-Family Units – 1 bedroom: 1.25 parking spaces per dwelling unit which would trigger 43 parking spaces (1.25 x 34 units = 42.5) for this proposal. Applicant is proposing 25 parking spaces in accordance with Section 21.06.050 (e) of the Zoning & Development Code, Alternative Parking Plan. Community Development Director has reviewed and approved the Applicant's submitted narrative and statistics regarding the parking plan and is supportive of the request to reduce the required on-site parking spaces to 25 in this instance. A recorded Alternative Parking Plan Document will be prepared by the City Attorney's Office at time of Planning Clearance issuance in accordance with Section 21.06.050 (e) (6) of the Zoning & Development Code for property owner's signature. Applicant will be responsible for all recording fees. No additional response required. Also, required bicycle spaces shall be provided at a rate of 1 bike space per 20 vehicle spaces which would trigger a minimum of 3 bike spaces. Also, it appears on the Site Plan that the Applicant is providing additional bike spaces/racks which the City Project Manager is in support. Provide a General Note on Site Plan which identifies how many bike spaces can be accommodated by the proposed bike racks and also provide Detail Drawing of typical Bike Rack on Construction Detail Sheets.
b. Submitted Landscaping Plan indicates a Bike Barn to be located next to a future community garden. Will the Bike Barn be constructed with this application? Is this a building or just additional outside bike racks? Revise drawings as applicable.
c. Provide Elevation Drawing for proposed trash enclosure. City Project Manager suggests enclosure be constructed of the same building materials as the principal structure. See Section 21.04.040 (h) (1) (vi) (C) of the Zoning & Development Code for additional information.
d. Clearly label locations of all proposed and existing fence locations, if applicable. Include Elevation Drawing of proposed fencing and indicate overall height. All fencing shall conform to Section 21.04.040 (i) of the Zoning & Development Code. FYI. There are no screening and buffering requirements for this application since all adjacent properties are zoned residential.
e. Will outside mechanical equipment/gas and electric meters, etc., on the first floor be screened from public view and/or be located so as to be perceived as an integral part of the building (Section 21.04.030 (n) (5) (xiv) of the Zoning & Development Code)?
f. Label required vertical handicap parking signs to be located at the head of each handicap parking stall.
Code Reference: V-22 of the SSIDS Manual.
Applicant's Response:
Document Reference:

4. Landscaping Plan (Sheet LS101 & LS102):
a. At time of Final Approval, a Licensed Landscape Architect registered in the State of Colorado will need to sign and stamp the Landscaping Plans.
b. Provide City Planning Approval Signature Blocks on all applicable sheets.
c. For a 2.19-acre lot, a minimum of 39 trees and 318 shrubs are required. Please provide a Landscape Calculations Block on the requirements and quantities proposed.
d. FYI. See Section 21.06.040 (b) (13 & (14) of the Zoning & Development Code for the maximum percentage of any one type of plant species that can be planted in a development. Revise Landscaping Plan accordingly, if applicable.
d. FYI. At time of Certificate of Occupancy, Licensed Landscape Architect shall provide a letter to the City Project Manager stating that all landscaping was installed per the approved Landscaping Plan for each filing.

e. See Review Comment # 3 b. and revise accordingly.
f. Landscaping within the 14' wide landscaping strip adjacent to N. 12th Street shall also include shrubs (Section 21.06.040 (d) (5) of the Zoning & Development Code). Revise Landscaping Plan as appropriate.
Code Reference: V-10 of the SSIDS Manual.
Applicant's Response:
Document Reference:

5. Fees: Per original General Meeting notes dated May 24, 2018, the following fees are applicable to multi-family residential developments:
a. City Park Fee: $7,650.00 (34 dwelling units x $225 per dwelling unit payable at time of Planning Clearance issuance).
b. City Open Space Fee: Submit MAI Appraisal Report for determination of this fee (10% of the value of the raw land) payable at time of Planning Clearance issuance.
c. Planning Inspection Fee: $50.00 payable at time of Planning Clearance issuance.
d. School Impact Fee: $920 per dwelling unit payable at time of Planning Clearance issuance.
e. Recording Fees: Required at time of Final Subdivision Plat and associated documents recording. Unknown fees at this time.
f. Plant Investment Fees: Contact City Customer Service Division for sewer tap fees payable at time of Planning Clearance issuance. Contact Ute Water Conservancy District for water tap fees payable at time of Planning Clearance issuance.
Code Reference: Section 21.06.020 and 030 of the Zoning and Development Code.
Applicant's Response:
Document Reference:

6. General Project Report:
The Applicant has provided in the revised General Project Report that the project will consist of 34, one-bedroom individual living units that each contain a kitchen and that they are individual dwelling units in an apartment building. The narrative includes that the apartments are to provide housing opportunities for very low-income families and individuals who have disabilities, between the ages of 18 and 24 and/or who are homeless or at risk of experiencing homelessness. Based on the Applicant's representations, this project is classified as a Residential, Multi-Family land use in accordance with the City's Zoning & Development Code. No further response required.
Code Reference: VI-4 of the SSIDS Manual.
Applicant's Response:
Document Reference:

7. Subdivision Plat:
a. On Sheet 1, in the Dedication Block, add the following paragraph; "An Easement over the Storm Water Drainage Easement is dedicated to the City of Grand Junction as perpetual easements for the inspection, installation, operation, maintenance and repair of detention and drainage facilities and appurtenance thereto. The City of Grand Junction is dedicated reasonable ingress/egress access to the drainage/detention easement areas. The owner(s) and/or the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the detention and drainage facilities."
b. Since the public will be utilizing the proposed sidewalk connection between N. 12th Street and Lakeside Drive, label a "Pedestrian Easement" in the area of the sidewalk location that connects the two streets on Sheet 2. On Sheet 1, in the Dedication Block, add the following dedication language. "All Pedestrian Easements are dedicated to the City of Grand Junction as perpetual easements for ingress and egress access use by the public forever for purposes of walking, running, wheelchairs (motorized and nonmotorized), bicycling, and other nonmotorized forms of transportation for commuting and recreational purposes with or without pets accompanying them. The owner(s) and/or

the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the sidewalk connection."
Code Reference: V-15 of the SSIDS Manual.
Applicant's Response:
Document Reference:

8. Easement Legal Descriptions & Map Exhibits:
a. For the 15' Drainage & Utility Easement that bisects both properties, on Exhibit B, in the description adjacent to Polaris Surveying, delete the word "Grading" and replace with "Drainage" to match wording on proposed subdivision plat.
b. City Surveyor is currently reviewing submitted private easement metes/bounds legal description's and map exhibit's that were submitted in Rounds 1 & 2. Once review is complete, City Project Manager will notify applicant's representative of any requested changes.
c. Submit Dedication/Granting Documents that grants proposed private easements as identified on the proposed subdivision plat, within the City Use Block, for review and approval prior to final signatures and recording.
Code Reference: IV-2 of the SSIDS Manual.
Applicant's Response:
Document Reference:

CITY DEVELOPMENT ENGINEER

PLANS

Review Comment: C1.00

Sheet index is missing C8.30

This plan set shall include the Landscaping Plans, include in sheet index.

Applicant's Response:
Document Reference:

Review Comment: C4.00 & C7.00

Dimension hammerhead parking from the western end to centerline of drive aisle and from the trash enclosure to centerline of the hammerhead.

Applicant's Response:
Document Reference:

Review Comment: C5.00

Please call to discuss the storm drain design, RE: Is there a catch basin on the property line of the existing church and the proposed development for future development of the parking lot? Also,

Applicant's Response:
Document Reference:

Review Comment: C8.00

Please provide topo a minimum of 50 feet south of the southern property line (into 3154 Lakeside). Based on the drawing, it appears runoff will continue to flow south across the PL. Please provide grading or cutoff wall to maintain stormwater in the Tract and into basin.

Applicant's Response:
Document Reference:

Review Comment: C8.20/8.30

Provide grade/slope arrows along the walkway's path of travel.

Applicant's Response:
Document Reference:

DRAINAGE REPORT
Review Comment: No Exceptions Taken

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

- Show a valve at the 2-inch tap saddle for the domestic lateral.
- Change the call out at the utility cabinet to read DCDA IN A HEATED UTILITY CABINET.
- ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY.
- If you have any questions concerning any of this, please feel free to contact Ute Water.

Applicant's Response:

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

This project will require both state CDPHE and 5-2-1 Construction Stormwater permits, to include the original, wet signed, O&M agreement in 4 pages, not double-sided; a Construction Stormwater Management Plan (*received), and a completed 5-2-1 permit application with fees, payable by check, based on the area of disturbance on page 4. All appropriate forms and templates can be found on the 5-2-1 Drainage Authority website. These documents can be turned into the GJ City Hall Planning Department, the 5-2-1 office at 333 West Avenue, Bldg. C, (Grand Junction City Shops) or mailed to: 5-2-1 Drainage Authority, P.O. Box 3389, Grand Junction, CO 81502. Prior to ANY disturbance, please contact Mark Barslund @ (970) 201-1362

Applicant's Response:

REVIEW AGENCIES

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have not responded as of the comment due date.

1. Grand Valley Water User's
2. City Surveyor

The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

1. **City Planning**
2. **City Development Engineer**
3. **City Surveyor**
3. **5-2-1 Drainage Authority**
4. **Ute Water Conservancy District**
5. **Grand Valley Water Users**

Date due by: **September 28, 2019**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Applicant's Signature	**Date**

Legal Description

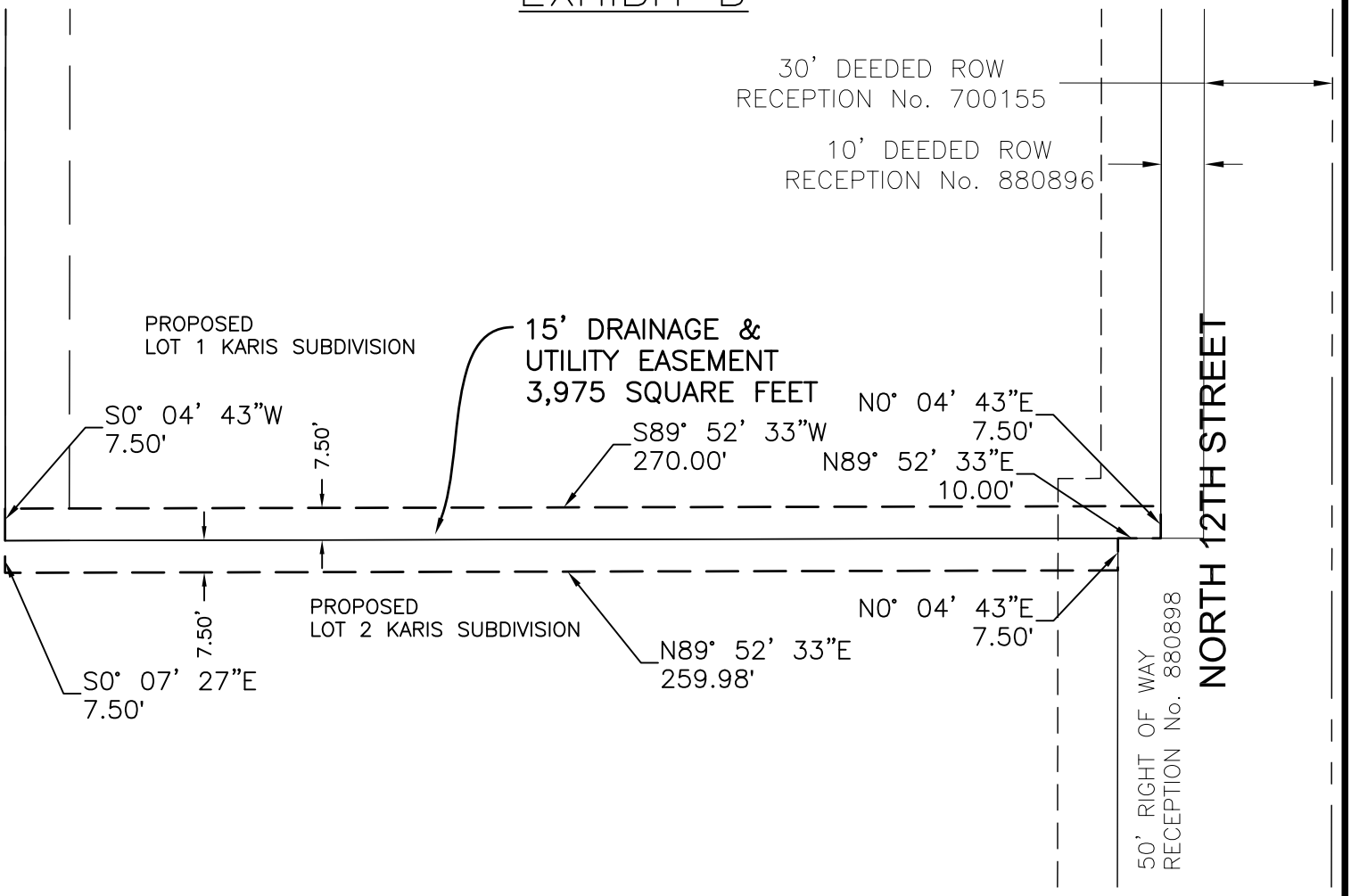
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

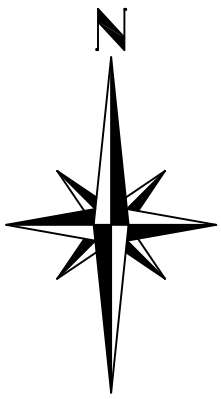
The South 7.50 feet of Lot 1 Karis Subdivision, Mesa County, Colorado.

And including the North 7.50 feet of Lot 2 said Karis Subdivision lying adjacent and South of said Lot 1.

Said parcel contains 3,975 square feet.

EXHIBIT B





GRAPHIC SCALE:
1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

Legal Description Sketch

Karis Subdivision
15' Grading and Utility Easement

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

Owners' Statement and Dedication:

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned Unity Church, a Colorado nonprofit corporation is the owners of that real property situate in the NE¼ SE¼ of Section 2, Township 1 South, Range 1 West of the Ute Meridian, City of Grand Junction, County of Mesa, State of Colorado as evidenced by Deed, filed in the office of the Mesa County, Colorado, Clerk and Recorder, at Reception Numbers 2783858 and 1273201, being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the Center–East Sixteenth Corner of said Section 2 bears S89°52'33"W, thence S89°52'33"W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

thence S0°04'43"W along said West Right of Way a distance of 240.00 feet to the North Right of Way line as recorded at Reception Number 88098;

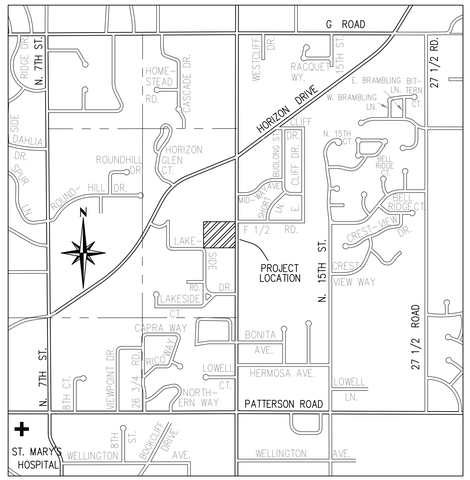
thence S89°52'33"W along the North line of said Right of Way a distance of 10.00 feet;

thence S0°04'43"W along West line of said Right of Way a distance of 90.00 feet to the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office;

thence along said Lakeside Subdivision Filing Two the following two courses and distances
- S89°52'33"W a distance of 478.00 feet
- N0°04'43"E a distance of 330.00 feet to the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2;

thence N89°52'33"E along said North Line a distance of 488.00 feet to the Point of Beginning.

Containing 3.676 acres.



VICINITY MAP
N.T.S

That said owner has laid out, platted and subdivided the above described real property into lots as shown heron, and designate the same as KARIS SUBDIVISION, in the City of Grand Junction, County of Mesa, State of Colorado, and do hereby make the following grants:

All Multipurpose Easements are dedicated to the City of Grand Junction as perpetual easements for City approved utilities including the installation, operation, maintenance and repair of said utilities and appurtenances which may include but are not limited to, electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, storm sewers, water lines, telephone lines, traffic control facilities, street lighting, landscaping, trees and grade structures.

All lienholders appear hereon.

IN WITNESS WHEREOF, said owner, Unity Church, a Colorado nonprofit corporation, have caused their names to be hereunto subscribed this
_____day of_____, A. D. 2019.

_____
By: For: Unity Church, a Colorado nonprofit corporation

NOTARY PUBLIC CERTIFICATION

STATE OF COLORADO)
) SS
COUNTY OF MESA)

The foregoing instrument was acknowledged before me by_____ For: Unity Church, a Colorado nonprofit corporation this_____day of _____ A.D. 20__.

Witness my hand and official seal_____.
Notary Public
My commission expires _____.

City Use Block:

The below listed recording information for Associated Record Documents was not prepared under the professional land surveyor's responsible charge, Board Rule 6.2.1, State of Colorado

The recording information is to be completed by the City of Grand Junction personnel.
The accuracy of this information is the responsibility of the City of Grand Junction.

1. 10' Utility Easement granted by document at Reception Number _____.
2. Storm Water and Drainage Easement granted by document at Reception Number _____.
3. Ingress/Egress Easement granted by document at Reception Number _____.
4. 15' Grading Easement granted by document at Reception Number _____.

TITLE CERTIFICATION

STATE OF COLORADO)
COUNTY OF MESA)ss

WE, ADVANCED TITLE COMPANY, A TITLE INSURANCE COMPANY, AS DULY LICENSED IN THE STATE OF COLORADO, HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE TO THE HEREON DESCRIBED PROPERTY, THAT WE FIND THE TITLE TO THE PROPERTY VESTED TO UNITY CHURCH, A COLORADO NONPROFIT CORPORATION; THAT THE CURRENT TAXES HAVE BEEN PAID; THAT ALL MORTGAGES NOT SATISFIED OR RELEASED OF RECORD NOR OTHERWISE TERMINATED BY LAW ARE SHOWN HEREON AND THAT THERE ARE NO OTHER ENCUMBRANCES OF RECORD; THAT ALL EASEMENTS, RESERVATIONS AND RIGHTS OF WAY OF RECORD ARE SHOWN HEREON.

DATE:_____BY: _____
NAME AND TITLE
ADVANCED TITLE COMPANY

ABBREVIATIONS:

N	NORTH
S	SOUTH
E	EAST
W	WEST
T	TOWNSHIP
R	RANGE
MCSM	MESA COUNTY SURVEY MARKER
ROW	RIGHT OF WAY
PLS	PROFESSIONAL LAND SURVEYOR
No.	NUMBER
GPS	GLOBAL POSITIONING SYSTEM
ID	IDENTIFICATION
SQ	SQUARE
FT	FEET

LAND USE SUMMARY		
LOTS	3.676 ACRES	100%
TOTAL	3.676 ACRES	100%

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO :
:ss
COUNTY OF MESA :

This plat was accepted for filing in the office of the Clerk and Recorder of Mesa County, Colorado, at _____o'clock____ .m., on this____ day of _____ 20 ___ and was recorded at Reception No. _____.

Drawer No. _____ , and Fees _____.

_____ _____
Clerk and Recorder Deputy

CITY APPROVAL

This plat of KARIS SUBDIVISION, a subdivision of the City of Grand Junction, County of Mesa, State of Colorado, is hereby approved and dedications accepted this_____day of _____ 20 _____ .

_____ _____
City Manager Mayor

LIENHOLDER RATIFICATION

THE UNDERSIGNED, HEREBY CERTIFIES THAT IT IS A HOLDER OF A SECURITY INTEREST UPON THE PROPERTY HEREON DESCRIBED AND DOES HEREBY JOIN IN AND CONSENT TO THE DEDICATION OF THE LAND DESCRIBED IN SAID DEDICATION BY THE OWNERS THEREOF AND AGREE THAT ITS SECURITY INTEREST WHICH IS RECORDED DECEMBER 12, 2016, AT RECEPTION NUMBER 2783859 OF THE PUBLIC RECORDS OF MESA COUNTY, COLORADO SHALL BE SUBORDINATED TO THE DEDICATIONS SHOWN HEREON.

IN WITNESS WHEREOF, THE SAID CORPORATION HAS CAUSED THESE PRESENTS TO SIGNED BY ITS _____,WITH THE AUTHORITY OF ITS BOARD OF DIRECTORS, THIS_____ DAY OF _____.

_____ FOR: _____
TITLE FOR: Solar Electric, Inc.

NOTARY PUBLIC CERTIFICATION

STATE OF _____ :
:ss
COUNTY OF _____ :

The foregoing instrument was acknowledged before me this _____day of_____, A.D. 2019.

by _____for Solar Electric, Inc.

Witness my hand and official seal

My Commission Expires _____ _____
Notary Public

SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, do hereby certify that I am a registered land surveyor licensed under the laws of the State of Colorado, that this Plat is a true, correct and complete Final Plat of the KARIS SUBDIVISION, as laid out, platted, dedicated and shown hereon, that such Final Plat was made from an accurate survey of said property by me and under my supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

FOR REVIEW ONLY

_____
PATRICK W. CLICK DATE
COLORADO REGISTERED LAND SURVEYOR PLS No.37904

REVISION RECORD

Number	DATE	
1	6/8/19	Added Drainage and Util easement

KARIS SUBDIVISION
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

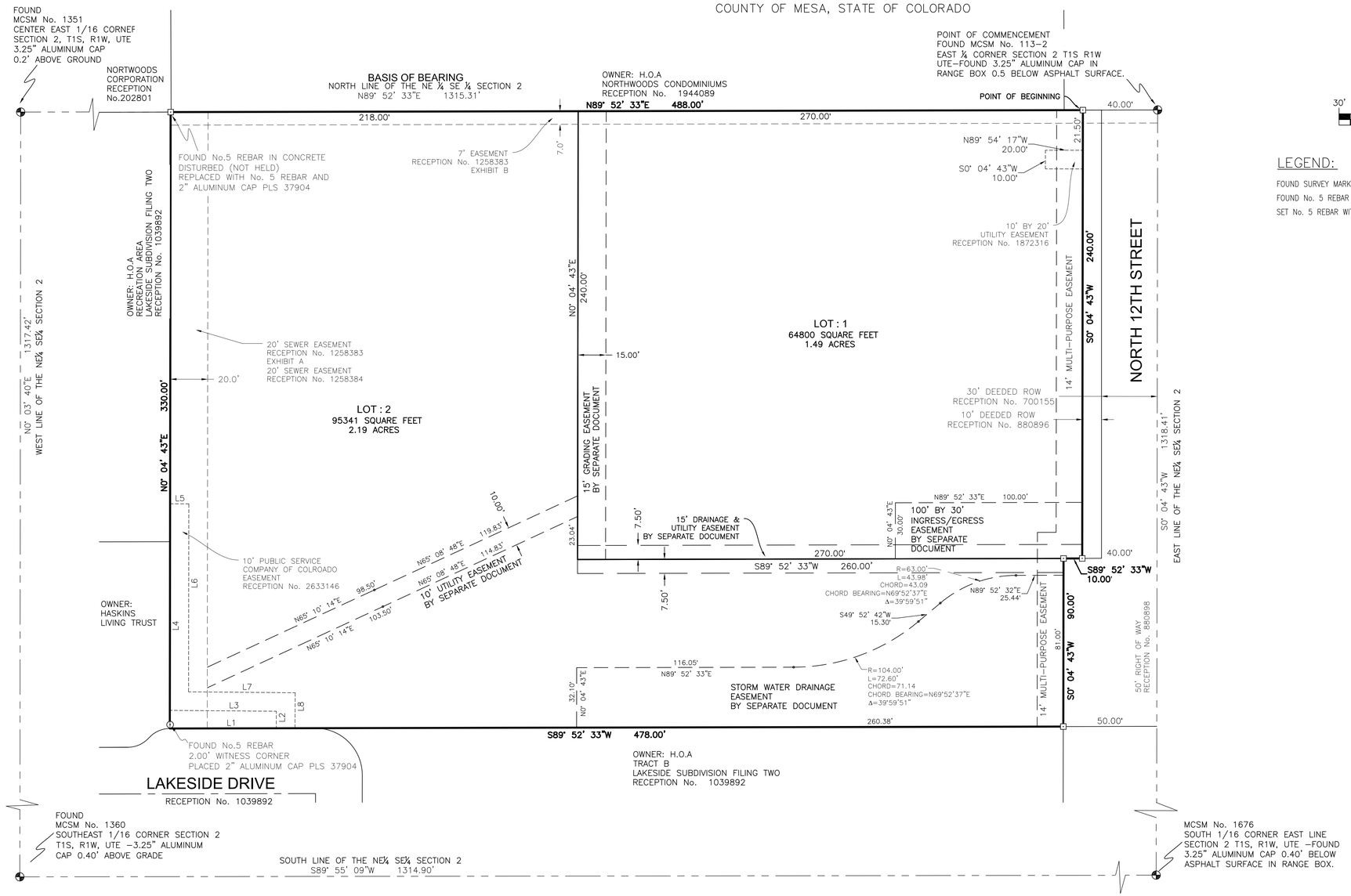
JOB #: 2018162 FIELD WORK: MDM
DATE: 6/8/19 DRAWING NAME: 2018162 DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434-7038

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO



LEGEND:

FOUND SURVEY MARKER AS DESCRIBED	⊕
FOUND No. 5 REBAR AS DESCRIBED HEREON	⊙
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904	⊡

Line Table		
Line #	Direction	Length
L1	N89° 52' 33"E	56.93'
L2	S00° 28' 53"W	9.10'
L3	S89° 31' 07"E	57.00'
L4	S00° 04' 43"W	110.60'
L5	N89° 55' 18"W	10.00'
L6	N00° 04' 42"E	100.68'
L7	N89° 31' 07"W	57.07'
L8	N00° 28' 53"E	19.00'

General Notes:

1. OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: MDM
DATE: 6/8/19 DRAWING NAME: 2018162 DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

SHEET 2 OF 2

PROJECT NUMBER: SSU-2019-182
PROJECT NAME: Karis
PROJECT ADDRESS: 3205 N. 12th St.
REVIEW AGENCY: City of Grand Junction, Community Development, Engineering Division
REPRESENTATIVE: Jarrod Whelan, P.E., Development Engineer (ph. 244-1443)
Rachel Wall, Intern, Development Engineering (ph. 244-1427)
DATE: 2019-07-17

Review Comments

3rd Review

PLANS

Review Comment: C5.00

There is an existing fire hydrant shown on C4.00 on the south property line. Please add this to the utility composite plan since other proposed fire hydrants are being shown and label each fire hydrant as “proposed” or “existing.”

Applicant’s Response:
Document Reference:

Review Comment: C8.30

Following a site visit, Staff has determined that the south side of the lot from the stormwater pond, heading west to the proposed ped path, shall be graded to direct stormwater runoff into the detention pond to prevent cross-lot drainage. Understandably, this is the historical drainage path, however, this opportunity, especially during a mass grading process, to direct onsite drainage to the site-specific pond shall be taken.

Applicant’s Response:
Document Reference:

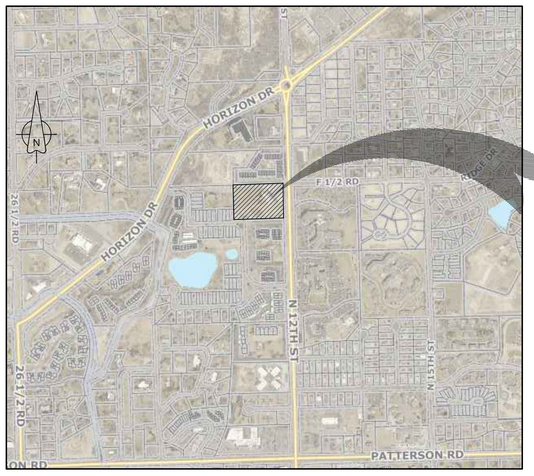
Upon the engineer making these corrections, no further review is required.

Shop Works Architecture
301 W. 45th Ave.
Denver, Colorado 80216
(303) 433-4094

PLANS FOR
CONSTRUCTION OF

KARIS APARTMENTS

MARCH 26, 2019



VICINITY MAP
NTS

PROJECT LOCATION

NO.	TITLE
C1.00	COVER
C2.00	TYPICAL CONSTRUCTION NOTES
C3.00	DEMOLITION PLAN
C4.00	SITE PLAN
C5.00	UTILITY COMPOSITE PLAN
C6.00	OUTLET STRUCTURE & POND DETAILS
C7.00	HORIZONTAL CONTROL PLAN
C7.10	HORIZONTAL CONTROL PLAN
C7.20	HORIZONTAL CONTROL PLAN
C8.00	OVERALL GRADING PLAN
C8.10	GRADING AND DRAINAGE PLAN
C8.20	GRADING AND DRAINAGE PLAN
C8.30	GRADING AND DRAINAGE PLAN
LS101	LANDSCAPE SITE PLAN
LS102	LANDSCAPE SCHEDULES AND DETAILS
LS103	LANDSCAPE DETAILS
A2.0	ELEVATIONS
A2.1	ELEVATIONS
E1	SITE PHOTOMETRIC PLAN
E2	SITE PHOTOMETRIC DETAILS
E3	SITE PHOTOMETRIC DETAILS

KARIS APARTMENTS

TAX PARCEL #: 2945-024-00-059
LOT SIZE: 3.675 ACRES

OWNER: UNITY CHURCH, PO BOX 1904, GRAND JUNCTION, COLORADO 81502

DEVELOPER: KARIS, INC., JOHN MOK-LAMME, PO BOX 2837, GRAND JUNCTION, COLORADO 81502

DEVELOPMENT PARTNER: BLUELINE DEVELOPMENT, ORIANA SANCHEZ, 1004 SOUTH AVENUE WEST, MISSOULA, MT 59801

ARCHITECT OF RECORD: SHOPWORKS ARCHITECTURE, CHAD HOLTZINER, 301 W 45TH AVENUE, DENVER, COLORADO 80216

CIVIL ENGINEER: AUSTIN CIVIL GROUP, INC., SCOTT SORENSEN, 123 NORTH 7TH STREET, SUITE 300, GRAND JUNCTION, CO 81501

LANDSCAPE ARCHITECT: FLOW DESIGN COLLABORATIVE, CHRISTOPHER HOY, 301 W 45TH AVENUE, DENVER, COLORADO 80216

STRUCTURAL ENGINEER: MONROE & NEWELL ENGINEERS, DAVE KAST, 1400 GLENARM PLACE, STE 101, DENVER, COLORADO 80202

MECHANICAL ENGINEER: ABLE CONSULTING GROUP, MARC ABLE, 2468 S CLAYTON STREET, DENVER, COLORADO 80210

ELECTRICAL ENGINEER: MV CONSULTING INC, MARCUS VAHLING, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

PLUMBING ENGINEER: MEC, INC, BRYAN MOEN, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
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XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS IN THE PLANS. THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER _____ DATE _____

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(970) 242-7540

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SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019
CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
COVER

SCALE: NTS

NO. C1.00

M:\PROJECTS\13640\001 - Karis Multi-family\Drawings\CDs\Production Drawings\PROD SITE KARIS.dwg, 7/11/2019 1:49:38 PM, DWG To PDF.pc3

GENERAL CONSTRUCTION NOTES

1. Contractor shall contact Mark Barslund, City of Grand Junction Development Inspector and 521 Drainage Authority Representative, 970-201-1362, a minimum of 72 hours in advance of beginning any site work for a pre-construction meeting

2. Locations of existing utilities shown on these plans are approximate only. Contractor is to contact affected utility for specific locations before digging.

3. The Contractor shall notify the engineer if unanticipated conditions area encountered during completion of the work which require modifications to the contract drawings. The engineer can be reached at 970-242-7540.

4. Contractor shall give 48-hour notice to all authorized inspectors, superintendents, or person in charge of public and private utilities affected by his operations prior commencement of work. Contractor shall assure himself that all construction permits are current.

5. Contractor shall confine his construction operations to the right-of-way, easements, and lots, as shown on plans and plat. Any damage to private facilities outside these limits shall be repaired by the Contractor at no expense to the Owner.

6. All road construction, related work, materials, performance and quality of work provided shall conform to the requirements of the City of Grand Junction Standard Specifications and Drawings and the applicable sections of the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standard Plans, Division of Highways M & S Standards.

7. Contractor shall familiarize himself with the geotechnical testing requirements of the City of Grand Junction. The results of the required types of tests and numbers of passing tests shall be furnished to the Engineer for verification before final acceptance by the Owner will be granted. All failing tests shall be brought to the immediate attention of the Engineer and retests shall be performed until passing results are obtained. All utility lines, including service lines falling shall be tested.

8. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for utility trench back fill unless otherwise approved by the Engineer.

9. All utility installations are to be performed in accordance with the City of Grand Junction Standard Specifications for the Construction of Underground Utilities and Standard Details.

10. All sewer lines must be tested and approved PRIOR to street construction. Contractor is required to notify the Owner's representative PRIOR to testing. The Owner's representative must be present to witness testing of water and sewer lines or the City will not approve the installation.

11. In the event of a descrepancy between the construction notes contained herein and the notes and details in the City of Grand Junction Standard Contract Documents for Capital Improvements Construction manual, the City's manual shall control.

12. All work within the City of Grand Junction Right-of-Way shall required a "Work in the Right-of-Way" Permit. All construction work shall be in accordance with the latest edition of the City of Grand Junction Standard Specifications.

13. All concrete in driveways to be 6" minimum, Class VI ABC, unless otherwise noted.

14. All finished grades around the building perimeter shall slope a minimum of 2% away from the building for a minimum of 10-ft.

15. All roof drains that discharge to the finished ground surface shall be provided with splash blocks that extend beyond the building foundation excavation zone.

16. The Contractor shall be required to comply with the requirements and recommendations of Huddleston-Berry Geotechnical report titled Geotechnical and Geologic Investigation Karis Affordable Housing, Project # 01892-0001 dated January 16, 2019, unless otherwise noted.

17. All fill, building, concrete or asphalt pavement areas shall be stripped of a minimum 6-inches of topsoil.

PAVING CONSTRUCTION NOTES

1. All road widths and radii are to flow line unless noted otherwise. Any "spot" design elevations are to flow line of curb and gutter unless otherwise noted.

2. Prior to pavement placement, the pavement prism should be stripped of all unsuitable materials. It is recommended that the subgrade soils be scarified to a depth of 12-inches, moisture conditioned, and recompacted to a minimum of 95% of the standard Proctor maximum dry density, within ±2% of optimum moisture as determined by AASHTO T-99.

3. Contractor to protect existing utilities and appurtenances. Manholes, drainage inlets, utility lines, etc., damaged, covered, or filled with dirt or debris by the Contractor shall be cleaned and repaired at no expense to the Owner.

4. Where proposed pavement is to match existing pavement, existing pavement is to be squared cut, full base thickness is to be brought to match line and existing surface is to be tack-coated before proposed surface is placed.

5. All handicap ramps, sidewalks and curb and gutter are to be constructed where indicated on the plans and in accordance The City of Grand Junction requirements..

6. Curb, gutter, and drainage pans are to have expansion joints at each change in horizontal alignment of curb and gutter, but in no case at a greater distance apart than 100 feet. Locate dummy grooved joints between expansion joints at intervals not exceeding 10 feet. Where length of pour precludes 10 foot intervals, the end sections may be less then 10 feet but not less than 5 feet.

7. PAVEMENT SECTION: "Hot-Mix Asphalt" 4-inch HMA over 7-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade. " Rigid Pavement" 6-inch Portland Cement Concrete w/ #4 bars @ 16" cntrs., E.W. over 6-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade.

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

WATER LINE CONSTRUCTION

1. All water line construction shall be constructed in accordance with the Ute Water District Standards and Specifications.

2. Contractor shall notify the Ute Water Conservancy 48 hours prior to the beginning of construction.

3. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined by AASHTO T-99. Contractor shall be required to perform all necessary compaction tests through a certified soils lab.

4. Minimum cover required over top of new waterlines is 4'-6".

5. All water mains to be DR-18 PVC, Class 150 conforming to AWWA C-900.

6. Ductile Iron fittings to conform to AWWA C-110.

7. Fire Hydrants shall conform to AWWA C-502, Mueller Super Centurian or Kennedy Guardian.

8. All materials labor and equipment required for testing and disinfection of water lines shall be furnished by Contractor. Disinfection of water lines shall conform to AWWA C-651-86 or latest revision thereof. No separate pay.

9. All pipe bends/angle points, both horizontal and vertical, as called for on the plans are to be thrust blocked per Ute Water Conservancy District details and Technical Specifications.

10. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for water line trench backfill unless otherwise approved by the Engineer.

11. All Ute Water Mains are to be bedded per City of Grand Junction Standards.

12. All customer water service lines 2" or less shall be 200 psi rated "Pure Core" Blue HDPE, or approved equal.

STORM SEWER CONSTRUCTION NOTES

1. All storm sewer line construction shall be in accordance with the City of Grand Junction Standards and Specifications.

2. All Reinforced Concrete storm sewer pipe shall conform to ASTM Standard Specifications, C-76, Class III unless otherwise noted.

3. All polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM Standard Specifications, D3034 and F679, SDR-35 unless otherwise noted.

4. All High Density Polyethylene (HDPE) pipe and fittings shall be smooth bore and shall conform to the following:
12 inch to 36 inch shall meet ASSHTO M294
42 inch to 48 inch shall meet ASSHTO MP6
All HDPE pipe up to 30" shall be backfilled to springline with Class-6.

FUGITIVE DUST CONTROL PLAN

1. Before stripping of the site preparation for overlot grading, the surface is to be pre-wet to control dust.

2. Any stockpiles of stripping materials are to be periodically sprayed with water or a crusting agent to stabilize potentially wind blown material.

3. Haul road both into and around the site are to be sprayed as needed to suppress dust.

4. The Storm Water Management Plan and permit shall be obtained and kept onsite before starting any construction work. Gravel pads are to be constructed at the entrances to the site to help in removing mud from the wheels of haulage trucks before they enter onto City streets.

5. Trucks hauling import fill are to be tarped to aid in the control of airborne dust.

LEGEND

PROPERTY LINE	PROPOSED INLINE DRAIN
ADJACENT PROPERTY LINE	EXISTING 8" WATER MAIN
EXISTING EASEMENT	PROPOSED 2" DOMESTIC SERVICE
PROPOSED EASEMENT	PROPOSED 4" FIRE LINE
EXISTING BUILDING	EXISTING FIRE HYDRANT
PROPOSED BUILDING	PROPOSED FIRE HYDRANT
EXISTING CURB/GUTTER	EXISTING WATER METER
PROPOSED CURB/GUTTER	PROPOSED WATER METER
PROPOSED SPILL CURB/GUTTER	PROPOSED METER/BACKFLOW VAULT
PROPOSED TRANSITION CURB/GUTTER	PROPOSED IRRIGATION MANHOLE
EXISTING RETAINING WALL	PROPOSED FENCE
EXISTING 1-FT CONTOUR	EXISTING FENCE
EXISTING 5-FT CONTOUR	PROPOSED TRAFFIC FLOW
PROPOSED 1-FT CONTOUR	GRADE BREAK
PROPOSED 5-FT CONTOUR	ROOF DRAIN (RD)
EXISTING ASPHALT	STREET LIGHT POLE
PROPOSED ASPHALT	FIRE DEPARTMENT CONNETION
PROPOSED HEAVY DUTY ASPHALT	PARKING LOT LIGHT
EXISTING CONCRETE	PROPOSED BUILDING LIGHT
PROPOSED CONCRETE	POWER POLE
PROPOSED HEAVY DUTY CONCRETE	FL FLOWLINE
EXISTING SANITARY SEWER	EOP EDGE OF PAVEMENT
PROPOSED SANITARY SEWER	TOC TOP OF CONCRETE
EXISTING SANITARY SEWER MANHOLE	TOW TOP OF WALL
PROPOSED SANITARY SEWER MANHOLE	BOW BOTTOM OF WALL
PROPOSED SANITARY SEWER CLEANOUT	TBW TOP BACK OF WALK
EXISTING STORM SEWER	TC TOP OF CURB
PROPOSED STORM SEWER	BOC BACK OF CURB
EXISTING STORM SEWER INLET	LS LANDSCAPE AREA
PROPOSED STORM SEWER INLET	UTILITY PEDESTALS
EXISTING STORM SEWER MANHOLE	
PROPOSED STORM SEWER MANHOLE	

SANITARY SEWER CONSTRUCTION NOTES

1. All materials and workmanship shall comply to the Standards and Specifications of the City of Grand Junction. The City of Grand Junction reserves the right to accept or reject any materials and or workmanship that does not conform.

2. The Contractor shall have one signed copy of plans and a copy of the City of Grand Junction Standards and Specifications at the job site at all times.

3. All sanitary sewer pipe shall be PVC SDR-35 (ASTM 3034) unless otherwise specified.

4. All sewer lines to be laid to grade utilizing a "pipe laser".

5. All connections to the new sewer lines shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed, except as noted.

6. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined AASHTO T-99.

7. A minimum of 10 ft. of separation shall be maintained at all times between the waterline and sewer line except at specified crossings.

8. The contractor is responsible for all required sewer line testing to be completed in accordance with the City of Grand Junction Standards and Specifications. Final testing to be accomplished only after all other infrastructure has been installed. This includes waterlines, gas lines, electric lines, etc. Testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will also be accomplished after paving is completed to insure that the line is clean. These tests will be the basis for issuing the initial acceptance of the seer line extension.

9. Manholes shall be constructed as shown on the City of Grand Junction Standard Sanitary Sewer Detail sheets SS-02 of SS-03 as appropriate.

10. Water stop gaskets and clamp assemblies are to be furnished and installed at all connections to manholes. No separate pay.

11. Metal grade rings are NOT to be used on tip of manhole rings to adjust to finish pavement elevations. All adjustments to finish grade on new manholes shall be made using concrete grade rings and grout as shown on the standard details.

12. Where sanitary sewers cross under a water line with less than 18 inches of vertical separation, and in all cases where the sanitary sewer crosses over the waterline at any depth, provide total concrete encasement of pipe for a length of 10 feet to either side of the waterline.

13. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for sewer line trench backfill unless otherwise approved by the Engineer.

14. To inhibit the movement of ground water through sewer bedding and haunching material, clay cutoff wall of native material are to be constructed approximately 10 feet upstream from each manhole and shown on sanitary sewer plan and profiles.

15. Notify the City of Grand Junction 48 hours prior to the construction of the sanitary sewer facilities.

16. The contractor shall obtain a City of Grand Junction Street Cut Permit for all work within existing City right-of-way prior to construction.

UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	*RANDI KIM*	*244-1429*
UTE WATER	*JIM DAUGHERTY*	*242-7491*
GRAND VALLEY IRRIGATION	*PHIL BERTRAND*	*242-2762*
CITY OF GRAND JUNCTION PUBLIC WORKS	*TRENT PRALL*	*256-4047*
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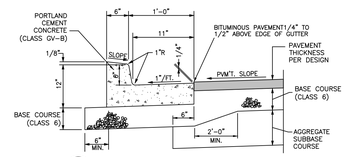
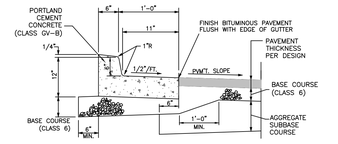
XCEL ENERGY	*BRENDA BOES*	*244-2681*
CENTURY LINK	*CHRIS JOHNSON*	*244-4333*
CHARTER	*JOHN VALDEZ*	*245-8750*

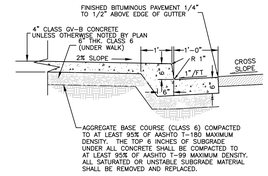
TYPICAL CONCRETE SECTIONS



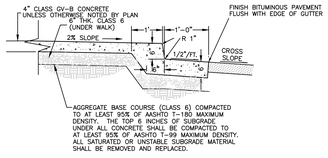
A *STANDARD 1'-6" CURB AND GUTTER*
NOT TO SCALE



B *1'-6" SPILL CURB AND GUTTER*
NOT TO SCALE



C *CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE



D *SPILL CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE

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(970) 242-7540

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SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
GENERAL CONSTRUCTION NOTES

SCALE: NTS

NO. C2.00

ACCEPTANCE BLOCK
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CITY DEVELOPMENT ENGINEER DATE

M:\PROJECTS\1360\0001 - Karis Multi-family\Drawings\CDR\Production Drawings\PROD-SITE KARIS.dwg, 7/5/2019 3:10:46 PM, DWG To PDF.pc3

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
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CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12th STREET

N

0 20 40 60

FOUND No.5 REBAR IN CONCRETE DISTURBED (NOT HELD) REPLACED WITH No. 5 REBAR AND 2" ALUMINUM CAP PLS 37904

SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

BASIS OF BEARING
NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

OWNER: H.O.A
NORTHWOODS CONDOMINIUMS
RECEPTION No. 1944089

N89° 52' 33"E 488.00'

218.00'

7' EASEMENT

EX. IRRIGATION

POINT OF BEGINNING PARCEL 2
FOUND MCSM No. 113-2
EAST ¼ CORNER SECTION 2 T1S R1W
UTE-FOUND 3.25" ALUMINUM CAP IN RANGE BOX 0.5 BELOW ASPHALT SURFACE.
PROJECT BENCHMARK
EL.4692.86 [NAVD88]

40.00'

IRR CONTROL BOX

IRR CONTROL BOXES

IRR PUMP

ELEC TRANS

10' BY 20' UTILITY EASEMENT

15' ST

REMOVE AND RELOCATE OF TREES

20' SEWER EASEMENT

GRAVEL PARKING

UNTIY CHURCH

FF=4594.11

240.00'

N0° 04' 43"W

10' DEEDED ROW

30' DEEDED ROW

SIGN

PROTECT LIGHT

FF=4584.90

REMOVE AND DISPOSE OF ±22 SY CONCRETE DRIVE, CURB & GUTTER

REMOVE AND RELOCATE PER CHURCH OWNER

SHED

LIFT STATION

CONCRETE CURB

REMOVE AND DISPOSE OF ±68 LF CURB & GUTTER

12TH STREET

S0° 04' 43"W 1318.41'

REMOVE AND DISPOSE OF ±51 SY CONCRETE

S89° 52' 33"W 10.00'

40.00'

FIELD VERIFY VERTICAL LOCATION LOCATE OF SANITARY SEWER SERVICE LINE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER

GRAVEL PARKING

REMOVE AND RELOCATE OF TREES

REMOVE AND RELOCATE OF TREES

50' STORM INLET
RIM=4686.33
INV=4677.03

STORM OVERFLOW INLET
RIM=4686.38
INV IN(E)=4676.88
INV OUT(SW)=4676.78

90.00'

S0° 04' 43"W

OWNER: HASKINS LIVING TRUST

REMOVE AND DISPOSE OF ±32 LF RETAINING WALL

10' PUBLIC SERVICE EASEMENT

SANITARY SEWER MH
RIM=4694.04
INV IN(N)=4684.14
INV OUT(S)=4683.94

RETAINING WALLS

FENCE DEMO

S89° 52' 33"W 478.00'

50.00'

POINT OF COMMENCEMENT PARCEL 1

EAST LINE OF THE NE¼ SE¼ SECTION 2

FOUND No.5 REBAR
2.00' WITNESS CORNER
PLACED 2" ALUMINUM CAP PLS 37904

LAKESIDE DRIVE

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER DATE

shoPworks architecture
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(970) 242-7540

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SCALE VERIFICATION
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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS

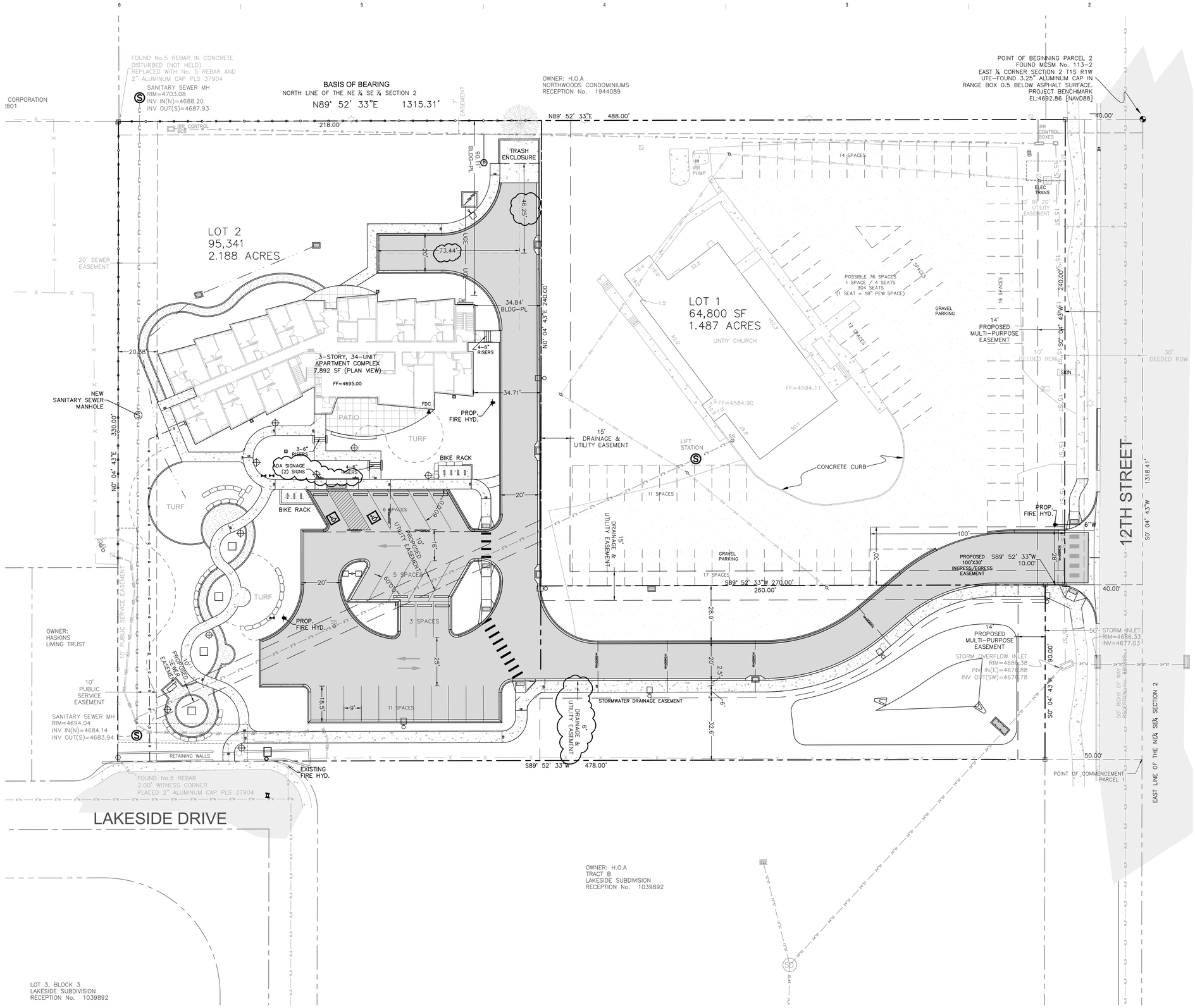
DATE: 3/21/19

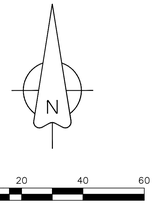
PROJECT #: 18007
FILE:
SHEET TITLE:
DEMOLITION PLAN

SCALE: 1"=20'

NO. C3.00

M:\PROJECTS\18000\001 - Karis Multi-Family\Drawings\CDS\Production Drawings\PROD-SITE 6ARS.dwg, 7/9/2019 11:09 PM, DWG To PDF.pc3





GENERAL NOTES:

1. ALL PARKING SPACES ARE 9-FT WIDE X 18.5-FT LONG UNLESS NOTED AS 60° PARKING WHICH ARE PER TEDS.
2. ALL SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
3. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET.
4. FOURTEEN (14) BICYCLE PARKING SPACES ARE PROVIDED ON SITE THAT ARE ACCOMPLISHED BY SEVEN (7) BICYCLE RACKS.

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
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- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

LAND USE SUMMARY		
USE	SQUARE FT	PERCENT
BUILDING	7,892	8.3%
LANDSCAPE	55,109	57.8%
ASPHALT/PKG/CONC	32,340	33.9%
TOTAL	95,341	100%

PARKING SUMMARY
*7,892 SF Multi-Family = 25
Total Parking Required = 25 Spaces
Total Parking Provided On Site = 25 Spaces
*Project is utilizing an affordable housing parking reduction

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

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CITY DEVELOPMENT ENGINEER DATE

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KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019
CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
SITE PLAN

SCALE: 1"=20'

NO. C4.00

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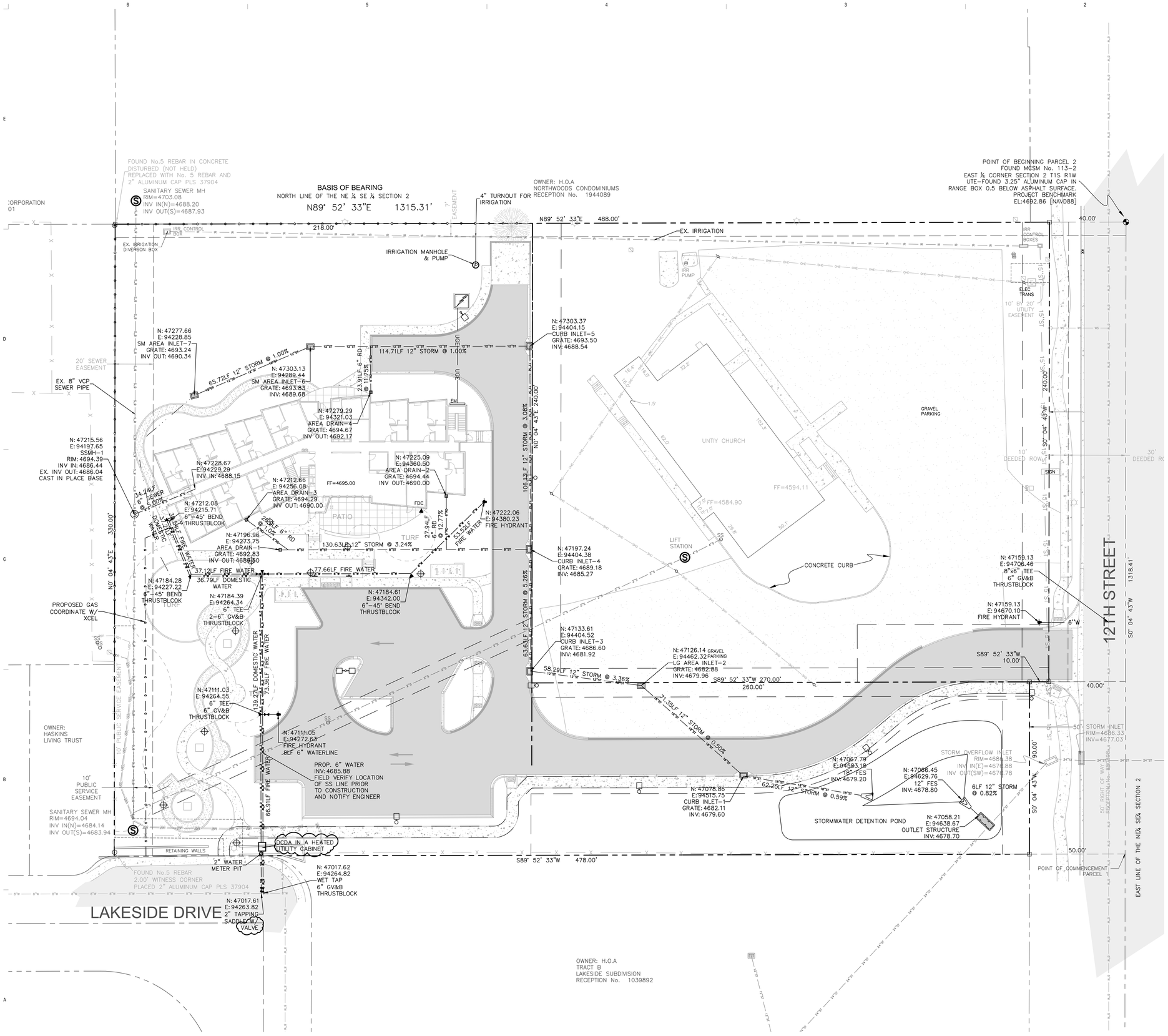
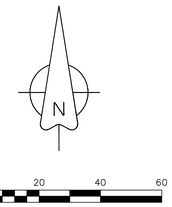
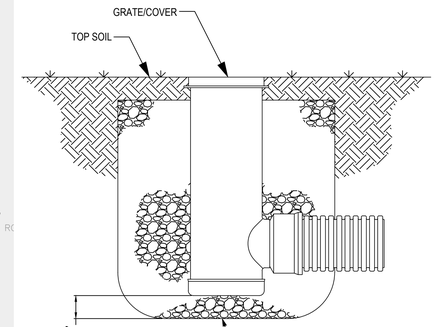




NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET
2. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

DRAIN BASIN



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XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

UTE WATER DISTRICT

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY:_____ DATE:_____

ACCEPTED AS CONSTRUCTED

BY:_____ DATE:_____

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER DATE

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3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019
CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE:
UTILITY COMPOSITE PLAN
SCALE: 1"=20'

NO. C5.00

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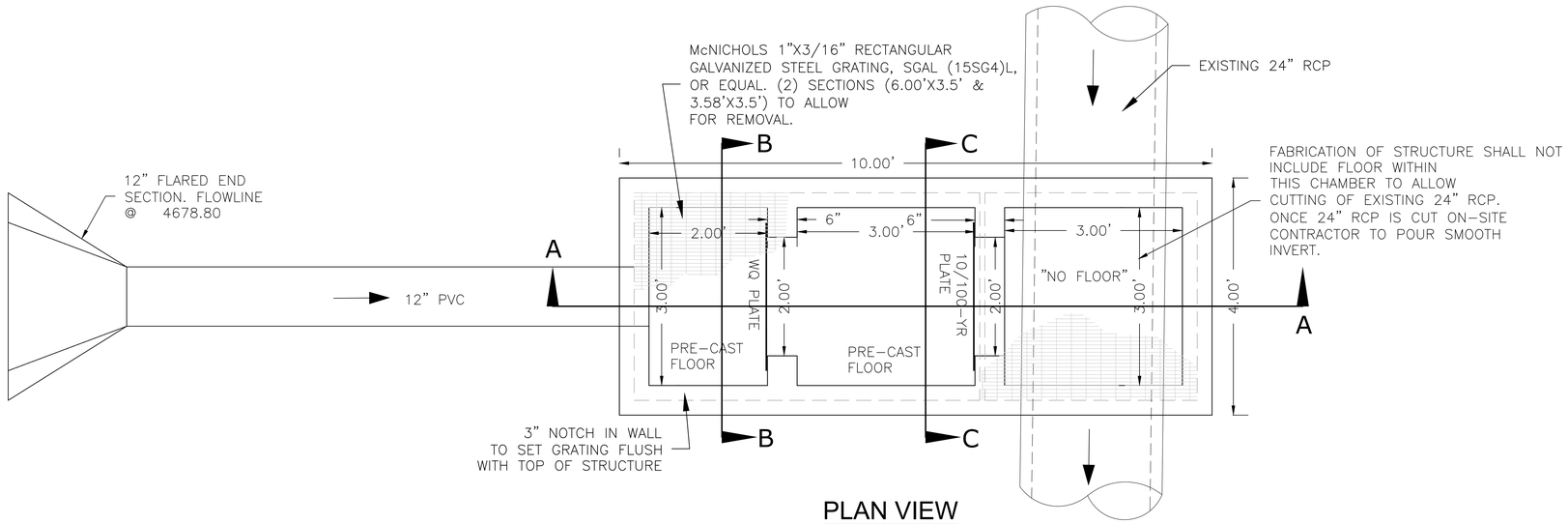
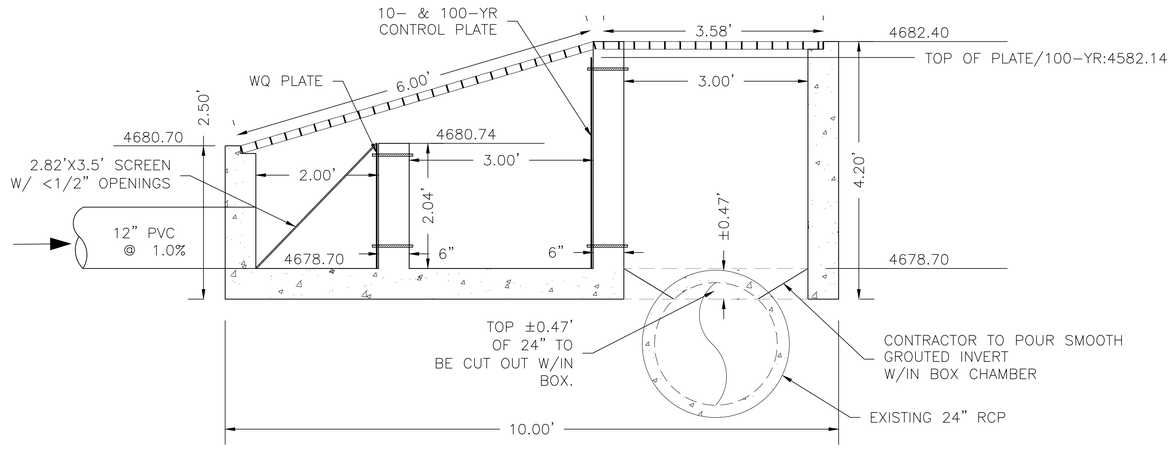
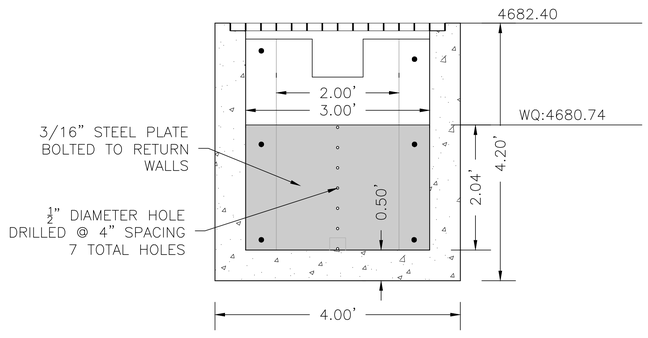


PLAN VIEW

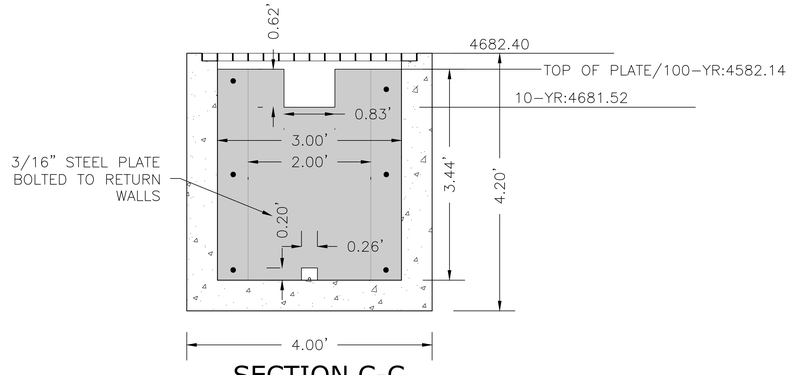


SECTION A-A



SECTION B-B

WQ PLATE



SECTION C-C

10- & 100-YR PLATE

OUTLET STRUCTURE

NTS

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE: OUTLET STRUCTURE

SCALE: NTS

NO. C6.00

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER _____ DATE _____

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SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

RECEPTION No.

7' EASEMENT

N89° 52' 33"

218.00'

IRR CONTROL BOX

EX. IRRIGATION DIVERSON BOX

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

TRASH ENCLOSURE

3-STORY, 34-UNIT APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

PATIO

TURF

FDC

PROP. FIRE HYD.

BIKE RACK

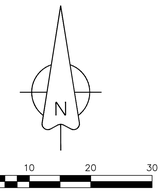
GRADEBREAK

NEW SANITARY SEWER MANHOLE

N0° 04' 43"E 330.00'

N0° 04' 43"E 240.00'

PUBLIC SERVICE EASEMENT



LEGEND

- PROPERTY LINE
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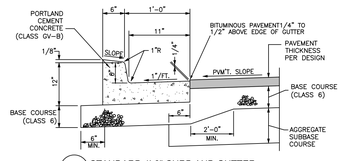
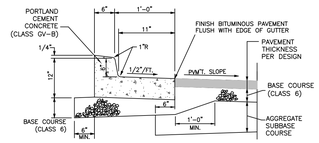
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

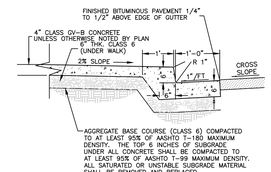
TYPICAL CONCRETE SECTIONS



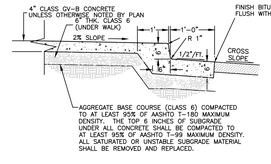
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
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ACCEPTANCE BLOCK
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3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.00

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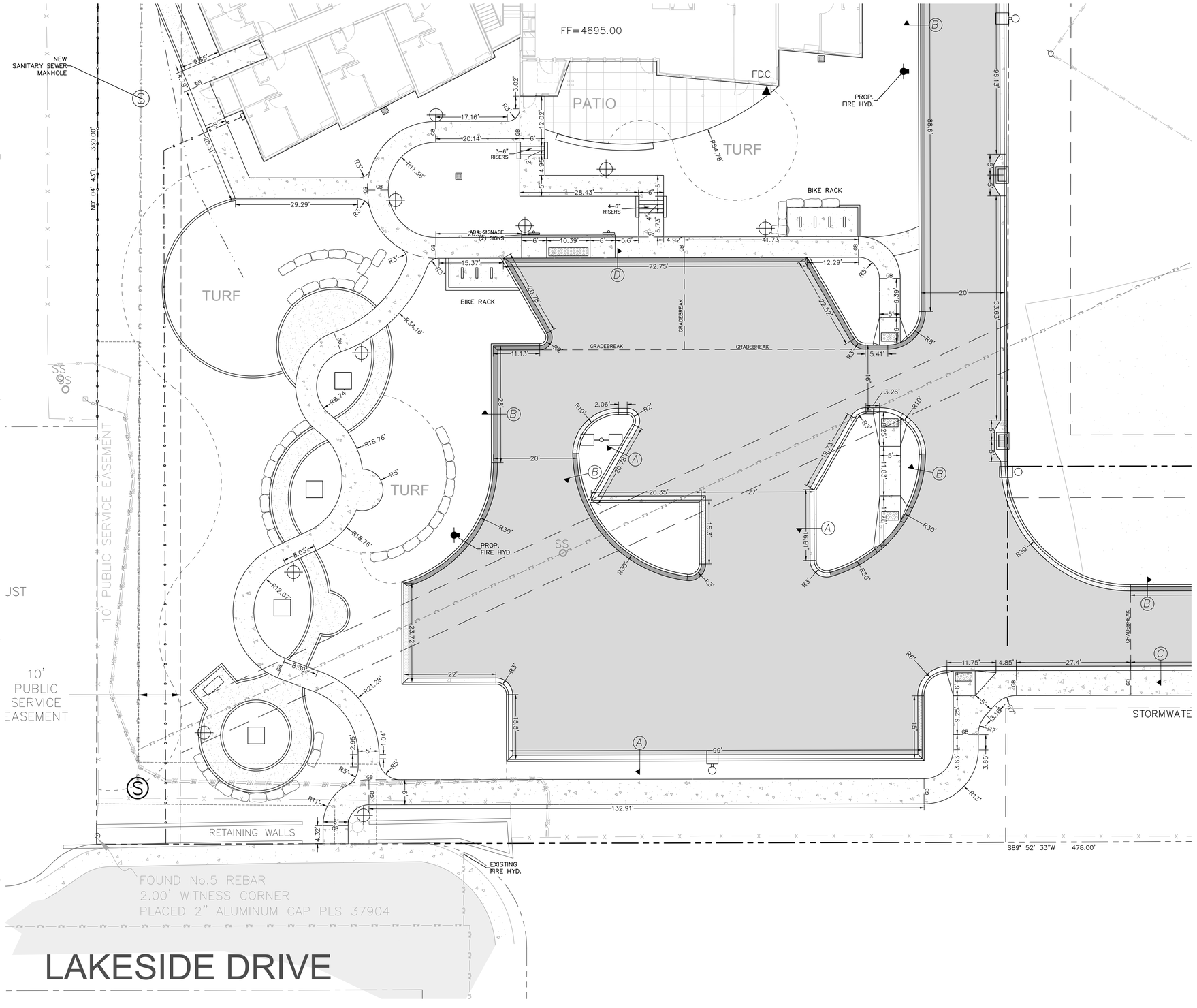

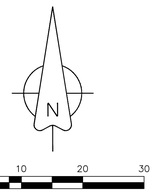

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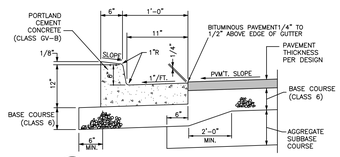
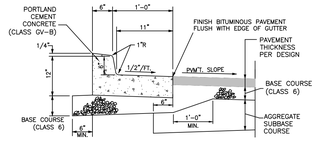
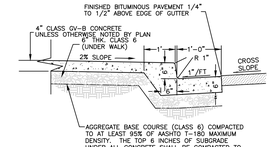


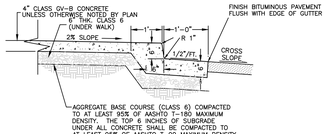
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.10

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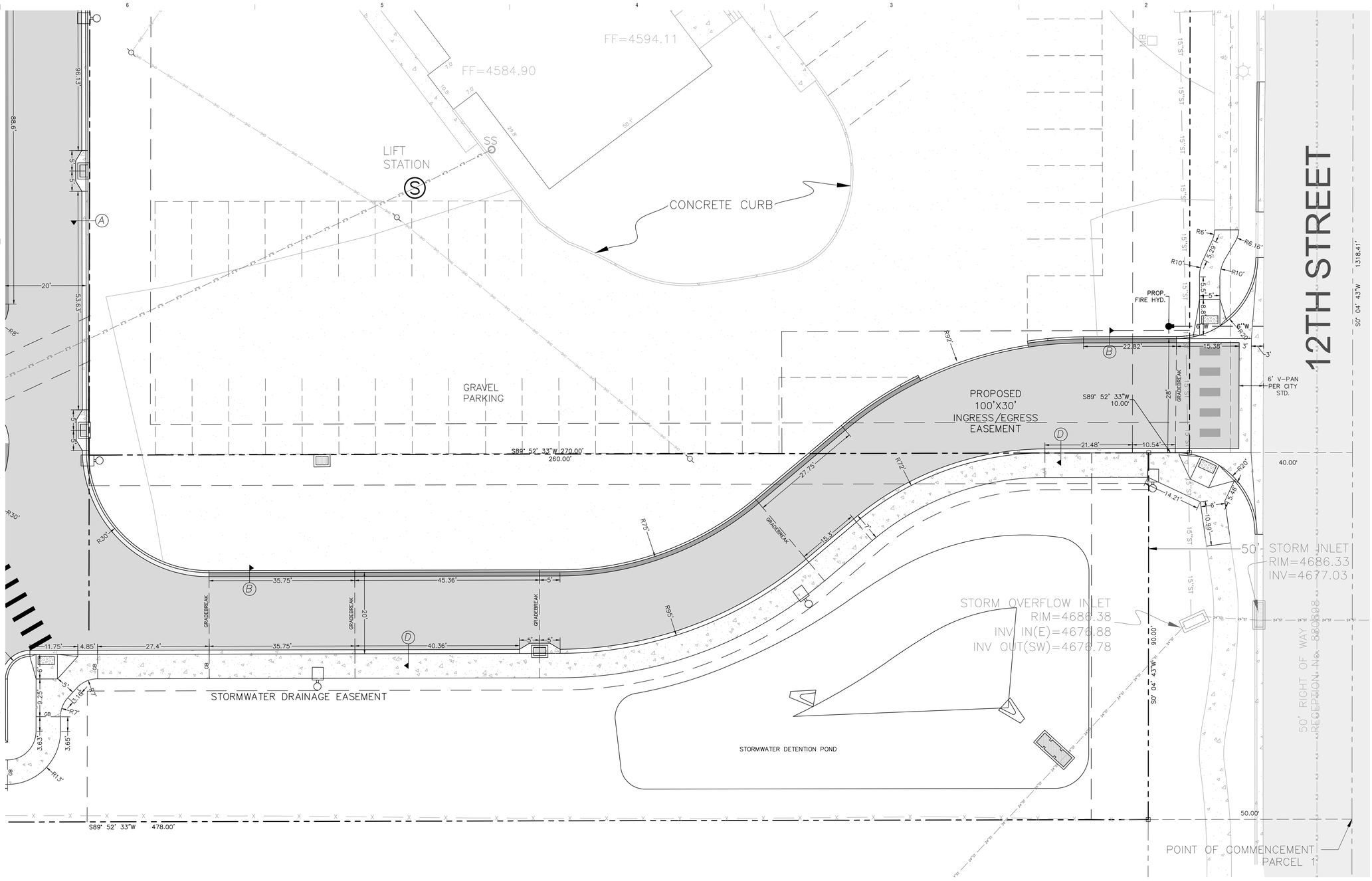
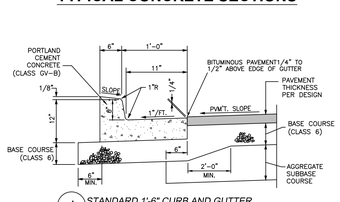


LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- S — PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- ST — PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- x — PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GB — GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL — FLOWLINE
- EOP — EDGE OF PAVEMENT
- TOC — TOP OF CONCRETE
- TOW — TOP OF WALL
- BOW — BOTTOM OF WALL
- TBW — TOP BACK OF WALK
- TC — TOP OF CURB
- BOC — BACK OF CURB
- LS — LANDSCAPE AREA
- UTILITY PEDESTALS

TYPICAL CONCRETE SECTIONS



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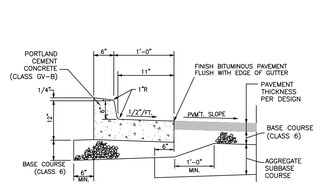

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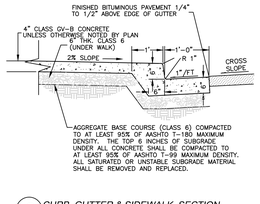
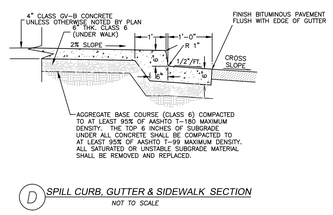


C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
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3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.20

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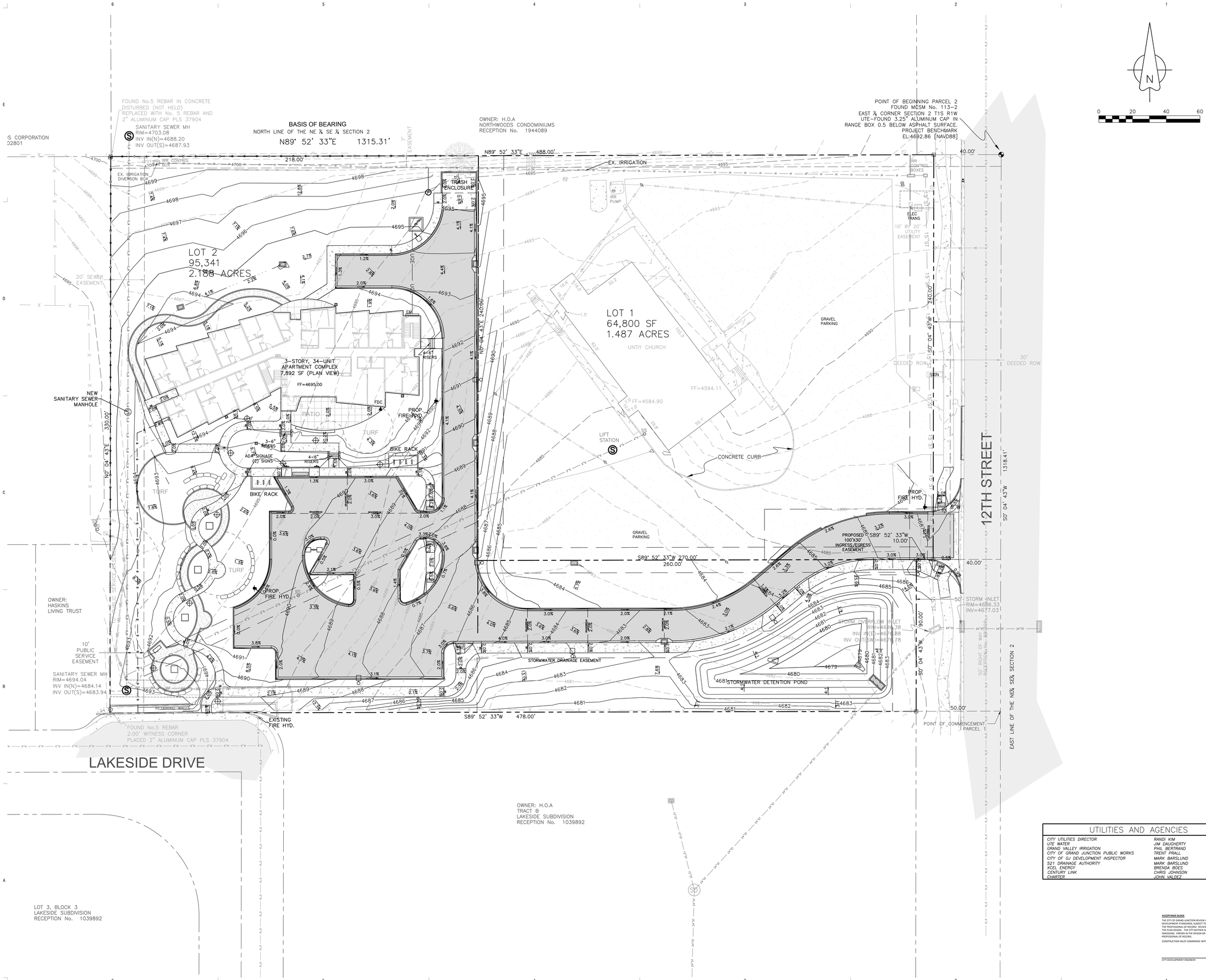

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GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

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Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
OVERALL GRADING PLAN

SCALE: 1"=20'

NO. C8.00

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SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

7' EASEMENT

RECEPTION No.

N89° 52' 33"E

218.00'

IRR CONTROL BOX

EX. IRRIGATION DIVERSON BOX

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

3-STORY, 34-UNIT
APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

TRASH ENCLOSURE

PATIO

TURF

BIKE RACK

FDC

PROP. FIRE HYD.

EM

4-6" RISERS

GRADEBREAK

ADA SIGNAGE (2) SIGNS

NEW SANITARY SEWER MANHOLE

N0° 04' 43"E 330.00'

N0° 04' 43"E 240.00'

PUBLIC SERVICE EASEMENT

UTILITIES AND AGENCIES		
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CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8250

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Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:

GRADING AND DRAINAGE PLAN

SCALE: 1"=10'

NO. C8.10

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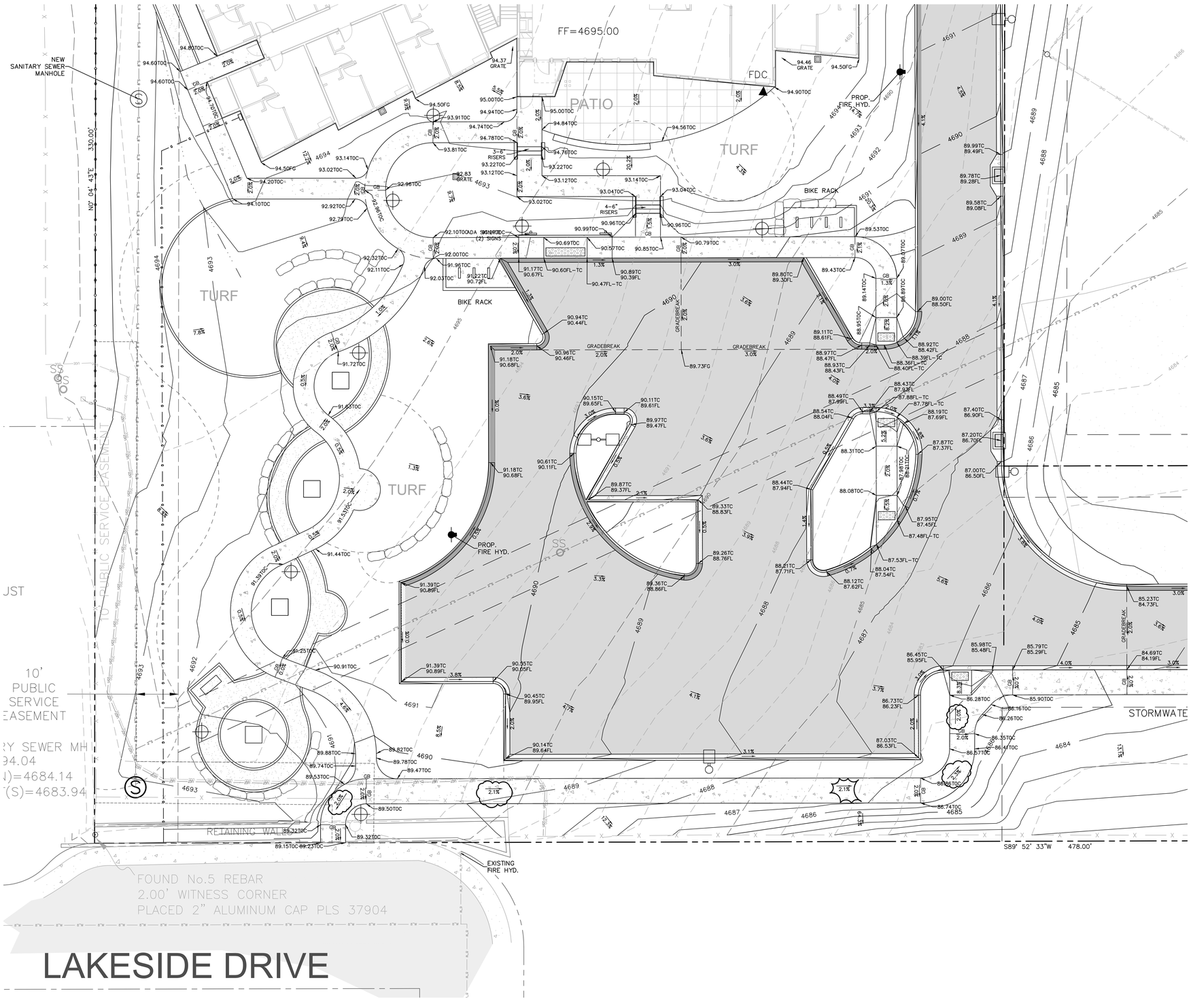

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CITY DEVELOPMENT ENGINEER DATE

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3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:

GRADING AND DRAINAGE PLAN

1"=10'

NO. C8.20

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:	CITY COMMENTS RD1	6/7/2019

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE:
GRADING AND DRAINAGE PLAN
1"=10'

NO. C8.30

CITY DEVELOPMENT ENGINEER DATE

ASSISTANCE RISES
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2882 WAZNDOT ST. • DENVER, CO 80211 • 303.433.4094

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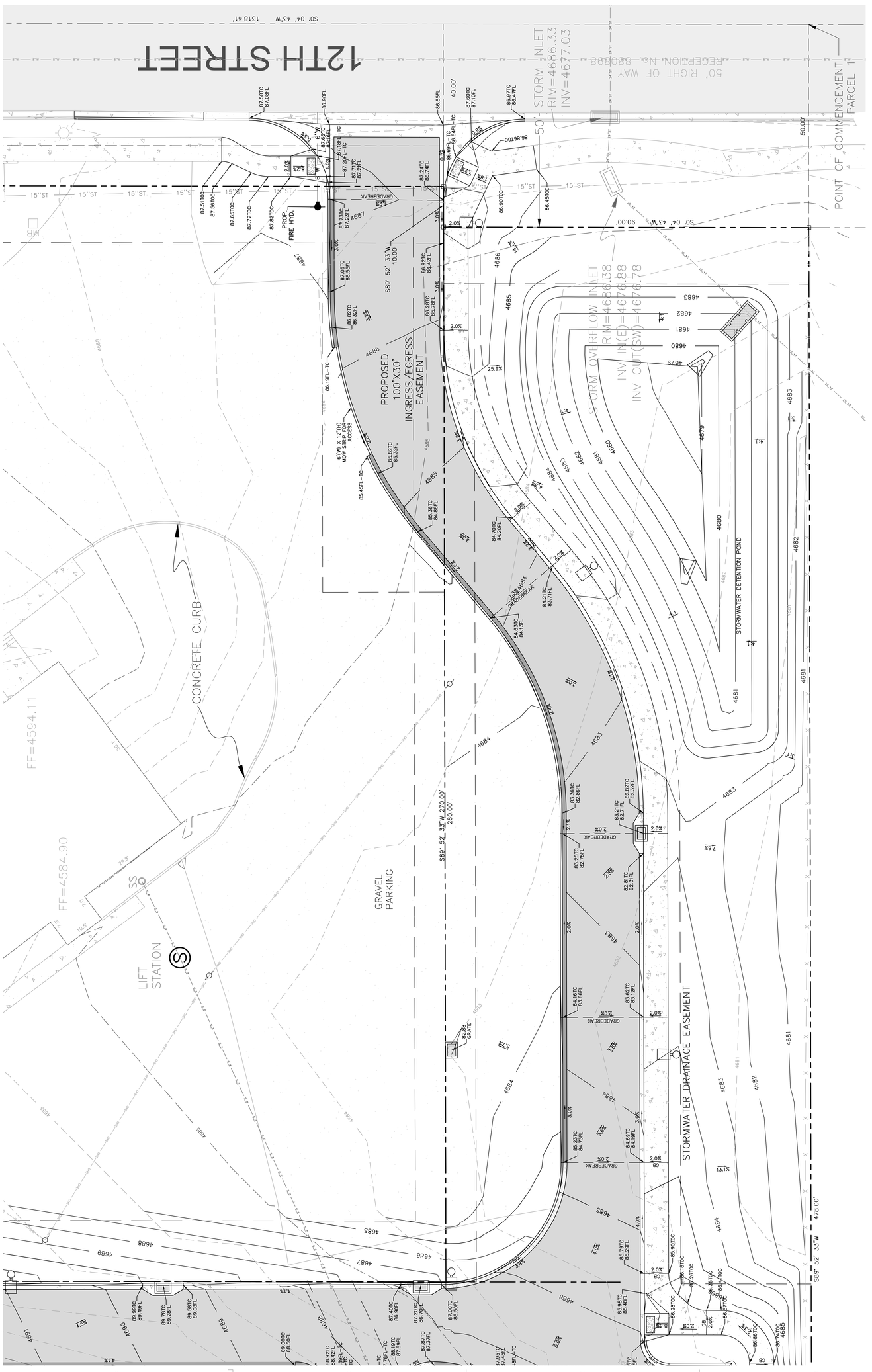
GRAND VALLEY IRRIGATION	PAUL REHBEIN	242-7337
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1562
GJ DRAINAGE AUTHORITY	LANCE GILLILAND	241-8707
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JODI JAMES	245-9252



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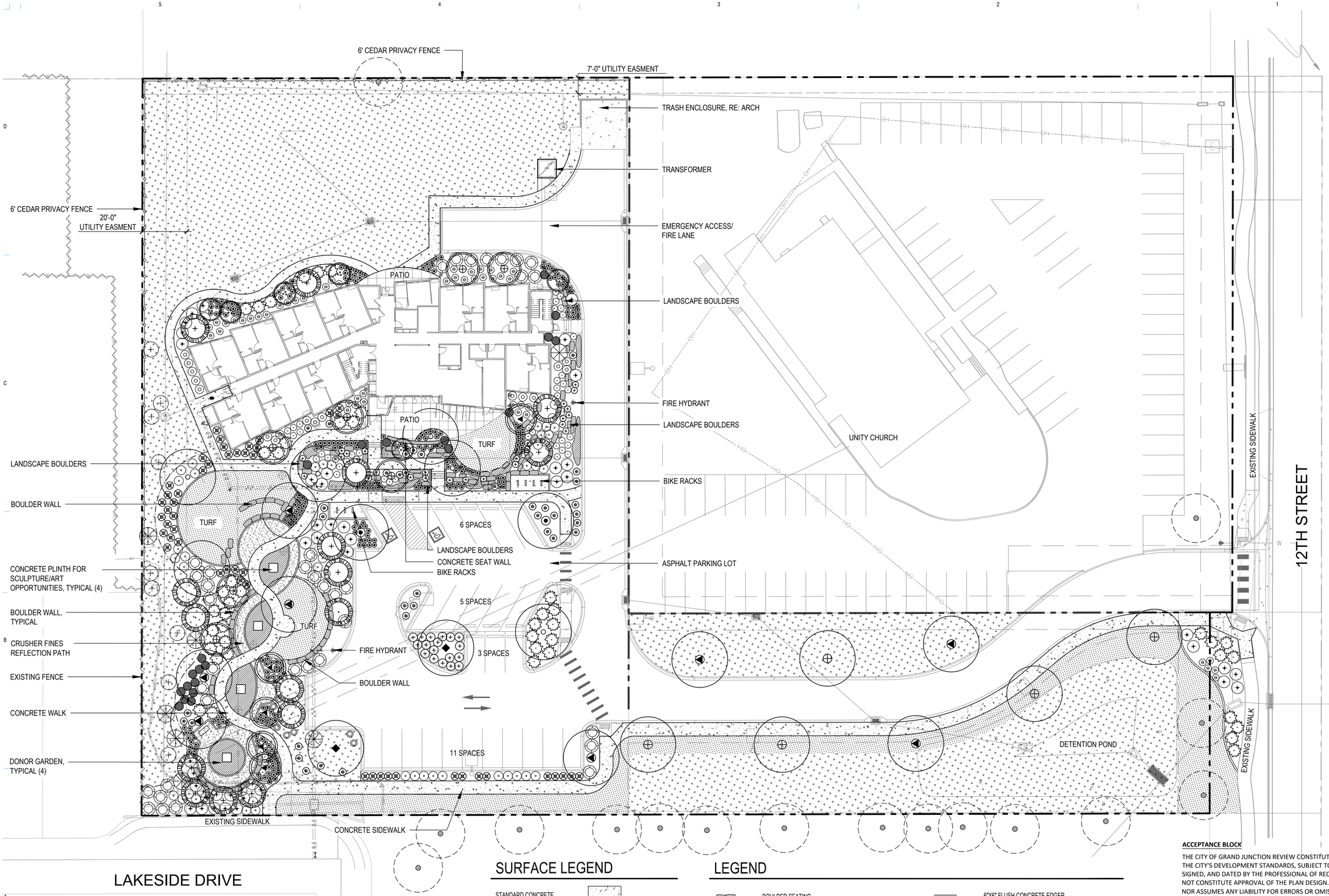

SURFACE LEGEND

- STANDARD CONCRETE
- CRUSHER FINES
- TURF
- NATIVE GRASS
- PERENNIALS

LEGEND

- BOULDER SEATING
- EXISTING PRIVACY FENCE TO REMAIN
- 6' PRIVACY FENCING
- BOULDER WALL
- CONCRETE SEAT WALL W/ STONE CAP
- BICYCLE PARKING
- 6"X6" FLUSH CONCRETE EDGER
- LIGHTING FIXTURES
- EXISTING TREE TO REMAIN

0 10 20 40 80
SCALE: 1"=20'-0"

NORTH

shoPworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
301 West 45th Avenue
Denver, CO 80216
303.406.1075

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

ACCEPTANCE BLOCK

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CITY PLANNER _____ DATE _____

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
6/06/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape
Site Plan

SCALE:

NO. LS101

LANDSCAPE PLANTING SCHEDULE

EVERGREEN TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
PIN	5	Piñon Pine	Pinus edulis	6' Height	Very Low
AUS	11	Austrian Pine	Pinus nigra	8' Height	Very Low

DECIDUOUS TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
OAK	8	Chinkapin Oak	Quercus muehlenbergii	2.5" Caliper	Low
HKB	2	Common Hackberry	Celtis occidentalis	2.5" Caliper	Very Low
SHA	6	Shademaster Honeylocust	Gleditsia triacanthos inermis	2.5" Caliper	Very Low
BOX	2	Sensation Boxelder	Acer n egundo 'Sensation'	2.5" Caliper	Low
LPT	5	London Planetree	Platanus x acerifolia	2.5" Caliper	Low
	20	Species to be Determined	Species to be Determined	2" Caliper	

ORNAMENTAL & SMALL TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
ABS	6	Autumn Brilliance Serviceberry	Amelanchier x grandiflora	6'-8' Clump	Moderate
WKH	7	Winter King Hawthorn	Crataegus viridis 'Winter King'	2" Caliper	Low
RBC	5	Eastern Redbud	Cercis canadensis	6'-8' Clump	Low

DECIDUOUS SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
RLC	46	Red Lake Currant	Ribes sativum 'Red Lake'	5 Gal. Cont.	Low
AAS	45	Autumn Amber Sumac	Rhus trilobata 'Autumn Amber'	5 Gal. Cont.	Low
RSA	44	Russian Sage	Perovskia artiplicifolia	5 Gal. Cont.	low
DRB	45	Dwarf Rabbitbrush	Chrysothamnus nauseosus var.	5 Gal. Cont.	Very Low
LEA	17	Leadplant	Amorpha canescens	5 Gal. Cont.	Very Low
RAB	9	Rabbitbrush	Chrysothamnus nauseosus	5 Gal. Cont.	Very Low
PBS	36	Pawnee Buttes Sandcherry	Prunus besseyi 'Pawnee Buttes'	5 Gal. Cont.	Low
PAN	44	Panchito Manzanita	Arctostaphylos x coloradoensis	5 Gal. Cont.	Low
RLR	7	Red Leaf Rose	Rosa glauca	5 Gal. Cont.	Low

EVERGREEN SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
BCJ	45	Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	5 Gal. Cont.	Low

ORNAMENTAL GRASSES/PERENNIALS / GROUNDCOVERS

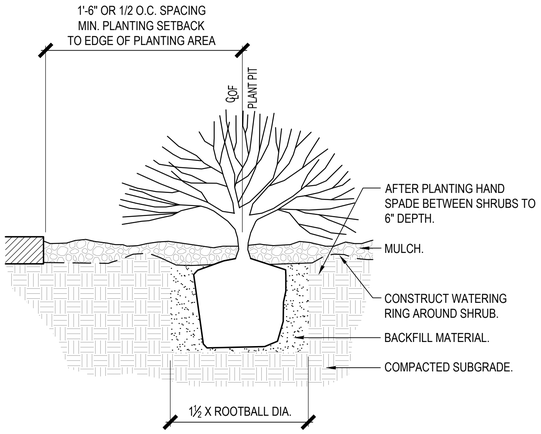
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
YUC	36	Soapweed Yucca	Yucca glauca	1 Gal. Cont.	Low
FRG	50	Feather Reed Grass	Calamagrostis acutiflora 'Avalanche'	1 Gal. Cont.	Low
DMG	21	Dwarf Maiden Grass	Miscanthus sinensis 'Yaku Jima'	1 Gal. Cont.	Low
BGG	284	Blue Gramma Grass	Bouteloua gracilis	1 Gal. Cont.	Low
AST	150	Assorted Perennials & Groundcovers		1 Gal. Cont.	Low

Site Landscape Requirements: 2.19 Acre Lot

Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 Tree/2,500 SF		0	39	57
			Shrubs Required	Shrubs Provided
1 Shrub/300 SF			318	318

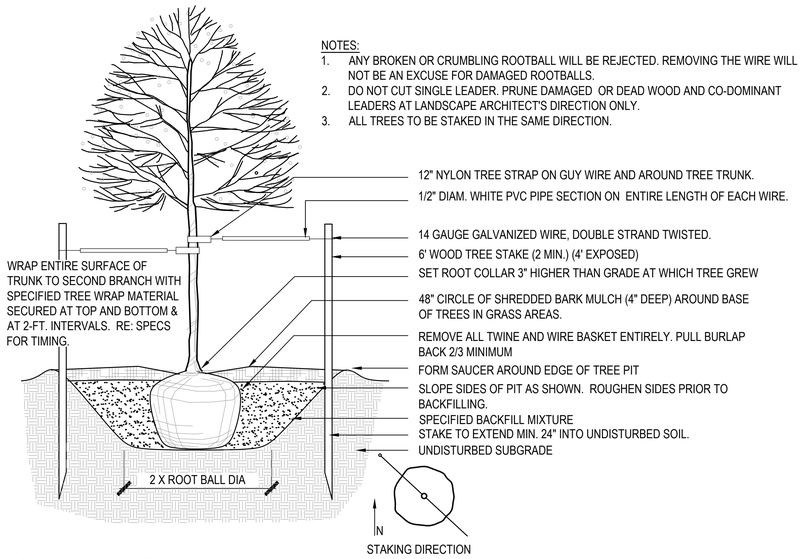
Street Frontage Landscape Requirements

Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 tree/40' Street Frontage	90' Street Frontage (N. 112th)	2	3	1
		Shrubs Existing	Shrubs Required	Shrubs Provided
		0	n/a	22



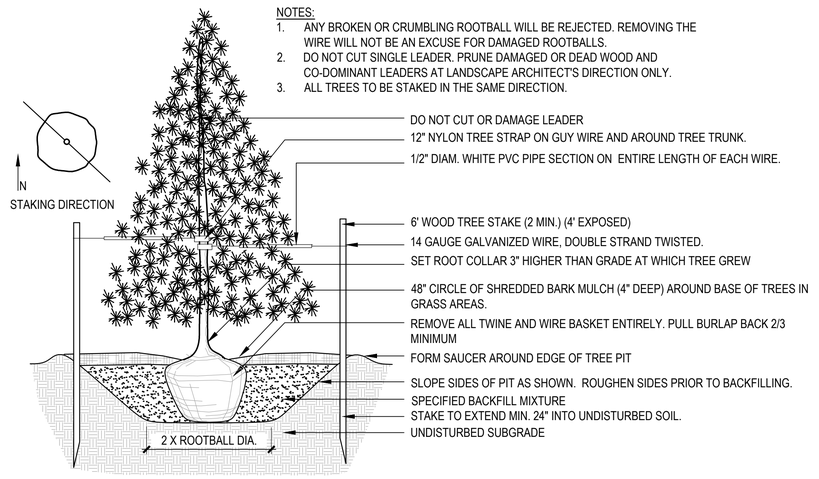
1 SHRUB PLANTING

SCALE: NTS shrb.dwg



2 DECIDUOUS TREE PLANTING

SCALE: NTS



3 EVERGREEN TREE PLANTING

SCALE: NTS

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER _____ DATE _____

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
6/06/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape Schedules & Details

SCALE:

NO. LS102

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

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301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
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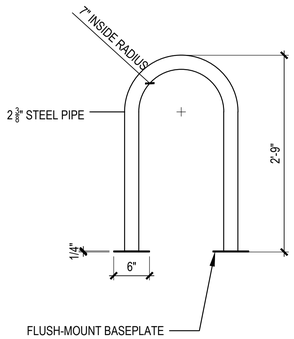
Denver, CO 80216
303.406.1075



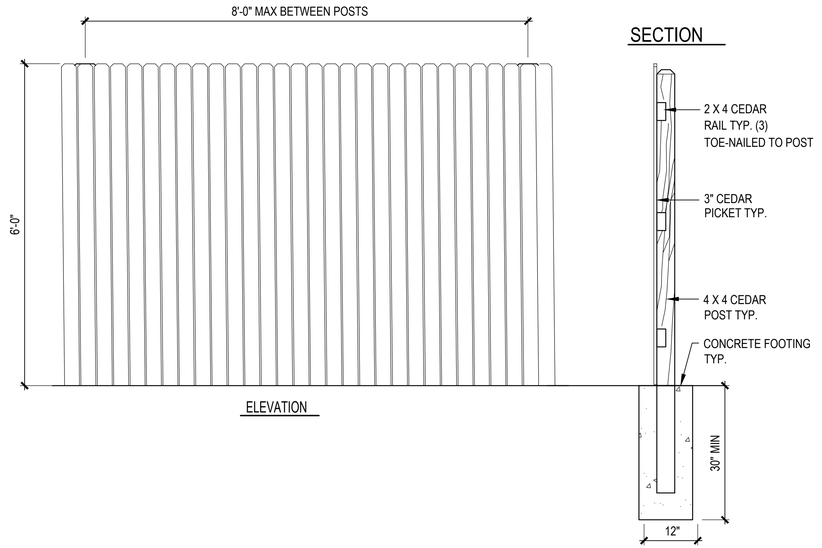
ELEVATION

NOTES:
DIMENSIONS:
1. HEIGHT - 33" FROM THE GROUND
2. CONTINUOUS BEND INSIDE RADIUS = 7"

MATERIALS AND CONSTRUCTION:
1. 2 3/8" SCHEDULE 40 STEEL PIPE
2. SOLID ONE-PIECE CONSTRUCTION; CONTINUOUS BEND; LEGS 14"-18" APART
3. FINISH TO BE DETERMINED BY OWNER
4. FLUSH MOUNTED WITH WELDED BASE PLATES. HIDDEN OR VANDAL RESISTANT FASTENERS (SCREWS OR EXPANSION BOLTS) PAINT TO MATCH BIKE RACK FINISH

1 BIKE RACK

SCALE: 1"=0"



2 6' PRIVACY FENCE

SCALE: 3/4"=1'-0"

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CITY PLANNER _____ DATE _____

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
6/06/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CH/JH
PROJECT #: 18007

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

SHEET TITLE:
Landscape
Site Plan

SCALE:

NO. LS103

2 N. ELEV

1/8" = 1'-0"

FLAGNOTES PER SHEET

5.23 SCREEN FOR ROOFTOP MECHANICAL EQUIP. - PREFINISHED DECKING ON TUBE STEEL STRUCTURE

7.07 PREFINISHED SHEETMETAL GUTTER WITH CONTINUOUS CLEAT, TO DOWNSPOUT & SPLASHBLOCK

7.33 PREFINISHED, CONTINUOUS METAL PARAPET WALL CAP, COUNTER FLASHING AND CLEAT, 24 GAUGE, FACTORY FINISHED. FASTEN WITH POWDER ACTUATED FASTENERS @ 16" O.C., RE: ROOF PLAN AND ELEVATIONS

8.10 EXTERIOR LOUVERS, RE: MECHANICAL

8.25 THERMALLY BROKEN GLASS AND ALUMINUM SECTIONAL OVERHEAD DOOR

9.06 EXTERIOR PRE-FINISHED CEMENTITIOUS LAP SIDING OVER SHEATHING, RE: EXTERIOR WALL TYPES

9.08 EXTERIOR PRE-FINISHED CEMENTITIOUS TRIM BOARD, RE: EDEVATIONS AND EXTERIOR DETAILS

9.09 PRE-FINISHED CEMENTITIOUS TRIM BOARD, 1.65" WIDTH, COLOR AND FINISH TO MATCH ADJACENT CEMENTITIOUS LAP SIDING, RE: WINDOW AND DOOR DETAILS

23.06 42" PTAC UNIT, RE: WINDOW DETAILS AND MECHANICAL

26.15 EXTERIOR WALL SCONCE, RE: ELECTRICAL

26.22 SURFACE MOUNTED FIXTURE, RE: ELECTRICAL

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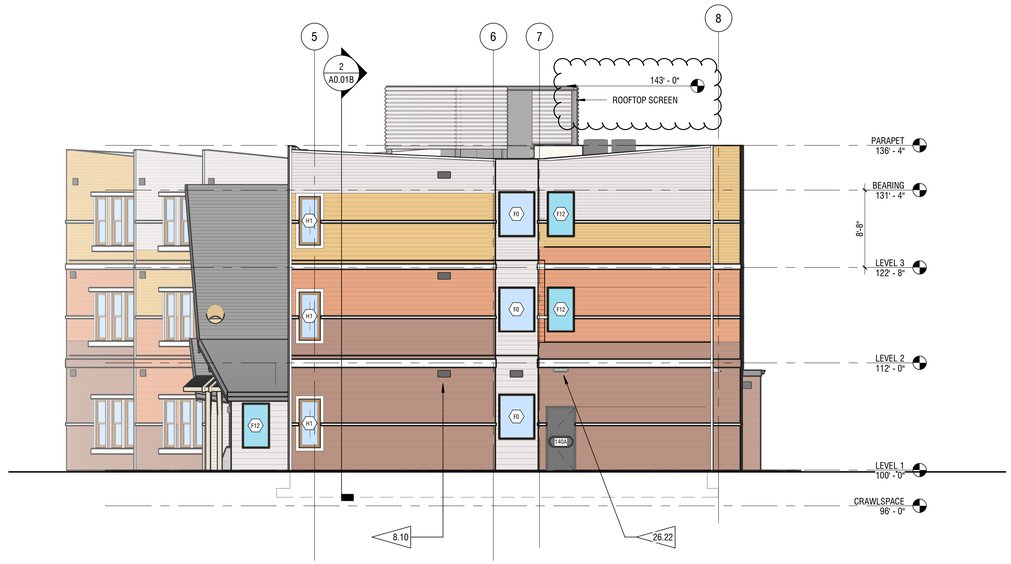
3 ELEVATION - ENLARGED DETAIL

1/4" = 1'-0"



1 E. ELEV

1/8" = 1'-0"

ACCEPTANCE BLOCK

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CITY PLANNER DATE

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

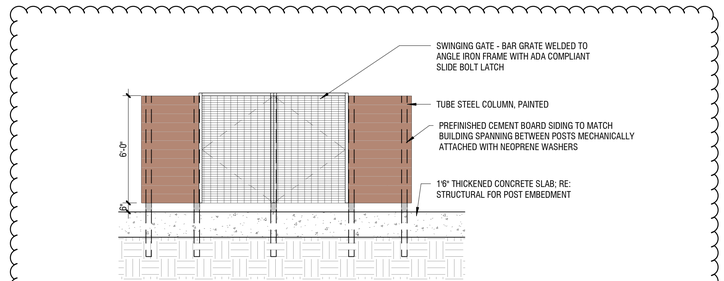
SCALE: As indicated

NO. A2.0

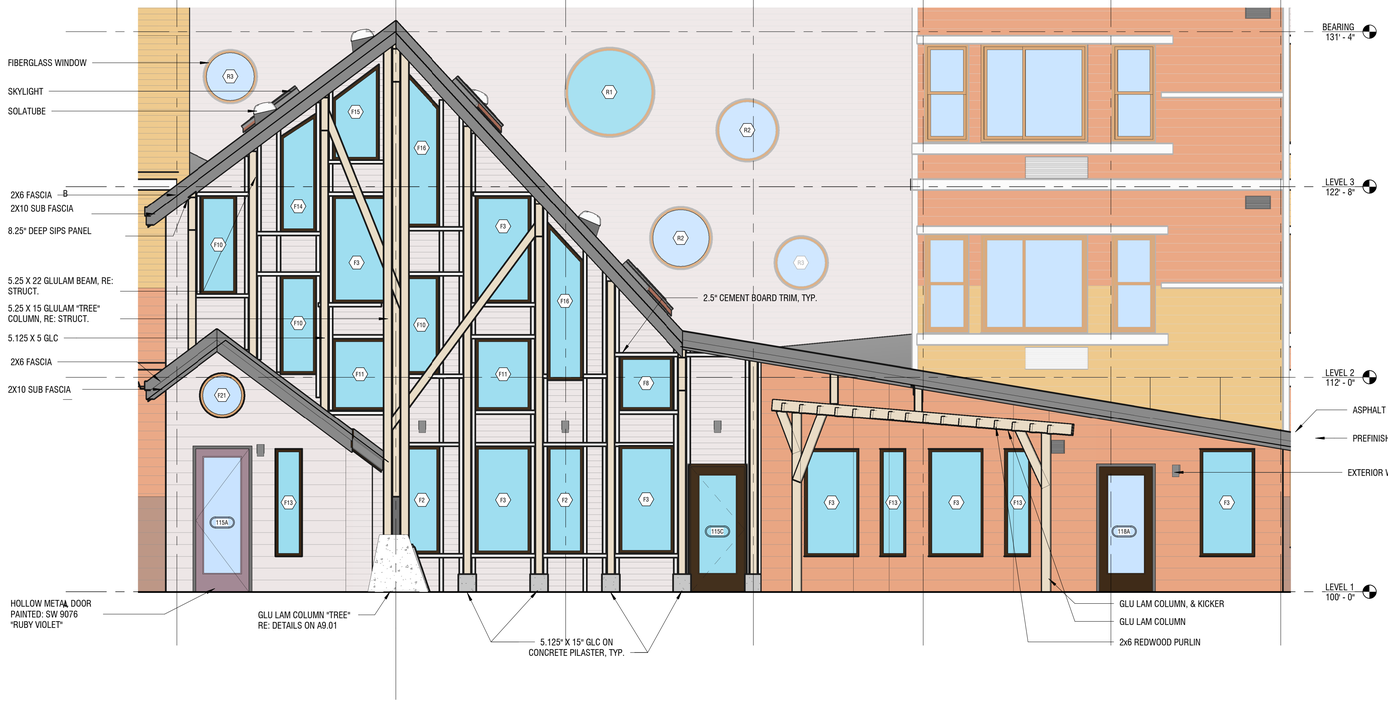
3 S. ELEV.
1/8" = 1'-0"

FLAGNOTES PER SHEET

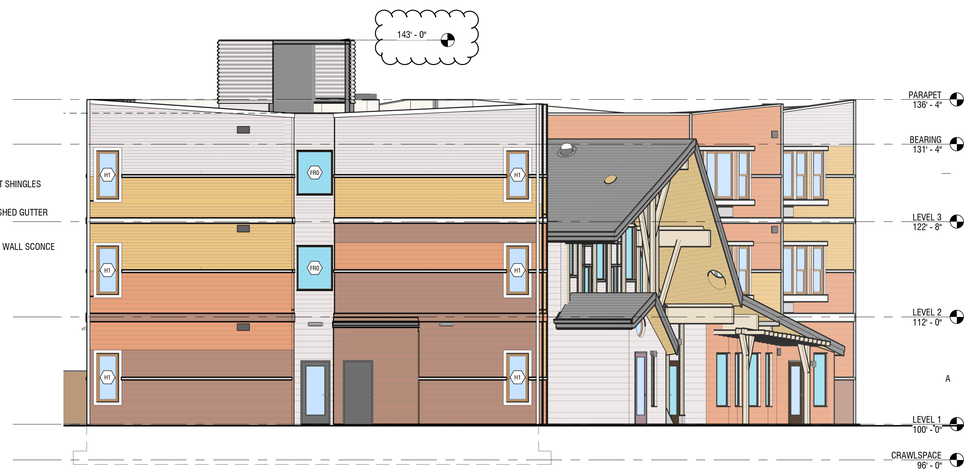
8.01	24" TUBULAR DAYLIGHTING DEVICE
8.03	VINYL WINDOW, TYP. @ UNITS & UPPER LEVELS, ALMOND COLORED, RE: WINDOW TYPES AND ELEVATIONS
8.10	EXTERIOR LOUVERS, RE: MECHANICAL
9.06	EXTERIOR PRE-FINISHED CEMENTITIOUS LAP SIDING OVER SHEATHING, RE: EXTERIOR WALL TYPES
9.08	EXTERIOR PRE-FINISHED CEMENTITIOUS TRIM BOARD, RE: ELEVATIONS AND EXTERIOR DETAILS
23.06	42" PTAC UNIT, RE: WINDOW DETAILS AND MECHANICAL
26.22	SURFACE MOUNTED FIXTURE, RE: ELECTRICAL



4 TRASH ENCLOSURE FRONT ELEVATION
1/4" = 1'-0"



2 ENLARGED ENTRY ELEV.
1/4" = 1'-0"



1 W. ELEV.
1/8" = 1'-0"

ACCEPTANCE BLOCK

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CITY PLANNER DATE

shoPworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

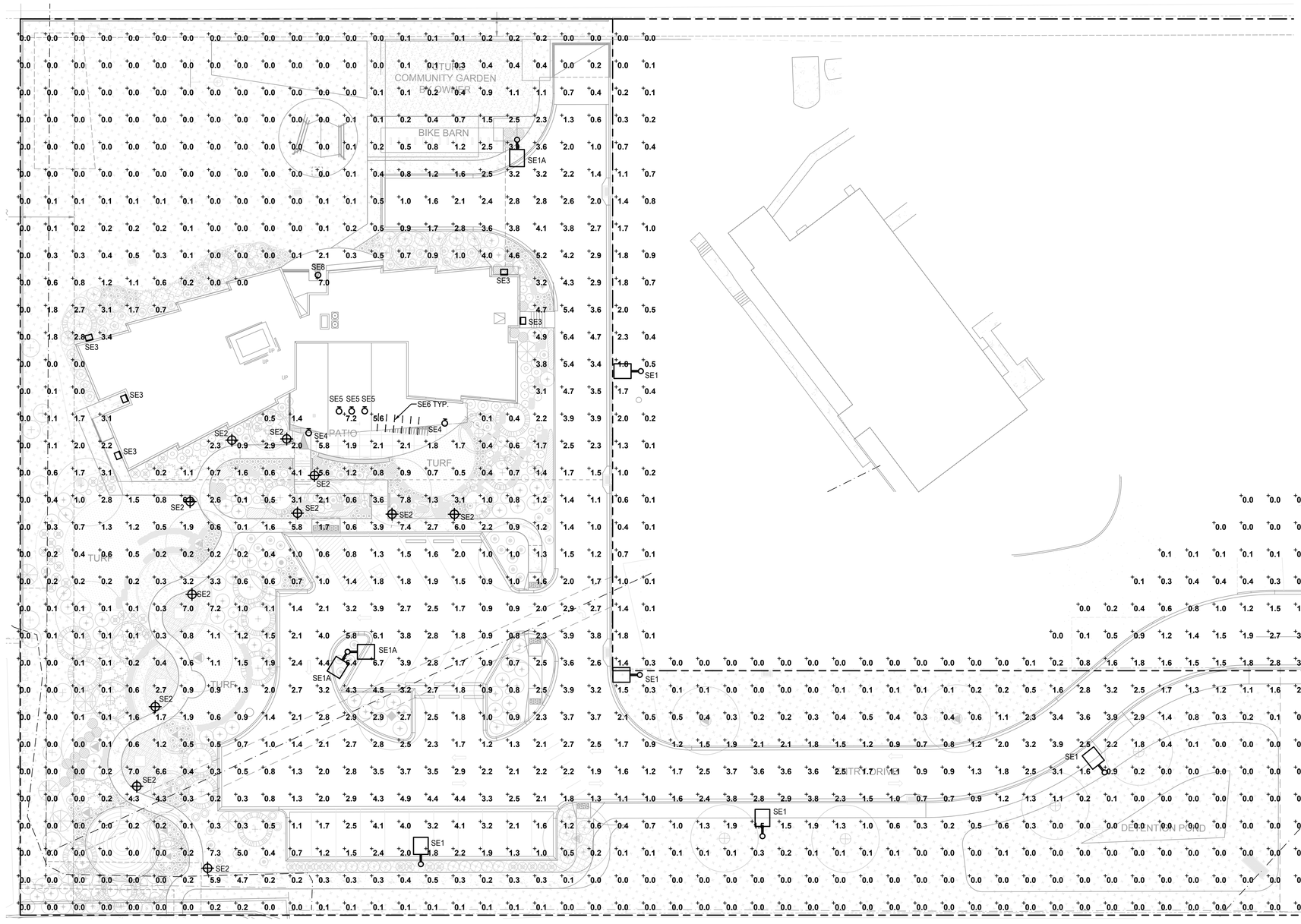
DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

SCALE: As indicated

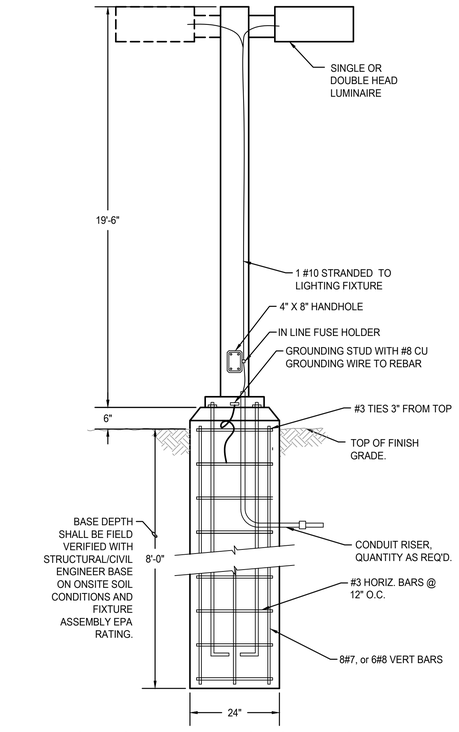
NO. A2.1



1 ELECTRICAL PHOTOMETRIC PLAN
E-1
1" = 20'-0"

GENERAL NOTES

1. ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC ROW, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.
2. ALL OUTSIDE LIGHTING SHALL COMPLY WITH SECTION 21.06.080 OF THE ZONING AND DEVELOPMENT CODE.



2 SE1, SE1A PARKING POLE BASE DETAIL
N.T.S.

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER DATE

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301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

CONSULTING INC
4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC PLAN

SCALE: AS NOTED

NO.

E1

C:\Users\jonk\appdata\local\temp\AcPublish_9592\PH-PHOTOMETRIC.dwg jonk 07.11.19 1:48 pm

Catalog # :	Project :
Prepared By :	Date :

Mirada Medium - MRM
Outdoor LED Area Light

The Mirada's sleek design makes it perfectly-suited for architectural & commercial applications, while its cost-effective die-cast aluminum housing makes its acquisition cost very competitive. The Mirada offers high performance factory-rotatable silicone optics, 5 standard CCTs, 42,000+ delivered lumens, and is available with integral Airlink™ Wireless Controls.

IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

Features & Specifications

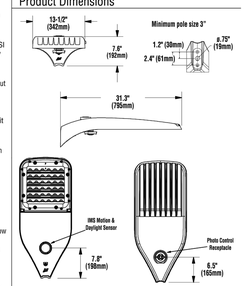
Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, SW, FT and FTA.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance. See page 5 for more details.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L lumen package rated to +40°C.
- Power factor: > .90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Product Dimensions



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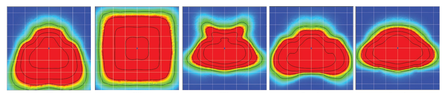
Performance (Cont.)

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada (MRM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Ordering Guide

TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Luminaire Prefix	Light Source	Lumen Package*	Light Output	Distribution	Orientation*	Voltage	Driver
MRM Mirada	**LED**	7L - 7,000 lms **9L** - 9,000 lms **12L** - 12,000 lms **18L** - 18,000 lms **24L** - 24,000 lms **30L** - 30,000 lms **36L** - 36,000 lms **42L** - 42,000 lms * Consult factory for programmable wattages and lumen packages	**SIL** - Silicone	**2** - Type 2 **3** - Type 3 **SW** - Type 5 Wide **FT** - Forward Throw **FTA** - Forward Throw Automotive	**(Blank)** - standard **L** - Optics rotated left 90 **R** - Optics rotated right 90	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347-480V)	**DIM** - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5,000 CCT **40** - 4,000 CCT **30** - 3,000 CCT* **27** - 2,700 CCT* **AMB** - Phosphor Converted Amber[2,3]	**70CRI** - 70 CRI	**(Blank)** - None **Wireless Controls System.** **ALSC** - AirLink Synapse Control System [4] **ALSCH** - AirLink Synapse Control System Host / Satellite [4,5] **ALSCS01** - AirLink Synapse Control System with 8-12' Motion Sensor [4] **ALSCHS01** - AirLink Synapse Control System Host / Satellite with 8-12' Motion Sensor [4,5] **ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor [4] **ALSCHS02** - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor [4,5] **ALSCS04** - AirLink Synapse Control System with 20-40' Motion Sensor [4] **ALSCHS04** - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor [4,5] **Stand-Alone Controls** **EXT** - 0-10v Dimming (from external signal) **IMSSM01** - Integral Motion Sensor 8-12' 120-277V [4,6] **IMSSM02** - Integral Motion Sensor 12-20' 120-277V [4,6] **IMSSM04** - Integral Motion Sensor 20-40' 120-277V [4,6] **IMSSM01HV** - Integral Motion Sensor 8-12' 347-480V [4,6] **IMSSM02HV** - Integral Motion Sensor 12-20' 347-480V [4,6] **IMSSM04HV** - Integral Motion Sensor 20-40' 347-480V [4,6] **CR7P** - 7 Pin Control Receptacle ANSI C136.41 [7] **Button Type Photocells** **PC3120** - 120V **PC2090-277** - 208-277V **PC347** - 347V	**BRZ** - Bronze **BLK** - Black **GPT** - Graphite **MSV** - Metallic Silver **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green	**(Blank)** - None **IL** - Integral Louver HSS[8]

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Catalog # :	Project :
Prepared By :	Date :

Mirada Bollard - MRB
LED Architectural Bollard

The Mirada Architectural Bollard combines superior engineering with purity of design & attention to detail. The durable construction & virtually maintenance free qualities makes it ideal for illuminating low level mounting height areas, such as entryways, pathways and most pedestrian-scale applications, requiring unique aesthetics in tandem with outstanding performance.

Features & Specifications

Optical System

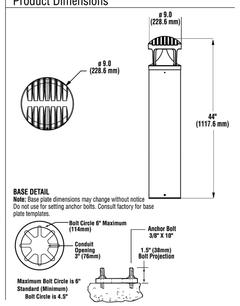
- Available in two optical distributions, symmetrical and asymmetrical.
- High transmission clear flat acylic lens seals the luminaire's optical chamber to IP66.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also available in Phosphor Converted Amber. Consult Factory for other color temperature requirements.
- Minimum CRI of 70. Consult Factory for Higher CRI requirements.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347-480 Vac Input available.
- L91 Calculated Life: >100k Hours calculated @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F); Cold-weather emergency battery backup rated for -20°C minimum ambient.
- Power factor: > .90
- Input power stays constant over life.
- High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
- Driver components are fully encased in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Electrical components are mounted on a removable power tray.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Optional 120v-277v integral emergency battery pack is available. The 90-minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance.

Dimmable · IDA DARK-SKY FRIENDLY · IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

Product Dimensions



BASE DETAIL
Note: Base plate dimensions may change without notice. Do not use for setting anchor bolts. Consult factory for base plate template.

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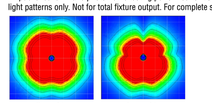
Performance

DELIVERED LUMENS*													
				AMB CCT		2700K CCT		3000K CCT		4000K CCT		5000K CCT	
Lumen Package	Lens Type	Distribution	CRI	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Wattage
25L	ACR	S	70	1713	56	2242	74	2156	71	2487	82	2485	81	30.5
30L	ACR	S	70	2110	55	2761	71.9	2655	69	3063	80	3061	80	38.4
25L	ACR	A	70	1327	58	1736	75.5	1670	73	1926	84	1925	84	23.0
30L	ACR	A	70	1634	56	2138	73.5	2056	71	2372	82	2370	81	29.1

*LED Chips are frequently updated therefore values are nominal.

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the (MRB) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Luminaire Ordering Information

TYPICAL ORDER EXAMPLE: **MRB LED 30L ACR S UNV DIM 40 PCI120 BB BRZ HSS**

Prefix	Source	Lumen Package	Lens	Distribution	Voltage	Driver
MRB (Mirada Bollard)	**LED**	**25L** - 2,500 lm **30L** - 3,000 lm	**ACR** - Acrylic	**A** - Asymmetric **S** - Symmetrical	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347 - 480v)	**DIM** - 0-10v Dimming (10-100%)

Color Temp	CRI	Controls (Choose one)	Battery Backup*	Finish	Options
50 - 5,000K **40** - 4,000K **30** - 3,000K **27** - 2,700K **AMB** - Phosphor Converted Amber[1]	**(Blank)** - 70CRI	Button Type Photocells **PC3120** - 120V **PC2090-277** - 208-277V **PC347** - 347V	**BB** - Battery Backup **CWBB** - Cold Weather Battery Backup	**BRZ** - Bronze **BLK** - Black **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green **GPT** - Graphite **MSV** - Metallic Silver	**H** - XX (Specify Height)[4] **GFR** - GFI Duplex Receptacle **LAB** - Less Anchor Bolts **RR** - Roughneck Heavy Duty Mtg Plate **HSS** - House Side Shield

Accessory Ordering Information[3]

Description	Order Number
HSS - House Side Shield	699105
Galvanized anchor Bolt kit	285560

FOOTNOTES:
1 - Consult Factory for availability.
2 - Standard height is 44". Non Standard heights are available in 6" increments. Minimum height is 26", 32" with battery backup option. Maximum height is 62".
3 - Accessories are shipped seperately and field installed.
4 - Not available in HV Voltage.

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1 FIXTURE TYPE SE1, SE1A
N.T.S.

2 FIXTURE TYPE SE2
N.T.S.

MIRADA WALL SCONCE (XWM)

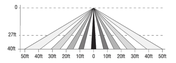
DOE LIGHTING FACTS
Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

LIGHT OUTPUT - XWM - 3 5000K CCT			
	Lumens	Wattage	LPW
03	3410	29	117
04	4417	40	111
06	6609	59	113
08	8610	82	105

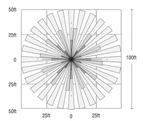
LED Chips are frequently updated therefore values may increase.

COVERAGE DIAGRAM

SIDE VIEW



TOP VIEW



US & Int'l. patents pending

SMARTTEC™ - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature

ENERGY SAVING CONTROL OPTIONS - DIM - 0-10 volt dimming enabled with LSI wireless controls.

OPTIONAL INTEGRAL MOTION SENSOR - Passive infrared motion sensor activates switching of luminaire light levels. High level light is activated when passersby enter target zone and increased to full bright in 1-2 seconds. Low light level (30% of maximum drive current) is activated when target zone is absent of motion activity for 5 minutes and is gradually ramped down (10 seconds) to low level. Sensor detection range 110° horizontal x 93° vertical x 10 meters maximum distance.

LEDS - Available with 5000K, 4000K or 3000K color temperature, 70 CRI min.

OPTICS/DISTRIBUTIONS - Ultra-high efficiency reflectors provide three distributions. Choose from Type 2, Type 3 or Type FT.

HOUSING - Three-piece die-cast aluminum housing is smoothly contoured low-profile shape. Mounting hardware is stainless steel or electro-zinc plated steel. Housing and optical unit are sealed with extruded silicone gasket; supply conductors with molded EPDM bushing.

OPTICAL UNIT - Proprietary silicone refractor optics provide exceptional coverage and uniformity. Pressure stabilizing breather allows super-tight protection while preventing cycling from building up internal pressures and vacuums that can stress optical unit seals

WALL MOUNTING - Galvanized-steel universal wall mounting plate easily mounts directly to 4" octagonal or square junction box. EPDM gasket is supplied to be installed between mounting plate and junction box, sealing junction box from entrance of water. Universal plate permits fixture to be mounted in uplighting (indoor only) or downlighting position. Optional pole-mounting bracket permits mounting to standard poles (XPMA).

ELECTRICAL - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (50/60Hz input) or 347-480VAC.

DRIVER - Drivers are dimming, standard. Components are fully encased in potting material for IP65 moisture resistance. Driver complies with IEC and FCC standards. Driver can be easily accessed.

EMERGENCY OPTIONS - Optional integral emergency battery-back-up options are available. BB option operates in 0°C to 60°C ambient temperature and CWBB operates in -20°C to 60°C ambient temperature. When primary AC power failure occurs, both options operate 10 LEDs for minimum of 90 minutes.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F)

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT (in carton) - 30 lbs./13.6Kg

LISTING - UL listed to ANSI/UL1598, UL8750 and other U.S. and international safety standards. Suitable for wet locations in downlight position. IDA compliant; with 3000K color temperature selection

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · cULus LISTED wet location · CE · ARRA Funding Compliant · IP65 · FC · IDA DARK-SKY FRIENDLY · DLC

Project Name _____ Fixture Type _____
Catalog # _____

3/13/19
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MIRADA WALL SCONCE (XWM)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XWM FT LED 08L 50 UE WHT IMS**

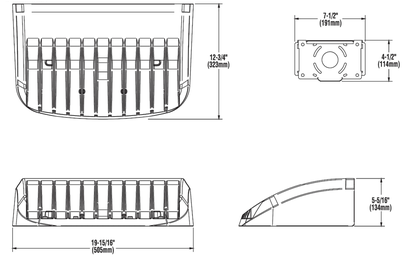
Prefix	Distribution	Light Source	Output*	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XWM - Mirada Wall Sconce	2 - Type 2 3 - Type 3 (Wide Throw) FT - Type 4 (Forward Throw)	LED	05L - 4,400 Lumens 08L - 8,600 Lumens 08L - 8,600 Lumens	50 - 5000K 40 - 4000K 30 - 3000K	UE - Universal Voltage (120-277) HV - 347-480	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus WHT - White	**Wireless Control System**[1,2] (Blank) - None PCM - Platinum Control System SCM - Gold Control System DIM - 0-10 volt dimming (required for satellite fixtures) ALSC - AirLink Synapse Control System **Stand-Alone Control** (Blank) - None DIM - 0-10 volt dimming[3] (from external signal)	**Sensor** IMS - Integral Motion Sensor[4,5] **Options** BB - Battery Back-up[5] CWBB - Cold Weather Battery Back-up[5] XPMA - Pole Mounting Bracket

ACCESSORY ORDERING INFORMATION[1] (Accessories are field installed)

Description	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	3069158BLK	DFK208 – Double Fusing	DFK208
FK120 – Single Fusing	FK120	DFK240 – Double Fusing	DFK240
FK277 – Single Fusing	FK277	DFK480 – Double Fusing	DFK480
FK347 - Single Fusing	FK347	IMS/PC Remote Configurator Tool[7]	584929

FOOTNOTES:
1 – For wireless controls information and accessories, see Controls Section.
2 – Requires a SiteManager and override switch. Not compatible with battery back-up, IMS or HL Option.
3 – Not compatible with IMS Option
4 – Not compatible with DIM or Wireless Control System
5 – Not compatible with Wireless Control System
6 – Not available with BB, CWBB, IMS Option or Wireless Control System
7 – IMS is the NetStepper Dual Sensor (Daylight & Motion) which is field adjustable, via a handheld remote configurator tool
8 – Output based on type 3 optics in cool white color temperature, see IES files for exact delivered lumens

DIMENSIONS



Project Name _____ Fixture Type _____
Catalog # _____

3/13/19
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3 FIXTURE TYPE SE3
N.T.S.

Luminaire Schedule								
Symbol	Label	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	SE1	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-3-30-70CRI-IL	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE TYPE 3 OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	8626.55	1	94
	SE1A	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-FT-30-70CRI	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	11448.25	1	94
	SE2	LSI INDUSTRIES, INC	MRB-LED-30L-ACR-S-30	LED BOLARD LIGHT GROUND MOUNTED 42" SYMETRICAL OPTICS 3000K CCT		1	2655.92	1	38.4
	SE3	LSI INDUSTRIES, INC	XWM-FT-LED-04-30	LED WALL MOUNT LIGHT 12'-0" AFG FORWARD THROW OPTICS 3000K CCT		1	4207.454	1	38
	SE4	PROGRESS	P563000-143-30K	3" Wall-Mount Cylinder, Graphite w/ Textured, Opal Glass Lens; Tested as Down-Light 8'-0" AFG MOUNTING HEIGHT 3000K CCT	22- Nichia 3000K LEDs	1	906.9812	1	12.204
	SE5	PROGRESS	P563001-143-30K	3" Wall Mount Up/Down Cylinder - Graphite 12'-0" AFG MOUNTING HEIGHT 3000K CCT	44- Nichia 3000K LEDs	1	1765.549	1	24
	SE6	MARKET LITE	ML2000-CA-24-LED-30K-GSFL-WET	LED STRING LIGHT 24" OC. WITH CUTOFF SHADE MOUNTED 10'-0"AFG 3000K CCT	44- Nichia 3000K LEDs	1	91.35894	1	0.97
	SE8	LSI INDUSTRIES, INC	LCD4_LAD4_LAD4R-LED-14L-30-NF-TR4R-SF-HAZ	4" APERTURE LED DOWNLIGHT 3000K CCT RECESSED CEILING MOUNT.		1	1142.191	0.8	13.9

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER _____ DATE _____

LSI INDUSTRIES
architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

CONSULTING INC
4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E2

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PROGRESS LIGHTING

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Downlight Cylinder

Wall mounted · Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

Number of Modules	1
Input Power	12w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	907/75 (LM-79)
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563000-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 5-5/8"
H/CTR: 3"

PROGRESS LIGHTING

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Up/ Down Cylinder

Wall mounted · Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount up/downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

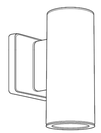
Number of Modules	2
Input Power	24w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	1766/73 (LM-79) per module
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563001-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 8-1/4"
H/CTR: 5"



marketLITE™

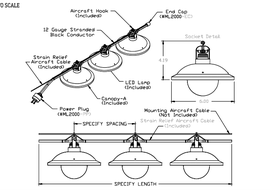
Manufactured in the U.S.A.

MODEL NUMBER: **ML2000-CA**

FINISH TYPE:

1 of 2

NOT TO SCALE



FEATURES

APPLICATIONS	Indoor and Outdoor
VOLTAGE	120V
LAMP	LED Lamp Included
DIMMING	Forward Phase
WATTS	1W or 3W
LENGTH	Built to Order
FINISH	Black
FEED	Standard 6' Leads
STRAIN RELIEF	Aircraft Cable Included
MOUNTING	Aircraft Cable Not Included
LISTING	Dry or Wet Location (ANSI/UL1598 CSA 22.2 No. 250.0-04, 2nd Edition
OPTIONS	Mesh, Cages, Canopies
LED LAMP LIFE	50,000 hrs. (GSF, GSC, SSF, SSC) 20,000 hrs. (GSFL)
UV RATING	SunLight Resistance
MAXIMUM RUN	250 Feet

APPLICATIONS

Designed for indoor and outdoor use, *marketLITE* is ideal for many applications including the amusement, recreation, and architectural industries.

marketLITE is used in: Restaurants, Casinos, Street Decorations, Amusement Parks, Shopping Malls, Promenades, and more.

ELECTRICAL

marketLITE with LEDs is available in 120 Volts. *marketLITE* is a 20 amp system (12 gauge wire). No transformers or drivers are required.

INSTALLATION

marketLITE is an easy-to-install lighting product that can be field cut to meet your lighting requirements. See installation instructions for additional details.

LED SPECIFICATIONS

LAMP NUMBER	DESCRIPTION
LED-2.4K*1	2400K Warm White
LED-2.7K	2700K Warm White
LED-3.0K*1	3000K Warm White
LED-5.0K	5000K Cool White
LED-A*1	Amber
LED-R*1	Red
LED-G*1	Green
LED-B*1	Blue

Note: MarketLITE can be hardwired for Dry and Wet Location
See installation instructions for additional information

ACCESSORIES (Not included)

End Cap (#ML2000-EC)

Power Plug (#ML2000-PP)

Mounting Aircraft Cable (#ML2000-AC-1/8")

SPECIFY PRODUCT CODE (Use drop down menu to complete table or fill in the blanks)

ML2000-CA - ____ - ____ - ____ - ____ - ____ - ____

SERIES	SPACING	LAMP	LAMP TYPE	DRY OR WET	DIMMING	CANOPY INSIDE	CANOPY OUTSIDE
Ex: ML2000-CA	*12"*	*LED-2.7K*	*GSF**	*WET*	*DM*	*BK*	*BK*
ML2000-CA	12" O/C	LED-2.4K*1	GSF*2	Indoor (DRY)	Forward Phase (DM)	Natural (NA)	Natural (NA)
	18" O/C	LED-2.7K	GSC			Polished (PA)	Polished (PA)
	24" O/C	LED-3.0K*1	GSFL	Outdoor (WET)		White (WH)	White (WH)
	36" O/C	LED-5.0K	SSF		Leave blank for Non-Dimming	Black (BK)	Black (BK)
	48" O/C	LED-A*1	SSC			Green (GN)	Green (GN)
	60" O/C	LED-R*1				Bronze (BR)	Bronze (BR)
		LED-G*1				Satin (SA)	Satin (SA)
		LED-B*1				Silver (SR)	Silver (SR)
						Red (RD)	Red (RD)

*1 Standard bulb if left blank
*2 Only available in GSFL
*3 Only available in SSC and GSC

CALIFORNIA ACCENT LIGHTING, INC.
2034 E. Lincoln Ave. #431, Anaheim, CA 92806
ph. 800.921.CALI (2254) or 714.535-7900 \ fx. 714.535.7902
info@calilighting.com \ calilighting.com

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2017.12.04 B2

FIXTURE TYPE SE4
N.T.S.

FIXTURE TYPE SE5
N.T.S.

FIXTURE TYPE SE6
N.T.S.

Catalog # :	Project :
Prepared By :	Date :

LCD4
4" LED Commercial Downlight

4 inch LED new construction downlight delivers superior performance and energy efficiency. Designed to use anodized aluminum reflectors delivering even illumination and low glare. The high performance luminaire offers 1000 up to 2000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K at 80 CRI. Standard driver offers universal (120-277V) and 0 -10V dimming down to 1%. The LCD series is ideal for low to medium ceiling heights for retail, hospitality and commercial applications.

Origin™

Features & Specifications

Optical System

- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Available in 4000K, 3500K, 3000K, and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80.

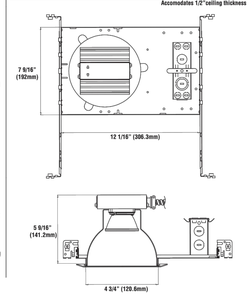
Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Compatible with Triac (forward-phase or leading-edge), ELV (reverse-phase or trailing edge) dimming only at 120 Vac.
- Driver can be accessed from below plenum for servicing.
- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) field installed is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance,To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions located on website.

Title 24 2013 · ETL Intertek · Dimmable · RoHS COMPLIANT · damp location

Dimensions

Accomodates 1/8" ceiling thickness



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LCD4
4" LED Commercial Downlight

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **LCD4 LED 24L UNV DIM1 35 NF TR4R HAZ**

Family/ Size	LED Gen	Lumen Package	Voltage	Driver	Color Temperature	CRI	Beam Optics[2]
LCD4 - 4" New Construction[1]	**LED**	**10L** - 1400 **24L** - 2400	**UNV** - 120-277V	**DIM1** - Dims to 1% (0-10V dimming)	**27** - 2700K **30** - 3000K **35** - 3500K **40** - 4000K	**Blank** - 80 CRI	**NF** - Spot **MF** - Narrow Flood **FL**[3] - Wide Flood **WF** - Wide Flood

	Reflector	Finish
Self-Flange	TR4R - Open Reflector	**SF HAZ** - Haze semi- diffused
		SF SPC - Specular clear
	TR4RWW - Wall Wash[4]	**SF HAZ** - Haze semi-diffused
Flangeless (ship standard w/ white plastic trim ring)	TR4R - Open Reflector	**HAZ** - Haze semi-diffused, white trim ring
		SPC - Specular clear, white trim ring
	TR4RFL - Frosted Floating Lens[5]	**HAZ** - Haze semi-diffused Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible)
		SPC - Specular Clear Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional ring not compatible)
	TR4RWW - Wall Wash[4]	**HAZ** - Haze semi-diffused wall wash reflector, white trim ring
	TR4B - Baffle	**HAZ** - Haze semi-diffused reflector	**WH** - White baffle and white trim ring
			BL - Black Baffle and white trim ring
	TR4BL - Baffle w/ Regressed Lens[6]	**HAZ** - Hazed semi-diffused	**WH** - White baffle and white trim ring
		SPC - Specular clear	**BL** - Black baffle and white trim ring
	TR4RL - Regressed Lens[6]	**HAZ** - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring
		SPC - Specular clear reflector w/ specular clear regressed lens and white trim ring

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
WH - White metal trim ring (only compatible w/flangeless trims)	616105
EM - Emergency Battery	616633

NOTES:
1. Regressed lens trims are wet location listed. All other trims are rated for damp location.
2. TR4WW wall wash reflector comes with 40° integrated optic; additional beam optics not compatible
3. TR4RFL frosted floating lens comes with integrated white metal trim; accessory white metal trim ring not required)
4. Housing can ship ahead of the light-engine and reflector
5. 90 CRI requires 55 day leadtime & 100 MOQ, Consult Factory
6. Refer to IES Files for Beam Spread.

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FIXTURE TYPE SE8
N.T.S.

shop WORKS architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

CONSULTING INC
4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E3

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER DATE

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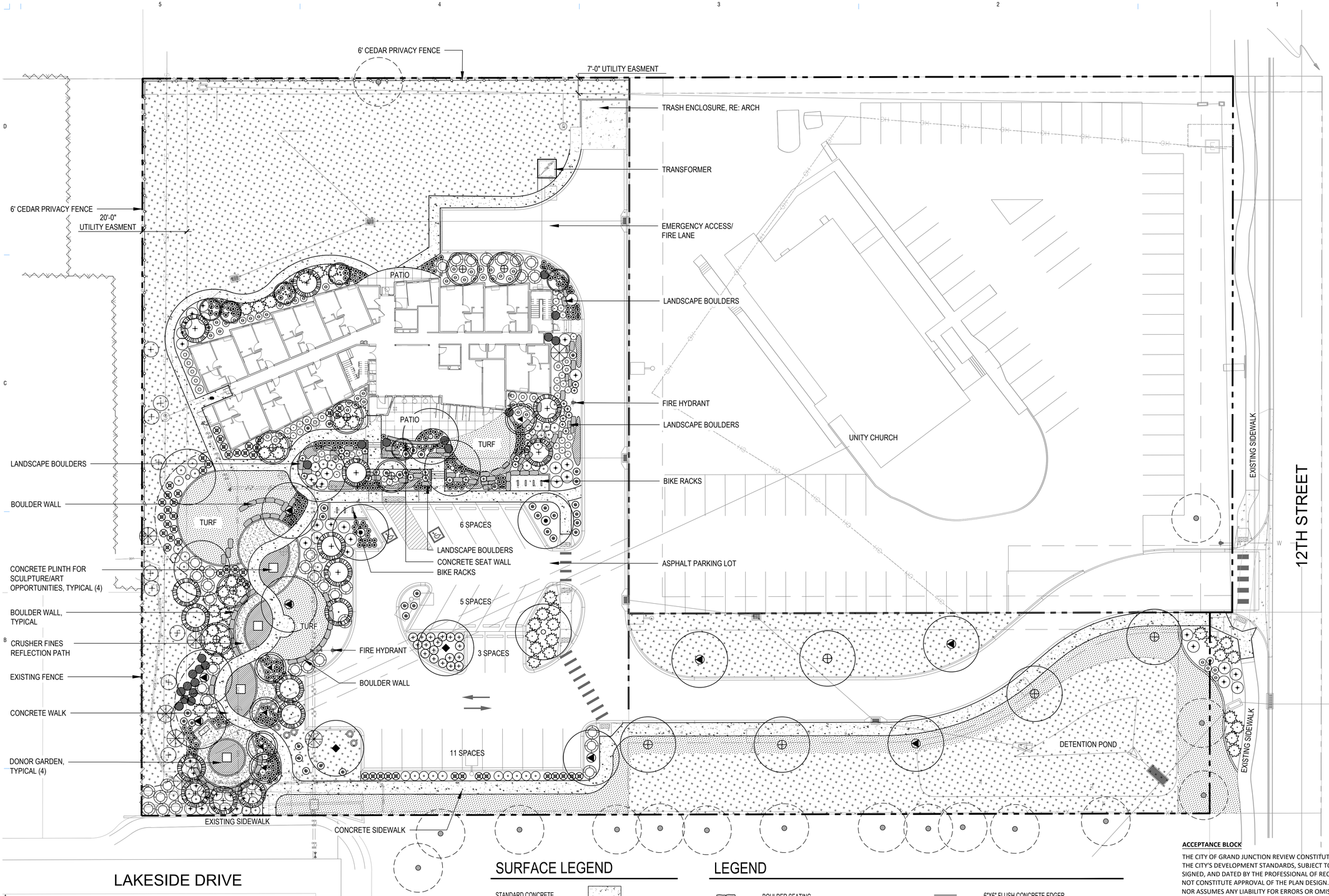

SURFACE LEGEND

- STANDARD CONCRETE
- CRUSHER FINES
- TURF
- NATIVE GRASS
- PERENNIALS

LEGEND

- BOULDER SEATING
- EXISTING PRIVACY FENCE TO REMAIN
- 6' PRIVACY FENCING
- BOULDER WALL
- CONCRETE SEAT WALL W/ STONE CAP
- BICYCLE PARKING
- 6"X6" FLUSH CONCRETE EDGER
- LIGHTING FIXTURES
- EXISTING TREE TO REMAIN

0 10 20 40 80
SCALE: 1"=20'-0"

NORTH

shoPworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
301 West 45th Avenue
Denver, CO 80216
303.406.1075

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

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CITY PLANNER _____ DATE _____

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL
6/06/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape
Site Plan

SCALE:

NO. LS101

LANDSCAPE PLANTING SCHEDULE

EVERGREEN TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
PIN	5	Piñon Pine	Pinus edulis	6' Height	Very Low
AUS	11	Austrian Pine	Pinus nigra	8' Height	Very Low

DECIDUOUS TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
OAK	8	Chinkapin Oak	Quercus muehlenbergii	2.5" Caliper	Low
HKB	2	Common Hackberry	Celtis occidentalis	2.5" Caliper	Very Low
SHA	6	Shademaster Honeylocust	Gleditsia triacanthos inermis	2.5" Caliper	Very Low
BOX	2	Sensation Boxelder	Acer n egundo 'Sensation'	2.5" Caliper	Low
LPT	5	London Planetree	Platanus x acerifolia	2.5" Caliper	Low
	20	Species to be Determined	Species to be Determined	2" Caliper	

ORNAMENTAL & SMALL TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
ABS	6	Autumn Brilliance Serviceberry	Amelanchier x grandiflora	6'-8' Clump	Moderate
WKH	7	Winter King Hawthorn	Crataegus viridis 'Winter King'	2" Caliper	Low
RBC	5	Eastern Redbud	Cercis canadensis	6'-8' Clump	Low

DECIDUOUS SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
RLC	46	Red Lake Currant	Ribes sativum 'Red Lake'	5 Gal. Cont.	Low
AAS	45	Autumn Amber Sumac	Rhus trilobata 'Autumn Amber'	5 Gal. Cont.	Low
RSA	44	Russian Sage	Perovskia artiplicifolia	5 Gal. Cont.	low
DRB	45	Dwarf Rabbitbrush	Chrysothamnus nauseosus var.	5 Gal. Cont.	Very Low
LEA	17	Leadplant	Amorpha canescens	5 Gal. Cont.	Very Low
RAB	9	Rabbitbrush	Chrysothamnus nauseosus	5 Gal. Cont.	Very Low
PBS	36	Pawnee Buttes Sandcherry	Prunus besseyi 'Pawnee Buttes'	5 Gal. Cont.	Low
PAN	44	Panchito Manzanita	Arctostaphylos x coloradoensis	5 Gal. Cont.	Low
RLR	7	Red Leaf Rose	Rosa glauca	5 Gal. Cont.	Low

EVERGREEN SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
BCJ	45	Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	5 Gal. Cont.	Low

ORNAMENTAL GRASSES/PERENNIALS / GROUNDCOVERS

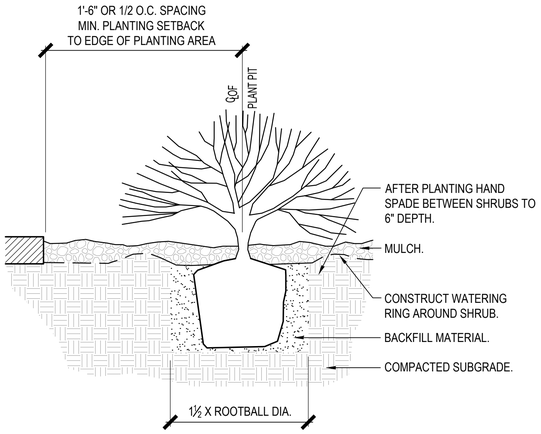
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
YUC	36	Soapweed Yucca	Yucca glauca	1 Gal. Cont.	Low
FRG	50	Feather Reed Grass	Calamagrostis acutiflora 'Avalanche'	1 Gal. Cont.	Low
DMG	21	Dwarf Maiden Grass	Miscanthus sinensis 'Yaku Jima'	1 Gal. Cont.	Low
BGG	284	Blue Gramma Grass	Bouteloua gracilis	1 Gal. Cont.	Low
AST	150	Assorted Perennials & Groundcovers		1 Gal. Cont.	Low

Site Landscape Requirements: 2.19 Acre Lot

Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 Tree/2,500 SF		0	39	57
			Shrubs Required	Shrubs Provided
1 Shrub/300 SF			318	318

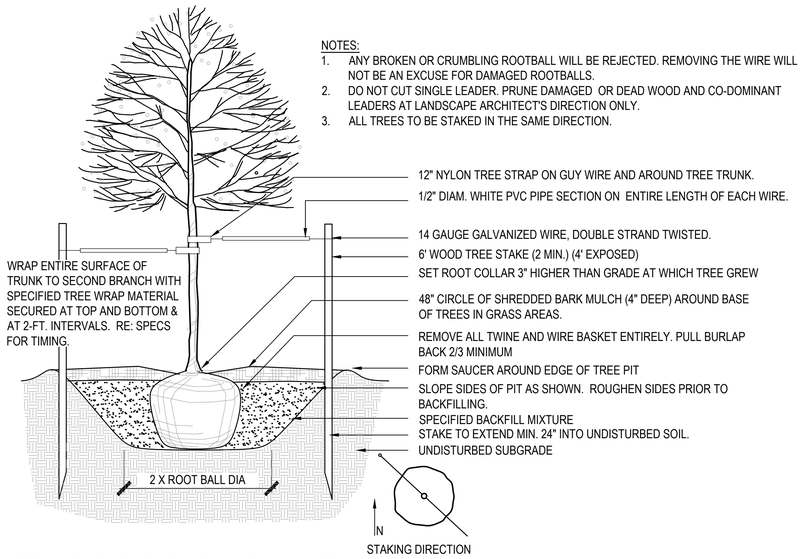
Street Frontage Landscape Requirements

Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 tree/40' Street Frontage	90' Street Frontage (N. 112th)	2	3	1
		Shrubs Existing	Shrubs Required	Shrubs Provided
		0	n/a	22



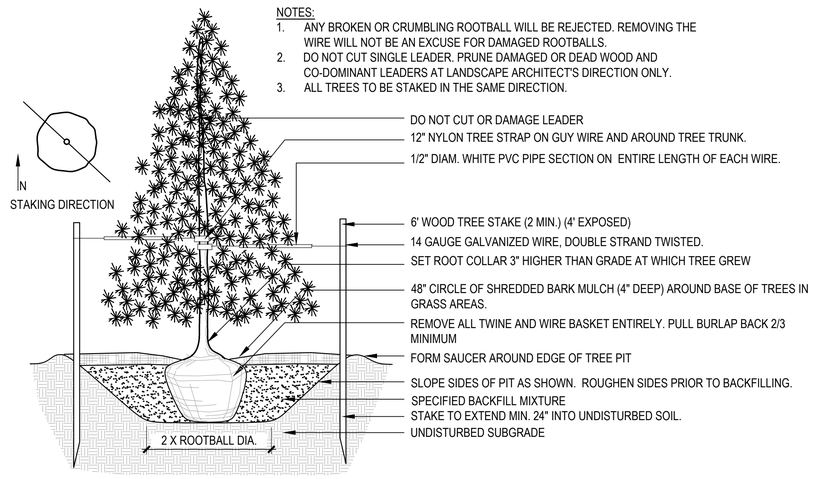
1 SHRUB PLANTING

SCALE: NTS shrb.dwg



2 DECIDUOUS TREE PLANTING

SCALE: NTS



3 EVERGREEN TREE PLANTING

SCALE: NTS

ACCEPTANCE BLOCK

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DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape Schedules & Details

SCALE:

NO. LS102

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

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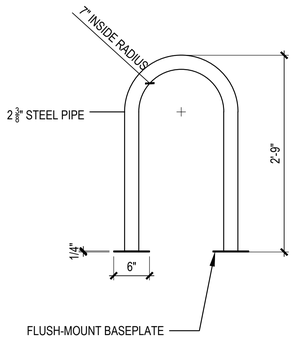


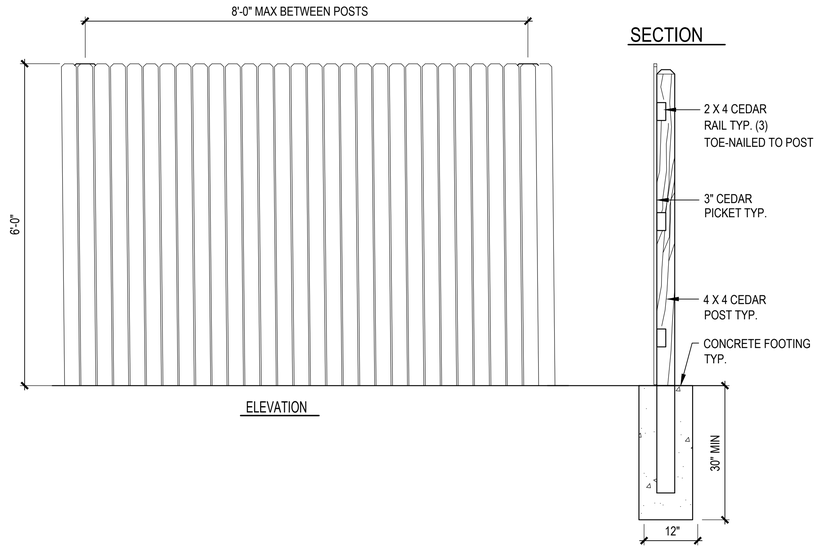
ELEVATION

NOTES:
DIMENSIONS:
1. HEIGHT - 33" FROM THE GROUND
2. CONTINUOUS BEND INSIDE RADIUS = 7"

MATERIALS AND CONSTRUCTION:
1. 2 3/8" SCHEDULE 40 STEEL PIPE
2. SOLID ONE-PIECE CONSTRUCTION; CONTINUOUS BEND; LEGS 14"-18" APART
3. FINISH TO BE DETERMINED BY OWNER
4. FLUSH MOUNTED WITH WELDED BASE PLATES. HIDDEN OR VANDAL RESISTANT FASTENERS (SCREWS OR EXPANSION BOLTS) PAINT TO MATCH BIKE RACK FINISH

1 BIKE RACK

SCALE: 1"=0"



2 6' PRIVACY FENCE

SCALE: 3/4"=1'-0"

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7/11/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CH/JH
PROJECT #: 18007

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

SHEET TITLE:
Landscape
Site Plan

SCALE:

NO. LS103

City of Grand Junction
Review Comments

Date: June 28, 2019 **Comment Round No.** 2 **Page No.** 1 of 6

SPN-2019-174

Project Name: Karis Apartments & Karis Subdivision **File No:** SSU-2019-182

Project Location: 3205 N. 12th Street

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s):

[ ] **Mailing Address:**

[ ] **Email:** **Telephone:**

[ ] **Date Picked Up:** **Signature:**

Representative(s): Shopworks Architecture – Attn: Kyle Mead

[ ] **Mailing Address:** 301 W. 45th Avenue, Denver, CO 80216

[X] **Email:** kyle@shopworksarc.com **Telephone:** (303) 433-4094 Ext. 105

[ ] **Date Picked Up:** **Signature:**

Developer(s): Karis Inc. – Attn: John Mok-Lamme

[ ] **Mailing Address:** P. O. Box 2837, Grand Junction, CO 81502

[X] **Email:** jmoklamme@karisinc.org **Telephone:** (970) 234-1810

[ ] **Date Picked Up:** **Signature:**

CITY CONTACTS

Project Manager: Scott D. Peterson, Senior Planner

Email: scottp@gjcity.org **Telephone:** (970) 244-1447

Dev. Engineer: Jarrod Whelan

Email: jarrodw@gjcity.org **Telephone:** (970) 244-1443

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING

1. Building Elevations (Sheets A2.0 & A2.1):

a. Label building elevation to the top of the Rooftop Equipment Screen to verify overall maximum building height. FYI. The maximum building height in the existing R-16 zone district is 60'.

b. See Review Comment #3 c. and submit Elevation Drawing for review of garbage enclosure. Requirement: V-4 of the SSIDS Manual.

Applicant's Response: Building elevations have been updated with screen height identified.

Document Reference: A2.0, A2.1

G

2. Lighting Plan (Sheets E1, E2 & E3):

a. Add a general note to the Lighting Plan that states that; "All outside lighting shall comply with Section 21.06.080 of the Zoning and Development Code."

b. Provide City Planning Approval Signature Blocks on all applicable sheets.

Code Reference: Section 21.06.080 of the Zoning and Development Code & V-11 of the SSIDS Manual.
Applicant's Response: General note has been added to Sheet E1. City planning approval signature block has been added to all sheets. Bike barn has been eliminated from project due to budget constraints.
Document Reference: E1, E2, E3

3. Site Plan (Sheet C4.00):
a. Off-Street Parking Requirements: Multi-Family Units – 1 bedroom: 1.25 parking spaces per dwelling unit which would trigger 43 parking spaces (1.25 x 34 units = 42.5) for this proposal. Applicant is proposing 25 parking spaces in accordance with Section 21.06.050 (e) of the Zoning & Development Code, Alternative Parking Plan. Community Development Director has reviewed and approved the Applicant's submitted narrative and statistics regarding the parking plan and is supportive of the request to reduce the required on-site parking spaces to 25 in this instance. A recorded Alternative Parking Plan Document will be prepared by the City Attorney's Office at time of Planning Clearance issuance in accordance with Section 21.06.050 (e) (6) of the Zoning & Development Code for property owner's signature. Applicant will be responsible for all recording fees. No additional response required. Also, required bicycle spaces shall be provided at a rate of 1 bike space per 20 vehicle spaces which would trigger a minimum of 3 bike spaces. Also, it appears on the Site Plan that the Applicant is providing additional bike spaces/racks which the City Project Manager is in support. Provide a General Note on Site Plan which identifies how many bike spaces can be accommodated by the proposed bike racks and also provide Detail Drawing of typical Bike Rack on Construction Detail Sheets.
b. Submitted Landscaping Plan indicates a Bike Barn to be located next to a future community garden. Will the Bike Barn be constructed with this application? Is this a building or just additional outside bike racks? Revise drawings as applicable.
c. Provide Elevation Drawing for proposed trash enclosure. City Project Manager suggests enclosure be constructed of the same building materials as the principal structure. See Section 21.04.040 (h) (1) (vi) (C) of the Zoning & Development Code for additional information.
d. Clearly label locations of all proposed and existing fence locations, if applicable. Include Elevation Drawing of proposed fencing and indicate overall height. All fencing shall conform to Section 21.04.040 (i) of the Zoning & Development Code. FYI. There are no screening and buffering requirements for this application since all adjacent properties are zoned residential.
e. Will outside mechanical equipment/gas and electric meters, etc., on the first floor be screened from public view and/or be located so as to be perceived as an integral part of the building (Section 21.04.030 (n) (5) (xiv) of the Zoning & Development Code)?
f. Label required vertical handicap parking signs to be located at the head of each handicap parking stall.
Code Reference: V-22 of the SSIDS Manual.
Applicant's Response:

A. Noted, thank you.
B. Bike barn has been eliminated from the project due to budget constraints. 7 bike racks (accommodating 14 bikes) have been provided. Detail has been provided on Landscape sheet LS103
C. Elevation drawing of trash enclosure has been provided on sheet A2.1.
D. We have included a 6' privacy fence detail on sheet LS103.
E. Applicant does not intend to screen equipment located on the first floor. Electrical gear is nestled into the back of the stair and will be painted to match the building and screened with landscape materials. Ample clearance has been allocated for maintenance and meter readings.
F. Vertical handicap parking signs have been labeled on the Civil Site Plan.

Document Reference: C4.0, A2.1, LS101

4. Landscaping Plan (Sheet LS101 & LS102):
a. At time of Final Approval, a Licensed Landscape Architect registered in the State of Colorado will need to sign and stamp the Landscaping Plans.
b. Provide City Planning Approval Signature Blocks on all applicable sheets.
c. For a 2.19-acre lot, a minimum of 39 trees and 318 shrubs are required. Please provide a Landscape Calculations Block on the requirements and quantities proposed.
d. FYI. See Section 21.06.040 (b) (13 & (14) of the Zoning & Development Code for the maximum percentage of any one type of plant species that can be planted in a development. Revise Landscaping Plan accordingly, if applicable.
d. FYI. At time of Certificate of Occupancy, Licensed Landscape Architect shall provide a letter to the City Project Manager stating that all landscaping was installed per the approved Landscaping Plan for each filing.
e. See Review Comment # 3 b. and revise accordingly.
f. Landscaping within the 14' wide landscaping strip adjacent to N. 12th Street shall also include shrubs (Section 21.06.040 (d) (5) of the Zoning & Development Code). Revise Landscaping Plan as appropriate.
Code Reference: V-10 of the SSIDS Manual.
Applicant's Response:
4a. Final submittal will be stamped by a Licensed Landscape Architect.
4b. City Planning Approval Signature Blocks added to LS101 and LS102.
4c. Landscape calculations block added to sheet LS102, 57 trees provided, 318 shrubs provided.
4d. Plant species revised to not exceed 20% of one tree species and 15% of one shrub species.
4d (2). Noted.
4e. Bike Barn has been removed from drawings.
4f. 20 shrubs added to Street frontage landscape.

Document Reference: LS101, LS102, LS103

5. Fees: Per original General Meeting notes dated May 24, 2018, the following fees are applicable to multi-family residential developments:
a. City Park Fee: $7,650.00 (34 dwelling units x $225 per dwelling unit payable at time of Planning Clearance issuance).
b. City Open Space Fee: Submit MAI Appraisal Report for determination of this fee (10% of the value of the raw land) payable at time of Planning Clearance issuance.
c. Planning Inspection Fee: $50.00 payable at time of Planning Clearance issuance.
d. School Impact Fee: $920 per dwelling unit payable at time of Planning Clearance issuance.
e. Recording Fees: Required at time of Final Subdivision Plat and associated documents recording. Unknown fees at this time.
f. Plant Investment Fees: Contact City Customer Service Division for sewer tap fees payable at time of Planning Clearance issuance. Contact Ute Water Conservancy District for water tap fees payable at time of Planning Clearance issuance.
Code Reference: Section 21.06.020 and 030 of the Zoning and Development Code.
Applicant's Response: Noted, fees will be paid at the time of recording.
Document Reference: N/A

6. General Project Report:
The Applicant has provided in the revised General Project Report that the project will consist of 34, one-bedroom individual living units that each contain a kitchen and that they are individual dwelling units in an apartment building. The narrative includes that the apartments are to provide housing opportunities for very low-income families and individuals who have disabilities, between the ages of 18 and 24 and/or who are homeless or at risk of experiencing homelessness. Based on the

Applicant's representations, this project is classified as a Residential, Multi-Family land use in accordance with the City's Zoning & Development Code. No further response required.
Code Reference: VI-4 of the SSIDS Manual.
Applicant's Response: Noted, thank you.
Document Reference: N/A

7. Subdivision Plat:
a. On Sheet 1, in the Dedication Block, add the following paragraph; "An Easement over the Storm Water Drainage Easement is dedicated to the City of Grand Junction as perpetual easements for the inspection, installation, operation, maintenance and repair of detention and drainage facilities and appurtenance thereto. The City of Grand Junction is dedicated reasonable ingress/egress access to the drainage/detention easement areas. The owner(s) and/or the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the detention and drainage facilities."
b. Since the public will be utilizing the proposed sidewalk connection between N. 12th Street and Lakeside Drive, label a "Pedestrian Easement" in the area of the sidewalk location that connects the two streets on Sheet 2. On Sheet 1, in the Dedication Block, add the following dedication language. "All Pedestrian Easements are dedicated to the City of Grand Junction as perpetual easements for ingress and egress access use by the public forever for purposes of walking, running, wheelchairs (motorized and nonmotorized), bicycling, and other nonmotorized forms of transportation for commuting and recreational purposes with or without pets accompanying them. The owner(s) and/or the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the sidewalk connection."
Code Reference: V-15 of the SSIDS Manual.
Applicant's Response: Notes have been added as requested.
Document Reference: Subdivision Plat

8. Easement Legal Descriptions & Map Exhibits:
a. For the 15' Drainage & Utility Easement that bisects both properties, on Exhibit B, in the description adjacent to Polaris Surveying, delete the word "Grading" and replace with "Drainage" to match wording on proposed subdivision plat.
b. City Surveyor is currently reviewing submitted private easement metes/bounds legal description's and map exhibit's that were submitted in Rounds 1 & 2. Once review is complete, City Project Manager will notify applicant's representative of any requested changes.
c. Submit Dedication/Granting Documents that grants proposed private easements as identified on the proposed subdivision plat, within the City Use Block, for review and approval prior to final signatures and recording.
Code Reference: IV-2 of the SSIDS Manual.
Applicant's Response: Wording has been changed as requested. Dedication/Granting documents for private easements have been included in draft format. Final copies will be sent to the City at the time of final signatures and recording.
Document Reference: Declaration of Easements

CITY DEVELOPMENT ENGINEER

PLANS

Review Comment: C1.00

Sheet index is missing C8.30

This plan set shall include the Landscaping Plans, include in sheet index.

Applicant's Response: Plan set has been revised such that all sheets are collated including Architectural, Lighting, Electrical, and Civil. Index has been updated to reflect.
Document Reference: All sheets

Review Comment: C4.00 & C7.00

Dimension hammerhead parking from the western end to centerline of drive aisle and from the trash enclosure to centerline of the hammerhead.
Applicant's Response: Hammerhead has been dimensioned as requested.
Document Reference: C4.00 & C7.00

Review Comment: C5.00

Please call to discuss the storm drain design, RE: Is there a catch basin on the property line of the existing church and the proposed development for future development of the parking lot? Also,
Applicant's Response: As stated on 7-9-19 phone call location of grading inlets driven by grading scheme.
Document Reference:

Review Comment: C8.00

Please provide topo a minimum of 50 feet south of the southern property line (into 3154 Lakeside). Based on the drawing, it appears runoff will continue to flow south across the PL. Please provide grading or cutoff wall to maintain stormwater in the Tract and into basin.
Applicant's Response: Property south of subject property is private property and access was not possible. Provided Final Drainage Report provides topography surrounding the subject property, including the 50 feet south of the subject property. Per report and site investigation the subject property historically drains to the mid-location of the southern property line. Runoff sheetflows off the subject property and is collected by existing drain inlet located within the apartment complex asphalt parking lot. Pre-developed conditions of the area of question in the above comment is native weeds and grass. Post-Developed conditions will be irrigated native grass. Civil Law Rule and Reasonable Use Rule allows discharge of new development and redevelopment runoff to downstream properties with-in the pre-developed drainage path and in a manner, quantity and quality that approximates pre-developed conditions. Reference Final Drainage Report for additional information.
Document Reference:

Review Comment: C8.20/8.30

Provide grade/slope arrows along the walkway's path of travel.
Applicant's Response: Slopes added to plan sheets.
Document Reference:

DRAINAGE REPORT
Review Comment: No Exceptions Taken

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

- Show a valve at the 2-inch tap saddle for the domestic lateral.
- Change the call out at the utility cabinet to read DCDA IN A HEATED UTILITY CABINET.
- ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY.
- If you have any questions concerning any of this, please feel free to contact Ute Water.

Applicant's Response: Valve shown at 2" tap saddle and call out for DCDA revised.

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

This project will require both state CDPHE and 5-2-1 Construction Stormwater permits, to include the original, wet signed, O&M agreement in 4 pages, not double-sided; a Construction Stormwater Management Plan (*received), and a completed 5-2-1 permit application with fees, payable by check, based on the area of disturbance on page 4. All appropriate forms and templates can be found on the 5-2-1 Drainage Authority website. These documents can be turned into the GJ City Hall Planning Department, the 5-2-1 office at 333 West Avenue, Bldg. C, (Grand Junction City Shops) or mailed to: 5-2-1 Drainage Authority, P.O. Box 3389, Grand Junction, CO 81502. Prior to ANY disturbance, please contact Mark Barslund @ (970) 201-1362

Applicant's Response: Original O&M, 521 Permit Application & Fee and copy of CDPHE Permit will be provided to City/521 prior to the scheduling of a Pre-Construction Meeting. Due to the new CDPHE permit and electronic submittal process it is being requested that the above approach be acceptable. Austin Civil Group has spoken with Development Engineering on this approach which will be discussed internally within the City.

REVIEW AGENCIES

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have not responded as of the comment due date.

1. Grand Valley Water User's
2. City Surveyor

The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

1. **City Planning**
2. **City Development Engineer**
3. **City Surveyor**
3. **5-2-1 Drainage Authority**
4. **Ute Water Conservancy District**
5. **Grand Valley Water Users**

Date due by: **September 28, 2019**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Kyle Mead, Shopworks Architecture — 7/11/2019

Applicant's Signature — **Date**

City of Grand Junction
Review Comments

Date: August 1, 2019 **Comment Round No.** 3 **Page No.** 1 of 4

SPN-2019-174

Project Name: Karis Apartments & Karis Subdivision **File No:** SSU-2019-182

Project Location: 3205 N. 12th Street

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s):

[ ] **Mailing Address:**

[ ] **Email:** **Telephone:**

[ ] **Date Picked Up:** **Signature:**

Representative(s): Shopworks Architecture – Attn: Kyle Mead

[ ] **Mailing Address:** 301 W. 45th Avenue, Denver, CO 80216

[X] **Email:** kyle@shopworksarc.com **Telephone:** (303) 433-4094 Ext. 105

[ ] **Date Picked Up:** **Signature:**

Developer(s): Karis Inc. – Attn: John Mok-Lamme

[ ] **Mailing Address:** P. O. Box 2837, Grand Junction, CO 81502

[X] **Email:** jmoklamme@karisinc.org **Telephone:** (970) 234-1810

[ ] **Date Picked Up:** **Signature:**

CITY CONTACTS

Project Manager: Scott D. Peterson, Senior Planner

Email: scottp@gjcity.org **Telephone:** (970) 244-1447

Dev. Engineer: Jarrod Whelan

Email: jarrodw@gjcity.org **Telephone:** (970) 244-1443

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING

1. Site Plan (Sheet C4.00):

Revise Legend Block to the correct icon for a Proposed Fence as identified along the north and west property lines. Also, label proposed fence location on Site Plan to match locations as identified on Landscaping Plan.

Code Reference: V-22 of the SSIDS Manual.

Applicant's Response:

Document Reference:

2. Landscaping Plan (Sheet LS101 & LS102):

Revise Landscape Table per email dated July 31, 2019 between Kyle Mead and Scott Peterson.

Code Reference: V-10 of the SSIDS Manual.

Applicant's Response:

Document Reference:

3. Fees:
City Open Space Fee: Submit MAI Appraisal Report for determination of this fee (10% of the value of the raw land) payable at time of Planning Clearance issuance (Appraisal shall only account for the 2.19 acres of the property that Karis is developing – proposed Lot 2, Karis Subdivision). *This comment is a carry-over from the 2nd Round of Review Comments and was not addressed by the applicant.*
Code Reference: Section 21.06.020 of the Zoning and Development Code.
Applicant's Response:
Document Reference:

4. Subdivision Plat:
There are 5 private easements to be dedicated by separate instrument appearing on the plat, however only 4 private easements appear in the City Use Block. Please add reception number and title for the 5th private easement to the City Use Block.
Code Reference: V-15 of the SSIDS Manual.
Applicant's Response:
Document Reference:

5. Declaration of Easements Document:
a. Revise document to be more clear. Example: List separately each proposed easement as Exhibit A (metes/bounds legal), Exhibit B (map exhibit), Exhibit C (metes/bounds legal), Exhibit D (map exhibit), E, F, etc. As proposed, it is hard to tell the difference between what legal descriptions and map exhibits/easements correspond with each easement reference as identified within the Recitals and Declarations.
b. Revise document to match proposed subdivision plat easements. References are made between Lots 1 & 2 and vice versa, which sometimes don't match. Example 10' wide Utility Easement as identified within Recital C should be between Lots 2 and 1, not Lots 1 & 2 as currently identified.
c. In Recitals A., describe "the Property" as the legal description of entire property (metes/bounds legal of current parcel) rather than only by the address of 3205 N. 12th Street.
c. Contact Assistant City Attorney, Jamie Beard at (970) 256-4032 or jamieb@gjcity.org for additional questions and clarification in preparing this document.
Code Reference: IV-2 of the SSIDS Manual.
Applicant's Response:
Document Reference:

CITY DEVELOPMENT ENGINEER

PLANS
Review Comment: C5.00

There is an existing fire hydrant shown on C4.00 on the south property line. Please add this to the utility composite plan since other proposed fire hydrants are being shown and label each fire hydrant as "proposed" or "existing."
Applicant's Response:
Document Reference:

Review Comment: C8.30

Following a site visit, Staff has determined that the south side of the lot from the stormwater pond, heading west to the proposed ped path, shall be graded to direct stormwater runoff into the detention pond to prevent cross-lot drainage. Understandably, this is the historical drainage path, however, this opportunity, especially during a mass grading process, to direct onsite drainage to the site-specific pond shall be taken.

Applicant's Response:
Document Reference:

Upon the engineer making these corrections, no further review is required.

Applicant's Response:
Document Reference:

CITY SURVEYOR – Peter Krick – peterk@gjcity.org (970) 256-4003

No comments or suggestions.
Applicant's Response:
Document Reference:

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

- No objection.
- ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY.
- If you have any questions concerning any of this, please feel free to contact Ute Water.

Applicant's Response:

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

O & M Agreement, SWMP, Construction Drawings and Drainage Report on file. 5-2-1 app, fees and CDPHE permit copy remain before permit can be issued.
Applicant's Response:

Review Agency: Grand Valley Water User's
Contact Name: Kevin Conrad
Email / Telephone Number: office@gvwua.com (970) 242-5065

Grand Valley Water users have no issues with the development in general but there are issues with 2 irrigation lines on the property one along the East side of the lot the other on the west side of the Lot. Neither line is owned or operated by GVWUA but they are fed by us. The line on the east side is

failing and at times causes flooding and our ditch rider has to respond turning the water down or off until the problem is solved. The line to the east is undersized for the amount of water needed for users downstream. We would highly recommend these two lines be upgraded during the development even though we have no jurisdiction over them.
Applicant's Response:

REVIEW AGENCIES

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have <u>not</u> responded as of the comment due date.

1. N/A.

The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

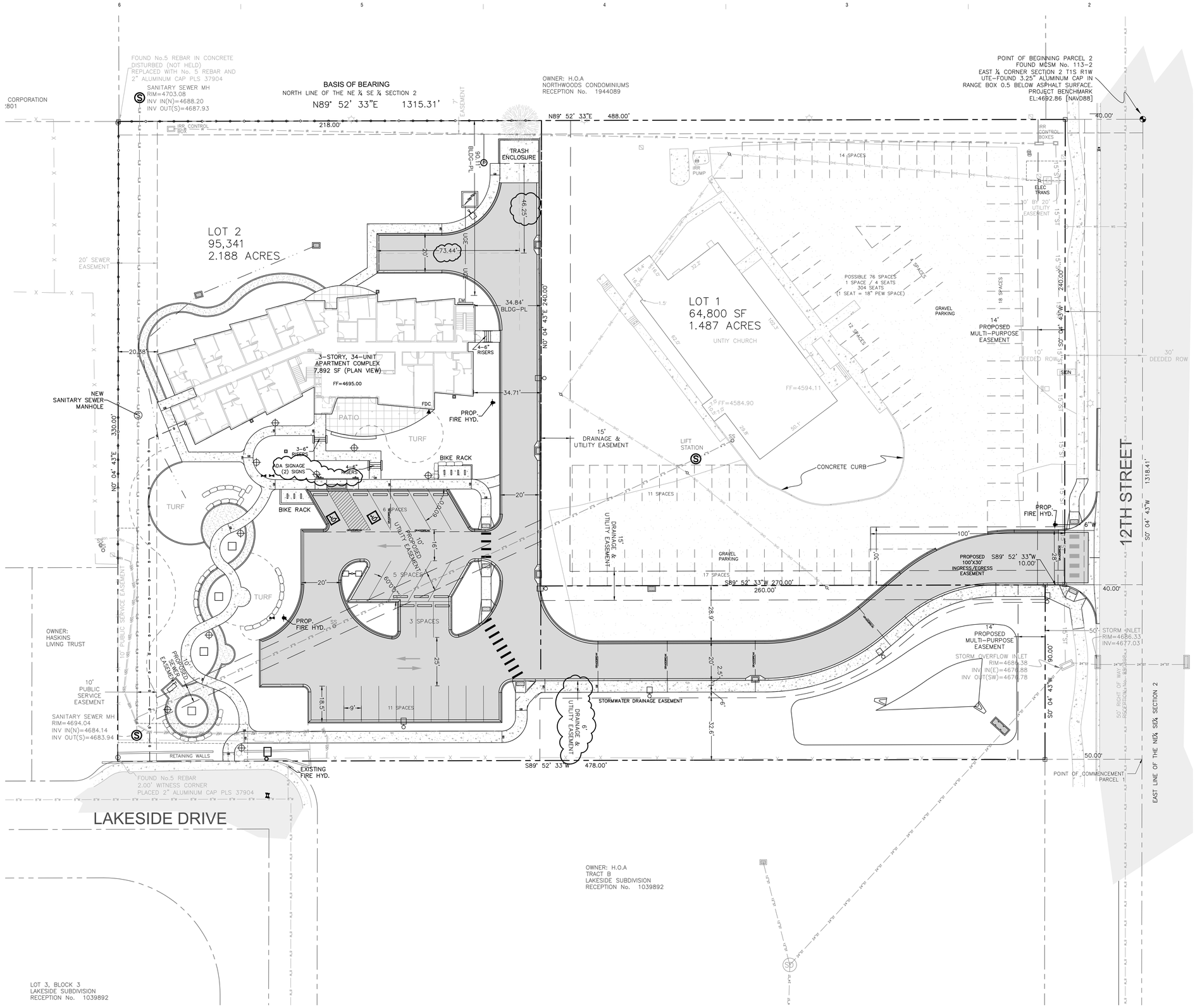
1. **N/A. Application is Conditionally Approved. Please revise respective documents as applicable according to Review Agency comments prior to final City Approval signatures and Planning Clearance issuance.**

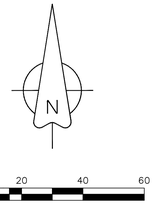
Date due by: **N/A.**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Applicant's Signature	**Date**





GENERAL NOTES:

1. ALL PARKING SPACES ARE 9-FT WIDE X 18.5-FT LONG UNLESS NOTED AS 60° PARKING WHICH ARE PER TEDS.
2. ALL SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
3. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET.
4. FOURTEEN (14) BICYCLE PARKING SPACES ARE PROVIDED ON SITE THAT ARE ACCOMPLISHED BY SEVEN (7) BICYCLE RACKS.

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

LAND USE SUMMARY		
USE	SQUARE FT	PERCENT
BUILDING	7,892	8.3%
LANDSCAPE	55,109	57.8%
ASPHALT/PKG/CONC	32,340	33.9%
TOTAL	95,341	100%

PARKING SUMMARY
*7,892 SF Multi-Family = 25
Total Parking Required = 25 Spaces
Total Parking Provided On Site = 25 Spaces
*Project is utilizing an affordable housing parking reduction

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

shop works architecture
2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

Know what's below. Call before you dig. 811

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV: CITY COMMENTS RD1 6/7/2019
CITY COMMENTS RD2 7/11/2019

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
SITE PLAN

SCALE: 1"=20'

NO. C4.00

M:\PROJECTS\1160.0001 - Karis Multi-family\Drawings\CSD\Production Drawings\PROD SITE KARIS.dwg, 7/10/2019 1:14:01 PM, DWG To PDF.pc3

DECLARATION OF EASEMENTS

THIS DECLARATION OF EASEMENTS ("Declaration") is made as of the ___ day of _____, 2019, by Unity Church ("Declarant").

Recitals

A. Declarant is the owner in fee simple of certain real property located in Mesa, Colorado, which is more specifically described as **3205 N. 12th Street** (the "Property"). The subdivided lots of the Property (and improvements on and appurtenances to each) are sometimes hereinafter referred to collectively as the "Lots" and singularly as a "Lot". The owner of fee title to the respective Lots from time to time, which may include Declarant, is referred to hereinafter as "Owner."

B. Declarant intends that the Property be developed as a residential subdivision consisting of one lot for multi-family apartments.

C. A legal description and map illustration for a private 30' wide ingress/egress, a private 15' grading easement and 10' wide utility easement across Lot 1 for the benefit of Lot 2 are attached hereto as **Exhibit A** (the "Ingress/Egress and Utility Easement").

D. A legal description and map illustration for a 15' wide drainage easement (7.5' on Lot 1, 7.5' on Lot 2) across Lot 1 for the benefit of Lot 2 are attached hereto as **Exhibit B** (the "Drainage Easement").

E. Declarant has made this Declaration in order to grant the Owner of Lot 2 access to and use of the Private Ingress/Egress and Utility Easement and Drainage Easement, subject to all the provisions of this Declaration.

Declaration

NOW, THEREFORE, pursuant to and in furtherance of the foregoing premises, Declarant does hereby establish and impose each of the following grants, easements, covenants, conditions and provisions of this Declaration regarding the Private Ingress/Egress and Utility Easement and Drainage Easement.

1. Access and Utility Easement Declaration.

1.1 Easement. Declarant declares and grants for the benefit of the Owner of Lot 2 and the Owner's respective heirs, successors, assigns, grantees and mortgagees, and their respective tenants, subtenants and all persons who now or hereafter own or hold any possessory interest within such Lot, and the concessionaires, agents, employees, customers, visitors, contractors, licensees, lessees and invitees of any them (collectively, "Permittees"), an irrevocable, non-exclusive Ingress/Egress and Utility Easement upon, over and across the area legally described on attached **Exhibit A** and accompanying map (and as shown on the plat recorded with the Clerk and Recorder of Mesa County, Colorado), for the purposes of providing the Owner of Lot 2 (and its respective Permittees) with pedestrian and vehicular ingress, egress and access to and from Lot 2 and all public rights-of-way that may be accessed from the east boundary of the Property now or in the future, and for the installation, maintenance and repair of any underground

water, sewer, electrical, gas, telephone, storm drainage and other utility line, facility or system that serves Lot 2.

1.2 Maintenance. The Owners of Lots 1 and 2 and said Owners' heirs, successors, assigns and grantees shall share equally all costs of maintenance and repair of any jointly used driveway constructed within the easement area and the Owner of Lot 2 and said Owner's heirs, successors, assigns and grantees shall be solely responsible for the costs of maintenance and repair of any utilities constructed or installed within the easement area which serve only Lot 2.

1.3 Reservation by Declarant. Declarant reserves the right to use the easement for any purpose which does not unreasonably interfere with the easement granted by this Declaration, including but not limited to, the right to grant other easements on, under, over and across the easement area.

2. Drainage Easement Declaration.

2.1 Easement. Declarant declares and grants for the benefit of the Owner of Lot 2 and the Owner's respective heirs, successors, assigns, grantees and mortgagees, and their respective tenants, subtenants and all persons who now or hereafter own or hold any possessory interest within such Lot, and the concessionaires, agents, employees, customers, visitors, contractors, licensees, lessees and invitees of any them (collectively, "Permittees"), an irrevocable, non-exclusive Drainage Easement upon, over and across the area legally described on attached **Exhibit B** and accompanying map (and as shown on the plat recorded with the Clerk and Recorder of Mesa County, Colorado) for the purpose of protecting and maintaining current drainage flow and capacity.

2.2 Reservation by Declarant. Declarant reserves the right to use the easement for any purpose which does not unreasonably interfere with the easement granted by this Declaration, including but not limited to, the right to grant other easements on, under, over and across the easement.

3. Run With the Land. This Declaration will run with the land and the ownership of the Lots, and the various provisions hereof will act as an appurtenant benefit and burden for each Lot or Lots that are intended to be benefited and burdened thereby. Such benefits and burdens will inure to the applicable Owners and their respective successors, transferees and assigns and to each such Owner's Lot. All express benefits and burdens of Declarant hereunder will attach to each of the Lots owned by Declarant.

4. No Merger. Notwithstanding the current vesting of title to the entirety of the Property in Declarant, and notwithstanding any future vesting of title to the two Lots in the same party, such commonality of ownership interests will not give rise to any extinguishment or merger of the easements established under this Declaration or any other provisions hereof, it being the controlling and dominant intent of Declarant that no such merger or extinguishment will occur, and that all such easements and provisions of this Declaration will remain in full force and effect regardless of any commonality of ownership interests in the Lots. Except as otherwise expressly

provided herein, any such easement or other provision of this Declaration may be extinguished as it applies to a particular Lot only by the mutual written consent of all Owners who are benefited and burdened by the pertinent provision as applied to the given Lot, which consent must be recorded in the real property records of the Mesa County Clerk & Recorder's Office.

5. Extent of Declarant's Rights and Obligations. Declarant is the initial Owner of both of the Lots; however, if Declarant is no longer an Owner, then the rights and obligations of Declarant will automatically terminate hereunder, and each Owner will have the rights and be subject to the obligations set forth herein. However, Declarant's sale of all of its interest in the Property will in no way effect the rights and obligations of the Owners as set forth in this Declaration.

6. Term; Amendment. The term of this Declaration, and the benefits and burdens of the provisions hereof, will be perpetual. This Declaration may be amended from time to time upon the written consent of all of the Owners (which may include Declarant), which consent shall not be unreasonably withheld, conditioned or delayed by any such Owner, so long as such amendment does not (a) materially and adversely affect such Owner's rights set forth herein, or (b) materially increase the obligations of such Owner with respect to this Declaration. Any such amendment or termination of this Declaration will become effective upon its recordation in the real property records of the Mesa County Clerk & Recorder's Office.

7. Severability. If any provision of this Declaration as applied to a particular circumstance will be adjudicated as, or otherwise become, illegal and unenforceable, such illegality will not affect the enforceability of any other provision of this Declaration, or the offending provision as applied to circumstances for which it is enforceable, it being intended that all provisions of this Declaration be valid and enforceable to the fullest extent legally permissible.

8. Captions. The captions and headings of the various provisions of this Declaration are for convenience and identification only, and will not be deemed to limit or define the operative provisions of this Declaration.

9. No Public Dedication. Nothing herein contained will be deemed to be a grant or dedication of any portion of the Property to the general public or for the general public or for any public purposes whatsoever, it being the intention of Declarant that this Declaration be strictly limited to the purposes herein expressed.

10. Governing Law, Venue. This Declaration will be governed by, and construed in accordance with, the laws of the State of Colorado, and venue for any legal action to interpret or enforce this Declaration shall be in the State District Court in Mesa County, Colorado.

[Signature page follows]

IN WITNESS WHEREOF, Declarant has made this Declaration as of the day, month and year first above written.

_____

President of Unity Church
Board of Trustees

STATE OF COLORADO)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 2019, by _____.

Witness my hand and official seal.

My commission expires: _____

_____

Notary Public

Exhibit A

Legal Description-Ingress/Egress

A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 240.00 feet; thence S 89°52'33" W a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W a distance 100.00 feet;
Thence N 0°04'43" E a distance of 30.00 feet;
Thence N 89°52'33" E a distance 100.00 feet;
Thence S 0°04'43" W a distance of 30.00 feet to the Point of Beginning;

Said parcel contains 3,000 square feet as described.

Legal Description-Utility Easement

A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 89°52'33" W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 310.00 feet; thence S 0°04'43" W a distance of 205.94 feet to the Point of Beginning:

Thence S 0°04'43" W a distance 11.03 feet;
Thence S 65°08'48" W a distance of 114.83 feet;
Thence S 65°10'14" W a distance 103.50 feet to the East Line of an existing 20' Sewer Easement as recorded at Reception Numbers 1258383 and 1258384 of the Mesa County Clerk's Office;
Thence N 0°04'43" E along said East Line a distance of 11.03 feet;
Thence N 65°10'14" E a distance of 98.50 feet;
Thence N65°08'48" E a distance of 119.83 feet to the Point of Beginning.

Said parcel contains 2,183 square feet as described.

Legal Description- Grading

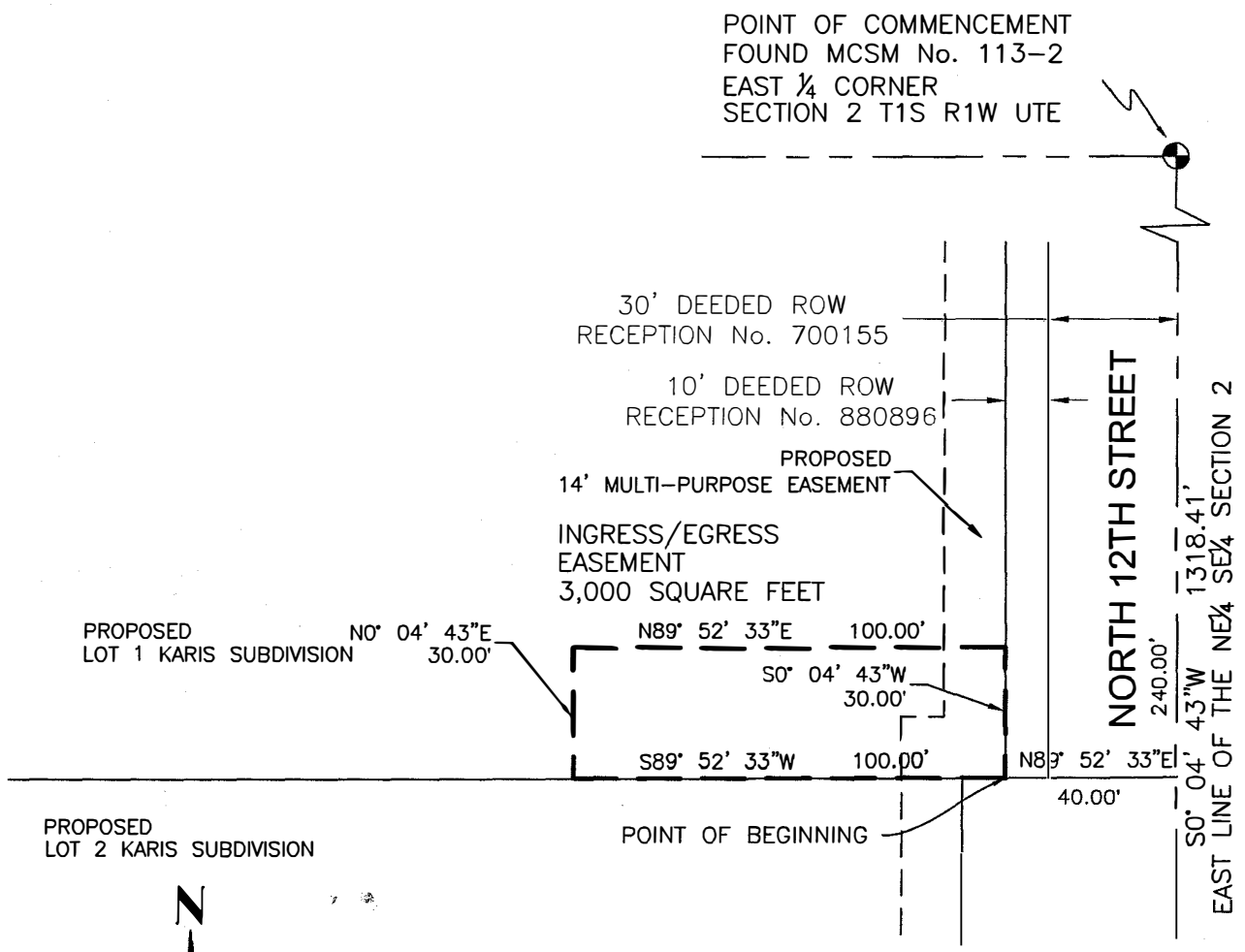
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

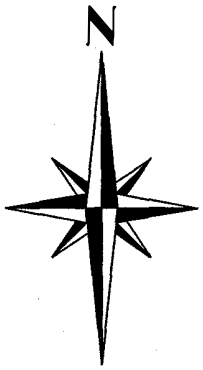
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04’43” W, thence S 89°52’33” W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 295.00 feet to the Point of Beginning:

Thence S 0°04’43” W a distance 240.00 feet;
Thence S 89°52’33” W a distance of 15.00 feet;
Thence N 0°04’43” E a distance of 240.00 feet;
Thence N 89°52’33” E a distance of 15.00 feet to the Point of Beginning.

Said parcel contains 3,600 square feet as described.

EXHIBIT A





Legal Description Sketch

Karis Subdivision
Ingress/Egress Easement

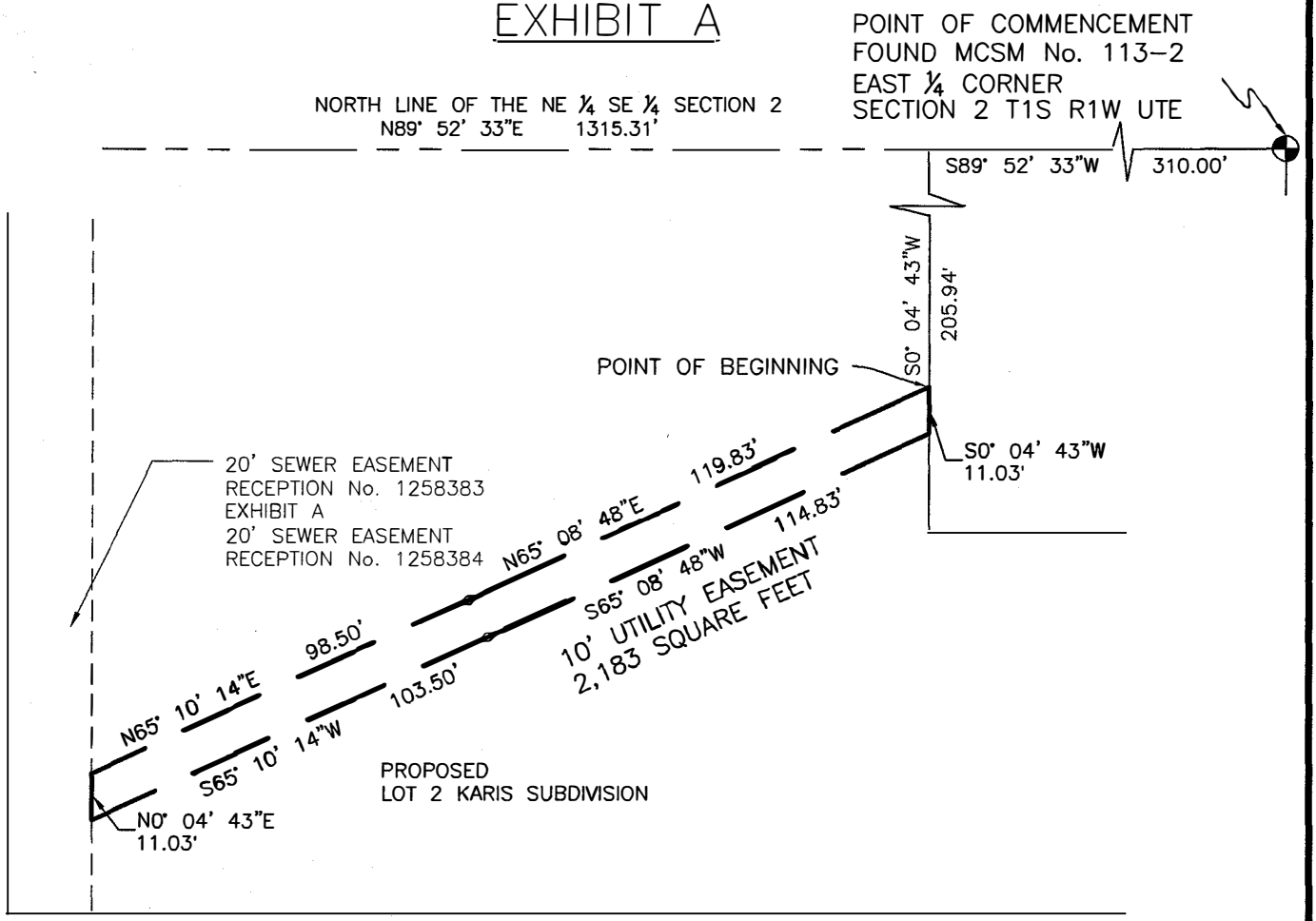
GRAPHIC SCALE:
1"=40'

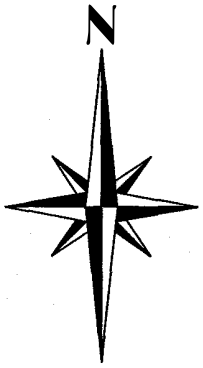
40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

EXHIBIT A





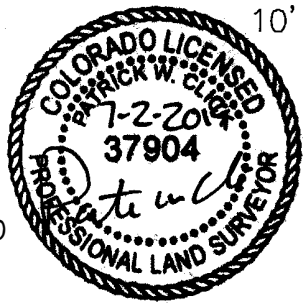
Legal Description Sketch

Karis Subdivision
10' Utility Easement

GRAPHIC SCALE:
1"=40'

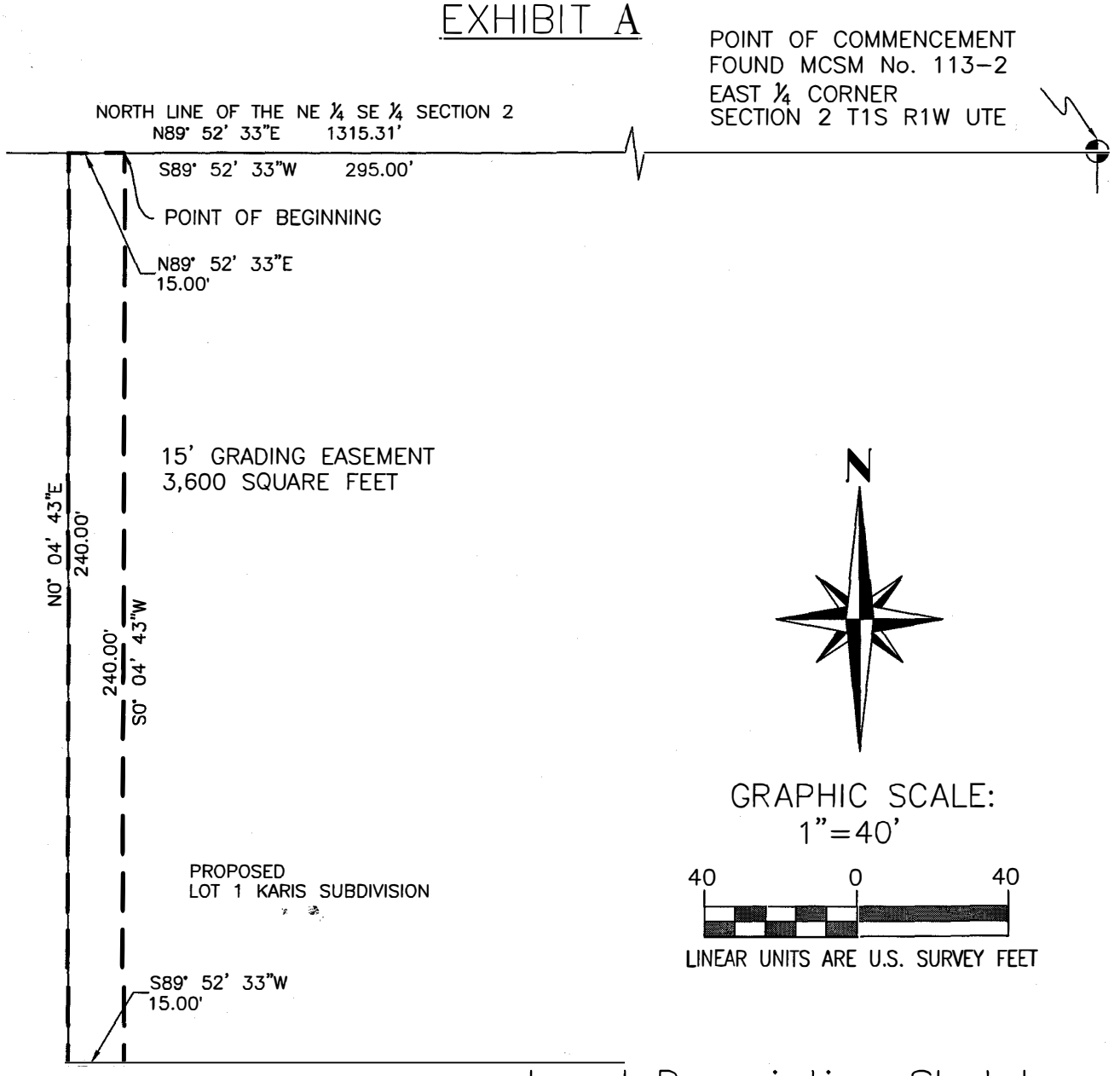
40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET



POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

EXHIBIT A



Legal Description Sketch

Karis Subdivision

15' Grading Easement

COLORADO LICENSED
PATRICK W. CLICK
7-2-20
37904
PROFESSIONAL LAND SURVEYOR

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434-7038

Exhibit B

Legal Description-Drainage Easement

A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

The South 7.50 feet of Lot 1 Karis Subdivision, Mesa County, Colorado.

And including the North 7.50 feet of Lot 2 said Karis Subdivision lying adjacent and South of said Lot 1.

Said parcel contains 3,975 square feet.

Legal Description-Stormwater

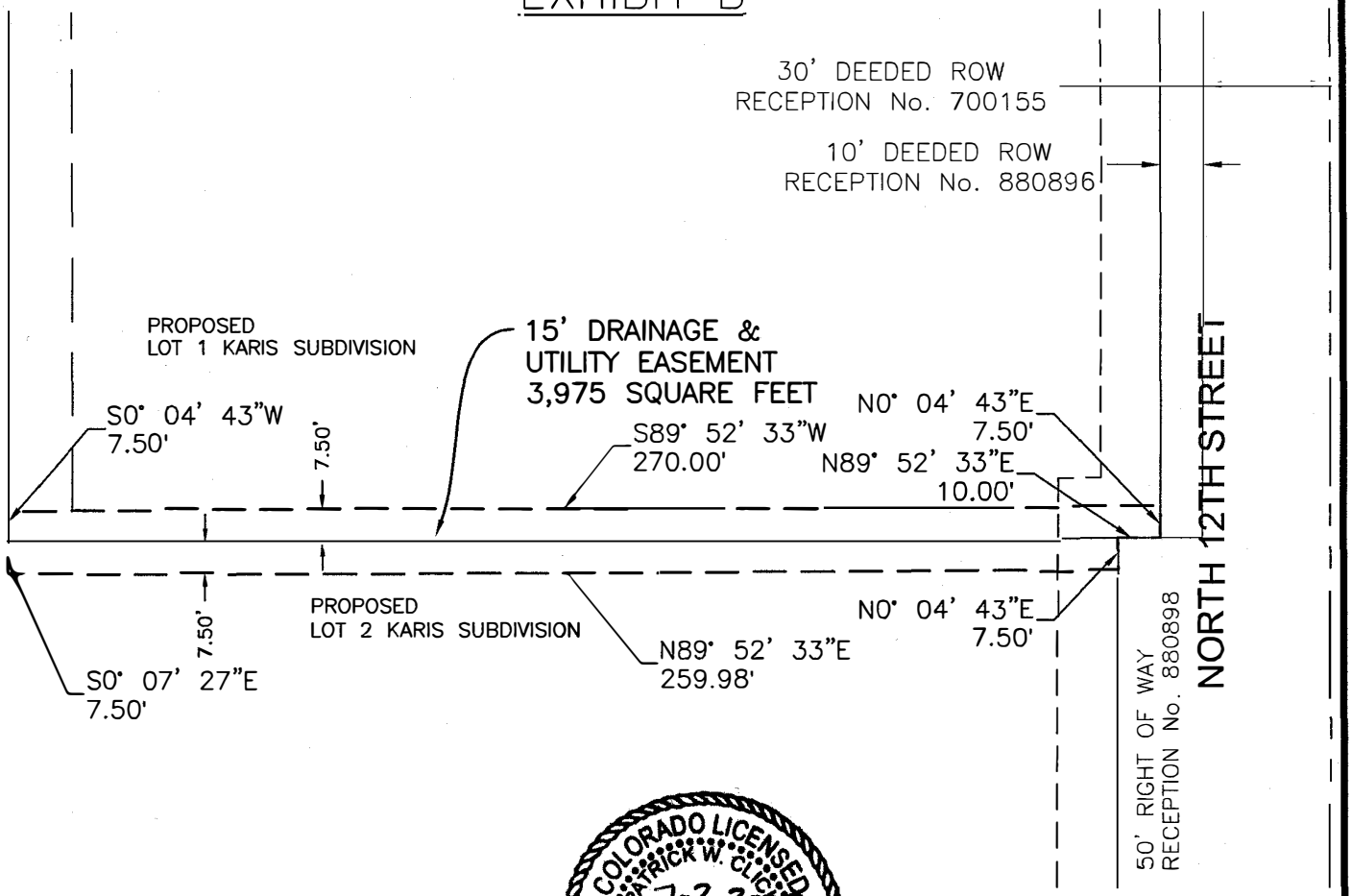
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

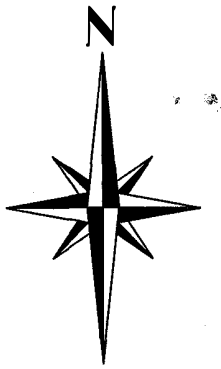
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 330.00 feet; thence S 89°52'33" W a distance of 50.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880898, the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W along the North Line of said Lakeside Subdivision Filing Two a distance 260.38 feet;
Thence N 0°04'43" E a distance of 32.10 feet;
Thence N 89°52'33" E a distance 116.05 feet to the start of a curve to the left;
Thence 72.60 feet along said curve to the left with a radius of 104.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 71.14 feet;
Thence N 49°52'42" E a distance of 15.30 feet to the start of a curve to right;
Thence 43.98 feet along said curve to the right with a radius of 63.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 43.09 feet;
Thence N 89°52'33" E a distance of 25.44 feet to the West Right of Way for said 12th Street;
Thence S 0°04'43" W along said Right of Way a distance of 81.00 feet to the Point of Beginning.

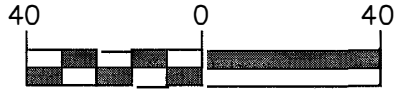
Said parcel contains 12,246 square feet as described.

EXHIBIT B





GRAPHIC SCALE:
1"=40'



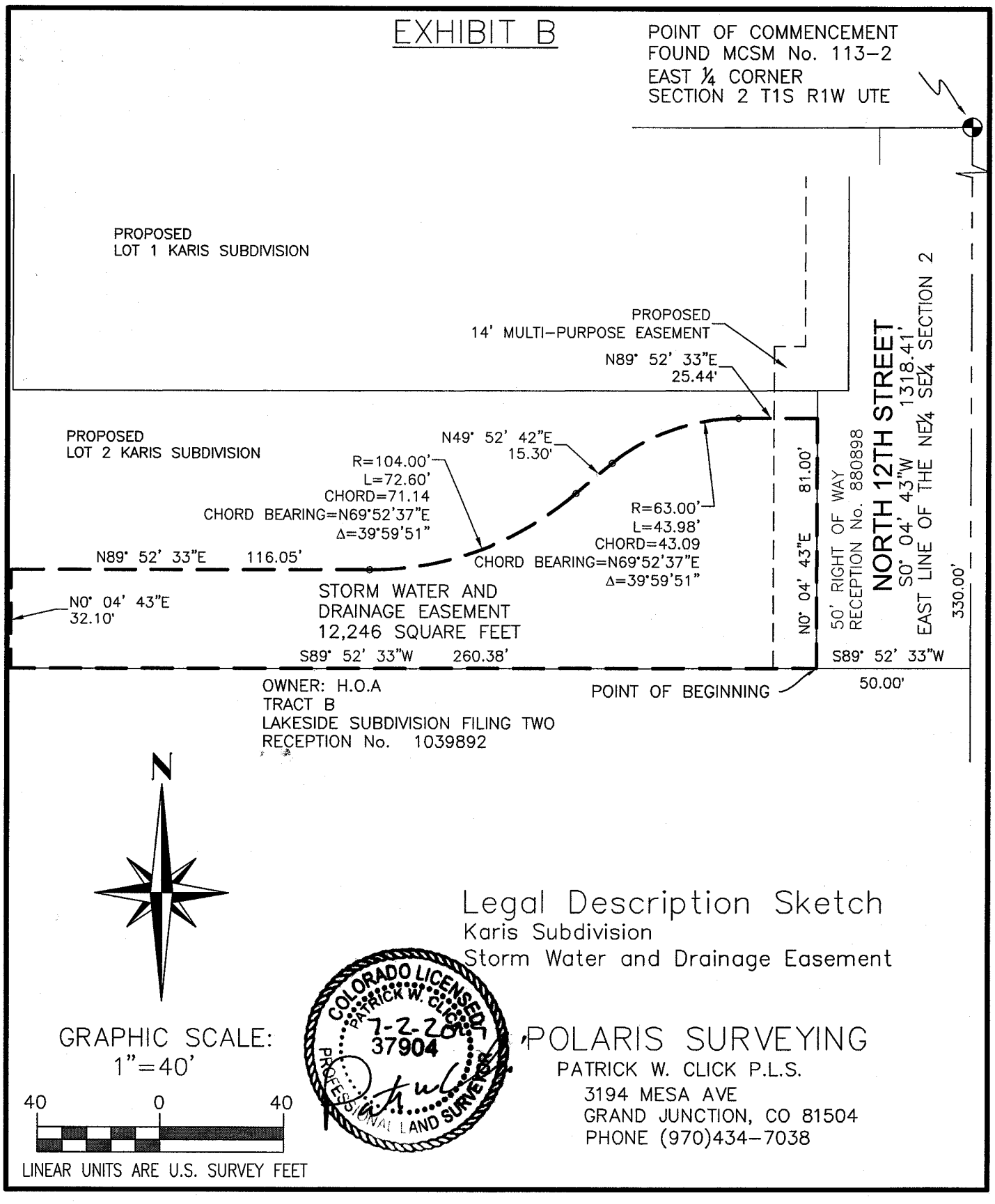
LINEAR UNITS ARE U.S. SURVEY FEET

Legal Description Sketch

Karis Subdivision
15' Drainage and Utility Easement

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

EXHIBIT B



Legal Description Sketch

Karis Subdivision

Storm Water and Drainage Easement

GRAPHIC SCALE:
1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

COLORADO LICENSED
PATRICK W. CLICK
7-2-20
37904
PROFESSIONAL LAND SURVEYOR

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

Legal Description

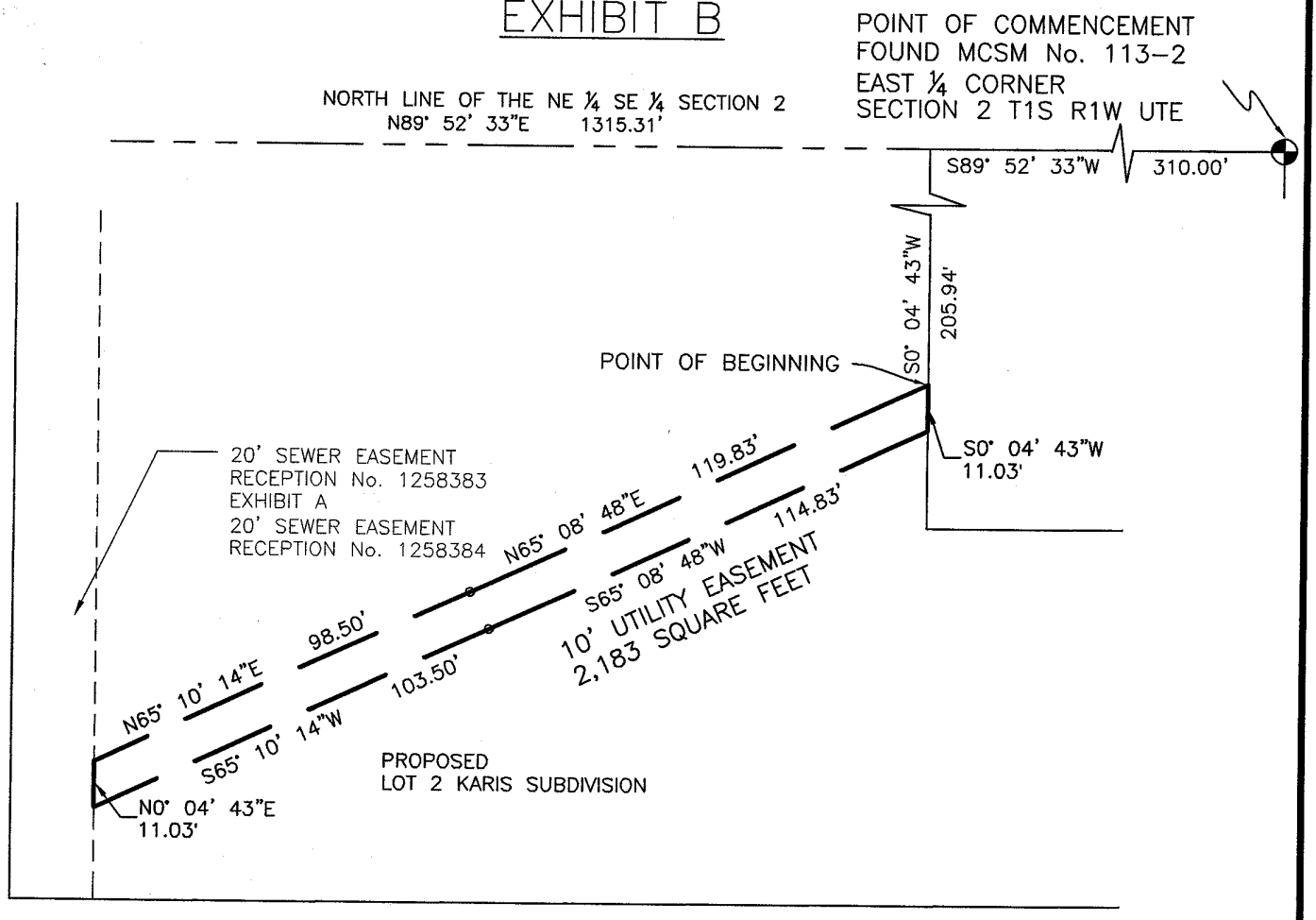
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

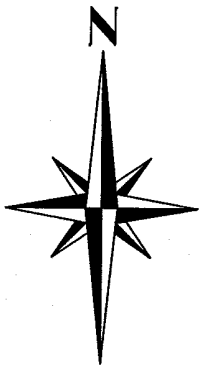
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 89°52'33" W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 310.00 feet; thence S 0°04'43" W a distance of 205.94 feet to the Point of Beginning:

Thence S 0°04'43" W a distance 11.03 feet;
Thence S 65°08'48" W a distance of 114.83 feet;
Thence S 65°10'14" W a distance 103.50 feet to the East Line of an existing 20' Sewer Easement as recorded at Reception Numbers 1258383 and 1258384 of the Mesa County Clerk's Office;
Thence N 0°04'43" E along said East Line a distance of 11.03 feet;
Thence N 65°10'14" E a distance of 98.50 feet;
Thence N65°08'48" E a distance of 119.83 feet to the Point of Beginning.

Said parcel contains 2,183 square feet as described.

EXHIBIT B



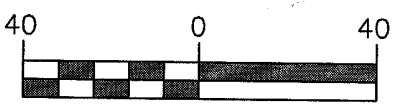


Legal Description Sketch

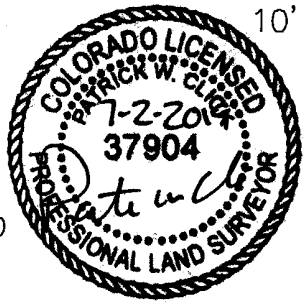
Karis Subdivision

10' Utility Easement

GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET



POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

Legal Description

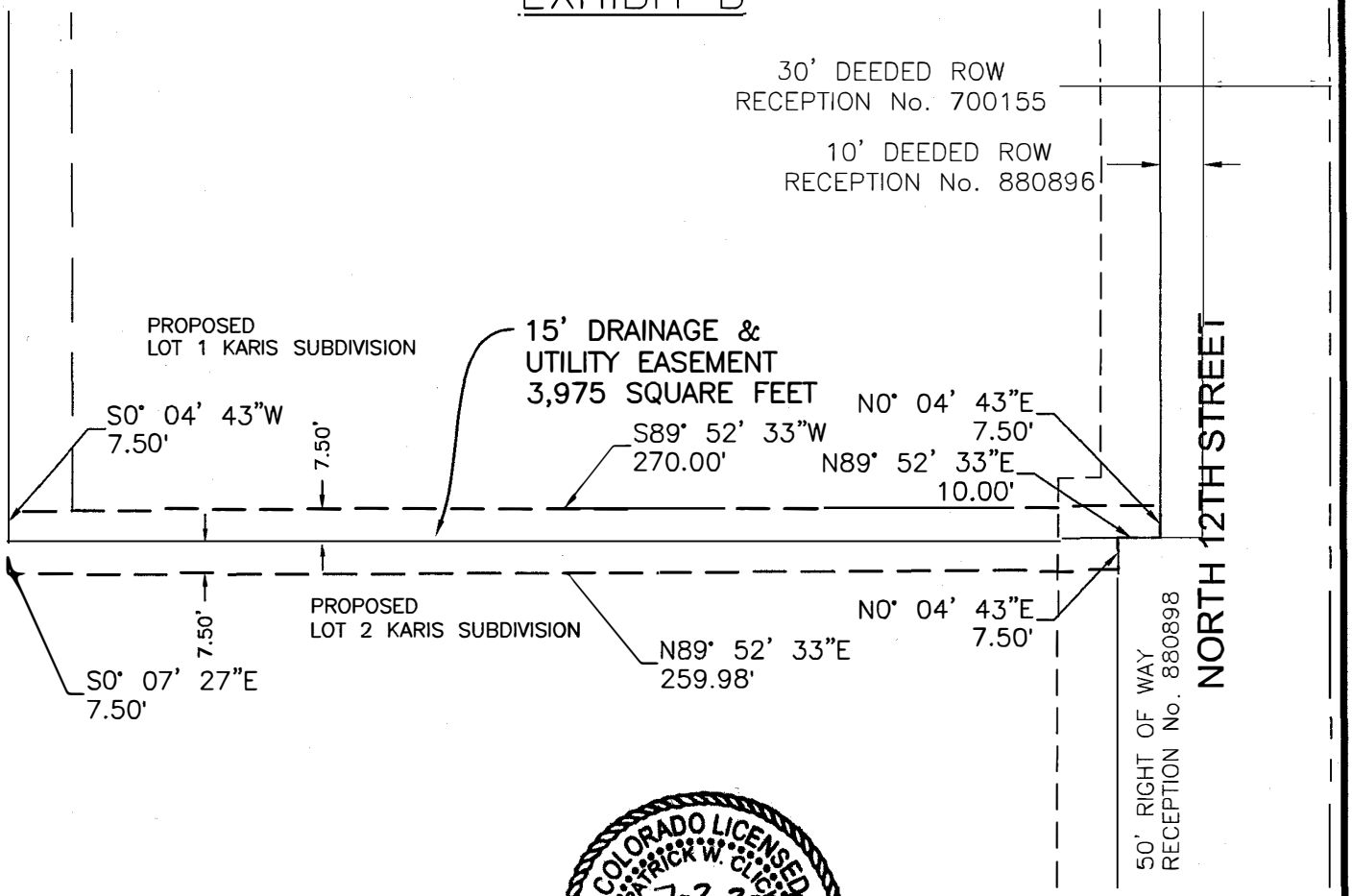
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

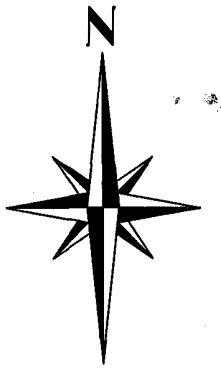
The South 7.50 feet of Lot 1 Karis Subdivision, Mesa County, Colorado.

And including the North 7.50 feet of Lot 2 said Karis Subdivision lying adjacent and South of said Lot 1.

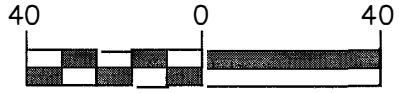
Said parcel contains 3,975 square feet.

EXHIBIT B





GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET

Legal Description Sketch

Karis Subdivision
15' Drainage and Utility Easement

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

Legal Description

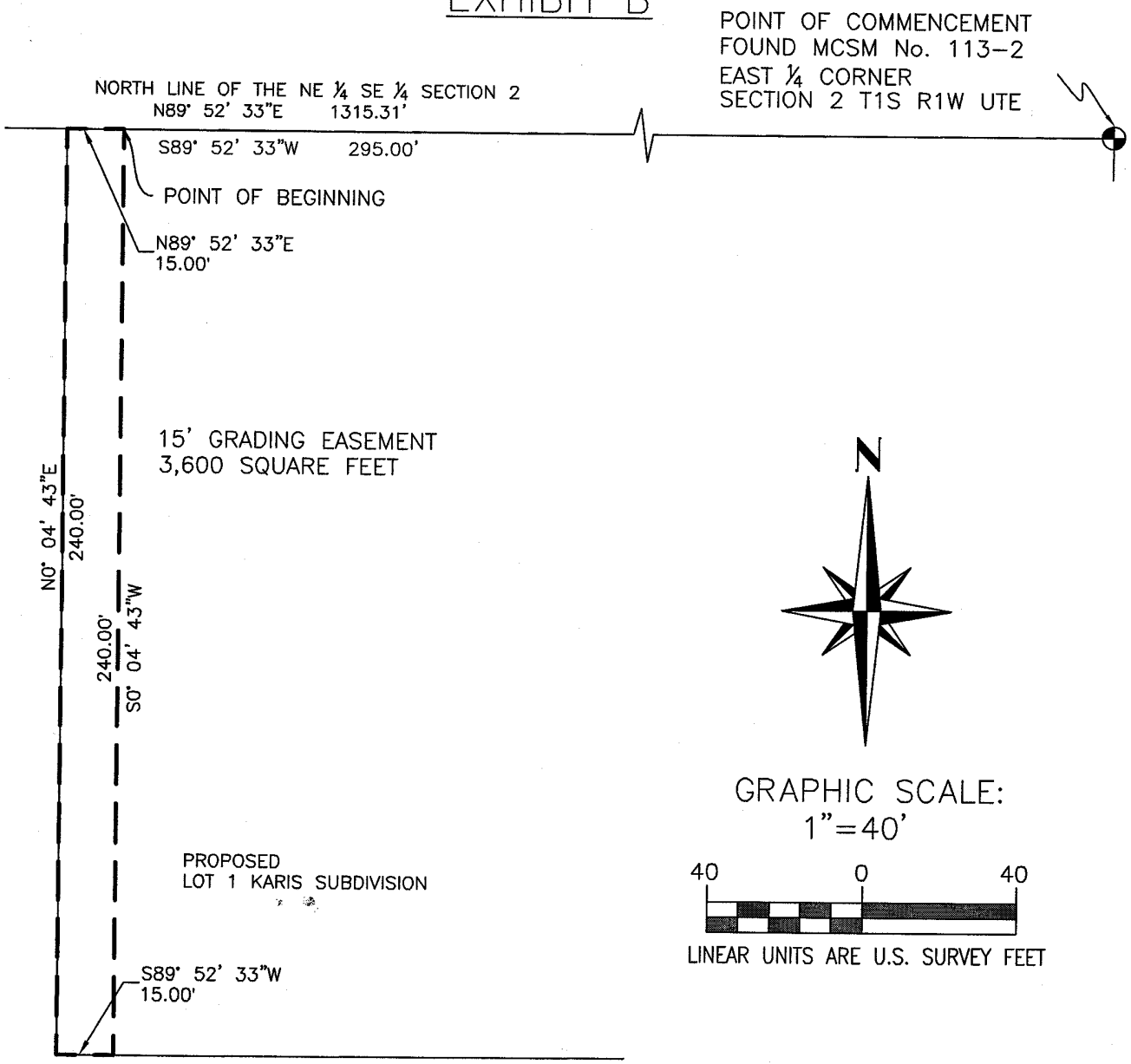
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04’43” W, thence S 89°52’33” W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 295.00 feet to the Point of Beginning:

Thence S 0°04’43” W a distance 240.00 feet;
Thence S 89°52’33” W a distance of 15.00 feet;
Thence N 0°04’43” E a distance of 240.00 feet;
Thence N 89°52’33” E a distance of 15.00 feet to the Point of Beginning.

Said parcel contains 3,600 square feet as described.

EXHIBIT B



Legal Description Sketch

Karis Subdivision
15' Grading Easement

COLORADO LICENSED
PATRICK W. CLICK
7-2-01
37904
PROFESSIONAL LAND SURVEYOR

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

Legal Description

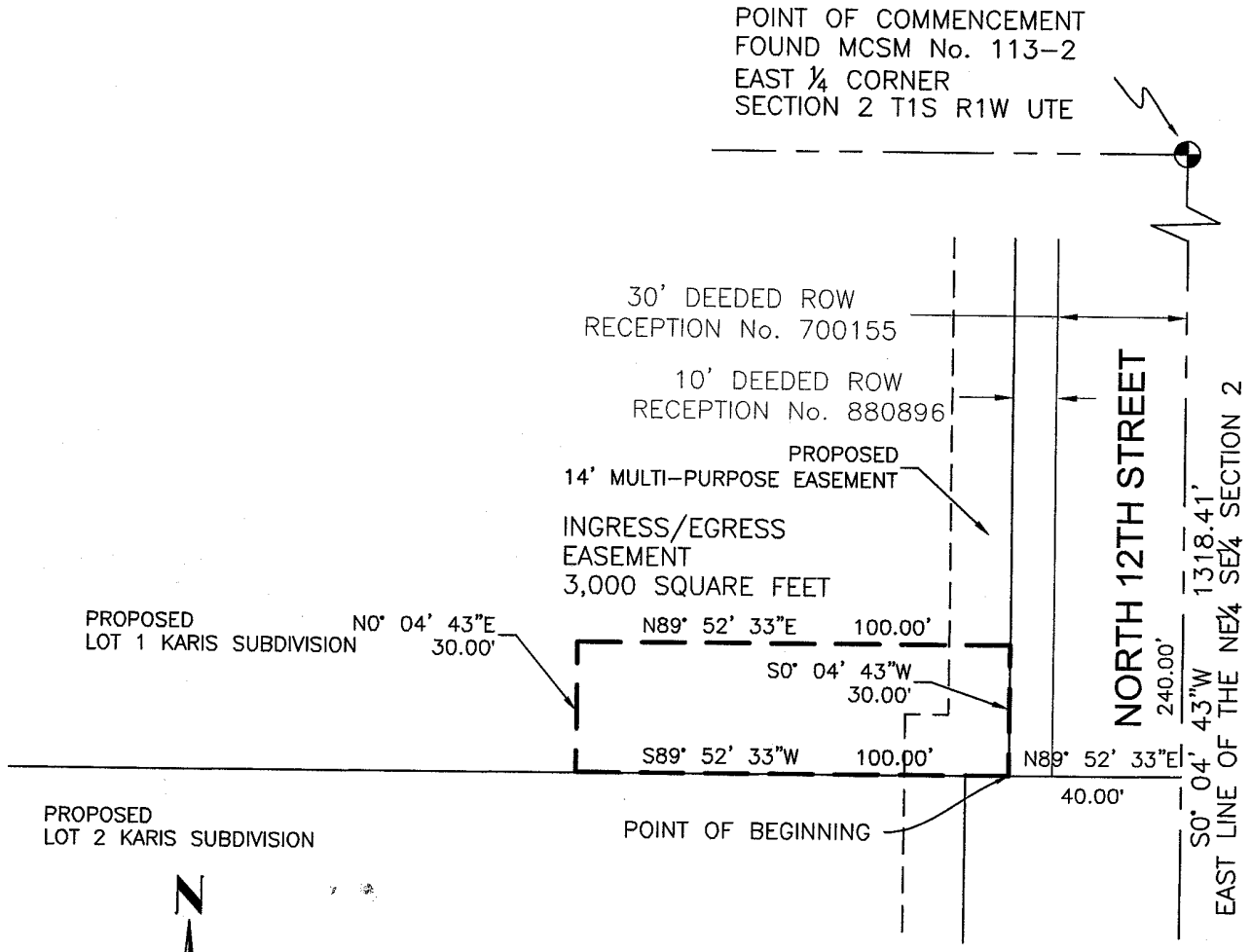
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

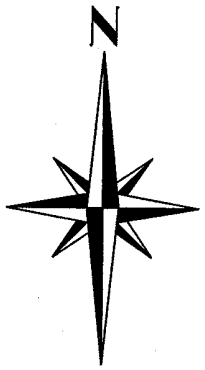
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 240.00 feet; thence S 89°52'33" W a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W a distance 100.00 feet;
Thence N 0°04'43" E a distance of 30.00 feet;
Thence N 89°52'33" E a distance 100.00 feet;
Thence S 0°04'43" W a distance of 30.00 feet to the Point of Beginning;

Said parcel contains 3,000 square feet as described.

EXHIBIT B





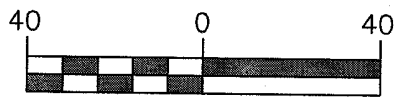
Legal Description Sketch

Karis Subdivision

Ingress/Egress Easement

GRAPHIC SCALE:

1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

Legal Description

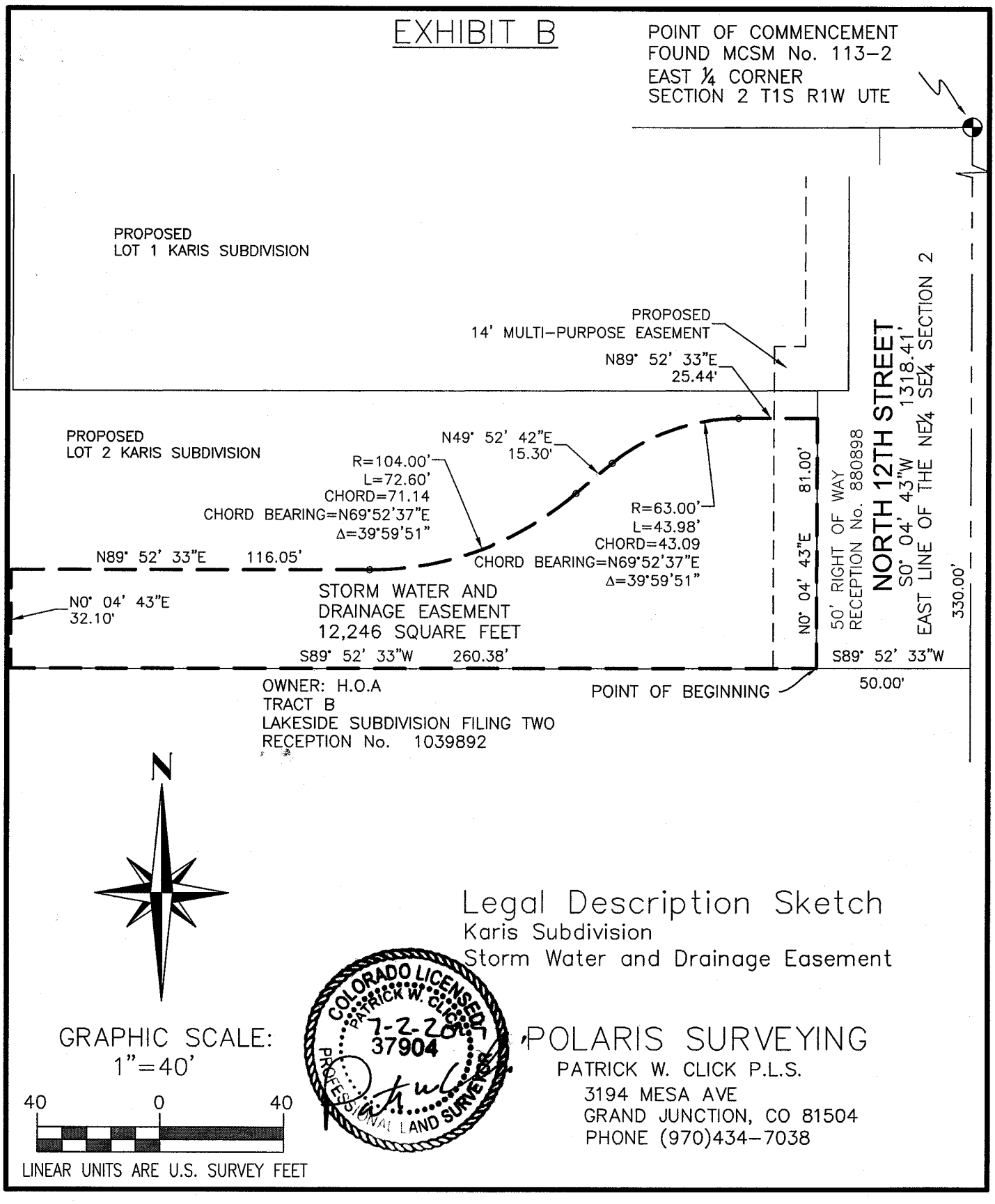
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 330.00 feet; thence S 89°52'33" W a distance of 50.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880898, the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W along the North Line of said Lakeside Subdivision Filing Two a distance 260.38 feet;
Thence N 0°04'43" E a distance of 32.10 feet;
Thence N 89°52'33" E a distance 116.05 feet to the start of a curve to the left;
Thence 72.60 feet along said curve to the left with a radius of 104.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 71.14 feet;
Thence N 49°52'42" E a distance of 15.30 feet to the start of a curve to right;
Thence 43.98 feet along said curve to the right with a radius of 63.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 43.09 feet;
Thence N 89°52'33" E a distance of 25.44 feet to the West Right of Way for said 12th Street;
Thence S 0°04'43" W along said Right of Way a distance of 81.00 feet to the Point of Beginning.

Said parcel contains 12,246 square feet as described.

EXHIBIT B



Legal Description Sketch

Karis Subdivision

Storm Water and Drainage Easement

GRAPHIC SCALE:
1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

COLORADO LICENSED
PATRICK W. CLICK
7-2-20
37904
PROFESSIONAL LAND SURVEYOR

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

Owners' Statement and Dedication:

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned Unity Church, a Colorado nonprofit corporation is the owners of that real property situate in the NE¼ SE¼ of Section 2, Township 1 South, Range 1 West of the Ute Meridian, City of Grand Junction, County of Mesa, State of Colorado as evidenced by Deed, filed in the office of the Mesa County, Colorado, Clerk and Recorder, at Reception Numbers 2783858 and 1273201, being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the Center–East Sixteenth Corner of said Section 2 bears S89°52'33"W, thence S89°52'33"W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

thence S0°04'43"W along said West Right of Way a distance of 240.00 feet to the North Right of Way line as recorded at Reception Number 88098;

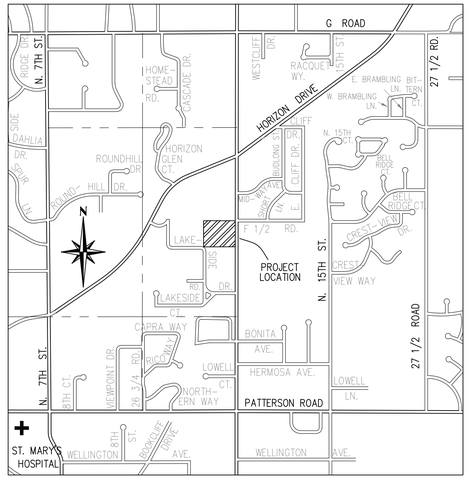
thence S89°52'33"W along the North line of said Right of Way a distance of 10.00 feet;

thence S0°04'43"W along West line of said Right of Way a distance of 90.00 feet to the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office;

thence along said Lakeside Subdivision Filing Two the following two courses and distances
– S89°52'33"W a distance of 478.00 feet
– N0°04'43"E a distance of 330.00 feet to the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2;

thence N89°52'33"E along said North Line a distance of 488.00 feet to the Point of Beginning.

Containing 3.676 acres.



VICINITY MAP
N.T.S

That said owner has laid out, platted and subdivided the above described real property into lots as shown heron, and designate the same as KARIS SUBDIVISION, in the City of Grand Junction, County of Mesa, State of Colorado, and do hereby make the following grants:

All Multipurpose Easements are dedicated to the City of Grand Junction as perpetual easements for City approved utilities including the installation, operation, maintenance and repair of said utilities and appurtenances which may include but are not limited to, electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, storm sewers, water lines, telephone lines, traffic control facilities, street lighting, landscaping, trees and grade structures.

All Pedestrian Easements are dedicated to the City of Grand Junction as perpetual easements for ingress and egress access use by the public forever for purposes of walking, running, wheelchairs (motorized and nonmotorized), bicycling, and other nonmotorized forms of transportation for commuting and recreational purposes with or without pets accompanying them. The owner(s) and/or the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the sidewalk connection."

An Easement over the Storm Water Drainage Easement is dedicated to the City of Grand Junction as perpetual easements for the inspection, installation, operation, maintenance and repair of detention and drainage facilities and appurtenance thereto. The City of Grand Junction is dedicated reasonable ingress/egress access to the drainage/detention easement areas. The owner(s) and/or the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the detention and drainage facilities."

All lienholders appear hereon.

IN WITNESS WHEREOF, said owner, Unity Church, a Colorado nonprofit corporation, have caused their names to be hereunto subscribed this _____day of_____, A. D. 2019.

_____
By: For: Unity Church, a Colorado nonprofit corporation

NOTARY PUBLIC CERTIFICATION

STATE OF COLORADO)
) SS
COUNTY OF MESA)

The foregoing instrument was acknowledged before me by_____ For: Unity Church, a Colorado nonprofit corporation this_____day of _____ A.D. 20__.

Witness my hand and official seal_____.
Notary Public
My commission expires _____.

City Use Block:

The below listed recording information for Associated Record Documents was not prepared under the professional land surveyor's responsible charge, Board Rule 6.2.1, State of Colorado

The recording information is to be completed by the City of Grand Junction personnel.
The accuracy of this information is the responsibility of the City of Grand Junction.

1. 10' Utility Easement granted by document at Reception Number _____.
2. Storm Water and Drainage Easement granted by document at Reception Number _____.
3. Ingress/Egress Easement granted by document at Reception Number _____.
4. 15' Grading Easement granted by document at Reception Number _____.

TITLE CERTIFICATION

STATE OF COLORADO)
COUNTY OF MESA) ss

WE, ADVANCED TITLE COMPANY, A TITLE INSURANCE COMPANY, AS DULY LICENSED IN THE STATE OF COLORADO, HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE TO THE HEREON DESCRIBED PROPERTY, THAT WE FIND THE TITLE TO THE PROPERTY VESTED TO UNITY CHURCH, A COLORADO NONPROFIT CORPORATION; THAT THE CURRENT TAXES HAVE BEEN PAID; THAT ALL MORTGAGES NOT SATISFIED OR RELEASED OF RECORD NOR OTHERWISE TERMINATED BY LAW ARE SHOWN HEREON AND THAT THERE ARE NO OTHER ENCUMBRANCES OF RECORD; THAT ALL EASEMENTS, RESERVATIONS AND RIGHTS OF WAY OF RECORD ARE SHOWN HEREON.

DATE:_____ BY: _____
NAME AND TITLE
ADVANCED TITLE COMPANY

ABBREVIATIONS:

N	NORTH
S	SOUTH
E	EAST
W	WEST
T	TOWNSHIP
R	RANGE
MCSM	MESA COUNTY SURVEY MARKER
ROW	RIGHT OF WAY
PLS	PROFESSIONAL LAND SURVEYOR
No.	NUMBER
GPS	GLOBAL POSITIONING SYSTEM
ID	IDENTIFICATION
SQ	SQUARE
FT	FEET

LAND USE SUMMARY		
LOTS	3.676 ACRES	100%
TOTAL	3.676 ACRES	100%

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO :
:ss
COUNTY OF MESA :

This plat was accepted for filing in the office of the Clerk and Recorder of Mesa County, Colorado, at _____o'clock____ .m., on this____ day of _____ 20 ___ and was recorded at Reception No. _____.

Drawer No. _____ , and Fees _____.

_____ _____
Clerk and Recorder Deputy

CITY APPROVAL

This plat of KARIS SUBDIVISION, a subdivision of the City of Grand Junction, County of Mesa, State of Colorado, is hereby approved and dedications accepted this_____day of _____ 20 _____ .

_____ _____
City Manager Mayor

LIENHOLDER RATIFICATION

THE UNDERSIGNED, HEREBY CERTIFIES THAT IT IS A HOLDER OF A SECURITY INTEREST UPON THE PROPERTY HEREON DESCRIBED AND DOES HEREBY JOIN IN AND CONSENT TO THE DEDICATION OF THE LAND DESCRIBED IN SAID DEDICATION BY THE OWNERS THEREOF AND AGREE THAT ITS SECURITY INTEREST WHICH IS RECORDED DECEMBER 12, 2016, AT RECEPTION NUMBER 2783859 OF THE PUBLIC RECORDS OF MESA COUNTY, COLORADO SHALL BE SUBORDINATED TO THE DEDICATIONS SHOWN HEREON.

IN WITNESS WHEREOF, THE SAID CORPORATION HAS CAUSED THESE PRESENTS TO SIGNED BY ITS _____,WITH THE AUTHORITY OF ITS BOARD OF DIRECTORS, THIS_____ DAY OF _____.

_____ FOR: _____
TITLE FOR: Solar Electric, Inc.

NOTARY PUBLIC CERTIFICATION

STATE OF _____ :
:ss
COUNTY OF _____ :

The foregoing instrument was acknowledged before me this _____day of_____, A.D. 2019.

by _____for Solar Electric, Inc.

Witness my hand and official seal

My Commission Expires _____ _____
Notary Public

SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, do hereby certify that I am a registered land surveyor licensed under the laws of the State of Colorado, that this Plat is a true, correct and complete Final Plat of the KARIS SUBDIVISION, as laid out, platted, dedicated and shown hereon, that such Final Plat was made from an accurate survey of said property by me and under my supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

_____
PATRICK W. CLICK DATE
COLORADO REGISTERED LAND SURVEYOR PLS No.37904

REVISION RECORD

Number	DATE	
1	6/8/19	Added Drainage and Util easement
2	7/9/19	Added Pedestrian easement

KARIS SUBDIVISION
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

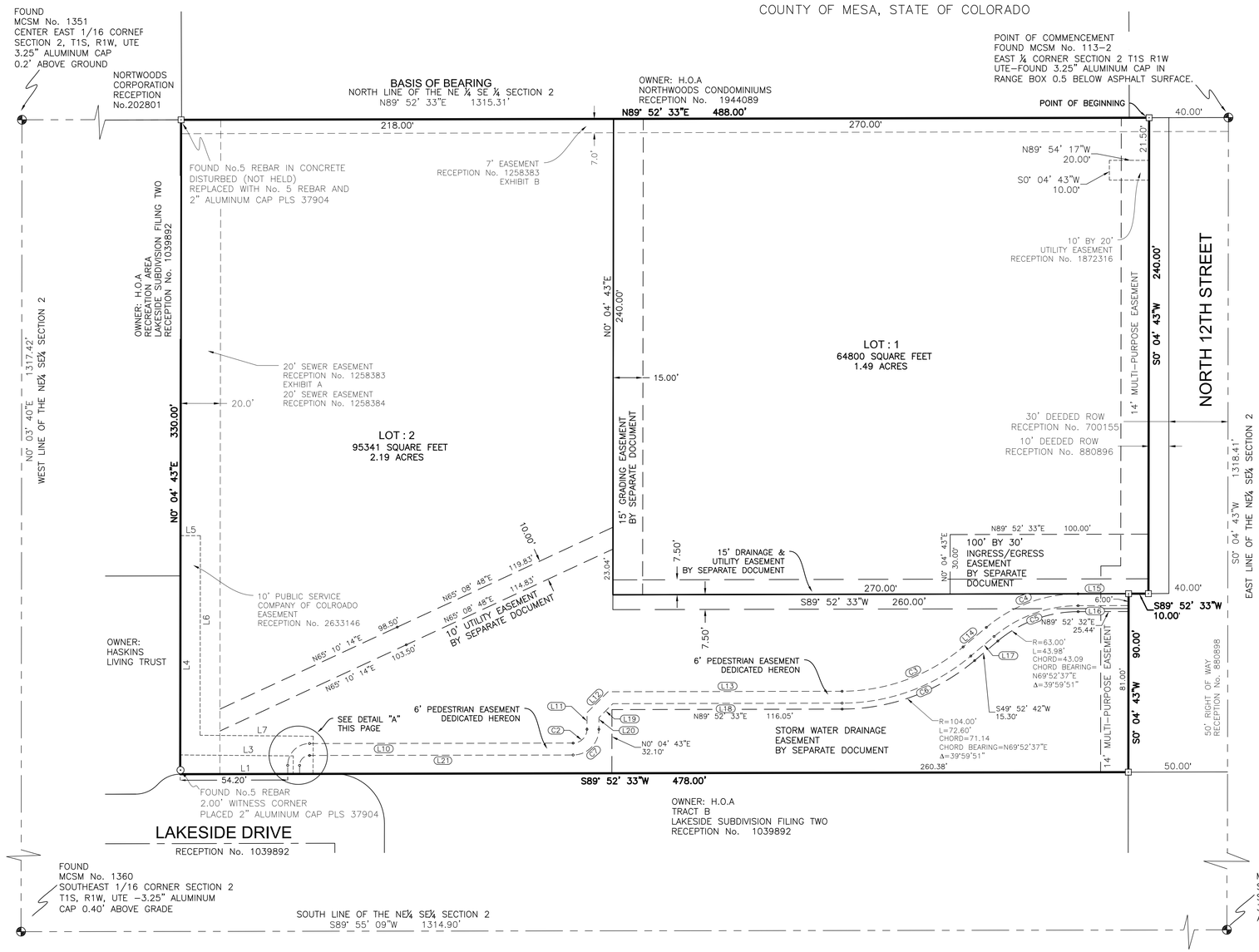
JOB #: 2018162 FIELD WORK: MDM
DATE: 7/9/19 DRAWING NAME: 2018162 DRAWN BY: PC

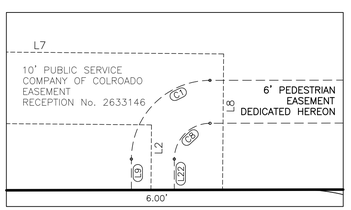
POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434–7038

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO





DETAIL "A"
1"=10'

LEGEND:

FOUND SURVEY MARKER AS DESCRIBED	⊕
FOUND No. 5 REBAR AS DESCRIBED HEREON	⊙
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904	⊡

Line Table		
Line #	Direction	Length
L1	N89° 52' 33"E	56.93'
L2	S00° 28' 53"W	9.10'
L3	S89° 31' 07"E	57.00'
L4	S00° 04' 43"W	110.60'
L5	N89° 55' 18"W	10.00'
L6	N00° 04' 42"E	100.68'
L7	N89° 31' 07"W	57.07'
L8	N00° 28' 53"E	19.00'

Line Table Pedestrian Easement		
Line #	Direction	Length
L9	N00° 00' 00"E	4.33'
L10	N89° 54' 10"E	132.91'
L11	N00° 15' 28"E	8.41'
L12	N45° 04' 01"E	14.88'
L13	N89° 52' 33"E	118.05'
L14	N49° 52' 43"E	15.30'
L15	N89° 52' 33"E	25.48'
L16	S89° 52' 33"W	25.45'
L17	S49° 52' 43"W	15.30'
L18	S89° 52' 33"W	115.57'
L19	S45° 04' 01"W	9.93'
L20	S00° 15' 28"W	5.94'
L21	S89° 54' 10"W	132.91'
L22	S00° 00' 00"E	4.32'

Curve Table Pedestrian Easement					
Curve #	Radius	Length	Delta	Chord Length	Chord Bearing
C1	11.00'	17.26'	089° 54' 10"	15.54'	N44° 57' 05"E
C2	7.00'	10.95'	089° 38' 42"	9.87'	N45° 04' 49"E
C3	95.00'	66.32'	039° 59' 51"	64.98'	N69° 52' 38"E
C4	72.00'	50.26'	039° 59' 51"	49.25'	N69° 52' 38"E
C5	66.00'	46.07'	039° 59' 51"	45.14'	S69° 52' 38"W
C6	101.00'	70.51'	039° 59' 51"	69.08'	S69° 52' 38"W
C7	13.00'	20.34'	089° 38' 42"	18.33'	S45° 04' 49"W
C8	5.00'	7.85'	089° 54' 10"	7.07'	S44° 57' 05"W

General Notes:

1. OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: MDM
DATE: 7/9/19 DRAWING NAME: 2018162 DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

SHEET 2 OF 2

DECLARATION OF EASEMENTS

THIS DECLARATION OF EASEMENTS ("Declaration") is made as of the____day of _____, 2019, by Unity Church ("Declarant").

Recitals

A. Declarant is the owner in fee simple of certain real property located in Mesa, Colorado, which is more specifically described as a parcel of land commencing at a point from whence the E ½ corner of Sec. 2, T1S. R1W of the UM bears N a distance of 330 ft, and running th from said point of beg. N 89 degrees 59' W 310 ft, th due N 90 ft, th S 89 degrees 59' E 310 ft, th due S 90 ft. to the point of beginning, also known as **3205 N. 12th Street,** (the "Property"). The subdivided lots of the Property (and improvements on and appurtenances to each) are sometimes hereinafter referred to collectively as the "Lots" and singularly as a "Lot". The owner of fee title to the respective Lots from time to time, which may include Declarant, is referred to hereinafter as "Owner."

B. Declarant intends that the Property be developed as a residential subdivision consisting of one lot for multi-family apartments.

C. A legal description and map illustration for a private 30' wide ingress/egress across Lot 1 for the benefit of Lot 2 is attached hereto as **Exhibit A** (the "Ingress/Egress Legal Description") and **Exhibit B** (Ingress/Egress map).

D. A legal description and map illustration for a 10' wide utility easement across Lot 2 is attached hereto as **Exhibit C** (Utility Legal Description) and **Exhibit D** (Utility map).

E. A legal description and map illustration for a 15' wide grading easement across Lot 1 for the benefit of Lot 2 is attached hereto as **Exhibit E** (Grading Legal Description) and **Exhibit F** (Grading map).

F. A legal description and map illustration for a 15' wide drainage easement (7.5' on Lot 1, 7.5' on Lot 2) across Lot 1 for the benefit of Lot 2 are attached hereto as **Exhibit G** (Drainage & Utility Easement Legal Description) and **Exhibit H** (Drainage & Utility map).

G. A legal description and map illustration for a 14' wide multi-purpose stormwater easement across Lot 1 for the benefit of Lot 2 are attached hereto as **Exhibit I** (Stormwater Legal Description) and **Exhibit J** (Stormwater map).

H. Declarant has made this Declaration in order to grant the Owner of Lot 2 access to and use of the Private Ingress/Egress Easement, Utility Easement, Grading Easement, Drainage Easement, and Stormwater Easement subject to all the provisions of this Declaration.

Declaration

NOW, THEREFORE, pursuant to and in furtherance of the foregoing premises, Declarant does hereby establish and impose each of the following grants, easements, covenants, conditions and provisions of this Declaration regarding the Private Ingress/Egress Easement, Utility Easement, Grading Easement, Drainage Easement and Stormwater Easement.

1. Access and Utility Easement Declaration.

Easement. Declarant declares and grants for the benefit of the Owner of Lot 2 and the Owner's respective heirs, successors, assigns, grantees and mortgagees, and their respective tenants, subtenants

and all persons who now or hereafter own or hold any possessory interest within such Lot, and the concessionaires, agents, employees, customers, visitors, contractors, licensees, lessees and invitees of any them (collectively, "Permittees"), an irrevocable, non-exclusive Ingress/Egress Easement, Utility Easement, Grading Easement, Drainage Easement, and Stormwater Easement upon, over and across the area legally described on attached **Exhibit A, Exhibit B, Exhibit C, Exhibit D, Exhibit E, Exhibit F, Exhibit G, Exhibit H, Exhibit I and Exhibit J** and accompanying map (and as shown on the plat recorded with the Clerk and Recorder of Mesa County, Colorado), for the purposes of providing the Owner of Lot 2 (and its respective Permittees) with pedestrian and vehicular ingress, egress and access to and from Lot 2 and all public rights-of-way that may be accessed from the east boundary of the Property now or in the future, and for the installation, maintenance and repair of any underground water, sewer, electrical, gas, telephone, storm drainage and other utility line, facility or system that serves Lot 2.

1.1 **Maintenance.** The Owners of Lots 1 and 2 and said Owners' heirs, successors, assigns and grantees shall share equally all costs of maintenance and repair of any jointly used driveway constructed within the easement area and the Owner of Lot 2 and said Owner's heirs, successors, assigns and grantees shall be solely responsible for the costs of maintenance and repair of any utilities constructed or installed within the easement area which serve only Lot 2.

1.2 **Reservation by Declarant.** Declarant reserves the right to use the easement for any purpose which does not unreasonably interfere with the easement granted by this Declaration, including but not limited to, the right to grant other easements on, under, over and across the easement area.

2. Drainage Easement Declaration.

Easement. Declarant declares and grants for the benefit of the Owner of Lot 2 and the Owner's respective heirs, successors, assigns, grantees and mortgagees, and their respective tenants, subtenants and all persons who now or hereafter own or hold any possessory interest within such Lot, and the concessionaires, agents, employees, customers, visitors, contractors, licensees, lessees and invitees of any them (collectively, "Permittees"), an irrevocable, non-exclusive Drainage Easement upon, over and across the area legally described on attached **Exhibit G** and accompanying map, **Exhibit H** (and as shown on the plat recorded with the Clerk and Recorder of Mesa County, Colorado) for the purpose of protecting and maintaining current drainage flow and capacity.

2.1 **Reservation by Declarant.** Declarant reserves the right to use the easement for any purpose which does not unreasonably interfere with the easement granted by this Declaration, including but not limited to, the right to grant other easements on, under, over and across the easement.

3. **Run With the Land**. This Declaration will run with the land and the ownership of the Lots, and the various provisions hereof will act as an appurtenant benefit and burden for each Lot or Lots that are intended to be benefited and burdened thereby. Such benefits and burdens will inure to the applicable Owners and their respective successors, transferees and assigns and to each such Owner's Lot. All express benefits and burdens of Declarant hereunder will attach to each of the Lots owned by Declarant.

4. **No Merger**. Notwithstanding the current vesting of title to the entirety of the Property in Declarant, and notwithstanding any future vesting of title to the two Lots in the same party, such commonality of ownership interests will not give rise to any extinguishment or merger of the easements established under this Declaration or any other provisions hereof, it being the controlling and dominant intent of Declarant that no such merger or extinguishment will occur, and that all such easements and provisions of this Declaration will remain in full force and effect regardless of any commonality of ownership interests in the Lots. Except as otherwise expressly provided herein, any such easement or other provision of this Declaration may be extinguished as it applies to a particular Lot only by the mutual written consent of all Owners who are benefited and burdened by the pertinent provision as applied to the given Lot, which consent must be recorded in the real property records of the Mesa County Clerk & Recorder's Office.

1. **Extent of Declarant's Rights and Obligations**. Declarant is the initial Owner of both of the Lots; however, if Declarant is no longer an Owner, then the rights and obligations of Declarant will automatically terminate hereunder, and each Owner will have the rights and be subject to the obligations set forth herein. However, Declarant's sale of all of its interest in the Property will in no way effect the rights and obligations of the Owners as set forth in this Declaration.

2. **Term; Amendment**. The term of this Declaration, and the benefits and burdens of the provisions hereof, will be perpetual. This Declaration may be amended from time to time upon the written consent of all of the Owners (which may include Declarant), which consent shall not be unreasonably withheld, conditioned or delayed by any such Owner, so long as such amendment does not (a) materially and adversely affect such Owner's rights set forth herein, or (b) materially increase the obligations of such Owner with respect to this Declaration. Any such amendment or termination of this Declaration will become effective upon its recordation in the real property records of the Mesa County Clerk & Recorder's Office.

3. **Severability**. If any provision of this Declaration as applied to a particular circumstance will be adjudicated as, or otherwise become, illegal and unenforceable, such illegality will not affect the enforceability of any other provision of this Declaration, or the offending provision as applied to circumstances for which it is enforceable, it being intended that all provisions of this Declaration be valid and enforceable to the fullest extent legally permissible.

4. **Captions**. The captions and headings of the various provisions of this Declaration are for convenience and identification only, and will not be deemed to limit or define the operative provisions of this Declaration.

5. **No Public Dedication**. Nothing herein contained will be deemed to be a grant or dedication of any portion of the Property to the general public or for the general public or for any public purposes whatsoever, it being the intention of Declarant that this Declaration be strictly limited to the purposes herein expressed.

6. **Governing Law, Venue**. This Declaration will be governed by, and construed in accordance with, the laws of the State of Colorado, and venue for any legal action to interpret or enforce this Declaration shall be in the State District Court in Mesa County, Colorado.

IN WITNESS WHEREOF, Declarant has made this Declaration as of the day, month and year first above written.

_____

President of Unity Church
Board of Trustees

STATE OF COLORADO)
) ss.
COUNTY OF_____)

The foregoing instrument was acknowledged before me this ____ day _____, 2019, by_____.

Witness my hand and official seal.

My commission expires: _____

_____

Notary Public

Exhibit A

Ingress/Egress Legal Description

A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

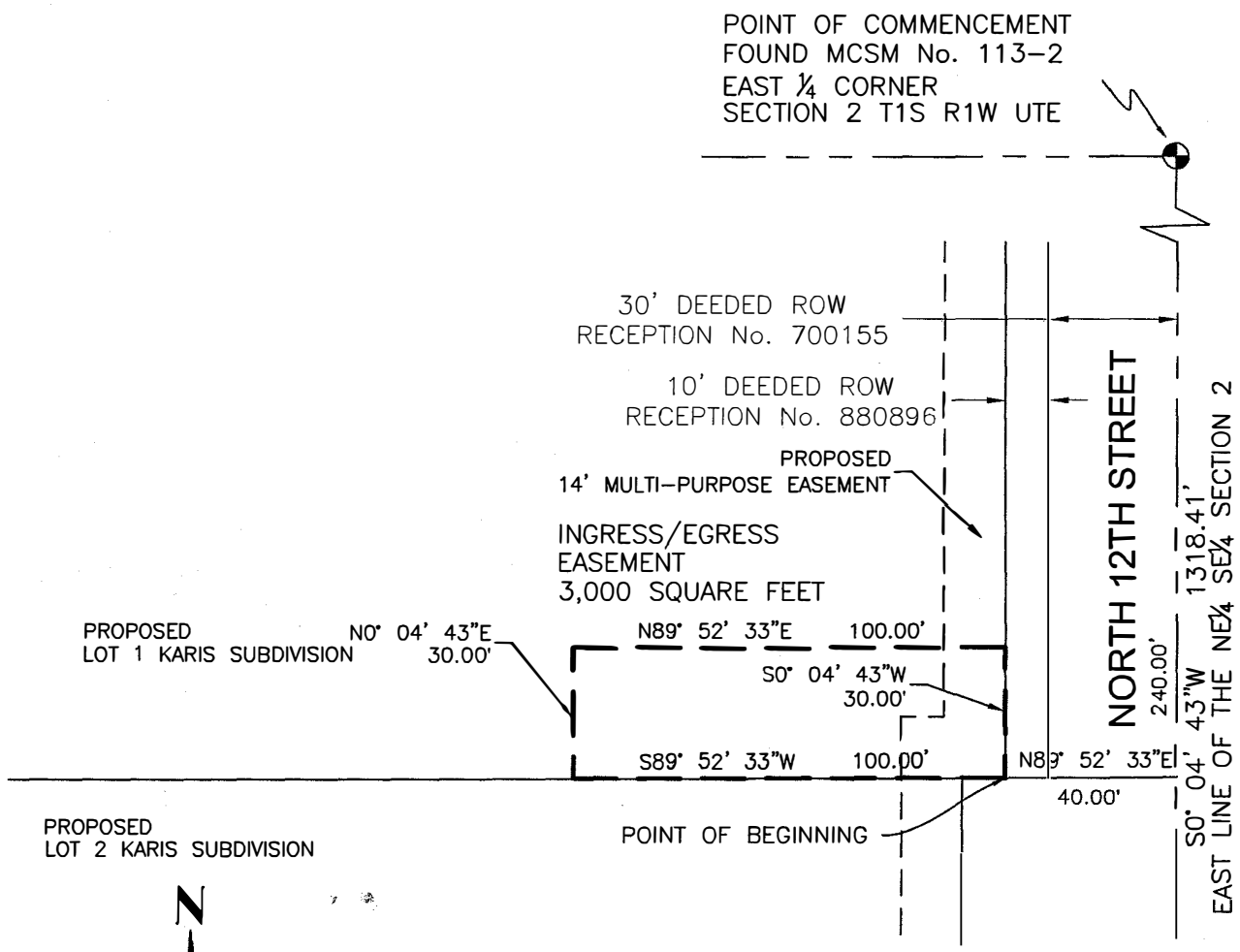
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 240.00 feet; thence S 89°52'33" W a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W a distance 100.00 feet;
Thence N 0°04'43" E a distance of 30.00 feet;
Thence N 89°52'33" E a distance 100.00 feet;
Thence S 0°04'43" W a distance of 30.00 feet to the Point of Beginning;

Said parcel contains 3,000 square feet as described.

EXHIBIT B

Ingress/Egress



Legal Description Sketch

Karis Subdivision
Ingress/Egress Easement

GRAPHIC SCALE:
1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

COLORADO LICENSED
PATRICK W. CLICK
7-2-2014
37904
PROFESSIONAL LAND SURVEYOR

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434–7038

Exhibit C

Utility Legal Description

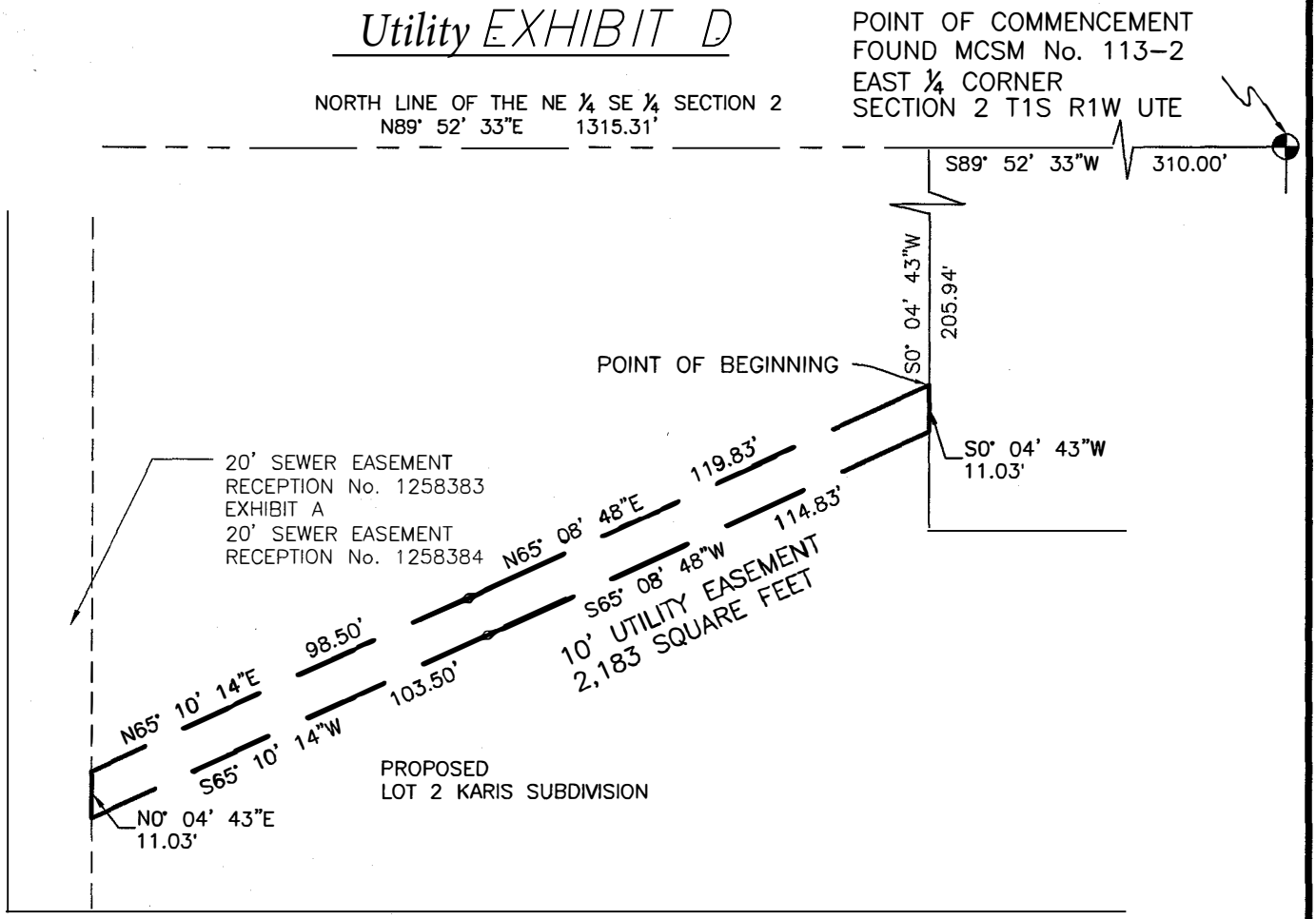
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

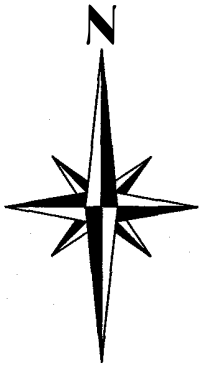
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 89°52'33" W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 310.00 feet; thence S 0°04'43" W a distance of 205.94 feet to the Point of Beginning:

Thence S 0°04'43" W a distance 11.03 feet;
Thence S 65°08'48" W a distance of 114.83 feet;
Thence S 65°10'14" W a distance 103.50 feet to the East Line of an existing 20' Sewer Easement as recorded at Reception Numbers 1258383 and 1258384 of the Mesa County Clerk's Office;
Thence N 0°04'43" E along said East Line a distance of 11.03 feet;
Thence N 65°10'14" E a distance of 98.50 feet;
Thence N65°08'48" E a distance of 119.83 feet to the Point of Beginning.

Said parcel contains 2,183 square feet as described.

Utility EXHIBIT D





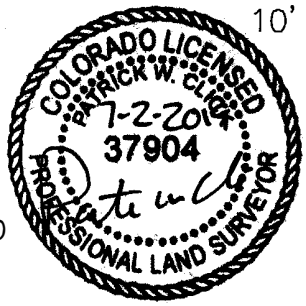
Legal Description Sketch

Karis Subdivision
10' Utility Easement

GRAPHIC SCALE:
1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET



POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

Exhibit E

Grading Legal Description

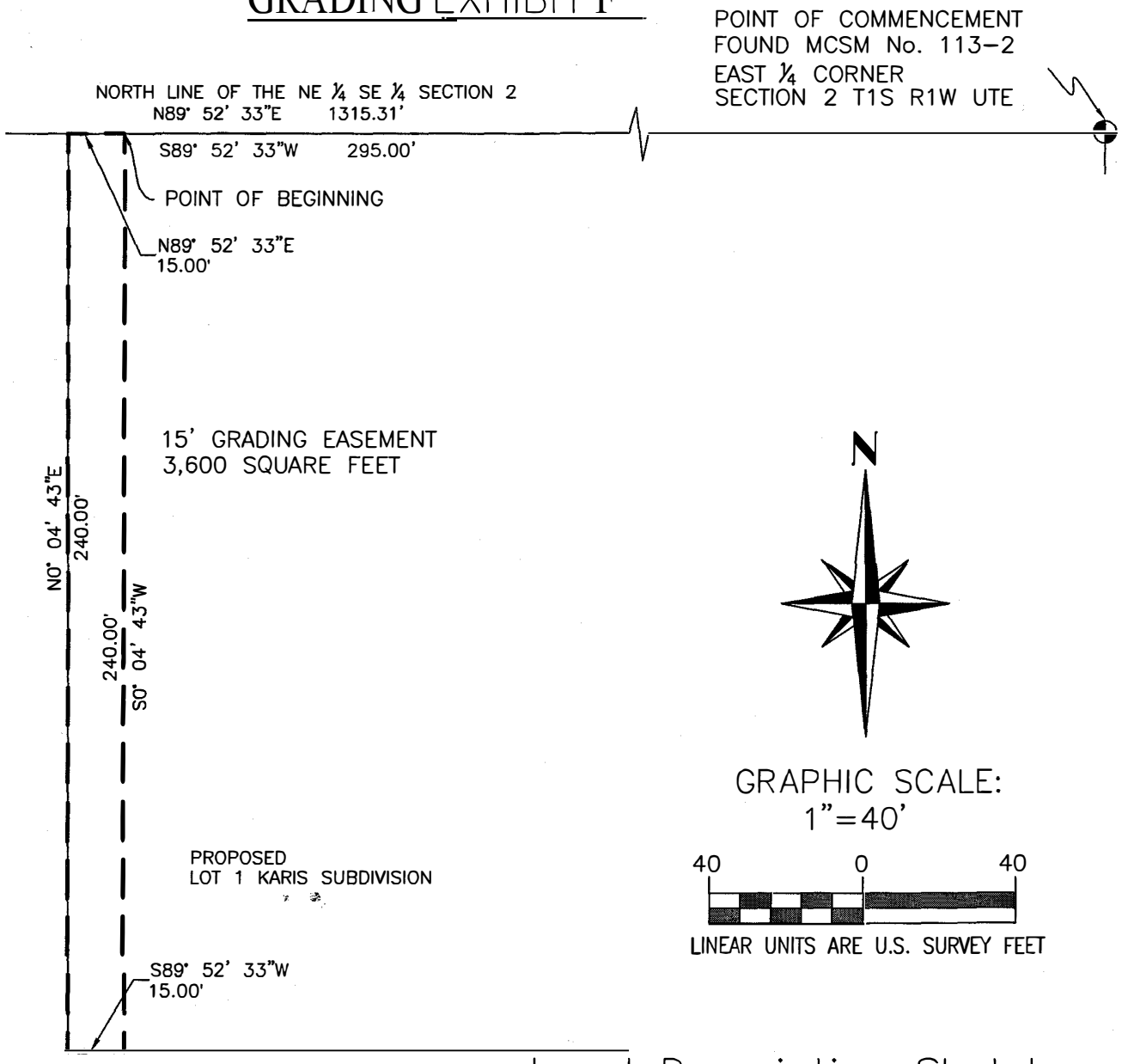
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 89°52'33" W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 295.00 feet to the Point of Beginning:

Thence S 0°04'43" W a distance 240.00 feet;
Thence S 89°52'33" W a distance of 15.00 feet;
Thence N 0°04'43" E a distance of 240.00 feet;
Thence N 89°52'33" E a distance of 15.00 feet to the Point of Beginning.

Said parcel contains 3,600 square feet as described.

GRADING EXHIBIT F



Legal Description Sketch

Karis Subdivision

15' Grading Easement

COLORADO LICENSED
PATRICK W. CLICK
7-2-
37904
PROFESSIONAL LAND SURVEYOR

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434-7038

Exhibit G

Drainage & Utility Legal Description

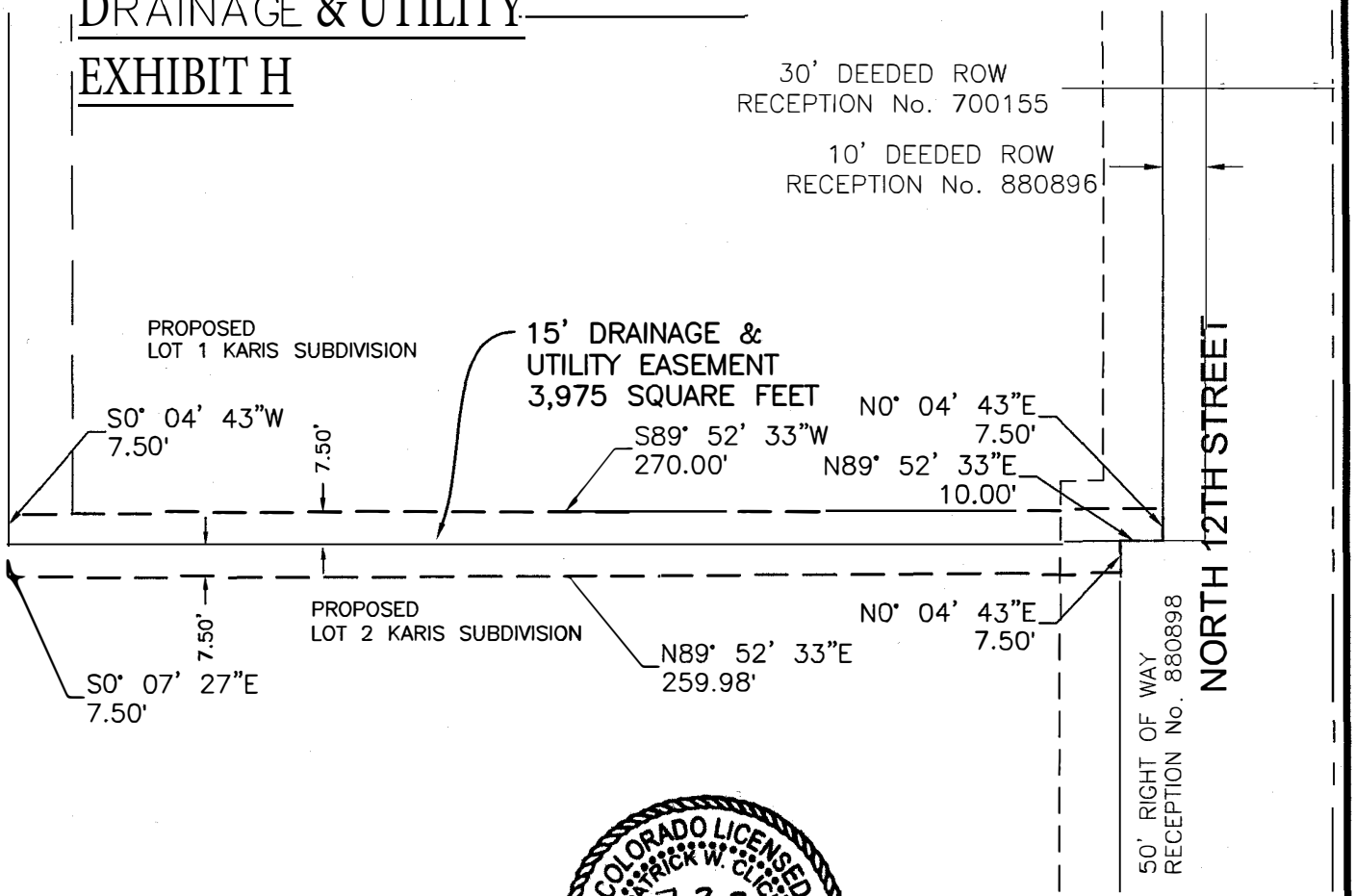
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

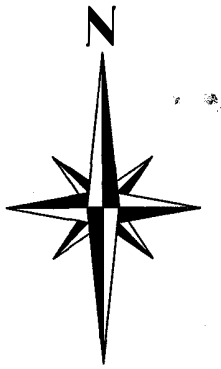
The South 7.50 feet of Lot 1 Karis Subdivision, Mesa County, Colorado.

And including the North 7.50 feet of Lot 2 said Karis Subdivision lying adjacent and South of said Lot 1.

Said parcel contains 3,975 square feet.

DRAINAGE & UTILITY EXHIBIT H





GRAPHIC SCALE:
1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

Legal Description Sketch

Karis Subdivision
15' Drainage and Utility Easement

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

Exhibit I

Stormwater Legal Description

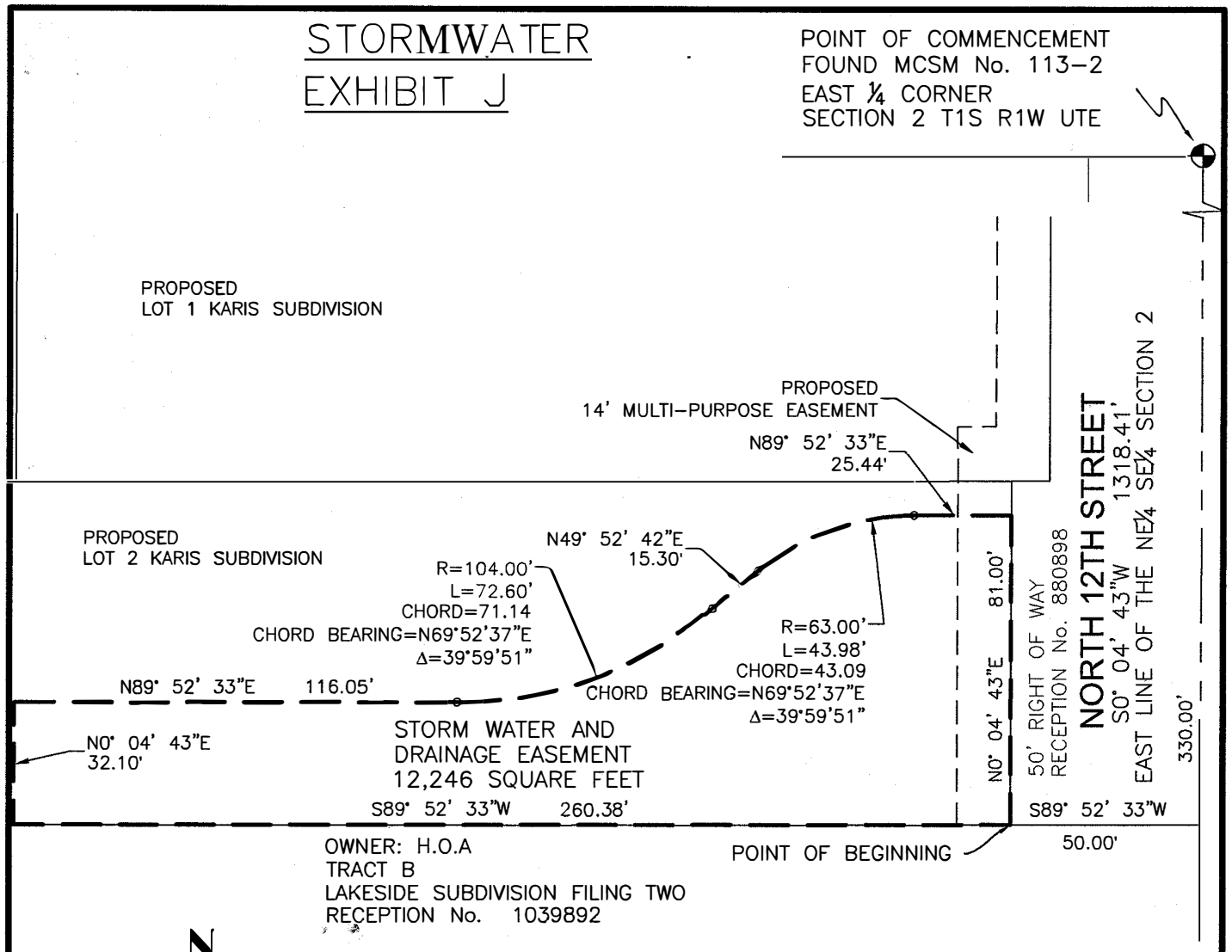
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

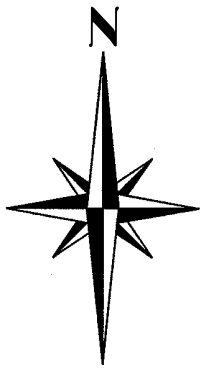
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 330.00 feet; thence S 89°52'33" W a distance of 50.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880898, the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W along the North Line of said Lakeside Subdivision Filing Two a distance 260.38 feet;
Thence N 0°04'43" E a distance of 32.10 feet;
Thence N 89°52'33" E a distance 116.05 feet to the start of a curve to the left;
Thence 72.60 feet along said curve to the left with a radius of 104.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 71.14 feet;
Thence N 49°52'42" E a distance of 15.30 feet to the start of a curve to right;
Thence 43.98 feet along said curve to the right with a radius of 63.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 43.09 feet;
Thence N 89°52'33" E a distance of 25.44 feet to the West Right of Way for said 12th Street;
Thence S 0°04'43" W along said Right of Way a distance of 81.00 feet to the Point of Beginning.

Said parcel contains 12,246 square feet as described.

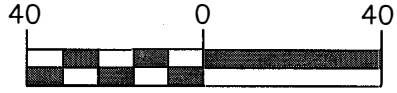
STORMWATER
EXHIBIT J



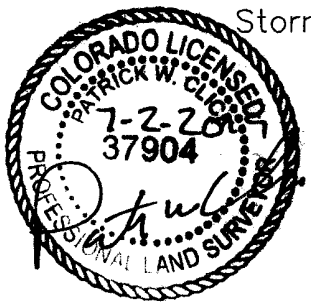


Legal Description Sketch
Karis Subdivision
Storm Water and Drainage Easement

GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET



POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

Owners' Statement and Dedication:

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned Unity Church, a Colorado nonprofit corporation is the owners of that real property situate in the NE¼ SE¼ of Section 2, Township 1 South, Range 1 West of the Ute Meridian, City of Grand Junction, County of Mesa, State of Colorado as evidenced by Deed, filed in the office of the Mesa County, Colorado, Clerk and Recorder, at Reception Numbers 2783858 and 1273201, being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the Center–East Sixteenth Corner of said Section 2 bears S89°52'33"W, thence S89°52'33"W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

thence S0°04'43"W along said West Right of Way a distance of 240.00 feet to the North Right of Way line as recorded at Reception Number 88098;

thence S89°52'33"W along the North line of said Right of Way a distance of 10.00 feet;

thence S0°04'43"W along West line of said Right of Way a distance of 90.00 feet to the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office;

thence along said Lakeside Subdivision Filing Two the following two courses and distances
– S89°52'33"W a distance of 478.00 feet
– N0°04'43"E a distance of 330.00 feet to the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2;

thence N89°52'33"E along said North Line a distance of 488.00 feet to the Point of Beginning.

Containing 3.676 acres.

That said owner has laid out, platted and subdivided the above described real property into lots as shown heron, and designate the same as KARIS SUBDIVISION, in the City of Grand Junction, County of Mesa, State of Colorado, and do hereby make the following grants:

All Multipurpose Easements are dedicated to the City of Grand Junction as perpetual easements for City approved utilities including the installation, operation, maintenance and repair of said utilities and appurtenances which may include but are not limited to, electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, storm sewers, water lines, telephone lines, traffic control facilities, street lighting, landscaping, trees and grade structures.

All Pedestrian Easements are dedicated to the City of Grand Junction as perpetual easements for ingress and egress access use by the public forever for purposes of walking, running, wheelchairs (motorized and nonmotorized), bicycling, and other nonmotorized forms of transportation for commuting and recreational purposes with or without pets accompanying them. The owner(s) and/or the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the sidewalk connection."

An Easement over the Storm Water Drainage Easement is dedicated to the City of Grand Junction as perpetual easements for the inspection, installation, operation, maintenance and repair of detention and drainage facilities and appurtenance thereto. The City of Grand Junction is dedicated reasonable ingress/egress access to the drainage/detention easement areas. The owner(s) and/or the property owner's association, if one exists, is not relieved of its responsibility to inspect, install, operate, maintain, and repair the detention and drainage facilities."

All lienholders appear hereon.

IN WITNESS WHEREOF, said owner, Unity Church, a Colorado nonprofit corporation, have caused their names to be hereunto subscribed this
_____day of_____, A. D. 2019.

_____
By: For: Unity Church, a Colorado nonprofit corporation

NOTARY PUBLIC CERTIFICATION

STATE OF COLORADO)
) SS
COUNTY OF MESA)

The foregoing instrument was acknowledged before me by_____ For: Unity Church, a Colorado nonprofit corporation this_____day of _____ A.D. 20__.

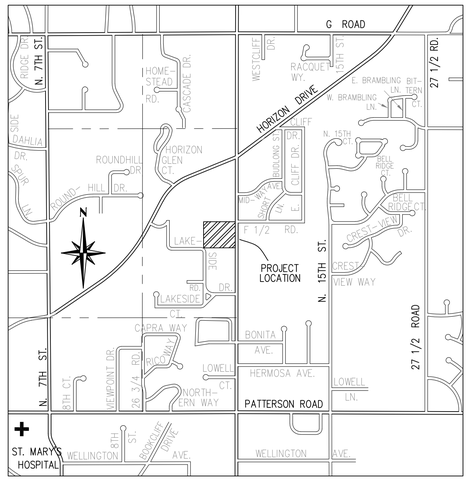
Witness my hand and official seal_____.
Notary Public
My commission expires _____.

City Use Block:

The below listed recording information for Associated Record Documents was not prepared under the professional land surveyor's responsible charge, Board Rule 6.2.1, State of Colorado

The recording information is to be completed by the City of Grand Junction personnel.
The accuracy of this information is the responsibility of the City of Grand Junction.

1. 10' Utility Easement granted by document at Reception Number _____.
2. Storm Water and Drainage Easement granted by document at Reception Number _____.
3. Ingress/Egress Easement granted by document at Reception Number _____.
4. 15' Grading Easement granted by document at Reception Number _____.
5. 15' Drainage and Utility Easement granted by document at Reception Number _____.



VICINITY MAP
N.T.S

TITLE CERTIFICATION

STATE OF COLORADO)
COUNTY OF MESA) ss

WE, ADVANCED TITLE COMPANY, A TITLE INSURANCE COMPANY, AS DULY LICENSED IN THE STATE OF COLORADO, HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE TO THE HEREON DESCRIBED PROPERTY, THAT WE FIND THE TITLE TO THE PROPERTY VESTED TO UNITY CHURCH, A COLORADO NONPROFIT CORPORATION; THAT THE CURRENT TAXES HAVE BEEN PAID; THAT ALL MORTGAGES NOT SATISFIED OR RELEASED OF RECORD NOR OTHERWISE TERMINATED BY LAW ARE SHOWN HEREON AND THAT THERE ARE NO OTHER ENCUMBRANCES OF RECORD; THAT ALL EASEMENTS, RESERVATIONS AND RIGHTS OF WAY OF RECORD ARE SHOWN HEREON.

DATE:_____ BY: _____
NAME AND TITLE
ADVANCED TITLE COMPANY

ABBREVIATIONS:

N	NORTH
S	SOUTH
E	EAST
W	WEST
T	TOWNSHIP
R	RANGE
MCSM	MESA COUNTY SURVEY MARKER
ROW	RIGHT OF WAY
PLS	PROFESSIONAL LAND SURVEYOR
No.	NUMBER
GPS	GLOBAL POSITIONING SYSTEM
ID	IDENTIFICATION
SQ	SQUARE
FT	FEET

LAND USE SUMMARY		
LOTS	3.676 ACRES	100%
TOTAL	3.676 ACRES	100%

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO :
:ss
COUNTY OF MESA :

This plat was accepted for filing in the office of the Clerk and Recorder of Mesa County, Colorado, at _____o'clock____ .m., on this____ day of _____ 20 ___ and was recorded at Reception No. _____.

Drawer No. _____ , and Fees _____.

_____ _____
Clerk and Recorder Deputy

CITY APPROVAL

This plat of KARIS SUBDIVISION, a subdivision of the City of Grand Junction, County of Mesa, State of Colorado, is hereby approved and dedications accepted this_____day of _____ 20 _____ .

_____ _____
City Manager Mayor

LIENHOLDER RATIFICATION

THE UNDERSIGNED, HEREBY CERTIFIES THAT IT IS A HOLDER OF A SECURITY INTEREST UPON THE PROPERTY HEREON DESCRIBED AND DOES HEREBY JOIN IN AND CONSENT TO THE DEDICATION OF THE LAND DESCRIBED IN SAID DEDICATION BY THE OWNERS THEREOF AND AGREE THAT ITS SECURITY INTEREST WHICH IS RECORDED DECEMBER 12, 2016, AT RECEPTION NUMBER 2783859 OF THE PUBLIC RECORDS OF MESA COUNTY, COLORADO SHALL BE SUBORDINATED TO THE DEDICATIONS SHOWN HEREON.

IN WITNESS WHEREOF, THE SAID CORPORATION HAS CAUSED THESE PRESENTS TO SIGNED BY ITS _____,WITH THE AUTHORITY OF ITS BOARD OF DIRECTORS, THIS_____ DAY OF _____.

_____ FOR: _____
TITLE FOR: Solar Electric, Inc.

NOTARY PUBLIC CERTIFICATION

STATE OF _____ :
:ss
COUNTY OF _____ :

The foregoing instrument was acknowledged before me this _____day of_____, A.D. 2019.

by _____for Solar Electric, Inc.

Witness my hand and official seal

My Commission Expires _____ _____
Notary Public

SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, do hereby certify that I am a registered land surveyor licensed under the laws of the State of Colorado, that this Plat is a true, correct and complete Final Plat of the KARIS SUBDIVISION, as laid out, platted, dedicated and shown hereon, that such Final Plat was made from an accurate survey of said property by me and under my supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

_____
PATRICK W. CLICK DATE
COLORADO REGISTERED LAND SURVEYOR PLS No.37904

REVISION RECORD

Number	DATE	
1	6/8/19	Added Drainage and Util easement
2	7/9/19	Added Pedestrian easement
3	8/7/19	Added Drainage & Utility easement City Use Block

KARIS SUBDIVISION
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: MDM
DATE: 8/7/19 DRAWING NAME: 2018162 DRAWN BY: PC

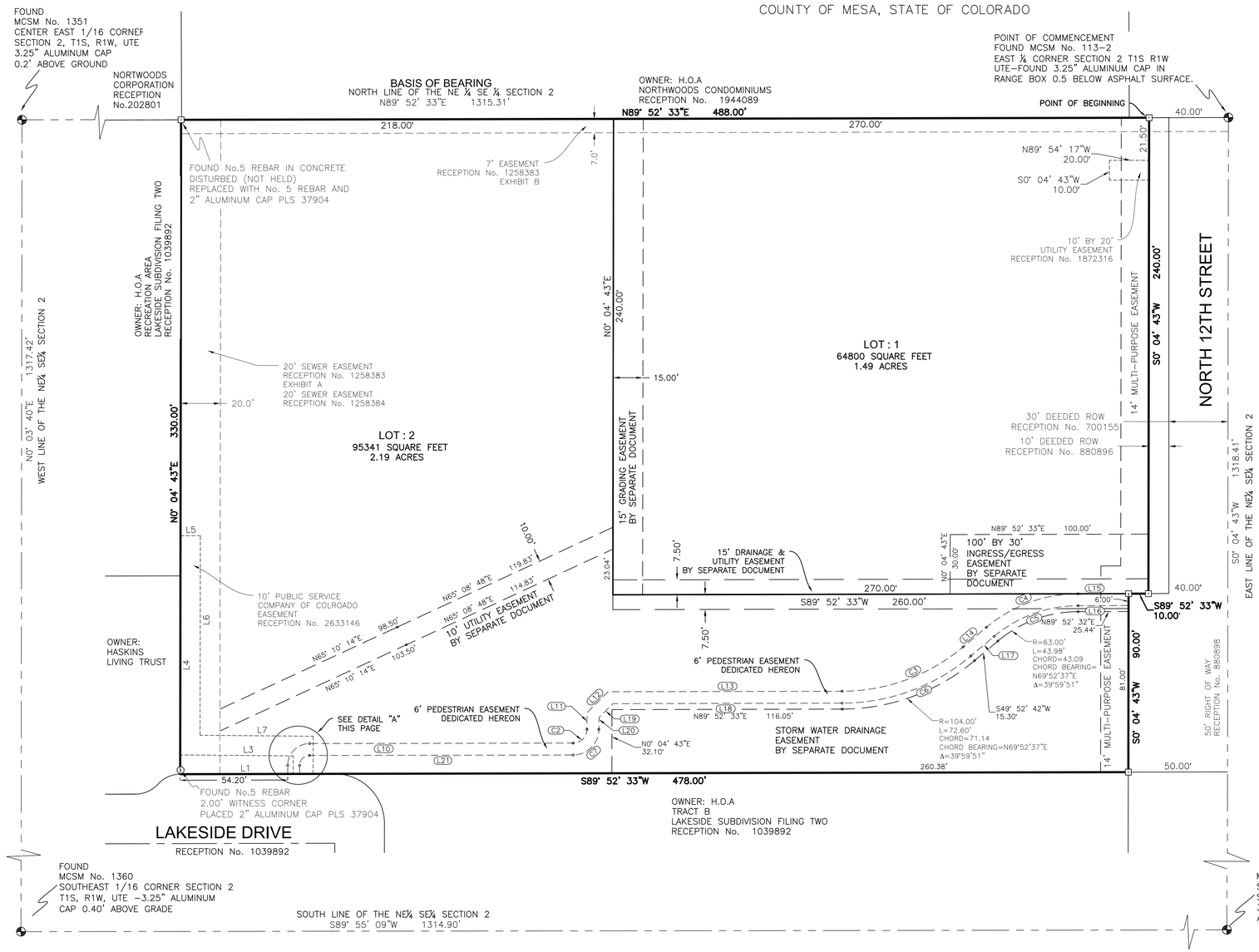
POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434–7038

SHEET 1 OF 2

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO



N

GRAPHIC SCALE:
1"=30'

30' 0 30' 60'

LINEAR UNITS ARE U.S. SURVEY FEET

LEGEND:

FOUND SURVEY MARKER AS DESCRIBED
FOUND No. 5 REBAR AS DESCRIBED HEREON
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904

Line Table		
Line #	Direction	Length
L1	N89° 52' 33"E	56.93'
L2	S00° 28' 53"W	9.10'
L3	S89° 31' 07"E	57.00'
L4	S00° 04' 43"W	110.60'
L5	N89° 55' 18"W	10.00'
L6	N00° 04' 42"E	100.68'
L7	N89° 31' 07"W	57.07'
L8	N00° 28' 53"E	19.00'

Line Table Pedestrian Easement		
Line #	Direction	Length
L9	N00° 00' 00"E	4.33'
L10	N89° 54' 10"E	132.91'
L11	N00° 15' 28"E	8.41'
L12	N45° 04' 01"E	14.88'
L13	N89° 52' 33"E	118.05'
L14	N49° 52' 43"E	15.30'
L15	N89° 52' 33"E	25.48'
L16	S89° 52' 33"W	25.45'
L17	S49° 52' 43"W	15.30'
L18	S89° 52' 33"W	115.57'
L19	S45° 04' 01"W	9.93'
L20	S00° 15' 28"W	5.94'
L21	S89° 54' 10"W	132.91'
L22	S00° 00' 00"E	4.32'

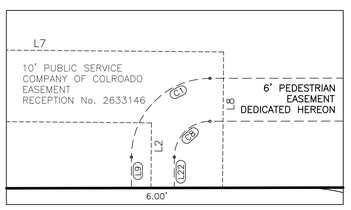
Curve Table Pedestrian Easement					
Curve #	Radius	Length	Delta	Chord Length	Chord Bearing
C1	11.00'	17.26'	089° 54' 10"	15.54'	N44° 57' 05"E
C2	7.00'	10.95'	089° 38' 42"	9.87'	N45° 04' 49"E
C3	95.00'	66.32'	039° 59' 51"	64.98'	N69° 52' 38"E
C4	72.00'	50.26'	039° 59' 51"	49.25'	N69° 52' 38"E
C5	66.00'	46.07'	039° 59' 51"	45.14'	S69° 52' 38"W
C6	101.00'	70.51'	039° 59' 51"	69.08'	S69° 52' 38"W
C7	13.00'	20.34'	089° 38' 42"	18.33'	S45° 04' 49"W
C8	5.00'	7.85'	089° 54' 10"	7.07'	S44° 57' 05"W

General Notes:

1. OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.



DETAIL "A"
1"=10'

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162
DATE: 8/7/19 DRAWING NAME: 2018162
FIELD WORK: MDM
DRAWN BY: PC

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

SHEET 2 OF 2

CITY OF Grand Junction COLORADO

COMMUNITY DEVELOPMENT

CITY OF GRAND JUNCTION
MAJOR SITE PLAN REVIEW/SIMPLE SUBDIVISION PLAN

FOR	)	**ADMINISTRATIVE DECISION**
Karis Inc.	)	**APPROVING**
Attn: John Mok-Lamme	)	
P. O. Box 2837	)	**File# SPN-2019-174**
Grand Junction, CO 81502	)	**SSU-2019-182**

An application has been submitted by Karis Inc., requesting a Major Site Plan Review to construct a 23,676 +/- sq. ft., 34-unit multi-family residential development and also Simple Subdivision Plan to subdivide the existing property into two (2) lots all on 3.67 +/- acres (Unplatted) located at 3205 N. 12th Street. The property is currently zoned R-16 (Residential – 16 du/ac) and the Comprehensive Plan Future Land Use Map identifies the property as Residential High Mixed Use (16 – 24 du/ac). Multi-family is an "Allowed" land use within the existing R-16 zone district. Proposed residential density for the multi-family development would be 15.5 dwelling units to the acre. The Site Plan Review and Simple Subdivision Plan applications were considered administratively by the City of Grand Junction Community Development Department on August 1, 2019 in accordance with Section 21.02.070 (g) and (p) of the Grand Junction Zoning & Development Code. After considering all pertinent data, the Administrator **CONDITIONALLY APPROVES** the Major Site Plan Review and Simple Subdivision Plan applications upon finding that the proposal complies with all applicable sections of the Grand Junction Zoning & Development Code. The Major Site Plan Review and Simple Subdivision Plan approvals are subject to the following conditions and payment of fees:

1. Developer is responsible for contacting the City of Grand Junction and requesting a final inspection of all on/off - site improvements upon completion, prior to occupancy of the building(s). Occupancy shall not be allowed until all required improvements have been installed or guaranteed with a Development Improvements Agreement (DIA) and financial security.

2. All applicable Building Permits are required to be obtained through the Mesa County Building Dept.

3. All landscaping must be maintained in a healthy manner. Should any of the plantings die or become unhealthy for any reason, they must be replaced. Once proposed landscaping is installed, the Landscape Architect must provide a letter to the City Project Manager stating that all landscaping has been installed per the approved Landscaping Plan prior to Certificate of Occupancy of the building or guaranteed with a Development Improvements Agreement (DIA) and financial security.

4. Applicant proposed 25 parking spaces in accordance with Section 21.06.050 (e) of the Zoning & Development Code, Alternative Parking Plan for this application. Community Development Director has reviewed and approved the Applicant's submitted narrative and statistics regarding the parking plan and was supportive of the request to reduce the required on-site parking spaces to 25 in this instance (Off-Street Parking Requirements for this application would have been determined using the following formula: Multi-Family Units – 1 bedroom: 1.25 parking spaces per dwelling unit which would trigger 43 parking spaces (1.25 x 34 units = 42.5) for this proposal). A recorded Alternative Parking Plan Document will be prepared by the City Attorney's Office at time of Planning Clearance issuance in accordance with Section 21.06.050 (e) (6) of the Zoning & Development Code for property owner's signature. Applicant will be responsible for all recording fees.

5. Pay applicable fees as follows at time of Planning Clearance issuance (check made payable to the "City of Grand Junction" with the exception of Ute Water fees):

a. Transportation Capacity Payment (TCP): $60,146.00 (34-units x $1,769 per unit).
b. City Inspection Fee: $4,080.00 (MF -Residential @ $120-unit x 34-units).
c. City Park Fee: $7,650.00 (34-units x $225 per dwelling unit).
d. City Open Space Fee: Submit MAI Appraisal Report for determination of this fee (10% of the value of the raw land).
e. Planning Inspection Fee: $50.00.
d. School Impact Fee: $31,280.00 (34-units x $920 per unit).
f. Recording Fee for Alternative Parking Plan document: TBD
g. Plant Investment Fees: Contact City Customer Service Division for sewer fees. Contact Ute Water Conservancy District for water tap fees.

6. Schedule a Pre-Construction Meeting with Mark Barslund, City Development Inspector at (970) 201-1362, prior to any site/construction activity.

7. Project shall be constructed in accordance with the signed and approved plans. Once plans are signed by City staff, City Project Manager will need one 24" x 36" paper copy and one electronic copy.

8. Per Round 3 Review Comments dated August 1, 2019; revise applicable documents as necessary per stated comments.

Prior to recording of the subdivision plat for Karis Subdivision, SSU-2019-182, the following items must be completed.

Subdivision Plat:

1. Submit an original mylar of the final plat(s) with owner's signatures (signed in black ink only - Sharpie), Surveyor's Final Mylar Checklist and current Title Commitment Report (which covers all properties within the subdivision boundary) dated no older than 5 days from the anticipated date of recording. Please note that all property corner pins must be set in concrete and inspected by the City Property Agent before the plat may be recorded. The electronic version of the plat (.dwg file) must be emailed to chrisd@gjcity.org

2. See Review Comments Round 3 dated August 1, 2019 and revise respective documents as necessary prior to recording and final signatures.

3. At time of subdivision plat recording, payment of applicable recording fees are required as follows (check made payable to the "City of Grand Junction"):

    a. Recording fee for Final Plat will be $23.00.
    b. Recording fee for Declaration of Easements document: TBD

All uses which are subject to a Major Site Plan Review must commence construction within two (2) years from the date of approval. If a building permit is obtained prior to expiration of the Major Site Plan Review, the approval shall be valid for as long as the building permit remains valid. Failure to develop or establish such use accordingly shall constitute sufficient basis to revoke this approval.

CITY OF
Grand Junction
COLORADO

COMMUNITY
DEVELOPMENT

In accordance with Section 21.02.070 (a) (9) (i) of the Zoning & Development Code, the applicant will have up to two (2) years from the approval date of August 1, 2019 in order to record the Simple Subdivision Plan with the Mesa County Clerk and Recorder.

If you should have any further questions, please feel free to contact me at (970) 244-1447.

Scott D. Peterson
Senior Planner

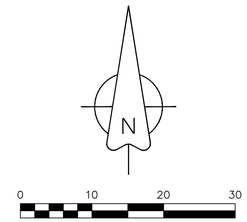
Date: August 1, 2019

Shop Works Architecture
301 W. 45th Ave.
Denver, Colorado 80216
(303) 433-4094

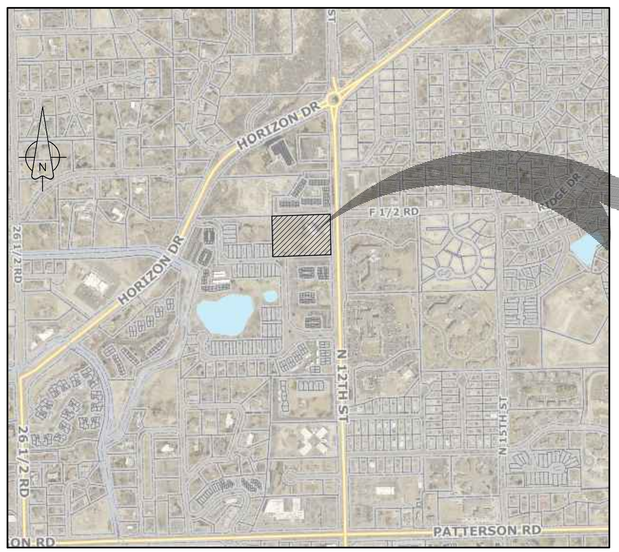
PLANS FOR
CONSTRUCTION OF

KARIS APARTMENTS

AUGUST 8, 2019



NO.	TITLE
C1.00	COVER
C2.00	TYPICAL CONSTRUCTION NOTES
C3.00	DEMOLITION PLAN
C4.00	SITE PLAN
C5.00	UTILITY COMPOSITE PLAN
C6.00	OUTLET STRUCTURE & POND DETAILS
C7.00	HORIZONTAL CONTROL PLAN
C7.10	HORIZONTAL CONTROL PLAN
C7.20	HORIZONTAL CONTROL PLAN
C8.00	OVERALL GRADING PLAN
C8.10	GRADING AND DRAINAGE PLAN
C8.20	GRADING AND DRAINAGE PLAN
C8.30	GRADING AND DRAINAGE PLAN
LS101	LANDSCAPE SITE PLAN
LS102	LANDSCAPE SCHEDULES AND DETAILS
LS103	LANDSCAPE DETAILS
A2.0	ELEVATIONS
A2.1	ELEVATIONS
E1	SITE PHOTOMETRIC PLAN
E2	SITE PHOTOMETRIC DETAILS
E3	SITE PHOTOMETRIC DETAILS



PROJECT LOCATION

VICINITY MAP
NTS

KARIS APARTMENTS

TAX PARCEL #: 2945-024-00-059
LOT SIZE: 3.675 ACRES

OWNER: UNITY CHURCH, PO BOX 1904, GRAND JUNCTION, COLORADO 81502

DEVELOPER: KARIS, INC., JOHN MOK-LAMME, PO BOX 2837, GRAND JUNCTION, COLORADO 81502

DEVELOPMENT PARTNER: BLUELINE DEVELOPMENT, ORIANA SANCHEZ, 1004 SOUTH AVENUE WEST, MISSOULA, MT 59801

ARCHITECT OF RECORD: SHOPWORKS ARCHITECTURE, CHAD HOLTZINER, 301 W 45TH AVENUE, DENVER, COLORADO 80216

CIVIL ENGINEER: AUSTIN CIVIL GROUP, INC., SCOTT SORENSEN, 123 NORTH 7TH STREET, SUITE 300, GRAND JUNCTION, CO 81501

LANDSCAPE ARCHITECT: FLOW DESIGN COLLABORATIVE, CHRISTOPHER HOY, 301 W 45TH AVENUE, DENVER, COLORADO 80216

STRUCTURAL ENGINEER: MONROE & NEWELL ENGINEERS, DAVE KAST, 1400 GLENARM PLACE, STE 101, DENVER, COLORADO 80202

MECHANICAL ENGINEER: ABLE CONSULTING GROUP, MARC ABLE, 2468 S CLAYTON STREET, DENVER, COLORADO 80210

ELECTRICAL ENGINEER: MV CONSULTING INC, MARCUS VAHLING, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

PLUMBING ENGINEER: MEC, INC, BRYAN MOEN, 4640 PECOS STREET, UNIT F, DENVER, COLORADO 80211

UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

811 Know what's **below.** **Call** before you dig.

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

shop works architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
COVER

SCALE:

NO. C1.00

M:\PROJECTS\1360.0001 - Karis Multi-Family\Drawings\C3D\Production Drawings\PROD-SITE KARIS.dwg, 8/8/2019 2:02:31 PM, DWG To PDF.pc3

GENERAL CONSTRUCTION NOTES

1. Contractor shall contact Mark Barslund, City of Grand Junction Development Inspector and 521 Drainage Authority Representative, 970-201-1362, a minimum of 72 hours in advance of beginning any site work for a pre-construction meeting

2. Locations of existing utilities shown on these plans are approximate only. Contractor is to contact affected utility for specific locations before digging.

3. The Contractor shall notify the engineer if unanticipated conditions area encountered during completion of the work which require modifications to the contract drawings. The engineer can be reached at 970-242-7540.

4. Contractor shall give 48-hour notice to all authorized inspectors, superintendents, or person in charge of public and private utilities affected by his operations prior commencement of work. Contractor shall assure himself that all construction permits are current.

5. Contractor shall confine his construction operations to the right-of-way, easements, and lots, as shown on plans and plat. Any damage to private facilities outside these limits shall be repaired by the Contractor at no expense to the Owner.

6. All road construction, related work, materials, performance and quality of work provided shall conform to the requirements of the City of Grand Junction Standard Specifications and Drawings and the applicable sections of the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standard Plans, Division of Highways M & S Standards.

7. Contractor shall familiarize himself with the geotechnical testing requirements of the City of Grand Junction. The results of the required types of tests and numbers of passing tests shall be furnished to the Engineer for verification before final acceptance by the Owner will be granted. All failing tests shall be brought to the immediate attention of the Engineer and retests shall be performed until passing results are obtained. All utility lines, including service lines falling shall be tested.

8. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for utility trench back fill unless otherwise approved by the Engineer.

9. All utility installations are to be performed in accordance with the City of Grand Junction Standard Specifications for the Construction of Underground Utilities and Standard Details.

10. All sewer lines must be tested and approved PRIOR to street construction. Contractor is required to notify the Owner's representative PRIOR to testing. The Owner's representative must be present to witness testing of water and sewer lines or the City will not approve the installation.

11. In the event of a descrepancy between the construction notes contained herein and the notes and details in the City of Grand Junction Standard Contract Documents for Capital Improvements Construction manual, the City's manual shall control.

12. All work within the City of Grand Junction Right-of-Way shall required a "Work in the Right-of-Way" Permit. All construction work shall be in accordance with the latest edition of the City of Grand Junction Standard Specifications.

13. All concrete in driveways to be 6" minimum, Class VI ABC, unless otherwise noted.

14. All finished grades around the building perimeter shall slope a minimum of 2% away from the building for a minimum of 10-ft.

15. All roof drains that discharge to the finished ground surface shall be provided with splash blocks that extend beyond the building foundation excavation zone.

16. The Contractor shall be required to comply with the requirements and recommendations of Huddleston-Berry Geotechnical report titled Geotechnical and Geologic Investigation Karis Affordable Housing, Project # 01892-0001 dated January 16, 2019, unless otherwise noted.

17. All fill, building, concrete or asphalt pavement areas shall be stripped of a minimum 6-inches of topsoil.

PAVING CONSTRUCTION NOTES

1. All road widths and radii are to flow line unless noted otherwise. Any "spot" design elevations are to flow line of curb and gutter unless otherwise noted.

2. Prior to pavement placement, the pavement prism should be stripped of all unsuitable materials. It is recommended that the subgrade soils be scarified to a depth of 12-inches, moisture conditioned, and recompacted to a minimum of 95% of the standard Proctor maximum dry density, within ±2% of optimum moisture as determined by AASHTO T-99.

3. Contractor to protect existing utilities and appurtenances. Manholes, drainage inlets, utility lines, etc., damaged, covered, or filled with dirt or debris by the Contractor shall be cleaned and repaired at no expense to the Owner.

4. Where proposed pavement is to match existing pavement, existing pavement is to be squared cut, full base thickness is to be brought to match line and existing surface is to be tack-coated before proposed surface is placed.

5. All handicap ramps, sidewalks and curb and gutter are to be constructed where indicated on the plans and in accordance The City of Grand Junction requirements..

6. Curb, gutter, and drainage pans are to have expansion joints at each change in horizontal alignment of curb and gutter, but in no case at a greater distance apart than 100 feet. Locate dummy grooved joints between expansion joints at intervals not exceeding 10 feet. Where length of pour precludes 10 foot intervals, the end sections may be less then 10 feet but not less than 5 feet.

7. PAVEMENT SECTION: "Hot-Mix Asphalt" 4-inch HMA over 7-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade. " Rigid Pavement" 6-inch Portland Cement Concrete w/ #4 bars @ 16" cntrs., E.W. over 6-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade.

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

WATER LINE CONSTRUCTION

1. All water line construction shall be constructed in accordance with the Ute Water District Standards and Specifications.

2. Contractor shall notify the Ute Water Conservancy 48 hours prior to the beginning of construction.

3. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined by AASHTO T-99. Contractor shall be required to perform all necessary compaction tests through a certified soils lab.

4. Minimum cover required over top of new waterlines is 4'-6".

5. All water mains to be DR-18 PVC, Class 150 conforming to AWWA C-900.

6. Ductile Iron fittings to conform to AWWA C-110.

7. Fire Hydrants shall conform to AWWA C-502, Mueller Super Centurian or Kennedy Guardian.

8. All materials labor and equipment required for testing and disinfection of water lines shall be furnished by Contractor. Disinfection of water lines shall conform to AWWA C-651-86 or latest revision thereof. No separate pay.

9. All pipe bends/angle points, both horizontal and vertical, as called for on the plans are to be thrust blocked per Ute Water Conservancy District details and Technical Specifications.

10. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for water line trench backfill unless otherwise approved by the Engineer.

11. All Ute Water Mains are to be bedded per City of Grand Junction Standards.

12. All customer water service lines 2" or less shall be 200 psi rated "Pure Core" Blue HDPE, or approved equal.

STORM SEWER CONSTRUCTION NOTES

1. All storm sewer line construction shall be in accordance with the City of Grand Junction Standards and Specifications.

2. All Reinforced Concrete storm sewer pipe shall conform to ASTM Standard Specifications, C-76, Class III unless otherwise noted.

3. All polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM Standard Specifications, D3034 and F679, SDR-35 unless otherwise noted.

4. All High Density Polyethylene (HDPE) pipe and fittings shall be smooth bore and shall conform to the following:
12 inch to 36 inch shall meet ASSHTO M294
42 inch to 48 inch shall meet ASSHTO MP6
All HDPE pipe up to 30" shall be backfilled to springline with Class-6.

FUGITIVE DUST CONTROL PLAN

1. Before stripping of the site preparation for overlot grading, the surface is to be pre-wet to control dust.

2. Any stockpiles of stripping materials are to be periodically sprayed with water or a crusting agent to stabilize potentially wind blown material.

3. Haul road both into and around the site are to be sprayed as needed to suppress dust.

4. The Storm Water Management Plan and permit shall be obtained and kept onsite before starting any construction work. Gravel pads are to be constructed at the entrances to the site to help in removing mud from the wheels of haulage trucks before they enter onto City streets.

5. Trucks hauling import fill are to be tarped to aid in the control of airborne dust.

LEGEND

PROPERTY LINE	PROPOSED INLINE DRAIN
ADJACENT PROPERTY LINE	EXISTING 8" WATER MAIN
EXISTING EASEMENT	PROPOSED 2" DOMESTIC SERVICE
PROPOSED EASEMENT	PROPOSED 4" FIRE LINE
EXISTING BUILDING	EXISTING FIRE HYDRANT
PROPOSED BUILDING	PROPOSED FIRE HYDRANT
EXISTING CURB/GUTTER	EXISTING WATER METER
PROPOSED CURB/GUTTER	PROPOSED WATER METER
PROPOSED SPILL CURB/GUTTER	PROPOSED METER/BACKFLOW VAULT
PROPOSED TRANSITION CURB/GUTTER	PROPOSED IRRIGATION MANHOLE
EXISTING RETAINING WALL	PROPOSED FENCE
EXISTING 1-FT CONTOUR	EXISTING FENCE
EXISTING 5-FT CONTOUR	PROPOSED TRAFFIC FLOW
PROPOSED 1-FT CONTOUR	GRADE BREAK
PROPOSED 5-FT CONTOUR	ROOF DRAIN (RD)
EXISTING ASPHALT	STREET LIGHT POLE
PROPOSED ASPHALT	FIRE DEPARTMENT CONNETION
PROPOSED HEAVY DUTY ASPHALT	PARKING LOT LIGHT
EXISTING CONCRETE	PROPOSED BUILDING LIGHT
PROPOSED CONCRETE	POWER POLE
PROPOSED HEAVY DUTY CONCRETE	FLOWLINE
EXISTING SANITARY SEWER	EDGE OF PAVEMENT
PROPOSED SANITARY SEWER	TOP OF CONCRETE
EXISTING SANITARY SEWER MANHOLE	TOP OF WALL
PROPOSED SANITARY SEWER MANHOLE	BOTTOM OF WALL
PROPOSED SANITARY SEWER CLEANOUT	TOP BACK OF WALK
EXISTING STORM SEWER	TOP OF CURB
PROPOSED STORM SEWER	BACK OF CURB
EXISTING STORM SEWER INLET	LANDSCAPE AREA
PROPOSED STORM SEWER INLET	UTILITY PEDESTALS
EXISTING STORM SEWER MANHOLE	
PROPOSED STORM SEWER MANHOLE	

SANITARY SEWER CONSTRUCTION NOTES

1. All materials and workmanship shall comply to the Standards and Specifications of the City of Grand Junction. The City of Grand Junction reserves the right to accept or reject any materials and or workmanship that does not conform.

2. The Contractor shall have one signed copy of plans and a copy of the City of Grand Junction Standards and Specifications at the job site at all times.

3. All sanitary sewer pipe shall be PVC SDR-35 (ASTM 3034) unless otherwise specified.

4. All sewer lines to be laid to grade utilizing a "pipe laser".

5. All connections to the new sewer lines shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed, except as noted.

6. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined AASHTO T-99.

7. A minimum of 10 ft. of separation shall be maintained at all times between the waterline and sewer line except at specified crossings.

8. The contractor is responsible for all required sewer line testing to be completed in accordance with the City of Grand Junction Standards and Specifications. Final testing to be accomplished only after all other infrastructure has been installed. This includes waterlines, gas lines, electric lines, etc. Testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will also be accomplished after paving is completed to insure that the line is clean. These tests will be the basis for issuing the initial acceptance of the seer line extension.

9. Manholes shall be constructed as shown on the City of Grand Junction Standard Sanitary Sewer Detail sheets SS-02 of SS-03 as appropriate.

10. Water stop gaskets and clamp assemblies are to be furnished and installed at all connections to manholes. No separate pay.

11. Metal grade rings are NOT to be used on tip of manhole rings to adjust to finish pavement elevations. All adjustments to finish grade on new manholes shall be made using concrete grade rings and grout as shown on the standard details.

12. Where sanitary sewers cross under a water line with less than 18 inches of vertical separation, and in all cases where the sanitary sewer crosses over the waterline at any depth, provide total concrete encasement of pipe for a length of 10 feet to either side of the waterline.

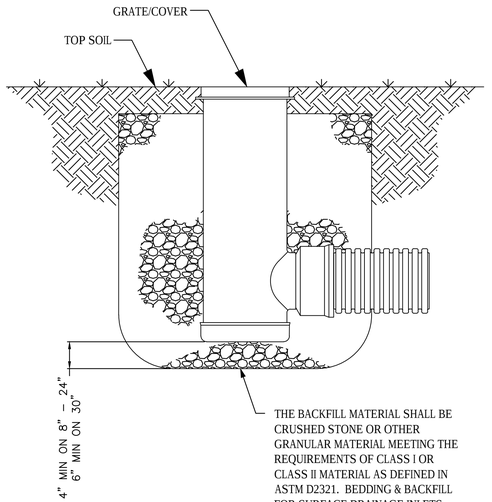
13. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for sewer line trench backfill unless otherwise approved by the Engineer.

14. To inhibit the movement of ground water through sewer bedding and haunching material, clay cutoff wall of native material are to be constructed approximately 10 feet upstream from each manhole and shown on sanitary sewer plan and profiles.

15. Notify the City of Grand Junction 48 hours prior to the construction of the sanitary sewer facilities.

16. The contractor shall obtain a City of Grand Junction Street Cut Permit for all work within existing City right-of-way prior to construction.

DRAIN BASIN

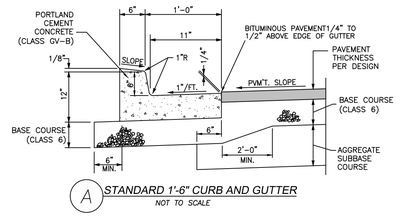


THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE WELL PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

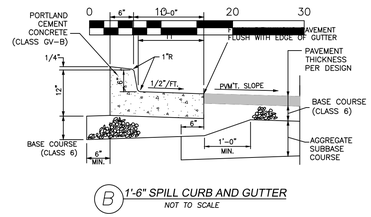
UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

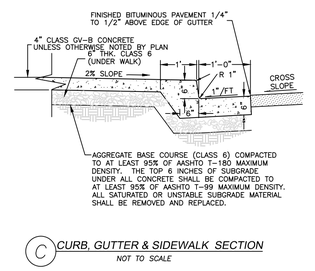
TYPICAL CONCRETE SECTIONS



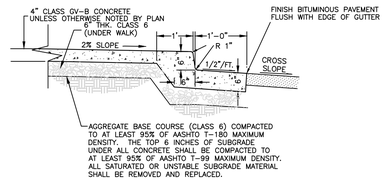
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

shop works architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4084

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

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SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

ACCEPTANCE BLOCK:
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER _____ DATE _____

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
GENERAL CONSTRUCTION NOTES

SCALE:

NO. C2.00

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UTILITIES AND AGENCIES

CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
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XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

FOUND No.5 REBAR IN CONCRETE DISTURBED (NOT HELD) REPLACED WITH No. 5 REBAR AND 2" ALUMINUM CAP PLS 37904

SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

BASIS OF BEARING
NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

OWNER: H.O.A
NORTHWOODS CONDOMINIUMS
RECEPTION No. 1944089

7' EASEMENT

N89° 52' 33"E 488.00'

218.00'

POINT OF BEGINNING PARCEL 2
FOUND MCSM No. 113-2
EAST ¼ CORNER SECTION 2 T1S R1W
UTE-FOUND 3.25" ALUMINUM CAP IN RANGE BOX 0.5 BELOW ASPHALT SURFACE.
PROJECT BENCHMARK
EL:4692.86 [NAVD88]

40.00'

IRR CONTROL BOXES

EX. IRRIGATION

IRR CONTROL BOX

IRR PUMP

ELEC TRANS

10' BY 20' UTILITY EASEMENT

15' ST

REMOVE AND RELOCATE OF TREES

20' SEWER EASEMENT

GRAVEL PARKING

UNTIY CHURCH

FF=4594.11

FF=4584.90

240.00'

S0° 04' 43"W

10' DEEDED ROW

30' DEEDED ROW

SIGN

PROTECT LIGHT

REMOVE AND RELOCATE PER CHURCH OWNER

SHED

LIFT STATION

SS

REMOVE AND DISPOSE OF ±22 SY CONCRETE DRIVE, CURB & GUTTER

CONCRETE CURB

REMOVE AND DISPOSE OF ±68 LF CURB & GUTTER

12TH STREET

1318.41'

REMOVE AND DISPOSE OF ±51 SY CONCRETE

S89° 52' 33"W 10.00'

40.00'

FIELD VERIFY VERTICAL LOCATION LOCATE OF SANITARY SEWER SERVICE LINE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER

REMOVE AND RELOCATE OF TREES

REMOVE AND RELOCATE OF TREES

50' STORM INLET
RIM=4686.33
INV=4677.03

STORM OVERFLOW INLET
RIM=4686.38
INV IN(E)=4676.88
INV OUT(SW)=4676.78

90.00'

50' RIGHT OF WAY RECEPTION No. 1898498

OWNER:
HASKINS
LIVING TRUST

10' PUBLIC SERVICE EASEMENT

REMOVE AND DISPOSE OF ±32 LF RETAINING WALL

SANITARY SEWER MH
RIM=4694.04
INV IN(N)=4684.14
INV OUT(S)=4683.94

RETAINING WALLS

FENCE DEMO

S89° 52' 33"W 478.00'

POINT OF COMMENCEMENT PARCEL 1

EAST LINE OF THE NE¼ SE¼ SECTION 2

FOUND No.5 REBAR
2.00' WITNESS CORNER
PLACED 2" ALUMINUM CAP PLS 37904

LAKESIDE DRIVE

N0° 04' 43"E 330.00'

0 20 40 60

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IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12th STREET

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:

DEMOLITION PLAN

SCALE: 1" = 20'

NO. C3.00

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FOUND No.5 REBAR IN CONCRETE
DISTURBED (NOT HELD)
REPLACED WITH No. 5 REBAR AND
2" ALUMINUM CAP PLS 37904

SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

PORATION

BASIS OF BEARING
NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

OWNER: H.O.A
NORTHWOODS CONDOMINIUMS
RECEPTION No. 1944089

POINT OF BEGINNING PARCEL 2
FOUND MCSM No. 113-2
EAST ¼ CORNER SECTION 2 T1S R1W
UTE-FOUND 3.25" ALUMINUM CAP IN
RANGE BOX 0.5 BELOW ASPHALT SURFACE.
PROJECT BENCHMARK
EL:4692.86 [NAVD88]

N89° 52' 33"E 488.00'

40.00'

7' EASEMENT

218.00'

IRR CONTROL BOX

IRR CONTROL BOXES

0 20 40 60

N

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

BLDG-PL

90.11'

TRASH ENCLOSURE

46.25'

UGE

20'

73.44'

UGE

34.84'
BLDG-PL

N0° 04' 43"E 240.00'

EM

4-6" RISERS

20.38'

3-STORY, 34-UNIT
APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

NEW
SANITARY SEWER
MANHOLE

34.71'

FDC

PROP. FIRE HYD.

PATIO

TURF

3-6" RISERS

ADA SIGNAGE
(2) SIGNS

4-6" RISERS

BIKE RACK

BIKE RACK

N0° 04' 43"E 330.00'

TURF

6 SPACES

20'

60°

16'

10' PROPOSED UTILITY EASEMENT

15' DRAINAGE EASEMENT

20'

5 SPACES

TURF

PROP. FIRE HYD.

3 SPACES

OWNER:
HASKINS
LIVING TRUST

10' PUBLIC SERVICE EASEMENT

10' PROPOSED SEWER EASEMENT

10' PUBLIC SERVICE EASEMENT

SANITARY SEWER MH
RIM=4694.04
INV IN(N)=4684.14
INV OUT(S)=4683.94

18.5'

9'

11 SPACES

RETAINING WALLS

EXISTING FIRE HYD.

FOUND No.5 REBAR
2.00' WITNESS CORNER
PLACED 2" ALUMINUM CAP PLS 37904

LAKESIDE DRIVE

LOT 1
64,800 SF
1.487 ACRES

UNTIY CHURCH

FF=4594.11

FF=4584.90

14 SPACES

IRR PUMP

ELEC TRANS

10' BY 20' UTILITY EASEMENT

POSSIBLE 76 SPACES
1 SPACE / 4 SEATS
304 SEATS
(1 SEAT = 18" PEW SPACE)

4 SPACES

GRAVEL PARKING

12 SPACES

18 SPACES

14' PROPOSED MULTI-PURPOSE EASEMENT

10' DEEDED ROW

DEED

SIGN

LIFT STATION

CONCRETE CURB

11 SPACES

PROP. FIRE HYD.

6"W

100'

PROPOSED 100'X30' INGRESS/EGRESS EASEMENT

S89° 52' 33"W 10.00'

30'

GRAVEL PARKING

17 SPACES

S89° 52' 33"W 270.00'
260.00'

28.9'

40.00'

50' STORM INLET
RIM=4686.33
INV=4677.03

14' PROPOSED MULTI-PURPOSE EASEMENT

STORM OVERFLOW INLET
RIM=4686.38
INV IN(E)=4676.88
INV OUT(SW)=4676.78

90.00'

S0° 04' 43"W

20'

2.5'

6'

32.6'

STORMWATER DRAINAGE EASEMENT

6' DRAINAGE & UTILITY EASEMENT

S89° 52' 33"W 478.00'

POINT OF COMMENCEMENT
PARCEL 1

50.00'

12TH STREET

S0° 04' 43"W 1318.41'

EAST LINE OF THE NE¼ SE¼ SECTION 2

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SCALE VERIFICATION
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ADJUST SCALES ACCORDINGLY

GENERAL NOTES:

1. ALL PARKING SPACES ARE 9-FT WIDE X 18.5-FT LONG UNLESS NOTED AS 60° PARKING WHICH ARE PER TEDS.
2. ALL SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
3. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET.
4. FOURTEEN (14) BICYCLE PARKING SPACES ARE PROVIDED ON SITE THAT ARE ACCOMPLISHED BY SEVEN (7) BICYCLE RACKS.

LAND USE SUMMARY		
USE	SQUARE FT	PERCENT
BUILDING	7,892	8.3%
LANDSCAPE	55,109	57.8%
ASPHALT/PKG/CONC	32,340	33.9%
TOTAL	95,341	100%

PARKING SUMMARY
*7,892 SF Multi-Family = 25
Total Parking Required = 25 Spaces
Total Parking Provided On Site = 25 Spaces
*Project is utilizing an affordable housing parking reduction

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
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CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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(970) 242-7540

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

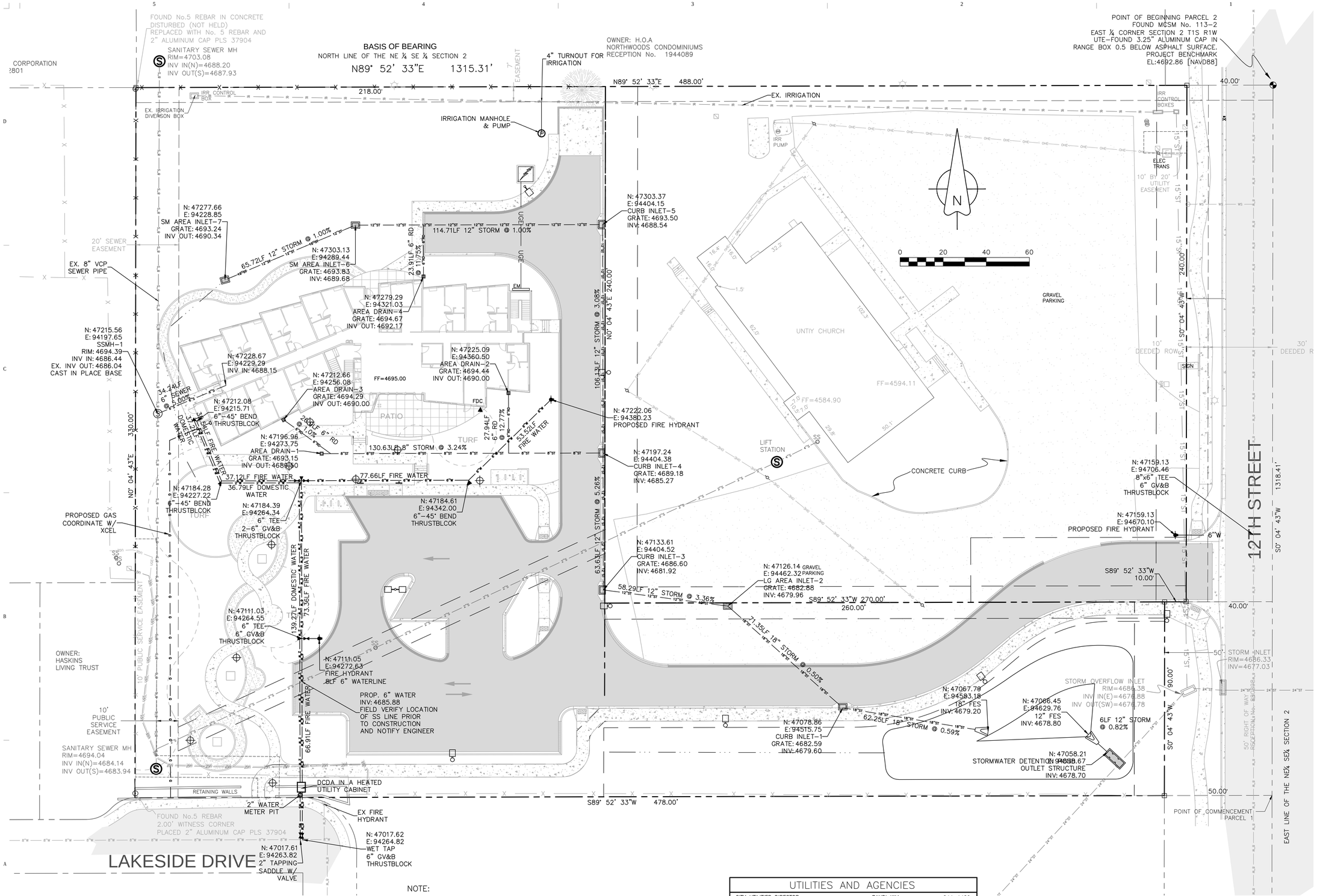
SHEET TITLE:

SITE PLAN

SCALE: 1" = 20'

NO. C4.00

M:\PROJECTS\13360.0001 - Karis Multi-Family\Drawings\CSD\Production Drawings\PROD-SITE-KARIS.dwg, 8/8/2019 2:03:26 PM, DWG To PDF.pc3



NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET
2. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

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UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

UTE WATER DISTRICT

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY:_____ DATE:_____

ACCEPTED AS CONSTRUCTED

BY:_____ DATE:_____

ACCEPTANCE BLOCK

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CITY DEVELOPMENT ENGINEER DATE

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6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
UTILITY COMPOSITE PLAN

SCALE: 1" = 20'

NO. C5.00

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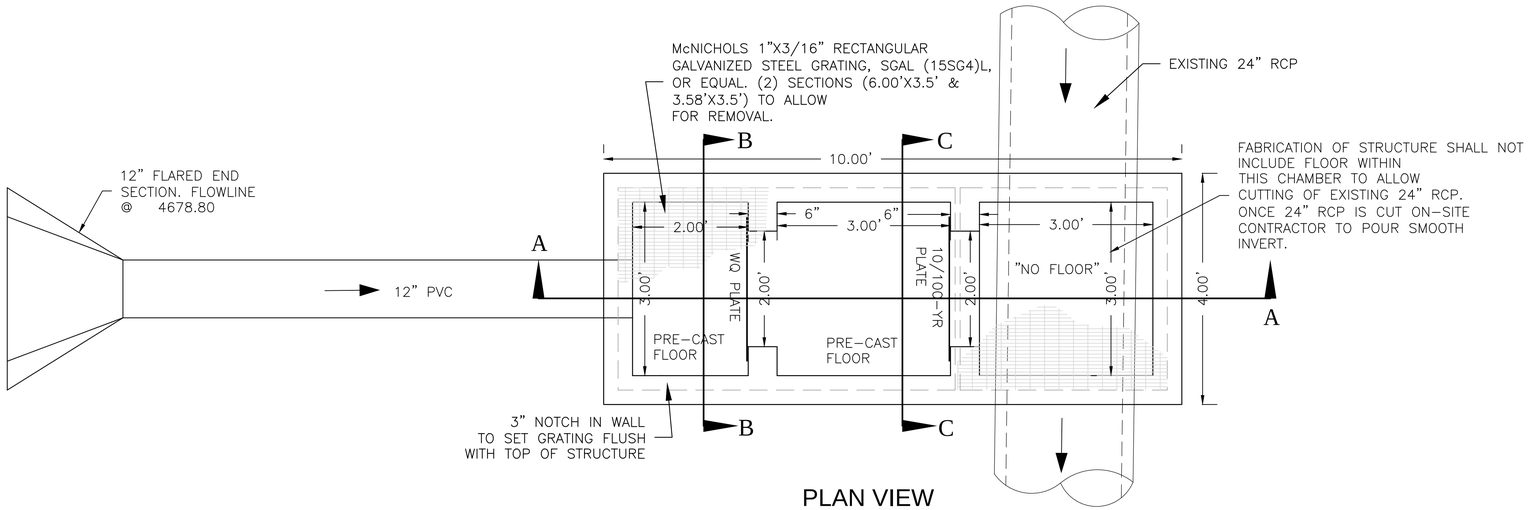
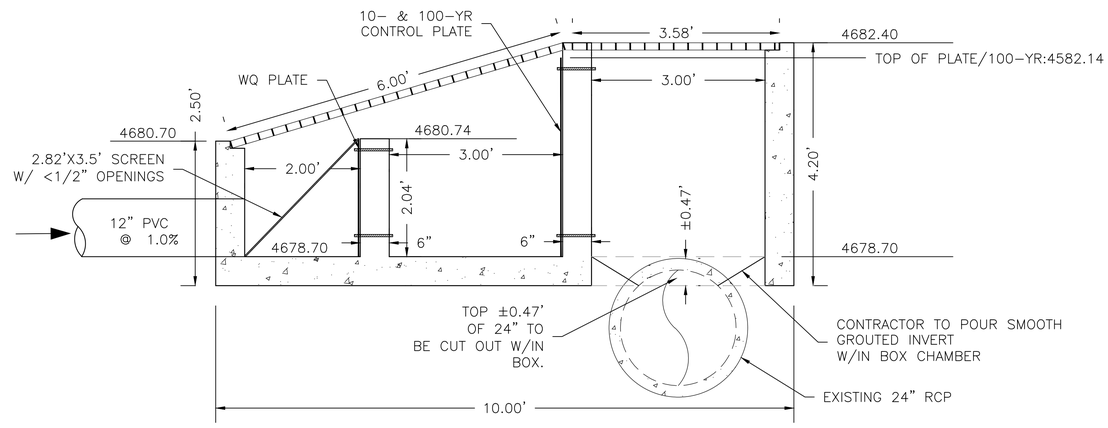
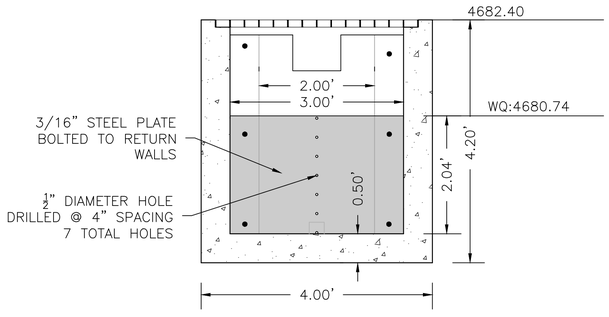


PLAN VIEW

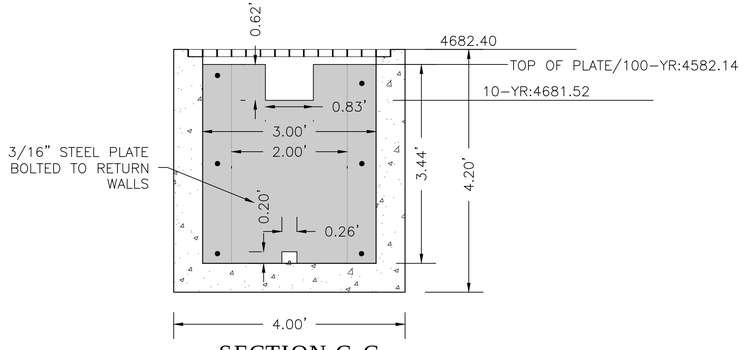


SECTION A-A



SECTION B-B

WQ PLATE



SECTION C-C

10- & 100-YR PLATE

OUTLET STRUCTURE

NTS

ACCEPTANCE BLOCK

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7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
OUTLET STRUCTURE

SCALE:

NO. C6.00

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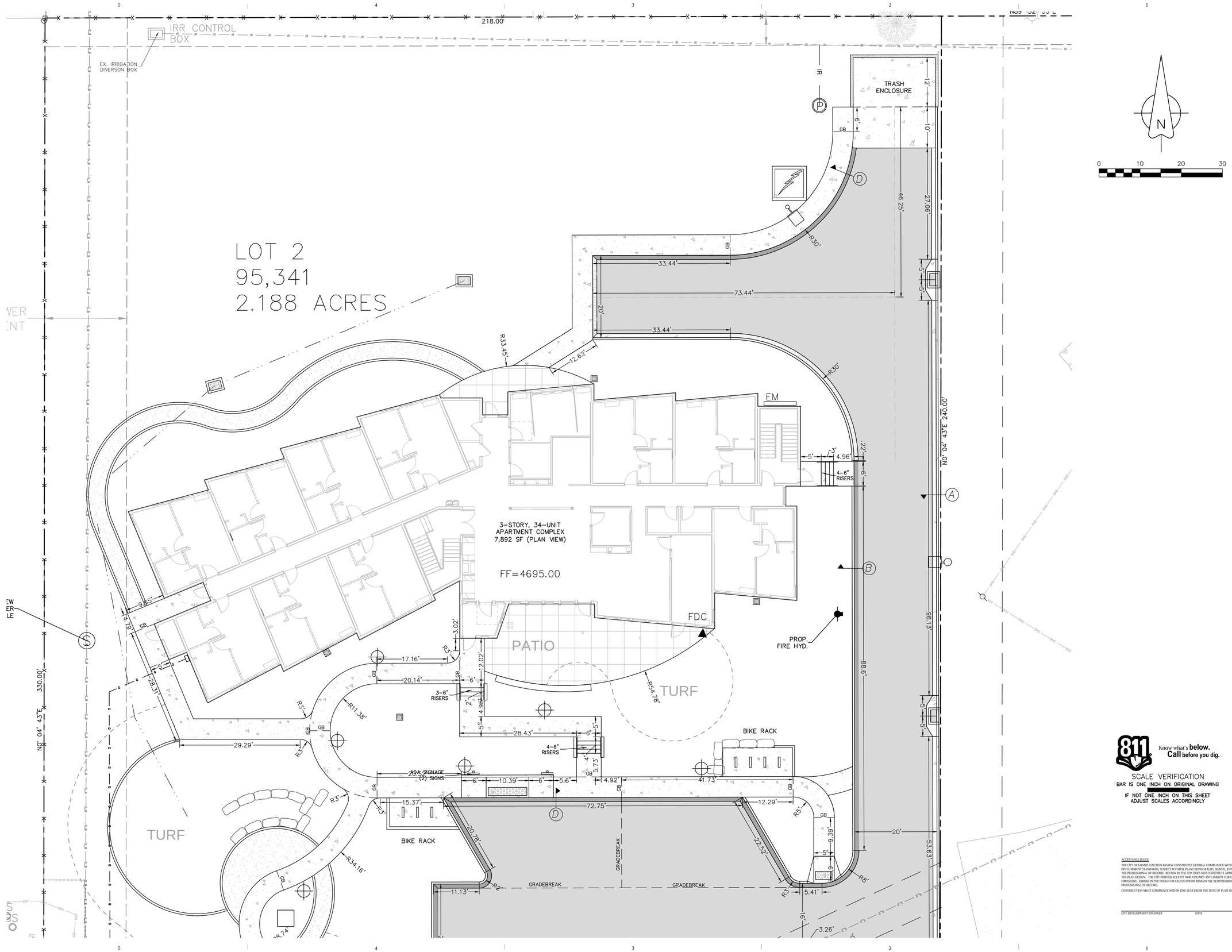

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7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1" = 10'

NO. C7.00

ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.
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CITY DEVELOPMENT ENGINEER DATE

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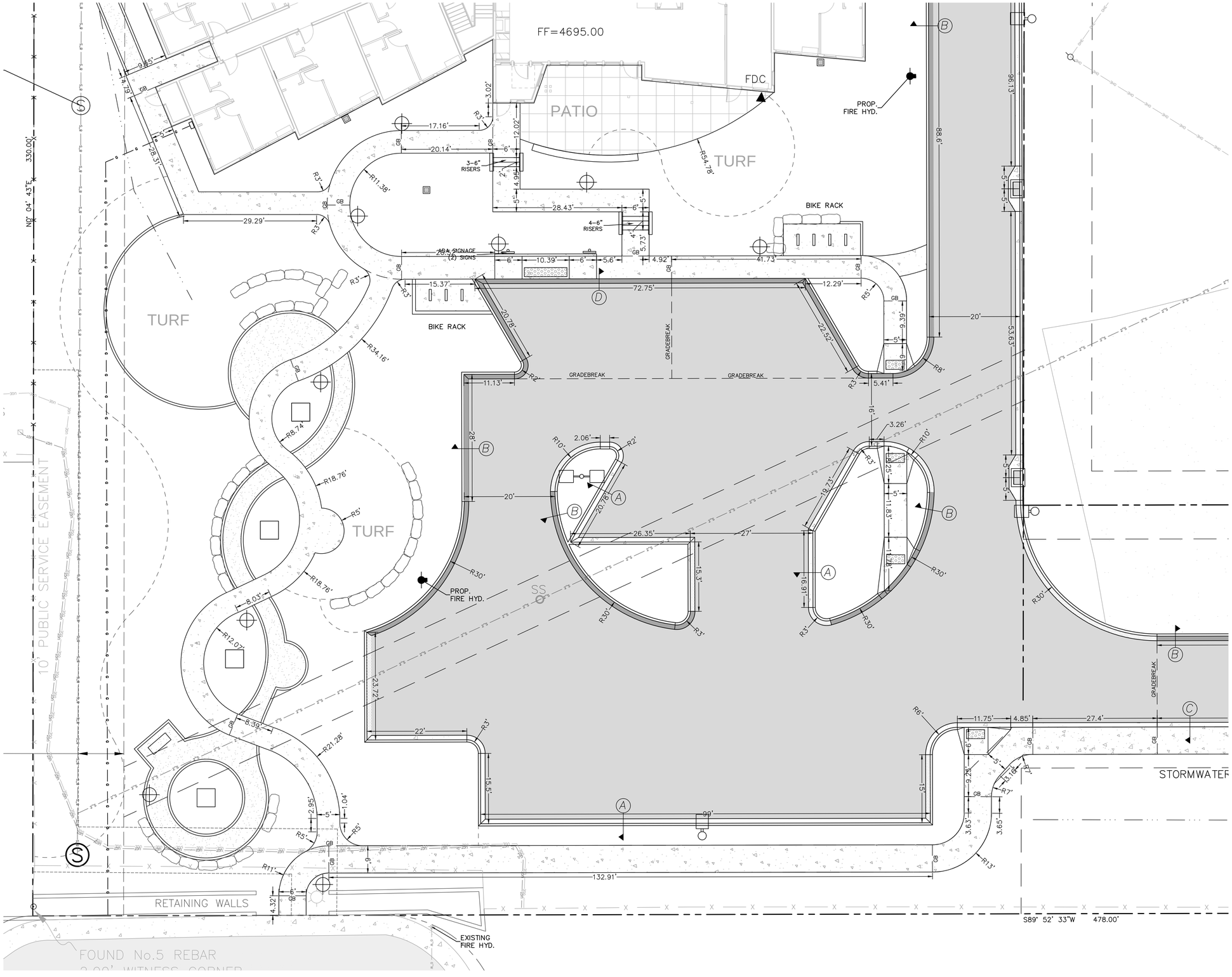

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7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1" = 10'

NO. C7.10

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CITY DEVELOPMENT ENGINEER _____ DATE _____

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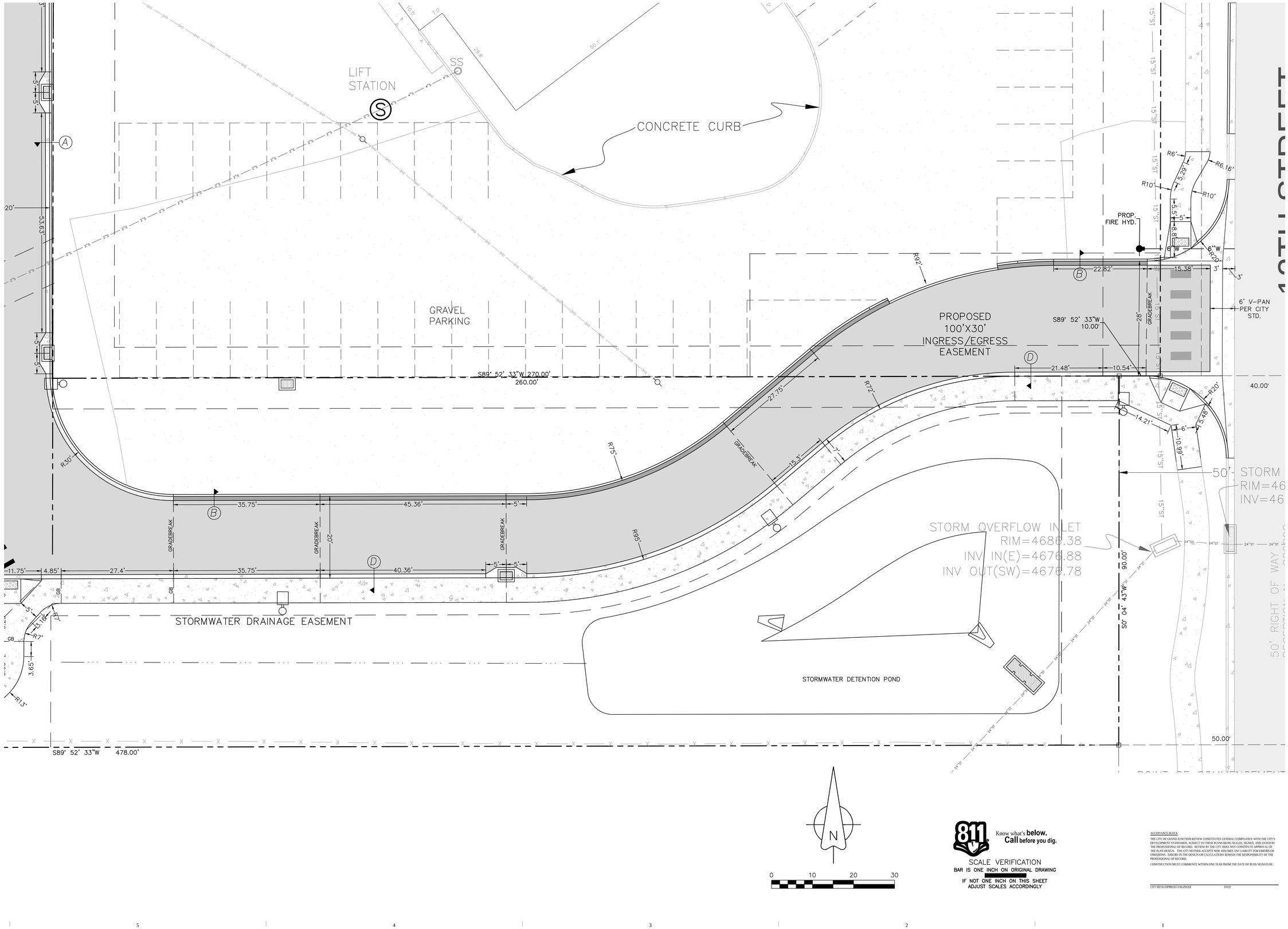

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7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1" = 10'

NO. C7.20

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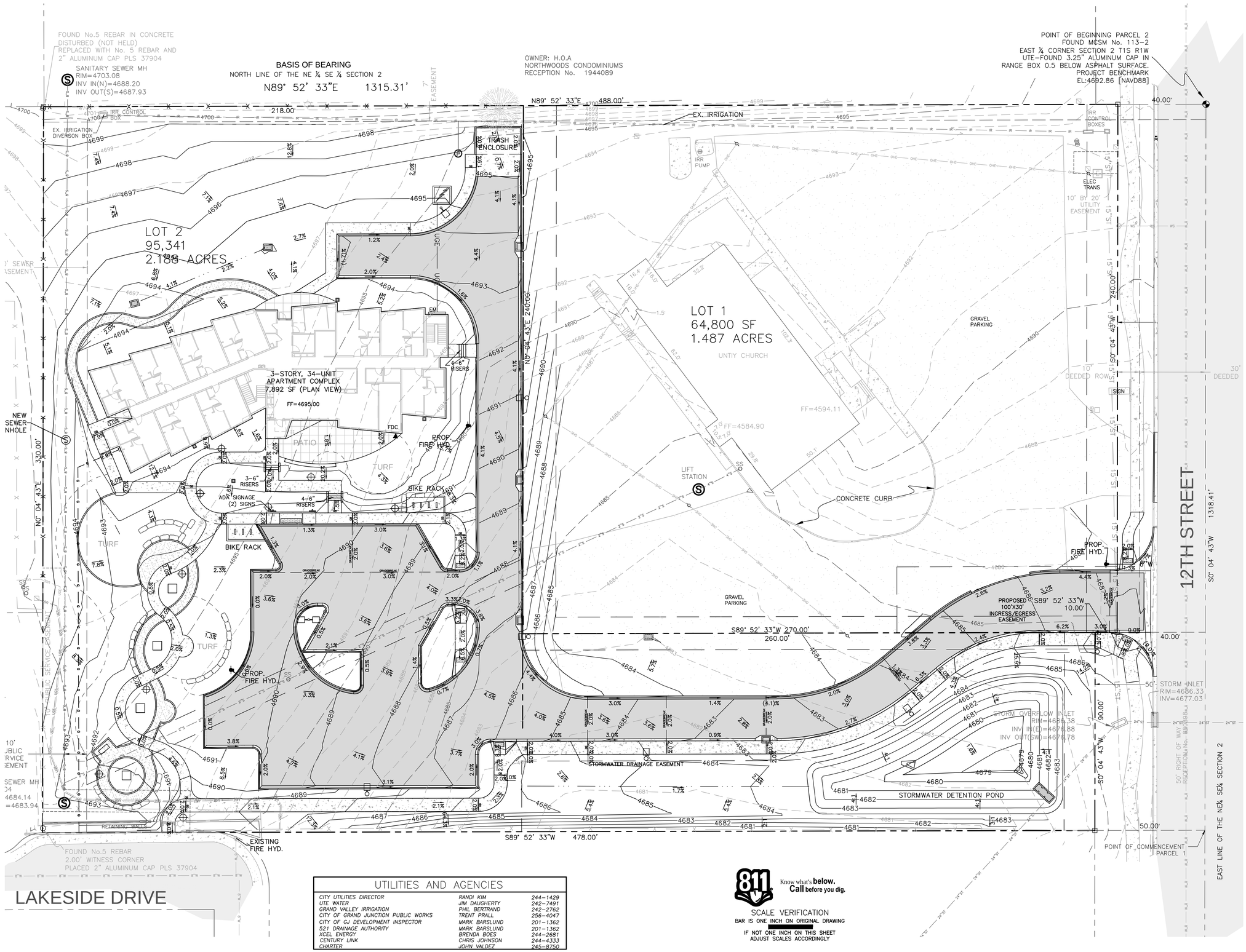

UTILITIES AND AGENCIES		
CITY UTILITIES DIRECTOR	RANDI KIM	244-1429
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	256-4047
CITY OF GJ DEVELOPMENT INSPECTOR	MARK BARSLUND	201-1362
521 DRAINAGE AUTHORITY	MARK BARSLUND	201-1362
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
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KARIS APARTMENTS
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Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
OVERALL GRADING PLAN

SCALE: 1" = 20'

NO. C8.00

ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.
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CITY DEVELOPMENT ENGINEER DATE

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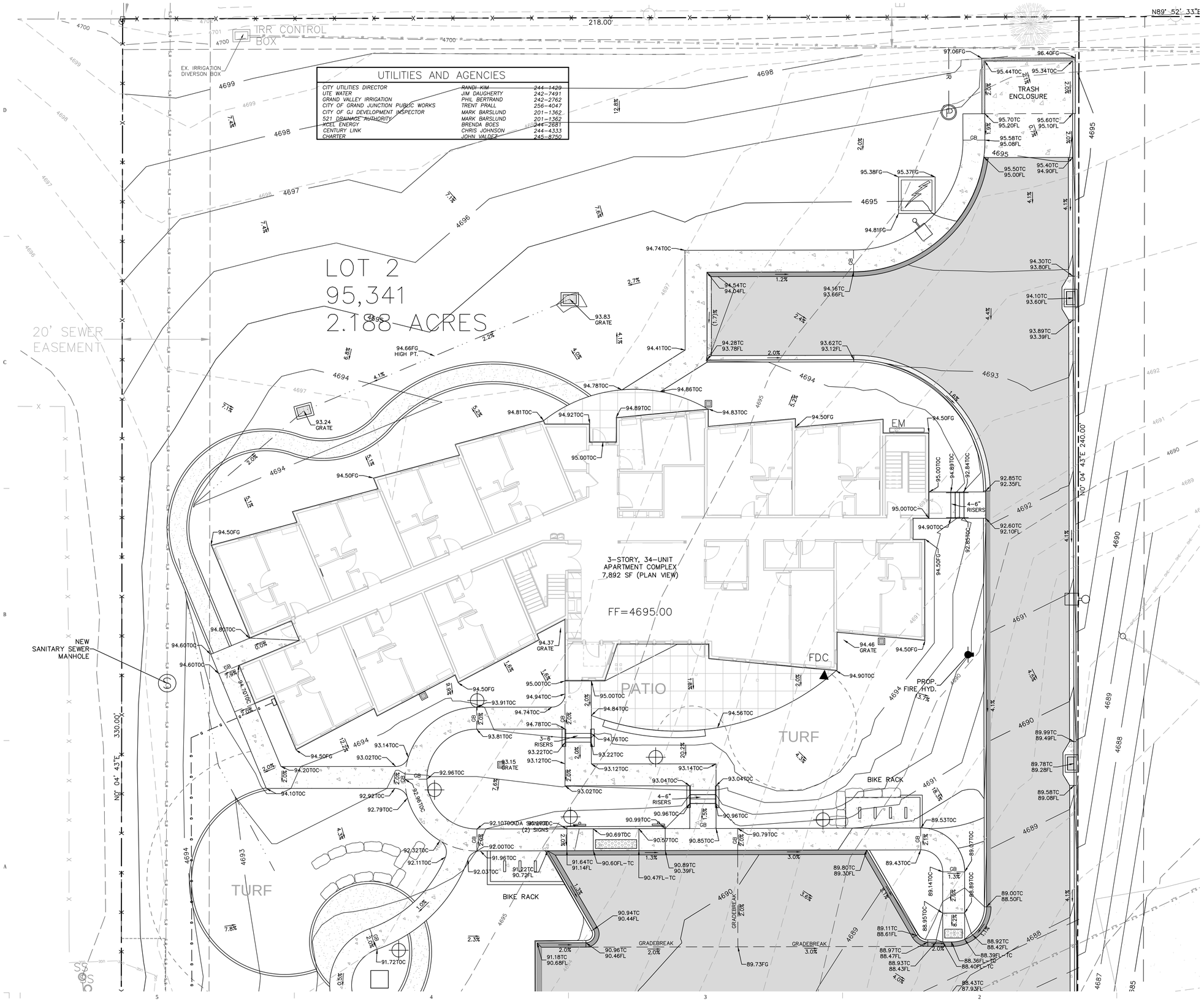

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DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
GRADING AND DRAINAGE PLAN

SCALE: 1" = 10'

NO. C8.10

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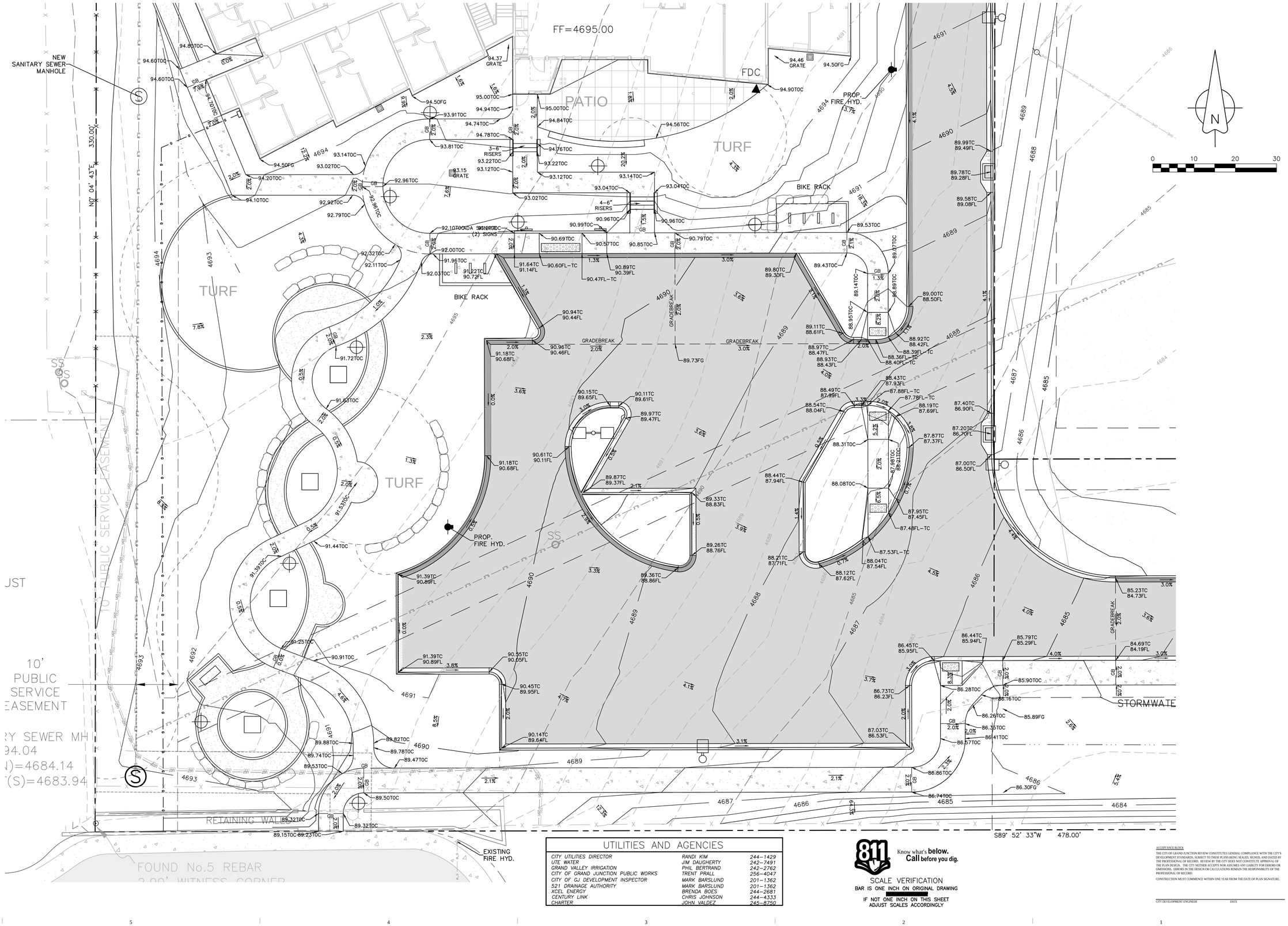

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8/9/19	CITY SUBMITTAL

DRAWN: LMS
REVIEWED: STS
PROJECT #: 18007

SHEET TITLE:
GRADING AND DRAINAGE PLAN

SCALE: 1" = 10'

NO.
C8.20

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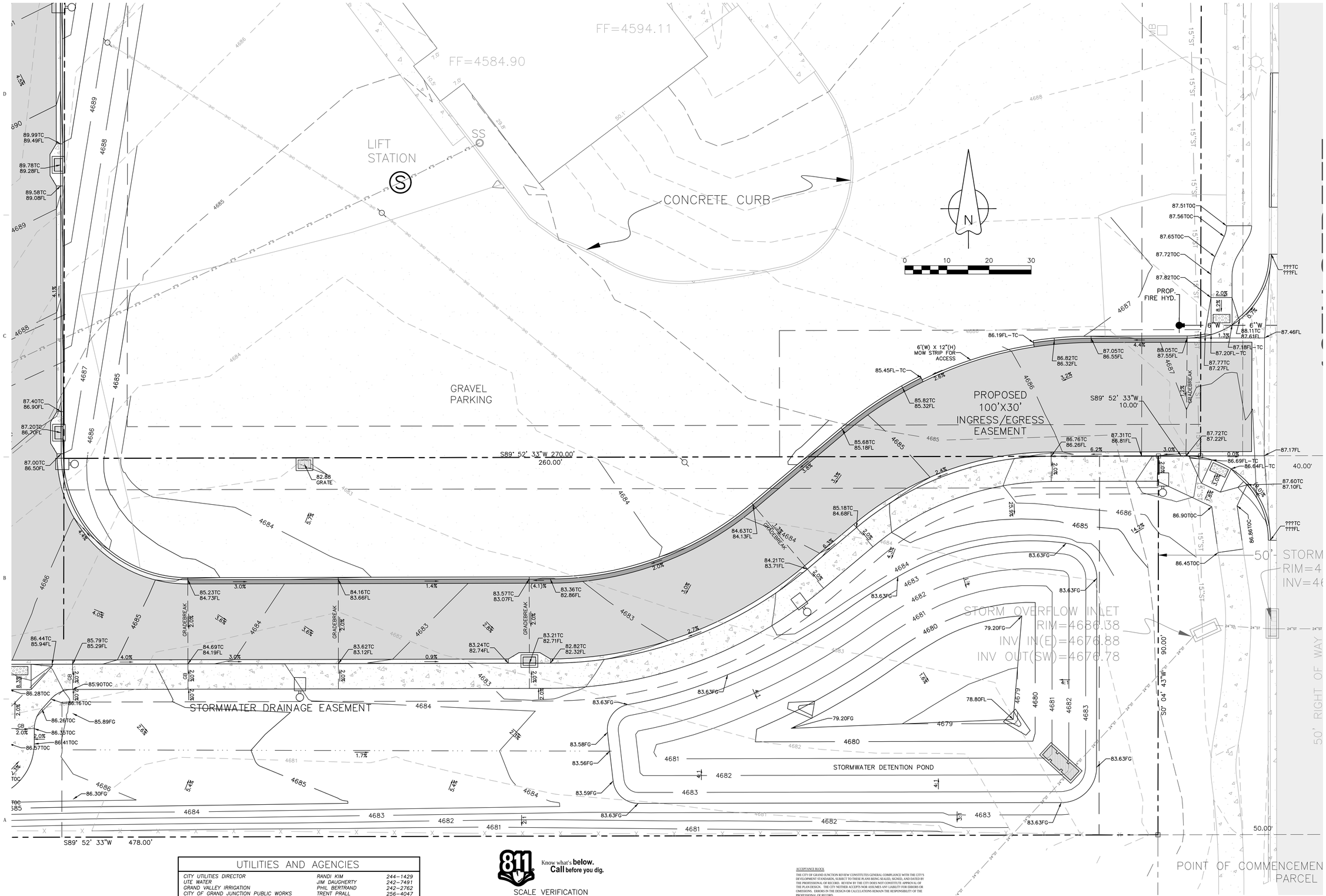

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PROJECT #: 18007

SHEET TITLE:
GRADING AND DRAINAGE PLAN

SCALE: 1" = 10'

NO. C8.30

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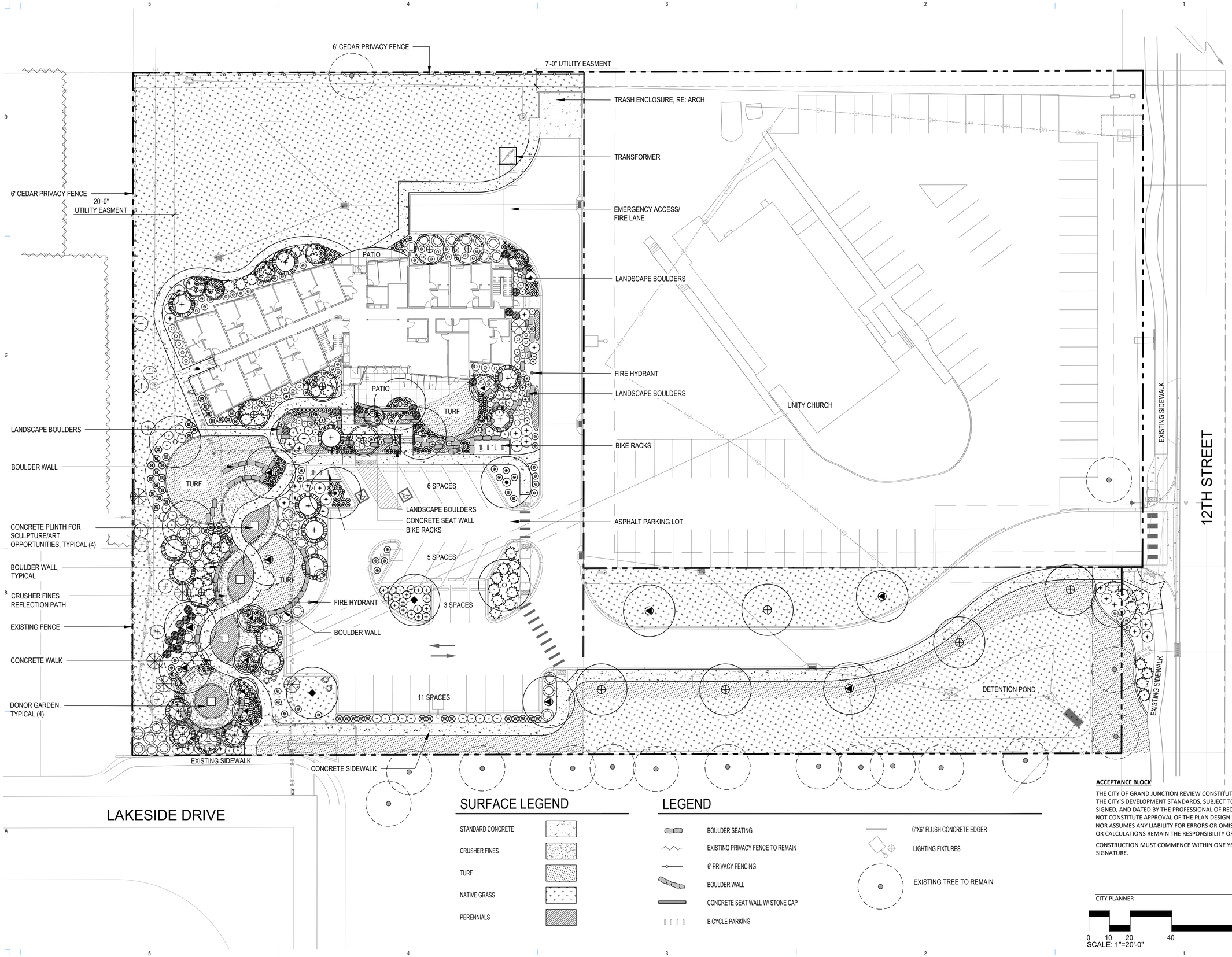

SURFACE LEGEND

- STANDARD CONCRETE
- CRUSHER FINES
- TURF
- NATIVE GRASS
- PERENNIALS

LEGEND

- BOULDER SEATING
- EXISTING PRIVACY FENCE TO REMAIN
- 6' PRIVACY FENCING
- BOULDER WALL
- CONCRETE SEAT WALL W/ STONE CAP
- BICYCLE PARKING
- 6"X6" FLUSH CONCRETE EDGER
- LIGHTING FIXTURES
- EXISTING TREE TO REMAIN

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DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CH/JH
PROJECT #: 18007

SHEET TITLE:
Landscape Site Plan

SCALE: 0 10 20 40 80
SCALE: 1"=20'-0"
NORTH

NO. LS101

LANDSCAPE PLANTING SCHEDULE

EVERGREEN TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
PIN	5	Piñon Pine	Pinus edulis	6' Height	Very Low
AUS	11	Austrian Pine	Pinus nigra	8' Height	Very Low

DECIDUOUS TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
OAK	8	Chinkapin Oak	Quercus muehlenbergii	2.5" Caliper	Low
HKB	2	Common Hackberry	Celtis occidentalis	2.5" Caliper	Very Low
SHA	6	Shademaster Honeylocust	Gleditsia triacanthos inermis	2.5" Caliper	Very Low
BOX	2	Sensation Boxelder	Acer n egundo 'Sensation'	2.5" Caliper	Low
LPT	5	London Planetree	Platanus x acerifolia	2.5" Caliper	Low
	1	Species to be Determined	Species to be Determined	2" Caliper	

ORNAMENTAL & SMALL TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
ABS	6	Autumn Brilliance Serviceberry	Amelanchier x grandiflora	6'-8' Clump	Moderate
WKH	7	Winter King Hawthorn	Crataegus viridis 'Winter King'	2" Caliper	Low
RBC	5	Eastern Redbud	Cercis canadensis	6'-8' Clump	Low

DECIDUOUS SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
RLC	46	Red Lake Currant	Ribes sativum 'Red Lake'	5 Gal. Cont.	Low
AAS	45	Autumn Amber Sumac	Rhus trilobata 'Autumn Amber'	5 Gal. Cont.	Low
RSA	44	Russian Sage	Perovskia artiplicifolia	5 Gal. Cont.	low
DRB	45	Dwarf Rabbitbrush	Chrysothamnus nauseosus var.	5 Gal. Cont.	Very Low
LEA	17	Leadplant	Amorpha canescens	5 Gal. Cont.	Very Low
RAB	9	Rabbitbrush	Chrysothamnus nauseosus	5 Gal. Cont.	Very Low
PBS	36	Pawnee Buttes Sandcherry	Prunus besseyi 'Pawnee Buttes'	5 Gal. Cont.	Low
PAN	44	Panchito Manzanita	Arctostaphylos x coloradoensis	5 Gal. Cont.	Low
RLR	7	Red Leaf Rose	Rosa glauca	5 Gal. Cont.	Low

EVERGREEN SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
BCJ	45	Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	5 Gal. Cont.	Low

ORNAMENTAL GRASSES/PERENNIALS / GROUNDCOVERS

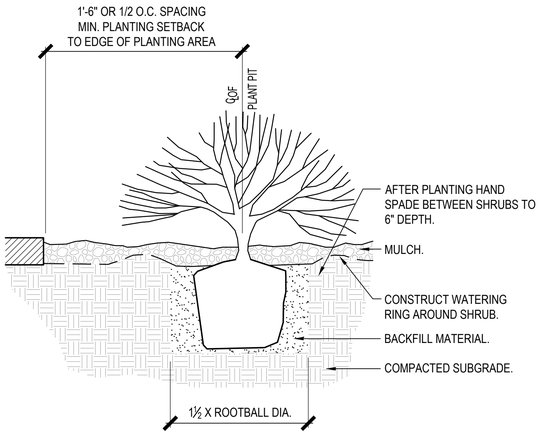
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
YUC	36	Soapweed Yucca	Yucca glauca	1 Gal. Cont.	Low
FRG	50	Feather Reed Grass	Calamagrostis acutiflora 'Avalanche'	1 Gal. Cont.	Low
DMG	21	Dwarf Maiden Grass	Miscanthus sinensis 'Yaku Jima'	1 Gal. Cont.	Low
BGG	284	Blue Gramma Grass	Bouteloua gracilis	1 Gal. Cont.	Low
AST	150	Assorted Perennials & Groundcovers		1 Gal. Cont.	Low

Site Landscape Requirements: 2.19 Acre Lot

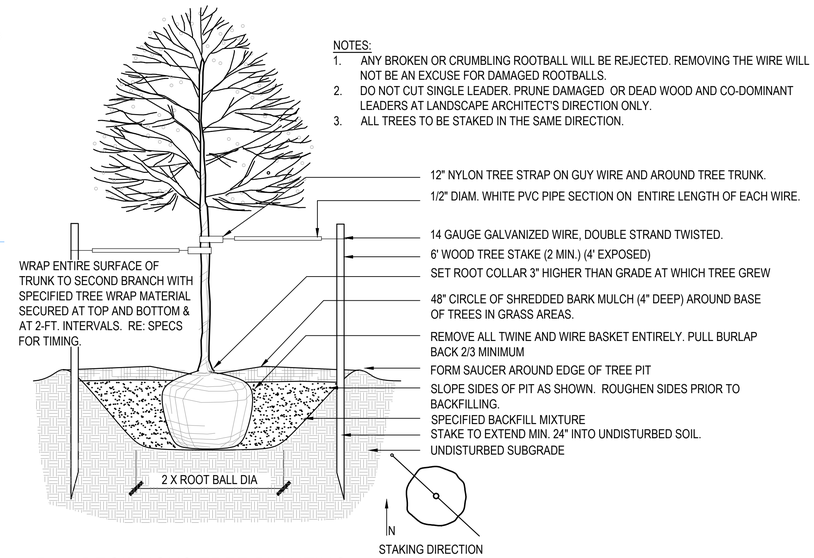
Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 Tree/2,500 SF		0	39	57
			Shrubs Required	Shrubs Provided
1 Shrub/300 SF			318	318
			Perennials Required	Perennials Provided
N/A			n/a	541

Street Frontage Landscape Requirements

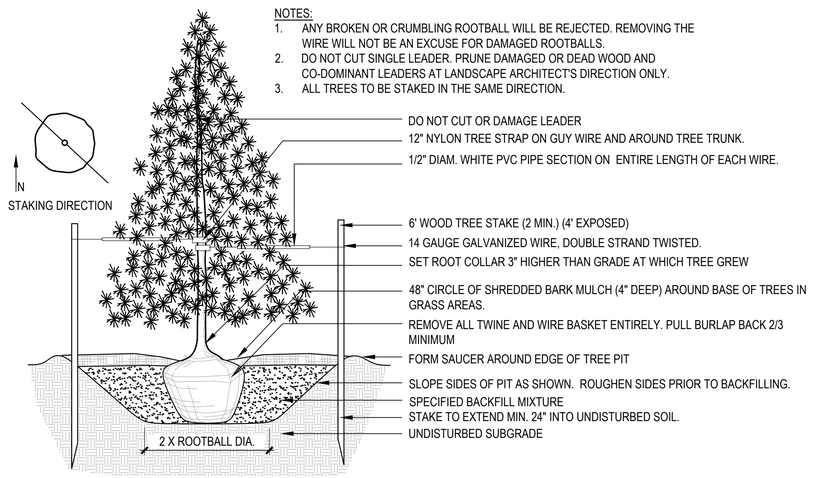
Requirement	Calculation	Trees Existing	Trees Required	Trees Provided
1 tree/40' Street Frontage	90' Street Frontage (N. 112th)	2	3	1
		Shrubs Existing	Shrubs Required	Shrubs Provided
		0	n/a	20



1 SHRUB PLANTING
SCALE: NTS shrb.dwg



2 DECIDUOUS TREE PLANTING
SCALE: NTS



3 EVERGREEN TREE PLANTING
SCALE: NTS

ACCEPTANCE BLOCK

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8/9/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CHJH
PROJECT #: 18007

SHEET TITLE:
Landscape Schedules & Details

SCALE:

NO. LS102

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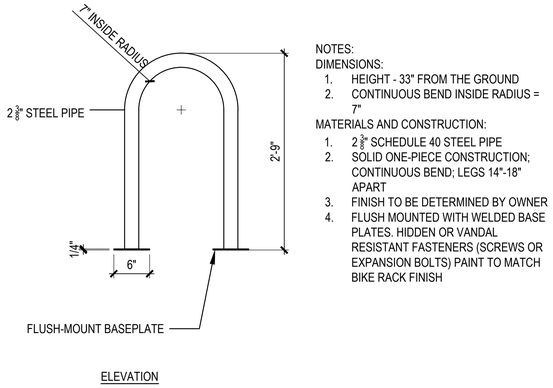


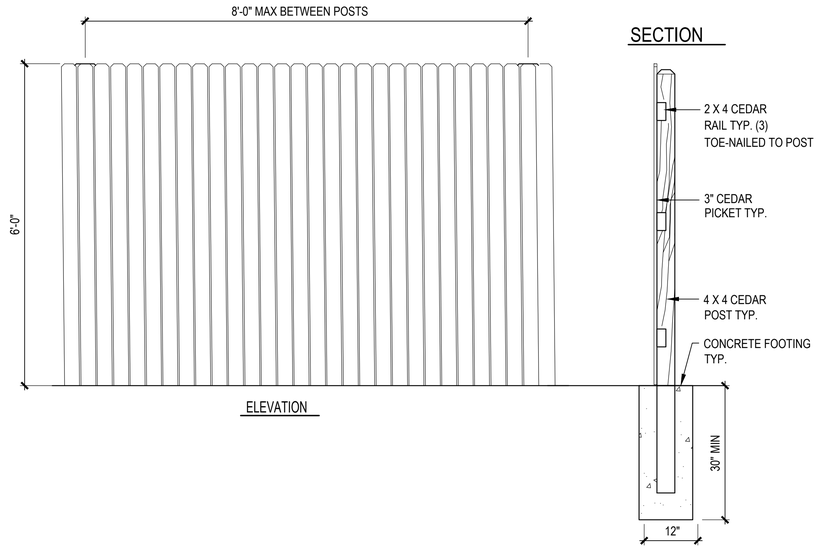
ELEVATION

NOTES:
DIMENSIONS:
1. HEIGHT - 33" FROM THE GROUND
2. CONTINUOUS BEND INSIDE RADIUS = 7"

MATERIALS AND CONSTRUCTION:
1. 2 3/8" SCHEDULE 40 STEEL PIPE
2. SOLID ONE-PIECE CONSTRUCTION; CONTINUOUS BEND; LEGS 14"-18" APART
3. FINISH TO BE DETERMINED BY OWNER
4. FLUSH MOUNTED WITH WELDED BASE PLATES. HIDDEN OR VANDAL RESISTANT FASTENERS (SCREWS OR EXPANSION BOLTS) PAINT TO MATCH BIKE RACK FINISH

1 BIKE RACK

SCALE: 1"=1'



2 6' PRIVACY FENCE

SCALE: 3/4"=1'-0"

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8/9/19	CITY SUBMITTAL

DRAWN: JB
REVIEWED: CH/JH
PROJECT #: 18007

SHEET TITLE:
Landscape Details

SCALE:

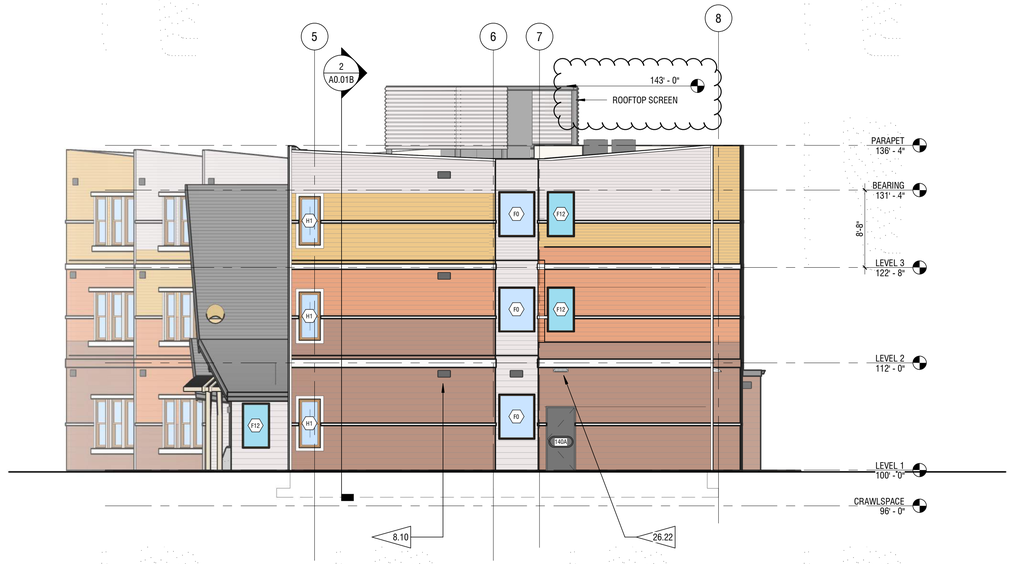
NO. LS103

2 N. ELEV

1/8" = 1'-0"

3 ELEVATION - ENLARGED DETAIL

1/4" = 1'-0"



1 E. ELEV

1/8" = 1'-0"

FLAGNOTES PER SHEET

- SCREEN FOR ROOFTOP MECHANICAL EQUIP. - PREFINISHED DECKING ON TUBE STEEL STRUCTURE
- PREFINISHED SHEETMETAL GUTTER WITH CONTINUOUS CLEAT, TO DOWNSPOUT & SPLASHBLOCK
- PREFINISHED, CONTINUOUS METAL PARAPET WALL CAP, COUNTER FLASHING AND CLEAT, 24 GAUGE, FACTORY FINISHED. FASTEN WITH POWDER ACTUATED FASTENERS @ 16" O.C., RE: ROOF PLAN AND ELEVATIONS
- EXTERIOR LOUVERS, RE: MECHANICAL
- THERMALLY BROKEN GLASS AND ALUMINUM SECTIONAL OVERHEAD DOOR
- EXTERIOR PRE-FINISHED CEMENTITIOUS LAP SIDING OVER SHEATHING, RE: EXTERIOR WALL TYPES
- EXTERIOR PRE-FINISHED CEMENTITIOUS TRIM BOARD, RE: EDEVATIONS AND EXTERIOR DETAILS
- PRE-FINISHED CEMENTITIOUS TRIM BOARD, 1.65" WIDTH, COLOR AND FINISH TO MATCH ADJACENT CEMENTITIOUS LAP SIDING, RE: WINDOW AND DOOR DETAILS
- 42" PTAC UNIT, RE: WINDOW DETAILS AND MECHANICAL
- EXTERIOR WALL SCONCE, RE: ELECTRICAL
- SURFACE MOUNTED FIXTURE, RE: ELECTRICAL

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8/9/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

SCALE: As indicated

NO. A2.0

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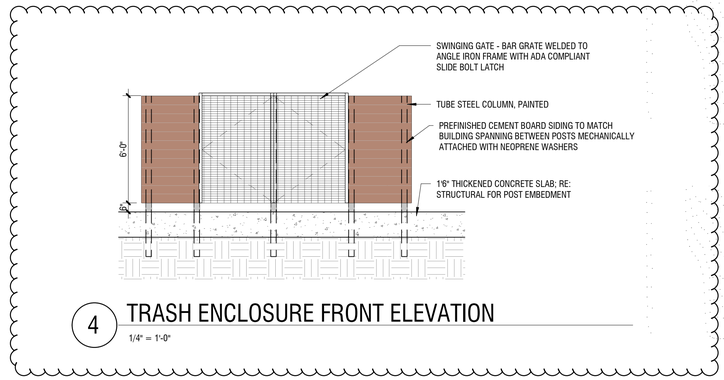
3 S. ELEV.

1/8" = 1'-0"

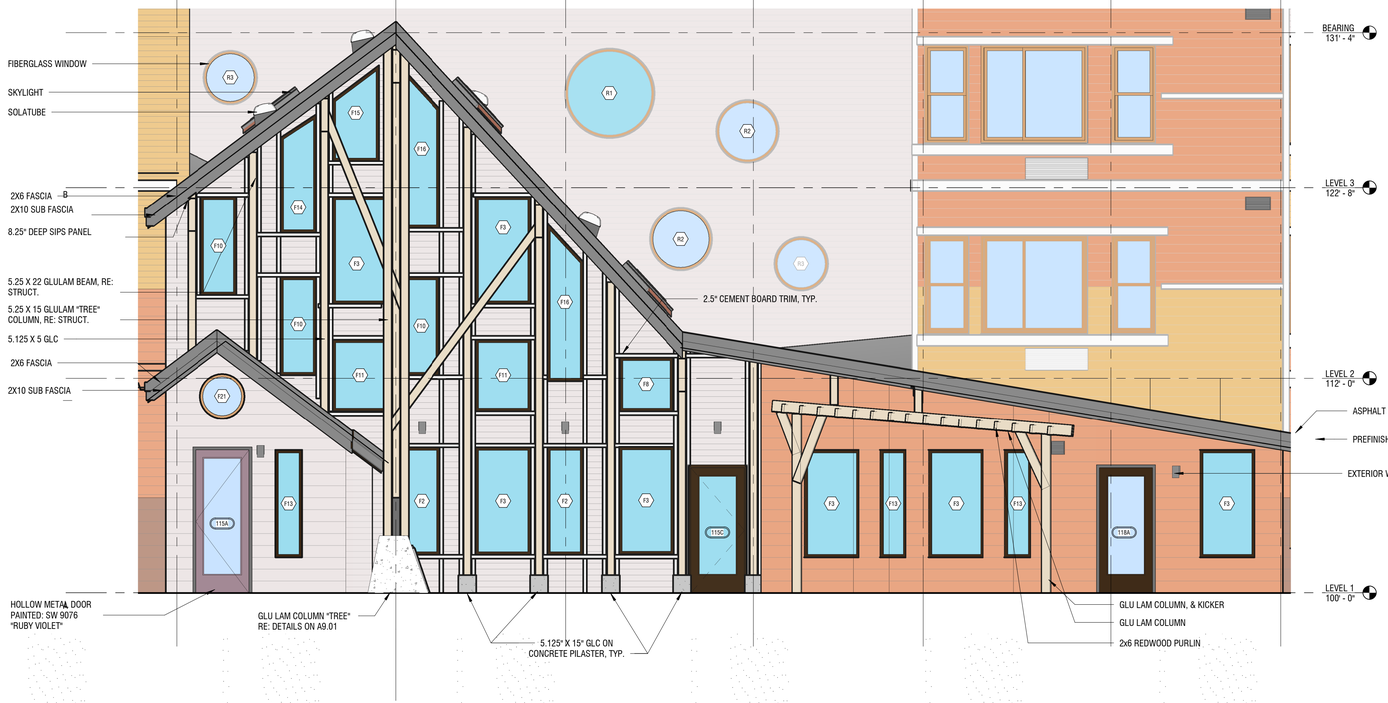
FLAGNOTES PER SHEET

8.01	24" TUBULAR DAYLIGHTING DEVICE
8.03	VINYL WINDOW, TYP. @ UNITS & UPPER LEVELS, ALMOND COLORED, RE: WINDOW TYPES AND ELEVATIONS
8.10	EXTERIOR LOUVERS, RE: MECHANICAL
9.06	EXTERIOR PRE-FINISHED CEMENTITIOUS LAP SIDING OVER SHEATHING, RE: EXTERIOR WALL TYPES
9.08	EXTERIOR PRE-FINISHED CEMENTITIOUS TRIM BOARD, RE: ELEVATIONS AND EXTERIOR DETAILS
23.06	42" PTAC UNIT, RE: WINDOW DETAILS AND MECHANICAL
26.22	SURFACE MOUNTED FIXTURE, RE: ELECTRICAL



4 TRASH ENCLOSURE FRONT ELEVATION

1/4" = 1'-0"



2 ENLARGED ENTRY ELEV.

1/4" = 1'-0"

1 W. ELEV.

1/8" = 1'-0"

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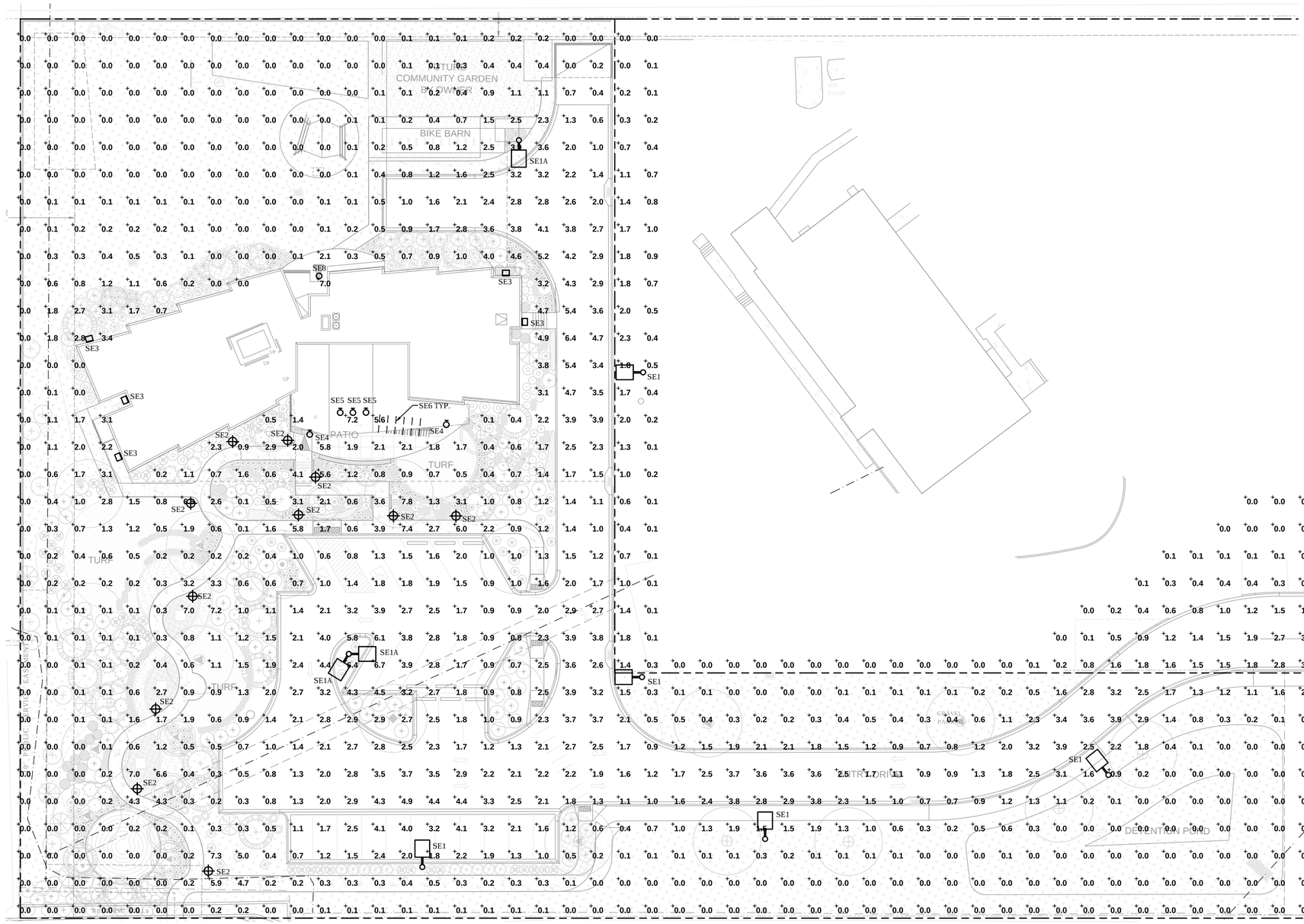
DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

SCALE: As indicated

NO. A2.1

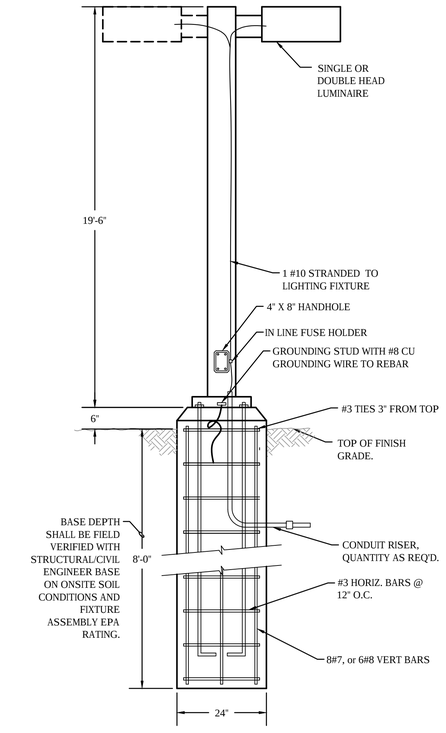


1 E-1 ELECTRICAL PHOTOMETRIC PLAN

1" = 20'-0"

GENERAL NOTES

1. ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC ROW, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.
2. ALL OUTSIDE LIGHTING SHALL COMPLY WITH SECTION 21.06.080 OF THE ZONING AND DEVELOPMENT CODE.



2 SE1, SE1A PARKING POLE BASE DETAIL

N.T.S.

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4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

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8/9/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC PLAN

SCALE: AS NOTED

NO. E1

C:\Users\jonk\appdata\local\temp\AcPublish_18388\PH-PHOTOMETRIC.dwg jonk 08.01.19 2:06 pm

Catalog # :	Project :
Prepared By :	Date :

Mirada Medium - MRM
Outdoor LED Area Light

The Mirada's sleek design makes it perfectly-suited for architectural & commercial applications, while its cost-effective die-cast aluminum housing makes its acquisition cost very competitive. The Mirada offers high performance factory-rotatable silicone optics, 5 standard CCTs, 42,000+ delivered lumens, and is available with integral Airlink™ Wireless Controls.

Features & Specifications

Optical System

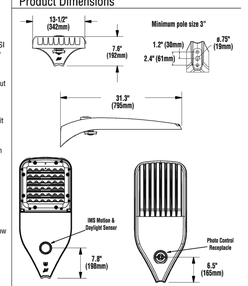
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, SW, FT and FTA.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance. See page 5 for more details.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L lumen package rated to +40°C.
- Power factor: > .90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

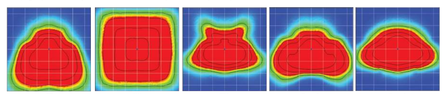
Product Dimensions



Mirada Medium - MRM
Outdoor LED Area Light

Performance (Cont.)

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada (MRM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Ordering Guide

TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Luminaire Prefix	Light Source	Lumen Package*	Light Output	Distribution	Orientation†	Voltage	Driver
MRM Mirada	**LED**	7L - 7,000 lms **9L - 9,000 lms** **12L - 12,000 lms** **18L - 18,000 lms** **24L - 24,000 lms** **30L** - 30,000 lms **36L** - 36,000 lms **42L** - 42,000 lms * Consult factory for programmable wattages and lumen packages	**SIL** - Silicone	**2** - Type 2 **3** - Type 3 **SW** - Type 5 Wide **FT** - Forward Throw **FTA** - Forward Throw Automotive	**(Blank)** - standard **L**- Optics rotated left 90 **R** - Optics rotated right 90	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347-480V)	**DIM** - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5,000 CCT **40** - 4,000 CCT **30** - 3,000 CCT† **27** - 2,700 CCT† **AMB** - Phosphor Converted Amber††	**70CRI** - 70 CRI	**(Blank)** - None **Wireless Controls System.** **ALSC** - AirLink Synapse Control System ‡ **ALSCH** - AirLink Synapse Control System Host / Satellite ‡,§ **ALSCS01** - AirLink Synapse Control System with 8-12' Motion Sensor ‡ **ALSCHS01** - AirLink Synapse Control System Host / Satellite with 8-12' Motion Sensor ‡,§ **ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor ‡ **ALSCHS02** - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor ‡,§ **ALSCS04** - AirLink Synapse Control System with 20-40' Motion Sensor ‡ **ALSCHS04** - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor ‡,§ **Stand-Alone Controls** **EXT** - 0-10v Dimming (from external signal) **IMS09R1** - Integral Motion Sensor 8-12' 120-277V ‡,¶ **IMS09R2** - Integral Motion Sensor 12-20' 120-277V ‡,¶ **IMS09R4** - Integral Motion Sensor 20-40' 120-277V ‡,¶ **IMS09R1HV** - Integral Motion Sensor 8-12' 347-480V ‡,¶,† **IMS09R2HV** - Integral Motion Sensor 12-20' 347-480V ‡,¶,† **IMS09R4HV** - Integral Motion Sensor 20-40' 347-480V ‡,¶,† **CR7P** - 7 Pin Control Receptacle ANSI C136.41 ‡ **Button Type Photocells** **PC3120** - 120V **PC3208-227** - 208 -277V **PC3347** - 347V	**BRZ** - Bronze **BLK** - Black **GPT** - Graphite **MSV** - Metallic Silver **PLP** - Platinum Plus **SVG** - Satin Verde Green	**(Blank)** - None **IL** - Integral Louver HSS‡

Catalog # :	Project :
Prepared By :	Date :

Mirada Bollard - MRB
LED Architectural Bollard

The Mirada Architectural Bollard combines superior engineering with purity of design & attention to detail. The durable construction & virtually maintenance free qualities makes it ideal for illuminating low level mounting height areas, such as entryways, pathways and most pedestrian-scale applications, requiring unique aesthetics in tandem with outstanding performance.

Features & Specifications

Optical System

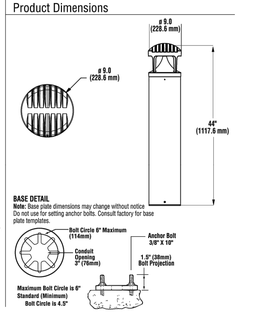
- Available in two optical distributions, symmetrical and asymmetrical.
- High transmission clear flat acylic lens seals the luminaire's optical chamber to IP66.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also available in Phosphor Converted Amber. Consult Factory for other color temperature requirements.
- Minimum CRI of 70. Consult Factory for Higher CRI requirements.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347-480 Vac Input available.
- L91 Calculated Life: >100k Hours calculated @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F); Cold-weather emergency battery backup rated for -20°C minimum ambient.
- Power factor: > .90
- Input power stays constant over life.
- High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
- Driver components are fully encased in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Electrical components are mounted on a removable power tray.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Optional 120v-277v integral emergency battery pack is available. The 90-minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance.

Dimmable · IDA DARK-SKY FRIENDLY · IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

Product Dimensions



BASE DETAIL
Note: Base plate dimensions may change without notice. Do not use for setting anchor bolts. Consult factory for base plate template.

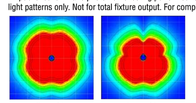
Mirada Bollard - MRB
LED Architectural Bollard

Performance

DELIVERED LUMENS*													
				AMB CCT		2700K CCT		3000K CCT		4000K CCT		5000K CCT	
Lumen Package	Lens Type	Distribution	CRI	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Wattage
25L	ACR	S	70	1713	56	2242	74	2156	71	2467	82	2485	81	30.5
30L	ACR	S	70	2110	55	2761	71.9	2655	69	3063	80	3061	80	38.4
25L	ACR	A	70	1327	58	1736	75.5	1670	73	1926	84	1925	84	23.0
30L	ACR	A	70	1634	56	2138	73.5	2056	71	2372	82	2370	81	29.1

*LED Chips are frequently updated therefore values are nominal.

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the (MRB) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Luminaire Ordering Information

TYPICAL ORDER EXAMPLE: **MRB LED 30L ACR S UNV DIM 40 PCI120 BB BRZ HSS**

Prefix	Source	Lumen Package	Lens	Distribution	Voltage	Driver
MRB (Mirada Bollard)	**LED**	**25L** - 2,500 lm **30L** - 3,000 lm	**ACR** - Acrylic	**A** - Asymmetric **S** - Symmetrical	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347 - 480v)	**DIM** - 0-10v Dimming (10-100%)

Color Temp	CRI	Controls (Choose one)	Battery Backup*	Finish	Options
50 - 5,000K **40** - 4,000K **30** - 3,000K **27** - 2,700K† **AMB** - Phosphor Converted Amber†	**(Blank)** - 70CRI	Button Type Photocells **PC3120** - 120V **PC3208-277** - 208-277V **PC3347** - 347V	**BB** - Battery Backup **CWBB** - Cold Weather Battery Backup	**BRZ** - Bronze **BLK** - Black **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green **GPT** - Graphite **MSV** - Metallic Silver	**H** - XX (Specify Height)‡ **GFR** - GFI Duplex Receptacle **LAB** - Less Anchor Bolts **RR** - Roughneck Heavy Duty Mtg Plate **HSS** - House Side Shield

Accessory Ordering Information†

Description	Order Number
HSS - House Side Shield	699705
Galvanized anchor Bolt kit	285560

FOOTNOTES:
1 - Consult Factory for availability.
2 - Standard height is 44". Non Standard heights are available in 6" increments. Minimum height is 26", 32" with battery backup option. Maximum height is 62".
3 - Accessories are shipped seperately and field installed.
4 - Not available in HV Voltage.

1 FIXTURE TYPE SE1, SE1A
N.T.S.

2 FIXTURE TYPE SE2
N.T.S.

MIRADA WALL SCONCE (XWM)

DOE LIGHTING FACTS
Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

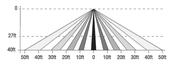
LIGHT OUTPUT - XWM - 3 5000K CCT

	Lumens	Wattage	LPW
03	3410	29	117
04	4417	40	111
06	6609	59	113
08	8610	82	105

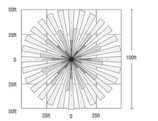
LED Chips are frequently updated therefore values may increase.

COVERAGE DIAGRAM

SIDE VIEW



TOP VIEW



US & Int'l. patents pending

SMARTTEC™ - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature

ENERGY SAVING CONTROL OPTIONS - DIM - 0-10 volt dimming enabled with LSI wireless controls.

OPTIONAL INTEGRAL MOTION SENSOR - Passive infrared motion sensor activates switching of luminaire light levels. High level light is activated when passersby enter target zone and increased to full bright in 1-2 seconds. Low light level (30% of maximum drive current) is activated when target zone is absent of motion activity for 5 minutes and is gradually ramped down (10 seconds) to low level. Sensor detection range 110° horizontal x 93° vertical x 10 meters maximum distance.

LEDS - Available with 5000K, 4000K or 3000K color temperature, 70 CRI min.

OPTICS/DISTRIBUTIONS - Ultra-high efficiency reflectors provide three distributions. Choose from Type 2, Type 3 or Type FT.

HOUSING - Three-piece die-cast aluminum housing is smoothly contoured low-profile shape. Mounting hardware is stainless steel or electro-zinc plated steel. Housing and optical unit are sealed with extruded silicone gasket; supply conductors with molded EPDM bushing.

OPTICAL UNIT - Proprietary silicone refractor optics provide exceptional coverage and uniformity. Pressure stabilizing breather allows super-tight protection while preventing cycling from building up internal pressures and vacuums that can stress optical unit seals

WALL MOUNTING - Galvanized-steel universal wall mounting plate easily mounts directly to 4" octagonal or square junction box. EPDM gasket is supplied to be installed between mounting plate and junction box, sealing junction box from entrance of water. Universal plate permits fixture to be mounted in uplighting (indoor only) or downlighting position. Optional pole-mounting bracket permits mounting to standard poles (XPMA).

ELECTRICAL - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (50/60Hz input) or 347-480VAC.

DRIVER - Drivers are dimming, standard. Components are fully encased in potting material for IP65 moisture resistance. Driver complies with IEC and FCC standards. Driver can be easily accessed.

EMERGENCY OPTIONS - Optional integral emergency battery-back-up options are available. BB option operates in 0°C to 60°C ambient temperature and CWBB operates in -20°C to 60°C ambient temperature. When primary AC power failure occurs, both options operate 10 LEDs for minimum of 90 minutes.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F)

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT (in carton) - 30 lbs./13.6Kg

LISTING - UL listed to ANSI/UL1598, UL8750 and other U.S. and international safety standards. Suitable for wet locations in downlight position. IDA compliant; with 3000K color temperature selection

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · cULus wet location · CE · ARRA Funding Compliant · IP65 · FC · IDA DARK-SKY FRIENDLY · DLC

Project Name _____ Fixture Type _____
Catalog # _____
3/13/19
© 2019 LSI INDUSTRIES INC.

MIRADA WALL SCONCE (XWM)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XWM FT LED 08L 50 UE WHT IMS**

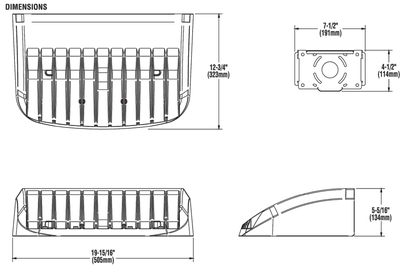
Prefix	Distribution	Light Source	Output*	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XWM - Mirada Wall Sconce	2 - Type 2 3 - Type 3 (Wide Throw) FT - Type 4 (Forward Throw)	LED	05L - 4,400 Lumens 08L - 8,600 Lumens	50 - 5000K 40 - 4000K 30 - 3000K	UE - Universal Voltage (120-277) HV - 347-480	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus WHT - White	**Wireless Control System**[1,2] (Blank) - None PCM - Platinum Control System SCM - Gold Control System DIM - 0-10 volt dimming (required for satellite fixtures) ALSC - AirLink Synapse Control System **Stand-Alone Control** (Blank) - None DIM - 0-10 volt dimming[3] (from external signal)	**Sensor** IMS - Integral Motion Sensor[4,7] **Options** BB - Battery Back-up[5] CWBB - Cold Weather Battery Back-up[5] XPMA - Pole Mounting Bracket

ACCESSORY ORDERING INFORMATION[1] (Accessories are field installed)

Description	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	3069158BLK	DPK208 – Double Fusing	DPK208
FK120 - Single Fusing	FK120	DFK240 – Double Fusing	DFK240
FK277 - Single Fusing	FK277	DFK480 – Double Fusing	DFK480
FK347 - Single Fusing	FK347	IMS/PC Remote Configurator Tool[7]	584929

FOOTNOTES:
1 – For wireless controls information and accessories, see Controls Section.
2 – Requires a SiteManager and override switch. Not compatible with battery back-up, IMS or HL Option.
3 – Not compatible with IMS Option
4 – Not compatible with DIM or Wireless Control System
5 – Not compatible with Wireless Control System
6 – Not available with BB, CWBB, IMS Option or Wireless Control System
7 – IMS is the NetStepper Dual Sensor (Daylight & Motion) which is field adjustable, via a handheld remote configurator tool
8 – Output based on type 3 optics in cool white color temperature, see IES files for exact delivered lumens

DIMENSIONS



Project Name _____ Fixture Type _____
Catalog # _____
3/13/19
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3 FIXTURE TYPE SE3
N.T.S.

Luminaire Schedule

Symbol	Label	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	SE1	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-3-30-70CRI-IL	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE TYPE 3 OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	8626.55	1	94
	SE1A	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-FT-30-70CRI	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	11448.25	1	94
	SE2	LSI INDUSTRIES, INC	MRB-LED-30L-ACR-S-30	LED BOLARD LIGHT GROUND MOUNTED 42" SYMETRICAL OPTICS 3000K CCT		1	2655.92	1	38.4
	SE3	LSI INDUSTRIES, INC	XWM-FT-LED-04-30	LED WALL MOUNT LIGHT 12'-0" AFG FORWARD THROW OPTICS 3000K CCT		1	4207.454	1	38
	SE4	PROGRESS	P563000-143-30K	3" Wall-Mount Cylinder, Graphite w/ Textured, Opal Glass Lens; Tested as Down-Light 8'-0" AFG MOUNTING HEIGHT 3000K CCT	22- Nichia 3000K LEDs	1	906.9812	1	12.204
	SE5	PROGRESS	P563001-143-30K	3" Wall Mount Up/Down Cylinder - Graphite 12'-0" AFG MOUNTING HEIGHT 3000K CCT	44- Nichia 3000K LEDs	1	1765.549	1	24
	SE6	MARKET LITE	ML2000-CA-24-LED-30K-GSFL-WET	LED STRING LIGHT 24" OC. WITH CUTOFF SHADE MOUNTED 10'-0"AFG 3000K CCT	44- Nichia 3000K LEDs	1	91.35894	1	0.97
	SE8	LSI INDUSTRIES, INC	LCD4_LAD4_LAD4R-LED-14L-30-NF-TR4R-SF-HAZ	4" APERTURE LED DOWNLIGHT 3000K CCT RECESSED CEILING MOUNT.		1	1142.191	0.8	13.9

ACCEPTANCE BLOCK:
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER _____ DATE _____

shop works architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094
CONSULTING INC
4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E2

C:\Users\jonk\appdata\local\temp\AcPublish_18388\PH-DETAILS.dwg jonk 08.01.19 2:07 pm

PROGRESS LIGHTING

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Downlight Cylinder

Wall mounted • Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

Number of Modules	1
Input Power	12w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	907/75 (LM-79)
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563000-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 5-5/8"
H/CTR: 3"

For more information visit our website: www.progresslighting.com

Progress Lighting • 701 Millennium Boulevard • Greenville, SC 29607

4

FIXTURE TYPE SE4

N.T.S.

PROGRESS LIGHTING

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Up/ Down Cylinder

Wall mounted • Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount up/downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

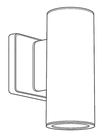
Number of Modules	2
Input Power	24w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	1766/73 (LM-79) per module
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563001-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 8-1/4"
H/CTR: 5"



For more information visit our website: www.progresslighting.com

Progress Lighting • 701 Millennium Boulevard • Greenville, SC 29607

5

FIXTURE TYPE SE5

N.T.S.

marketLITE™

Manufactured in the U.S.A.

APPLICATIONS	Indoor and Outdoor
VOLTAGE	120V
LAMP	LED Lamp Included
DIMMING	Forward Phase
WATTS	1W or 3W
LENGTH	Built to Order
FINISH	Black
FEED	Standard 6' Leads
STRAIN RELIEF	Aircraft Cable Included
MOUNTING	Aircraft Cable Not Included
LISTING	Dry or Wet Location (ANSI/UL1598 CSA 22.2 No. 250.0-04, 2nd Edition
OPTIONS	Mesh, Cages, Canopies
LED LAMP LIFE	50,000 hrs. (GSF, GSC, SSF, SSC) 20,000 hrs. (GSFL)
UV RATING	SunLight Resistance
MAXIMUM RUN	250 Feet

APPLICATIONS

Designed for indoor and outdoor use, *marketLITE* is ideal for many applications including the amusement, recreation, and architectural industries.

marketLITE is used in: Restaurants, Casinos, Street Decorations, Amusement Parks, Shopping Malls, Promenades, and more.

ELECTRICAL

marketLITE with LEDs is available in 120 Volts. *marketLITE* is a 20 amp system (12 gauge wire). No transformers or drivers are required.

INSTALLATION

marketLITE is an easy-to-install lighting product that can be field cut to meet your lighting requirements. See installation instructions for additional details.

LED SPECIFICATIONS

LAMP NUMBER	DESCRIPTION
LED-2.4K*1	2400K Warm White
LED-2.7K	2700K Warm White
LED-3.0K*1	3000K Warm White
LED-5.0K	5000K Cool White
LED-A*1	Amber
LED-R*1	Red
LED-G*1	Green
LED-B*1	Blue

Note: MarketLITE can be hardwired for Dry and Wet Location
See installation instructions for additional information

CALI
CALIFORNIA ACCENT LIGHTING, INC.
2034 E. Lincoln Ave. #431, Anaheim, CA 92806
ph. 800.921.CALI (2254) or 714.535-7900 \ fx. 714.535.7902
info@calilighting.com \ calilighting.com
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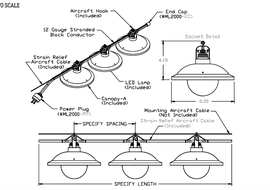
2017.12.04 B2

1 of 2

MODEL NUMBER: ML2000-CA
PREVIOUS TYPE:

NOT TO SCALE



ACCESSORIES (Not included)

End Cap (#ML2000-EC)

Power Plug (#ML2000-PP)

Mounting Aircraft Cable (#ML2000-AC-1/8")

SPECIFY PRODUCT CODE (Use drop down menu to complete table or fill in the blanks)

ML2000-CA - ___ - ___ - ___ - ___ - ___ - ___

SERIES	SPACING	LAMP	LAMP TYPE	DRY OR WET	DIMMING	CANOPY INSIDE	CANOPY OUTSIDE
Ex: ML2000-CA	*12"*	*LED-2.7K*	*GSF*	*WET*	*DM*	*BK*	*BK*
ML2000-CA	12" O/C	LED-2.4K*2	GSF*2	Indoor (DRY)	Forward Phase (DM)	Natural (NA)	Natural (NA)
	18" O/C	LED-2.7K	GSC			Polished (PA)	Polished (PA)
	24" O/C	LED-3.0K*2	GSFL	Outdoor (WET)		White (WH)	White (WH)
	36" O/C	LED-5.0K	SSF			Black (BK)	Black (BK)
	48" O/C	LED-A*3	SSC		Leave blank for Non-Dimming	Green (GN)	Green (GN)
	60" O/C	LED-R*3				Bronze (BR)	Bronze (BR)
		LED-G*3				Satin (SA)	Satin (SA)
		LED-B*3				Silver (SR)	Silver (SR)
						Red (RD)	Red (RD)

*1 Standard bulb if left blank
*2 Only available in GSFL
*3 Only available in SSC and GSC

6

FIXTURE TYPE SE6

N.T.S.

Catalog # :	Project :
Prepared By :	Date :

LCD4
4" LED Commercial Downlight

4 inch LED new construction downlight delivers superior performance and energy efficiency. Designed to use anodized aluminum reflectors delivering even illumination and low glare. The high performance luminaire offers 1000 up to 2000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K at 80 CRI. Standard driver offers universal (120-277V) and 0 -10V dimming down to 1%. The LCD series is ideal for low to medium ceiling heights for retail, hospitality and commercial applications.

origin™

Features & Specifications

Optical System

- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Available in 4000K, 3500K, 3000K, and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80.

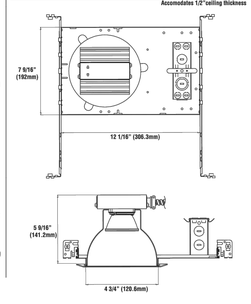
Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Compatible with Triac (forward-phase or leading-edge), ELV (reverse-phase or trailing edge) dimming only at 120 Vac.
- Driver can be accessed from below plenum for servicing.
- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) field installed is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance,To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions located on website.

Title 24 2016 Compliant · ETL Intertek · Dimmable · RoHS COMPLIANT · damp location

Dimensions

Accomodates 1/8"ceiling thickness



LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • www.lsi-industries.com • (513) 372-3200 • ⊕LSI Industries Inc. All Rights Reserved.

LCD4
4" LED Commercial Downlight

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **LCD4 LED 24L UNV DIM1 35 NF TR4R HAZ**

Family/ Size	LED Gen	Lumen Package	Voltage	Driver	Color Temperature	CRI	Beam Optics[2]
LCD4 - 4" New Construction[1]	**LED**	**10L** - 1400 **24L** - 2400	**UNV** - 120-277V	**DIM1** - Dims to 1% (0-10V dimming)	**27** - 2700K **30** - 3000K **35** - 3500K **40** - 4000K	**Blank** - 80 CRI	**NF** - Flood **SF** - Narrow Flood **FL**[3]-Wide **WF** - Wide Flood

	Reflector	Finish
Self-Flange	**TR4R** - Open Reflector	**SF HAZ** - Haze semi- diffused
		SF SPC - Specular clear
	TR4RWW - Wall Wash[2]	**SF HAZ** - Haze semi-diffused
Flangeless (ship standard w/ white plastic trim ring)	**TR4R** - Open Reflector	**HAZ** - Haze semi-diffused, white trim ring
		SPC - Specular clear, white trim ring
	TR4RFL- Frosted Floating Lens[3]	**HAZ** - Haze semi-diffused Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible)
		SPC - Specular Clear Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional ring not compatible)
	TR4RWW - Wall Wash[2]	**HAZ** - Haze semi-diffused wall wash reflector, white trim ring
	TR4R - Baffle	**HAZ** - Haze semi-diffused reflector	**WH** - White baffle and white trim ring
			BL - Black Baffle and white trim ring
	TR4RL - Baffle w/ Regressed Lens[4]	**HAZ** - Hazed semi-diffused	**WH** - White baffle and white trim ring
		SPC - Specular clear	**BL** - Black baffle and white trim ring
	TR4RL - Regressed Lens[4]	**HAZ** - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring
		SPC - Specular clear reflector w/ specular clear regressed lens and white trim ring

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
WH - White metal trim ring (only compatible w/flangeless trims)	818105
EM - Emergency Battery	808633

NOTES:
1. Regressed lens trims are wet location listed. All other trims are rated for damp location.
2. TR4RWW wall wash reflector comes with 40° integrated optic; additional beam optics not compatible
3. TR4RFL frosted floating lens comes with integrated white metal trim; accessory white metal trim ring not required)
4. Housing can ship ahead of the light engine and reflector
5. 90 CRI requires 55 day leadtime & 100 MOQ, Consult Factory
6. Refer to IES Files for Beam Spread.

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7

FIXTURE TYPE SE8

N.T.S.

shop works architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

CONSULTING INC
4640 PECOS STREET, UNIT F DENVER, COLORADO. 80211
303.325.3271 MV-C.NET

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/2/19	CITY SUBMITTAL
6/7/19	CITY SUBMITTAL
7/11/19	CITY SUBMITTAL
8/9/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO.

E3

ACCEPTANCE BLOCK:
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER DATE

C:\Users\jonk\appdata\local\temp\AcPublish_18388\PH-DETAILS 2.dwg jonk 08.01.19 2:07 pm

CBRE VALUATION & ADVISORY SERVICES

APPRAISAL REPORT

KARIS APARTMENTS

3205 NORTH 12TH STREET
GRAND JUNCTION, COLORADO 81502
CBRE GROUP, INC. FILE NO. 19-271PH-1145-1

BOSTON CAPITAL

CBRE

VALUATION & ADVISORY SERVICES

VAS Dept., 1225 17th Street, Suite 3200
Salt Lake City, UT 84101

T (801) 869-8000

www.cbre.com

August 16, 2019

Mr. Sean P. Curry
BOSTON CAPITAL
One Boston Place, 22nd Floor
Boston, Massachusetts 02108

RE: Appraisal of: **KARIS APARTMENTS**
3205 North 12th Street
Grand Junction, Mesa County, Colorado 81502
CBRE, Inc. File No. 19-271PH-1145-1

Dear Mr. Curry:

At your request and authorization, CBRE, Inc. has prepared an appraisal of the market value of the referenced property. Our analysis is presented in the following Appraisal Report (Self-Contained).

The subject is a proposed 34-unit multi-family affordable housing property located at 3205 North 12th Street in Grand Junction, Colorado. The property is planned to consist of a single three-story apartment building. The property unit mix will consist of 429 SF 1BR units, with leasing limited to residents that met 30% AMI income thresholds. The property has a 40-year Land Use Restriction Agreement (LURA) with the Colorado Housing and Finance Authority (CHFA) to provide restricted rents at 30% of the AMI. The property will receive low income housing tax credits (LIHTC) to assisting in funding construction. Additionally, through the Colorado Department of Local Affairs Division of Housing, all 34 units were awarded supportive housing vouchers for a 20 year period (with a 20 year renewal option). The vouchers, coupled with the LIHTC rents will bring per unit rental income to states allocated payment standards. The project will be targeted to young adults (18-24 years of age) that are homeless or at risk of homelessness. The property will be operated by Karis Inc. Karis Inc. is an experienced non-profit organization currently working with homeless and runaway youth in Grand Junction and throughout Mesa County. Property amenities will include a clubhouse with community room, kitchenette, TV/media area and BBQ area. Additionally, the property will include a sport court, community garden, laundry room, bike storage, secured entry, and program/counseling offices. Construction is slated to begin in August 2019, with construction completion estimated for July 2020. The property is an estimated 2.18-acre portion of a larger site of 3.68-acres.

The subject is proposed construction. Therefore, we have also estimated the subject's market value at completion of construction and at stabilized operation. Due to the high demand for

affordable housing in the area, we have concluded the subject would be fully leased and stabilize at completion. Additionally, we will include a valuation of the CHFA tax credits.

Based on the analysis contained in the following report, the market value of the subject is concluded as follows:

MARKET VALUE CONCLUSION

Appraisal Premise	Interest Appraised	Date of Value	Value Conclusion
As Is	Fee Simple Estate	May 18, 2019	$450,000
As Complete	Fee Simple Estate	July 18, 2020	$1,950,000
As Stabilized	Fee Simple Estate	July 18, 2020	$1,950,000
Hypothetical Market Rents	Leased Fee Interest	July 18, 2020	$1,525,000
Market Value- Tax Credits		May 18, 2019	$7,920,000

Compiled by CBRE

The report, in its entirety, including all assumptions and limiting conditions, is an integral part of, and inseparable from, this letter.

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP), and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

The intended use and user of our report are specifically identified in our report as agreed upon in our contract for services and/or reliance language found in the report. As a condition to being granted the status of an intended user, any intended user who has not entered into a written agreement with CBRE in connection with its use of our report agrees to be bound by the terms and conditions of the agreement between CBRE and the client who ordered the report. No other use or user of the report is permitted by any other party for any other purpose. Dissemination of this report by any party to any non-intended users does not extend reliance to any such party, and CBRE will not be responsible for any unauthorized use of or reliance upon the report, its conclusions or contents (or any portion thereof).

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if CBRE can be of further service, please contact us.

Respectfully submitted,

CBRE - VALUATION & ADVISORY SERVICES

Mark Lodmill, MAI
Director
Certified General Real Estate Appraiser: State of Colorado (No. CG40016012)
http://www.cbre.com/MarkLodmill

Phone: 303-628-7487
Fax: 303-628-1757
Email: Mark.Lodmill@cbre.com

Certification

We certify to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, impartial and unbiased professional analyses, opinions, and conclusions.
3. We have no present or prospective interest in or bias with respect to the property that is the subject of this report and have no personal interest in or bias with respect to the parties involved with this assignment.
4. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
5. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
6. This appraisal assignment was not based upon a requested minimum valuation, a specific valuation, or the approval of a loan.
7. Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice, as well as the requirements of the State of Colorado.
8. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
10. As of the date of this report, Mark Lodmill, MAI has completed the continuing education program for Designated Members of the Appraisal Institute.
11. Mark Lodmill, MAI has made a personal inspection of the property that is the subject of this report.
12. Kelly Lehman provided significant real property appraisal assistance to the persons signing this report, including researching subject and comparable data and initial drafting of the appraisal report.
13. Valuation & Advisory Services operates as an independent economic entity within CBRE, Inc. Although employees of other CBRE, Inc. divisions may be contacted as a part of our routine market research investigations, absolute client confidentiality and privacy were maintained at all times with regard to this assignment without conflict of interest.
14. Mark Lodmill, MAI has not provided any services, as an appraiser, or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.

Mark Lodmill, MAI
Director
Certified General Real Estate Appraiser: State of Colorado (No. CG40016012)

Subject Photographs

The existing parcel totals more than 3 acres and consists of one platted parcel inclusive of the existing Unity Church and is zoned R-16 (Residential-16) by the City of Grand Junction. Upon replatting, the subject site will total 2.18-acres and wrap around the existing Unity Church.

AERIAL VIEW

SITE VIEW

SITE VIEW

SITE VIEW

SITE VIEW

STREET VIEW

STREET VIEW

Executive Summary

Property Name	Karis Apartments	
Location	3205 North 12th Street, Grand Junction, Mesa County, CO 81502	
Client	Boston Capital	
Highest and Best Use		
As If Vacant	Apartment	
As Improved	Apartment	
Property Rights Appraised	Fee Simple Estate	
Date of Report	August 16, 2019	
Date of Inspection	May 18, 2019	
Estimated Exposure Time	6 - 8 Months	
Estimated Marketing Time	6 - 8 Months	
Land Area	2.18 AC	94,961 SF
Zoning	R-16: Residential - 16	
Improvements		
Property Type	Apartment	(Multi-family Subsidized Housing)
Number of Buildings	1	
Number of Stories	3	
Gross Building Area	21,146 SF	
Net Rentable Area	14,586 SF	
Number of Units	34	
Average Unit Size	429 SF	
Year Built	2020	
Remaining Economic Life	55 Years	
Condition	Good	
Buyer Profile	Investor-Regional	
Financial Indicators		
Current Occupancy	0.0%	
Stabilized Occupancy	96.0%	
Overall Capitalization Rate	6.00%	

Pro Forma Operating Data	***Total***	***Per Unit***
Effective Gross Income	$281,893	$8,291
Operating Expenses	$169,109	$4,974
Expense Ratio	59.99%	
Net Operating Income	$112,784	$3,317

VALUATION		Total	Per Unit
Land Value		$450,000	$13,235
Market Value As Complete On	**July 18, 2020**		
Cost Approach		$1,880,000	$55,294
Sales Comparison Approach		$2,060,000	$60,588
Income Capitalization Approach		$1,950,000	$57,353
Market Value As Stabilized On	**July 18, 2020**		
Cost Approach		$1,880,000	$55,294
Sales Comparison Approach		$2,000,000	$58,824
Income Capitalization Approach		$1,950,000	$57,353
Insurable Value		$2,200,000	$64,706

CONCLUDED MARKET VALUE

Appraisal Premise	Interest Appraised	Date of Value	Value
As Is	Fee Simple Estate	May 18, 2019	$450,000
As Complete	Fee Simple Estate	July 18, 2020	$1,950,000
As Stabilized	Fee Simple Estate	July 18, 2020	$1,950,000
Hypothetical Market Rents	Fee Simple Estate	July 18, 2020	$1,525,000
Market Value- Tax Credits		May 18, 2019	$7,920,000

Compiled by CBRE

EXTRAORDINARY ASSUMPTIONS

An extraordinary assumption is defined as "an assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions." [1]

- The 'as complete' and 'as stabilized' values assume the development is fully entitled and permitted for the construction of the improvements as specifically described herein and that the project will be completed on time and within budget and in accordance with the plans and level of specifications described in this report.
- The appraisal includes a prospective opinion of market value at the completion and stabilization of the property. The prospective values are predicated on forward looking projections that are based on current market indications and typical underwriting witnessed by market participants. Any significant change in market conditions inconsistent with our assumptions could impact the opinions of market value.
- We have assumed that the subject rents on all units will be in line with the provided rental terms for the Division of Housing 2019 Payment Standards.
- The subject is currently a 2.18-acre portion of a larger parcel. Our valuation assumed the subject will be subdivided from the larger parcel in the near term.
- The use of these extraordinary assumptions may have affected the assignment results.

[1] The Appraisal Foundation, *USPAP, 2018-2019*

HYPOTHETICAL CONDITIONS

A hypothetical condition is defined as "a condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results but is used for the purposes of analysis." [2]

- We have provided hypothetical valuations based on market rents for the subject property in its "As Is" condition. The hypothetical value is contrary to current facts and is included for analysis purposes only.

OWNERSHIP AND PROPERTY HISTORY

Title to the property is currently vested in the name of UNITY CHURCH, which acquired title to the property more than three years ago. The subject site will be subdivided out of the larger parcel and the existing church and parking areas will be retained for that use.

The subject portion of the property is currently under contract to Blueline Development, Inc. for $449,000, equivalent to $4.73 per square foot of net land area. Mike Foster with Coldwell Banker, the listing broker, noted the site was listed for 4 to 5 months and the current offer was the sole offer during the listing period and was a desired location for the buyer.

To the best of our knowledge, there has been no ownership transfer of the property during the previous three years.

EXPOSURE/MARKETING TIME

Current appraisal guidelines require an estimate of a reasonable time in which the subject could be brought to market and sold. This reasonable time frame can either be examined historically or prospectively. In a historical analysis, this is referred to as exposure time. Exposure time always precedes the date of value, with the underlying premise being the time a property would have been on the market prior to the date of value, such that it would sell at its appraised value as of the date of value. On a prospective basis, the term marketing time is most often used. The exposure/marketing time is a function of price, time, and use. It is not an isolated estimate of time alone. In consideration of these factors, we have analyzed the following:

- exposure periods for comparable sales used in this appraisal;
- exposure/marketing time information from the CBRE, Inc. National Investor Survey and the PwC Real Estate Investor Survey; and
- the opinions of market participants.

The following table presents the information derived from these sources.

[2] The Appraisal Foundation, *USPAP, 2018-2019*

EXPOSURE/MARKETING TIME DATA

Investment Type	Exposure/Mktg. (Months) Range	Average
Comparable Sales Data	2.0 - 10.0	6.0
PwC Apartment		
National Data	1 - 9	3.7
Market Professionals	4.0 - 10.0	7.0
CBRE Exposure Time Estimate	**6 - 8 Months**	
CBRE Marketing Period Estimate	**6 - 8 Months**	

Source: PwC Real Estate Survey

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ADDENDA

A Land Sale Data Sheets
B Improved Sale Data Sheets
C Rent Comparable Data Sheets
D Operating Data
E Legal Description
F Client Contract Information
G Qualifications

Scope of Work

This Appraisal Report is intended to comply with the reporting requirements set forth under Standards Rule 2 of USPAP. The scope of the assignment relates to the extent and manner in which research is conducted, data is gathered, and analysis is applied.

INTENDED USE OF REPORT

This appraisal is to be used for mortgage underwriting, and no other use is permitted.

CLIENT

The client is Boston Capital.

INTENDED USER OF REPORT

This appraisal is to be used by Boston Capital Finance LLC, and Boston Capital Intermediate Term Income Fund II LLC, and no other user may rely on our report unless as specifically indicated in the report.

> Intended Users - the intended user is the person (or entity) who the appraiser intends will use the results of the appraisal. The client may provide the appraiser with information about other potential users of the appraisal, but the appraiser ultimately determines who the appropriate users are given the appraisal problem to be solved. Identifying the intended users is necessary so that the appraiser can report the opinions and conclusions developed in the appraisal in a manner that is clear and understandable to the intended users. Parties who receive or might receive a copy of the appraisal are not necessarily intended users. The appraiser's responsibility is to the intended users identified in the report, not to all readers of the appraisal report. [3]

PURPOSE OF THE APPRAISAL

The purpose of this appraisal is to estimate the market value of the subject property.

DEFINITION OF VALUE

The current economic definition of market value agreed upon by agencies that regulate federal financial institutions in the U.S. (and used herein) is as follows:

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. buyer and seller are typically motivated;

[3] Appraisal Institute, The Appraisal of Real Estate, 14th ed. (Chicago: Appraisal Institute, 2013), 50.

2. both parties are well informed or well advised, and acting in what they consider their own best interests;
3. a reasonable time is allowed for exposure in the open market;
4. payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [4]

INTEREST APPRAISED

The value estimated represents the fee simple interest as defined below:

> *Fee Simple Estate* - Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat. [5]

Extent to Which the Property is Identified

The property is identified through the following sources:

- postal address
- assessor's records
- survey

Extent to Which the Property is Inspected

Our inspection included walking the subject site and driving the surrounding neighborhood.

Type and Extent of the Data Researched

CBRE reviewed the following:

- applicable tax data
- zoning requirements
- flood zone status
- demographics
- income and expense data
- comparable data

Type and Extent of Analysis Applied

CBRE, Inc. analyzed the data gathered through appropriate and accepted appraisal methodology to arrive at a probable value indication via each applicable approach to value. The steps required to complete each approach are discussed in the methodology section.

---

[4] Interagency Appraisal and Evaluation Guidelines; December 10, 2010, Federal Register, Volume 75 Number 237, Page 77472.

[5] Appraisal Institute, The Dictionary of Real Estate Appraisal, 6th ed. (Chicago: Appraisal Institute, 2015), 90.

Data Resources Utilized in the Analysis

DATA SOURCES	
Item:	*Source(s):*
Site Data	
Size	Market Study
Improved Data	
Building Area	Karis Apartment Pro Forma
No. Bldgs.	Construction Plans
Parking Spaces	Market Study
Year Built/Developed	Market Study
Economic Data	
Building Costs:	Developer Budget & Comparable Data
Income Data:	Developer Budget & Comparable Data
Expense Data:	Developer Budget & Comparable Data
Compiled by CBRE	

APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available.

Cost Approach

The cost approach is based on the proposition that the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements that represent the highest and best use of the land, or when it is improved with relatively unique or specialized improvements for which there exist few sales or leases of comparable properties.

Sales Comparison Approach

The sales comparison approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value.

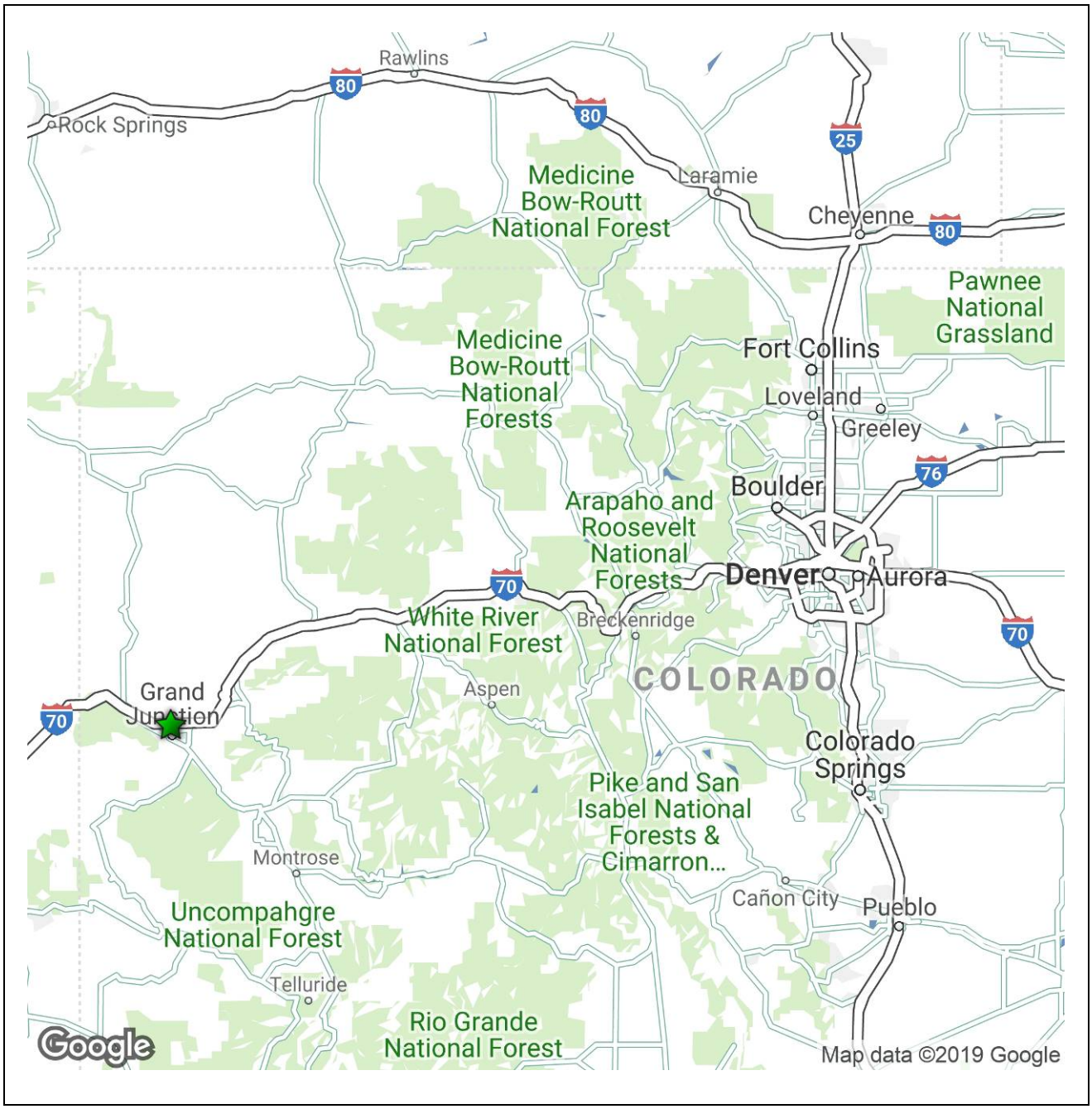
Income Capitalization Approach

The income capitalization approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. The two common valuation techniques associated with the income capitalization approach are direct capitalization and the discounted cash flow (DCF) analysis.

Methodology Applicable to the Subject

In valuing the subject, all three approaches are applicable and have been utilized.

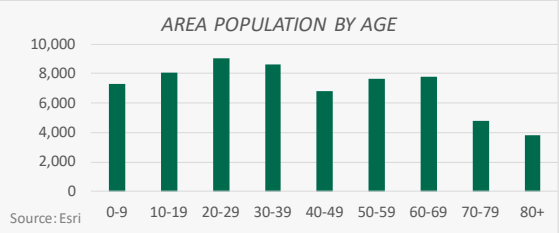
Area Analysis



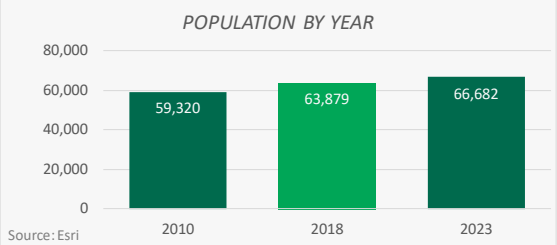
The subject is located in Grand Junction. Key information about the area is provided in the following tables.

POPULATION

The area has a population of 63,879 and a median age of 39, with the largest population group in the 20-29 age range and the smallest population in 80+ age range.

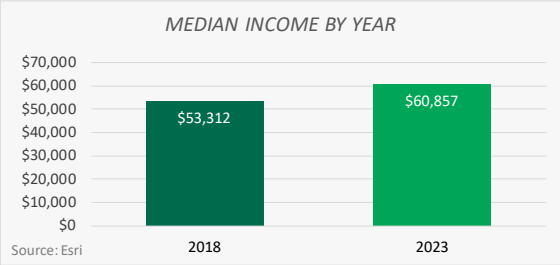


Population has increased by 4,559 since 2010, reflecting an annual increase of 0.9%. Population is projected to increase by an additional 2,803 by 2023, reflecting 0.9% annual population growth.



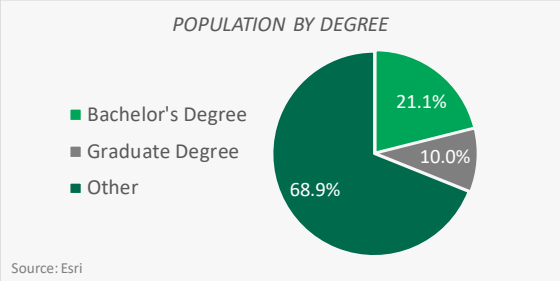
INCOME

The area features an average household income of $73,124 and a median household income of $53,312. Over the next five years, median household income is expected to increase by 14.2%, or $1,509 per annum.

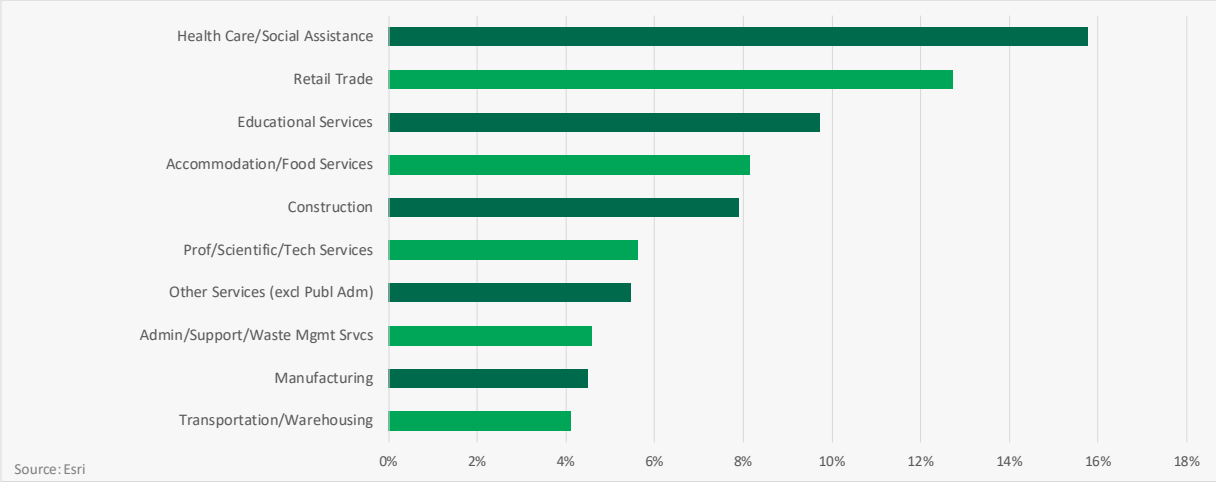


EDUCATION

A total of 31.1% of individuals over the age of 24 have a college degree, with 21.1% holding a bachelor's degree and 10.0% holding a graduate degree.



EMPLOYMENT

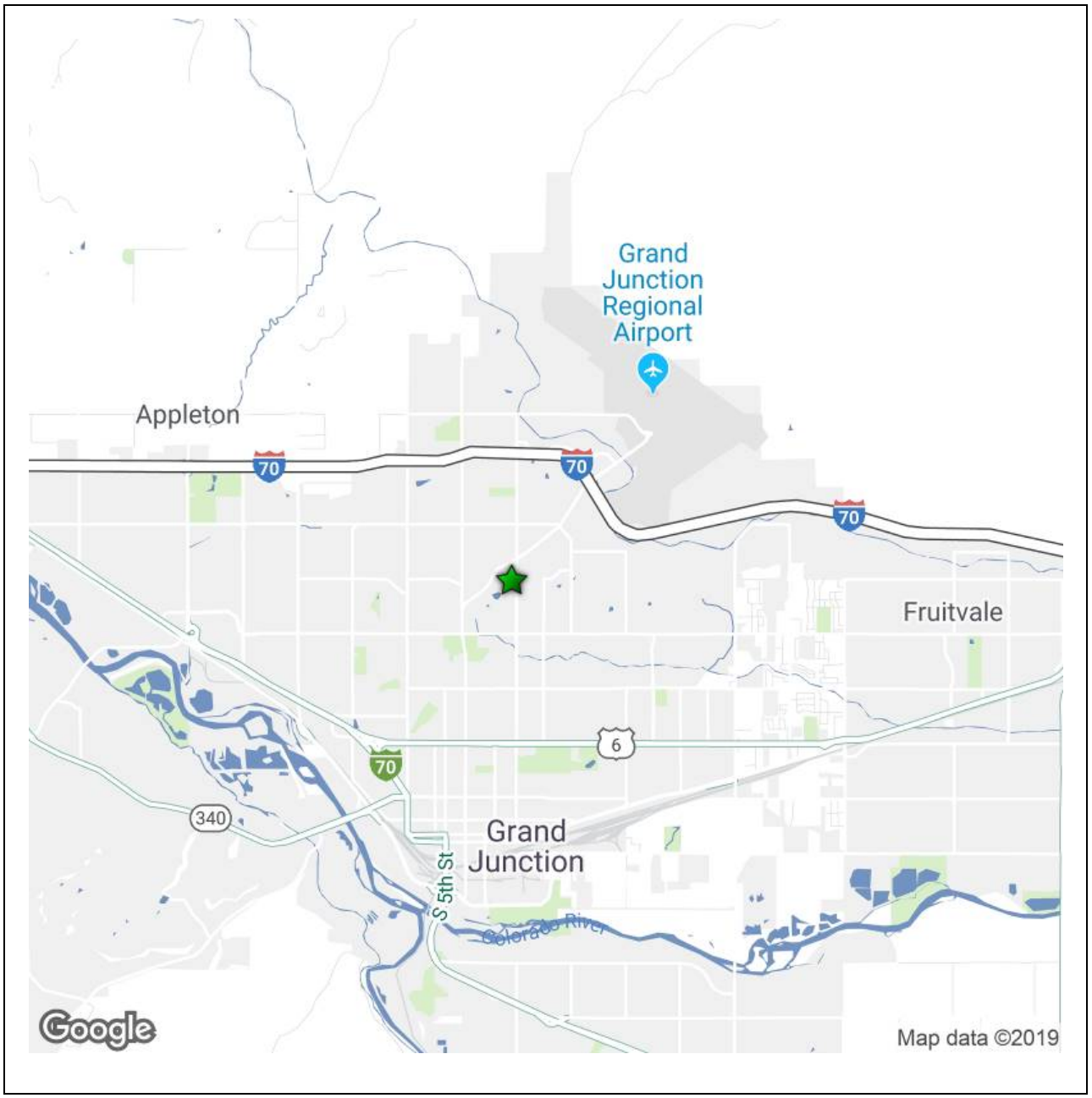


The area includes a total of 32,063 employees and has a 3.8% unemployment rate. The top three industries within the area are Health Care/Social Assistance, Retail Trade and Educational Services, which represent a combined total of 38% of the population.

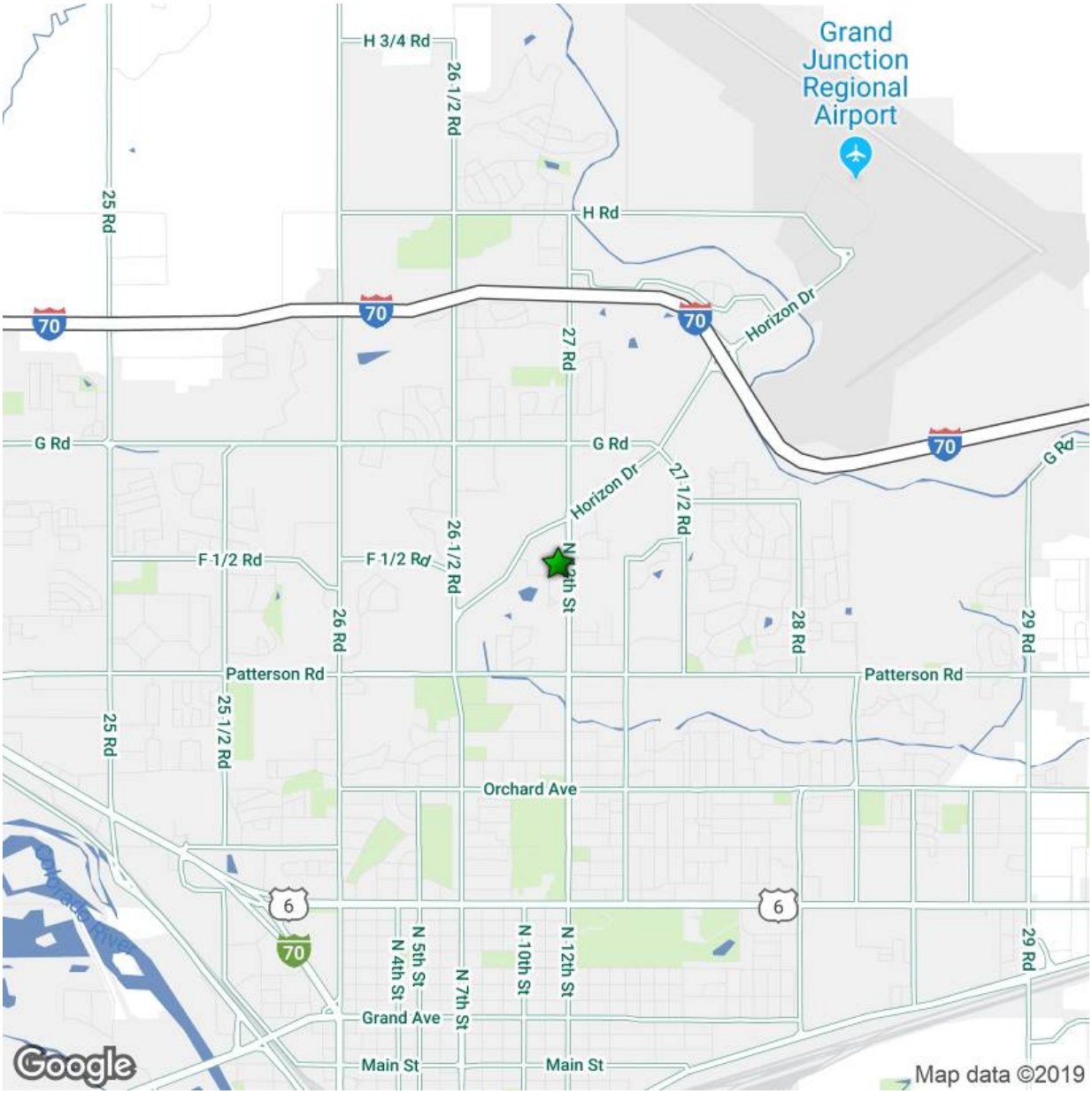
CONCLUSION

In summary, the subject is forecasted to experience an increase in population, an increase in household income, and an increase in household values.

Neighborhood Analysis



CBRE



LOCATION

The subject is in the City of Grand Junction and is considered an urban location. The City of Grand Junction is situated in Mesa County, about 250 miles west of the Denver Central Business District.

BOUNDARIES

The neighborhood boundaries are detailed as follows:

North:	Interstate 70
South:	US Highway 6
East:	29 Road
West:	25 Road

LAND USE & GROWTH PATTERNS

The subject is located in an established area that is largely built up with nominal amounts of vacant, developable land. Land uses include a variety of residential, commercial, office, hospital and light industrial uses. Commercial uses are concentrated along major neighborhood thoroughfares including Patterson Road, N. 12th Street, N. 7th Street, 26 Road and Horizon Drive. Residential uses, most of which were developed between 1960 and 1990, are located on interior streets. The largest and most influential land use in the immediate area is the St. Mary's Hospital campus, which is located approximately 1/4-mile northeast of the subject and includes a newer, 12-story tower. This land use creates significant demand for additional medical office space development in the immediate area, including Grand Valley Surgical Center, St. Mary's Regional Cancer Center and several other medical service providers. Most of the off-campus medical office space was developed in the late-1970s to 1990.

New development in the immediate area has been limited due to the built-out nature of the subject neighborhood coupled with relatively stagnant market conditions for most property types. However, the land located on the southeast corner of Patterson Road and N. 12th Street has been assembled and developed with a grocery-anchored retail center. The project includes a new 60,000-square foot City Market grocery store and proposed adjacent strip retail building. Site work appears to have begun based on our tour of the neighborhood, though ultimate timing remains uncertain. There is also a 72-unit, under construction, subsidized apartment property nearing completion located just east of the hospital. Local demographics mentioned in the area analysis have also led to a spike in senior care housing development. Several market rate senior housing projects and skilled nursing facilities have been developed over the past few years and are proposed, primarily along the Patterson Road corridor.

Another influential land use in the neighborhood is the main campus of Mesa State University, which is bounded by Orchard Avenue on the north, 12th Street on the east, North Avenue on the south, and Cannell Avenue on the west. Founded in 1925, Colorado Mesa University is a comprehensive regional public higher education institution offering liberal arts, professional, and technical programs at the master's, bachelor's, associate and certificate levels. The university has a current enrollment of over 10,000 students with approximately 300 full-time faculty members.

Retail services are primarily concentrated along three primary roadways; U.S. Highway 6 & 50, North Avenue and Patterson Road/F Road.

ACCESS

Primary access to the subject neighborhood is provided by Patterson Road and 30 Road. Patterson Road is primarily a four-lane, variable width right-of-way, traversing the neighborhood in an east-west direction. This arterial connects the subject neighborhood with the Interstate 70 Business Loop to the east, and US Highway 6 to the west. 30 Road provides north-south access to the area. This arterial intersects with Interstate Highway 70 Business loop, about one mile south of the subject. On the west, US Highway 6 connects with Interstate Highway 70 about two miles to the north.

DEMOGRAPHICS

Selected neighborhood demographics are shown in the following table:

SELECTED NEIGHBORHOOD DEMOGRAPHICS

3205 North 12th Street Grand Junction, CO 81502	1 Mile Radius	3 Mile Radius	5 Mile Radius
Population			
2023 Total Population	9,972	54,127	98,029
2018 Total Population	9,546	51,898	93,982
2010 Total Population	8,900	48,217	87,941
2000 Total Population	7,970	41,071	71,678
Annual Growth 2018 - 2023	*0.88%*	*0.84%*	*0.85%*
Annual Growth 2010 - 2018	*0.88%*	*0.92%*	*0.83%*
Annual Growth 2000 - 2010	*1.11%*	*1.62%*	*2.07%*
Households			
2023 Total Households	4,895	22,488	39,183
2018 Total Households	4,687	21,563	37,592
2010 Total Households	4,412	20,372	35,581
2000 Total Households	3,799	17,570	29,175
Annual Growth 2018 - 2023	*0.87%*	*0.84%*	*0.83%*
Annual Growth 2010 - 2018	*0.76%*	*0.71%*	*0.69%*
Annual Growth 2000 - 2010	*1.51%*	*1.49%*	*2.00%*
Income			
2018 Median Household Income	$50,781	$50,245	$53,951
2018 Average Household Income	$75,392	$69,346	$72,170
2018 Per Capita Income	$37,709	$30,647	$30,062
2018 Pop 25+ College Graduates	2,772	11,035	18,160
Age 25+ Percent College Graduates - 2018	37.0%	31.1%	28.3%

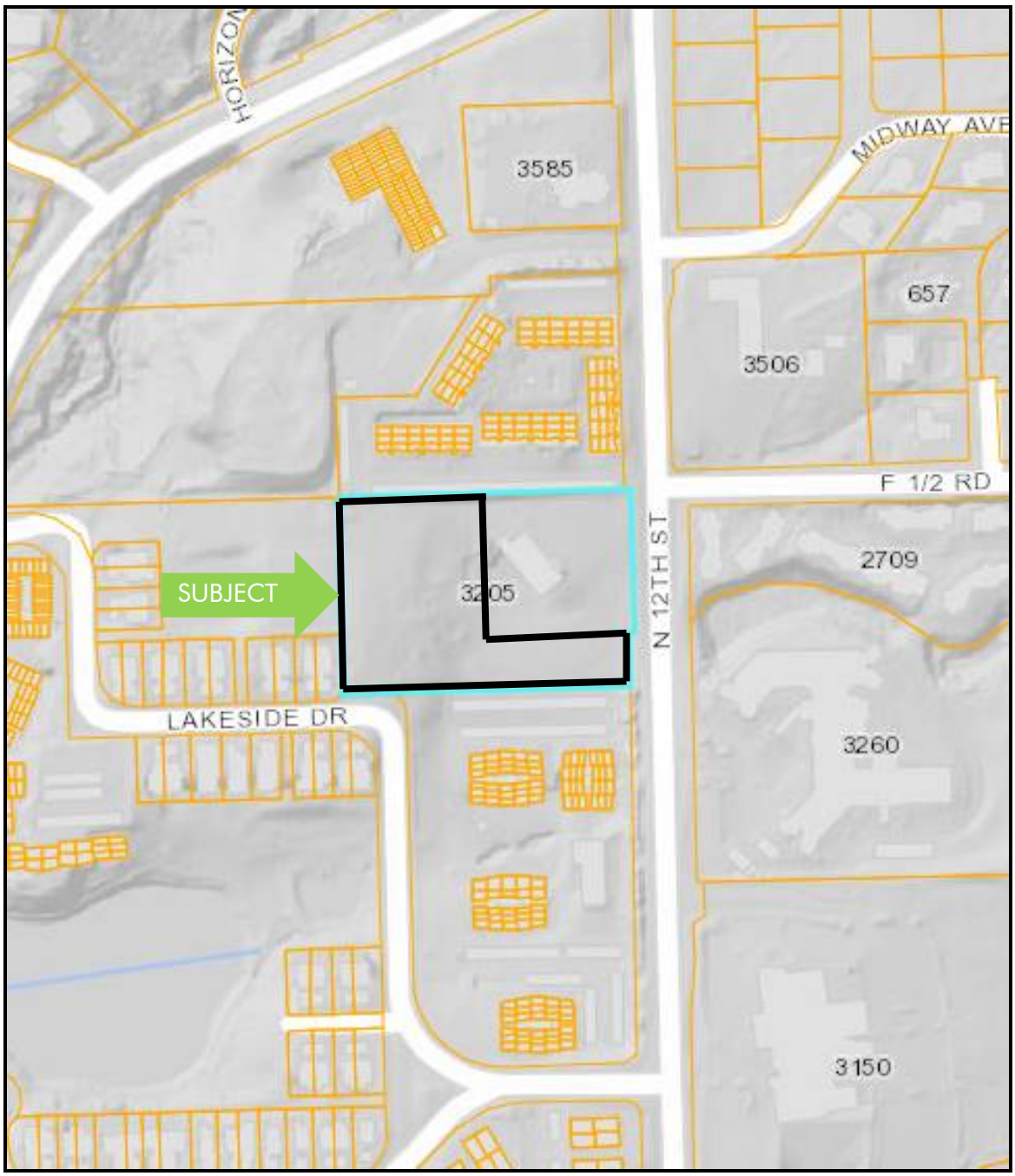
Source: ESRI

CONCLUSION

As shown above, the population within the neighborhood has exhibited slowly increasing growth over the past decade. Patterson Road serves as the principal thoroughfare of the neighborhood with commercial properties concentrated within one block to the north and south. Future

residential development will occur in the north and northwest areas near I-70, consistent with the most recent historical trends. Grand Junction has a below average income demographic profile, with a median household income of $53,951 (five-mile radius) as compared with the State of Colorado at $65,782. The outlook for Grand Junction is for continued moderate growth and stable property values over the long-term. As a result, the demand for existing development is expected to remain adequate. Generally, development trends in the neighborhood are expected to continue into the foreseeable future.

PLAT MAP



The subject is a portion of the larger parcel shown above. The subject bondaries have been approximated.

FLOOD PLAIN MAP

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0806G

FIRM

FLOOD INSURANCE RATE MAP

MESA COUNTY, COLORADO

AND INCORPORATED AREAS

PANEL 806 OF 1725

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GRAND JUNCTION, CITY OF	080117	0806	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08077C0806G

MAP REVISED
OCTOBER 16, 2012

Federal Emergency Management Agency

CBRE

Site Analysis

The following chart summarizes the salient characteristics of the subject site.

SITE SUMMARY			
Physical Description			
Gross Site Area	2.18 Acres	94,961 Sq. Ft.	
Primary Road Frontage	12th Street		
Excess Land Area	None	n/a	
Surplus Land Area	None	n/a	
Shape	L Shaped		
Topography	Generally Level		
Zoning District	R-16: Residential - 16		
Flood Map Panel No. & Date	08077C0806G	16-Oct-12	
Flood Zone	Zone X (Unshaded)		
Adjacent Land Uses	Commercial uses, vacant land		
Comparative Analysis	**Rating**		
Visibility	Average		
Functional Utility	Assumed adequate		
Traffic Volume	Average		
Adequacy of Utilities	Assumed adequate		
Landscaping	Average		
Drainage	Assumed adequate		
Utilities	**Provider**		**Availability**
Water	City of Grand Junction		Yes
Sewer	City of Grand Junction		Yes
Electricity	Xcel Energy		Yes
Mass Transit	Grand Valley Transit		Yes
Other	**Yes**	**No**	**Unknown**
Detrimental Easements			X
Encroachments			X
Deed Restrictions			X
Reciprocal Parking Rights		X	

Source: Various sources compiled by CBRE

INGRESS/EGRESS

Ingress and egress will be available to the site via a curb cut off 12th Street.

EASEMENTS AND ENCROACHMENTS

There are no known easements or encroachments impacting the site that are considered to affect the marketability or highest and best use. It is recommended that the client/reader obtain a

current title policy outlining all easements and encroachments on the property, if any, prior to making a business decision.

COVENANTS, CONDITIONS AND RESTRICTIONS

There are no known covenants, conditions or restrictions impacting the site that are considered to affect the marketability or highest and best use. It is recommended that the client/reader obtain a copy of the current covenants, conditions and restrictions, if any, prior to making a business decision.

ENVIRONMENTAL ISSUES

The appraiser is not qualified to detect the existence of potentially hazardous material or underground storage tanks which may be present on or near the site. The existence of hazardous materials or underground storage tanks may affect the value of the property. For this appraisal, CBRE, Inc. has specifically assumed that the property is not affected by any hazardous materials that may be present on or near the property.

A Phase 1 Environmental Site Assessment (ESA) was not provided.

ADJACENT PROPERTIES

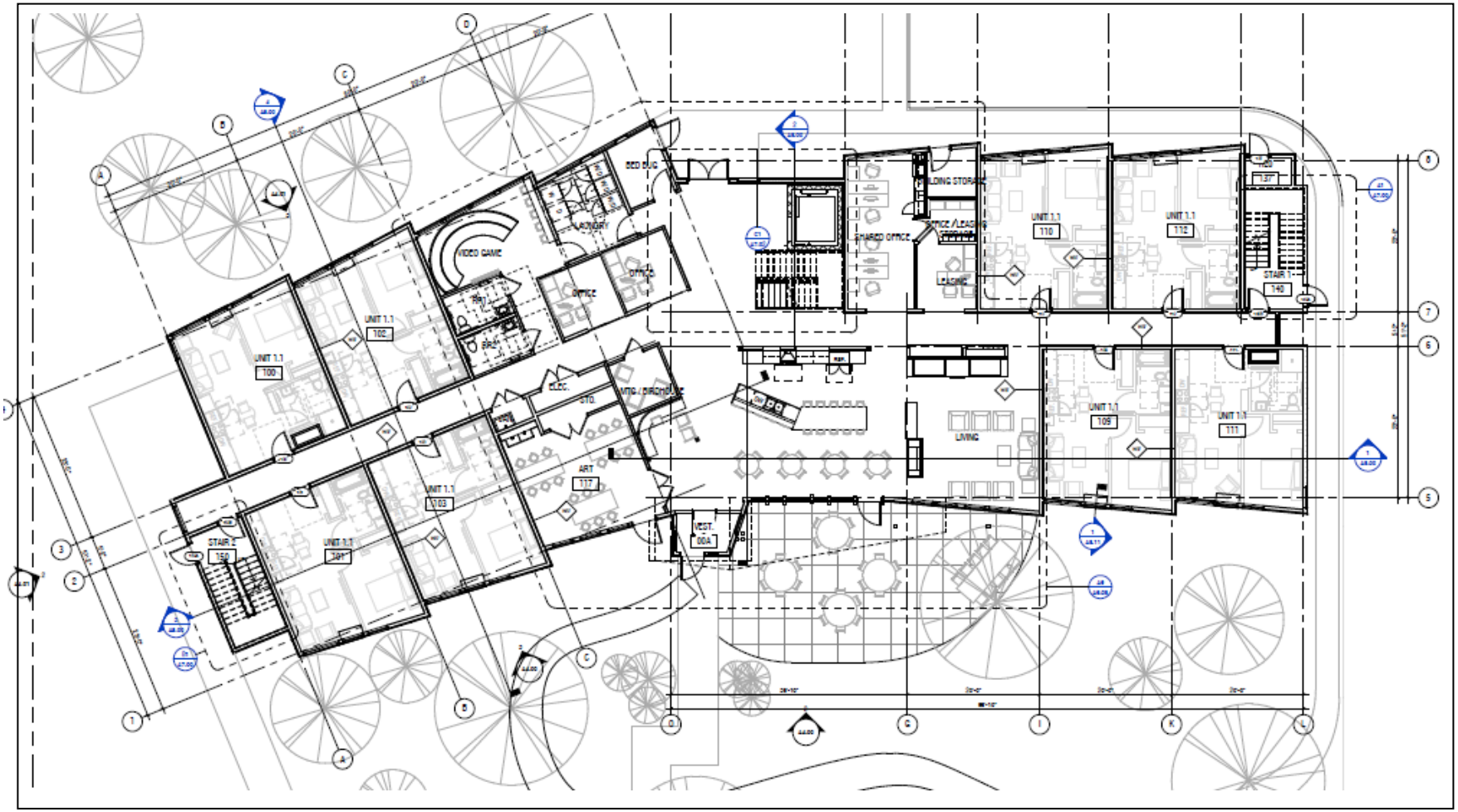
The adjacent land uses are summarized as follows:

North:	Open Space, Multifamily Residential (Northwood Apartments & Horizon Towers) and a Religious Institution
South:	Multifamily Residential/Condominium
East:	Religious Institution (Unity Church), Senior Housing and Medical Office
West:	Multifamily Residential - Duplex and Condominiums

CONCLUSION

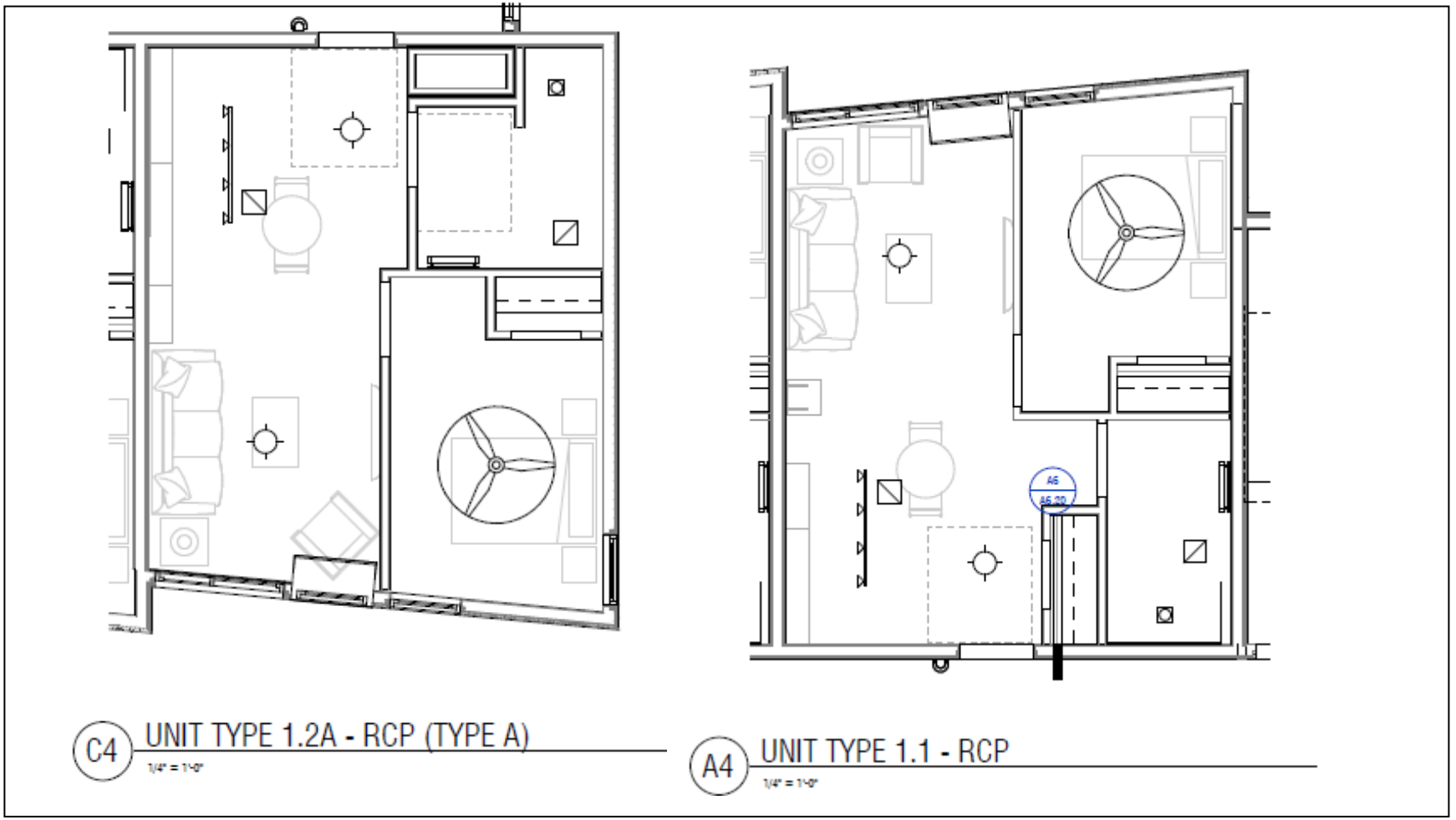
The site is well located and afforded average access and visibility from roadway frontage. The size of the site is typical for the area and use, and there are no known detrimental uses in the immediate vicinity. Overall, there are no known factors which are considered to prevent the site from development to its highest and best use, as if vacant, or adverse to the existing use of the site.

IMPROVEMENTS LAYOUT – 1ST FLOOR PLANS



CBRE

FLOOR PLANS



Improvements Analysis

The following chart shows a summary of the improvements.

IMPROVEMENTS SUMMARY	
Property Type	Apartment (Multi-family Subsidized Housing)
Number of Buildings	1
Number of Stories	3
Year Built	2020
Gross Building Area	21,146 SF
Net Rentable Area	14,586 SF
Number of Units	34
Average Unit Size	429 SF
Development Density	15.6 Units/Acre
Parking Improvements	Surface
Parking Spaces:	43
Parking Ratio (spaces/unit)	1.26

Source: Various sources compiled by CBRE

UNIT MIX

Unit Mix/Type	Comments	No. Units	Percent of Total	Unit Size (SF)	NRA (SF)
1BR/1BA - 30%AMI		34	100.0%	429	14,586
Total/Average:		34	100.0%	429	14,586

Source: Various sources compiled by CBRE

YEAR BUILT

Construction is slated to begin in August 2019, with construction completion estimated for July 2020

CONSTRUCTION CLASS

Building construction class is as follows:

D - Wood frame, floor and structure; considered combustible

The construction components are assumed to be in working condition and adequate for the building.

The overall quality of the facility will be above average for the neighborhood. However, CBRE, Inc. is not qualified to determine structural integrity and it is recommended that the client/reader retain the services of a qualified, independent engineer or contractor to determine the structural integrity of the improvements prior to making a business decision.

FOUNDATION/FLOOR STRUCTURE

The foundation is assumed to be of adequate load-bearing capacity to support the proposed improvements. The floor structure is summarized as follows:

Ground Floor:	Concrete slab on compacted fill
Other Floors:	Plywood deck with light-weight concrete cover

EXTERIOR WALLS

It is assumed the exterior walls will be wood frame with a stucco veneer.

ROOF COVER

The building will have a primarily flat roof with a membrane covering.

ELEVATOR/STAIR SYSTEM

The subject building will have three interior stairwells.

HVAC

The HVAC system will consist of individual PTAC units. It is assumed all systems will be in good working order and adequate for the property.

UTILITIES

It is planned that all utilities; gas, electric, water, trash and sewer will be paid by the management.

LIFE SAFETY AND FIRE PROTECTION

It is assumed the improvements will have adequate fire alarm systems, fire exits, fire extinguishers, fire escapes and/or other fire protection measures to meet local fire marshal requirements. CBRE, Inc. is not qualified to determine adequate levels of safety & fire protection, whereby it is recommended that the client/reader review available permits, etc. prior to making a business decision.

PROJECT AMENITIES

Property amenities will include a clubhouse area including a community room with a kitchenette, TV/media area and BBQ area. Additionally, the property will include a sport court, community garden, laundry room, bike storage, secured entry, and program/counseling offices.

UNIT AMENITIES

Kitchens

Each unit will have a stainless steel appliance package including a range/oven, vent-hood, refrigerator, dishwasher, and microwave oven. Additionally, each unit will have open shelves and/or wood cabinets with granite countertops and vinyl flooring in the kitchen area.

Bathrooms

The bathrooms within each unit are planned to include a shower with tile surround. Additionally, each bathroom has a commode, wood cabinet with granite counter and built-in sink with vanity mirror and porcelain tile flooring.

Interior Lighting

Each unit will feature appropriate lighting in bathrooms and kitchen areas.

SITE AMENITIES

Parking and Drives

The project is expected to have adequate surface parking, including reserved handicap spaces. All parking spaces and vehicle drives will be asphalt paved.

Landscaping

Landscaping will be in average condition and well maintained.

FUNCTIONAL UTILITY

The floor plans have functional layouts and the layout of the overall proposed project is considered functional in utility. Therefore, the unit mix is also functional, and no conversion is warranted to the proposed improvements.

ADA COMPLIANCE

All common areas of the property will have handicap accessibility. The client/reader's attention is directed to the specific limiting conditions regarding ADA compliance.

FURNITURE, FIXTURES AND EQUIPMENT

The apartment units will be rented on an unfurnished basis. However, miscellaneous maintenance tools, leasing office furniture, recreational room and clubhouse furniture, and various exercise machines are examples of personal property associated with and typically included in the sale of multifamily apartment complexes.

ENVIRONMENTAL ISSUES

CBRE, Inc. is not qualified to detect the existence of any potentially hazardous materials such as lead paint, asbestos, urea formaldehyde foam insulation, or other potentially hazardous

construction materials on or in the improvements. The existence of such substances may affect the value of the property. For this assignment, we have specifically assumed there are no hazardous materials that would cause a loss in value to the subject.

DEFERRED MAINTENANCE

The property is appraised as if newly completed, with no deferred maintenance.

ECONOMIC AGE AND LIFE

CBRE, Inc.'s estimate of the subject improvements effective age and remaining economic life is depicted in the following chart:

ECONOMIC AGE AND LIFE	
Actual Age	0 Years
Effective Age	0 Years
MVS Expected Life	55 Years
Remaining Economic Life	55 Years
Accrued Physical Incurable Depreciation	0.0%

Compiled by CBRE

The remaining economic life is based upon our on-site observations and a comparative analysis of typical life expectancies as published by Marshall and Swift, LLC, in the Marshall Valuation Service cost guide. While CBRE, Inc. did not observe anything to suggest a different economic life, a capital improvement program could extend the life expectancy.

CONCLUSION

The improvements are appraised as if newly completed, with no known factors that adversely impact their marketability.

Zoning

The following chart summarizes the subject's zoning requirements.

ZONING SUMMARY	
Current Zoning	R-16: Residential - 16
Legally Conforming	Yes
Uses Permitted	Purpose. To provide for high density residential use. This district allows multifamily development within specified densities. R-16 may serve as a transitional district between single-family and trade zones. This district is intended to allow high density residential unit types and densities to provide a balance of housing opportunities in the community. It is appropriate in the Village and Neighborhood Centers.
Zoning Change	Not likely

Source: Planning & Zoning Dept.

ANALYSIS AND CONCLUSION

The proposed improvements will represent a legally-conforming use and, if damaged, may be restored without special permit application. Additional information may be obtained from the appropriate governmental authority. For purposes of this appraisal, CBRE has assumed the information obtained is correct.

ZONING MAP

CBRE

Tax and Assessment Data

The following summarizes the local assessor's estimate of the subject's market value, assessed value, and taxes, and does not include any furniture, fixtures or equipment.

AD VALOREM TAX INFORMATION

Assessor's Parcel No.	Parcel Description	2019 due 2020 EST	CBRE's Stabilized Pro Forma
2945-024-00-059 POR		$1,050,940	
Subtotal		$1,050,940	$1,870,000
Assessed Value @		29%	7.15%
		$304,773	$133,705
General Tax Rate (per $1,000 A.V.)		69.392	65.922
Total Taxes		**$21,149**	**$8,814**

Source: Assessor's Office

The 2019 value includes the full parcel including the existing Unity Church and is valued at a commercial rate of 29%. We have prepared a stabilized pro forma based on the per unit value of comparable properties as shown below.

2019 REASSESSMENT

On April 10, 2019 the final residential assessment ratio study was released by the Colorado Department of Local Affairs (DOLA) which indicated that in order to comply with the Gallagher Amendment (explained below) the statewide residential assessment ratio should drop to 7.15%. The preliminary residential assessment ratio indicated an assessment ratio of 6.95%. The Colorado legislature has not yet converted this residential assessment ratio reduction into law.

REAL ESTATE TAX OVERVIEW

Changes in property values, as determined by the assessor, do not necessarily result in a change in taxes. There are two parts of the Colorado constitution that govern taxes: the Gallagher Amendment and Amendment One (the TABOR Amendment). The Gallagher Amendment establishes assessed values by allocating the tax base between residential property (inclusive of multi-family) and commercial property by changing the residential equalization rate. The commercial and vacant land equalization rate must remain fixed at 29%. The residential equalization rate floats to maintain a constant ratio of total tax collections - 55% from commercial property taxes, and 45% from residential property taxes. Thus, if the total value of residential property increases faster than that of commercial property, as was the case in most counties over the past several years, the residential equalization rate must be lowered. The

current residential equalization rate is 7.20%, effective for 2017 taxes due in 2018 and 2018 taxes due in 2019. This rate has trended downward in the past twenty years. Previously, the most recent change in the residential assessment ratio was a decrease from 9.15% down to 7.96% in the 2003 tax year.

The TABOR Amendment to the Colorado Constitution limits taxing authority budget increases at 5.5% unless voters approve a higher amount. Other limitations to revenue growth are inflation as measured by the CPI and local growth determined by school enrollment and new construction. In addition to the Gallagher Amendment, the TABOR Amendment limits the aggregate amount a taxing district may collect each year to the prior year's collection increased only by a rate equivalent to the change in CPI plus the change in population. Thus, if property values increase to a significant degree, the overall mill levy must decrease unless a referendum is passed by a community vote.

The county assessor revalues real estate in Colorado every two years (odd years only). Counties are allowed to reassess new construction every six months in Colorado, under new growth initiatives. Mill rates have been fairly stable, but declining in revaluation years.

TAX COMPARABLES

As the subject is proposed construction, we have used tax comparables to estimate its assessed value. CBRE, Inc. has reviewed the real estate tax information according to Mesa County for comparable properties in the market area. The following table summarizes the comparables employed for this analysis:

AD VALOREM TAX COMPARABLES

Comparable Rental	Village Park	Arbor Vista	Linden Pointe	Grand Manor	Peppermill Lofts	Campus View Suites	Foresight Apartments	Belford	CBRE's Stabilized Pro Forma Estimate
Year Built	2013	2008	2004	1979	2012	2012	1997	1977	2020
No. Units	72	72	92	140	48	16	30	40	34
Tax Year	2019	2019	2019	2019	2019	2019	2019	2019	2019
Assessor's Market Value	$4,827,050	$4,444,110	$6,182,680	$5,175,200	$2,383,500	$1,057,640	$2,059,830	$1,629,630	$1,870,000
AV Per Unit	$67,042	$61,724	$67,203	$36,966	$49,656	$66,103	$68,661	$40,741	$55,000

Source: Assessor's Office

CONCLUSION

We have prepared a stabilized pro forma based on the per unit value of comparable properties as shown above. The tax comparables range from $36,966 to $68,661 per unit. The subject's developer budgeted $7,372 for first year property taxes, which would be equivalent to an assessed value of approximately $45,000 per unit. That is below any of the comparables constructed after 2000. Considering the comparable data, new construction and the subject's reduced level of income due to LIHTC restrictions we have estimated an assessed value equivalent to $55,000 per unit. Taxes for the subject have been estimated as $8,814 for our analysis.

Market Analysis

The market analysis forms a basis for assessing market area boundaries, supply and demand factors, and indications of financial feasibility. Primary data sources utilized for this analysis include CBRE, Inc. field research, Fourth Quarter 2018 Colorado Multi-Family Housing Vacancy & Rental Survey (sponsored by Colorado Division of Housing, Apartment Realty Advisors and Pierce-Eislen) and ESRI for demographic data.

DEMOGRAPHIC ANALYSIS

Demand for residential properties is a direct function of demographic characteristics analyzed on the following pages.

HOUSING, POPULATION AND HOUSEHOLD FORMATION

The following table illustrates the population and household changes for the subject neighborhood.

POPULATION AND HOUSEHOLD PROJECTIONS

	1 Mile Radius	3 Mile Radius	5 Mile Radius
Population			
2023 Total Population	9,972	54,127	98,029
2018 Total Population	9,546	51,898	93,982
2010 Total Population	8,900	48,217	87,941
2000 Total Population	7,970	41,071	71,678
Annual Growth 2018 - 2023	*0.88%*	*0.84%*	*0.85%*
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Households			
2023 Total Households	4,895	22,488	39,183
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2000 Total Households	3,799	17,570	29,175
Annual Growth 2018 - 2023	*0.87%*	*0.84%*	*0.83%*
Annual Growth 2010 - 2018	*0.76%*	*0.71%*	*0.69%*
Annual Growth 2000 - 2010	*1.51%*	*1.49%*	*2.00%*

Source: ESRI

As shown, the subject's neighborhood is experiencing moderate positive increases in both population and households.

INCOME DISTRIBUTIONS

Household income available for expenditure on housing and other consumer items is a primary factor in determining the price/rent level of housing demand in a market area. In the case of this

study, projections of household income, particularly for renters, identifies in gross terms the market from which the subject submarket draws. The following table illustrates estimated household income distribution for the subject neighborhood.

HOUSEHOLD INCOME DISTRIBUTION

Households by Income Distribution (2018)	1 Mile Radius	3 Mile Radius	5 Mile Radius
<$15,000	14.91%	13.55%	10.65%
$15,000 - $24,999	10.73%	10.75%	9.89%
$25,000 - $34,999	9.03%	9.32%	9.21%
$35,000 - $49,999	12.48%	14.07%	13.79%
$50,000 - $74,999	16.00%	17.17%	19.66%
$75,000 - $99,999	12.26%	12.39%	12.44%
$100,000 - $149,999	9.68%	11.14%	12.67%
$150,000 - $199,999	5.21%	3.71%	3.98%
$200,000+	5.47%	3.78%	3.65%

Source: ESRI

The following table illustrates the median and average household income levels for the subject neighborhood.

HOUSEHOLD INCOME LEVELS

Income	1 Mile Radius	3 Mile Radius	5 Mile Radius
2018 Median Household Income	$50,781	$50,245	$53,951
2018 Average Household Income	$75,392	$69,346	$72,170
2018 Per Capita Income	$37,709	$30,647	$30,062

Source: ESRI

An analysis of the income data indicates that the submarket is generally comprised of lower- to middle-income economic cohort groups, which include the target groups to which the subject is oriented.

EMPLOYMENT

An employment breakdown typically indicates the working-class characteristics for a given market area. The specific employment population within the indicated radii of the subject is as follows:

EMPLOYMENT BY INDUSTRY			
Occupation (2018)	1 Mile Radius	3 Mile Radius	5 Mile Radius
Agric/Forestry/Fishing/Hunting	1.10%	0.67%	0.66%
Construction	10.31%	7.92%	8.23%
Manufacturing	2.09%	4.36%	4.98%
Wholesale Trade	0.92%	2.39%	2.57%
Retail Trade	12.35%	13.80%	14.27%
Transportation/Warehousing	3.51%	4.24%	4.66%
Information	2.07%	2.02%	1.99%
Finance/Insurance	5.42%	3.45%	3.27%
Prof/Scientific/Tech Services	8.15%	6.02%	5.54%
Mgmt of Companies/Enterprises	0.00%	0.00%	0.02%
Admin/Support/Waste Mgmt Srvcs	1.54%	3.97%	4.91%
Educational Services	13.75%	10.44%	9.11%
Health Care/Social Assistance	18.19%	17.09%	17.94%
Arts/Entertainment/Recreation	2.94%	2.84%	2.86%
Accommodation/Food Services	6.66%	9.62%	8.91%
Other Services (excl Publ Adm)	7.58%	6.56%	5.77%
Public Administration	3.42%	4.58%	4.31%

Source: ESRI

The previous table illustrates the employment character of the submarket, indicating a predominantly middle- to lower-income employment profile, with the majority of the population holding health care/social assistance, retail trade and educational services jobs.

OUTLOOK

Based on this analysis, the immediate area surrounding the subject is projected to experience slight population growth into the near future. Given the area demographics and limited supply of available vacant land for new development, it appears that demand for both comparable surrounding area apartment units and the subject will continue to be favorable. This area is less dependent on the oil and gas industry, which has experienced declines over the past several years in Grand Junction.

MARKET OVERVIEW

The following table summarizes current and historical market trends for Grand Junction:

Grand Junction Apartment Market Trends

Period	Market Vacancy Rate	Ave. Monthly Rent	Ave. Rent PSF
1Q 2011	-	-	-
2Q 2011	-	-	-
3Q 2011	-	-	-
4Q 2011	7.0%	-	-
1Q 2012	10.4%	-	-
2Q 2012	5.5%	-	-
3Q 2012	3.8%	-	-
4Q 2012	9.7%	$659.02	$0.86
1Q 2013	11.8%	$554.20	$0.74
2Q 2013	10.6%	$590.67	$0.78
3Q 2013	15.7%	$560.27	$0.75
4Q 2013	6.7%	$561.04	$0.80
1Q 2014	5.3%	$525.24	$0.79
2Q 2014	6.9%	$527.59	$0.80
3Q 2014	4.7%	$523.38	$0.81
4Q 2014	7.2%	$529.32	$0.79
1Q 2015	5.8%	$538.64	$0.82
2Q 2015	3.7%	$521.18	$0.79
3Q 2015	3.7%	$510.72	$0.77
4Q 2015	2.9%	$517.78	$0.80
1Q 2016	1.3%	$536.69	$0.79
2Q 2016	2.6%	$518.65	$0.79
3Q 2016	1.1%	$530.86	$0.80
4Q 2016	1.9%	$511.72	$0.76
1Q 2017	2.1%	$503.18	$0.75
2Q 2017	4.7%	$464.22	$0.71
3Q 2017	2.4%	$496.13	$0.74
4Q 2017	2.7%	$483.88	$0.50
1Q 2018	0.8%	$536.79	$0.82
2Q 2018	4.3%	$593.22	$0.83
3Q 2018	1.5%	$589.76	$0.82
4Q 2018	0.5%	$565.38	$0.75
Average:	5.1%	$537.98	$0.77

Source: Q4 2018 Colorado Multi-Family Housing Vacancy

As shown above, the average vacancy rates in Grand Junction has averaged 5.1% over the past 8 years and currently rests at .5%. This represents a slight decline after the Q2 2018 modest spike at 4.3%. Achievable rental rates in Grand Junction currently indicate an average of $565.38. The current average rent figure may also be reflective of inconsistent survey results. The number of respondents for the Q4 2018 survey dropped to 426 whereas historical surveys indicate far more responses, generally ranging from 600 to 1,300. The average rental rate per square foot in the market currently rests at $0.75.

VACANCY RATE BY SUBTYPES

The following tables summarizes current vacancy rates by subtype:

4Q 2018 Vacancy Rate (By Subtypes)	
Complex Size	Vacancy Rate
2-8 Units	-
9-50 Units	-
51-99 Units	3.3%
100-199 Units	0.0%
199+	-
Complex Year Built	
To 1959	-
1960-69	-
1970-79	3.3%
1980-89	-
1990-99	0.0%
2000-09	-
2010 & up	-
Apartment Type	
Efficiency	0.0%
1 BR	0.0%
2BR/1BA	1.6%
2BR/2BA	0.0%
3 BR	-
All Units	0.5%

Source: Q4 2018 Colorado Multi-Family Housing Vacancy & Rental Survey

RENTAL RATES BY SUBTYPES

The following tables summarize current rental rate trends in Grand Junction:

4Q 2018 GJ Ave. Rental Rates (By Subtypes)	
Apartment Type	
Efficiency	$287.50
1 BR	$370.55
2BR/1BA	$732.78
2BR/2BA	$862.50
3 BR	-
All Units	$565.38

Source: Q4 2018 Colorado Multi-Family Housing Vacancy & Rental Survey

4Q GJ Rental Rates/SF (By Subtypes)	
Apartment Type	Rent/SF
Efficiency	$0.64
1 BR	$0.59
2BR/1BA	$0.89
2BR/2BA	$0.82
3 BR	-
All Units	$0.75

Source: Q4 2018 Colorado Multi-Family Housing Vacancy & Rental Survey

INVESTMENT TRENDS

There have been numerous multi-family sales in Grand Junction occurring since 2013, indicating renewed investor demand for this property sector. A review of the local MLS indicates that there have been over 100 multi-family sales occurring since the beginning of 2013. However, this total includes tri-plex and four-plex properties. When excluding projects with four units or less, there have been approximately 20 recorded sales according to MLS data. Achievable price points typically range from $50,000 to $85,000 per unit for stabilized properties. Achievable price points tend to be highest for properties located within close proximity to the University, downtown and St. Mary's Hospital. Average days on market is less than five months, with numerous properties selling within the first month of listing. Properties are selling for approximately 94% of asking price, according to MLS statistics. Most sales occurring in this market involve smaller projects ranging in size from 3 to 12 units.

Discussions with local market participants indicates that demand is relatively high at the current time for stabilized multi-family projects and supply is constrained. A search of the MLS indicates that there is only one multi-family property currently available for sale on the market. Investment rates for multi-family projects (overall capitalization rates and effective gross income multipliers) have reportedly shown some improvement over the past 24 months from a seller-standpoint. Capitalization rates typically range from 8% to 10% based on owner-management underwriting whereby no vacancy provision is applied to rental income and expenses are limited to taxes, insurance, certain utilities and repairs and maintenance. Underwriting assuming third-party management and applying a static vacancy factor indicates achievable OARs range from low-6.0% to low-7.0%. Effective gross income multipliers, utilizing a static vacancy factor of 5%, indicate a relatively tight range of approximately 8 to 10.

CONCLUSION

Occupancy rates in the subject market area remained between 95% and 100% over the past several years with minimal downtime upon tenant rollover. The Colorado Multi-family Housing Vacancy & Rental Survey indicates a current market-wide vacancy rate of .5% with an 8-year average of 5.1%. Given the subject's good location within close proximity to St. Mary's Hospital, coupled with current market conditions and the subject's good occupancy history, we have concluded to a stabilized occupancy rate of 95% for the subject.

LOW INCOME HOUSING ANALYSIS

The subject is encumbered by Section 42 of the Low Income Housing Tax Credit Program (LIHTC). The units are set aside for residents whose income does not exceed 30% of the Area Median Family Income.

The relevant definitions are defined by federal housing policy:

Moderate Income	At or below Area Median Family Income (MFI)
Low Income	At or below 60% of MFI
Very Low Income	At or below 50% of MFI
Extremely Low Income	At or below 30% of MFI

In analyzing the level of demand for the subject property under the LIHTC program, the requirements of the subject's program, the percentage of area residents who qualify to live at the subject apartments, and whether they could qualify to live at the property, has been considered. This method of analysis allows a static quantification of the potential pool of residents at the subject property and to project future demand for the subject.

Demand

The subject's LIHTC restricted units are for occupancy by residents that have "very low or extremely low incomes". For the subject that is defined as household income less than or equal to 30% of the area median family income (MFI).

Restricted Rental Rates

The median family income (MFI) is based on a four-person household, and adjustments are required to account for assumed differences in household sizes. The 2018 Mesa County AMI is $20,910 for a four-person family, according to HUD.

		2019 MAXIMUM RENTS					2019 INCOME LIMITS							
COUNTY	HERA	AMI	0 BDRM	1 BDRM	2 BDRM	3 BDRM	4 BDRM	1 PERSON	2 PERSON	3 PERSON	4 PERSON	5 PERSON	6 PERSON	7 PERSON	8 PERSON
Mesa		120%	1,464	1,569	1,884	2,175	2,427	58,560	66,960	75,360	83,640	90,360	97,080	103,800	110,520
Mesa		100%	1,220	1,307	1,570	1,812	2,022	48,800	55,800	62,800	69,700	75,300	80,900	86,500	92,100
Mesa		80%	976	1,046	1,256	1,450	1,618	39,040	44,640	50,240	55,760	60,240	64,720	69,200	73,680
Mesa		70%	854	915	1,099	1,268	1,415	34,160	39,060	43,960	48,790	52,710	56,630	60,550	64,470
Mesa		60%	732	784	942	1,087	1,213	29,280	33,480	37,680	41,820	45,180	48,540	51,900	55,260
Mesa		50%	610	653	785	906	1,011	24,400	27,900	31,400	34,850	37,650	40,450	43,250	46,050
Mesa		45%	549	588	706	815	910	21,960	25,110	28,260	31,365	33,885	36,405	38,925	41,445
Mesa		40%	488	523	628	725	809	19,520	22,320	25,120	27,880	30,120	32,360	34,600	36,840
Mesa		30%	366	392	471	543	606	14,640	16,740	18,840	20,910	22,590	24,270	25,950	27,630
Mesa		20%	244	261	314	362	404	9,760	11,160	12,560	13,940	15,060	16,180	17,300	18,420

Under HUD guidelines, each bedroom in an apartment unit is assumed to accommodate 1.5 persons. Therefore, a studio unit equates to a household of 1.0 persons, a one-bedroom unit equates to a household of 1.5 persons, a two-bedroom unit equates to a household of 3.0 persons, a three-bedroom unit equates to a household of 4.5 persons, and a four-bedroom equates to a household of 6.0 persons. The family income requirement for studio units is a one-person household, one-bedroom units is the average of the one- and two-person household. The two-bedroom units are based on the three-person household, the three-bedroom units are

the average of the five- and six-person household and the four-bedroom is a six-person household.

The following table details the Mesa County family income limits from a one through six-person household.

2019 MAXIMUM RENTS							
COUNTY	HERA	AMI	0 BDRM	1 BDRM	2 BDRM	3 BDRM	4 BDRM
Mesa		120%	1,464	1,569	1,884	2,175	2,427
Mesa		100%	1,220	1,307	1,570	1,812	2,022
Mesa		80%	976	1,046	1,256	1,450	1,618
Mesa		70%	854	915	1,099	1,268	1,415
Mesa		60%	732	784	942	1,087	1,213
Mesa		50%	610	653	785	906	1,011
Mesa		45%	549	588	706	815	910
Mesa		40%	488	523	628	725	809
Mesa		30%	366	392	471	543	606
Mesa		20%	244	261	314	362	404

Based on the maximum household income per bedroom type, the maximum rent can be calculated at $392 monthly.

Utility Allowance

Per CHFA's (Colorado Housing and Finance Authority) updated Utility Allowance Policy, utility allowance for rent restricted units may be determined via the following methods:

Utility allowances for rent restricted units may be determined using one of the following options:

1. Local Public Housing Authority Schedule
2. Actual Usage and Rate Estimate
3. HUD Utility Schedule Model
4. Energy Consumption Model

The property has plans to cover the expense of all utilities. Therefore, we will not model a deduction from a utility allowance.

Permanent Supportive Housing Voucher Award

Through the Colorado Department of Local Affairs Division of Housing, all 34 units were awarded supportive housing vouchers for a 20-year period (with a 20 year renewal option).

The vouchers, coupled with the LIHTC rents will bring per unit rental income to states allocated payment standards.

2019 Division of Housing Payment Standards
Effective 11/01/2018

County Name	SRO	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	5 Bedroom
Mesa	407	589	698	920	1228	1422	1619

The project will be targeted to young adults (18-24 years of age) that are homeless or at risk of homelessness, and will be operated by Karis Inc. Karis Inc. is an experienced non-profit organization currently working with homeless and runaway youth in Grand Junction and throughout the Grand Valley.

Highest and Best Use

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet are:

- legally permissible;
- physically possible;
- financially feasible; and
- maximally productive.

The highest and best use analysis of the subject is discussed below.

AS VACANT

Legal Permissibility

The legally permissible uses were discussed in the Site Analysis and Zoning Sections.

Physical Possibility

The subject is adequately served by utilities, and has an adequate shape and size, sufficient access, etc., to be a separately developable site. There are no known physical reasons why the subject site would not support any legally probable development (i.e. it appears adequate for development).

Existing structures on similar sites provides additional evidence for the physical possibility of development.

Financial Feasibility

The determination of financial feasibility is dependent primarily on the relationship of supply and demand for the legally probable land uses versus the cost to create the uses. As discussed in the market analysis, the subject apartment market is strong, with lower than typical vacancy and increasing rents. Minimal development of new apartment properties has occurred in the past few years.

Maximum Productivity - Conclusion

The final test of highest and best use of the site as if vacant is that the use be maximally productive, yielding the highest return to the land.

Based on the information presented above and upon information contained in the market and neighborhood analysis, we conclude that the highest and best use of the subject as if vacant would be hold until rents increase to induce the future development of an apartment property. Our analysis of the subject and its respective market characteristics indicate the most likely buyer, as if vacant, would be an investor (land speculation) or a developer.

AS IMPROVED (PROPOSED)

Legal Permissibility

The site has been proposed to be improved with an affordable apartment development that is a legal, conforming use.

Physical Possibility

The layout and positioning of the proposed improvements are considered functional for apartment use. While it would be physically possible for a wide variety of uses, based on the legal restrictions and the design of the improvements, the proposed use of the property as an affordable apartment complex would be the most functional use.

Financial Feasibility

The financial feasibility of an affordable apartment property is based on the amount of rent which can be generated, less operating expenses required to generate that income; if a residual amount exists, then the land is being put to a productive use. Based on the income capitalization approach conclusion, the subject is capable of producing a positive net cash flow and utilization of the improvements for affordable apartment purposes is considered financially feasible. Further, the value of the improvements detailed clearly exceeds the underlying land value.

Maximum Productivity - Conclusion

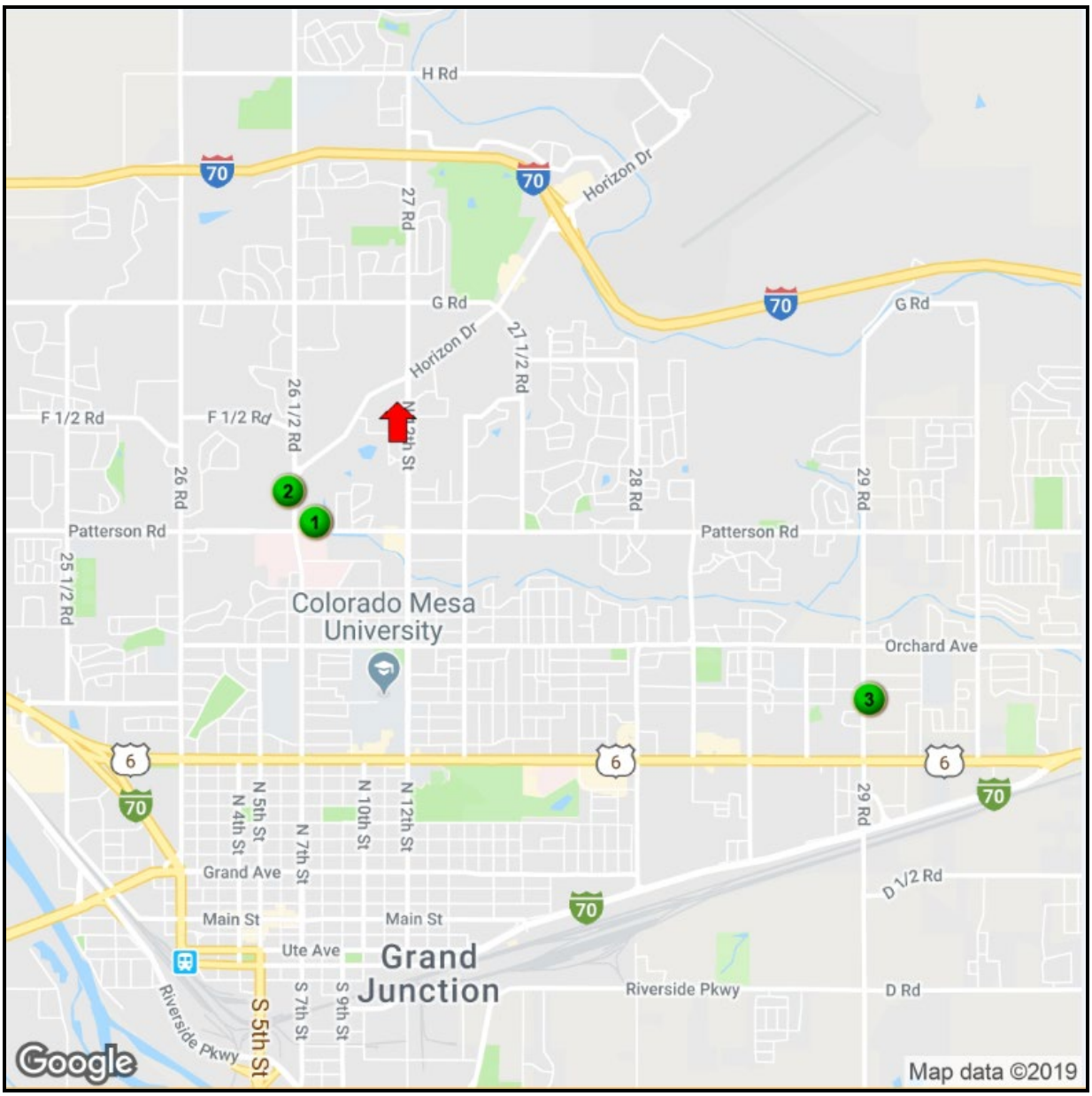
As shown in the applicable valuation sections, buildings that are similar to the subject have been acquired or continue to be used by affordable apartment owners/tenants. None of the comparable buildings have been acquired for conversion to an alternative use. The most likely buyer for the subject property is as follows:

- Investor-Regional

Based on the foregoing, the highest and best use of the property, as improved/proposed, is consistent with the proposed use as an affordable apartment development.

Land Value

The following map and table summarize the comparable data used in the valuation of the subject site. A detailed description of each transaction is included in the addenda.



SUMMARY OF COMPARABLE LAND SALES								
No.	Property Location	Transaction Type	Transaction Date	Zoning	Actual Sale Price	Size (Acres)	Size (SF)	Price Per SF
1	2656 Patterson Road Grand Junction, CO 81506	Sale	Mar-17	PD	$535,000	2.07	90,126	$5.94
2	621 26 1/2 Road Grand Junction, CO 81502	Sale	May-19	R-5	$600,000	3.56	155,074	$3.87
3	528 29 Road Grand Junction, CO 81501	Available/ Listing	Jun-19	R-8	$245,000	1.14	49,658	$4.93
Subject	3205 North 12th Street, Grand Junction, Colorado	---	---	R-16: Residential - 16	---	2.18	94,961	---

[1] Adjusted sale price for cash equivalency and/or development costs (where applicable)
Compiled by CBRE

The sales utilized represent the best data available for comparison with the subject and were selected from the greater Grand Junction area.

DISCUSSION/ANALYSIS OF LAND SALES

Land Sale One

This comparable was purchased for the development of a 48-unit senior care facility to be branded as Grand Junction Lodge Senior Living according to a recent newspaper article. As approved by the city, the Lodge will have up to 45,000 square feet of senior living, offering 36 beds for assisted living and 12 for memory care. The property is improved with an older SFR, which will be razed in the near term and did not likely contribute to the price paid. The site was zoned R-4 prior to the sale but the buyer successfully re-zoned the property PD for the proposed project. The site does not appear to have been actively marketed for sale. The property sold in March 2017 for $535,000 or $5.94 per square foot of land area.

Land Sale Two

This comparable represents the land sale of 621 26 1/2 Road, Grand Junction. The property is a 3.56-acre (155,074 SF) parcel zoned as R-5. The property was purchased by 621 26-5 LLC for a consideration of $600,000 or $3.87 a SF. Mike Foster, Broker with Coldwell Banker noted the buyer intended to develop senior housing units, although specifics have yet to be solidified.

Land Sale Three

This comparable is the listing of a 1.14-acre (49,648 SF) parcel located at 528 29 Road in Grand Junction. The property is currently listed for $245,000 or $4.93 per SF. The property is zoned R-8 and advertised as having good access on 29 Road to Riverside Parkway as well as future proposed access to I-70.

SUMMARY OF ADJUSTMENTS

Based on our comparative analysis, the following chart summarizes the adjustments warranted to each comparable.

LAND SALES ADJUSTMENT GRID

Comparable Number	1	2	3	Subject
Transaction Type	Sale	Sale	Available/Listing	---
Transaction Date	Mar-17	May-19	Jun-19	---
Zoning	PD	R-5	R-8	R-16: Residential - 16
Actual Sale Price	$535,000	$600,000	$245,000	---
Size (Acres)	2.07	3.56	1.14	2.18
Size (SF)	90,126	155,074	49,658	94,961
Price Per SF	$5.94	$3.87	$4.93	---
Price ($ PSF)	$5.94	$3.87	$4.93	
Property Rights Conveyed	0%	0%	0%	
Financing Terms [1]	0%	0%	0%	
Conditions of Sale	0%	0%	0%	
Market Conditions (Time)	0%	0%	0%	
Subtotal	$5.94	$3.87	$4.93	
Size	0%	10%	-5%	
Location	0%	0%	5%	
Zoning/Density	-10%	10%	0%	
Total Other Adjustments	-10%	20%	0%	
Value Indication for Subject	**$5.35**	**$4.64**	**$4.93**	
Absolute Adjustment	*10%*	*20%*	*10%*	

[1] Adjusted sale price for cash equivalency and/or development costs (where applicable)

Compiled by CBRE

CONCLUSION

The following table presents the valuation conclusion:

CONCLUDED LAND VALUE

$ PSF		Subject SF		Total
$4.65	x	94,961	=	$441,568
$5.25	x	94,961	=	$498,544
Indicated Value:				**$450,000**
		(Rounded $ PSF)		$4.74

Compiled by CBRE

The subject's pending purchase price of $449,000 is supported by the comparable data and was given emphasis within reconciliation. t

Cost Approach

In estimating the replacement cost new for the subject, the following methods/data sources have been utilized (where available):

- the comparative unit method, utilizing the Marshall Valuation Service (MVS) cost guide, published by Marshall and Swift, LLC;
- the subject's actual construction costs (where available); and
- actual/budget construction cost figures available for comparable properties.

MARSHALL VALUATION SERVICE

Direct Cost

Salient details regarding the direct costs are summarized in the Cost Approach Conclusion at the end of this section. The MVS cost estimates include the following:

1. average architect's and engineer's fees for plans, plan check, building permits and survey(s) to establish building line;
2. normal interest in building funds during the period of construction plus a processing fee or service charge;
3. materials, sales taxes on materials, and labor costs;
4. normal site preparation including finish grading and excavation for foundation and backfill;
5. utilities from structure to lot line figured for typical setback;
6. contractor's overhead and profit, including job supervision, workmen's compensation, fire and liability insurance, unemployment insurance, equipment, temporary facilities, security, etc.;
7. site improvements (included as lump sum additions); and
8. initial tenant improvement costs are included in MVS cost estimate. However, additional lease-up costs such as advertising, marketing and leasing commissions are not included.

Base building costs (direct costs) are adjusted to reflect the physical characteristics of the subject. Making these adjustments, including the appropriate local and current cost multipliers, the direct building cost is indicated.

Additions

Items not included in the direct building cost estimate include parking and walks, signage, landscaping, and miscellaneous site improvements. The cost for these items is estimated separately using the segregated cost sections of the MVS cost guide.

Indirect Cost Items

Several indirect cost items are not included in the direct building cost figures derived through the MVS cost guide. These items include developer overhead (general and administrative costs), property taxes, legal and insurance costs, local development fees and contingencies, lease-up and marketing costs and miscellaneous costs.

MVS Conclusion

The concluded direct and indirect building cost estimates obtained via the MVS cost guide are illustrated as follows:

MARSHALL VALUATION SERVICE COST SCHEDULE

Primary Building Type:	Apartment	Height per Story:	10'
Effective Age:	0 YRS	Number of Buildings:	1
Condition:	Good	Gross Building Area:	21,146 SF
Exterior Wall:	Stucco over wood frame	Net Rentable Area:	14,586 SF
Number of Units:	34	Average Unit Size:	429 SF
Number of Stories:	3	Average Floor Area:	7,049 SF

MVS Sec/Page		12/15
Quality/Bldg. Class		Good/D
Component Sq. Ft.		21,146 SF
Base Square Foot Cost		$104.00
Square Foot Refinements		
Heating and Cooling		$1.50
Sprinklers		$2.50
Appliances @ $2,000 per unit		$3.22
Subtotal		$111.22
Height and Size Refinements		
Number of Stories Multiplier		1.000
Height per Story Multiplier		1.000
Floor Area Multiplier		1.000
Subtotal		$111.22
Cost Multipliers		
Current Cost Multiplier		1.01
Local Multiplier		0.96
Final Square Foot Cost		$107.83
Base Component Cost		$2,280,274
Base Building Cost	*(via Marshall Valuation Service cost data)*	$2,280,274
Additions		
Signage, Landscaping & Misc. Site Improvements (not included above) - $10/SF		$949,608
Direct Building Cost		$3,229,882
Indirect Costs	30.0% of Direct Building Cost	$968,965
Direct and Indirect Building Cost		$4,198,847
Rounded		$4,199,000

Compiled by CBRE

BUDGET COMPARABLE CONSTRUCTION COSTS

The subject's budgeted construction costs are illustrated in the following table. A detailed breakdown of the subject's cost estimate has been included in the Addenda.

CONSTRUCTION COSTS

Comparable:	1	2	Average	Subject
Property Type	LIHTC	LIHTC		Multi-family Subsidized Housing
Year of Cost Data	2017	2019		2019
Cost Data Based Upon…	Budget	Budget		Budget
Size (SF):	71,816	36,722		21,146
Cost Component				
Direct Cost	$13,566,248	$9,808,765	$11,687,507	$7,381,526
Indirect Cost	$2,486,734	$1,951,514	$2,219,124	$1,124,332
Total Costs	$16,052,982	$11,760,279	$13,906,631	$8,505,858
Rounded			$13,907,000	$8,506,000
Cost Per SF	$224	$320	$272	$402

Compiled by CBRE

DIRECT AND INDIRECT COST CONCLUSION

The indicated direct and indirect building costs for the subject are illustrated as follows:

DIRECT AND INDIRECT COST CONCLUSION

Source	Subject Estimate	Per SF
MVS Cost Guide	$4,199,000	$199
Cost Comparables (Avg.)	n/a	$272
Subject's Budget Cost Est.	$8,506,000	$402
CBRE Estimate	**$8,506,000**	**$402**

Compiled by CBRE

The estimates derived via MVS represent replacement cost while the subject's actual/budgeted figures represent reproduction costs. The subject's budgeted cost was given most consideration towards a cost conclusion for the subject because MVS does not accurately reflect construction cost increases in active markets.

ENTREPRENEURIAL PROFIT

Entrepreneurial profit represents the return to the developer and is separate from contractor's overhead and profit.

ACCRUED DEPRECIATION

There are essentially three sources of accrued depreciation:

1. physical deterioration, both curable and incurable;
2. functional obsolescence, both curable and incurable; and

3. external obsolescence.

Physical Deterioration

The following chart provides a summary of the remaining economic life.

ECONOMIC AGE AND LIFE	
Actual Age	0 Years
Effective Age	0 Years
MVS Expected Life	55 Years
Remaining Economic Life	55 Years
Accrued Physical Incurable Depreciation	0.0%
Compiled by CBRE	

Functional Obsolescence

Based on a review of the design and layout of the improvements, no forms of curable functional obsolescence were noted. Because replacement cost considers the construction of the subject improvements utilizing modern materials and current standards, design and layout, functional incurable obsolescence is not applicable.

External Obsolescence

External obsolescence is estimated by the capitalization of income loss. As the subject produces income, the income loss caused by the external obsolescence can be capitalized into an estimate of the loss in total property value. As the land value is not impacted, the entire amount is attributed to the improvements. For the purpose of this approach, the external obsolescence affecting the subject from the subject's rent restrictions has been analyzed, and is calculated in the following table:

EXTERNAL OBSOLESCENCE	
Cost Feasible NOI:	$588,396
Pro-Forma Stabilized NOI:	$112,784
NOI Differential:	$475,612
Capitalized at:	6.00%
External Obsolescence:	($7,926,869)
Compiled by CBRE	

The LIHTC tax credits allow for the feasibility of the subject development.

COST APPROACH CONCLUSION

The value estimate is calculated as follows.

COST APPROACH CONCLUSION			
Primary Building Type:	Apartment	Height per Story:	10'
Effective Age:	0 YRS	Number of Buildings:	1
Condition:	Good	Gross Building Area:	21,146 SF
Exterior Wall:	Stucco over wood frame	Net Rentable Area:	14,586 SF
Number of Units:	34	Average Unit Size:	429 SF
Number of Stories:	3	Average Floor Area:	7,049 SF

Direct and Indirect Building Cost				$8,506,000
Entrepreneurial Profit	10.0%	of Total Building Cost		$850,600
Replacement Cost New				$9,356,600
Accrued Depreciation				
Incurable Physical Deterioration	0.0%	of Replacement Cost New less Curable Physical Deterioration	$0	
Functional Obsolescence			$0	
External Obsolescence			($7,926,869)	
Total Accrued Depreciation	84.7%	of Replacement Cost New		($7,926,869)
Contributory Value of FF&E				Inc. Above
Depreciated Replacement Cost				$1,429,731
Land Value				$450,000
Indicated Stabilized Value				$1,879,731
Rounded				$1,880,000
Indicated Value As Complete				$1,880,000
Value Per Unit				$55,294

Compiled by CBRE

Insurable Replacement Cost

Insurable Replacement Cost is defined as follows:

1. the value of an asset or asset group that is covered by an insurance policy; can be estimated by deducting costs of non-insurable items (e.g., land value) from market value.
2. The estimated cost, at current prices as of the effective date of valuation, of a substitute for the building being valued, using modern materials and current standards, design, and layout for insurance coverage purposes guaranteeing that damaged property is replaced with new property (i.e., depreciation is not deducted). [6]

CBRE, Inc. has followed traditional appraisal standards to develop a reasonable calculation based upon industry practices and industry-accepted publications such as the Marshall Valuation Service. The methodology employed is a derivation of the cost approach and is not reliable for Insurable Replacement Cost estimates. Actual construction costs and related estimates can vary greatly from this estimate.

The Insurable Replacement Cost estimate presented herein is intended to reflect the value of the destructible portions of the subject, based on the replacement of physical items that are subject to loss from hazards (excluding indestructible items such as basement excavation, foundation, site work, land value and indirect costs). In the case of the subject, this estimate is based upon the base building costs (direct costs) as obtained via the Marshall Valuation Service cost guide, with appropriate deductions.

This analysis should not be relied upon to determine proper insurance coverage as only consultants considered experts in cost estimation and insurance underwriting are qualified to provide an Insurable Replacement Cost. It is provided to aid the client/reader/user as part of their overall decision making process and no representations or warranties are made by CBRE, Inc. regarding the accuracy of this estimate. It is strongly recommended that other sources be utilized to develop any estimate of Insurable Replacement Cost.

[6] Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 6th ed. (Chicago: Appraisal Institute, 2015), 119.

INSURABLE REPLACEMENT COST

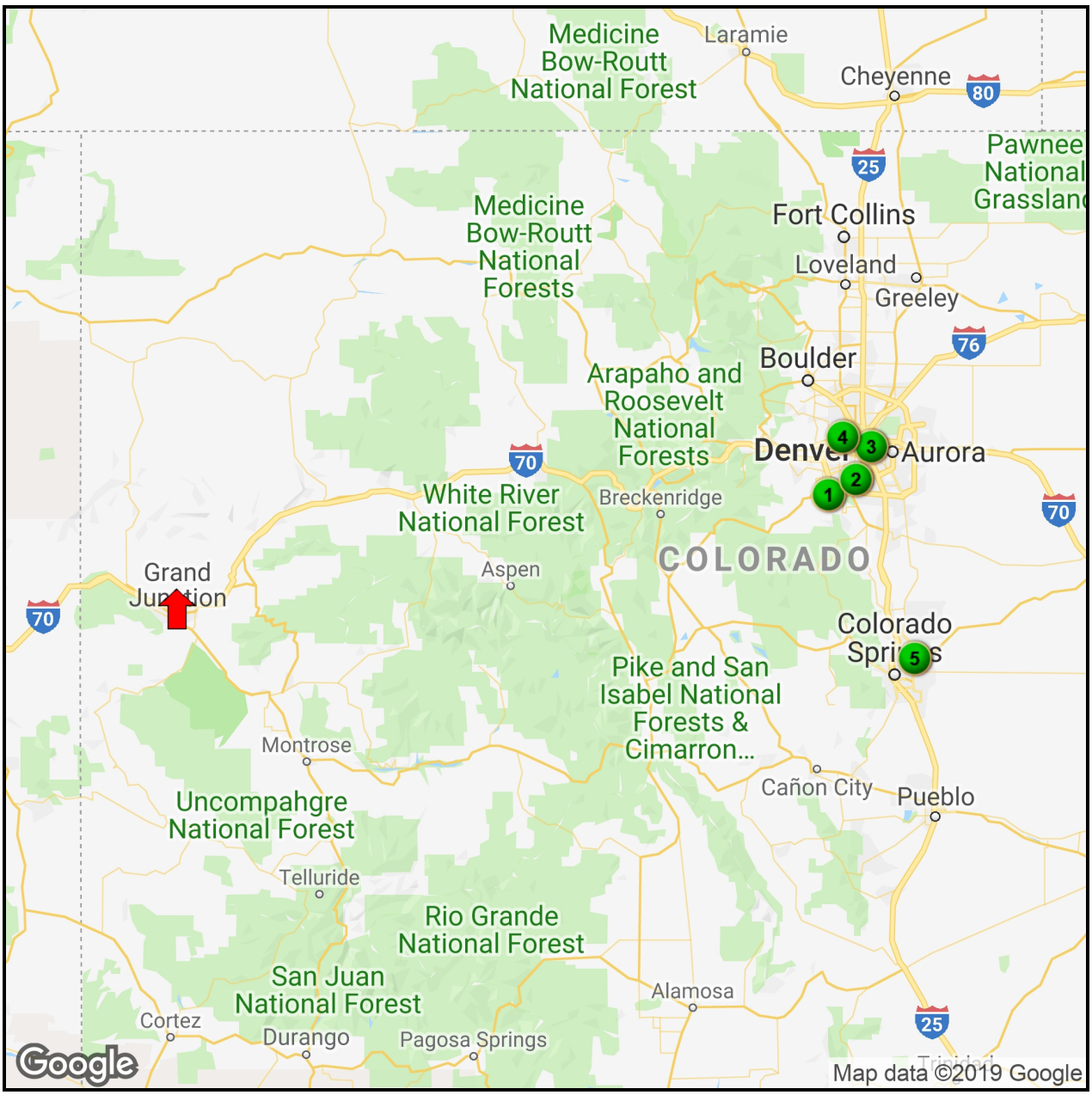
Primary Building Type:	Apartment	Height per Story:	10'
Effective Age:	0 YRS	Number of Buildings:	1
Condition:	Good	Gross Building Area:	21,146 SF
Exterior Wall:	Stucco over wood frame	Net Rentable Area:	14,586 SF
Number of Units:	34	Average Unit Size:	429 SF
Number of Stories:	3	Average Floor Area:	7,049 SF

MVS Sec/Page		12/15
Quality/Bldg. Class		Good/D
Component Sq. Ft.		21,146 SF
Base Square Foot Cost		$104.00
Square Foot Refinements		
Heating and Cooling		$1.50
Sprinklers		$2.50
Subtotal		$111.22
Height and Size Refinements		
Number of Stories Multiplier		1.000
Height per Story Multiplier		1.000
Floor Area Multiplier		1.000
Subtotal		$111.22
Cost Multipliers		
Current Cost Multiplier		1.01
Local Multiplier		0.96
Final Square Foot Cost		**$107.83**
Base Component Cost		**$2,280,274**
Base Building Cost	*(via Marshall Valuation Service cost data)*	$2,280,274
Insurable Exclusions	5.0% of Total Building Cost	($114,014)
Indicated Insurable Replacement Cost		**$2,166,261**
Rounded		**$2,200,000**
Value Per Unit		**$64,706**

Compiled by CBRE

Sales Comparison Approach

The following map and table summarize the comparable data used in the valuation of the subject. A detailed description of each transaction is included in the addenda.



CBRE

SUMMARY OF COMPARABLE APARTMENT SALES

No.	Property Name	Transaction Type	Transaction Date	YOC / Reno'd	Property Subtype	No. Units	Avg. Unit Size	Distance from Subj	Actual Sale Price	Price Per Unit [1]	Occ.	NOI Per Unit	OAR
1	Columbine West Apartments, 6748 South Webster Street Littleton, CO 80128	Sale	Aug-15	1997	Multi-unit Garden	48	798	189 Miles	$6,300,000	$131,250	96%	$7,873	6.00%
2	South Creek Apartments, 5891 S. Nevada St. & 5780 S. Curtice St. Littleton, CO 80120	Sale	Aug-15	1996	Multi-unit Garden	36	813	192 Miles	$3,375,000	$93,750	100%	$5,729	6.11%
3	Diamond at Prospect, 3001 Fox Street Denver, CO 80202	Sale	Jul-16	2006	Multi-unit Lofts	140	877	195 Miles	$20,500,000	$146,429	96%	$7,244	5.39%
4	Allison Pointe Apartments, 7850 West 51st Avenue Arvada, CO 80002	Sale	Oct-18	1998	Multi-unit Subsidized	88	1,179	191 Miles	$12,700,000	$144,318	98%	$7,326	5.08%
5	Stetson Meadows, 6205 Mustang Meadow Point Colorado Springs, CO 80922	Availabl e/Listing	May-19	2003	Multi-unit Subsidized	180	930	207 Miles	$27,000,000	$150,000	0%		n/a
Subj. Pro Forma	Karis Apartments, 3205 North 12th Street Grand Junction, CO 81502	---	---	2020	Multi-family Subsidized Housing	34	429	---	---	---	96%	$5,402	---

[1] Adjusted sale price for cash equivalency, lease-up and/or deferred maintenance (where applicable)
Compiled by CBRE

This property has limited comparable sales due to its location and LIHTC rents. Due to this, we have selected a range of LIHTC sales from the Denver Metro and Colorado Springs areas.

DISCUSSION/ANALYSIS OF IMPROVED SALES

Improved Sale One

The comparable is a 48-unit multi-family subsidized housing property located at 6748 South Webster Street in Littleton, Colorado. The property consists of six two-story apartment buildings and a single story leasing office. The improvements were constructed in 1997 and are situated on a 3.64-acre site. The property is leased via the LIHTC (low income housing tax credit) program where residents fall within the 60% of AMI (area median income) income thresholds. The current maximum rental limits are $900 for 1BR units, $1,080 for 2BR units, and $1,246 for 3BR units. The property sold for a consideration of $6.3M or $131,250 per unit. The property sold along with South Creek Apartments which is a 36 unit LIHTC property.

This sale was considered an arm's-length transaction and required no adjustments for property rights conveyed, financing terms, or conditions of sale. Due to this comparable's date of sale, there was upward adjustment warranted for market conditions. In comparison to the subject, this sale is superior in terms of location and superior in average unit size. This sale is similar in terms of age/condition and superior in income restrictions. Overall, this sale is superior in comparison to the subject and downward overall adjustment was warranted to its price per unit indication.

Improved Sale Two

This property is comprised of 100% restricted units under the LIHTC program for 45% and 50% of AMI residents. The property consists of two non-contiguous 18-unit buildings located south of the historic Littleton downtown area. This LIHTC property sold in conjunction with Columbine West

Apartments. Affordable restrictions- South Creek currently operates under the Section 42 LIHTC program, with the following agreement: 27 of the units must be rented to tenants earning no more than 50% of the local AMI and the remaining nine units be rented to tenants earning no more than 45% of the local AMI. The sale price of $3.375M equated to a cap rate of 6.11% at the time of sale.

This sale was considered an arm's-length transaction and required no adjustments for property rights conveyed, financing terms, or conditions of sale. Due to this comparable's date of sale, there was upward adjustment warranted for market conditions. In comparison to the subject, this sale is superior in terms of location and superior in average unit size. This sale is similar in terms of age/condition and similar in income restrictions. Overall, this sale is superior in comparison to the subject and downward overall adjustment was warranted to its price per unit indication.

Improved Sale Three

The property is a 140-unit multi-family wrap-style mid-rise property located at 3001 Fox Street in the City & County of Denver, Colorado. The property consists of a single, four-story apartment building. The improvements were constructed in 2006 and are situated on a 2.21-acre site. The property was developed with LIHTC tax-credits and is income and rent restricted to 50% and 60% of AMI (Area Median Income) for 70% of its units. The balance of the units are leased to market rent tenants. The project amenities include one heated spa, an exercise/fitness room, and two laundry facilities each equipped with 2 clothes washers and 2 dryers. The property was 96.4% occupied at the time of sale. The in-place income equates to a 5.24% cap rate. At the time of sale, the property was assessed at $18,506,000 which equates to 90% of the sale price.

This sale was considered an arm's-length transaction and required no adjustments for property rights conveyed, financing terms, or conditions of sale. Due to this comparable's date of sale, there was upward adjustment warranted for market conditions. In comparison to the subject, this sale is superior in terms of location and superior in average unit size. This sale is similar in terms of age condition and superior in income restrictions. Overall, this sale is superior in comparison to the subject and downward overall adjustment was warranted to its price per unit indication.

Improved Sale Four

This property is an 88-unit multi-family garden property located at 7850 W. 51st Avenue in Arvada, Colorado. The property has a mix of apartments and townhome units. The property consists of 8 two-story apartment buildings and a single-story clubhouse. The improvements were constructed in 1998 and are situated on a 5.20-acre site. The property unit mix includes market rent and affordable units as follows: 18 market units, 40 units at 40% AMI and 30 units at 50% AMI. The property is encumbered by a 50-year LURA (Low-Income Housing Tax Credit Land Use Restriction Agreement) dated November 1998. Property amenities includes a clubhouse with a recreational area, playground, courtyard and basketball court. The Property sold to SARE Investments, LLC at a consideration of $12.7M or $144,318 per unit. Based on the in-place financials and expenses the trailing cap rate equates to a 5.08% cap rate.

This sale was considered an arm's-length transaction and required no adjustments for property rights conveyed, financing terms, or conditions of sale. Due to this comparable's date of sale, there was no adjustment warranted for market conditions. In comparison to the subject, this sale is superior in terms of location and superior in average unit size. This sale is similar in terms of age condition and superior in income restrictions. Overall, this sale is superior in comparison to the subject and downward overall adjustment was warranted to its price per unit indication.

Improved Sale Five

The comparable represents the listing of Stetson Meadows, a 180-unit garden style property located at 6205 Mustang Meadow Point in Colorado Springs. The property was constructed in 2004 and includes 1BR, 2BR and 3BR units that average 940 SF in size. Ninety-four units or 52% of units are designated affordable per the Land Use Restriction Agreement (LURA). The remaining 86 units are offered at market rents. The income restrictions will remain in place for 15 more years through 2033. The income restrictions are broken down as follows: 42% of units (75 units) are leased at 60% AMI and 10% of the units (19 units) are leased at 50% AMI. The property is listed for sale at $27,000,000 or $150,000 per unit.

SUMMARY OF ADJUSTMENTS

Based on our comparative analysis, the following chart summarizes the adjustments warranted to each comparable.

APARTMENT SALES ADJUSTMENT GRID

Comparable Number	1	2	3	4	5	Subj. Pro Forma
Transaction Type	Sale	Sale	Sale	Sale	Available/Listing	---
Transaction Date	Aug-15	Aug-15	Jul-16	Oct-18	May-19	---
Year Built/Renovated	1997	1996	2006	1998	2003	2020
Property Subtype	Multi-unit Garden	Multi-unit Garden	Multi-unit Lofts	Multi-unit Subsidized	Multi-unit Subsidized	Multi-family Subsidized Housing
No. Units	48	36	140	88	180	34
Avg. Unit Size	798	813	877	1,179	930	429
Actual Sale Price	$6,300,000	$3,375,000	$20,500,000	$12,700,000	$27,000,000	---
Price Per Unit [1]	$131,250	$93,750	$146,429	$144,318	$150,000	---
Occupancy	96%	100%	96%	98%	0%	96%
NOI Per Unit	$7,873	$5,729	$7,244	$7,326		$5,402
OAR	6.00%	6.11%	5.39%	5.08%	n/a	---
Adj. Price Per Unit	$131,250	$93,750	$146,429	$144,318	$150,000	
Property Rights Conveyed	0%	0%	0%	0%	0%	
Financing Terms [1]	0%	0%	0%	0%	0%	
Conditions of Sale	0%	0%	0%	0%	0%	
Market Conditions (Time)	10%	10%	10%	0%	0%	
Subtotal - Price Per Unit	$144,375	$103,125	$161,071	$144,318	$150,000	
Location	-25%	-25%	-25%	-25%	-15%	
Avg. Unit Size	-15%	-15%	-20%	-30%	-20%	
Age/Condition	0%	0%	0%	0%	0%	
Income Restrictions	-20%	0%	-20%	-15%	-20%	
Total Other Adjustments	-60%	-40%	-65%	-70%	-55%	
Indicated Value Per Unit	**$57,750**	**$61,875**	**$56,375**	**$43,295**	**$67,500**	

[1] Adjusted for cash equivalency, lease-up and/or deferred maintenance (where applicable)

Compiled by CBRE

After adjustment the sales indicate a value range of approximately $55,000 to $60,000 per unit. A conclusion within the lower to middle of the range is appropriate.

SALES COMPARISON APPROACH CONCLUSION

The analysis has indicated a value as if the property were stabilized and complete today. However, as the property is proposed construction with an estimated 11 months until completion, we have trended the market value for time based on a 3.0% annual increase.

The following table presents the estimated value for the subject as indicated by the sales comparison approach.

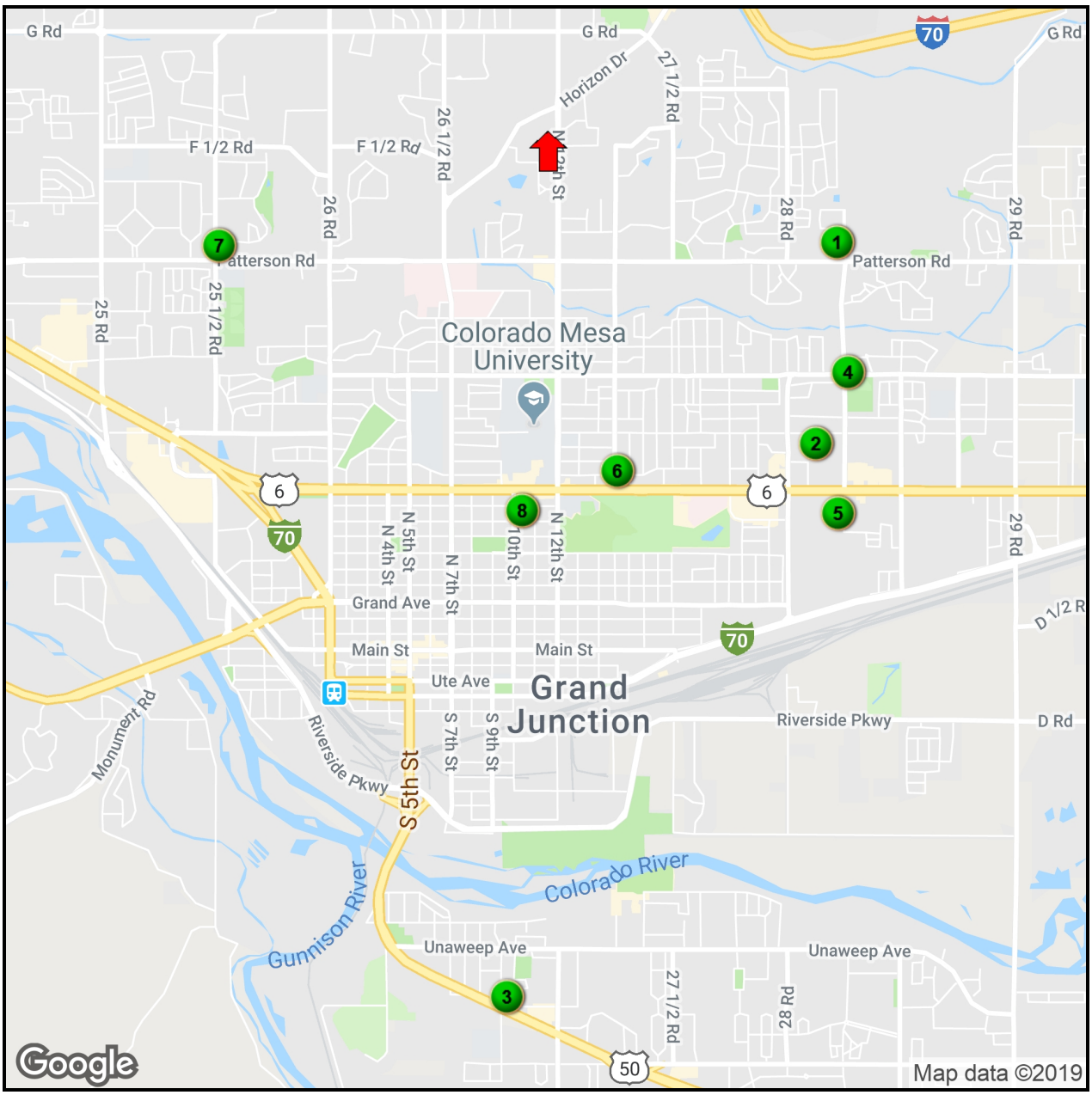
SALES COMPARISON APPROACH				
Total Units	**X**	**Value Per Unit**	**=**	**Value**
34	X	$55,000	=	$1,870,000
34	X	$60,000	=	$2,040,000

VALUE CONCLUSION	
Indicated Stabilized Value	**$2,000,000**
Inflation factor during construction (11 months)	**1.0275**
Prospective Stabilized Value	**$2,060,000**
Less Lease Up Discount	$0
Indicated Value As Complete	**$2,060,000**
Value Per Unit	**$60,588**

Compiled by CBRE

Income Capitalization Approach

The following map and table summarize the primary comparable data used in the valuation of the subject. A detailed description of each transaction is included in the addenda.



SUMMARY OF COMPARABLE APARTMENT RENTALS

No.	Property Name	Location	YOC / Reno'd	Property Subtype	Occ.	No. Units	Distance from Subj	Avg. Rent Per Unit
1	Village Park	615 28 1/4 Road Grand Junction, CO	2013	Multi-unit Subsidized	97%	72	1.3 Miles	$593
2	Arbor Vista	515 & 520 Court Road Grand Junction, CO	2008	Multi-unit Subsidized	97%	72	1.7 Miles	$585
3	Linden Pointe	1975 Barcelona Way Grand Junction, CO	2004	Multi-unit Subsidized	96%	92	3.7 Miles	$668
4	Grand Manor	2828 Orchard Avenue Grand Junction, CO	1979	Multi-unit Garden	100%	140	1.6 Miles	$414
5	Peppermill Lofts	491 28 1/4 Road Grand Junction, CO	2012	Multi-unit Walk-up	100%	48	2.0 Miles	$846
6	Campus View Suites	1510 Glenwood Avenue Grand Junction, CO	2012	Multi-unit Walk-up	81%	16	1.4 Miles	$655
7	Foresight Apartments	606 25 1/2 Road Grand Juntion, CO	1997	Multi-unit Garden	95%	30	1.5 Miles	$858
8	Belford	1029 Belford Avenue Grandjunction, CO	1977	Multi-unit Garden	100%	40	1.6 Miles	$675
Subj.	Karis Apartments	3205 North 12th Street, Grand Junction, Colorado	2020	Multi-family Subsidized Housing	0%	34	---	---

Compiled by CBRE

The rentals utilized represent the best data available for comparison with the subject. They were selected from our research within Grand Junction and include three properties that have a combination of restricted income/market rent units and two conventional properties offering only market rent units.

DISCUSSION/ANALYSIS OF RENT COMPARABLES

Rent Comparable One

Village Park is a garden-style, tax credit apartment property. The property includes 12 1-BR/1-BA units (712 sf), 43 2-BR/2-BA units (860 sf), and 16 3-BR/2-BA units (963 sf). Of the total units, eight are income restricted at 30% AMI, 16 at 40% AMI, 25 at 50% AMI, and 22 at 60% AMI. The utility allowance at this property is lower than other tax credit properties due to energy efficient improvements. Tenants pay directly for gas and electric at this property. The only property amenity at this site is a playground. As of the date of survey, there was one 3BR unit available only. Utility allowance for 1BR is $53, 2BR is $65, and 3BR is $75.

Rent Comparable Two

This comparable is Arbor Vista, a 72 unit garden-style, LIHTC apartment community located at 515 & 520 Court Rd in Grand Junction. It consists of nine two-story residential buildings. Amenities include washer and dryers, dishwashers, garbage disposals, and on-site playground. The improvements were constructed in 2009 and are in average to good overall condition.

Tenants pay directly for gas and electric at this property. Utility allowance at this property is as follows: 1BR- $62, 2BR- $75, and 3BR- $88.

Rent Comparable Three

This comparable is Linden Pointe, a 92-unit garden-style, LIHTC apartment community located at 1975 Barcelona Way in Grand Junction. The property includes 20 1-BR/1-BA units (797 sf), 47 2-BR/2-BA units (987 sf), and 24 3-BR/2-BA units (1,220 sf). Of the 91 low-income units, five are income restricted at 30% AMI, 18 at 40% AMI, 49 at 50% AMI, and 19 at 60% AMI. Unit mix shown in the table is approximate for breakdown of various AMIs. Tenants pay directly for gas and electric at this property. Property amenities include community center, basketball court, and 2 play areas. Unit amenities include a refrigerator, and in-unit washer and dryers. Utility allowance is as follows: 1BR- $62, 2BR-$75 and 3BR- $88.

Rent Comparable Four

This comparable is Grand Manor, a 112-unit garden style property located at 2828 Orchard Avenue in Grand Junction. Property amenities include a business center, clubhouse, playground, and laundry facility. As the management contact knowledge was limited, data was found via apartments.com. It was mentioned that there is no minimum lease term, but the property needs 30-day notice before a tenant vacates. It is assumed the property is collecting a maximum rent levels with a utility allowance of $50 (1BR), $60 (2BR) and $70 (3BR). The property has a waiting list greater than 1 year.

Rent Comparable Five

This comparable represents Peppermill Lofts, a 48-unit garden style property located a 491 28 1/4 Road in Grand Junction. The property was constructed in 2012 and consists of 1BD and 2BD units. Base rent includes water, trash and sewer. The property has controlled access gates. Unit amenities include a black appliance package, laminate countertops, private patio/balconies, and an in-unit washer and dryer. One parking space is included per unit. As we could not get ahold of the management of the property, data was found via their website.

Rent Comparable Six

This comparable is Campus View Suites, a 16-unit student housing garden style building located at 1510 Glenwood Ave in Grand Junction. The building consists of 4 suites split into four 555 sq ft. 1BR/1BA in each suite, totaling 16 units. Apartment amenities include a stainless steel appliance package, and laminate countertops. Property amenities include outdoor bike storage as well as a locking shed for overnight bike storage for no extra cost. Parking is available on the lot on a first come first serve basis, no extra charge. Private laundry is available in each suite. This property is located 2 blocks from the Colorado Mesa University Campus.

Rent Comparable Seven

This property is Foresight Apartments, a 180-unit garden style property located at 606 25 1/2 Road in Grand Junction. Furnished units are available for $1,400 for 2BR/1Ba and $1,600 for 2BR/2BA. One parking spot is included per unit.

Rent Comparable Eight

This comparable is Belford, a 40-unit garden style property located at 1029 Belford Avenue in Grand Junction. The property consists of 40 one-bedroom units and has no significant property amenities besides a common laundry room. Unit amenities include a refrigerator, and stove/oven. Furnished units are available for $675-$695. Heat, water, sewer, and trash are included in rent. Parking is available on site for no extra cost. As we could not get ahold of the management of the property, data was found via the website and AxioMetrics.

SUBJECT RENTAL INFORMATION

The following table shows the subject's unit mix and quoted rental rates.

SUBJECT RENTAL INFORMATION

Type	No. of Units	Unit Size (SF)	LIHTC Rent Contribution	HAP Voucher Contribution		Total Payment	Quoted $/Unit	Rent Per SF
1BR / 1BA	34	429	$392	$306	=	$698	$698	$1.63
Total/Average:	34	429 SF		-----			$698	$1.63

Compiled by CBRE

The subject's rents include water, sewer and trash collection expenses.

MARKET RENT ESTIMATE

To estimate the market rates for the various floor plans, the subject unit types have been compared with similar units in the comparable projects. The following is a discussion of each unit type.

One-Bedroom Units

SUMMARY OF COMPARABLE RENTALS
ONE BEDROOM UNITS

			Rental Rates	
Comparable	**Plan Type**	**Size**	**$/Mo.**	**$/SF**
Arbor Vista	1BR/1BA - 30% AMI	797 SF	$324	$0.41
Linden Pointe	1BR/1BA - 30% AMI	797 SF	$326	$0.41
Grand Manor	1BR/1BA (30% AMI)	638 SF	$342	$0.54
Arbor Vista	1BR/1BA - 40% AMI	797 SF	$450	$0.56
Linden Pointe	1BR/1BA - 40% AMI	797 SF	$455	$0.57
Village Park	1BR/1BA - 40% AMI	712 SF	$508	$0.71
Arbor Vista	1BR/1BA - 50% AMI	797 SF	$580	$0.73
Linden Pointe	1BR/1BA - 50% AMI	797 SF	$585	$0.73
Subject (Concluded Mkt.)	***1BR/1BA - 30%AMI***	***429 SF***	***$601***	***$1.40***
Village Park	1BR/1BA - 50% AMI	712 SF	$633	$0.89
Campus View Suites	1BD / 1BA	555 SF	$655	$1.18
Linden Pointe	1BR/1BA - 60% AMI	797 SF	$665	$0.83
Arbor Vista	1BR/1BA - 60% AMI	797 SF	$672	$0.84
Belford	1BR/1BA	550 SF	$675	$1.23
Foresight Apartments	1BR/1BA	496 SF	$690	$1.39
Subject (Quoted Rent)	***1BR/1BA - 30%AMI***	***429 SF***	***$698***	***$1.63***
Village Park	1BR/1BA - 30% AMI Subsidized	712 SF	$701	$0.98
Village Park	1BR/1BA - 60% AMI	712 SF	$753	$1.06
Peppermill Lofts	1BD / 1BA	798-820 SF	$825	$1.02

Compiled by CBRE

Our survey of LIHTC properties indicates that those properties are generally receiving maximum or near maximum allowable rents for their 1BR units, with individual pricing varying by the level of the restriction. We have included the subject's LIHTC rents at their maximum allowable levels and included the HAP Voucher to achieve the state payment standard of $698 .

The market rate comparables indicate a range from $655 to $825 or $1.02 to $1.39 per SF for market 1BR units. As the subject will be new, will include in unit washer/dryers and is situated in a central location, we have assumed a price per SF of $1.40 which is at the top of the range of the comparables.

MARKET RENT CONCLUSIONS

The following chart shows the market rent conclusions for the subject:

MARKET RENT CONCLUSIONS

No. Units	Unit Type	Unit Size	Total SF	Monthly Rent $/Unit	Monthly Rent $/SF	Monthly Rent PRI	Annual Rent $/Unit	Annual Rent $/SF	Annual Total
34	1BR / 1BA	429	14,586 SF	$601	$1.40	$20,420	$7,207	$16.80	$245,045
34		429 SF	14,586 SF	$601	$1.40	$20,420	$7,207	$16.80	$245,045

Compiled by CBRE

Maximum Allowable Rents

The Department of Housing and Urban Affairs (HUD) in accordance with the LIHTC program establishes maximum allowable rents for the number of bedrooms in a complex on an annual basis. The maximum rents were concluded within the market analysis section of this report. As discussed, the subject will be able to obtain the maximum allowable rent levels.

RENT COMPARISON

The following table summarizes the concluded market rent to the maximum rent allowed under the LIHTC rent restrictions for the subject units.

RENT COMPARISON

No. Units	Unit Type	Unit Size	Market Rent	Applicable LIHTC Rent + Voucher	Difference Per Unit
34	1BR / 1BA	429	$601	$698	$97

Compiled by CBRE

It is noted that the LIHTC rents include all utilities. Billback of water, trash and sewer are achievable with market rents and have been included in our hypothetical analysis.

LIHTC RENT CONCLUSIONS

No. Units	Unit Type	Unit Size	Total SF	Monthly Rent $/Unit	Monthly Rent $/SF	Monthly Rent PRI	Annual Rent $/Unit	Annual Rent $/SF	Annual Total
34	1BR / 1BA	429	14,586	$698	$1.63	$23,732	$8,376	$19.52	$284,784
34		429 SF	14,586 SF	$698	$1.63	$23,732	$8,376	$19.52	$284,784

Compiled by CBRE

POTENTIAL RENTAL INCOME CONCLUSION

Within this analysis, potential rental income is estimated based on a combination of LIHTC and rents.

OPERATING HISTORY

The following table presents the operating data for the subject and our pro forma for the subject as a LIHTC property.

OPERATING HISTORY

Year-Occupancy	Developer's Stabilized Pro Forma	95.0%	CBRE Estimate	96.0%
	Total	$/Unit	Total [2]	$/Unit
Income				
Net Rental Income	$270,545	$7,957	$273,393	$8,041
Parking Income	-	-	-	-
Other Income	-	-	8,500	250
RUBS/Utility Income	-	-	-	-
Effective Gross Income	$270,545	$7,957	$281,893	$8,291
Expenses				
Real Estate Taxes	$7,372	$217	$8,814	$259
Property Insurance	12,443	366	12,410	365
Utilities	41,350	1,216	40,800	1,200
Administrative & General	9,630	283	9,690	285
Repairs & Maintenance	35,700	1,050	28,900	850
Management Fee [1]	17,585	517	14,095	415
Payroll	44,240	1,301	44,200	1,300
Advertising & Promotion	1,680	49	1,700	50
Replacement Reserves	-	-	8,500	250
Operating Expenses	$170,000	$5,000	$169,109	$4,974
Net Operating Income	**$100,545**	**$2,957**	**$112,784**	**$3,317**
[1] *(Mgmt. typically analyzed as a % of EGI)*	*6.5%*		*5.0%*	

[2] *(Some revenue categories may reflect net figures)*

Source: Operating statements

VACANCY

The subject's estimated stabilized occupancy rate was previously discussed in the market analysis and was estimated at 4.0%.

OTHER INCOME

Other income is supplemental to that derived from leasing of the improvements. This includes categories such as forfeited deposits, vending machines, late charges, etc. The subject's income is detailed as follows:

OTHER INCOME		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$0	$0
CBRE Estimate	**$8,500**	**$250**
CBRE Estimate (Prospective)	**$8,798**	**$259**
Compiled by CBRE		

The Developer's Stabilized Pro Forma does not include revenue from other income. The comparables indicate an other income collection of $250 to $606 per unit. We have concluded in line with the lower end of the LIHTC comparable properties at $250 per unit.

RUBS INCOME

Regulations do not allow building owners to charge LIHTC tenants for utility reimbursements without a reduction of rental income. None have been included in either the developer's budget or our analysis. Although, market rate apartment properties in the area typically charge tenants for water, sewer and trash using a RUBS system. These properties typically recapture 25% to 75% of the expense for those utilities. We have estimated collection of 25% of the total utility expense in our market rent pro forma.

EFFECTIVE GROSS INCOME

The subject's effective gross income is detailed as follows:

EFFECTIVE GROSS INCOME		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$270,545	$7,957
CBRE Estimate	**$281,893**	**$8,291**
CBRE Estimate (Prospective)	**$291,783**	**$8,582**
Compiled by CBRE		

Our pro forma estimate is higher than the property budget due to our inclusion of Other Income.

OPERATING EXPENSE ANALYSIS

Expense Comparables

The following chart summarizes expenses obtained from comparable properties.

EXPENSE COMPARABLES

Comparable Number	1	2	3	Subject
No. Units	200-300	200-300	150-200	34
GLA (SF)	Affordable	Afford/Market	Affordable	14,586
Expense Year	2016	2018/19	2018/19	Pro Forma
Revenues	$/Unit	$/Unit	$/Unit	$/Unit
Net Rental Income	$10,260	$11,796	$11,562	$8,041
Parking Income	134	129	91	-
Other Income	496	606	250	250
RUBS/Utility Income	279	270	-	-
Effective Gross Income	$11,169	$12,801	$11,904	$8,291
Expenses				
Real Estate Taxes	$0	$357	$0	$259
Property Insurance	391	342	369	365
Utilities	752	715	1,002	1,200
Administrative & General	384	343	279	285
Repairs & Maintenance	556	625	853	850
Management Fee [1]	564	415	496	415
Payroll	1,478	1,583	1,465	1,300
Advertising & Promotion	116	147	76	50
Replacement Reserves	-	-	-	250
Operating Expenses	$4,241	$4,610	$4,550	$4,974
Operating Expense Ratio	38.0%	36.0%	38.2%	60.0%
[1] *(Mgmt. typically analyzed as a % of EGI)*	*5.0%*	*3.2%*	*4.2%*	*5.0%*

[2] The median total differs from the sum of the individual amounts.

Compiled by CBRE

A discussion of each expense category is presented on the following pages.

Real Estate Taxes

The comparable data and projections for the subject are summarized as follows:

REAL ESTATE TAXES		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$7,372	$217
Expense Comparable 1	N/A	$0
Expense Comparable 2	N/A	$357
Expense Comparable 3	N/A	$0
CBRE Estimate	**$8,814**	**$259**
CBRE Estimate (Prospective)	**$9,072**	**$267**
Compiled by CBRE		

Real estate taxes were previously discussed in this report.

Property Insurance

Property insurance expenses typically include fire and extended coverage and owner's liability coverage. The comparable data and projections for the subject are summarized as follows:

PROPERTY INSURANCE		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$12,443	$366
Expense Comparable 1	N/A	$391
Expense Comparable 2	N/A	$342
Expense Comparable 3	N/A	$369
CBRE Estimate	**$12,410**	**$365**
CBRE Estimate (Prospective)	**$12,773**	**$376**
Compiled by CBRE		

The subject's budget is within the range indicated by the expense comparables and is considered reasonable within the market.

Utilities

Utility expenses include electricity, natural gas, water, trash and sewer. The comparable data and projections for the subject are summarized as follows:

UTILITIES		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$41,350	$1,216
Expense Comparable 1	N/A	$752
Expense Comparable 2	N/A	$715
Expense Comparable 3	N/A	$1,002
CBRE Estimate	**$40,800**	**$1,200**
CBRE Estimate (Prospective)	**$41,992**	**$1,235**
Compiled by CBRE		

The comparables ranged from $715 to $1,002 per unit. The subject is new construction and designed for energy efficiency. Our pro forma estimate is near the budgeted amount.

Administrative & General

Administrative expenses typically include legal costs, accounting, telephone, supplies, furniture, temporary help and items that are not provided by off-site management. The comparable data and projections for the subject are summarized as follows:

ADMINISTRATIVE & GENERAL		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$9,630	$283
Expense Comparable 1	N/A	$384
Expense Comparable 2	N/A	$343
Expense Comparable 3	N/A	$279
CBRE Estimate	**$9,690**	**$285**
CBRE Estimate (Prospective)	**$9,973**	**$293**
Compiled by CBRE		

The expense comparables range from $279 to $384 per unit. We have concluded in line with the comparables and the developer's stabilized pro forma.

Repairs and Maintenance

Repairs and maintenance expenses typically include all outside maintenance service contracts and the cost of maintenance and repairs supplies. The comparable data and projections for the subject are summarized as follows:

REPAIRS & MAINTENANCE		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$35,700	$1,050
Expense Comparable 1	N/A	$556
Expense Comparable 2	N/A	$625
Expense Comparable 3	N/A	$853
CBRE Estimate	**$28,900**	**$850**
CBRE Estimate (Prospective)	**$29,745**	**$875**
Compiled by CBRE		

The expense comparables range from $556 to $853 per unit. The subject's budgeted expense is significantly higher than the expense comparables. The subject's expense should be lower since its units are smaller than average and the property has minimal common area amenities. We have estimated this expense within the range of the expense comparables.

Management Fee

Management expenses are typically negotiated as a percentage of collected revenues (i.e., effective gross income). The comparable data and projections for the subject are summarized as follows:

MANAGEMENT FEE		
Year	Total	% EGI
Developer's Stabilized Pro Forma	$17,585	6.5%
CBRE Estimate	**$14,095**	**5.0%**
CBRE Estimate (Prospective)	**$14,589**	**5.0%**
Compiled by CBRE		

Professional management fees in the local market typically range from 3.0% to 5.0% for market rate properties, with LIHTC properties sometimes higher. The subject's budget projects a 6.5% management fee, which is high.

Payroll

Payroll expenses typically include all payroll and payroll related items for all directly employed administrative personnel. Not included are the salaries or fees for off-site management firm personnel and services. The comparable data and projections for the subject are summarized as follows:

PAYROLL		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$44,240	$1,301
Expense Comparable 1	N/A	$1,478
Expense Comparable 2	N/A	$1,583
Expense Comparable 3	N/A	$1,465
CBRE Estimate	**$44,200**	**$1,300**
CBRE Estimate (Prospective)	**$45,492**	**$1,338**
Compiled by CBRE		

The expense comparables range from $1,465 to $1,583 per unit. The subject's budgeted expense is slightly below the range. We have concluded in line with the developers stabilized pro forma, as the subject unit count is less than the comparable. The concluded expense is reasonable in the market.

Advertising and Promotion

Advertising and promotion expenses typically include all costs associated with the promotion of the subject including advertisements in local publications, trade publications, yellow pages, et cetera. LIHTC properties typically have minimal advertising expenses. The comparable data and projections for the subject are summarized as follows:

ADVERTISING & PROMOTION		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$1,680	$49
Expense Comparable 1	N/A	$116
Expense Comparable 2	N/A	$147
Expense Comparable 3	N/A	$76
CBRE Estimate	**$1,700**	**$50**
CBRE Estimate (Prospective)	**$1,750**	**$51**
Compiled by CBRE		

The subject's budgeted amount is slightly below the range suggested by the comparable data and is the basis for our pro forma estimate.

Reserves for Replacement

Reserves for replacement have been estimated based on discussions with knowledgeable market participants who indicate a range from $250 to $350 per unit for multifamily properties. The subject is new construction and has minimal common area amenities. A pro forma allowance at the bottom of the above range is appropriate.

OPERATING EXPENSE CONCLUSION

The comparable data and projections for the subject are summarized as follows:

OPERATING EXPENSES		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$170,000	$5,000
Expense Comparable 1	N/A	$4,241
Expense Comparable 2	N/A	$4,610
Expense Comparable 3	N/A	$4,550
CBRE Estimate	**$169,109**	**$4,974**
CBRE Estimate (Prospective)	**$174,134**	**$5,122**
Compiled by CBRE		

Excluding reserves and utilities, the subject's per unit operating expense pro forma is in line with the expense comparables. It also is supported by the property budget.

NET OPERATING INCOME CONCLUSION

The comparable data and projections for the subject are summarized as follows:

NET OPERATING INCOME		
Year	Total	$/Unit
Developer's Stabilized Pro Forma	$100,545	$2,957
CBRE Estimate	**$112,784**	**$3,317**
CBRE Estimate (Prospective)	**$117,649**	**$3,460**
Compiled by CBRE		

DIRECT CAPITALIZATION

Direct capitalization is a method used to convert a single year's estimated stabilized net operating income into a value indication. The following subsections represent different techniques for deriving an overall capitalization rate.

Comparable Sales

The overall capitalization rates (OARs) confirmed for the comparable sales analyzed in the sales comparison approach are as follows:

COMPARABLE CAPITALIZATION RATES					
Sale	Sale Date	Sale Price $/Unit	Occupancy	Buyer's Primary Analysis	OAR
1	Aug-15	$131,250	96%	Trailing Actuals	6.00%
2	Aug-15	$93,750	100%	Trailing Actuals	6.11%
3	Jul-16	$146,429	96%	Trailing Actuals	5.39%
4	Oct-18	$144,318	98%	Trailing Actuals	5.08%
Indicated OAR:			96%		**5.08%-6.11%**
Compiled by: CBRE					

Published Investor Surveys

The results of the most recent investor surveys are summarized in the following chart.

OVERALL CAPITALIZATION RATES		
Investment Type	OAR Range	Average
CBRE Apartments		
Class A	4.38% - 5.59%	4.80%
Class B	4.84% - 6.06%	5.27%
Class C	5.48% - 7.33%	6.06%
PwC Apartment		
National Data	3.50% - 8.50%	5.23%
Indicated OAR:		**5.50%-6.00%**
Compiled by: CBRE		

The subject is considered to be a Class B property, although its location in a small rural market has a negative impact on a potential OAR.

Market Participants

We spoke with brokers active in the marketing and sales of LIHTC apartment complexes in Colorado market. This broker stated that capitalization rate spread between market-rate and LIHTC complexes generally range from 0 to 50 basis points.

Capitalization Rate Conclusion

The following chart summarizes the OAR conclusions.

OVERALL CAPITALIZATION RATE - CONCLUSION

Source	Indicated OAR
Comparable Sales	5.08%-6.11%
Published Surveys	5.50%-6.00%
Market Participants	5.50%-6.00%
Band of Investment	6.10%
CBRE Estimate	**6.00%**

Compiled by: CBRE

DIRECT CAPITALIZATION SUMMARY (WITH LIHTC RESTRICTIONS)

A summary of the direct capitalization is illustrated in the following chart.

DIRECT CAPITALIZATION SUMMARY-LIHTC RENTS

		$/Unit/Yr	Total
Income			
Potential Rental Income		$8,376	$284,784
Vacancy	4.00%	(335)	(11,391)
Net Rental Income		$8,041	$273,393
Other Income		250	8,500
RUBS/Utility Income		0	-
Effective Gross Income		$8,291	$281,893
Expenses			
Real Estate Taxes		$259	$8,814
Property Insurance		365	12,410
Utilities		1,200	40,800
Administrative & General		285	9,690
Repairs & Maintenance		850	28,900
Management Fee	5.00%	415	14,095
Payroll		1,300	44,200
Advertising & Promotion		50	1,700
Replacement Reserves		250	8,500
Operating Expenses		**$4,974**	**$169,109**
Operating Expense Ratio			59.99%
Net Operating Income		**$3,317**	**$112,784**
OAR		÷	**6.00%**
Indicated Stabilized Value			**$1,879,731**
Rounded			**$1,875,000**
Value Per Unit			**$55,147**

Compiled by CBRE

Direct Capitalization Summary (Prospective as Stabilized with LIHTC Restrictions)

The previous analysis estimated income and expense as of the date of the inspection. We have included a second direct capitalization analysis that trends the income and expenses over the construction period. The income and expenses are trended based on a 3.0% annual inflation factor.

PROSPECTIVE DIRECT CAPITALIZATION SUMMARY

		$/Unit/Yr	Total
Income			
Potential Rental Income		$8,670	$294,776
Vacancy	4.00%	(347)	(11,791)
Net Rental Income		$8,323	$282,985
Other Income		259	8,798
RUBS/Utility Income		0	-
Effective Gross Income		$8,582	$291,783
Expenses			
Real Estate Taxes		$267	$9,072
Property Insurance		376	12,773
Utilities		1,235	41,992
Administrative & General		293	9,973
Repairs & Maintenance		875	29,745
Management Fee	5.00%	429	14,589
Payroll		1,338	45,492
Advertising & Promotion		51	1,750
Replacement Reserves		257	8,748
Operating Expenses		**$5,122**	**$174,134**
Operating Expense Ratio			59.68%
Net Operating Income		**$3,460**	**$117,649**
OAR		÷	**6.00%**
Prospective Stabilized Value			**$1,960,824**
Rounded			**$1,950,000**
Lease-Up Discount			-
Indicated Value As Complete			**$1,960,824**
Rounded			**$1,950,000**
Value Per Unit			**$57,671**

Compiled by CBRE

INCOME & EXPENSE ADJUSTMENTS FROM HAP CONCLUSIONS

Rental Income

As previously concluded the market rent conclusions for the subject assuming market rents are shown below.

MARKET RENT CONCLUSIONS

No. Units	Unit Type	Unit Size	Total SF	Monthly Rent $/Unit	Monthly Rent $/SF	Monthly Rent PRI	Annual Rent $/Unit	Annual Rent $/SF	Annual Total
34	1BR / 1BA	429	14,586 SF	$601	$1.40	$20,420	$7,207	$16.80	$245,045
34		429 SF	14,586 SF	$601	$1.40	$20,420	$7,207	$16.80	$245,045

Compiled by CBRE

RUBS Income

For the market rent scenario, we have added a 25% collections of potential utility reimbursements.

Administrative & General

For the market rent scenario, we have decreased administrative expenses to $250 due to the lesser expenses associated with the tenant qualification process.

Management Fee

Due to greater potential rents, we have adjusted the management fee from 5% to 4.5% to be in line with the average overall management expense.

Advertising

Based on our review of expense comparables in the submarket, we have estimated a market advertising expense amount of $100 per unit.

Capitalization Rate

Capitalization Rate of the market rate sales comparables range from 4.84% to 6.06%. Considering the subject's new construction and rural location and assuming the subject were a market rate property, a discount from the capitalization rate as a LIHTC property is needed and is concluded at 5.75%.

Direct Capitalization Summary – Market Rents

A summary of the direct capitalization is illustrated in the following chart.

DIRECT CAPITALIZATION SUMMARY-HYPOTHETICAL MARKET RENTS

		$/Unit/Yr	Total
Income			
Potential Rental Income		$7,207	$245,045
Vacancy	4.00%	(288)	(9,802)
Net Rental Income		$6,919	$235,243
Other Income		250	8,500
RUBS/Utility Income		300	10,200
Effective Gross Income		$7,469	$253,943
Expenses			
Real Estate Taxes		$259	$8,814
Property Insurance		365	12,410
Utilities		1,200	40,800
Administrative & General		250	8,500
Repairs & Maintenance		850	28,900
Management Fee	4.50%	336	11,427
Payroll		1,300	44,200
Advertising & Promotion		100	3,400
Replacement Reserves		250	8,500
Operating Expenses		**$4,910**	**$166,952**
Operating Expense Ratio			65.74%
Net Operating Income		**$2,559**	**$86,991**
OAR		÷	**5.75%**
Indicated Stabilized Value			**$1,512,894**
Rounded			**$1,525,000**
Value Per Unit			**$44,497**

Compiled by CBRE

Adjustment within the Sales Comparison Approaches

Based on the difference between the two values within the direct capitalization analysis, the adjustment within the sales comparison approach can be determined:

IMPACT OF RENT RESTRICTIONS ON VALUE

Category	Amount
Direct Capitalization - Subject to LIHTC Rent Restrictions	$1,875,000
Direct Capitalization - Hypothetical as if at Market Operations	$1,525,000
CBRE Estimate	**$350,000**
Percent of Hypothetical Value (rounded)	**23%**

Compiled by CBRE

VALUE OF TAX CREDITS

Tax credits provide developers of low income rental housing with a benefit that is used to offset a portion of their federal tax liability in exchange for the production of affordable rental housing. The subject is expected to receive an allocation of low-income housing tax credits pursuant to Section 42 of the Internal Revenue Code of 1986, as amended. Because the subject property will offer housing for qualified low-income residents, it is assumed that it is allowed to receive low-income tax credits to offset future federal income taxes.

Typically, a property with associated tax credits is viewed by investors as two separate assets, the real estate and the income-tax deduction. In the past, tax credits, whether based on qualified low-income housing or historic preservation projects, were typically sold at a discount of the face value. Generally, the tax credits would be sold at a discounted range between $0.65 and $0.85 for every dollar of the face amount. Therefore, the buying incentive becomes the remaining $0.15 to $0.35 for every dollar of the face amount applied to future income-tax deductions.

Over the past few years, corporate buyers of tax credits had become more aggressive where no discount is given on the face amount. This was the result of tax accounting rules in favor to the users of the tax credits and the preferred returns sometimes offered to the buyers of the credits. We recommend the reader examines the specific accounting rules with regards to tax credit application.

Subject Tax Credits

According to the developer, the subject will have an annual allocation of federal low-income housing tax credits of $910,750 per year for ten years or $9,107,500 total from CHAFA. Should the property be sold or foreclosed upon and resold during the 10-year period, the remaining amount of tax credits is transferable. The developer has a letter of intent from Boston Capital to buy the tax credits at $0.87 per dollar of face value, or a total of $7,922,733.

The comparison method of valuing the tax credits is estimating the total discount, if the credits were sold in their entirety. In fact, this methodology is given emphasis as tax credits are traditionally sold to individuals or corporations. Tax credits have historically sold anywhere from 85% to 90% of their face value.

The following information was gathered on sales of tax credits for similar projects in the West region and gives an indication as to the discount typically associated with these transfers.

The following table outlines the sale of tax credits over the past five years, as well as our value conclusion.

SUMMARY OF TAX CREDIT SALES				
Sale	Sale Date	Allocated Tax Credits	SP of Tax Credits	% of Face Value
1	2013	$11,065,880	$10,121,000	91.5%
2	2013	$4,709,280	$4,427,000	94.0%
3	2013	$15,560,970	$16,033,296	103.0%
4	2014	$12,764,841	$11,871,302	93.0%
5	2014	$8,200,000	$8,364,000	102.0%
6	2014	$15,043,920	$14,442,000	96.0%
7	2014	$10,530,120	$10,214,216	97.0%
8	2014	$2,049,240	$1,777,718	86.8%
9	2014	$5,861,780	$5,392,838	92.0%
10	2015	$6,883,040	$7,502,514	109.0%
11	2015	$11,982,970	$12,642,033	105.5%
12	2015	$11,542,520	$11,656,779	101.0%
13	2015	$12,431,000	$12,431,000	100.0%
14	2015	$11,591,430	$11,126,660	96.0%
15	2016	$10,199,910	$10,199,910	100.0%
16	2016	$9,631,366	$9,727,680	101.0%
17	2016	$7,984,470	$8,623,000	108.0%
18	2016	$10,838,530	$9,430,000	87.0%
19	2016	$15,312,110	$16,843,000	110.0%
20	2016	$20,095,980	$21,904,618	109.0%
21	2016	$6,973,913	$6,904,173	99.0%
22	2016	$20,163,330	$23,792,729	118.0%
23	2016	$6,113,390	$6,662,929	109.0%
24	2017	$6,287,100	$5,972,749	95.0%
25	2017	$9,849,790	$10,539,275	107.0%
26	2017	$15,811,000	$15,811,000	100.0%
27	2017	$11,574,870	$11,401,247	98.5%
28	2017	$4,522,480	$4,522,480	100.0%
29	2017	$7,625,157	$7,282,025	95.5%
30	2018	$11,128,450	$10,238,174	92.0%
31	2018	$8,824,170	$8,118,235	92.0%
32	2018	$8,655,000	$9,000,300	104.0%
33	2018	$9,896,875	$9,599,969	97.0%
34	2018	$10,620,328	$10,620,328	100.0%
35	2018	$6,192,300	$5,727,247	92.5%
36	2018	$10,268,930	$9,550,105	93.0%
37	2018	$30,182,480	$26,406,925	87.5%
Subject	**2019**	**$9,107,500**	**$7,922,733**	**87.0%**
Indicated Market Value (Rounded)				**$7,920,000**
Compiled by CBRE				

While there is some debate in the market regarding the impact of tax credit pricing in light of recent federal income tax regulations, discussions with market participants indicated that this

change was anticipated in mid-2017 and that investors starting re-pricing tax credit prices more than six months ago. The data is yet inconclusive to any changes, as indicated by the subject's 87% of face value and the recent comparables.

Other factors influencing tax pricing specific to a particular project are the type of tax credit, the timing of the tax credit allocation and the leverage of a project. Other physical factors such as project's location (urban vs. rural), design and project size affect pricing.

Based on this data, we have reconciled a tax credit price of $0.87 of face value for the subject's allocated tax credits, which is supported by the intent to purchase the subject's tax credits and was given primary emphasis in our reconciliation. While it is a possibility that a different price could be attained, some factors remain unknown about the timing of the tax credit allocation and the leverage the subject will have. When these factors are known, the tax credit pricing could change.

Reconciliation of Value

The value indications from the approaches to value are summarized as follows:

SUMMARY OF VALUE CONCLUSIONS			
	As Is on May 18, 2019	As Complete on July 18, 2020	As Stabilized on July 18, 2020
Land Value	$450,000		
Cost Approach		$1,880,000	$1,880,000
Sales Comparison Approach		$2,060,000	$2,060,000
Income Capitalization Approach		$1,950,000	$1,950,000
Reconciled Value	$450,000	$1,950,000	$1,950,000
Compiled by CBRE			

The cost approach typically gives a reliable value indication when there is strong support for the replacement cost estimate and when there is minimal depreciation. As the property is new construction, the reliability of the cost approach is good. Good cost data was provided by a published cost manual and the subject's budgeted construction costs. The fact that the cost approach is higher than the other two approaches indicates the necessity of the tax credits for the subject to be feasible. Therefore, the cost approach is considered less applicable to the subject and has been given no consideration in the final value conclusion.

In the sales comparison approach, the subject is compared to similar properties that have been sold recently or for which listing prices or offers are known. Due to the rural location and rent subsidizes, the sales comparables are less than ideal. Therefore, the sales comparison approach has been given secondary emphasis in the final value reconciliation.

The income capitalization approach is applicable to the subject since it is an income producing property leased in the open market. Market participants are primarily analyzing properties based on their income generating capability. Therefore, the income capitalization approach is considered a reasonable and substantiated value indicator and has been given primary emphasis in the final value estimate.

Based on the foregoing, the market value of the subject has been concluded as follows:

MARKET VALUE CONCLUSION			
Appraisal Premise	Interest Appraised	Date of Value	Value Conclusion
As Is	Fee Simple Estate	May 18, 2019	$450,000
As Complete	Fee Simple Estate	July 18, 2020	$1,950,000
As Stabilized	Fee Simple Estate	July 18, 2020	$1,950,000
Hypothetical Market Rents	Leased Fee Interest	July 18, 2020	$1,525,000
Market Value- Tax Credits		May 18, 2019	$7,920,000
Compiled by CBRE			

Assumptions and Limiting Conditions

1. CBRE, Inc. through its appraiser (collectively, "CBRE") has inspected through reasonable observation the subject property. However, it is not possible or reasonably practicable to personally inspect conditions beneath the soil and the entire interior and exterior of the improvements on the subject property. Therefore, no representation is made as to such matters.
2. The report, including its conclusions and any portion of such report (the "Report"), is as of the date set forth in the letter of transmittal and based upon the information, market, economic, and property conditions and projected levels of operation existing as of such date. The dollar amount of any conclusion as to value in the Report is based upon the purchasing power of the U.S. Dollar on such date. The Report is subject to change as a result of fluctuations in any of the foregoing. CBRE has no obligation to revise the Report to reflect any such fluctuations or other events or conditions which occur subsequent to such date.
3. Unless otherwise expressly noted in the Report, CBRE has assumed that:
   (i) Title to the subject property is clear and marketable and that there are no recorded or unrecorded matters or exceptions to title that would adversely affect marketability or value. CBRE has not examined title records (including without limitation liens, encumbrances, easements, deed restrictions, and other conditions that may affect the title or use of the subject property) and makes no representations regarding title or its limitations on the use of the subject property. Insurance against financial loss that may arise out of defects in title should be sought from a qualified title insurance company.
   (ii) Existing improvements on the subject property conform to applicable local, state, and federal building codes and ordinances, are structurally sound and seismically safe, and have been built and repaired in a workmanlike manner according to standard practices; all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; and the roof and exterior are in good condition and free from intrusion by the elements. CBRE has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. CBRE appraisers are not engineers and are not qualified to judge matters of an engineering nature, and furthermore structural problems or building system problems may not be visible. It is expressly assumed that any purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems.
   (iii) Any proposed improvements, on or off-site, as well as any alterations or repairs considered will be completed in a workmanlike manner according to standard practices.
   (iv) Hazardous materials are not present on the subject property. CBRE is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater, mold, or other potentially hazardous materials may affect the value of the property.
   (v) No mineral deposit or subsurface rights of value exist with respect to the subject property, whether gas, liquid, or solid, and no air or development rights of value may be transferred. CBRE has not considered any rights associated with extraction or exploration of any resources, unless otherwise expressly noted in the Report.
   (vi) There are no contemplated public initiatives, governmental development controls, rent controls, or changes in the present zoning ordinances or regulations governing use, density, or shape that would significantly affect the value of the subject property.
   (vii) All required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be readily obtained or renewed for any use on which the Report is based.
   (viii) The subject property is managed and operated in a prudent and competent manner, neither inefficiently or super-efficiently.
   (ix) The subject property and its use, management, and operation are in full compliance with all applicable federal, state, and local regulations, laws, and restrictions, including without limitation environmental laws, seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, and licenses.
   (x) The subject property is in full compliance with the Americans with Disabilities Act (ADA). CBRE is not qualified to assess the subject property's compliance with the ADA, notwithstanding any discussion of possible readily achievable barrier removal construction items in the Report.

(xi) All information regarding the areas and dimensions of the subject property furnished to CBRE are correct, and no encroachments exist. CBRE has neither undertaken any survey of the boundaries of the subject property nor reviewed or confirmed the accuracy of any legal description of the subject property.

Unless otherwise expressly noted in the Report, no issues regarding the foregoing were brought to CBRE's attention, and CBRE has no knowledge of any such facts affecting the subject property. If any information inconsistent with any of the foregoing assumptions is discovered, such information could have a substantial negative impact on the Report. Accordingly, if any such information is subsequently made known to CBRE, CBRE reserves the right to amend the Report, which may include the conclusions of the Report. CBRE assumes no responsibility for any conditions regarding the foregoing, or for any expertise or knowledge required to discover them. Any user of the Report is urged to retain an expert in the applicable field(s) for information regarding such conditions.

4. CBRE has assumed that all documents, data and information furnished by or behalf of the client, property owner, or owner's representative are accurate and correct, unless otherwise expressly noted in the Report. Such data and information include, without limitation, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any error in any of the above could have a substantial impact on the Report. Accordingly, if any such errors are subsequently made known to CBRE, CBRE reserves the right to amend the Report, which may include the conclusions of the Report. The client and intended user should carefully review all assumptions, data, relevant calculations, and conclusions of the Report and should immediately notify CBRE of any questions or errors within 30 days after the date of delivery of the Report.
5. CBRE assumes no responsibility (including any obligation to procure the same) for any documents, data or information not provided to CBRE, including without limitation any termite inspection, survey or occupancy permit.
6. All furnishings, equipment and business operations have been disregarded with only real property being considered in the Report, except as otherwise expressly stated and typically considered part of real property.
7. Any cash flows included in the analysis are forecasts of estimated future operating characteristics based upon the information and assumptions contained within the Report. Any projections of income, expenses and economic conditions utilized in the Report, including such cash flows, should be considered as only estimates of the expectations of future income and expenses as of the date of the Report and not predictions of the future. Actual results are affected by a number of factors outside the control of CBRE, including without limitation fluctuating economic, market, and property conditions. Actual results may ultimately differ from these projections, and CBRE does not warrant any such projections.
8. The Report contains professional opinions and is expressly not intended to serve as any warranty, assurance or guarantee of any particular value of the subject property. Other appraisers may reach different conclusions as to the value of the subject property. Furthermore, market value is highly related to exposure time, promotion effort, terms, motivation, and conclusions surrounding the offering of the subject property. The Report is for the sole purpose of providing the intended user with CBRE's independent professional opinion of the value of the subject property as of the date of the Report. Accordingly, CBRE shall not be liable for any losses that arise from any investment or lending decisions based upon the Report that the client, intended user, or any buyer, seller, investor, or lending institution may undertake related to the subject property, and CBRE has not been compensated to assume any of these risks. Nothing contained in the Report shall be construed as any direct or indirect recommendation of CBRE to buy, sell, hold, or finance the subject property.
9. No opinion is expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Any user of the Report is advised to retain experts in areas that fall outside the scope of the real estate appraisal profession for such matters.
10. CBRE assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.
11. Acceptance or use of the Report constitutes full acceptance of these Assumptions and Limiting Conditions and any special assumptions set forth in the Report. It is the responsibility of the user of the Report to read in full, comprehend and thus become aware of all such assumptions and limiting conditions. CBRE assumes no responsibility for any situation arising out of the user's failure to become familiar with and understand the same.
12. The Report applies to the property as a whole only, and any pro ration or division of the title into fractional interests will invalidate such conclusions, unless the Report expressly assumes such pro ration or division of interests.

13. The allocations of the total value estimate in the Report between land and improvements apply only to the existing use of the subject property. The allocations of values for each of the land and improvements are not intended to be used with any other property or appraisal and are not valid for any such use.
14. The maps, plats, sketches, graphs, photographs, and exhibits included in this Report are for illustration purposes only and shall be utilized only to assist in visualizing matters discussed in the Report. No such items shall be removed, reproduced, or used apart from the Report.
15. The Report shall not be duplicated or provided to any unintended users in whole or in part without the written consent of CBRE, which consent CBRE may withhold in its sole discretion. Exempt from this restriction is duplication for the internal use of the intended user and its attorneys, accountants, or advisors for the sole benefit of the intended user. Also exempt from this restriction is transmission of the Report pursuant to any requirement of any court, governmental authority, or regulatory agency having jurisdiction over the intended user, provided that the Report and its contents shall not be published, in whole or in part, in any public document without the written consent of CBRE, which consent CBRE may withhold in its sole discretion. Finally, the Report shall not be made available to the public or otherwise used in any offering of the property or any security, as defined by applicable law. Any unintended user who may possess the Report is advised that it shall not rely upon the Report or its conclusions and that it should rely on its own appraisers, advisors and other consultants for any decision in connection with the subject property. CBRE shall have no liability or responsibility to any such unintended user.

ADDENDA

Addendum A

LAND SALE DATA SHEETS

Sale — Land - Seniors Housing & Care — No. 1

Property Name	Grand Junction Lodge Site
Address	2656 Patterson Road Grand Junction, CO 81506 United States
Government Tax Agency	Mesa
Govt./Tax ID	2945-024-10-020

Site/Government Regulations

	Acres	Square feet
Land Area Net	2.069	90,126
Land Area Gross	2.069	90,126

Site Development Status	Raw
Shape	Irregular
Topography	Generally Level
Utilities	All Available

Maximum FAR	0.50
Min Land to Bldg Ratio	2.00:1
Maximum Density	29.00 per ac

Frontage Distance/Street	N/A	Patterson Road

General Plan	None
Specific Plan	Senior Living Facility
Zoning	PD
Entitlement Status	N/A

Sale Summary

Recorded Buyer	GJSL LLC	Marketing Time	N/A
True Buyer	NAV	Buyer Type	Developer
Recorded Seller	BREHM PROPERTIES LLC	Seller Type	End User
True Seller	NAV	Primary Verification	Assessor Records, Planning Website
Interest Transferred	Fee Simple/Freehold	Type	Sale
Current Use	SFR	Date	3/10/2017
Proposed Use	Senior Care Facility	Sale Price	$535,000
Listing Broker	None	Financing	Not Available
Selling Broker	None	Cash Equivalent	$535,000
Doc #	2792703	Capital Adjustment	$0
		Adjusted Price	$535,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Price/ac and /sf
03/2017	Sale	GJSL LLC	BREHM PROPERTIES LLC	$535,000	$258,579 / $5.94

CBRE

Sale — Land - Seniors Housing & Care — No. 1

Units of Comparison

$5.94 / sf	$8,917 / Unit
$258,579.02 / ac	$8,917 / Allowable Bldg. Units
	$11.89 / Building Area

Financial

No information recorded

Map & Comments

This comparable was purchased for the development of a 48-unit senior care facility to be branded as Grand Junction Lodge Senior Living according to a recent newspaper article. As approved by the city, the Lodge will have up to 45,000 square feet of senior living, offering 36 beds for assisted living and 12 for memory care. The property is improved with an older SFR, which will be razed in the near term and did not likely contribute to the price paid. The site was zoned R-4 prior to the sale but the buyer successfully re-zoned the property PD for the proposed project. The site does not appear to have been actively marketed for sale. The property sold in March 2017 for $535,000 or $5.94 per square foot of land area.

Sale — Land - Seniors Housing & Care — No. 2

Property Name	621 26 1/2 Road - Land
Address	621 26 1/2 Road Grand Junction, CO 81502 United States
Government Tax Agency	Mesa
Govt./Tax ID	2945-023-00-027

Site/Government Regulations

	Acres	Square feet
Land Area Net	3.560	155,074
Land Area Gross	N/A	N/A

Site Development Status	Finished
Shape	Irregular
Topography	Generally Level
Utilities	N/A

Maximum FAR	N/A
Min Land to Bldg Ratio	N/A
Maximum Density	N/A

Frontage Distance/Street	N/A	26 1/2 Road

General Plan	N/A
Specific Plan	N/A
Zoning	R-5
Entitlement Status	N/A

Sale Summary

Recorded Buyer	621 26-5 LLC	Marketing Time	24 Month(s)
True Buyer	N/A	Buyer Type	Developer
Recorded Seller	Nieslankik Roberta M	Seller Type	Private Investor
True Seller	N/A	Primary Verification	Broker & Public Records
Interest Transferred	Fee Simple/Freehold		
Current Use	Previously developed lot		
Proposed Use	Senior Housing		
Listing Broker	Mike Foster, Coldwell Banker		
Selling Broker	N/A		
Doc #	2878340		

Type	Sale
Date	5/2/2019
Sale Price	$600,000
Financing	Cash to Seller
Cash Equivalent	$600,000
Capital Adjustment	$0
Adjusted Price	$600,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Price/ac and /sf
05/2019	Sale	621 26-5 LLC	Nieslankik Roberta M	$600,000	$168,539 / $3.87

Sale — Land - Seniors Housing & Care — No. 2

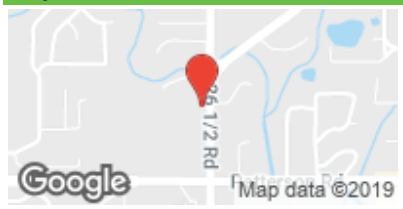
Units of Comparison

$3.87 / sf	N/A / Unit
$168,539.33 / ac	N/A / Allowable Bldg. Units
	N/A / Building Area

Financial

No information recorded

Map & Comments



This comparable represents the land sale of 621 26 1/2 Road, Grand Junction. The property is a 3.56-acre (155,074 SF) parcel zoned as R-5. The property was purchased by 621 26-5 LLC for a consideration of $600,000 or $3.87 a SF. Mike Foster, Broker with Coldwell Banker noted the buyer intended to develop senior housing units, although specifics have yet to be solidified.

Available/Listing — Land - Multi Unit Residential — No. 3

Property Name	528 29 Road - For Sale Land
Address	528 29 Road Grand Junction, CO 81501 United States
Government Tax Agency	Mesa
Govt./Tax ID	2943-083-00-101

Site/Government Regulations

	Acres	Square feet
Land Area Net	1.140	49,658
Land Area Gross	N/A	N/A

Site Development Status	Finished
Shape	Rectangular
Topography	Generally Level
Utilities	N/A

Maximum FAR	N/A
Min Land to Bldg Ratio	N/A
Maximum Density	N/A

Frontage Distance/Street	N/A	29 Road

General Plan	N/A
Specific Plan	N/A
Zoning	R-8
Entitlement Status	N/A

Sale Summary

Recorded Buyer	N/A	Marketing Time	N/A
True Buyer	N/A	Buyer Type	N/A
Recorded Seller	N/A	Seller Type	N/A
True Seller	N/A	Primary Verification	N/A
Interest Transferred	N/A		
Current Use	Vacant Land		
Proposed Use	N/A		
Listing Broker	N/A		
Selling Broker	N/A		
Doc #	N/A		

Type	Available/Listing
Date	6/4/2019
Sale Price	$245,000
Financing	N/A
Cash Equivalent	$245,000
Capital Adjustment	$0
Adjusted Price	$245,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Price/ac and /sf
06/2019	Available/Listing	N/A	N/A	$245,000	$214,912 / $4.93

Available/Listing — Land - Multi Unit Residential — No. 3

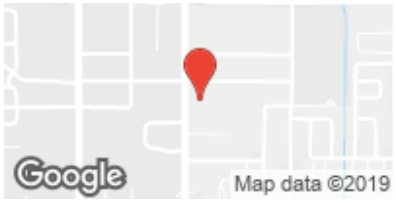
Units of Comparison

$4.93 / sf	N/A / Unit
$214,912.28 / ac	N/A / Allowable Bldg. Units
	N/A / Building Area

Financial

No information recorded

Map & Comments



This comparable is the listing of a 1.14-acre (49,648 SF) parcel located at 528 29 Road in Grand Junction. The property is currently listed for $245,000 or $4.93 per SF. The property is zoned R-8 and advertised as having good access on 29 Road to Riverside Parkway as well as future proposed access to I-70.

Addendum B

IMPROVED SALE DATA SHEETS

Sale | Residential - Multi-unit Garden | No. 1

Property Name	Columbine West Apartments
Address	6748 South Webster Street Littleton, CO 80128 United States
Government Tax Agency	Jefferson
Govt./Tax ID	59-261-01-073

Unit Mix Detail

Rate Timeframe N/A

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA	16	33%	607	$831	$1.37
2BR/2BA	16	33%	811	$995	$1.23
3BR/2BA	16	33%	975	$1,147	$1.18
Totals/Avg	48			$991	$1.24

Improvements

Land Area	3.840 ac	Status	Existing
Net Rentable Area (NRA)	38,288 sf	Year Built	1997
Total # of Units	48 Unit	Year Renovated	N/A
Average Unit Size	798 sf	Condition	Average
Floor Count	2	Exterior Finish	Wood
Property Features	N/A		
Project Amenities	N/A		
Unit Amenities	N/A		

Sale Summary

Recorded Buyer	COLUMBINE WEST LITTLETON , LLC	Marketing Time	3 Month(s)
True Buyer	N/A	Buyer Type	N/A
Recorded Seller	West Creek Bliss, LLC	Seller Type	N/A
True Seller	N/A	Primary Verification	ARA-Hellman, Appraisal
Interest Transferred	N/A		
Current Use	N/A		
Proposed Use	N/A		
Listing Broker	N/A		
Selling Broker	N/A		
Doc #	N/A		

Type	Sale
Date	8/13/2015
Sale Price	$6,300,000
Financing	N/A
Cash Equivalent	$6,300,000
Capital Adjustment	$0
Adjusted Price	$6,300,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Cash Equivalent Price/unit and /sf
08/2015	Sale	COLUMBINE WEST LITTLETON , LLC	West Creek Bliss, LLC	$6,300,000	$131,250 / $164.54
10/2014	Available/Listing	N/A	West Creek Bliss LLC	$5,500,000	$114,583 / $143.65
03/2011	Available/Listing	West Creek Bliss	West Creek (Hendricks Communities)	$3,150,000	$65,625 / $82.27

CBRE

Sale — Residential - Multi-unit Garden — No. 1

Units of Comparison

Static Analysis Method	Trailing Actuals	Eff Gross Inc Mult (EGIM)	11.12
Buyer's Primary Analysis	N/A	Op Exp Ratio (OER)	33.30%
Net Initial Yield/Cap. Rate	6.00%	Adjusted Price / sf	$164.54
Projected IRR	N/A	Adjusted Price / Unit	$131,250
Actual Occupancy at Sale	96%		

Financial

Revenue Type	Trailing Actuals
Period Ending	4/1/2015
Source	Appraiser
Price	$6,300,000
Potential Gross Income	$596,443
Economic Occupancy	95%
Economic Loss	$29,822
Effective Gross Income	$566,621
Expenses	$188,710
Net Operating Income	$377,911
NOI / sf	$9.87
NOI / Unit	$7,873
EGIM	11.12
OER	33.30%
Net Initial Yield/Cap. Rate	6.00%

Map & Comments

The comparable is a 48-unit multi-family subsidized housing property located at 6748 South Webster Street in Littleton, Colorado. The property consists of six two-story apartment buildings and a single story leasing office. The improvements were constructed in 1997 and are situated on a 3.64-acre site. The property is leased via the LIHTC (low income housing tax credit) program where residents fall within the 60% of AMI (area median income) income thresholds. The current maximum rental limits are $900 for 1BR units, $1,080 for 2BR units, and $1,246 for 3BR units. The property sold for a consideration of $6.3M or $131,250 per unit. The property sold along with South Creek Apartments which is a 36 unit LIHTC property.

Sale | Residential - Multi-unit Garden | No. 2

Property Name	South Creek Apartments
Address	5891 S. Nevada St. & 5780 S. Curtice St. Littleton, CO 80120 United States
Government Tax Agency	Arapahoe
Govt./Tax ID	2077-17-4-17-010, 2077-17-4-14-002

Unit Mix Detail

Rate Timeframe N/A

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA 45% AMI	5	14%	607	$607	$1.00
1BR/1BA 50% AMI	7	19%	607	$682	$1.12
2BR/2BA 45% AMI	2	6%	811	$727	$0.90
2BR/2BA 50% AMI	11	31%	877	$816	$0.93
3BR/2BA 45% AMI	2	6%	975	$838	$0.86
3BR/2BA 50% AMI	9	25%	975	$941	$0.97
Totals/Avg	36			$788	$0.96

Improvements

Land Area	0.710 ac	Status	Existing
Net Rentable Area (NRA)	29,278 sf	Year Built	1996
Total # of Units	36 Unit	Year Renovated	N/A
Average Unit Size	813 sf	Condition	Average
Floor Count	3	Exterior Finish	Wood
Property Features	N/A		
Project Amenities	N/A		
Unit Amenities	N/A		

Sale Summary

Recorded Buyer	South Creek Littleton LLC	Marketing Time	6 Month(s)
True Buyer	Forum Real Estate Group	Buyer Type	Corporation
Recorded Seller	South Creek Bliss, LLC	Seller Type	N/A
True Seller	CGI Strategies	Primary Verification	Brandon Grisham, Marcus & Millichap
Interest Transferred	N/A		
Current Use	N/A		
Proposed Use	N/A		
Listing Broker	ARA - Hellman		
Selling Broker	N/A		
Doc #	5091789		

Type	Sale
Date	8/14/2015
Sale Price	$3,375,000
Financing	Cash to Seller
Cash Equivalent	$3,375,000
Capital Adjustment	$0
Adjusted Price	$3,375,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Cash Equivalent Price/unit and /sf
08/2015	Sale	South Creek Littleton LLC	South Creek Bliss, LLC	$3,375,000	$93,750 / $115.27
03/2011	Available/Listing	West Creek Bliss	West Creek (Hendricks)	$2,150,000	$59,722 / $73.43

Sale — Residential - Multi-unit Garden — No. 2

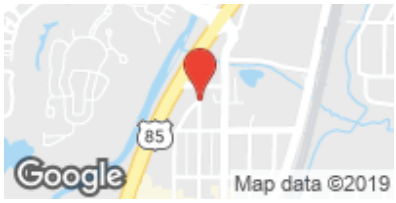
Units of Comparison

Static Analysis Method	Trailing Actuals	Eff Gross Inc Mult (EGIM)	10.04
Buyer's Primary Analysis	N/A	Op Exp Ratio (OER)	38.64%
Net Initial Yield/Cap. Rate	6.11%	Adjusted Price / sf	$115.27
Projected IRR	N/A	Adjusted Price / Unit	$93,750
Actual Occupancy at Sale	100%		

Financial

Revenue Type	Trailing Actuals
Period Ending	N/A
Source	Broker
Price	$3,375,000
Potential Gross Income	$329,412
Economic Occupancy	98%
Economic Loss	$6,588
Effective Gross Income	$336,111
Expenses	$129,873
Net Operating Income	$206,238
NOI / sf	$7.04
NOI / Unit	$5,729
EGIM	10.04
OER	38.64%
Net Initial Yield/Cap. Rate	6.11%

Map & Comments



This property is comprised of 100% restricted units under the LIHTC program for 45% and 50% of AMI residents. The property consists of two non-contiguous 18-unit buildings located south of the historic Littleton downtown area. This LIHTC property sold in conjunction with Columbine West Apartments. Affordable restrictions- South Creek currently operates under the Section 42 LIHTC program, with the following agreement: 27 of the units must be rented to tenants earning no more than 50% of the local AMI and the remaining nine units be rented to tenants earning no more than 45% of the local AMI. The sale price of $3.375M equated to a cap rate of 6.11% at the time of sale.

Sale | Residential - Multi-unit Lofts | No. 3

Property Name	Diamond at Prospect
Address	3001 Fox Street Denver, CO 80202 United States
Government Tax Agency	Denver
Govt./Tax ID	0227802020000

Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA (50%/60%/Mkt)	64	46%	695-823	N/A	N/A
2BR/2BA (50%/60%/Mkt)	69	49%	879-1,085	N/A	N/A
3BR/2BA (50%/60%/Mkt)	7	5%	1,258	N/A	N/A
Totals/Avg	140			$0	$0.00

Improvements

Land Area	N/A	Status	Existing
Net Rentable Area (NRA)	122,815 sf	Year Built	2006
Total # of Units	140 Units	Year Renovated	N/A
Average Unit Size	877 sf	Condition	Good
Floor Count	N/A	Exterior Finish	Stucco
Property Features	N/A		
Project Amenities	N/A		
Unit Amenities	N/A		

Sale Summary

Recorded Buyer	RIY Diamond LLC	Marketing Time	2 Month(s)
True Buyer	Hamilton Zanze	Buyer Type	N/A
Recorded Seller	MS Reserve Prospect Limited	Seller Type	N/A
True Seller	Security Properties	Primary Verification	Broker (CBRE), Appraisal
Interest Transferred	Fee Simple/Freehold		
Current Use	N/A		
Proposed Use	N/A		
Listing Broker	CBRE - Potarf		
Selling Broker	N/A		
Doc #	N/A		

Type	Sale
Date	7/13/2016
Sale Price	$20,500,000
Financing	N/A
Cash Equivalent	$20,500,000
Capital Adjustment	$0
Adjusted Price	$20,500,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Cash Equivalent Price/unit and /sf
07/2016	Sale	RIY Diamond LLC	MS Reserve Prospect Limited	$20,500,000	$146,429 / $166.92

Sale | Residential - Multi-unit Lofts | No. 3

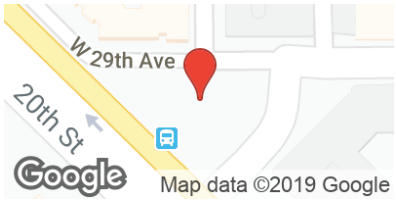
Units of Comparison

Static Analysis Method	Trailing Actuals	Eff Gross Inc Mult (EGIM)	11.25
Buyer's Primary Analysis	Static Capitalization Analysis	Op Exp Ratio (OER)	41.05%
Net Initial Yield/Cap. Rate	5.24%	Adjusted Price / sf	$166.92
Projected IRR	N/A	Adjusted Price / Unit	$146,429
Actual Occupancy at Sale	96%		

Financial

Revenue Type	Trailing Actuals
Period Ending	N/A
Source	Broker
Price	$20,500,000
Potential Gross Income	$1,910,184
Economic Occupancy	95%
Economic Loss	$87,868
Effective Gross Income	$1,822,316
Expenses	$747,980
Net Operating Income	$1,074,336
NOI / sf	$8.75
NOI / Unit	$7,674
EGIM	11.25
OER	41.05%
Net Initial Yield/Cap. Rate	5.24%

Map & Comments



The property is a 140-unit multi-family wrap-style mid-rise property located at 3001 Fox Street in the City & County of Denver, Colorado. The property consists of a single, four-story apartment building. The improvements were constructed in 2006 and are situated on a 2.21-acre site. The property was developed with LIHTC tax-credits and is income and rent restricted to 50% and 60% of AMI (Area Median Income) for 70% of its units. The balance of the units are leased to market rent tenants. The project amenities include one heated spa, an exercise/fitness room, and two laundry facilities each equipped with 2 clothes washers and 2 dryers. The property was 96.4% occupied at the time of sale. The in-place income equates to a 5.24% cap rate. At the time of sale, the property was assessed at $18,506,000 which equates to 90% of the sale price.

Sale | Residential - Multi-unit Subsidized | No. 4

Property Name	Allison Pointe Apartments
Address	7850 West 51st Avenue Arvada, CO 80002 United States
Government Tax Agency	Jefferson
Govt./Tax ID	39-143-05-003

Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
2BR/2BA - Market	2	2%	860	$1,350	$1.57
2BR/2BA - 40% AMI	15	17%	938	$737	$0.79
2BR/2BA - 50% AMI	12	14%	938	$939	$1.00
2BR/2BA - Market	5	6%	938	$1,550	$1.65
3BR/2BA - 40% AMI	17	19%	1,038	$850	$0.82
3BR/2BA - 50% AMI	7	8%	1,038	$1,083	$1.04
4BR/2BA - 40% AMI	1	1%	1,277	$945	$0.74
4BR/2BA - 50% AMI	1	1%	1,277	$1,205	$0.94
3BR/2BA - 50% AMI	5	6%	1,309	$1,059	$0.81
3BR/2BA - Market	7	8%	1,309	$1,650	$1.26
4BR/2BA - 40% AMI	7	8%	1,381	$916	$0.66
4BR/2BA - 50% AMI	5	6%	1,381	$1,176	$0.85
4BR/2BA - Market	4	5%	1,381	$1,800	$1.30
Totals/Avg	88			$1,060	$0.96

Improvements

Land Area	5.199 ac	Status	Existing
Net Rentable Area (NRA)	97,006 sf	Year Built	1998
Total # of Units	88 Unit	Year Renovated	N/A
Average Unit Size	1,179 sf	Condition	Average
Floor Count	2	Exterior Finish	Brick Veneer

Property Features: Individual Split Systems, LIHTC (Low Income Housing Tax Credit), Pitched Roofs, Surface Parking

Project Amenities: Barbeque Area, Clubhouse, Playground, Volleyball Court

Unit Amenities: Dishwasher, In-Unit Storage, Laminate Countertops, Refrigerator, Washer / Dryer Connections

Sale Summary

Recorded Buyer	CR Allison Pointe Communities	Marketing Time	3 Month(s)
True Buyer	ColRich	Buyer Type	N/A
Recorded Seller	PC Allison LLC	Seller Type	N/A
True Seller	Peak Capital Partners	Primary Verification	Broker/Appraisal/County Records
Interest Transferred	Leased Fee		
Current Use	N/A		
Proposed Use	N/A		
Listing Broker	Young/Potarf/Woodward - CBRE		
Selling Broker	N/A		
Doc #	0091282		

Type	Sale
Date	10/4/2018
Sale Price	$12,700,000
Financing	Cash to Seller
Cash Equivalent	$12,700,000
Capital Adjustment	$0
Adjusted Price	$12,700,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Cash Equivalent Price/unit and /sf
10/2018	Sale	CR Allison Pointe Communities	PC Allison LLC	$12,700,000	$144,318 / $130.92

CBRE

Sale | Residential - Multi-unit Subsidized | No. 4

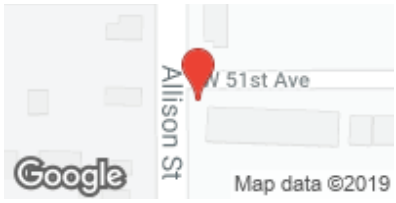
Units of Comparison

Static Analysis Method	Trailing Actuals	Eff Gross Inc Mult (EGIM)	12.17
Buyer's Primary Analysis	Static and Yield Capitalization Analyses	Op Exp Ratio (OER)	38.23%
Net Initial Yield/Cap. Rate	5.08%	Adjusted Price / sf	$130.92
Projected IRR	N/A	Adjusted Price / Unit	$144,318
Actual Occupancy at Sale	98%		

Financial

Revenue Type	Trailing Actuals
Period Ending	5/31/2018
Source	N/A
Price	$12,700,000
Potential Gross Income	$1,075,955
Economic Occupancy	97%
Economic Loss	$32,279
Effective Gross Income	$1,043,676
Expenses	$399,000
Net Operating Income	$644,676
NOI / sf	$6.65
NOI / Unit	$7,326
EGIM	12.17
OER	38.23%
Net Initial Yield/Cap. Rate	5.08%

Map & Comments



This property is an 88-unit multi-family garden property located at 7850 W. 51st Avenue in Arvada, Colorado. The property has a mix of apartments and townhome units. The property consists of 8 two-story apartment buildings and a single-story clubhouse. The improvements were constructed in 1998 and are situated on a 5.20-acre site. The property unit mix includes market rent and affordable units as follows: 18 market units, 40 units at 40% AMI and 30 units at 50% AMI. The property is encumbered by a 50-year LURA (Low-Income Housing Tax Credit Land Use Restriction Agreement) dated November 1998. Property amenities includes a clubhouse with a recreational area, playground, courtyard and basketball court. The Property sold to SARE Investments, LLC at a consideration of $12.7M or $144,318 per unit. Based on the in-place financials and expenses the trailing cap rate equates to a 5.08% cap rate.

Available/Listing — Residential - Multi-unit Subsidized — No. 5

Property Name	Stetson Meadows
Address	6205 Mustang Meadow Point Colorado Springs, CO 80922 United States
Government Tax Agency	El Paso
Govt./Tax ID	5330205001

Unit Mix Detail

Rate Timeframe: Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA	30	17%	713	$1,039	$1.46
1BR/1BA - 50% AMI	15	8%	713	$690	$0.97
1BR/1BA - 60% AMI	15	8%	713	$843	$1.18
2BR/1BA	24	13%	935	$1,146	$1.23
2BR/1BA - 60% AMI	12	7%	935	$1,013	$1.08
2BR/1BA- 50% AMI	12	7%	935	$830	$0.89
2BR/2BA	24	13%	1,008	$1,288	$1.28
2BR/2BA - 60% AMI	24	13%	1,008	$1,013	$1.00
3BR/2BA	12	7%	1,310	$1,507	$1.15
3BR/2BA - 50% AMI	6	3%	1,310	$957	$0.73
3BR/2BA - 60% AMI	6	3%	1,310	$1,169	$0.89
Totals/Avg	180			$1,055	$1.13

Improvements

Land Area	N/A	Status	Existing
Net Rentable Area (NRA)	167,484 sf	Year Built	2003
Total # of Units	180 Unit	Year Renovated	N/A
Average Unit Size	930 sf	Condition	Good
Floor Count	3	Exterior Finish	Fiber Cement Plank

Property Features: Carports, Exterior Stairwells, Pitched Roofs

Project Amenities: Basketball Court, Business Center, Clubhouse, Fitness Center, Jacuzzi / Hot Tub, Playground, Pool

Unit Amenities: Carpeted Flooring, Ceramic Tile Flooring, Dishwasher, Garbage Disposal, Laminate Countertops, Microwave Oven, Refrigerator, Washer / Dryer, White / Beige Appliances

Sale Summary

Recorded Buyer	N/A	Marketing Time	N/A
True Buyer	N/A	Buyer Type	N/A
Recorded Seller	N/A	Seller Type	N/A
True Seller	N/A	Primary Verification	N/A
Interest Transferred	N/A		
Current Use	N/A		
Proposed Use	N/A		
Listing Broker	N/A		
Selling Broker	N/A		
Doc #	N/A		

Type	Available/Listing
Date	5/1/2019
Sale Price	$27,000,000
Financing	N/A
Cash Equivalent	$27,000,000
Capital Adjustment	$0
Adjusted Price	$27,000,000

Transaction Summary plus Five-Year CBRE View History

Transaction Date	Transaction Type	Buyer	Seller	Price	Cash Equivalent Price/unit and /sf
05/2019	Available/Listing	N/A	N/A	$27,000,000	$150,000 / $161.21

CBRE

Available/Listing — Residential - Multi-unit Subsidized — No. 5

Units of Comparison

Static Analysis Method	N/A	Eff Gross Inc Mult (EGIM)	N/A
Buyer's Primary Analysis	N/A	Op Exp Ratio (OER)	N/A
Net Initial Yield/Cap. Rate	N/A	Adjusted Price / sf	$161.21
Projected IRR	N/A	Adjusted Price / Unit	$150,000
Actual Occupancy at Sale	N/A		

Financial

No information recorded

Map & Comments

The comparable represents the listing of Stetson Meadows, a 180-unit garden style property located at 6205 Mustang meadow Point in Colorado Springs. The property was constructed in 2004 and includes 1BR, 2BR and 3BR units that average 940 SF in size. Ninety-four units or 52% of units are designated affordable per the Land Use Restriction Agreement (LURA). The remaining 86 units are offered at market rents. The income restrictions will remain in place for 15 more years through 2033. The income restrictions are broken down as follows: 42% of units (75 units) are leased at 60% AMI and 10% of the units (19 units) are leased at 50% AMI. The property is listed for sale at $27,000,000 or $150,000 per unit.

Addendum C

RENT COMPARABLE DATA SHEETS

Comparable Residential - Multi-unit Subsidized No. 1

Property Name	Village Park
Address	615 28 1/4 Road Grand Junction, CO 81506 United States
Government Tax Agency	Mesa
Govt./Tax ID	2943-063-51-002

Unit Mix Detail

Rate Timeframe N/A

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA - 30% AMI Subsidized	4	6%	712	$701	$0.98
1BR/1BA - 40% AMI	8	11%	712	$508	$0.71
1BR/1BA - 50% AMI	12	17%	712	$633	$0.89
1BR/1BA - 60% AMI	11	15%	712	$753	$1.06
2BR/2BA - 30% AMI Subsidized	4	6%	860	$878	$1.02
2BR/2BA - 40% AMI	8	11%	860	$600	$0.70
2BR/2BA - 50% AMI	12	17%	860	$745	$0.87
2BR/2BA - 60% AMI	11	15%	860	$90	$0.10
3BR/2BA - 50% AMI	2	3%	963	$860	$0.89
Totals/Avg	72			$593	$0.75

Improvements

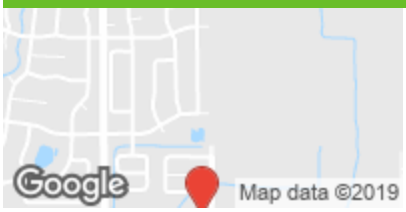
Land Area	4.462 ac	Status	Existing
Net Rentable Area (NRA)	N/A	Year Built	2013
Total # of Units	72 Unit	Year Renovated	N/A
Average Unit Size	791 sf	Condition	Good
Floor Count	3	Exterior Finish	Stone Veneer
Property Features	N/A		
Project Amenities	Playground		
Unit Amenities	Dishwasher, Washer / Dryer		

Rental Survey

Occupancy	97%	Utilities Included in Rent	W/S/T
Lease Term	12 Mo(s).	Rent Premiums	None
Tenant Profile	Families	Concessions	None
Survey Date	06/2019	Owner	N/A
Survey Notes	970-208-9542, LITHC	Management	N/A

Comparable Residential - Multi-unit Subsidized No. 1

Map & Comments



Village Park is a garden-style, tax credit apartment property. The property includes 12 1-BR/1-BA units (712 sf), 43 2-BR/2-BA units (860 sf), and 16 3-BR/2-BA units (963 sf). Of the total units, eight are income restricted at 30% AMI, 16 at 40% AMI, 25 at 50% AMI, and 22 at 60% AMI. The utility allowance at this property is lower than other tax credit properties due to energy efficient improvements. Tenants pay directly for gas and electric at this property. The only property amenity at this site is a playground. As of the date of survey, there was one 3BR unit available only. Utility allowance for 1BR is $53, 2BR is $65, and 3BR is $75.

Comparable Residential - Multi-unit Subsidized No. 2

Property Name	Arbor Vista
Address	515 & 520 Court Road Grand Junction, CO 81501 United States
Government Tax Agency	Mesa
Govt./Tax ID	2943-073-68-004, -003

Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA - 30% AMI	6	8%	797	$324	$0.41
1BR/1BA - 40% AMI	6	8%	797	$450	$0.56
1BR/1BA - 50% AMI	6	8%	797	$580	$0.73
1BR/1BA - 60% AMI	6	8%	797	$672	$0.84
2BR/2BA - 30% AMI	10	14%	1,019	$385	$0.38
2BR/2BA - 40% AMI	10	14%	1,019	$542	$0.53
2BR/2BA - 50% AMI	10	14%	1,019	$695	$0.68
2BR/2BA - 60% AMI	10	14%	1,019	$820	$0.80
3BR/2BA - 30% AMI	2	3%	1,256	$445	$0.35
3BR/2BA - 40% AMI	2	3%	1,256	$625	$0.50
3BR/2BA - 50% AMI	2	3%	1,256	$795	$0.63
3BR/2BA - 60% AMI	2	3%	1,256	$915	$0.73
Totals/Avg	72			$585	$0.60

Improvements

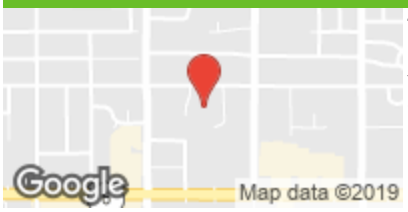
Land Area	4.420 ac	Status	Existing
Net Rentable Area (NRA)	N/A	Year Built	2008
Total # of Units	72 Unit	Year Renovated	N/A
Average Unit Size	971 sf	Condition	Good
Floor Count	2	Exterior Finish	Stucco
Property Features	N/A		
Project Amenities	Playground		
Unit Amenities	Dishwasher, Washer / Dryer		

Rental Survey

Occupancy	97%	Utilities Included in Rent	W/S/T
Lease Term	12 Mo(s).	Rent Premiums	None
Tenant Profile	Families	Concessions	None
Survey Date	06/2019	Owner	N/A
Survey Notes	970-208-9542, LIHTC	Management	N/A

Comparable Residential - Multi-unit Subsidized No. 2

Map & Comments



This comparable is Arbor Vista, a 72 unit garden-style, LIHTC apartment community located at 515 & 520 Court Rd in Grand Junction. It consists of nine two-story residential buildings. Amenities include washer and dryers, dishwashers, garbage disposals, and on-site playground. The improvements were constructed in 2009 and are in average to good overall condition. Tenants pay directly for gas and electric at this property. Utility allowance at this property is as follows: 1BR- $62, 2BR- $75, and 3BR- $88.

Comparable Residential - Multi-unit Subsidized No. 3

Property Name	Linden Pointe
Address	1975 Barcelona Way Grand Junction, CO 81503 United States
Government Tax Agency	Mesa
Govt./Tax ID	Multiple

Unit Mix Detail

Rate Timeframe N/A

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA - 30% AMI	5	5%	797	$326	$0.41
1BR/1BA - 40% AMI	5	5%	797	$455	$0.57
1BR/1BA - 50% AMI	5	5%	797	$585	$0.73
1BR/1BA - 60% AMI	5	5%	797	$665	$0.83
2BR/2BA - 30% AMI	12	13%	987	$390	$0.40
2BR/2BA - 40% AMI	12	13%	987	$545	$0.55
2BR/2BA - 50% AMI	12	13%	987	$698	$0.71
2BR/2BA - 60% AMI	12	13%	987	$825	$0.84
3BR/2BA - 60% AMI	24	26%	1,220	$910	$0.75
Totals/Avg	92			$668	$0.66

Improvements

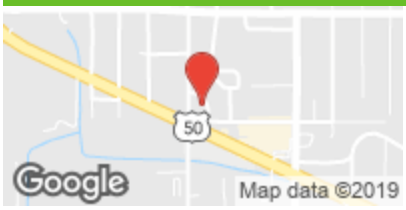
Land Area	6.400 ac	Status	Existing
Net Rentable Area (NRA)	N/A	Year Built	2004
Total # of Units	92 Unit	Year Renovated	N/A
Average Unit Size	1,006 sf	Condition	Average
Floor Count	2	Exterior Finish	Vinyl Siding
Property Features	N/A		
Project Amenities	Clubhouse, Demonstration Kitchen, Playground		
Unit Amenities	Dishwasher, Washer / Dryer		

Rental Survey

Occupancy	96%	Utilities Included in Rent	W/S/T
Lease Term	12 Mo(s).	Rent Premiums	None
Tenant Profile	Low income	Concessions	None
Survey Date	06/2019	Owner	N/A
Survey Notes	970-208-9542	Management	N/A

Comparable Residential - Multi-unit Subsidized No. 3

Map & Comments



This comparable is Linden Pointe, a 92-unit garden-style, LIHTC apartment community located at 1975 Barcelona Way in Grand Junction. The property includes 20 1-BR/1-BA units (797 sf), 47 2-BR/2-BA units (987 sf), and 24 3-BR/2-BA units (1,220 sf). Of the 91 low-income units, five are income restricted at 30% AMI, 18 at 40% AMI, 49 at 50% AMI, and 19 at 60% AMI. Unit mix shown in the table is approximate for breakdown of various AMIs. Tenants pay directly for gas and electric at this property. Property amenities include community center, basketball court, and 2 play areas. Unit amenities include a refrigerator, and in-unit washer and dryers. Utility allowance is as follows: 1BR- $62, 2BR-$75 and 3BR- $88.

Comparable Residential - Multi-unit Garden No. 4

Property Name	Grand Manor
Address	2828 Orchard Avenue Grand Junction, CO 81501 United States
Government Tax Agency	Mesa
Govt./Tax ID	2943-072-00-048

Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA (30% AMI)	16	14%	638	$342	$0.54
2BR/2BA (30% AMI)	72	64%	824	$411	$0.50
3BR/2BA (30% AMI)	24	21%	1,010	$473	$0.47
Totals/Avg	112			$414	$0.49

Improvements

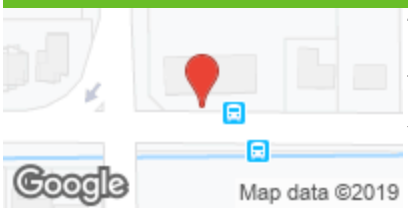
Land Area	6.100 ac	Status	Existing
Net Rentable Area (NRA)	93,776 sf	Year Built	1979
Total # of Units	140 Units	Year Renovated	N/A
Average Unit Size	670 sf	Condition	N/A
Floor Count	N/A	Exterior Finish	N/A
Property Features	N/A		
Project Amenities	N/A		
Unit Amenities	N/A		

Rental Survey

Occupancy	100%	Utilities Included in Rent	WST - Utility Allowance: $50 1BR, $60 2BR and $70 3BR
Lease Term	N/A	Rent Premiums	N/A
Tenant Profile	Low income	Concessions	N/A
Survey Date	06/2019	Owner	N/A
Survey Notes	970-245-8349	Management	N/A

Comparable Residential - Multi-unit Garden No. 4

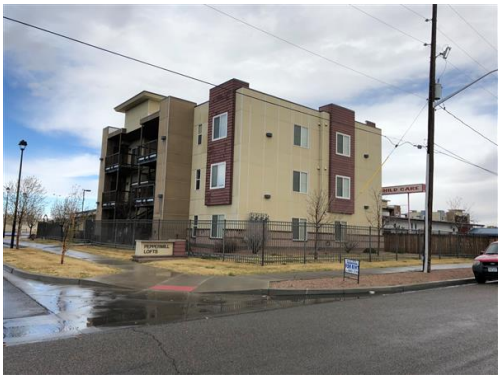
Map & Comments



This comparable is Grand Manor, a 112-unit garden style property located at 2828 Orchard Avenue in Grand Junction. Property amenities include a business center, clubhouse, playground, and laundry facility. As the management contact knowledge was limited, data was found via apartments.com. It was mentioned that there is no minimum lease term, but the property needs 30 days notice before a tenant vacates. It is assumed the property is collecting a maximum rent levels with a utility allowance of $50 (1BR), $60 (2BR) and $70 (3BR). The property has a waiting list greater than 1 year.

Comparable Residential - Multi-unit Walk-up No. 5

Property Name	Peppermill Lofts
Address	491 28 1/4 Road Grand Junction, CO 81501 United States
Government Tax Agency	Mesa
Govt./Tax ID	2943-182-22-001



Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BD / 1BA	38	79%	798-820	$825	$1.02
2BD / 1BA	10	21%	895-900	$925	$1.03
Totals/Avg	48			$846	$1.02

Improvements

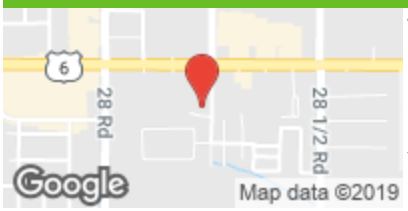
Land Area	1.220 ac	Status	N/A
Net Rentable Area (NRA)	39,717 sf	Year Built	2012
Total # of Units	48 Units	Year Renovated	N/A
Average Unit Size	827 sf	Condition	Good
Floor Count	3	Exterior Finish	Fiber Cement Board
Property Features	Gated / Controlled Access, Structured Parking		
Project Amenities	N/A		
Unit Amenities	Dishwasher, In-Unit Storage, Private Patios / Balconies, Refrigerator, Washer / Dryer		

Rental Survey

Occupancy	100%	Utilities Included in Rent	W/T/S
Lease Term	12 Mo(s).	Rent Premiums	None
Tenant Profile	N/A	Concessions	None
Survey Date	06/2019	Owner	N/A
Survey Notes	970-683-2595, Managed by Maximum 4000 Prop Mngt	Management	N/A

Comparable Residential - Multi-unit Walk-up No. 5

Map & Comments



This comparable represents Peppermill Lofts, a 48-unit garden style property located a 491 28 1/4 Road in Grand Junction. The property was constructed in 2012 and consists of 1BD and 2BD units. Base rent includes water, trash and sewer. The property has controlled access gates. Unit amenities include a black appliance package, laminate countertops, private patio/balconies, and an in-unit washer and dryer. One parking space is included per unit. As we could not get ahold of the management of the property, data was found via their website.

Comparable Residential - Multi-unit Walk-up No. 6

Property Name	Campus View Suites
Address	1510 Glenwood Avenue Grand Junction, CO 81501 United States
Government Tax Agency	Mesa
Govt./Tax ID	2945-123-22-027

Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BD / 1BA	16	100%	555	$655	$1.18
Totals/Avg	16			$655	$1.18

Improvements

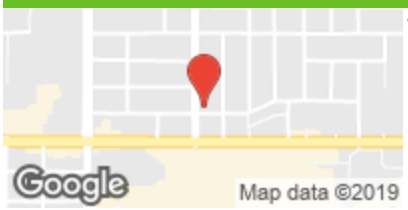
Land Area	0.300 ac	Status	N/A
Net Rentable Area (NRA)	N/A	Year Built	2012
Total # of Units	16 Unit	Year Renovated	N/A
Average Unit Size	555 sf	Condition	N/A
Floor Count	2	Exterior Finish	N/A
Property Features	N/A		
Project Amenities	N/A		
Unit Amenities	N/A		

Rental Survey

Occupancy	81%	Utilities Included in Rent	All
Lease Term	12 Mo(s).	Rent Premiums	N/A
Tenant Profile	Students	Concessions	None
Survey Date	05/2019	Owner	N/A
Survey Notes	910-270-4799	Management	N/A

Comparable Residential - Multi-unit Walk-up No. 6

Map & Comments



This comparable is Campus View Suites, a 16-unit student housing garden style building located at 1510 Glenwood Ave in Grand Junction. The building consists of 4 suites split into four 555 sq ft. 1BR/1BA in each suite, totaling 16 units. Apartment amenities include a stainless steel appliance package, and laminate countertops. Property amenities include outdoor bike storage as well as a locking shed for overnight bike storage for no extra cost. Parking is available on the lot on a first come first serve basis, no extra charge. Private laundry is available in each suite. This property is located 2 blocks from the Colorado Mesa University Campus.

Comparable Residential - Multi-unit Garden No. 7

Property Name	Foresight Apartments
Address	606 25 1/2 Road Grand Juntion, CO 81505 United States
Government Tax Agency	Mesa
Govt./Tax ID	2945-034-08-014

Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA	10	6%	496	$690	$1.39
2BR/1BA	25	14%	768	$815	$1.06
2BR/1.5BA	25	14%	896	$840	$0.94
2BR/2BA	120	67%	1,056	$885	$0.84
Totals/Avg	180			$858	$0.89

Improvements

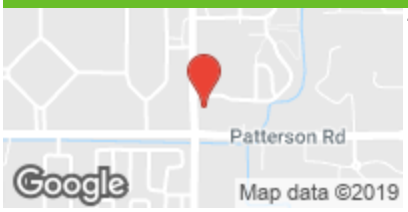
Land Area	1.290 ac	Status	Existing
Net Rentable Area (NRA)	N/A	Year Built	1997
Total # of Units	30 Unit	Year Renovated	N/A
Average Unit Size	963 sf	Condition	Average
Floor Count	1	Exterior Finish	Brick
Property Features	N/A		
Project Amenities	N/A		
Unit Amenities	N/A		

Rental Survey

Occupancy	95%	Utilities Included in Rent	WST
Lease Term	6 Mo(s).	Rent Premiums	N/A
Tenant Profile	N/A	Concessions	N/A
Survey Date	06/2019	Owner	N/A
Survey Notes	970-245-7627	Management	N/A

Comparable Residential - Multi-unit Garden No. 7

Map & Comments



This property is Foresight Apartments, a 180-unit garden style property located at 606 25 1/2 Road in Grand Junction. Furnished units are available for $1,400 for 2BR/1Ba and $1,600 for 2BR/2BA. One parking spot is included per unit.

Comparable Residential - Multi-unit Garden No. 8

Property Name	Belford
Address	1029 Belford Avenue Grandjunction, CO 81501 United States
Government Tax Agency	Mesa
Govt./Tax ID	2945-141-08-004

Unit Mix Detail

Rate Timeframe Monthly

Unit Type	No.	%	Size (sf)	Rent	Rent / sf
1BR/1BA	40	100%	550	$675	$1.23
Totals/Avg	40			$675	$1.23

Improvements

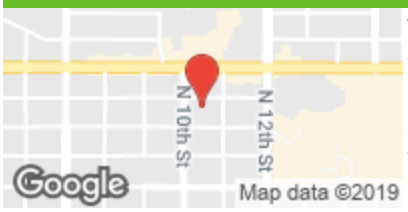
Land Area	0.720 ac	Status	Existing
Net Rentable Area (NRA)	N/A	Year Built	1977
Total # of Units	40 Unit	Year Renovated	N/A
Average Unit Size	550 sf	Condition	Average
Floor Count	2	Exterior Finish	Brick
Property Features	N/A		
Project Amenities	N/A		
Unit Amenities	N/A		

Rental Survey

Occupancy	100%	Utilities Included in Rent	Heat/Water/Sewer/Trash
Lease Term	9 Mo(s).	Rent Premiums	N/A
Tenant Profile	Low income	Concessions	None
Survey Date	06/2019	Owner	N/A
Survey Notes	(970) 245-3939	Management	N/A

Comparable Residential - Multi-unit Garden No. 8

Map & Comments



This comparable is Belford, a 40-unit garden style property located at 1029 Belford Avenue in Grand Junction. The property consists of 40 one bedroom units and has no significant property amenities besides a common laundry room. Unit amenities include a refrigerator, and stove/oven. Furnished units are available for $675-$695. Heat, water, sewer, and trash are included in rent. Parking is available on site for no extra cost. As we could not get ahold of the management of the property, data was found via the website and AxioMetrics.

Addendum D

OPERATING DATA

2019 Division of Housing Payment Standards
Effective 11/01/2018

County Name	SRO	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	5 Bedroom
Adams	695	938	1127	1418	1970	2280	2567
Alamosa	448	597	678	737	989	1102	1255
Arapahoe	695	938	1127	1418	1970	2280	2567
Archuleta	509	704	730	929	1127	1333	1531
Baca	404	538	584	674	981	1108	1320
Bent	422	560	566	678	866	987	1135
Boulder	804	1073	1290	1472	2000	2350	2611
Broomfield	695	938	1127	1418	1970	2280	2567
Chaffee	459	613	835	956	1287	1291	1345
Cheyenne	362	483	490	651	851	965	1109
Clear Creek	695	938	1127	1418	1970	2280	2567
Conejos	402	548	596	665	901	949	1036
Costilla	421	562	566	741	901	1082	1243
Crowley	436	582	628	758	856	1008	1274
Custer	397	529	648	726	975	1211	1354
Delta	498	665	705	886	1102	1299	1493
Denver	695	938	1127	1418	1970	2280	2567
Dolores	414	549	580	665	948	1057	1236
Douglas	695	938	1127	1418	1970	2280	2567
Eagle	675	901	1075	1362	1719	2090	2531
El Paso	496	668	824	1030	1461	1684	1936
Elbert	695	938	1127	1418	1970	2280	2567
Fremont	440	592	665	852	1147	1266	1394
Garfield	625	891	915	1186	1527	1942	2233
Gilpin	695	938	1127	1418	1970	2280	2567
Grand	492	679	805	1046	1434	1538	1717
Gunnison	516	679	727	935	1209	1498	1710
Hinsdale	450	574	663	829	1158	1271	1461
Huerfano	411	548	585	725	948	1112	1191
Jackson	467	622	626	798	999	1236	1421
Jefferson	695	938	1127	1418	1970	2280	2567
Kiowa	478	638	642	810	1111	1240	1425
Kit Carson	402	550	595	714	855	1174	1350
La Plata	581	844	950	1136	1501	1767	2020
Lake	530	716	801	960	1240	1465	1684
Larimer	620	845	1025	1253	1725	2075	2300
Las Animas	430	573	669	845	1100	1177	1328
Lincoln	414	552	635	772	940	1245	1432
Logan	444	592	627	751	1035	1210	1391
Mesa	407	589	698	920	1228	1422	1619
Mineral	478	638	642	810	1111	1240	1424
Moffat	475	655	705	822	1095	1278	1468
Montezuma	418	579	632	714	1018	1243	1428
Montrose	471	630	712	890	1234	1315	1512

2019 Division of Housing Payment Standards
Effective 11/01/2018

County Name	SRO	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	5 Bedroom
Morgan	403	548	605	755	981	1069	1247
Otero	424	567	601	747	923	1098	1261
Ouray	563	744	854	1076	1524	1775	2044
Park	695	938	1127	1418	1970	2280	2567
Phillips	376	518	575	730	855	1017	1169
Pitkin	789	1052	1325	1726	2239	2275	2612
Prowers	404	538	565	663	874	1021	1173
Pueblo	453	624	715	885	1160	1305	1470
Rio Blanco	451	602	626	782	1125	1146	1317
Rio Grande	415	565	611	700	926	1139	1309
Routt	679	940	952	1161	1669	1777	2043
Saguache	395	525	576	685	913	1145	1316
San Juan	644	943	949	1225	1490	1708	1963
San Miguel	665	919	1105	1456	1801	2081	2405
Sedgwick	389	519	542	663	915	960	1104
Summit	743	1007	1147	1464	1788	2146	2497
Teller	488	676	782	975	1391	1689	1942
Washington	413	550	593	671	871	989	1136
Weld	468	681	855	1012	1397	1634	1855
Yuma	386	509	532	688	956	1064	1223

COLORADO
Department of Local Affairs
Division of Housing

October 11, 2018

John Mok-Lamme, Executive Director
Karis, Inc.
P.O. Box 2837
Grand Junction, CO 81502

Re: 2017-18 Permanent Supportive Housing Voucher Award

Dear Mr. Mok-Lamme:

The Colorado Department of Local Affairs, Division of Housing (DOH) has awarded Karis Apartments 34 project-based Housing Choice Vouchers (HCV). The 34 vouchers awarded are comprised of 34 one-bedroom units.

DOH is project basing vouchers in accordance with the U.S. Department of Housing and Urban Development (HUD) regulations 24 C.F.R. Part 983 and the DOH Administrative Plan. The following conditions must be met prior to the execution of the Agreement to Enter into a Housing Assistance Payment Contract (A-HAP) for the awarded project-based vouchers:

1. Subsidy Layering: HUD subsidy layering review must be completed per 24 CFR 983.55.

2. Environmental Review: In accordance with HUD regulations 24 C.F.R. Part 58.22(a) and DOH's Release of Funds policy, the project will require the completion and submission of an Environmental Assessment (Exhibit IV-D). All forms and instructions are available in the CDBG Guidebook on-line at: www.dola.colorado.gov/environmentalreview.

Please note the A-HAP must be executed prior to the commencement of any construction work. Construction begins when excavation or site preparations (including clearing of the land) begins for the housing. If work begins prior to the execution of the A-HAP, DOH will not be able to provide project-based rental assistance to this development.

If you have any questions, do not hesitate to contact Lynn Simington at lynn.simington@state.co.us or 303-864-7842.

Sincerely,

Alison George
Director
Division of Housing

Unit Mix

Number	Bedrooms	Baths	Rents	Incomes	Gross Rents	Utility Allowance	Net Rents	Voucher PMT	Concessions	Rents	Total Rents	Market
0	Eff	1	30%	30%	$ 337.00		$ 337.00	$ 252.00	$ -	$ 589.00	$ -	
34	1	1	30%	30%	$ 361.00		$ 361.00	$ 337.00	$ -	$ 698.00	$ 23,732.00	
0	2	1	30%	30%	$ 433.00		$ 433.00	$ 442.00	$ -	$ 875.00	$ -	
						$ -	$ -		$ -	$ -	$ -	
						$ -	$ -		$ -	$ -	$ -	
						$ -	$ -		$ -	$ -	$ -	
							$ -		$ -	$ -		
							$ -		$ -	$ -	$ -	
						$ -	$ -		$ -	$ -	$ -	
34											$ 23,732.00	Totals

Manager Units

Number	Bedrooms	Baths	Rents	Incomes	Gross Rents	Utility Allowance	Utility Allowance		Concessions		Net Rents
0	1	1	N/A	N/A	$ -	$ -	$ -		$ -	$ -	$ -
0	1	1	0%	0%	$ -	$ -	$ -		$ -		$ -

Totals

34	Total Units	$ 23,732.00	Net Rents

Percent of Units Calculation

Incomes	Number	Percent
30%	0	0%
30%	34	100%
	0	0%

Square Footage Calculation

Units	Number	Sq Ft	Total
Eff	0	400	-
1 Bed	34	528	17,952
2 Bed	0	780	-
Ground Floor Services			4,500
Commercial			-
Mechanical and Circulation			4,490
Total			26,942
Parking			13,500

Operating Budget

Rents/ Expenses		
		CHFA
Gross Rents		$ 284,784.00
Rent roll (short) over		$ -
Budgeted vacancy	5%	$ (14,239.20)
	Total Rents	**$ 270,544.80**
	Laundry	$ -
	Other Vending Income	$ -
	HOA Fees	$ -
	Late Charge	$ -
Other Income		$ -
	Total revenues	**$ 270,544.80**
		Application
	Management Fee	$ 17,585.41
	Audit/Accounting	$ 5,500.00
	Compliance	$ -
	Legal	$ 1,000.00
	Advertising	$ 1,680.00
	Office Supplies	$ 600.00
	Postage	$ 1,000.00
	Telephone	$ 1,530.00
	Elevator	$ 2,700.00
	Maintenance Services	$ 7,200.00
	Maint/cleaning Supplies	$ 7,200.00
	Paint And Decor - Interior	$ 2,350.00
	Unit Turnover	$ 5,150.00
	Janitorial Supplies	$ -
	Heating & Air Cond Repairs	$ 3,900.00
	Exterminating	$ 2,100.00
	Fire Protection/security	$ 2,400.00
	Snow Removal	$ 2,700.00
	On-Site Manager	$ 18,500.00
	Maintenance Wages	$ 18,000.00
	Insurance and Benefits	$ 3,240.00
	Grounds Maintenance	$ 4,500.00
	Electricity	$ 20,200.00
	Natural Gas	$ 4,000.00
	Water	$ 7,250.00
	Sewer	$ 5,400.00
	Garbage And Rubbbish	$ 4,500.00
	Taxes	$ 7,371.70
	Insurance - Property And Liab	$12,442.89
Total operating expenses		**$ 170,000.00**
	Per unit	**$ 5,000.00**
	Supportive Services	**$ -**
	Front Desk Security	**$ -**
Total Operating Expenses with Services*		**$ 170,000.00**
	Per Unit	**$ 5,000.00**

*Supportive Services Budget included in Supportive Services Plan and Narrative

Net Income	
Net Income Before Debt Service & Reserve Payments	$ 100,544.80
Tax & Ins. reserve - Real Estate Tax	$ -
Replacement reserve	$ 10,200.00
Total Reserve Payments	$ 10,200.00
Funds available for debt service	$ 90,344.80
Less Debt Service Payments:	$ -
First Mortgage	$0.00
AHP Grant	$0.00
CDOH Housing Development Grant	$0.00
Deferred Developer Fee	$0.00
Total debt service	$ -
Debt Coverage Ratio Hard Debt	#DIV/0!
Debt Coverage Ratio w/Deferred Developer Fee	#DIV/0!
Expense Coverage Ratio	**1.59**
Net Cash Flow	$ 90,344.80

Loans	
GP Capital Reserve	
Annual Rate	5.000%
Principal	$0.00
Annual Payment Amount	$0.00
Term in Months	420
City of Grand Junction Match - Tap Fee Waiver	
Annual Rate	0.000%
Principal	$0.00
Annual Payment Amount	$0.00
Term in Months	0
AHP Grant	
Annual Rate	0.000%
Principal	$0.00
Annual Payment Amount	$0.00
Term in Months	0
CDOH Housing Development Grant	
Annual Rate	0.000%
Principal	$850,000.00
Annual Payment Amount	$0.00
Term in Months	480
Deferred Developer Fee	
Annual Rate	0.000%
Principal	$182,125.36
Annual Payment Amount	$0.00
Term in Months	120

Expenses	
Per Unit Check Figures	
Expenses	$ 180,200.00
Expenses per Unit	$5,300.00
Per Unit Monthly	$441.67
Expenses per Unit Less Reserves	$ 170,000.00
Per Unit Monthly	$416.67

Reserve Calculations	
Operating Reserves - 4 months	
Operating Cost Annually	$180,200.00
Per month	$15,016.67
6 months	$90,100.00
6 months:	
Replacement Reserves	$5,100.00
Debt Service	$0.00

PROJECT BUDGET

Uses	Application Budget	Current Budget	Eligible Basis
Direct Construction Costs			
Land	$ 449,000.00	$ 449,000.00	$ -
Permit Fees	$ 110,198.87	$ 110,198.87	$ 110,198.87
Water/Sewer fees	$ 60,000.00	$ 60,000.00	$ 60,000.00
P&P Bond	$ 32,340.00	$ 32,340.00	$ 32,340.00
Site Work	$ -	$ -	$ -
Architect Design	$ 458,037.00	$ 458,037.00	$ 458,037.00
Architect Supervision	$ 81,393.00	$ 81,393.00	$ 81,393.00
Construction costs	$ 5,261,546.00	$ 5,261,546.00	$ 5,261,546.00
Contractor Contingency	$ 153,133.00	$ 153,133.00	$ 153,133.00
Construction contingency	$ 263,077.30	$ 263,077.30	$ 263,077.30
FF&E	$ 112,000.00	$ 112,000.00	$ 112,000.00
Construction testing	$ 29,000.00	$ 29,000.00	$ 29,000.00
Builders Risk	$ 14,000.00	$ 14,000.00	$ 14,000.00
Construction inspections and Testing	$ 12,000.00	$ 12,000.00	$ 12,000.00
Low Voltage/Power Telecom Fees	$ 40,000.00	$ 40,000.00	$ 40,000.00
Indirect Construction Costs		$ -	
Developer fee and overhead	$ 925,000.00	$ 925,000.00	$ 925,000.00
CHFA increase for Supportive Services	$ 308,333.33	$ 308,333.33	$ 308,333.33
Third Party Reports		$ -	
Environmental Phase 1	$ 5,750.00	$ 5,750.00	$ 5,750.00
Appraisal	$ 7,900.00	$ 7,900.00	$ 7,900.00
Market study	$ 7,500.00	$ 7,500.00	$ 7,500.00
Geotechnical Report	$ 4,035.00	$ 4,035.00	$ 4,035.00
Civil Engineering/ALTA	$ -	$ -	$ -
Survey	$ 11,300.00	$ 11,300.00	$ 11,300.00
		$ -	
Financing Costs		$ -	
Construction loan interest	$ 81,098.00	$ 81,098.00	$ 81,098.00
Construction loan interest after construction	$ 84,980.00	$ 84,980.00	$ -
Permanent loan fees		$ -	
Construction loan fees	$ 60,634.00	$ 60,634.00	$ 60,634.00
Title and recording - construction	$ 10,000.00	$ 10,000.00	$ 10,000.00
Title and recording - Owner	$ 35,150.00	$ 35,150.00	$ -
Other Costs		$ -	
Tax credit fees	$ 90,752.50	$ 90,752.50	$ -
Security		$ -	$ -
General Liability and Umbrella Insurance	$ 32,500.00	$ 32,500.00	$ 32,500.00
Real estate taxes during construction	$ 4,000.00	$ 4,000.00	$ 4,000.00
Marketing	$ -	$ -	$ -
Partnership organizational (legal and other)	$ -	$ -	$ -
Predevelopment loan interest			
Legal - construction lender	$ 25,000.00	$ 25,000.00	$ -
Legal - BC	$ -	$ -	$ -
Legal - partnership	$ 85,000.00	$ 85,000.00	$ -
Cost certification	$ 10,000.00	$ 10,000.00	$ -
Replacement reserve	$ -	$ -	$ -
Operating reserve	$ 90,200.00	$ 90,200.00	
Soft cost contingency	$ -	$ -	$ -
		$ -	
Total	$ 8,954,858.01	$ 8,954,858.01	$ 8,084,775.51

Credit Calculation

Eligible Basis	$ 8,084,775.51
Applicable Fraction	130.00%
Applicable Federal Rate	9.00%
Credit Eligible	$ 945,918.73
Credit Awarded	$ 910,750.00
Year of Credit	10
Credit Percent Sold	99.99%
Credit Sales Price	0.87
Credit Sales Proceeds	$ 7,922,732.65
Debt Funding Required	$ 1,032,125.36
First Mortgage	$ -
City of Grand Junction Match - Tap Fee Waiver	$ -
AHP Grant	$ -
CDOH Housing Development Grant	$ 850,000.00
Deferred	$ 182,125.36

Proje **Karis, Inc**
Current Draw:
Date: 4/20/2017

		Schedule	August	September	October	November	December	January	February	March	April	May	June	July	August
			2019					2020						Const. Compl.	
Uses	**Closing Budget**	**Revised Budget**	**Closing Draw**	**Draw #2**	**Draw #3**	**Draw #4**	**Draw #5**	**Draw #6**	**Draw #7**	**Draw #8**	**Draw #9**	**Draw #10**	**Draw #11**	**Draw #12**	**Draw #13**
Direct Construction Costs															
Land	449,000.00	449,000.00	449,000.00	-											
Impact fees	110,198.87	110,198.87		110,198.87											
Sewer development fees	60,000.00	60,000.00		60,000.00											
P&P Bond	32,340.00	32,340.00		32,340.00											
Site Work	-	-			-	-	-	-	-	-	-	-	-	-	-
Architect Design	458,037.00	458,037.00		458,037.00											
Architect Supervision	81,393.00	81,393.00		7,399.36	7,399.36	7,399.36	7,399.36	7,399.36	7,399.36	7,399.36	7,399.36	7,399.36	7,399.36	7,399.36	
Construction costs	5,261,546.00	5,261,546.00	-	478,322.36	478,322.36	478,322.36	478,322.36	478,322.36	478,322.36	478,322.36	478,322.36	478,322.36	478,322.36	478,322.36	
Contractor Contingency	153,133.00	153,133.00		13,921.18	13,921.18	13,921.18	13,921.18	13,921.18	13,921.18	13,921.18	13,921.18	13,921.18	13,921.18	13,921.18	
Construction contingency	263,077.30	263,077.30		23,916.12	23,916.12	23,916.12	23,916.12	23,916.12	23,916.12	23,916.12	23,916.12	23,916.12	23,916.12	23,916.12	
FF&E	112,000.00	112,000.00											75,000.00	37,000.00	-
Construction testing	29,000.00	29,000.00		2,636.36	2,636.36	2,636.36	2,636.36	2,636.36	2,636.36	2,636.36	2,636.36	2,636.36	2,636.36	2,636.36	
Builders Risk	14,000.00	14,000.00		14,000.00											
Construction inspections	12,000.00	12,000.00		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Low Voltage/Power Telecom Fees	40,000.00	40,000.00		-									40,000.00		
Indirect Construction Costs	-	-													
Developer fee and overhead	925,000.00	925,000.00	231,250.00												
CHFA increase for Supportive Services	308,333.33	308,333.33		-											
Third Party Reports	-	-													
Environmental Phase 1	5,750.00	5,750.00		5,750.00											
Appraisal	7,900.00	7,900.00	7,900.00												
Market study	7,500.00	7,500.00		7,500.00											
Geotechnical Report	4,035.00	4,035.00		4,035.00											
Civil Engineering	-	-		-											
Survey/ ALTA	11,300.00	11,300.00		11,300.00											
	-	-													
Financing Costs	-	-													
Construction loan interest	81,098.00	81,098.00				2,416.31	1,212.45	3,634.32	6,067.29	8,511.41	10,966.73	13,433.31	15,911.19	18,945.84	
Construction loan interest after construction	84,980.00	84,980.00													11,814.19
Permanent loan fees	-	-													
Construction loan fees	60,634.00	60,634.00	60,634.00												
Title and recording - Perm	10,000.00	10,000.00		10,000.00											
Title and recording - Owner/Const	35,150.00	35,150.00	35,150.00	-											
Other Costs	-	-													
Tax credit fees	90,752.50	90,752.50		51,822.50											
Security	-	-													
Property insurance	32,500.00	32,500.00		32,500.00											
Real estate taxes during construction	4,000.00	4,000.00											4,000.00		
Marketing	-	-													
Partnership organizational (legal and other)	-	-		-											
Predevelopment loan interest	-	-		-											
Legal - construction lender	25,000.00	25,000.00		25,000.00											
Legal - DHA	-	-		-											
Legal - partnership	85,000.00	85,000.00		85,000.00											
Cost certification	10,000.00	10,000.00													10,000.00
Replacement reserve	-	-													
Operating reserve	90,200.00	90,200.00													
Soft cost contingency	-	-		-	-	-	-	-	-	-	-	-	-	-	-
Total	8,954,858.01	8,954,858.01	783,934.00	1,434,678.76	527,195.39	529,611.70	528,407.84	530,829.71	533,262.68	535,706.80	538,162.12	540,628.70	662,106.58	583,141.23	22,814.19
	8,954,858.01	8,954,858.01	783,934.00	1,434,678.76	527,195.39	529,611.70	528,407.84	530,829.71	533,262.68	535,706.80	538,162.12	540,628.70	662,106.58	583,141.23	22,814.19

Sources	**Original Budget**	**Revised Budget**	**Closing Draw #1**	**Draw #2**	**Draw #3**	**Draw #4**	**Draw #5**	**Draw #6**	**Draw #7**	**Draw #8**	**Draw #9**	**Draw #10**	**Draw #11**	**Draw #12**	**Draw #13**
Limited Partner's equity	7,922,733	7,922,732.65	783,934.00	8,339.00	-	792,273.00								2,139,138.00	
Pre-development Loan	-	-	-	-											
County Loan	-	-			-										-
Construction Loan	`	3,255,216.10	-	618,839.76	527,195.39	(262,661.30)	528,407.84	530,829.71	533,262.68	535,706.80	538,162.12	540,628.70	662,106.58	(1,555,996.77)	22,814.19
CDOH Funding	850,000.00	850,000.00		807,500.00		-	-	-							
City of Grand Junction Housing Loan Fund	-	-			-	-		-	-	-					
Deferred Developer Fee	182,125.36	182,125.36	-												
Total (Less Construction)	#VALUE!	8,954,858.01	783,934.00	1,434,678.76	527,195.39	529,611.70	528,407.84	530,829.71	533,262.68	535,706.80	538,162.12	540,628.70	662,106.58	583,141.23	22,814.19

			Breakeven					8609			
September	October	November	December	January	February	March	April				
Draw #14	Draw #15	Draw #16	Draw #17	Draw #18	Draw #19	Draw #20	Draw #21	Completed To Date	%	Balance To Fund
								449,000.00	5%	0
								110,198.87	1%	0
								60,000.00	1%	0
								32,340.00	0%	0
			-			-	-	-	0%	0
								458,037.00	5%	0
								81,393.00	1%	0
								5,261,546.00	59%	0
								153,133.00	2%	0
								263,077.30	3%	0
								112,000.00	1%	0
								29,000.00	0%	0
								14,000.00	0%	0
								12,000.00	0%	0
								40,000.00	0%	0
								-	0%	0
					303,109.00		390,641.00	925,000.00	10%	0
					308,333.00			308,333.00	3%	0
								-	0%	0
								5,750.00	0%	0
								7,900.00	0%	0
								7,500.00	0%	0
								4,035.00	0%	0
								-	0%	0
								11,300.00	0%	0
								-	0%	0
								-	0%	0
								81,098.84	1%	(1)
11,918.76	11,973.38	12,028.26	12,083.39	12,552.19	12,609.72			84,979.90	1%	0
								-	0%	0
								60,634.00	1%	0
								10,000.00	0%	0
								35,150.00	0%	0
								-	0%	0
					38,930.00			90,752.50	1%	0
								-	0%	0
								32,500.00	0%	0
								4,000.00	0%	0
								-	0%	0
								-	0%	0
								-	0%	0
								25,000.00	0%	0
								-	0%	0
								85,000.00	1%	0
								10,000.00	0%	0
								-	0%	0
			90,200.00					90,200.00	1%	0
			-			-		-	0%	0
11,918.76	11,973.38	12,028.26	102,283.39	12,552.19	662,981.72	-	390,641.00	8,954,858.41	100%	(0)
11,918.76	11,973.38	12,028.26	102,283.39	12,552.19	662,981.72	-	390,641.00	8,954,858.41	1	(0)

			Draw #14			Draw #15	Draw #16	Completed to Date	%	Balance to Fund
					3,802,912		396,137.00	7,922,733.00	100%	(0)
						-		-	#DIV/0!	0
11,918.76	11,973.38	12,028.26	102,283.39	12,552.19	(3,370,051.28)	-		0.41	0%	3,255,216
					42,500.00			850,000.00	100%	0
						-		-	#DIV/0!	0
					187,621.00			187,621.00	103%	(5,496)
11,918.76	11,973.38	12,028.26	102,283.39	12,552.19	662,981.72	-	396,137.00	8,960,354.41		3,249,720

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chfa

denver
1981 Blake Street
Denver, CO 80202
303.297.chfa (2432)
800.877.chfa (2432)

PO Box 60
Denver, CO 80201
800.659.2656 tdd
www.chfainfo.com

western slope
348 Main Street
Grand Junction, CO 81501
970.241.2341
800.877.8450

September 14, 2018

PRELIMINARY RESERVATION OF 2019
LOW-INCOME HOUSING TAX CREDITS

Mr. John Mok-Lamme
Karis Inc.
PO Box 2837
Grand Junction, CO 81502

Re: Karis Apartments

Dear Mr. Mok-Lamme:

The Colorado Housing and Finance Authority (the "**Authority**") hereby advises you of its preliminary reservation ("**Preliminary Reservation**") of Federal Low-Income Housing Tax Credits ("**Federal Credits**") in the amount of $910,750 for the above captioned project.

The Federal Credits will be allocated when the building(s) in the Project are placed in service, section 3.C. of the Allocation Plan ("Final Allocation") or meet the requirements for a carryover allocation, section 3.B. of the Allocation Plan ("Carryover Allocation"). In either case, the amount of the credits will be determined based on the Project owner's certifications, in form and substance satisfactory to the Authority, as to the "qualified basis" of each building in the project, the equity gap, the basis limits determination, and the appropriate "applicable percentage." Such tax credit amount may not exceed that which the Authority determines necessary for the financial feasibility of the project, as determined by the equity gap calculation.

This Preliminary Reservation is subject to, and no credits will be allocated unless, the Project and owner comply with the following conditions:

1. The owner must submit an application for Carryover Allocation by 5:00 p.m., October 1, 2019.

2. This Preliminary Reservation of Federal Credits shall be subject to revocation, in accordance with the Authority's applicable rules and regulations and Allocation Plan, if there is evidence satisfactory to the Executive Director, that sufficient progress toward the construction or acquisition and rehabilitation of the subject building or Project is not supplied to the Authority by the date(s) established by the Authority. All proposed projects which receive Preliminary Reservations of credits will be required to provide status reports in a format prescribed by the Authority outlining progress toward completion. Information requested will be Project specific, and may include, but is not limited to, zoning approvals, firm debt and/or equity financing commitments and, later,

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construction progress. Failure to submit a status report by the specified date also may result in revocation of the Preliminary Reservation.

3. Allocations of credits are subject to payment of the following fees:
   a. An allocation fee in the amount of three percent (3%) of the maximum federal tax credit amount for which the development is eligible, to be paid at either the time of Carryover or Final Allocation, whichever occurs first.

   b. If required by the Authority in connection with a status update, an earlier payment of a portion of the allocation fee to hold a reservation.

   c. At Final Allocation, a fee to offset the costs incurred by the Authority for compliance monitoring as provided in the Allocation Plan.

4. At the time of Final Allocation of Federal Credits, the Authority will require execution of a land use restriction agreement ("**LURA**") by the Project owner, providing for the "extended low-income housing commitment" required by Section 42(h)(6) of the Internal Revenue Code of 1986 (the "**Code**"), incorporating commitments made to the Authority in order to obtain points under the project selection criteria outlined in Section 5 of the Authority's Allocation Plan. The agreement will be recorded as a restrictive covenant with respect to the Project. In the event that a senior lien holder desires the LURA to be subordinate to its senior lien, the Authority is willing to execute a partial subordination which will subordinate the LURA to the senior lien of a lender, except for the requirements in Section 42(h)(6)(E)(ii) of the Code. This provision requires that for the three-year period following termination of the LURA after a foreclosure, neither the eviction of a tenant without good cause, nor the increase of gross rent is permitted.

The Authority reserves the right at any time to revoke this Preliminary Reservation if it determines, in its sole judgment, that the carryover requirements will not be met by the required application submission date. The Authority also reserves the right at any time to revoke this Preliminary Reservation if it determines, in its sole judgment that (i) the building(s) will not be placed in service within 24 months from the Carryover Allocation date or (ii) the building(s) do not in fact constitute "qualified low-income building(s)" eligible for the credit under Section 42 of the Code. Please refer to Section 3.A. of the QAP with regard to Preliminary Reservations.

Section 42(g)(2)(A) of the Code provides that a low-income unit in the project is "rent-restricted" if the gross rent for such unit does not exceed thirty percent (30%) of the imputed income limitation applicable to the unit. Under Revenue Procedure 94-57, the effective date of the income limitation used to establish the gross rent floor for purposes of Section 42(g)(2)(A) is the date the Authority initially allocates a housing credit dollar amount to the Project (that is, the date of a Carryover Allocation or, if no Carryover Allocation is made, the date of Final Allocation) unless the owner designates a building's placed-in-service date as the effective date for the gross rent floor. Such designation must be made by advising the Authority in writing no later than the placed-in-service date. The Authority's application for Carryover Allocation will provide a space for such designation. The

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gross rent floor for projects not seeking a Carryover Allocation will be the date of Final Allocation, which, ordinarily, closely follows the placed-in-service date.

This Preliminary Reservation is made based upon, and is conditioned on, the accuracy, truthfulness and completeness of the information that you have submitted to the Authority. Such information is subject to confirmation at, or prior to, the actual allocation of the credit.

This Preliminary Reservation also is subject to, and may be modified or revoked on account of, any failure to comply, or inconsistency with, applicable proposed, temporary, or final regulations promulgated by the U.S. Department of Treasury with respect to Section 42 of the Code.

This Preliminary Reservation does not constitute a determination or representation by the Authority of the feasibility or viability of the project. The Authority makes no representation concerning any tax consequences resulting from this Preliminary Reservation and accepts no responsibility for any adverse consequences to the Project owner or its investors arising out of this Preliminary Reservation or other information concerning the Federal Credits.

This Preliminary Reservation evidences the Authority's intent to allocate 2019 Federal Credits to the Project.

This Preliminary Reservation expires on October 1, 2019, and is not assignable to another applicant or housing project. This Preliminary Reservation may be transferred to the entity which will own the Project for tax-credit purposes, provided that the transferring reservation holder is a controlling principal of such entity.

Preliminary Reservations will count against the maximum credit award of $1,350,000, (refer to 3.G. of the QAP), as long as they are in compliance with the QAP, and until the Carryover Allocation Agreement has been executed and issued.

If you have any questions, please contact Paula Harrison, at 303 297-7316, or toll-free (800) 877-2432, extension 7316.

Sincerely,

DocuSigned by:
Cris White
EDFF662D77D24B7...

Cris A. White
Executive Director/CEO

Addendum E

LEGAL DESCRIPTION

2.4. Property. The Property is the following legally described real estate in the County of ***Mesa***, Colorado:

Beg. at a point from whence the NE corner pf the SE 1/4 of Sec. 2, T1S, R1W ofthe UM bears S 89 degrees 99` E 310ft. and due N a distance of 330 ft., th from said point of beg. N89 degrees 59` W 218 ft, th due N 330 ft, th S 89 degrees 59` E 218 ft, th due S 330 ft, AND

Com. at a point from whence the E 1/2 corner of Sec. 2, T1S. R1W of the UM bears N a distance of 330 ft, and running th from said point of beg. N 89 degrees 59` W 310 ft, th due N 90 ft, th S 89 degrees 59` E 310 ft, th due S 90 ft. to the point of beginning. As shown on the Attached Exhibit A

known as No. ***3205 N 12th Street, Grand Junction, CO 81506***,

Addendum F

CLIENT CONTRACT INFORMATION

VALUATION & ADVISORY SERVICES

Proposal and Contract for Services

CBRE

CBRE, Inc.
1225 17th Street, Suite 3200
Denver, Colorado 80202
www.cbre.us/valuation

Mark A. Lodmill, MAI
Director

May 9, 2019

Sean P. Curry
Vice President
BOSTON CAPITAL FINANCE LLC
One Boston Place, 22nd Floor
Boston, MA 02108
Phone: 617.624.8532
Email: Scurry@bostoncapital.com

RE: Assignment Agreement
Proposed LIHTC Apartment
Karis Apartments, 3205 N. 12th Street,
Grand Junction, 81502

Dear Mr. Curry:

We are pleased to submit this proposal and our Terms and Conditions for this assignment.

PROPOSAL SPECIFICATIONS

Purpose:	To estimate the Market Value of the referenced real estate and the Insurable Value
Premise:	As Is, As Complete, and As Stabilized (Restricted Rents)
Rights Appraised:	Fee Simple
Intended Use:	Mortgage Underwriting purposes
Intended User:	The intended user is BOSTON CAPITAL FINANCE LLC, Boston Capital Intermediate Term Income Fund II LLC, and CDT entities ("Client"), and such other parties and entities (if any) expressly recognized by CBRE as "Intended Users" (as further defined herein).
Reliance:	Reliance on any reports produced by CBRE under this Agreement is extended solely to parties and entities expressly acknowledged in a signed writing by CBRE as Intended Users of the respective reports, provided that any conditions to such acknowledgement required by CBRE or hereunder have been satisfied. Parties or entities other than Intended Users who obtain a copy of the report or any portion thereof (including Client if it is not named as an Intended User), whether as a result of its direct dissemination or by any other means, may not rely upon any opinions or conclusions contained in the report or such portions thereof, and CBRE will not be responsible for any unpermitted use of the

report, its conclusions or contents or have any liability in connection therewith.

Inspection:	CBRE will conduct a physical inspection of both the interior and exterior of the subject property, as well as its surrounding environs on the effective date of appraisal.
Valuation Approaches:	All three traditional approaches to value will be considered and utilized.
Report Type:	Comprehensive Appraisal Report
Appraisal Standards:	USPAP/FIRREA
Appraisal Fee:	$6,500
Expenses:	Fee includes all associated expenses
Retainer:	A retainer is not required for this assignment
Payment Terms:	Final payment is due upon delivery of the final report or within thirty (30) days of your receipt of the draft report, whichever is sooner. The fee is considered earned upon delivery of the draft report. We will invoice you for the assignment in its entirety at the completion of the assignment.
Delivery Instructions:	CBRE encourages our clients to join in our environmental sustainability efforts by accepting an electronic copy of the report. An Adobe PDF file via email will be delivered to Scurry@bostoncapital.com. The client has requested No (0) bound final copy (ies).
Delivery Schedule:	
Preliminary Value:	Not Required
Draft Report:	15 business days after the Start Date
Final Report:	Upon Client's request
Start Date:	The appraisal process will start upon receipt of your signed agreement and the property specific data.
Acceptance Date:	These specifications are subject to modification if this proposal is not accepted within 5 business days from the date of this letter.

When executed and delivered by all parties, this letter, together with the Terms and Conditions and the Specific Property Data Request attached hereto and incorporated herein, will serve as the Agreement for appraisal services by and between CBRE and Client. Each person signing below represents that it is authorized to enter into this Agreement and to bind the respective parties hereto.

We appreciate this opportunity to be of service to you on this assignment. If you have additional questions, please contact us.

Sincerely,

CBRE, Inc.
Valuation & Advisory Services

Mark A. Lodmill, MAI
Director
As Agent for CBRE, Inc.
T 303.628.7487
mark.lodmill@cbre.com

AGREED AND ACCEPTED

FOR BOSTON CAPITAL FINANCE LLC ("CLIENT"):

[signature]	5/13/19
Signature	Date
Sean P. Curry	VP
Name	Title
617-624-8532	scurry@bostoncapital.com
Phone Number	E-Mail Address

ADDITIONAL OPTIONAL SERVICES

Assessment & Consulting Services: CBRE's Assessment & Consulting Services group has the capability of providing a wide array of solution-oriented due diligence services in the form of property condition and environmental site assessment reports and other necessary due diligence services (seismic risk analysis, zoning compliance services, construction risk management, annual inspections, etc.). CBRE provides our clients the full complement of due diligence services with over 260 employees in the U.S. that are local subject matter experts.

Initial below if you desire CBRE to contact you to discuss a proposal for any part or the full complement of consulting services, or you may reach out to us at WhitePlainsProposals@cbre.com. We will route your request to the appropriate manager. For more information, please visit www.cbre.com/assessment.

[initials] _____ Initial Here

TERMS AND CONDITIONS

1. The Terms and Conditions herein are part of an agreement for appraisal services (the "Agreement") between CBRE, Inc. (the "Appraiser") and the client signing this Agreement, and for whom the appraisal services will be performed (the "Client"), and shall be deemed a part of such Agreement as though set forth in full therein. The Agreement shall be governed by the laws of the state where the appraisal office is located for the Appraiser executing this Agreement.
2. Client shall be responsible for the payment of all fees stipulated in the Agreement. Payment of the appraisal fee and preparation of an appraisal report (the "Appraisal Report, or the "report") are not contingent upon any predetermined value or on an action or event resulting from the analyses, opinions, conclusions, or use of the Appraisal Report. Final payment is due as provided in the Proposal Specifications Section of this Agreement. If a draft report is requested, the fee is considered earned upon delivery of the draft report. It is understood that the Client may cancel this assignment in writing at any time prior to delivery of the completed report. In such event, the Client is obligated only for the prorated share of the fee based upon the work completed and expenses incurred (including travel expenses to and from the job site), with a minimum charge of $500. Additional copies of the Appraisal Reports are available at a cost of $250 per original color copy and $100 per photocopy (black and white), plus shipping fees of $30 per report.
3. If Appraiser is subpoenaed or ordered to give testimony, produce documents or information, or otherwise required or requested by Client or a third party to participate in meetings, phone calls, conferences, litigation or other legal proceedings (including preparation for such proceedings) because of, connected with or in any way pertaining to this engagement, the Appraisal Report, the Appraiser's expertise, or the Property, Client shall pay Appraiser's additional costs and expenses, including but not limited to Appraiser's attorneys' fees, and additional time incurred by Appraiser based on Appraiser's then-prevailing hourly rates and related fees. Such charges include and pertain to, but are not limited to, time spent in preparing for and providing court room testimony, depositions, travel time, mileage and related travel expenses, waiting time, document review and production, and preparation time (excluding preparation of the Appraisal Report), meeting participation, and Appraiser's other related commitment of time and expertise. Hourly charges and other fees for such participation will be provided upon request. In the event Client requests additional appraisal services beyond the scope and purpose stated in the Agreement, Client agrees to pay additional fees for such services and to reimburse related expenses, whether or not the completed report has been delivered to Client at the time of such request.
4. Appraiser shall have the right to terminate this Agreement at any time for cause effective immediately upon written notice to Client on the occurrence of fraud or the willful misconduct of Client, its employees or agents, or without cause upon 30 days written notice.
5. In the event Client fails to make payments when due then, from the date due until paid, the amount due and payable shall bear interest at the maximum rate permitted in the state where the office is located for the Appraiser executing the Agreement. In the event either party institutes legal action against the other to enforce its rights under this Agreement, the prevailing party shall be entitled to recover its reasonable attorney's fees and expenses. Each party waives the right to a trial by jury in any action arising under this Agreement.
6. Appraiser assumes there are no major or significant items or issues affecting the Property that would require the expertise of a professional building contractor, engineer, or environmental consultant for Appraiser to prepare a valid report. Client acknowledges that such additional expertise is not covered in the Appraisal fee and agrees that, if such additional expertise is required, it shall be provided by others at the discretion and direction of the Client, and solely at Client's additional cost and expense.
7. In the event of any dispute between Client and Appraiser relating to this Agreement, or Appraiser's or Client's performance hereunder, Appraiser and Client agree that such dispute shall be resolved by means of binding arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgment upon the award rendered by an arbitrator may be entered in any court of competent jurisdiction. Depositions may be taken and other discovery obtained during such arbitration proceedings to the same extent as authorized in civil judicial proceedings in the state where the office of the Appraiser executing this Agreement is located. The arbitrator shall be limited to awarding compensatory damages and shall have no authority to award punitive, exemplary or similar damages. The prevailing party in the arbitration proceeding shall be entitled to recover its expenses from the losing party, including costs of the arbitration proceeding, and reasonable attorney's

fees. Client acknowledges that Appraiser is being retained hereunder as an independent contractor to perform the services described herein and nothing in this Agreement shall be deemed to create any other relationship between Client and Appraiser. This engagement shall be deemed concluded and the services hereunder completed upon delivery to Client of the Appraisal Report discussed herein.

8. All statements of fact in the report which are used as the basis of the Appraiser's analyses, opinions, and conclusions will be true and correct to Appraiser's actual knowledge and belief. Appraiser does not make any representation or warranty, express or implied, as to the accuracy or completeness of the information or the condition of the Property furnished to Appraiser by Client or others. TO THE FULLEST EXTENT PERMITTED BY LAW, APPRAISER DISCLAIMS ANY GUARANTEE OR WARRANTY AS TO THE OPINIONS AND CONCLUSIONS PRESENTED ORALLY OR IN ANY APPRAISAL REPORT, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE EVEN IF KNOWN TO APPRAISER. Furthermore, the conclusions and any permitted reliance on and use of the Appraisal Report shall be subject to the assumptions, limitations, and qualifying statements contained in the report.
9. Appraiser shall have no responsibility for legal matters, including zoning, or questions of survey or title, soil or subsoil conditions, engineering, or other similar technical matters. The report will not constitute a survey of the Property analyzed.
10. Client shall provide Appraiser with such materials with respect to the assignment as are requested by Appraiser and in the possession or under the control of Client. Client shall provide Appraiser with sufficient access to the Property to be analyzed, and hereby grants permission for entry unless discussed in advance to the contrary.
11. The data gathered in the course of the assignment (except data furnished by Client) and the report prepared pursuant to the Agreement are, and will remain, the property of Appraiser. With respect to data provided by Client, Appraiser shall not violate the confidential nature of the Appraiser-Client relationship by improperly disclosing any proprietary information furnished to Appraiser. Notwithstanding the foregoing, Appraiser is authorized by Client to disclose all or any portion of the report and related data as may be required by statute, government regulation, legal process, or judicial decree, including to appropriate representatives of the Appraisal Institute if such disclosure is required to enable Appraiser to comply with the Bylaws and Regulations of such Institute as now or hereafter in effect.
12. Unless specifically noted, in preparing the Appraisal Report the Appraiser will not be considering the possible existence of asbestos, PCB transformers, or other toxic, hazardous, or contaminated substances and/or underground storage tanks (collectively, "Hazardous Material) on or affecting the Property, or the cost of encapsulation or removal thereof. Further, Client represents that there is no major or significant deferred maintenance of the Property that would require the expertise of a professional cost estimator or contractor. If such repairs are needed, the estimates are to be prepared by others, at Client's discretion and direction, and are not covered as part of the Appraisal fee.
13. In the event Client intends to use the Appraisal Report in connection with a tax matter, Client acknowledges that Appraiser provides no warranty, representation or prediction as to the outcome of such tax matter. Client understands and acknowledges that any relevant taxing authority (whether the Internal Revenue Service or any other federal, state or local taxing authority) may disagree with or reject the Appraisal Report or otherwise disagree with Client's tax position, and further understands and acknowledges that the taxing authority may seek to collect additional taxes, interest, penalties or fees from Client beyond what may be suggested by the Appraisal Report. Client agrees that Appraiser shall have no responsibility or liability to Client or any other party for any such taxes, interest, penalties or fees and that Client will not seek damages or other compensation from Appraiser relating to any such taxes, interest, penalties or fees imposed on Client, or for any attorneys' fees, costs or other expenses relating to Client's tax matters.
14. Appraiser shall have no liability with respect to any loss, damage, claim or expense incurred by or asserted against Client arising out of, based upon or resulting from Client's failure to provide accurate or complete information or documentation pertaining to an assignment ordered under or in connection with this Agreement, including Client's failure, or the failure of any of Client's agents, to provide a complete copy of the Appraisal Report to any third party.
15. LIMITATION OF LIABILITY. EXCEPT TO THE EXTENT ARISING FROM SECTION 16 BELOW, OR SECTION 17 IF APPLICABLE, IN NO EVENT SHALL EITHER PARTY OR ANY OF ITS AFFILIATE, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, OR CONTRACTORS BE LIABLE TO THE OTHER, WHETHER BASED IN CONTRACT, WARRANTY, INDEMNITY, NEGLIGENCE, STRICT LIABILITY OR OTHER TORT OR OTHERWISE, FOR ANY SPECIAL,

CONSEQUENTIAL, PUNITIVE, INCIDENTAL OR INDIRECT DAMAGES, AND AGGREGATE DAMAGES IN CONNECTION WITH THIS AGREEMENT FOR EITHER PARTY (EXCLUDING THE OBLIGATION TO PAY THE FEES REQUIRED HEREUNDER) SHALL NOT EXCEED THE GREATER OF THE TOTAL FEES PAYABLE TO APPRAISER UNDER THIS AGREEMENT OR TEN THOUSAND DOLLARS ($10,000). THIS LIABILITY LIMITATION SHALL NOT APPLY IN THE EVENT OF A FINAL FINDING BY AN ARBITRATOR OR A COURT OF COMPETENT JURISDICTION THAT SUCH LIABILITY IS THE RESULT OF A PARTY'S FRAUD OR WILLFUL MISCONDUCT.

16. Client shall not disseminate, distribute, make available or otherwise provide any Appraisal Report prepared hereunder to any third party (including without limitation, incorporating or referencing the Appraisal Report , in whole or in part, in any offering or other material intended for review by other parties) except to (i) any third party expressly acknowledged in a signed writing by Appraiser as an "Intended User" of the Appraisal Report provided that either Appraiser has received an acceptable release from such third party with respect to such Appraisal Report or Client provides acceptable indemnity protections to Appraiser against any claims resulting from the distribution of the Appraisal Report to such third party, (ii) any third party service provider (including rating agencies and auditors) using the Appraisal Report in the course of providing services for the sole benefit of an Intended User, or (iii) as required by statute, government regulation, legal process, or judicial decree. In the event Appraiser consents, in writing, to Client incorporating or referencing the Appraisal Report in any offering or other materials intended for review by other parties, Client shall not distribute, file, or otherwise make such materials available to any such parties unless and until Client has provided Appraiser with complete copies of such materials and Appraiser has approved all such materials in writing. Client shall not modify any such materials once approved by Appraiser. In the absence of satisfying the conditions of this paragraph with respect to a party who is not designated as an Intended User, in no event shall the receipt of an Appraisal Report by such party extend any right to the party to use and rely on such report, and Appraiser shall have no liability for such unauthorized use and reliance on any Appraisal Report. In the event Client breaches the provisions of this paragraph, Client shall indemnify, defend and hold Appraiser, and its affiliates and their officers, directors, employees, contractors, agents and other representatives (Appraiser and each of the foregoing an "Indemnified Party" and collectively the "Indemnified Parties"), fully harmless from and against all losses, liabilities, damages and expenses (collectively, "Damages") claimed against, sustained or incurred by any Indemnified Party arising out of or in connection with such breach, regardless of any negligence on the part of any Indemnified Party in preparing the Appraisal Report.

17. Furthermore, Client shall indemnify, defend and hold each of the Indemnified Parties harmless from and against any Damages in connection with (i) any transaction contemplated by this Agreement or in connection with the appraisal or the engagement of or performance of services by any Indemnified Party hereunder, (ii) any Damages claimed by any user or recipient of the Appraisal Report, whether or not an Intended User, (iii) any actual or alleged untrue statement of a material fact, or the actual or alleged failure to state a material fact necessary to make a statement not misleading in light of the circumstances under which it was made with respect to all information furnished to any Indemnified Party or made available to a prospective party to a transaction, or (iv) an actual or alleged violation of applicable law by an Intended User (including, without limitation, securities laws) or the negligent or intentional acts or omissions of an Intended User (including the failure to perform any duty imposed by law); and will reimburse each Indemnified Party for all reasonable fees and expenses (including fees and expenses of counsel) (collectively, "Expenses") as incurred in connection with investigating, preparing, pursuing or defending any threatened or pending claim, action, proceeding or investigation (collectively, "Proceedings") arising therefrom, and regardless of whether such Indemnified Party is a formal party to such Proceeding. Client agrees not to enter into any waiver, release or settlement of any Proceeding (whether or not any Indemnified Party is a formal party to such Proceeding) without the prior written consent of Appraiser (which consent will not be unreasonably withheld or delayed) unless such waiver, release or settlement includes an unconditional release of each Indemnified Party from all liability arising out of such Proceeding.

18. Time Period for Legal Action. Unless the time period is shorter under applicable law, except in connection with paragraphs 16 and 17 above, Appraiser and Client agree that any legal action or lawsuit by one party against the other party or its affiliates, officers, directors, employees, contractors, agents, or other representatives, whether based in contract, warranty, indemnity, negligence, strict liability or other tort or otherwise, relating to (a) this Agreement or the Appraisal Report, (b) any services or appraisals under this Agreement or (c) any acts or conduct relating to such services or appraisals, shall be filed within two (2) years from the date of delivery to Client of the Appraisal Report to which the claims or causes of action in the legal action or lawsuit relate. The time period stated in this section shall not be extended by any incapacity of a party or any delay in the discovery or accrual of the underlying claims, causes of action or damages.

Proposal and Contract for Services

SPECIFIC PROPERTY DATA REQUEST

In order to complete this assignment under the terms outlined, CBRE, Inc., Valuation & Advisory Services, will require the following specific information for the property:

1. PLEASE NOTIFY US IMMEDIATELY IF ANY OTHER CBRE SERVICE LINE (INCLUDING CAPSTONE) IS INVOLVED IN THE BROKERAGE, FINANCING, INVESTMENT OR MANAGEMENT OF THIS ASSET.
2. Current title report and title holder name
3. Legal description
4. Survey and/or plat map
5. Site plan for proposed or entitled development
6. Current county property tax assessment or tax bill
7. Details on any sale, contract, or listing of the property within the past three years
8. Engineering studies, soil tests or environmental assessments
9. Building plans and specifications, including square footage for all buildings and units
10. Ground lease, if applicable
11. Details regarding any planned rental concessions to be included in the initial lease-up of the project
12. Details regarding all personal property, including furniture, fixtures, and equipment
13. Details regarding the development costs, including land costs
14. Pro forma income and expense projections
15. Budgeted occupancy report
16. Details regarding construction timeline
17. Marketing plan, absorption projections and/or local competitive study
18. Any previous market/demand studies or appraisals
19. Name and telephone number of property contact for physical inspection and additional information needed during the appraisal process
20. Any other information that might be helpful in valuing this property

If any of the requested data and information is not available, CBRE, Inc., reserves the right to extend the delivery date by the amount of time it takes to receive the requested information or make other arrangements. Please have the requested information delivered to the following:

Mark A. Lodmill, MAI
Director
mark.lodmill@cbre.com
CBRE, Inc.
Valuation & Advisory Services
1225 17th Street, Suite 3200
Denver, Colorado 80202

Addendum G

QUALIFICATIONS

Mark Lodmill, MAI

Director, Colorado

T + 303 628 7487
M +303 489 6955
Mark.Lodmill@cbre.com

1225 Seventeenth Street
Suite 3200
Denver, Colorado 80202

Clients Represented

- Walker & Dunlop, LLC
- Berkeley Point Capital, LLC
- PNC Bank
- HFF, LLC
- Grandbridge Real Estate Capital, LLC
- Northmarq Capital, LLC
- Berkadia Commercial Mortgage, LLC
- COMERICA
- Arbor Realty Trust, Inc.
- Essex Financial Group
- Citibank, N.A.
- Hunt Mortgage Group
- Prudential Multifamily Mortgage, LLC
- AIG Asset Management
- Inland Real Estate
- SunTrust
- MidFirst Bank
- RERC, Inc.
- Voya Financial
- Terrix Financial

Experience

Mark Lodmill, MAI is a Director at CBRE with over 20 years of real estate appraisal and consulting experience. Mr. Lodmill is in the Valuation & Advisory Services group's Denver office within the Intermountain Region. Mr. Lodmill's primary geographical location is the Front Range of Colorado. Past experience has included assignments throughout Colorado, Wyoming, Montana, Idaho, New Mexico, Washington, South Dakota, Iowa, Minnesota, and Nebraska.

For over the past 15 years, Mr. Lodmill has specialized in the valuation of multifamily properties. He is a member of CBRE's Student Housing and National Multifamily Groups. His experience includes providing consultations, reviews, market studies, rent analyzes, feasibility studies, and litigation support.

Mr. Lodmill's experience encompasses a wide variety of property types focusing on multifamily, but past work includes auto dealerships, data centers, office buildings, industrial buildings, self storage facilities, quarries, mobile home parks, cold storage facilities, food processing facilities, retail buildings, car washes, gas stations, and restaurants.

As a Director, Mr. Lodmill leads the Colorado Multifamily Practice Team that focuses on multifamily valuations throughout the front range of Colorado including Denver, Boulder, Greeley, Fort Collins and Colorado Springs.

Mr. Lodmill began with CBRE in 1997 at Torto Wheaton Research (TWR) as part of Northeastern University's Cooperative Education program in Boston. After graduation, a transfer within CBRE brought him to the Denver office and Valuation & Advisory Services in 1998.

Mr. Lodmill is also a member of the Business Innovation Committee and the National Multifamily Leadership Council within CBRE Valuation & Advisory Services.

Mr. Lodmill was the top producer in the Colorado market between 2010 and 2017 and was the top producer in the Mountain Pacific Northwest Region in 2017.

Professional Affiliations / Accreditations

- Appraisal Institute - Designated Member (MAI), Member No. 411048
- Apartment Association of Metro Denver - Member
- Certified General Real Estate Appraiser, State of Colorado, #CG.040016012

Education

- Northeastern University, Boston, Massachusetts
  - Bachelor of Science, Economics, Magna Cum Laude (Honors Program)

Mark A Lodmill
1225 17th Street #3200
Denver, CO 80202

State of Colorado
Department of Regulatory Agencies
Division of Real Estate

COPY

Board of Real Estate Appraisers

Mark A Lodmill

Certified General Appraiser

License #: CG.040016012
Status: Active
Expires: 12/31/2019

Marcia Waters

Director: Marcia Waters

For the most up to date information regarding this credential, visit http://dora.colorado.gov/dre

CBRE VALUATION & ADVISORY SERVICES

MARK LODMILL
Valuation & Advisory Services
+1-303-6287487
Tom.Baroch@cbre.com

www.cbre.com

CBRE

RECORDING MEMORANDUM
ALTERNATIVE PARKING PLAN

City of Grand Junction
Community Development Department
File: # SSU-2019-176

This memorandum relates to the Karis Apartments located at 3175 North 12th Street located in the City of Grand Junction, Colorado ("PROJECT") whereby 34 multi-family dwelling units are proposed for Low Income residents. This project has provided documentation and analysis that the PROJECT will create a lower parking demand than is otherwise required by the City Zoning and Development Code.

This Memorandum shall serve as notice to prospective purchasers of the PROJECT that the parking on the project does not meet City standards for multi-family and a change of use or change of purpose from low income housing owned and operated by Karis, Inc. may require additional parking to be constructed.

1. City Code at time of PROJECT approval requires ___ parking stalls.

2. An Alternative Parking Plan providing 23 standard parking stalls and 2 ADA parking stalls has been approved.

NOW THEREFORE, the Owner of the PROJECT and an official of the City of Grand Junction, both possessing and representing by their signatures that they possess sufficient authority, do hereby agree to the statements herein and to the recording of this memorandum with the Mesa County Clerk and Recorder.

City of Grand Junction: _____ Date: _____

Owner: _____ Date: _____

Printed Name: _____

City of Grand Junction
Review Comments

Date: August 1, 2019 **Comment Round No.** 3 **Page No.** 1 of 4

SPN-2019-174

Project Name: Karis Apartments & Karis Subdivision **File No:** SSU-2019-182

Project Location: 3205 N. 12th Street

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

	Property Owner(s):	
[ ]	**Mailing Address:**	
[ ]	**Email:**	**Telephone:**
[ ]	**Date Picked Up:**	**Signature:**

	Representative(s):	Shopworks Architecture – Attn: Kyle Mead
[ ]	**Mailing Address:**	301 W. 45th Avenue, Denver, CO 80216
[X]	**Email:** kyle@shopworksarc.com	**Telephone:** (303) 433-4094 Ext. 105
[ ]	**Date Picked Up:**	**Signature:**

	Developer(s):	Karis Inc. – Attn: John Mok-Lamme
[ ]	**Mailing Address:**	P. O. Box 2837, Grand Junction, CO 81502
[X]	**Email:** jmoklamme@karisinc.org	**Telephone:** (970) 234-1810
[ ]	**Date Picked Up:**	**Signature:**

CITY CONTACTS

Project Manager: Scott D. Peterson, Senior Planner
Email: scottp@gjcity.org **Telephone:** (970) 244-1447

Dev. Engineer: Jarrod Whelan
Email: jarrodw@gjcity.org **Telephone:** (970) 244-1443

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING

1. Site Plan (Sheet C4.00):
Revise Legend Block to the correct icon for a Proposed Fence as identified along the north and west property lines. Also, label proposed fence location on Site Plan to match locations as identified on Landscaping Plan.
Code Reference: V-22 of the SSIDS Manual.
Applicant's Response: **Proposed fence line type changed to match legend. (ACG)**
Document Reference: **C4.00**

2. Landscaping Plan (Sheet LS101 & LS102):
Revise Landscape Table per email dated July 31, 2019 between Kyle Mead and Scott Peterson.
Code Reference: V-10 of the SSIDS Manual.
Applicant's Response: **Landscape tables have been updated to clarify planting counts per email correspondence referenced.**

Document Reference: **LS101 & LS102**

3. Fees:
City Open Space Fee: Submit MAI Appraisal Report for determination of this fee (10% of the value of the raw land) payable at time of Planning Clearance issuance (Appraisal shall only account for the 2.19 acres of the property that Karis is developing – proposed Lot 2, Karis Subdivision). *This comment is a carry-over from the 2nd Round of Review Comments and was not addressed by the applicant.*
Code Reference: Section 21.06.020 of the Zoning and Development Code.
Applicant's Response: **Appraisal value has been provided; fees will be paid at the time of planning clearance. Applicant will coordinate invoice with Planning Department.**
Document Reference: **N/A**

4. Subdivision Plat:
There are 5 private easements to be dedicated by separate instrument appearing on the plat, however only 4 private easements appear in the City Use Block. Please add reception number and title for the 5th private easement to the City Use Block.
Code Reference: V-15 of the SSIDS Manual.
Applicant's Response: **Plat revised to include all 5 private easements. (Polaris)**
Document Reference: **Subdivision Plat**

5. Declaration of Easements Document:
a. Revise document to be more clear. Example: List separately each proposed easement as Exhibit A (metes/bounds legal), Exhibit B (map exhibit), Exhibit C (metes/bounds legal), Exhibit D (map exhibit), E, F, etc. As proposed, it is hard to tell the difference between what legal descriptions and map exhibits/easements correspond with each easement reference as identified within the Recitals and Declarations.
b. Revise document to match proposed subdivision plat easements. References are made between Lots 1 & 2 and vice versa, which sometimes don't match. Example 10' wide Utility Easement as identified within Recital C should be between Lots 2 and 1, not Lots 1 & 2 as currently identified.
c. In Recitals A., describe "the Property" as the legal description of entire property (metes/bounds legal of current parcel) rather than only by the address of 3205 N. 12th Street.
c. Contact Assistant City Attorney, Jamie Beard at (970) 256-4032 or jamieb@gjcity.org for additional questions and clarification in preparing this document.
Code Reference: IV-2 of the SSIDS Manual.
Applicant's Response: **Revised legals and exhibits provided for use with the declarations. (Polaris).**
Document Reference: **Karis SDP Declaration of Easements**

CITY DEVELOPMENT ENGINEER

PLANS
Review Comment: C5.00

There is an existing fire hydrant shown on C4.00 on the south property line. Please add this to the utility composite plan since other proposed fire hydrants are being shown and label each fire hydrant as "proposed" or "existing."
Applicant's Response: **Existing and proposed fire hydrants identified on utility composite plan.**
Document Reference: **C5.00**

Review Comment: C8.30

Following a site visit, Staff has determined that the south side of the lot from the stormwater pond, heading west to the proposed ped path, shall be graded to direct stormwater runoff into the detention pond to prevent cross-lot drainage. Understandably, this is the historical drainage path, however, this opportunity, especially during a mass grading process, to direct onsite drainage to the site-specific pond shall be taken.

Applicant's Response: **Grading between stormwater pond and pedestrian path re-graded to capture the majority of the south end of the landscaped area. There is a narrow strip along the southern boundary that will drain as it did historically to the south. (ACG)**

Document Reference: **C8.30**

Upon the engineer making these corrections, no further review is required.

Applicant's Response: **Noted, thank you.**

Document Reference: **N/A.**

CITY SURVEYOR – Peter Krick – peterk@gjcity.org (970) 256-4003

No comments or suggestions.

Applicant's Response: **Noted, thank you.**

Document Reference: **N/A.**

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

- No objection.
- ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY.
- If you have any questions concerning any of this, please feel free to contact Ute Water.

Applicant's Response:

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

O & M Agreement, SWMP, Construction Drawings and Drainage Report on file. 5-2-1 app, fees and CDPHE permit copy remain before permit can be issued.

Applicant's Response: **General Contractor is procuring 5-2-1 application and CDPHE permit. Copies of both will be conveyed to Mark Barslund upon acquiring.**

Review Agency: Grand Valley Water User's
Contact Name: Kevin Conrad
Email / Telephone Number: office@gvwua.com (970) 242-5065

Grand Valley Water users have no issues with the development in general but there are issues with 2 irrigation lines on the property one along the East side of the lot the other on the west side of the Lot. Neither line is owned or operated by GVWUA but they are fed by us. The line on the east side is failing and at times causes flooding and our ditch rider has to respond turning the water down or off until the problem is solved. The line to the east is undersized for the amount of water needed for users downstream. We would highly recommend these two lines be upgraded during the development even though we have no jurisdiction over them.

Applicant's Response: **Noted. Irrigation improvements will be evaluated by the development team as budget allows.**

REVIEW AGENCIES

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have not responded as of the comment due date.

1. N/A.

The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

1. **N/A. Application is Conditionally Approved. Please revise respective documents as applicable according to Review Agency comments prior to final City Approval signatures and Planning Clearance issuance.**

Date due by: **N/A.**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Kyle Mead, Shopworks Architecture — 8/9/2019

Applicant's Signature — **Date**

City of Grand Junction
Review Comments

Date: May 3, 2019 **Comment Round No.** 1 **Page No.** 1
Project Name: Karis Simple Subdivision **File No:** SSU-2019-182
Project Location: 3205 North 12th Street

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s): Unity Church
[ ] **Mailing Address:** 3205 North 12th Street, Grand Junction, CO 81502
[ ] **Email:** **Telephone:** 970 243-3550
[ ] **Date Picked Up:** **Signature:**

Representative(s): Shopworks Architecture
[ ] **Mailing Address:** 301 West 45th Avenue, Denver, CO 80216
[X] **Email:** kyle@shopworksarc.com **Telephone:** 303 433-4094
[ ] **Date Picked Up:** **Signature:**

Developer(s): Karis Inc.
[ ] **Mailing Address:** P.O. Box 2837, Grand Junction, CO 8150
[X] **Email:** jmoklamme@karisinc.org **Telephone:** 970 234-1810
[ ] **Date Picked Up:** **Signature:**

CITY CONTACTS

Project Manager: Tom Dixon
Email: tomdi@gjcity.org **Telephone:** 970 244-1422

Dev. Engineer: Jarrod Whelan
Email: jarrodw@gjcity.org **Telephone:** 970 244-1443

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING – Tom Dixon

Comments:

- Both lots meet minimum the requirements of dimensional development standards.
- The creation of a lot for multi-family use is consistent with the City's efforts to provide affordable housing options.
- Lot 2 will be subject to the City's Open Space fee which is 10% of the appraised value of raw land. A land appraisal of the entire 3.68 acres must be provided to the City and the 10% calculation will be taken only for the portion of the 2.19-acre lot (which comes out at 59.5%). For purposes of payment, Karis Inc. would be responsible for 59.5% of the 10% value.

CITY DEVELOPMENT ENGINEER – Jarrod Whelan

Comment:

No exceptions taken.

CITY SURVEYOR – Peter Krick – peterk@gjcity.org (970) 256-4003

Comments:

Sheet 1 of 2

No comments

Sheet 2 of 2

No comments

CITY FIRE DEPARTMENT – Steve Kollar – stevek@gjcity.org (970) 549-5800

Comments:

GJFD has no objections to the proposed simple subdivision.

CITY ADDRESSING – Pat Dunlap – patd@gjcity.org (970) 256-4030

Comments:

1. Karis Subdivision is an acceptable name.

2. The address for Lot 1 will remain 3205 N 12th Street.

3. The address for Lot 2 will be 3197 N 12th Street.

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Mesa County Building Department
Contact Name: Darrell Bay
Email / Telephone Number: Darrell.bay@mesacounty.us (970) 244-1651

Comments:

MCBD has no objections to this project.

All building code related items will be addressed during plan review.

Review Agency: Xcel Energy
Contact Name: Brenda Boes
Email / Telephone Number: Brenda.k.boes@xcelenergy.com (970) 244-2698

Comments:

Xcel has no objections.

Developer needs to be aware that cost to bring utilities to lots will be at their costs.

Additional cost may be incurred if reinforcement is determined by area engineer due to added load for existing main.

Completion of this City/County review approval process does not constitute an application with Xcel Energy for utility installation. Applicant will need to contact Xcel Energy's Builder's Call Line/Engineering Department to request a formal design for the project.

A full set of plans, contractor, and legal owner information is required prior to starting any part of the construction. Failure to provide required information prior to construction start will result in delays providing utility services to your project. Acceptable meter and/or equipment locations will be

determined by Xcel Energy as a part of the design process. Additional easements may be required depending on final utility design and layout. Engineering and Construction lead times will vary depending on workloads and material availability. Relocation and/or removal of existing facilities will be made at the applicant's expense and are also subject to lead times referred to above. All Current and future Xcel Energy facilities' must be granted easement

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

Comments:

• No objection.

• ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY.

• If you have any questions concerning any of this, please feel free to contact Ute Water.

Review Agency: Grand Valley Drainage District
Contact Name: Tim Ryan
Email / Telephone Number: tim.admin@gvdd.org (970) 242-4343

Comments:

GVDD has no comments, project is outside the District.

REVIEW RESPONSE

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have responded with "No Comment."

1.

The following Review Agencies have not responded as of the comment due date.

1.

The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

1.

Date due:

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Applicant's Signature	**Date**

Print Form

OWNERSHIP STATEMENT - CORPORATION OR LIMITED LIABILITY COMPANY

(a) Unity Church ("Entity") is the owner of the following property:

(b) Vacant land owned by Unity Church at 3205 N. 12th Street, Grand Junction, CO 81506- legal description attached

A copy of the deed(s) evidencing the owner's interest in the property is attached. Any documents conveying any interest in the property to someone else by the owner are also attached.

I am the (c) minister for the Entity. I have the legal authority to bind the Entity regarding obligations and this property. I have attached the most recent recorded Statement of Authority of the Entity.

○ My legal authority to bind the Entity both financially and concerning this property is unlimited.

⊗ My legal authority to bind the Entity financially and/or concerning this property is limited as follows:

With board consent.

⊗ The Entity is the sole owner of the property.

○ The Entity owns the property with other(s). The other owners of the property are:

On behalf of Entity, I have reviewed the application for the (d) Site plan development

I have the following knowledge or evidence of a possible boundary conflict affecting the property:

(e) None

I understand the continuing duty of the Entity to inform the City planner of any changes regarding my authority to bind the Entity and/or regarding ownership, easement, right-of-way, encroachment, lienholder and any other interest in the land.

I swear under penalty of perjury that the information in this Ownership Statement is true, complete and correct.

Signature of Entity representative: J. Douglas Bottorff

Printed name of person signing: J Douglas Bottorff

State of Colorado)

County of Mesa) ss.

Subscribed and sworn to before me on this 1st day of April, 2019

by J Douglas Bottorff

Witness my hand and seal.

My Notary Commission expires on 4-13-2019

Beverly Jackson

Notary Public Signature

BEVERLY JACKSON NOTARY PUBLIC STATE OF COLORADO

RECEPTION#: 2783858, at 12/12/2016 2:51:08 PM, 1 of 2
Recording: $16.00, Sheila Reiner, Mesa County, CO. CLERK AND RECORDER

State Documentary Fee
Date: December 06, 2016
$0.00
No Dec Fee Required

Quit Claim Deed

(Pursuant to 38-30-116 C.R.S.)

THIS DEED, made on December 06, 2016 by UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION Grantor(s), of the County of MESA and State of COLORADO for the consideration of *** Ten Dollars and Other Good and Valuable Consideration *** dollars in hand paid, hereby sells and quitclaims to UNITY CHURCH, A COLORADO NON-PROFIT CORPORATION Grantee(s), whose street address is PO BOX 1904 GRAND JUNCTION, CO 81502 County of MESA, State of COLORADO, the following real property in the County of MESA, and State of Colorado, to wit:

SEE ATTACHED "EXHIBIT A"
also known by street and number as 3205 N 12TH ST GRAND JUNCTION CO 81506

with all its appurtenances.

J DOUGLAS BOTTORFF, AS MINISTER OF UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION

MARILYN ADAMS, AS TREASURER OF UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION

State of COLORADO)
)ss
County of MESA)

The foregoing instrument was acknowledged before me this day of December 07, 2016 by J DOUGLAS BOTTORFF, AS MINISTER AND MARILYN ADAMS, AS TREASURER OF UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION

DANIELLE L. VANCONETT
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #20114008152
My Commission Expires February 15, 2019

Notary Public
My commission expires 2/15/2019
County of Mesa

When recorded return to: UNITY CHURCH, A COLORADO NON-PROFIT CORPORATION
PO BOX 1904 GRAND JUNCTION, CO 81502

Form 13038 02/2011 qcd.odt GJNA65031234 (27055210)

EXHIBIT A

BEGINNING AT THE E 1/4 CORNER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN, WHICH POINT IS THE NE CORNER OF THE TRACT;
THENCE DUE SOUTH 240.0 FEET TO THE SE CORNER;
THENCE NORTH 89°59' WEST 310.0 FEET TO THE SE CORNER;
THENCE DUE NORTH 240.0 FEET TO THE NW CORNER;
THENCE SOUTH 89°59' EAST 310.0 FEET TO THE PLACE OF BEGINNING;

AND

BEGINNING AT A POINT WHICH BEARS N89°59'W 40.0 FEET FROM THE EAST1/4 CORNER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN;
THENCE SOUTH 240.0 FEET;
THENCE N89°59'W 10.0 FEET;
THENCE SOUTH 90.0 FEET;
THENCE N89°59'W 478.0 FEET;
THENCE NORTH 330.0 FEET;
THENCE S89°59'E 488.0 FEET TO THE POINT OF BEGINNING,

MESA COUNTY, COLORADO.

Sheila Reiner, Mesa County Treasurer
544 Rood Ave - Grand Junction CO 81501
Dept. 5027 - PO Box 20,000 - Grand Junction CO 81502-5001
Phone Number: (970) 244-1824

Account Number R052676 | Parcel 294502400059

Acres 3.640

Assessed To | UNITY CHURCH
PO BOX 1904
GRAND JUNCTION, CO 81502-1904

Legal Description

BEG N 89DEG59' W 40FT FR E4 COR SEC 2 1S 1W S 240FT N 89DEG59' W 10FT S 90FT N 89DEG59' W 478FT N 330FT S 89DEG59' E 488FT TO BEG

Situs Address

3205 N 12TH ST

Year	Tax	Interest	Fees	Payments	Balance
Grand Total Due as of 03/21/2019					**$0.00**

Tax Billed at 2018 Rates for Tax Area 14100 - 14100

Authority	Mill Levy	Amount
COLORADO RIVER WATER CONSER	0.2560000	$0.00
MESA CNTY ROAD & BRIDGE-GRA	0.2215000	$0.00
CITY OF GRAND JUNCTION	8.0000000	$0.00
GRAND RIVER MOSQUITO CONTRO	1.4520000	$0.00
LIBRARY DISTRICT	3.0590000	$0.00
COUNTY - DEVELOP DISABLED	0.2840000	$0.00
COUNTY GENERAL FUND	9.2680000*	$0.00
COUNTY ROAD & BRIDGE-1/2 LE	0.2215000	$0.00
SOCIAL SERVICES	2.3600000	$0.00
COUNTY TRANSLATOR TV FUND	0.0020000	$0.00
SCHOOL DIST# 51 GENERAL	24.3280000	$0.00
SCHOOL DIST# 51 BOND	10.3380000	$0.00
SCHOOL DIST# 51 OVERRIDE 96	2.8720000	$0.00
SCHOOL DIST# 51 2006 OVERID	2.3730000	$0.00
SCHOOL DIST# 51 2017 OVERRI	3.8570000	$0.00
UTE WATER CONSERVANCY	0.5000000	$0.00
Taxes Billed 2018	69.3920000	$0.00

* Credit Levy

Values	Actual	Assessed
CHURCH - CHAPEL	$72,800	$21,110
CHAPEL	$224,160	$65,010
Total	$296,960	$86,120

Legal Description

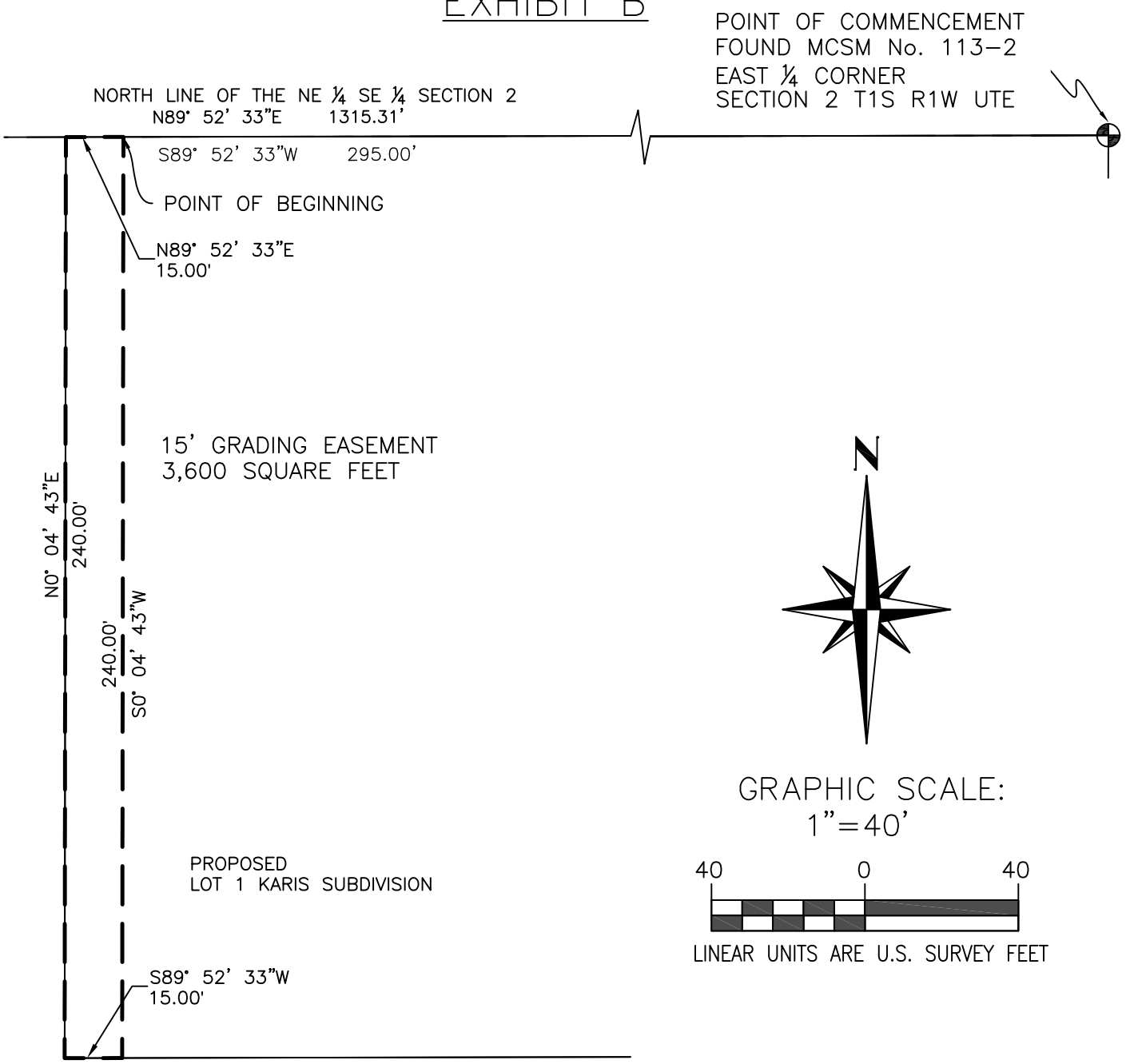
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04’43” W, thence S 89°52’33” W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 295.00 feet to the Point of Beginning:

Thence S 0°04’43” W a distance 240.00 feet;
Thence S 89°52’33” W a distance of 15.00 feet;
Thence N 0°04’43” E a distance of 240.00 feet;
Thence N 89°52’33” E a distance of 15.00 feet to the Point of Beginning.

Said parcel contains 3,600 square feet as described.

EXHIBIT B



Legal Description Sketch

Karis Subdivision

15' Grading Easement

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434-7038

Legal Description

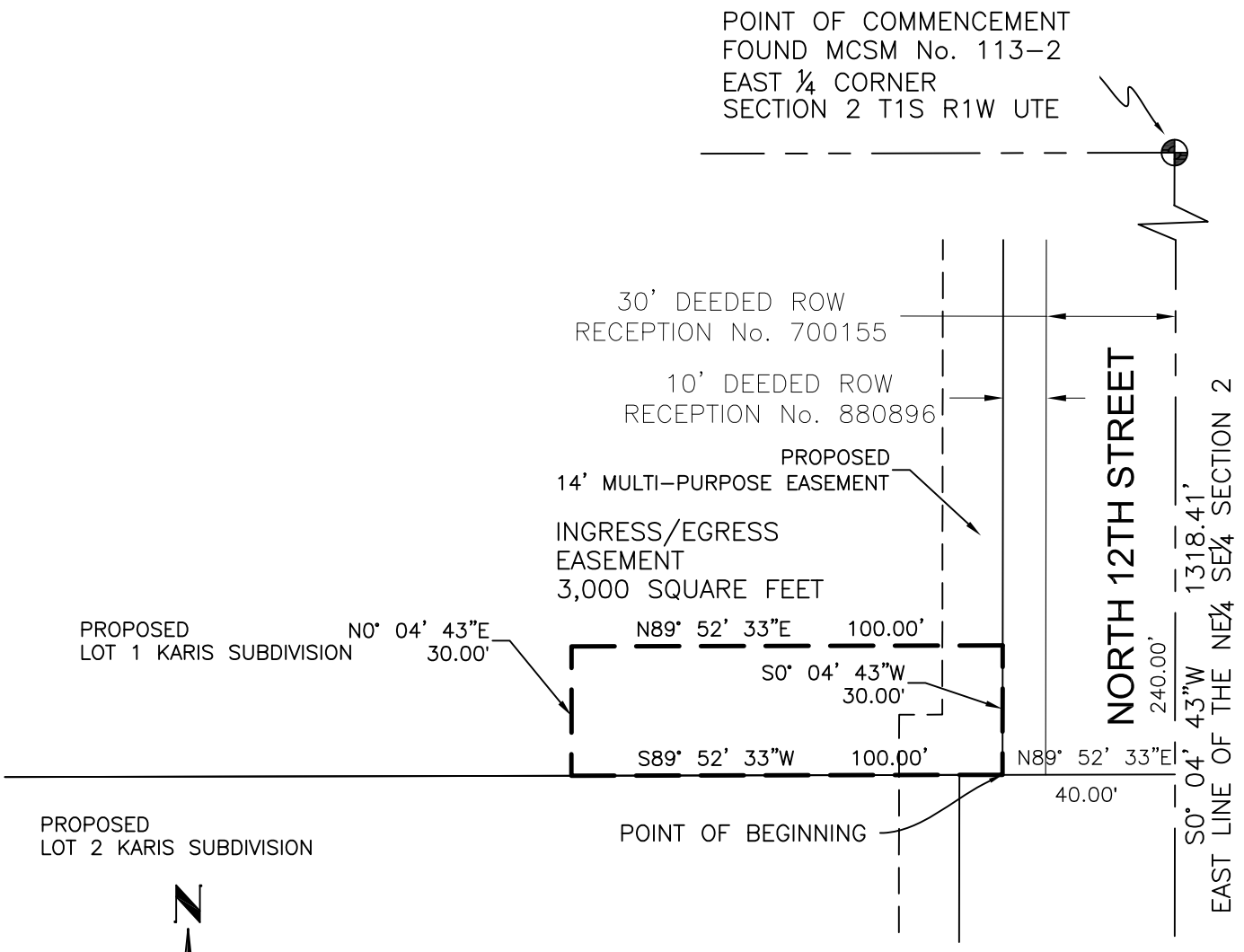
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

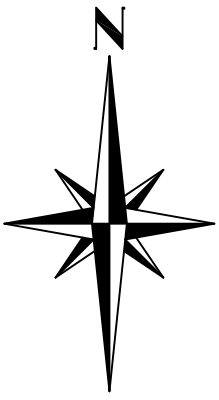
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 240.00 feet; thence S 89°52'33" W a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W a distance 100.00 feet;
Thence N 0°04'43" E a distance of 30.00 feet;
Thence N 89°52'33" E a distance 100.00 feet;
Thence S 0°04'43" W a distance of 30.00 feet to the Point of Beginning;

Said parcel contains 3,000 square feet as described.

EXHIBIT B

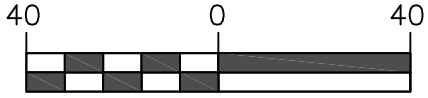




Legal Description Sketch

Karis Subdivision
Ingress/Egress Easement

GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434–7038

Legal Description

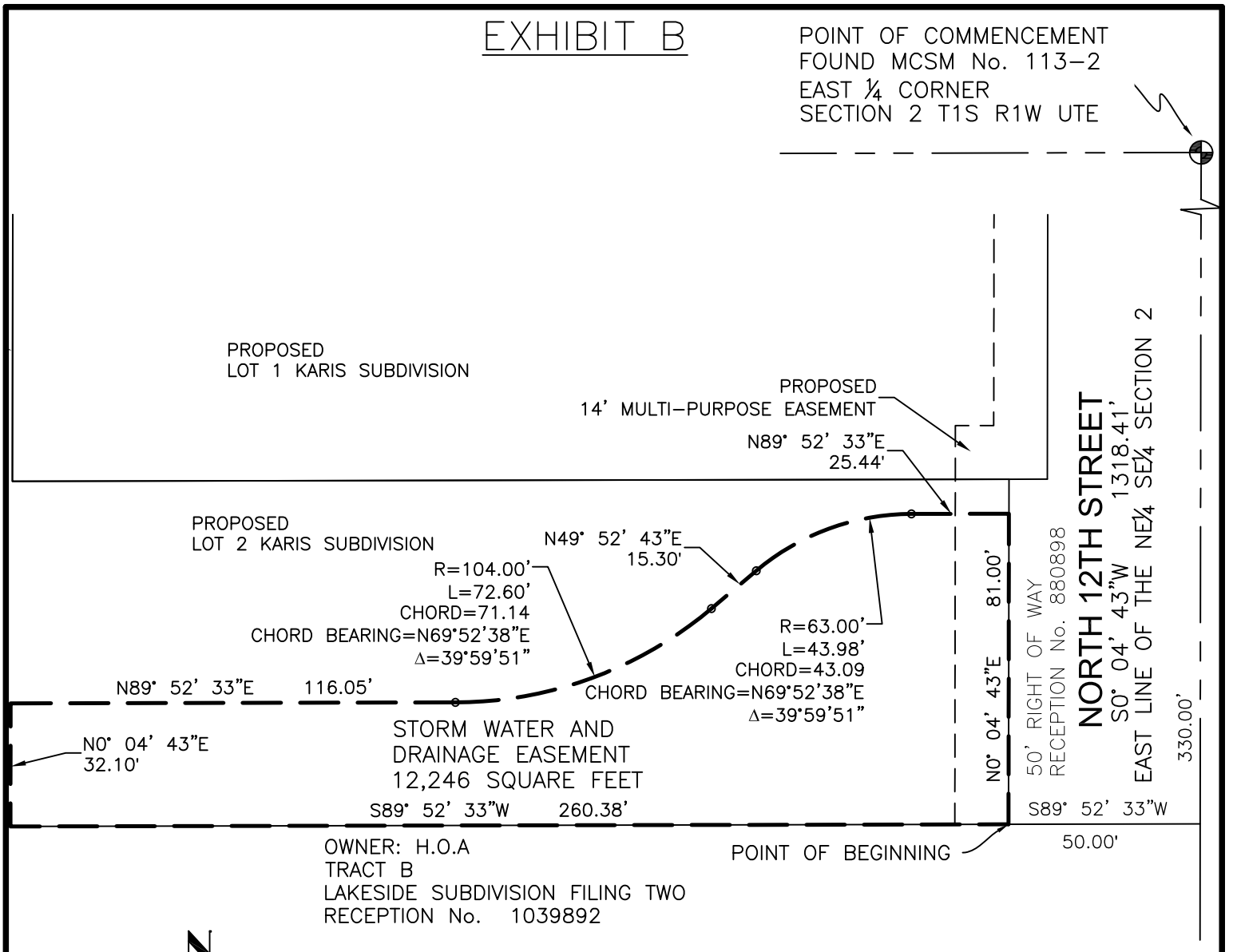
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

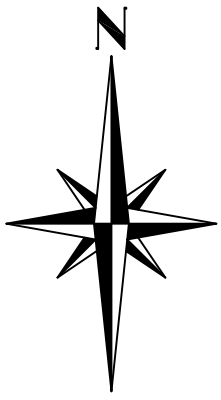
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 330.00 feet; thence S 89°52'33" W a distance of 50.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880898, the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W along the North Line of said Lakeside Subdivision Filing Two a distance 260.38 feet;
Thence N 0°04'43" E a distance of 32.10 feet;
Thence N 89°52'33" E a distance 116.05 feet to the start of a curve to the left;
Thence 72.60 feet along said curve to the left with a radius of 104.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 71.14 feet;
Thence N 49°52'43" E a distance of 15.30 feet to the start of a curve to right;
Thence 43.98 feet along said curve to the right with a radius of 63.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 43.09 feet;
Thence N 89°52'33" E a distance of 25.44 feet to the West Right of Way for said 12th Street;
Thence S 0°04'43" W along said Right of Way a distance of 81.00 feet to the Point of Beginning.

Said parcel contains 12,246 square feet as described.

EXHIBIT B





Legal Description Sketch

Karis Subdivision

Storm Water and Drainage Easement

GRAPHIC SCALE:

1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434–7038

Legal Description

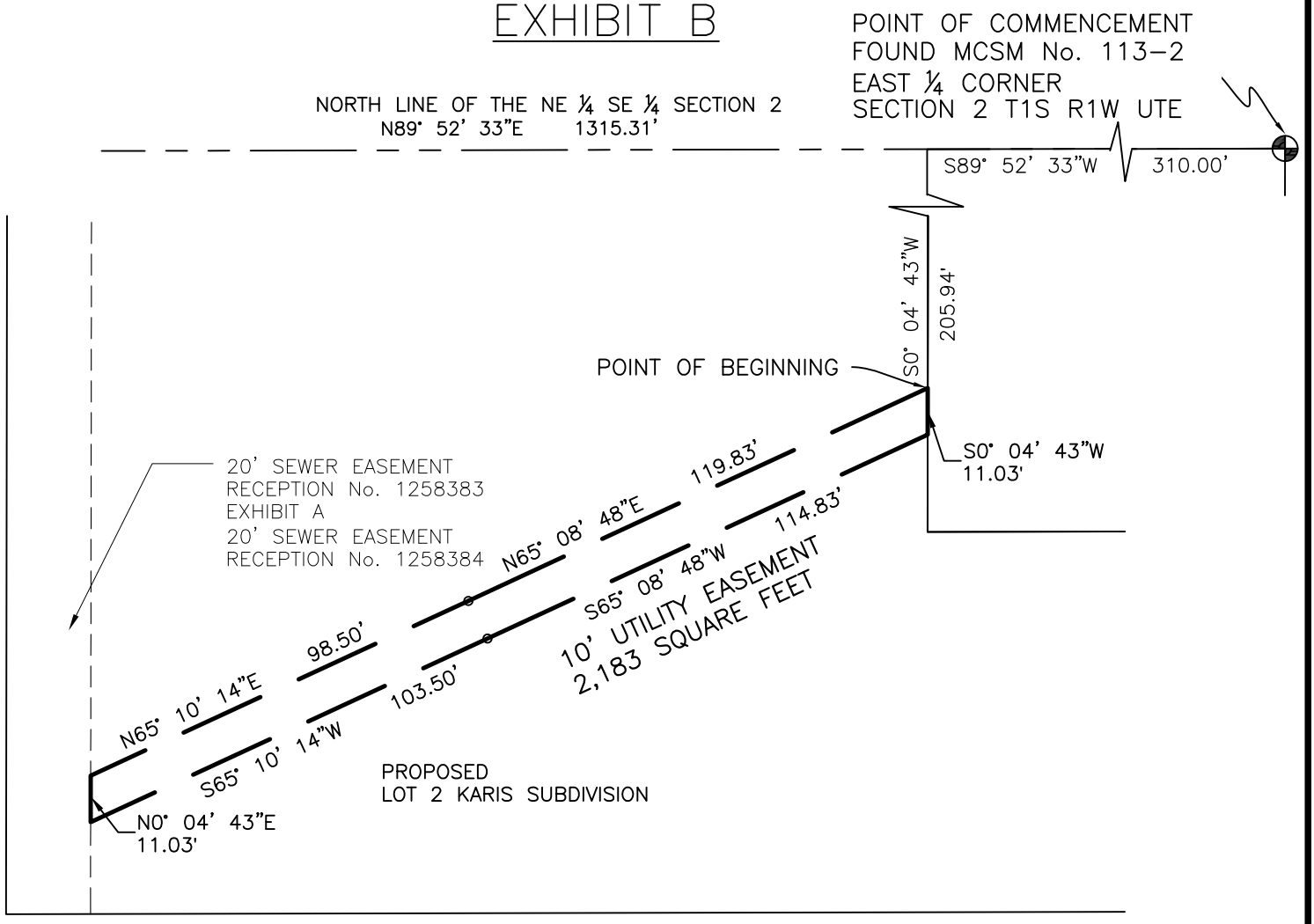
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

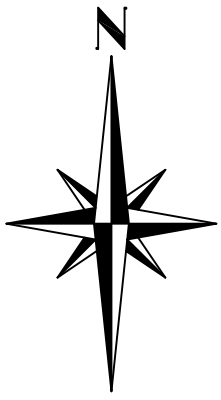
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 89°52'33" W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 310.00 feet; thence S 0°04'43" W a distance of 205.94 feet to the Point of Beginning:

Thence S 0°04'43" W a distance 11.03 feet;
Thence S 65°08'48" W a distance of 114.83 feet;
Thence S 65°10'14" W a distance 103.50 feet to the East Line of an existing 20' Sewer Easement as recorded at Reception Numbers 1258383 and 1258384 of the Mesa County Clerk's Office;
Thence N 0°04'43" E along said East Line a distance of 11.03 feet;
Thence N 65°10'14" E a distance of 98.50 feet;
Thence N65°08'48" E a distance of 119.83 feet to the Point of Beginning.

Said parcel contains 2,183 square feet as described.

EXHIBIT B

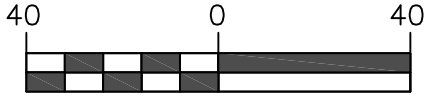




Legal Description Sketch

Karis Subdivision
10' Utility Easement

GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434–7038

ALTA/ NSPS LAND TITLE SURVEY

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

TABLE A

OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

1. Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner.
- shown hereon

2. Address(es) of the surveyed property if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork.
- 3205 N. 12th Street Grand Junction, Colorado 81506

3. Flood zone classification (with proper annotation based on federal Flood Insurance Rate Maps or the state or local equivalent) depicted by scaled map location and graphic plotting only.
The Property described on this Survey does not lie within a Special Flood Hazard Area ("SFHA") as defined by the Federal Emergency Management Agency; the Property lies within Zone(s) X of the Flood Insurance Rate Map identified as Community Panel No 08077C0806 Suffix G, bearing an effective date of October 16, 2012.

4. Gross land area.
- 3.676 acres

6. (a) If set forth in a zoning report or letter provided to the surveyor by the client, list the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements. Identify the date and source of the report or letter.
- letter not provided

7. (a) Exterior dimensions of all buildings at ground level.
- shown hereon

8. Substantial features observed in the process of conducting the fieldwork (in addition to the improvements and features required pursuant to Section 5 above) (e.g., parking lots, billboards, signs, swimming pools, landscaped areas, substantial areas of refuse).
- shown hereon

9. Number and type (e.g., disabled, motorcycle, regular and other marked specialized types) of clearly identifiable parking spaces on surface parking areas, lots and in parking structures. Striping of clearly identifiable parking spaces on surface parking areas and lots.
- gravel parking no marked spaces

10. (a) As designated by the client, a determination of the relationship and location of certain division or party walls with respect to adjoining properties (client to obtain necessary permissions).
- no walls were designated

11. Location of utilities existing on or serving the surveyed property as determined by:
- shown hereon
- observed evidence collected pursuant to Section 5.E.iv.
- evidence from plans requested by the surveyor and obtained from utility companies, or provided by client (with reference as to the sources of information), and
- markings requested by the surveyor pursuant to an 811 utility locate or similar request

Representative examples of such utilities include, but are not limited to:
- Manholes, catch basins, valve vaults and other surface indications of subterranean uses;
- Wires and cables (including their function, if readily identifiable) crossing the surveyed property, and all poles on or within ten feet of the surveyed property. Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the dimensions of all encroaching utility pole crossmembers or overhangs; and
- Utility company installations on the surveyed property.

Note to the client, insurer, and lender – With regard to Table A, item 11, source information from plans and markings will be combined with observed evidence of utilities pursuant to Section 5.E.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response, in which case the surveyor shall note on the plat or map how this affected the surveyor's assessment of the location of the utilities. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary.

12. As specified by the client, Governmental Agency survey–related requirements (e.g., HUD surveys, surveys for leases on Bureau of Land Management managed lands).
- none specified

13. Names of adjoining owners according to current tax records. If more than one owner, identify the first owner's name listed in the tax records followed by "et al."
- shown hereon

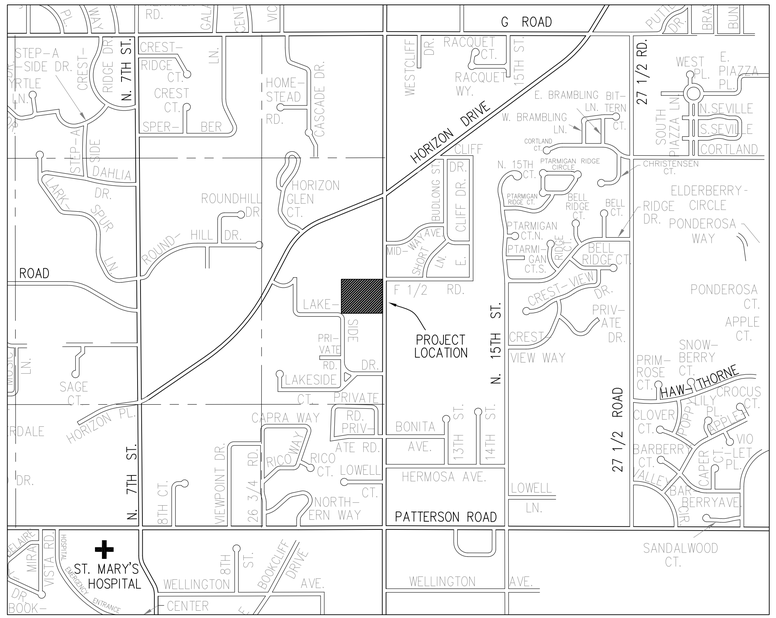
14. As specified by the client, distance to the nearest intersecting street.
- non specified

16. Evidence of recent earth moving work, building construction, or building additions observed in the process of conducting the fieldwork.
- none observed

17. Proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction. Evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.
- none observed

18. If there has been a field delineation of wetlands conducted by a qualified specialist hired by the client, the surveyor shall locate any delineation markers observed in the process of conducting the fieldwork and show them on the face of the plat or map. If no markers were observed, the surveyor shall so state.
- no field delineation was conducted

19. Include any plottable offsite (i.e., appurtenant) easements or servitudes disclosed in documents provided to or obtained by the surveyor as a part of the survey pursuant to Sections 5 and 6 (and applicable selected Table A items) (client to obtain necessary permissions).
- shown hereon



VICINITY MAP
N.T.S

SURVEYORS CERTIFICATION:

To Land Title Guarantee Company, Caprock Building Corporation, Sunflower Bank n.a., and Kline Alvarado Veio PC, Caprock Academy, Colorado Educational and Cultural Facilities Authority, UMB Bank, n.a., as Trustee, Sunflower Public Finance, LLC,

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17, and 19 of Table A thereof. The fieldwork was completed on December 7, 2018.

Date of Plat or Map: December 20, 2018
Patrick W. Click

Dated: December 20, 2018 Registration No. 37904

SCHEDULE B SECTION TWO EXCEPTIONS

1. Rights or claims of parties in possession, not shown of public record.
2. Easements, or claims of easements, not shown by the public record.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land and not shown by the public records.
4. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
5. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the Effective Date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment.
6. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) Minerals of whatsoever kind, subsurface and surface substances, in, on, under and that may be produced from the Land, together with all rights, privileges, and immunities relating thereto, whether or not the matters excepted under (a), (b) or (c) are shown by the Public Records or listed in Schedule B.
7. Water rights, claims or title to water.
8. Any and all unpaid taxes and assessments and any unredeemed tax sales.
9. Reservations and exceptions in Patents, or Acts authorizing the issuance thereof, including the reservations of the right of way for ditches or canals constructed by the authority of the United States, as reserved in United States Patent recorded July 28, 1891 at Reception No. 12022.
10. Reservations and exceptions in Patents, or Acts authorizing the issuance thereof, including the reservations of the right of proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to penetrate or intersect the premises as reserved in United States Patent recorded July 28, 1891 at Reception No. 12022.
11. Terms, conditions, provisions, agreements and obligations as contained in Agreement with Destination Properties, Inc. recorded May 28, 1981 at Reception No. 1258383.
12. Easement granted to The City of Grand Junction by instrument recorded May 28, 1981 at Reception No. 1258384.
13. Easement granted to Public Service Company of Colorado by instrument recorded November 13, 2012 at Reception No. 2633146.
14. Right of way granted to Grand Valley Rural Power Lines, Inc. by instrument recorded July 31, 1941 at Reception No. 387756.
15. Utility easement granted to the City of Grand Junction by instrument recorded at Reception No. 1872316.

LEGAL DESCRIPTION:

Parcel 1:
Beginning at a point from whence the Northeast corner of the SE1/4 of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears S89°59'E 310 feet and due North a distance of 330 feet;
thence from said point of beginning N89°59'W 218 feet;
thence due North 330 feet;
thence S89°59'E 218 feet;
thence due South 310 feet to the point of beginning;
AND
Commencing at a point from whence the E1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears North a distance of 330 feet;
thence running from said point of beginning N89°59'W 310 feet;
thence due North 90 feet;
thence S89°59'E 310 feet;
thence due South 90 feet to the point of beginning.
EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880898.
County of Mesa, State of Colorado

Parcel 2:
Beginning at the East 1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, which point is the Northeast Corner of the tract:
thence due South 240.00 feet to the Southeast Corner;
thence North 89°59' West 310.00 feet to the Southwest Corner;
thence due North 240.00 feet to the Northwest Corner;
thence South 89°59' East 310.00 feet to the place of beginning.
EXCEPT the East 30 feet for right of way,
AND EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880896.
County of Mesa, State of Colorado

General Notes:

1. OWNERSHIP, RECORDED RIGHTS–OF–WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

ALTA/NSPS LAND TITLE SURVEY
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: SL
DATE: 12/20/18 DRAWING NAME: 2018162 DRAWN BY: MDM

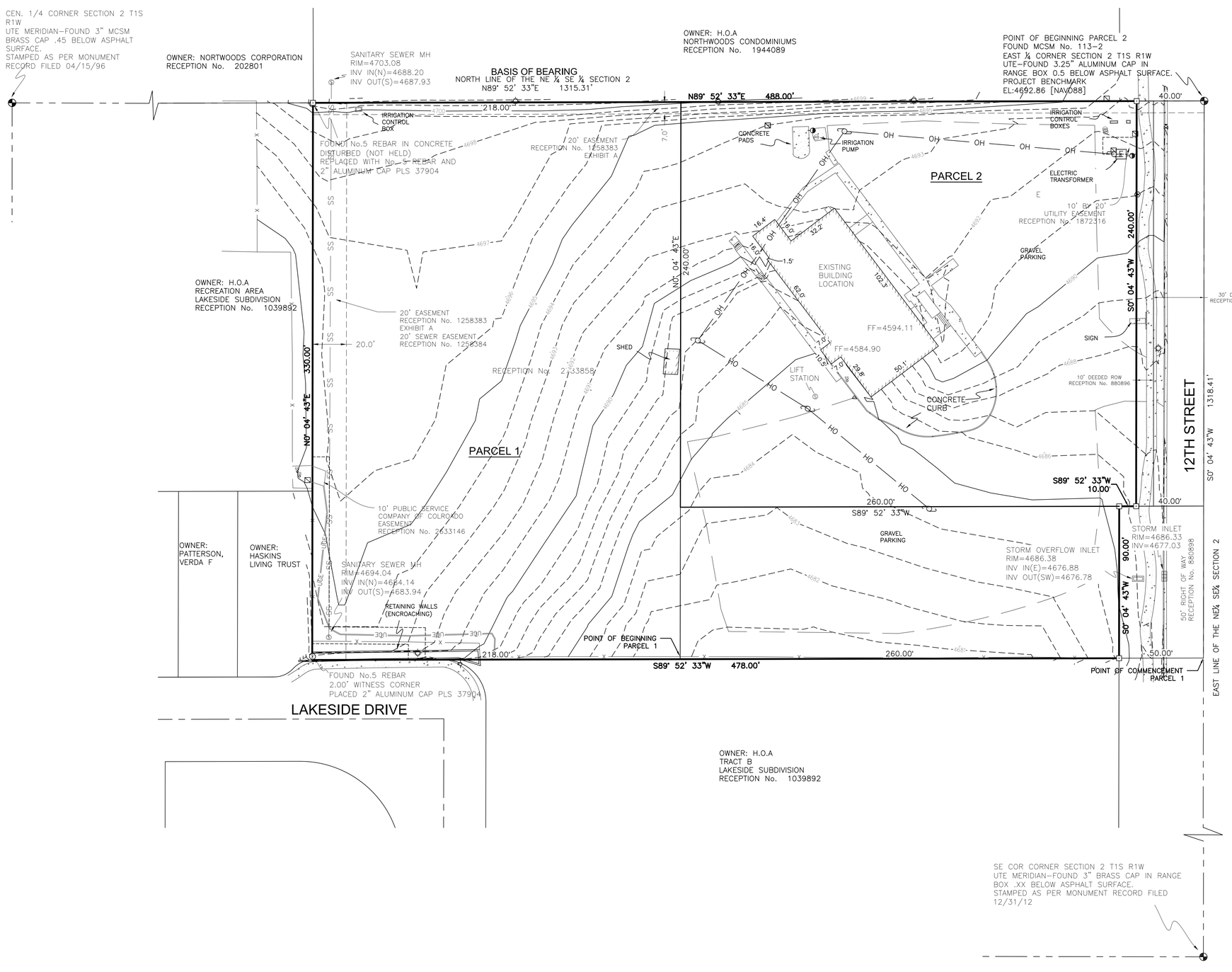
POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434–7038

SH: 1 OF 2

ALTA/NSPS LAND TITLE SURVEY

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO



N

GRAPHIC SCALE:
1"=30'

30' 0 30' 60'

LINEAR UNITS ARE U.S. SURVEY FEET

LEGEND:

FOUND CITY SURVEY MARKER AS DESCRIBED	⊕
FOUND No. 5 REBAR AS DESCRIBED HEREON	⊙
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904	▲
EXISTING UTILITY POLE	
EXISTING GUY WIRE	GUY
EXISTING SIGN	
EXISTING UTILITY PEDESTAL	
EXISTING ELECTRIC TRANSFORMER	E
EXISTING SANITARY SEWER MANHOLE	S
EXISTING SANITARY SEWER CLEANOUT	
EXISTING WATER VALVE	
EXISTING FIRE HYDRANT	
EXISTING WATER METER	
EXISTING LIGHT POLE	
EXISTING IRRIGATION STRUCTURE	RIS

EXISTING UNDERGROUND GAS LINE	GAS GAS
EXISTING OVERHEAD UTILITY LINE	OH OH
EXISTING FENCE LINE	X
EXISTING UNDERGROUND ELECTRIC	UGE UGE UGE
EXISTING UNDERGROUND TELEPHONE	T T T

COLORADO REGISTERED
12/20/18
37904
PROFESSIONAL LAND SURVEYOR

ALTA/NSPS LAND TITLE SURVEY

SITUATED IN THE SE¼ SE¼ SECTION 33
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: SL
DATE: 12/20/18 DRAWING NAME: 2018162 DRAWN BY: MDM

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434-7038

SH: 2 OF 2

LEGAL DESCRIPTION:

Parcel 1:

Beginning at a point from whence the Northeast corner of the SE1/4 of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears S89°59'E 310 feet and due North a distance of 330 feet;
thence from said point of beginning N89°59'W 218 feet;
thence due North 330 feet;
thence S89°59'E 218 feet;
thence due South 310 feet to the point of beginning;
AND
Commencing at a point from whence the E1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears North a distance of 330 feet;
thence running from said point of beginning N89°59'W 310 feet;
thence due North 90 feet;
thence S89°59'E 310 feet;
thence due South 90 feet to the point of beginning,
EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880898.
County of Mesa, State of Colorado

Parcel 2:

Beginning at the East 1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, which point is the Northeast Corner of the tract:
thence due South 240.00 feet to the Southeast Corner;
thence North 89°59' West 310.00 feet to the Southwest Corner;
thence due North 240.00 feet to the Northwest Corner;
thence South 89°59' East 310.00 feet to the place of beginning.
EXCEPT the East 30 feet for right of way,
AND EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880896.
County of Mesa, State of Colorado

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

Owners' Statement and Dedication:

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned Unity Church, a Colorado nonprofit corporation is the owners of that real property situate in the NE¼ SE¼ of Section 2, Township 1 South, Range 1 West of the Ute Meridian, City of Grand Junction, County of Mesa, State of Colorado as evidenced by Deed, filed in the office of the Mesa County, Colorado, Clerk and Recorder, at Reception Numbers 2783858 and 1273201, being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the Center–East Sixteenth Corner of said Section 2 bears S89°52'33"W, thence S89°52'33"W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

thence S0°04'43"W along said West Right of Way a distance of 240.00 feet to the North Right of Way line as recorded at Reception Number 88098;

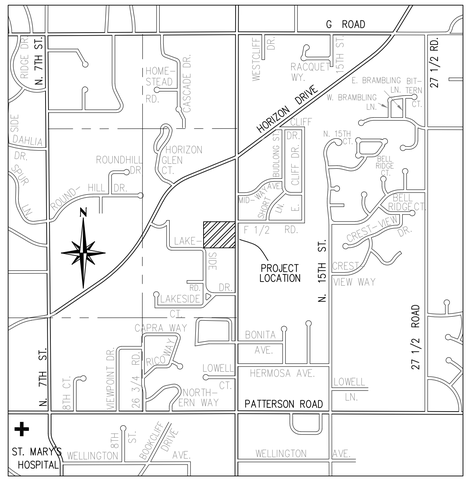
thence S89°52'33"W along the North line of said Right of Way a distance of 10.00 feet;

thence S0°04'43"W along West line of said Right of Way a distance of 90.00 feet to the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office;

thence along said Lakeside Subdivision Filing Two the following two courses and distances
- S89°52'33"W a distance of 478.00 feet
- N0°04'43"E a distance of 330.00 feet to the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2;

thence N89°52'33"E along said North Line a distance of 488.00 feet to the Point of Beginning.

Containing 3.676 acres.



VICINITY MAP
N.T.S

That said owner has laid out, platted and subdivided the above described real property into lots as shown heron, and designate the same as KARIS SUBDIVISION, in the City of Grand Junction, County of Mesa, State of Colorado, and do hereby make the following grants:

All Multipurpose Easements are dedicated to the City of Grand Junction as perpetual easements for City approved utilities including the installation, operation, maintenance and repair of said utilities and appurtenances which may include but are not limited to, electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, storm sewers, water lines, telephone lines, traffic control facilities, street lighting, landscaping, trees and grade structures.

All lienholders appear hereon.

IN WITNESS WHEREOF, said owner, Unity Church, a Colorado nonprofit corporation, have caused their names to be hereunto subscribed this
_____day of_____, A. D. 2019.

_____
By: For: Unity Church, a Colorado nonprofit corporation

NOTARY PUBLIC CERTIFICATION

STATE OF COLORADO)
) SS
COUNTY OF MESA)

The foregoing instrument was acknowledged before me by_____ For: Unity Church, a Colorado nonprofit corporation this_____day of _____ A.D. 20__.

Witness my hand and official seal_____.
Notary Public
My commission expires _____.

City Use Block:

The below listed recording information for Associated Record Documents was not prepared under the professional land surveyor's responsible charge, Board Rule 6.2.1, State of Colorado

The recording information is to be completed by the City of Grand Junction personnel.
The accuracy of this information is the responsibility of the City of Grand Junction.

1. 10' Utility Easement granted by document at Reception Number _____.
2. Storm Water and Drainage Easement granted by document at Reception Number _____.
3. Ingress/Egress Easement granted by document at Reception Number _____.
4. 15' Grading Easement granted by document at Reception Number _____.

TITLE CERTIFICATION

STATE OF COLORADO)
COUNTY OF MESA)ss

WE, ADVANCED TITLE COMPANY, A TITLE INSURANCE COMPANY, AS DULY LICENSED IN THE STATE OF COLORADO, HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE TO THE HEREON DESCRIBED PROPERTY, THAT WE FIND THE TITLE TO THE PROPERTY VESTED TO UNITY CHURCH, A COLORADO NONPROFIT CORPORATION; THAT THE CURRENT TAXES HAVE BEEN PAID; THAT ALL MORTGAGES NOT SATISFIED OR RELEASED OF RECORD NOR OTHERWISE TERMINATED BY LAW ARE SHOWN HEREON AND THAT THERE ARE NO OTHER ENCUMBRANCES OF RECORD; THAT ALL EASEMENTS, RESERVATIONS AND RIGHTS OF WAY OF RECORD ARE SHOWN HEREON.

DATE:_____BY: _____
NAME AND TITLE
ADVANCED TITLE COMPANY

ABBREVIATIONS:

N	NORTH
S	SOUTH
E	EAST
W	WEST
T	TOWNSHIP
R	RANGE
MCSM	MESA COUNTY SURVEY MARKER
ROW	RIGHT OF WAY
PLS	PROFESSIONAL LAND SURVEYOR
No.	NUMBER
GPS	GLOBAL POSITIONING SYSTEM
ID	IDENTIFICATION
SQ	SQUARE
FT	FEET

LAND USE SUMMARY		
LOTS	3.676 ACRES	100%
TOTAL	3.676 ACRES	100%

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO :
:ss
COUNTY OF MESA :

This plat was accepted for filing in the office of the Clerk and Recorder of Mesa County, Colorado, at _____o'clock____ .m., on this____ day of _____ 20 ___ and was recorded at Reception No. _____.

Drawer No. _____ , and Fees _____.

_____ _____
Clerk and Recorder Deputy

CITY APPROVAL

This plat of KARIS SUBDIVISION, a subdivision of the City of Grand Junction, County of Mesa, State of Colorado, is hereby approved and dedications accepted this_____day of _____ 20 _____ .

_____ _____
City Manager Mayor

LIENHOLDER RATIFICATION

THE UNDERSIGNED, HEREBY CERTIFIES THAT IT IS A HOLDER OF A SECURITY INTEREST UPON THE PROPERTY HEREON DESCRIBED AND DOES HEREBY JOIN IN AND CONSENT TO THE DEDICATION OF THE LAND DESCRIBED IN SAID DEDICATION BY THE OWNERS THEREOF AND AGREE THAT ITS SECURITY INTEREST WHICH IS RECORDED DECEMBER 12, 2016, AT RECEPTION NUMBER 2783859 OF THE PUBLIC RECORDS OF MESA COUNTY, COLORADO SHALL BE SUBORDINATED TO THE DEDICATIONS SHOWN HEREON.

IN WITNESS WHEREOF, THE SAID CORPORATION HAS CAUSED THESE PRESENTS TO SIGNED BY ITS _____,WITH THE AUTHORITY OF ITS BOARD OF DIRECTORS, THIS_____ DAY OF _____.

_____ FOR: _____
TITLE FOR: Solar Electric, Inc.

NOTARY PUBLIC CERTIFICATION

STATE OF _____ :
:ss
COUNTY OF _____ :

The foregoing instrument was acknowledged before me this _____day of_____, A.D. 2019.

by _____for Solar Electric, Inc.

Witness my hand and official seal

My Commission Expires _____ _____
Notary Public

SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, do hereby certify that I am a registered land surveyor licensed under the laws of the State of Colorado, that this Plat is a true, correct and complete Final Plat of the KARIS SUBDIVISION, as laid out, platted, dedicated and shown hereon, that such Final Plat was made from an accurate survey of said property by me and under my supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

FOR REVIEW ONLY

_____
PATRICK W. CLICK DATE
COLORADO REGISTERED LAND SURVEYOR PLS No.37904

REVISION RECORD
Number DATE
___ _____ _____
___ _____ _____

KARIS SUBDIVISION
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

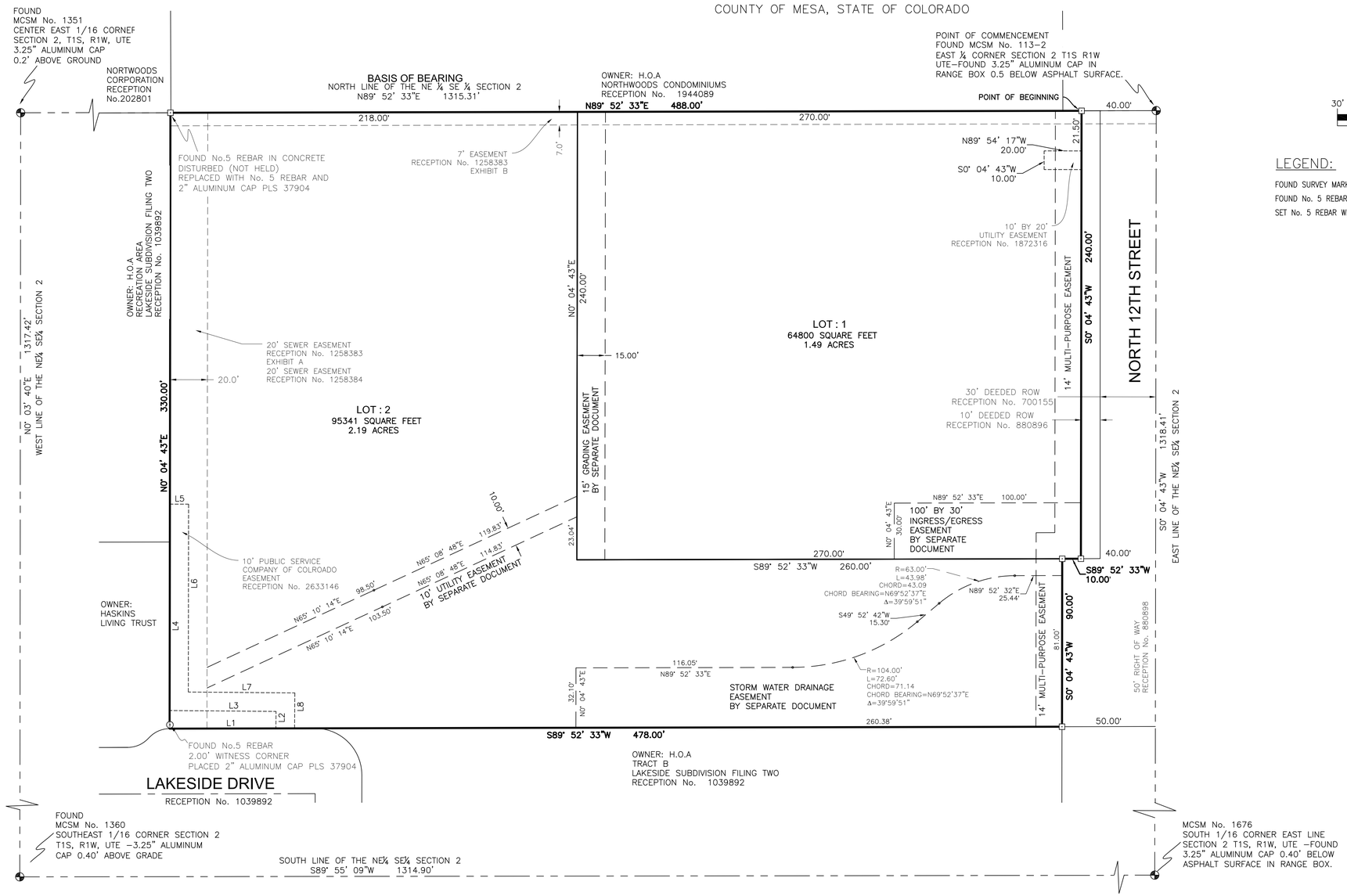
JOB #: 2018162 FIELD WORK: MDM
DATE: 3/27/19 DRAWING NAME: 2018162 DRAWN BY: PC

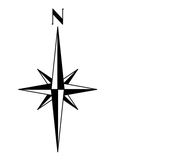
POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434–7038

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO





LEGEND:

FOUND SURVEY MARKER AS DESCRIBED	⊕
FOUND No. 5 REBAR AS DESCRIBED HEREON	⊙
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904	⊡

Line Table		
Line #	Direction	Length
L1	N89° 52' 33"E	56.93'
L2	S00° 28' 53"W	9.10'
L3	S89° 31' 07"E	57.00'
L4	S00° 04' 43"W	110.60'
L5	N89° 55' 18"W	10.00'
L6	N00° 04' 42"E	100.68'
L7	N89° 31' 07"W	57.07'
L8	N00° 28' 53"E	19.00'

General Notes:

1. OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: MDM
DATE: 3/26/19 DRAWING NAME: 2018162 DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

MEMO 4/3/2019

To: Tom Dixon, City of Grand Junction Planning Department
From: Kyle Mead, Shopworks Architecture
Regarding: Karis Apartments, 3175 N. 12th Street, first formal Site Plan Submittal

CC: File

Tom,

On behalf of our entire project team including Karis Inc., Blueline Development, Austin Civil Group, Flow Design Collaborative, and FCI Constructors, I am pleased to submit our first formal site plan package for major site plan review. The enclosed documents have been prepared based on coordination with City; including input from our General Meeting on May 14, 2018, our Pre-Application Meeting held on January 23, 2019, and the subsequent submittal checklist provided to us on January 31, 2019. We have enjoyed working with the City on this project thus far and appreciate the input you have afforded thus far.

Our submittal includes the following documents based on the submittal checklist:

1. Development Application
2. Ownership Statement with Deed
3. General Project Report
4. Building Elevations
5. County Treasurer's Tax Certification
6. Conveyances
7. Final Drainage Report
8. Final Geotechnical Report
9. Fire Flow Form
10. Fire Site Plan
11. Floor Plans
12. Improvement Survey
13. Industrial Pretreatment Survey
14. Landscape Plan
15. Legal Description
16. Lighting Plan
17. Subdivision Plat
18. Civil Construction Drawings
19. Post Construction Stormwater Agreement
20. Stormwater Management Plan
21. Surveyor Verification
22. Alternative Parking Plan

If you have any questions, please feel free to reach out to me directly.

Sincerely,

Kyle Mead
Shopworks Architecture

End of Memo

2882 Wyandot St. Denver, CO 80211 303 433-4094
shopworks

architecture

CITY OF Grand Junction COLORADO
COMMUNITY DEVELOPMENT

Development Application

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do petition this:

Petition For: Site Plan Review - Major

Please fill in blanks below ***only*** for Zone of Annexation, Rezones, and Comprehensive Plan Amendments:

Existing Land Use Designation:
Existing Zoning:
Proposed Land Use Designation:
Proposed Zoning:

Property Information

Site Location: 3205 N. 12th Street
Site Acreage: 2.188
Site Tax No(s):
Site Zoning: R16
Project Description: AFFORDABLE HOUSING PROJECT - 34 ONE BEDROOM APARTMENTS

Property Owner Information

Name: Unity Church
Street Address: 3205 N. 12th Street
City/State/Zip: GJ/CO/81501
Business Phone #: 970-243-3550
E-Mail: jdbottorf@gmail.com
Fax #:
Contact Person: Doug Bottorf
Contact Phone #: 970-243-3550

Applicant Information

Name: Karis Inc.
Street Address: P.O. Box 2837
City/State/Zip: Grand Junction, CO 8
Business Phone #: 970-234-1810
E-Mail: jmoklamme@karisinc.org
Fax #:
Contact Person: John Mok-Lamme
Contact Phone #: 970-234-1810

Representative Information

Name: SHOPWORKS ARCHITECTU
Street Address: 301 W. 45TH AVE
City/State/Zip: DENVER, CO, 80216
Business Phone #: 303-433-4094
E-Mail: KYLE@SHOPWORKSARC.C
Fax #:
Contact Person: KYLE MEAD
Contact Phone #: 303-433-4094

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee may be charged to cover rescheduling expenses before it can again be placed on the agenda.

Signature of Person Completing the Application: [signature] Date: 3/27/19

Signature of Legal Property Owner: [signature] Date: 4/1/19

City of Grand Junction
Review Comments

Date: May 3, 2019 **Comment Round No.** 1 **Page No.** 1
Project Name: Karis project **File No:** SPN-2019-174
Project Location: 3205 North 12th Street

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s): Unity Church
[ ] **Mailing Address:** 3205 North 12th Street, Grand Junction, CO 81502
[ ] **Email:** **Telephone:** 970 243-3550
[ ] **Date Picked Up:** **Signature:**

Representative(s): Shopworks Architecture
[ ] **Mailing Address:** 301 West 45th Avenue, Denver, CO 80216
[X] **Email:** kyle@shopworksarc.com **Telephone:** 303 433-4094
[ ] **Date Picked Up:** **Signature:**

Developer(s): Karis Inc.
[ ] **Mailing Address:** P.O. Box 2837, Grand Junction, CO 8150
[X] **Email:** jmoklamme@karisinc.org **Telephone:** 970 234-1810
[ ] **Date Picked Up:** **Signature:**

CITY CONTACTS

Project Manager: Tom Dixon
Email: tomdi@gjcity.org **Telephone:** 970 244-1422

Dev. Engineer: Jarrod Whelan
Email: jarrodw@gjcity.org **Telephone:** 970 244-1443

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING – Tom Dixon

Comments:

- In the course of the Site Plan Review and the specifics of the multiple aspects of proposed operations within the apartment building, it was determined by the Community Development Director and the City Attorney that the Karis project is defined as a group living facility under Section 21.04.020(b) and the use-specific standards of Section 21.04.030(p)(2) Group Living Facility of the City of Grand Junction Zoning and Development Code.

- One of the requirements for such a use is found under subsection (iv) Process (A) Neighborhood Meeting which specifies a 1,000-foot notification area surrounding the proposed group living facility, details of which can be found under a., b. and c. Initial information stating that a neighborhood meeting would not be required was based on a less intense and less regulated use. It appears that previous voluntary neighborhood meetings probably did not

meet the 1,000-foot standard. If they did, confirmation of the notification area would be needed.

- Based on elevated levels of intensity and comments regarding this project, such a meeting would be accommodated by multiple staff and security personnel were the applicants interested in such.

Applicant's Response:

CITY DEVELOPMENT ENGINEER – Jarrod Whelan jarrodw@gjcity.org (970) 244-1443

FEES
Review Comment: Transportation Capacity Payment (TCP) – To be determined and collected at the time of planning clearance for individual building permits. Current fee is $2,254 per Unit for SFR and $1,769 per Unit for Multi-Family; Street Classifications and Developer's responsibility for constructing streets, as well as these fees are subject to change without notice in the near future.

TCP Fee = $1,769 per Unit * 34 Units = $60,146

Inspection Fee – 34 MF residential units x $120/unit = $4080.00

Applicant's Response:

Document Reference:

GENERAL
Review Comment: Utility and Agencies box- changes/Additions (Typical ALL Sheets):

Utilities Director: Randi Kim @ 244-1429
Public Works Director: Trent Prall @ 256-4047
City of GJ Development Inspector: Mark Barslund @ 201-1362
5-2-1 Drainage Authority Representative: Mark Barslund @ 201-1362

Applicant's Response:

Document Reference:

FDC
EM

Applicant's Response:

Document Reference:

PLANS
Review Comment: Sheet 2.00

Under 'General Construction Notes,' please add the following as note #1:
"CONTRACTOR SHALL CONTACT MARK BARSLUND, CITY OF GRAND JUNCTION'S DEVELOPMENT INSPECTOR AND 5-2-1 DRAINAGE AUTHORITY REPRESENTATIVE, AT (970) 201-1362, A MINIMUM OF 72 HOURS IN ADVANCE, FOR A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING WORK."

Applicant's Response:

Document Reference:

Review Comment: Sheet C4.00

Dimension diagonal parking. As a reminder, CGJDR 21.06.090(b) Parking states 60-degree parking shall have a minimum 9-feet wide stalls and 21-feet in length with a 16-foot drive aisle. Modify General Notes on this sheet as necessary.

Applicant's Response:

Document Reference:

Review Comment: Sheet C6.00

Please review and revise elevations on section views as necessary. The numbers do not match according to the dimensions in each view.

Section A-A:

The bottom elevation is stated as 78.70 feet. The 12-inch pipe enters the concrete structure through a 2.50-foot tall box with a stated elevation of 80.70-feet elevation. The elevation listed for the WQ Plate/Weir is 80.74. Even though the WQ Plate wall has a 7.5 x 10-inch notch (Assumed the same size as the 10&100-yr plate), in the event the box is filled, it will spill over the entry wall. Please clarify or correct as needed. I know it's only a half-inch, but I want to make sure this was intended and not an oversight.

Section B-B:
Add dimension to bottom thickness of structure and dimension the weir/notch section.

The steel plate is called out to be 2.04 feet and the overall structure to the top has a dimension of 4.20 feet. According to the Section A-A View of the structure, this is on the hypotenuse of the grate and will be less than 4.20 feet. Please clarify.

Applicant's Response:

Document Reference:

Review Comment: Sheets C7.00, 7.10, 7.20

Recommend a mow strip or v-pan concrete backing along the curved entry to the church parking lot area.

Applicant's Response:

Document Reference:

DRAINAGE REPORT
Review Comment: Owner/Developer signature required on Acknowledgement sheet

Applicant's Response:

Document Reference:

Review Comment: Pre and Post development run-off calculations (Q) utilized the Grand Valley Area Table 601 for the P1, point rainfall value for 1-hr duration. This is within the Leach Creek/Horizon

Drive Watershed and should use Table 602. Based on my spreadsheet, this should lower your overall Q by almost 20%. Verify and amend as needed.

Applicant's Response:

Document Reference:

Review Comment: Page 8: Table III: Developed Drainage Basin Summary has the basin area, D-1, listed as Pre-Developed.

Applicant's Response:

Document Reference:

Review Comment: All detention basins and infiltration-based retention basins must be registered on the State of Colorado Stormwater Detention and Infiltration Facility portal. The design engineer must visit the website and follow the directions to register the new basin. The web portal address is: https://maperture.digitaldataservices.com/gvh/?viewer=cswdif
This must be complete and accepted prior to plan approval.

Applicant's Response:

Document Reference:

STORMWATER
Review Comment: Obtain the 5-2-1 permit.

Applicant's Response:

Document Reference:

CITY SURVEYOR – Peter Krick – peterk@gjcity.org (970) 256-4003

Comment:

No comment.

CITY FIRE DEPARTMENT – Steve Kollar – stevek@gjcity.org (970) 549-5800

Comments:

GJFD has no objections to the proposed project.

Fire Flow. Fire flow form indicates 2963 gpm at 20 psi and is acceptable.

Fire Hydrants. Location of proposed fire hydrant(s) are accepted.

Fire Apparatus Access. Location of proposed fire apparatus access is accepted.

Applicant's Response:

CITY ATTORNEY – John Shaver

Comment:

See Planner's comments.

Applicant's Response:

CITY ADDRESSING – Pat Dunlap – patd@gjcity.org (970) 256-4030

Comment:

Assuming that the numbers in the boxes of the floor plan represent room numbers, they are exactly as I would have suggested.

Applicant's Response:
:

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Mesa County Building Department
Contact Name: Darrell Bay
Email / Telephone Number: Darrell.bay@mesacounty.us (970) 244-1651

Comments:

MCBD has no objections to this project.

All building code related items will be addressed during plan review.

Applicant's Response:

Review Agency: Xcel Energy
Contact Name: Brenda Boes
Email / Telephone Number: Brenda.k.boes@xcelenergy.com (970) 244-2698

Comments:

Xcel has no objections.

Developer needs to be aware that cost to bring utilities to lots will be at their costs.

Additional cost may be incurred if reinforcement is determined by area engineer due to added load for existing main.

Completion of this City/County review approval process does not constitute an application with Xcel Energy for utility installation. Applicant will need to contact Xcel Energy's Builder's Call Line/Engineering Department to request a formal design for the project.

A full set of plans, contractor, and legal owner information is required prior to starting any part of the construction. Failure to provide required information prior to construction start will result in delays providing utility services to your project. Acceptable meter and/or equipment locations will be

determined by Xcel Energy as a part of the design process. Additional easements may be required depending on final utility design and layout. Engineering and Construction lead times will vary depending on workloads and material availability. Relocation and/or removal of existing facilities will be made at the applicant's expense and are also subject to lead times referred to above. All Current and future Xcel Energy facilities' must be granted easement

Applicant's Response:

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

Comments:

• Change connection to existing main, show as a wet tap not a tee.

• Show water meter for culinary water just north of lot line and south of the utility cabinet.

• A survey may be found at the following link (http://www.utewater.org/backflow) and must be submitted along with a mechanical drawing to the District for further review and approvals.

• Installation of all backflow equipment shall be per Ute standard, developer will be required to purchase, install and maintain all necessary equipment.

• An initial test on the BFPD will be made by the District at no cost for the developer; arrangements for this first test should be made with District personnel for final approval.

• Submit mechanical drawing and a completed survey to:

Nick Bierman
Cross Connection Program Administrator
Ute Water Conservancy District

Applicant's Response:

Review Agency: Grand Valley Drainage District
Contact Name: Tim Ryan
Email / Telephone Number: tim.admin@gvdd.org (970) 242-4343

Comments:

GVDD has no comments or objections. The project is outside the District.

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

Comment:

To be sent Response to Comments with resubmittal.

REVIEW RESPONSE

Date due: **August 3, 2019**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Applicant's Signature	**Date**

Print Form

OWNERSHIP STATEMENT - CORPORATION OR LIMITED LIABILITY COMPANY

(a) Unity Church ("Entity") is the owner of the following property:

(b) Vacant land owned by Unity Church at 3205 N. 12th Street, Grand Junction, CO 81506- legal description attached

A copy of the deed(s) evidencing the owner's interest in the property is attached. Any documents conveying any interest in the property to someone else by the owner are also attached.

I am the (c) minister for the Entity. I have the legal authority to bind the Entity regarding obligations and this property. I have attached the most recent recorded Statement of Authority of the Entity.

○ My legal authority to bind the Entity both financially and concerning this property is unlimited.

⊗ My legal authority to bind the Entity financially and/or concerning this property is limited as follows:

With board consent.

⊗ The Entity is the sole owner of the property.

○ The Entity owns the property with other(s). The other owners of the property are:

On behalf of Entity, I have reviewed the application for the (d) Site plan development

I have the following knowledge or evidence of a possible boundary conflict affecting the property:

(e) None

I understand the continuing duty of the Entity to inform the City planner of any changes regarding my authority to bind the Entity and/or regarding ownership, easement, right-of-way, encroachment, lienholder and any other interest in the land.

I swear under penalty of perjury that the information in this Ownership Statement is true, complete and correct.

Signature of Entity representative: J. Douglas Bottorff

Printed name of person signing: J Douglas Bottorff

State of Colorado)

County of Mesa) ss.

Subscribed and sworn to before me on this 1st day of April, 2019

by J Douglas Bottorff

Witness my hand and seal.

My Notary Commission expires on 4-13-2019

Beverly Jackson

Notary Public Signature

BEVERLY JACKSON NOTARY PUBLIC STATE OF COLORADO

RECEPTION#: 2783858, at 12/12/2016 2:51:08 PM, 1 of 2
Recording: $16.00, Sheila Reiner, Mesa County, CO. CLERK AND RECORDER

State Documentary Fee
Date: December 06, 2016
$0.00
No Dec Fee Required

Quit Claim Deed

(Pursuant to 38-30-116 C.R.S.)

THIS DEED, made on December 06, 2016 by UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION Grantor(s), of the County of MESA and State of COLORADO for the consideration of *** Ten Dollars and Other Good and Valuable Consideration *** dollars in hand paid, hereby sells and quitclaims to UNITY CHURCH, A COLORADO NON-PROFIT CORPORATION Grantee(s), whose street address is PO BOX 1904 GRAND JUNCTION, CO 81502 County of MESA, State of COLORADO, the following real property in the County of MESA, and State of Colorado, to wit:

SEE ATTACHED "EXHIBIT A"
also known by street and number as 3205 N 12TH ST GRAND JUNCTION CO 81506

with all its appurtenances.

J DOUGLAS BOTTORFF, AS MINISTER OF UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION

MARILYN ADAMS, AS TREASURER OF UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION

State of COLORADO)
)ss
County of MESA)

The foregoing instrument was acknowledged before me this day of December 07, 2016 by J DOUGLAS BOTTORFF, AS MINISTER AND MARILYN ADAMS, AS TREASURER OF UNITY CENTER OF LIGHT, A COLORADO NON-PROFIT CORPORATION

DANIELLE L. VANCONETT
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #20114008152
My Commission Expires February 15, 2019

Notary Public
My commission expires 2/15/2019
County of Mesa

When recorded return to: UNITY CHURCH, A COLORADO NON-PROFIT CORPORATION
PO BOX 1904 GRAND JUNCTION, CO 81502

Form 13038 02/2011 qcd.odt GJNA65031234 (27055210)

EXHIBIT A

BEGINNING AT THE E 1/4 CORNER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN, WHICH POINT IS THE NE CORNER OF THE TRACT;
THENCE DUE SOUTH 240.0 FEET TO THE SE CORNER;
THENCE NORTH 89°59' WEST 310.0 FEET TO THE SE CORNER;
THENCE DUE NORTH 240.0 FEET TO THE NW CORNER;
THENCE SOUTH 89°59' EAST 310.0 FEET TO THE PLACE OF BEGINNING;

AND

BEGINNING AT A POINT WHICH BEARS N89°59'W 40.0 FEET FROM THE EAST1/4 CORNER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN;
THENCE SOUTH 240.0 FEET;
THENCE N89°59'W 10.0 FEET;
THENCE SOUTH 90.0 FEET;
THENCE N89°59'W 478.0 FEET;
THENCE NORTH 330.0 FEET;
THENCE S89°59'E 488.0 FEET TO THE POINT OF BEGINNING,

MESA COUNTY, COLORADO.

Karis Apartments: Operations Plan

Karis Apartments Overview

Karis Apartments will be a 34-unit multi-family apartment housing development (affordable, multifamily rental housing with supportive services) which will provide housing opportunities for very low-income families and individuals who have disabilities, who are between the ages of 18 and 24, and/or who are homeless or at risk of experiencing homelessness. A preference will be given to those people who have been and/or in need of behavioral health services. The development will utilize comprehensive training, and broad collaborations with community partners to best serve its residents.

Resident households will sign 12-month lease agreements that are renewable annually, in one-year increments thus providing permanent housing.

Karis, Inc., dba The House will be the owner and lead service provider of the housing development. Grand Junction Housing Authority will be the voucher administrator and MindSprings Health will provide access to behavioral health services. Cardinal Capital Management will be the property management company for the project.

Affordable Housing Requirements

This community will be comprised of affordable rental units, with all residents identified as earning at or below 30% of annual median income limits for Mesa County for relevant household size. The community will be financed through the Low-Income Housing Tax Credit Program (LIHTC) and supported by Project Based Vouchers (PBV) from the Colorado Department of Local Affairs.

The policy of Equal Housing Opportunity for prospective applicants regardless of race, color, religion, sex, handicap, familial status, national origin, age, creed, sexual orientation, gender identity, marital status, and status with regard to public assistance shall be fully enforced.

Community and Building Description

Karis Apartments is a medium multi-family dwelling building of 34 total apartments, and is compliant with the City's zoning code. The unit mix will include 34 one-bedrooms / one-full bath dwelling units. Each dwelling unit will have an Energy Star refrigerator, oven/range, disposal, and microwave.

The building was designed with trauma informed design principals throughout - including ample daylight, access to the outdoors, warm colors, and open space plans. In the apartment units, the inclusion of certain design features are intended to make these apartments feel like homes, such as the "porches" at the unit entries. The units all feature very open floor plans that create long site-lines and are devoid of hallways.

All units and public spaces are designed to accommodate residents with disabilities, including clearances around fixtures, appliances, and doorways, and feature blocking for the installation of grab bars. Some of the units have been designed to accommodate residents with visual and hearing disabilities as well. The interior and exterior circulation paths have gentle grades and feature ample clearance, and automatic door actuators have been included to ease access to the building. Finally, accessible parking stalls have been included in the parking lot, including a stall for vans.

Staff parking will be within the community's parking area. All other parking will be available for the use of the few residents who will own vehicles and visitors who drive to visit the community.

The building exterior was designed to evoke a sense of curiosity and wonder, while also using a palette of colors that is cohesive with the natural surroundings. The concept was to focus the architecture on a unique roof form in the center of the building that shelters the cultural center of the operations. This area is fenestrated with a unique south facing window wall, offering ample daylight to the common areas inside. The overhang of the roof form will offer ample daylight in the winter, and diffuse/shaded daylight in the summer. Outside of the common area roof form, the building intends to be simple yet unique. We propose to use cement board siding in a variety of earth tones influenced by the colors of the nearby Colorado National Monument, coupled with the traditional craftsman style detailing and trim hierarchy. The building exhibits four-sided architecture that we hope is inviting, warm, and durable.

Community Amenities

The building has a robust program of resident amenities including a community/art room, reading nooks, central laundry, and a living room for media and video games. The design concept is based around creating a cultural hub for residents on the first floor within a vaulted two story atrium along the south side of the building. This atrium will feature a unique window wall and roof structure that we hope creates wonder and intrigue for residents and visitors alike. The goal is to seamlessly transition this area from the community room to the outdoor plaza that includes formal and informal seating opportunities, a shade structure, and large south facing patio for outdoor cooking. . The landscape design was divided such that the front yard is more passive, including a contemplative walking path with informal seating provides space for residents to find solace in the landscape of the site, a meditation area, and a labyrinth. The plants will be native and drought resistant. The back yard will be reserved for more active uses such as bike parking, games, pets, and gardening.

Resident Placement

All applicants will be referred through the community's Coordinated Entry System (CES)). Applicants will be prioritized (highest to lowest) based on objective factors what will/may include chronicity and medical vulnerability, risk of long term homelessness and fit for the youth based service model. A filter will be put on the CES priority list to give higher priority to people who would benefit from behavioral health services.

They will also be prioritized according to the following waitlist preferences;

- Households consisting of youth between the ages of 18 and 24.
- Households with multiple barriers to obtaining or maintaining housing. These could include chronic and/or persistent mental illness, alcohol and/or substance abuse, and/or health issues.
- History of homelessness or at risk of long term homelessness.

When a unit designated as handicapped accessible becomes available, the first person on the waiting list who has indicated a verifiable need for the features of a handicapped accessible unit will be contacted for an interview. If the applicant meets the minimum screening criteria, they will be offered the unit before other applicants.

Additional screening for residents will include screening from Grand Junction Housing Authority to determine if they are eligible for the vouchers and Cardinal Capital Management who will do criminal background checks and determine income eligibility.

The following Criminal Histories are automatic reasons for denying admission if any household member:

- has ever been convicted of drug-related criminal activity for the production or manufacture of methamphetamine in any location, not just federally assisted housing;

- has been convicted of sex assault within the past 10 years;
- is currently registered as a sex offender under any State registration requirement, regardless whether it's for lifetime.

Program Staffing

Karis, in partnership with Mind Springs and Rocky Mountain Health plans, will staff the apartments with front desk staff on site 24 hours a day, a full time therapist, 1.5 case managers, one half time youth advocate, and a program coordinator. All supportive and property management staff will office from the building. In addition, Rocky Mountain health plans will provide a nurse who will visit the site building weekly.

All staff will have experience with nationally recognized best practices such as: Fair Housing, Housing First, Harm Reduction, Mental Health First Aid, Motivational Interviewing and Trauma Informed Care. Ongoing annual trainings for all staff will be provided in these service principles.

Program Services

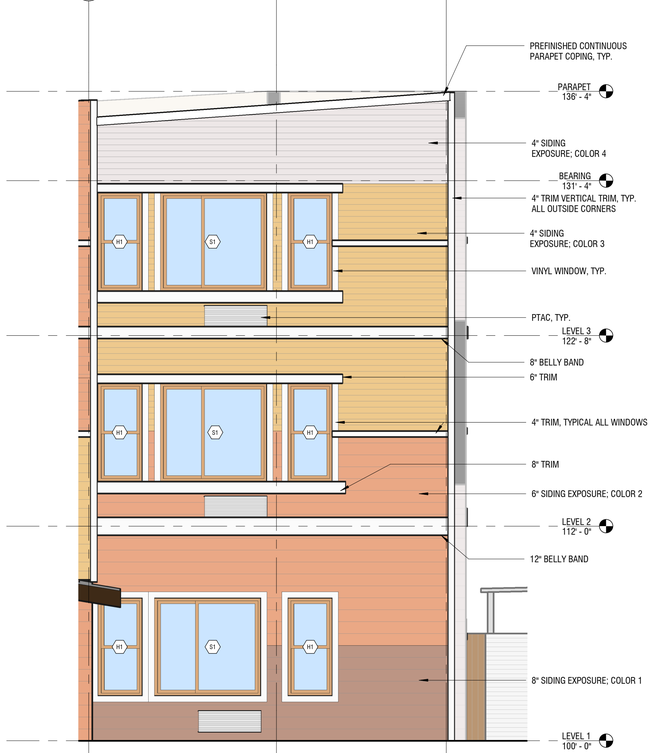
Karis will provide services to all tenants and will be individualized to meet the diverse needs of residents in the building. Services will include case management, employment services, mental health and substance abuse services, support groups, independent living skills, and assistance accessing entitlement benefits such as social security and family reunification.

Any services provided to the residents by a service provider (Karis, Inc., MindSprings Health, etc.) are separate and apart from the leasing agreement that each resident will sign and are in no way tied to the lease. Karis Apartments will not be a licensed facility.

This Operations Plan is prepared and delivered for zoning and planning use only. Other terms and phrases used to describe the supportive service plans may be used with applications for funding in relation to Karis Apartments, which do not affect the use of the building or zoning designation.

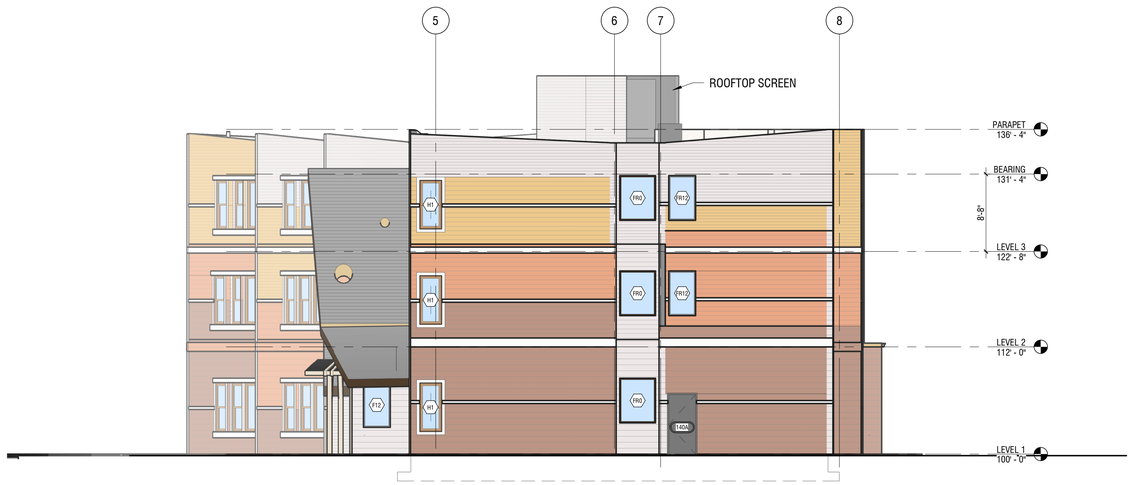
2 N. ELEV

1/8" = 1'-0"



3 ELEVATION - ENLARGED DETAIL

1/4" = 1'-0"



1 E. ELEV

1/8" = 1'-0"

shopworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4004

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

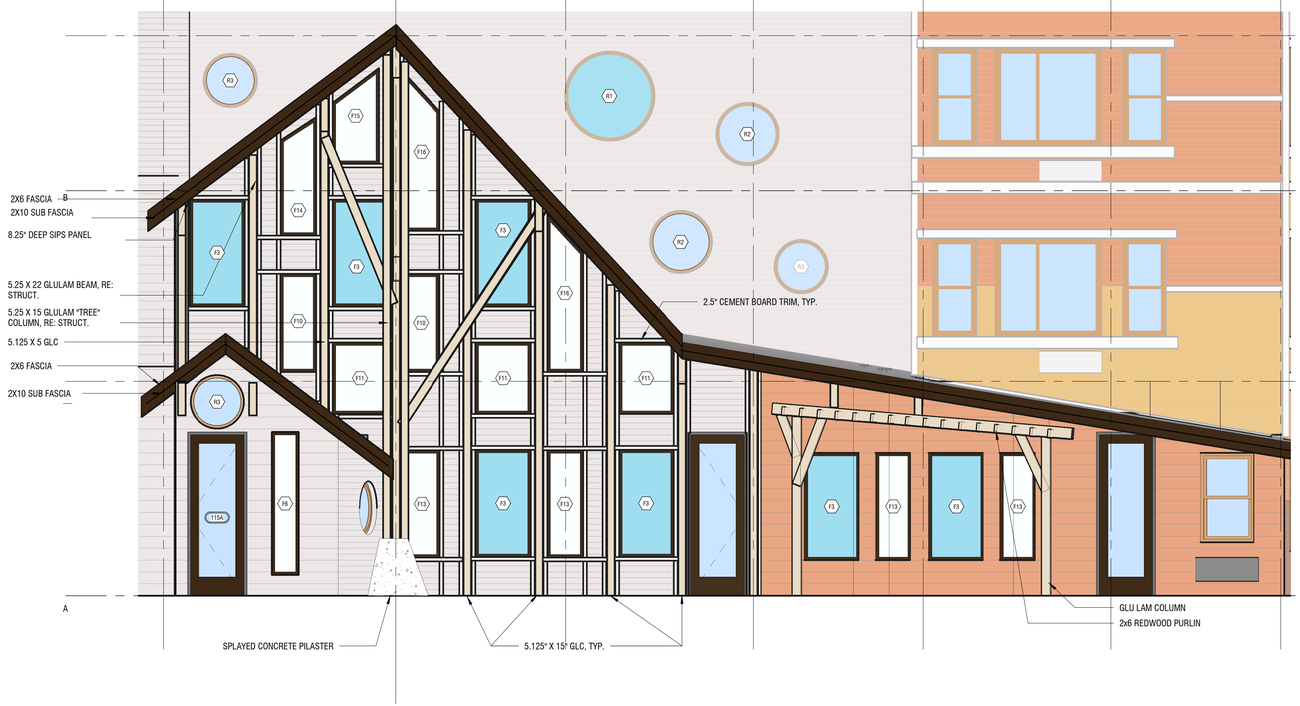
SHEET TITLE:
ELEVATIONS

SCALE: As indicated

NO. A2.0

3 S. ELEV.

1/8" = 1'-0"



2 ENLARGED ENTRY ELEV.

1/4" = 1'-0"

1 W. ELEV.

1/8" = 1'-0"

shopworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4004

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ELEVATIONS

SCALE: As indicated

NO. A2.1

ATRIUM VIEW 1

ATRIUM VIEW 2

ENTRY PERSPECTIVE

ATRIUM VIEW 3

SOUTH ELEVATION

shop works
architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
3d VIEWS

SCALE:

NO. A3.0

Sheila Reiner, Mesa County Treasurer
544 Rood Ave - Grand Junction CO 81501
Dept. 5027 - PO Box 20,000 - Grand Junction CO 81502-5001
Phone Number: (970) 244-1824

Account Number R052676 | Parcel 294502400059

Acres 3.640

Assessed To | UNITY CHURCH
PO BOX 1904
GRAND JUNCTION, CO 81502-1904

Legal Description

BEG N 89DEG59' W 40FT FR E4 COR SEC 2 1S 1W S 240FT N 89DEG59' W 10FT S 90FT N 89DEG59' W 478FT N 330FT S 89DEG59' E 488FT TO BEG

Situs Address

3205 N 12TH ST

Year	Tax	Interest	Fees	Payments	Balance
Grand Total Due as of 03/21/2019					**$0.00**

Tax Billed at 2018 Rates for Tax Area 14100 - 14100

Authority	Mill Levy	Amount
COLORADO RIVER WATER CONSER	0.2560000	$0.00
MESA CNTY ROAD & BRIDGE-GRA	0.2215000	$0.00
CITY OF GRAND JUNCTION	8.0000000	$0.00
GRAND RIVER MOSQUITO CONTRO	1.4520000	$0.00
LIBRARY DISTRICT	3.0590000	$0.00
COUNTY - DEVELOP DISABLED	0.2840000	$0.00
COUNTY GENERAL FUND	9.2680000*	$0.00
COUNTY ROAD & BRIDGE-1/2 LE	0.2215000	$0.00
SOCIAL SERVICES	2.3600000	$0.00
COUNTY TRANSLATOR TV FUND	0.0020000	$0.00
SCHOOL DIST# 51 GENERAL	24.3280000	$0.00
SCHOOL DIST# 51 BOND	10.3380000	$0.00
SCHOOL DIST# 51 OVERRIDE 96	2.8720000	$0.00
SCHOOL DIST# 51 2006 OVERID	2.3730000	$0.00
SCHOOL DIST# 51 2017 OVERRI	3.8570000	$0.00
UTE WATER CONSERVANCY	0.5000000	$0.00
Taxes Billed 2018	69.3920000	$0.00

* Credit Levy

Values	Actual	Assessed
CHURCH - CHAPEL	$72,800	$21,110
CHAPEL	$224,160	$65,010
Total	$296,960	$86,120

Legal Description

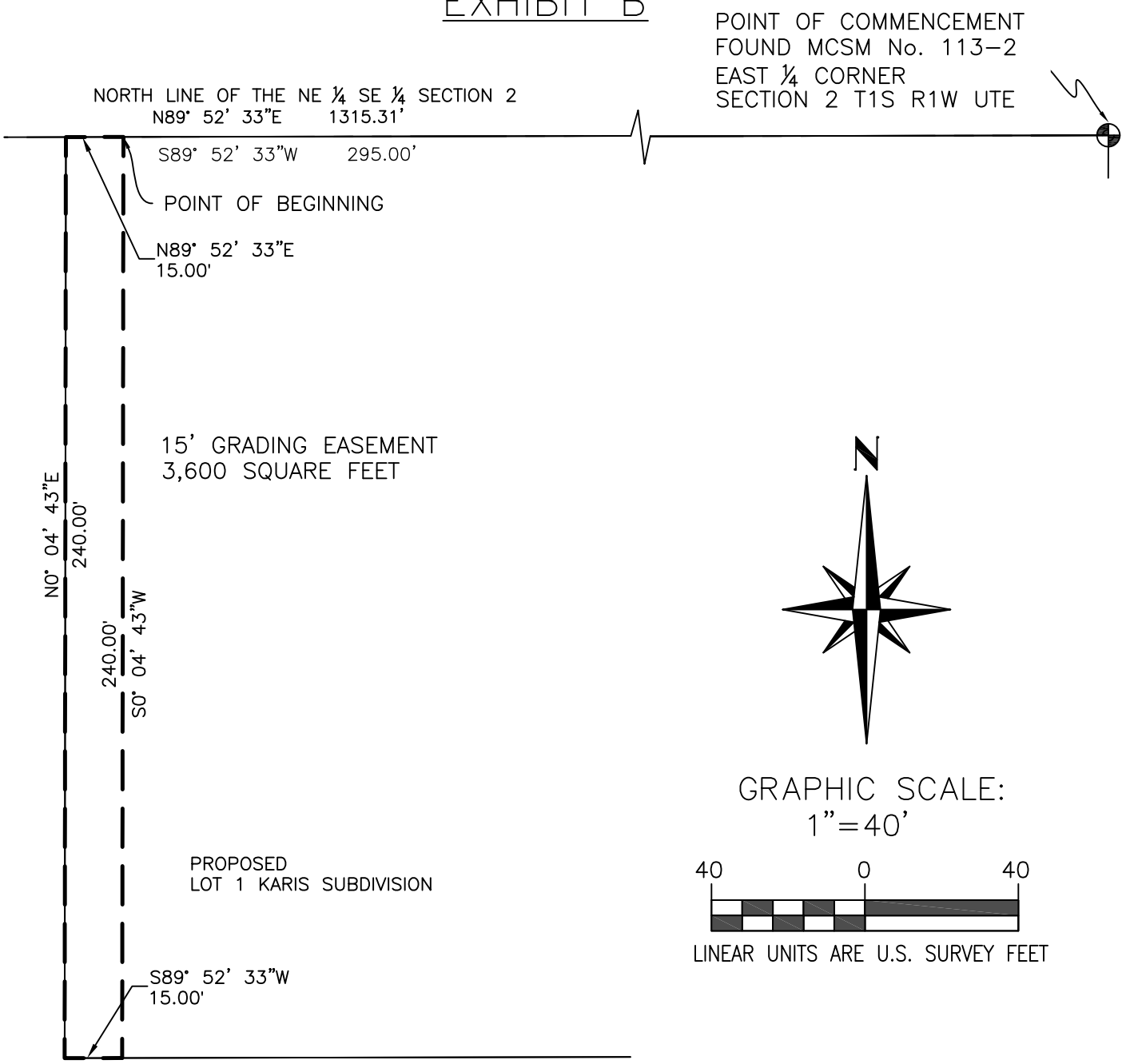
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04’43” W, thence S 89°52’33” W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 295.00 feet to the Point of Beginning:

Thence S 0°04’43” W a distance 240.00 feet;
Thence S 89°52’33” W a distance of 15.00 feet;
Thence N 0°04’43” E a distance of 240.00 feet;
Thence N 89°52’33” E a distance of 15.00 feet to the Point of Beginning.

Said parcel contains 3,600 square feet as described.

EXHIBIT B



Legal Description Sketch

Karis Subdivision

15' Grading Easement

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434-7038

Legal Description

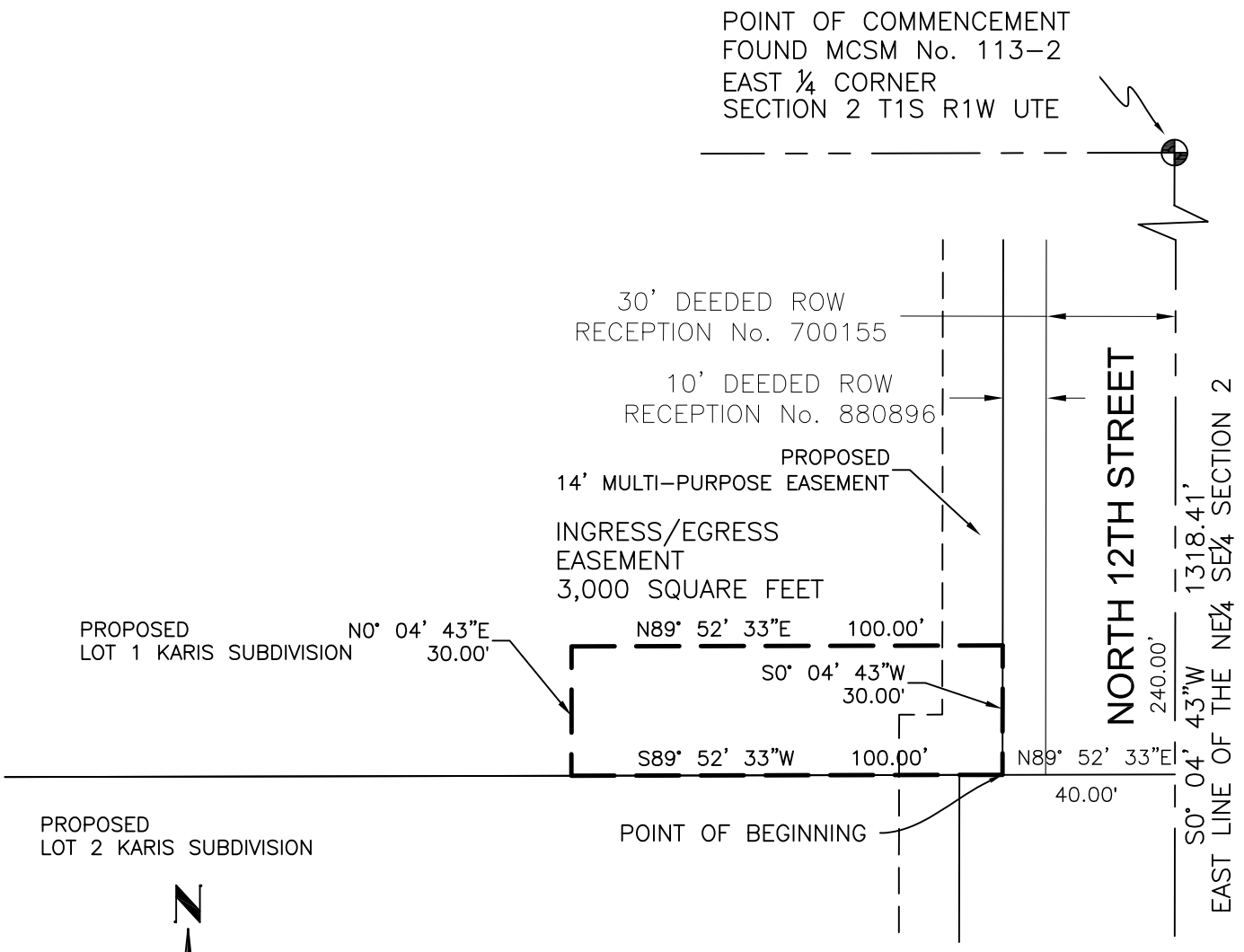
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

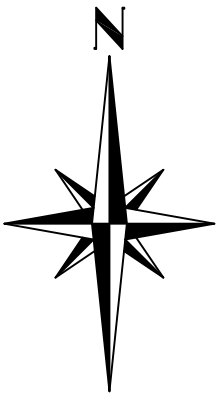
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 240.00 feet; thence S 89°52'33" W a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W a distance 100.00 feet;
Thence N 0°04'43" E a distance of 30.00 feet;
Thence N 89°52'33" E a distance 100.00 feet;
Thence S 0°04'43" W a distance of 30.00 feet to the Point of Beginning;

Said parcel contains 3,000 square feet as described.

EXHIBIT B

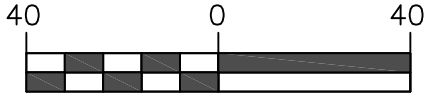




Legal Description Sketch

Karis Subdivision
Ingress/Egress Easement

GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434–7038

Legal Description

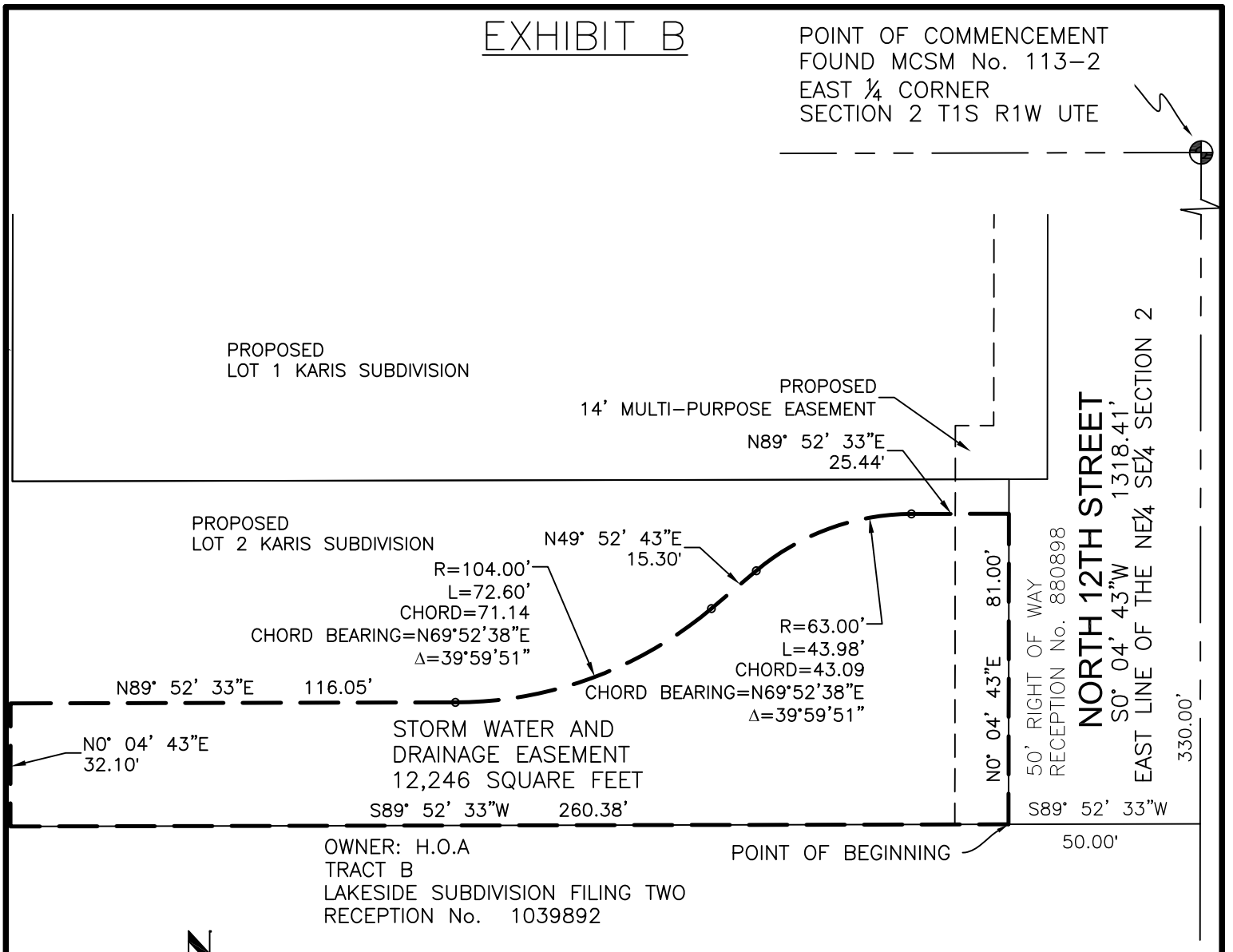
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

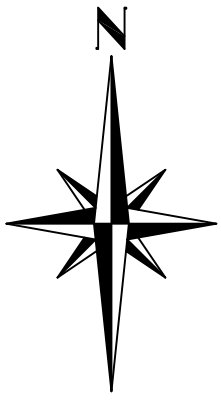
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 0°04'43" W along the East Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 330.00 feet; thence S 89°52'33" W a distance of 50.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880898, the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office and the Point of Beginning:

Thence S 89°52'33" W along the North Line of said Lakeside Subdivision Filing Two a distance 260.38 feet;
Thence N 0°04'43" E a distance of 32.10 feet;
Thence N 89°52'33" E a distance 116.05 feet to the start of a curve to the left;
Thence 72.60 feet along said curve to the left with a radius of 104.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 71.14 feet;
Thence N 49°52'43" E a distance of 15.30 feet to the start of a curve to right;
Thence 43.98 feet along said curve to the right with a radius of 63.00 feet, a central angle of 39°59'51" and whose chord bears N 69°52'37" E a distance of 43.09 feet;
Thence N 89°52'33" E a distance of 25.44 feet to the West Right of Way for said 12th Street;
Thence S 0°04'43" W along said Right of Way a distance of 81.00 feet to the Point of Beginning.

Said parcel contains 12,246 square feet as described.

EXHIBIT B





Legal Description Sketch

Karis Subdivision

Storm Water and Drainage Easement

GRAPHIC SCALE:

1"=40'

40 0 40

LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING

PATRICK W. CLICK P.L.S.

3194 MESA AVE

GRAND JUNCTION, CO 81504

PHONE (970)434–7038

Legal Description

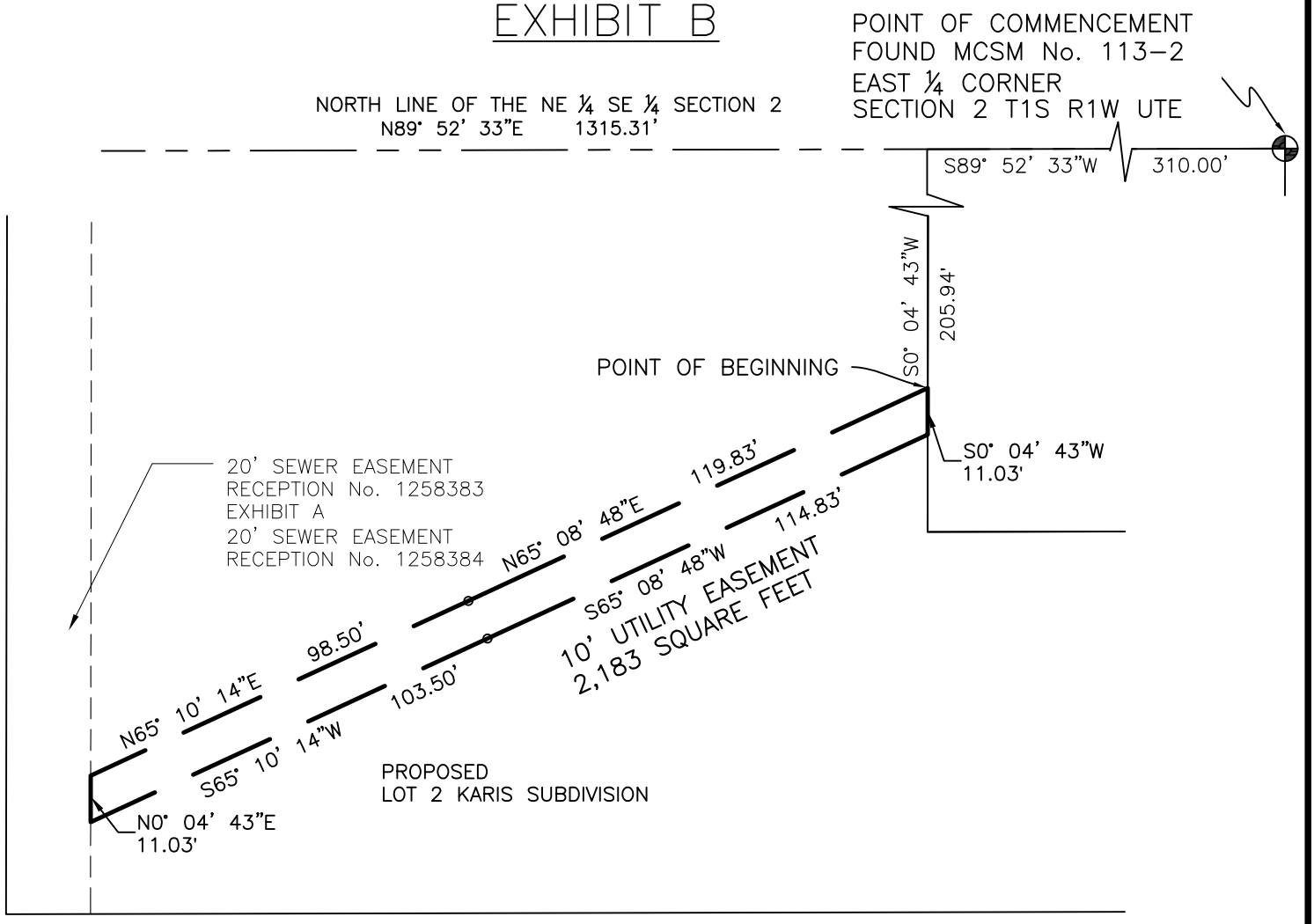
A parcel of land situated in the Northeast Quarter of the Southeast Quarter of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado and being more particularly described as follows:

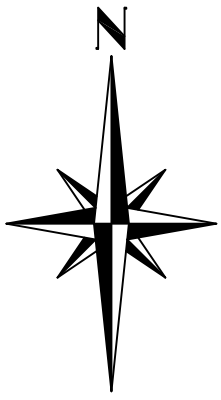
Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the South Sixteenth Corner on the East line of said Section 2 bears S 0°04'43" W, thence S 89°52'33" W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 310.00 feet; thence S 0°04'43" W a distance of 205.94 feet to the Point of Beginning:

Thence S 0°04'43" W a distance 11.03 feet;
Thence S 65°08'48" W a distance of 114.83 feet;
Thence S 65°10'14" W a distance 103.50 feet to the East Line of an existing 20' Sewer Easement as recorded at Reception Numbers 1258383 and 1258384 of the Mesa County Clerk's Office;
Thence N 0°04'43" E along said East Line a distance of 11.03 feet;
Thence N 65°10'14" E a distance of 98.50 feet;
Thence N65°08'48" E a distance of 119.83 feet to the Point of Beginning.

Said parcel contains 2,183 square feet as described.

EXHIBIT B

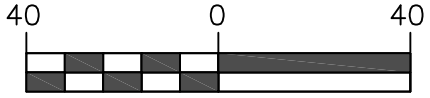




Legal Description Sketch

Karis Subdivision
10' Utility Easement

GRAPHIC SCALE:
1"=40'



LINEAR UNITS ARE U.S. SURVEY FEET

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE
GRAND JUNCTION, CO 81504
PHONE (970)434–7038

Final Drainage Report

for

Karis Apartments

3205 North 12th Street

Grand Junction, Colorado

Prepared For:
Karis, Inc.

Prepared By:
AUSTIN CIVIL GROUP, INC.
336 Main Street, Suite 203
Grand Junction, Colorado 81501
(970) 242-7540

ACG Job No. 1360.0001
March 27, 2019

I hereby certify that this *Final Drainage Report* (plan) for the design of 3205 N 12th Street was prepared by me (or under my direct supervision) in accordance with the provisions of the *Stormwater Management Manual* for the owners thereof. I understand that the City of Grand Junction does not and will not assume liability for drainage facilities designed by others.

Scott T. Sorensen
Registered Professional Engineer
State of Colorado No. 42780

I, Karis, Inc., hereby certify that the drainage facilities for 3205 N 12th Street shall be constructed according to the design presented in this report. I understand that the City of Grand Junction does not and will not assume liability for the drainage facilities designed and/or certified by my engineer. I understand that the City of Grand Junction reviews drainage plans but cannot, on behalf of Karis, Inc, guarantee that final drainage design will absolve Karis, Inc.. and/or their successors and/or assigns of the future liability for improper design. I further understand that approval of the Final Development Plan does not imply approval of my engineer's drainage design.

Karis, Inc.
Name of Developer

_____
Authorized Signature **Date**

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Appendix D. Proposed Drainage

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Appendix G. Stormwater Detention Pond & WQCV Calculations

Appendix H. Outlet Structure Design

Appendix I. Drainage Report Checklist

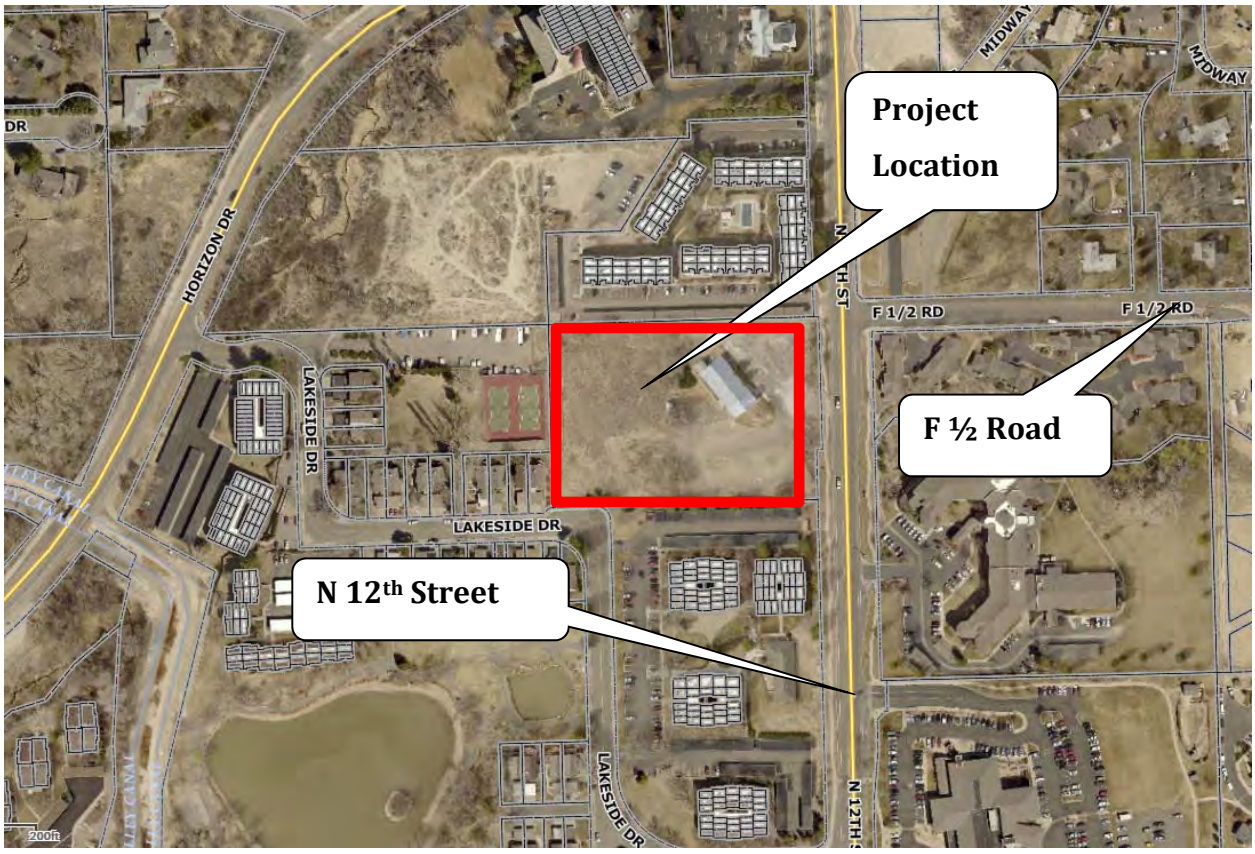
I. INTRODUCTION

A. Background

Austin Civil Group, Inc. is the sole report preparer. The purpose of this report is to identify proposed drainage conditions and potential drainage problems, which may occur on-site or off-site because of the development, investigate or refine conceptual solutions to drainage problems, and present final design and details for drainage facilities. This report will specifically address drainage criteria for the Karis Apartments located at 3205 North 12th Street.

B. Project Location

The Karis Apartments is proposed to be located at 3205 North 12th Street in Grand Junction, Colorado. The property is situated in the NE1/4 SE1/4 Section 2 Township 1 South, Range 1 West of the Ute Meridian, in the County of Mesa, State of Colorado. A map depicting the project location is included in **Appendix A** and listed below:



PROJECT LOCATION

C. Property Description

Currently the property consists of approximately 3.68 acres and contains Unity Church located on the east side of the property. The remaining site is bareground with decent vertical relief from the northwest to the southeast. Site topography show that grades fall within the 4% range sloping towards the southern boundary.

According to the Natural Resources Conservation Service (NRCS) the subject property consists of Fruita clay loam, 2 to 5 percent slopes (Ff)[1]. These soils tend to have a slow infiltration rate when thoroughly wet and consist of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission. NRCS classifies the soils having a Hydrologic Soil Type "C". The NRCS soil information is included in **Appendix B**.

According to Huddleston-Berry Engineering & Testing, LLC's., "Geotechnical and Geologic Hazards Investigation for Karis Affordable Housing", dated January 16, 2019 [3] groundwater was not encountered in the subsurface at the time of investigation.

Stormwater sheets flows towards the southern end of the site where it drains off site to discharge into an existing storm sewer system located within the Lakeside Apartment Complex. Ultimate discharge is the Lakeside ponds.

Irrigation water currently runs along the north property line. A diversion box near the northwest of the property directs water in to the east and west direction. Excess irrigation water discharges into a storm water system located along the west side of N 12th Street.

D. Previous Investigations

There are no known previous drainage investigations affecting the subject property.

II. DRAINAGE SYSTEM DESCRIPTION

A. Existing Drainage Conditions

Site topography of the property shows that grades fall within the 4.0% range and slope towards to the south. A map showing existing topography is in **Appendix C**. A photo generally showing topography is also shown below [2]:

AREA TOPOGRAPHY

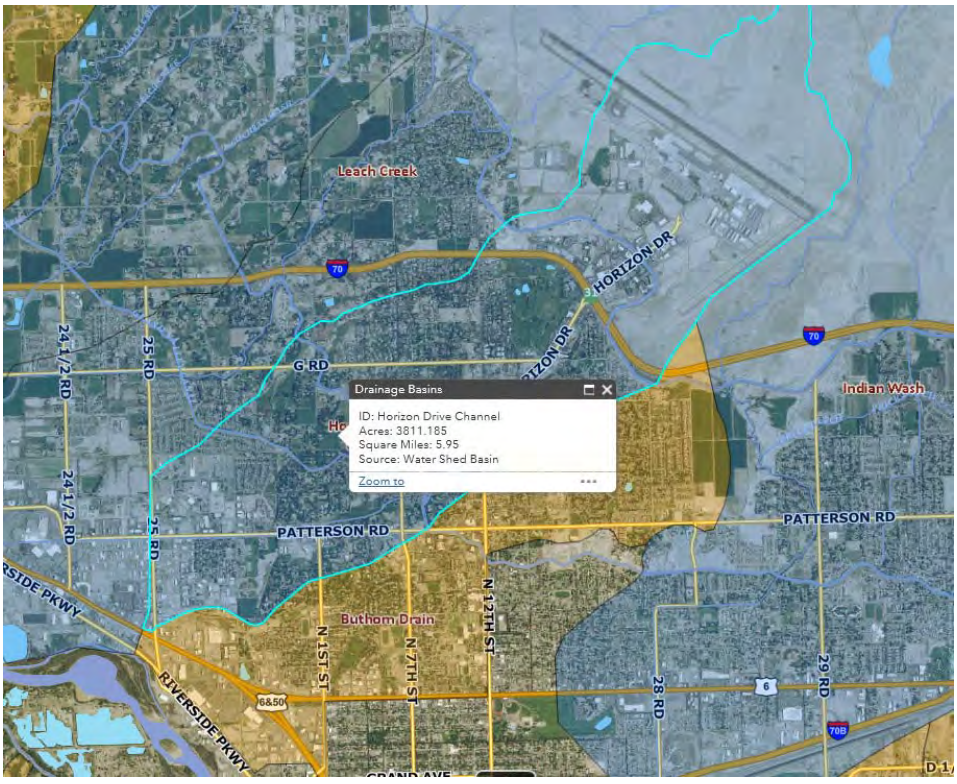
Historically, the site has one drainage basin. Drainage Basin H-1 includes the entire 3.68-acre site and which flows to the south end of the site and is eventually collected by the Lakeside storm sewer system. A map showing existing drainage basin is in **Appendix C**.

Calculations for the historic flow from the property are further discussed in **Section III** of this report and are summarized in the table below:

TABLE I: Historic Drainage Basin Summary

Pre-Developed Basin	Storm Event	Total Basin Area (acres)	Composite (C)	Q (cfs)
H-1	10-Year	3.68	0.33	1.87
	100-Year	3.68	0.55	6.55

The subject property is located within the Horizon Drive Channel Drainage Basin according to the City of Grand Junction GIS[2]. A map depicting the drainage basin is provided below and included in **Appendix C**. Horizon Drive Channel flows southwesterly and conveys to the Colorado River near the 25 Road and Hwy 6 & 50 intersection.



Horizon Drive Channel

B. Master Drainage Plan

There is no known master drainage plan affecting the site. No master drainage plan was used to prepare this report.

C. Offsite Tributary Area

Offsite flow contributing to the site is a very small area located on the Northwoods Apartment Complex. A dirt side hill on the far south end drains onto the subject property. The area is considered minimal and not considered in project's drainage analysis.

D. Proposed Drainage System Description

The project is proposing to develop approximately 2.22 acres of the 3.68 acre property at this time with a 7,900 square foot (plan view) 3-story apartment building with associated site improvements (i.e, parking lot, landscaping and utility infrastructure). The remaining area will remain as is with existing church building and gravel parking lot.

For the purpose of this report the entire 3.68 acre property will be considered in the runoff and drainage calculations. In addition, the majority of the existing gravel parking lot has been analyzed as if it was asphalt to account for future improvements. Full detention and water quality will be provided for the entire site.

Drainage basin D-1 is the only proposed drainage basin for the development and includes the majority of the 3.68-acre site. Runoff conveys via sheet flow and underground storm sewer system to discharge into a proposed stormwater detention / water quality pond. Runoff is controlled released to an existing 24-inch storm pipe at allowable discharge rates through an two-stage outlet structure A proposed drainage basin map has been provided in **Appendix D** of this report.

Calculations for the developed flows affecting the property are further discussed in **Section III** of this report and are summarized in the table below:

TABLE III: Developed Drainage Basin Summary

Pre-Developed Basin	Storm Event	Total Basin Area (acres)	Composite (C)	Q (cfs)
D-1	10-Year	3.68	0.45	2.69
	100-Year	3.68	0.60	7.58

A small "landscape" area, 0.22 acres, located along the south end of the site is an undetained drainage area. Though this area drains off-site without being routed through the stormwater detention facility it is considered similar in nature to historic conditions and shall not do more harm than formerly.

The site detention pond is located at the southeast corner of the site. The detention pond collects runoff contributed by Drainage Basin D-1. Detailed detention pond and water quality calculations are provided in **Appendix G** and summarized below:

TABLE IV: Detention Pond Summary

STORM EVENT	DETENTION VOLUME REQUIREMENT (CF)	RELEASE RATE	POND ELEVATION
Water Quality	2,125		4680.74
10-YEAR, 24 HOUR	3,986	0.44	4681.52(1)
100-YEAR, 24 HOUR	5,899	1.84	4682.14

(1) Pond Elevation based off WQCV + 10-Year, 24—Hour Volume (2,125 cf + 1,861 cf = 3,986 cf)

The stormwater pond will be approximately 4.5-ft below the existing ground surface. According to Huddleston-Berry's Geotechnical Report, groundwater was not encountered in the subsurface [3].

Stormwater discharge will be controlled by a proposed outlet structure located in the detention pond. An orifice – weir plate attached to the structure will release runoff at allow rates to the existing 24-inch RCP that clips the southeast corner of the site. The existing 24" RCP is a combination irrigation tailwater and storm sewer system that conveys runoff to the Lakeside Community ponds. The proposed outlet structure will be placed directly on top of the existing 24" RCP to minimize backflow conditions into the site's detention facility. Detail calculations for the outlet structure are provided in **Appendix H**.

Stormwater quality will also be provided by the outlet structure. A perforated steel plate attached to the outlet structure will control release the require volume over a 40-hour period. This will allow for sediment and debris to fall out prior to being released.

Maintenance access to the stormwater pond outlet structure will be available from the east side of the pond via a 6:1 side slope.

There are no easements or tracts placing limitations on drainage use for this project.

E. Drainage Facility Maintenance

To insure adequate maintenance, operation and repair of the site's detention pond and outlet structure, in perpetuity, by the owners of the property, the following mutual covenants contained herein shall be followed:

- The Post-Construction Outlet Structure and pond shall be constructed by the Landowner in accordance with the plans and specifications and described in this report and Final Construction plans.
- The Post-Construction Outlet Structure and pond shall operate and be maintained in good working order as reasonably determined by the 521 Drainage Authority, the Qualified Erosion Control Specialist (QECS) and this report.
- The Post-Construction Outlet Structure and pond shall be inspected quarterly and after any significant rainfall during the 1st (first) year of operation by the QECS. At any time during the inspections the QECS finds a significant collection of sediment and/or debris that inhibits the facility from functioning properly, appropriate means shall be selected by the QECS to clean and maintain the facility to its original working order.
- After the 1st year of operation, the QECS has the option to reduce the interval of inspections based on the 1st year's reports.
- The Post-Construction Stormwater Control Operations and Maintenance Agreement entered into by the Landowner and the 521 Drainage Authority shall constitute a covenant running with the Property and shall be an equitable servitude binding on present and subsequent owners of the Property in whole or in part, and their administrators, executors, assigns, heirs and successors in interest.

III. DRAINAGE ANALYSIS AND DESIGN CRITERIA

A. Regulations

The calculations performed for this drainage analysis were prepared following the Mesa County/ City of Grand Junction Stormwater Management Manual (SWMM) [4]. No other regulations or criteria have been used to prepare analysis or design this project.

B. Development Criteria

There are no identified drainage constraints placed on the project with regards to major drainage studies, floodplain studies, or other drainage reports relevant to the project. The site will discharge stormwater to the existing 24" RCP located at the southeast corner of the site.

C. Hydrologic Criteria

The Rational Method demonstrated in SWMM (Section 700) has been used to determine the peak historic, offsite tributary, and developed runoff rates for the site. Storm intensities were calculated in accordance with SWMM Section 604. The 10-year, 24-hour storm even was used for the minor flood analysis and the 100-year, 24-hour storm event was used for the major storm flood analysis. Detention pond sizing and allowable release rates followed SWMM Section 1400. The methodology used to calculate the required water quality capture volume (WQCV) follows procedures outlined in SWMM Section 1604.2 [4].

Imperviousness area determinations for the existing drainage basin (H-0) were based on aerial photography and topographic survey information. Impervious area determinations for the proposed drainage basin (D-0) were determined by the proposed site design. Storm intensities were calculated in accordance with SWMM Section 604.

Hydrologic criteria in SWMM were followed without deviation. Detailed hydrologic calculations are included in **Appendix E**.

D. Hydraulic Criteria

The detention pond volume and allowable release rates for the 10-year and 100-year storm events were determined in accordance with the Rational Method provide in SWMM Section 1407.2. Orifice and weir design for the outlet structure followed SWMM Section 1408 [4].

Hydraulic calculation details are included in **Appendix F**.

E. Variance from Criteria

No variances to the Mesa County Stormwater Management Manual are being requested.

IV. POST CONSTRUCTION STORMWATER MANAGEMENT

A. Stormwater Quality Control Measures

The post-construction BMP to control discharge of pollutants from the project site is a water quality capture volume (WQCV). A perforated steel plate attached to the outlet structure will control release the WQCV over a 40-hour period. This will allow time for sediment and/or debris to fall out before being released.

B. Calculations

The WQCV was determined using SWMM Section 1604. The impervious area used in calculating the WQCV was determined from Basin D-0. Supporting calculations for the WQCV are included in **Appendix G**.

V. CONCLUSIONS

A. Compliance with the Manual

This report complies with the Manual.

Civil Law Rule places a natural easement or servitude upon the lower land for the drainage of surface water in its natural course, and the natural flow of the water cannot be obstructed by the servient owner to the detriment of the dominant owner. Colorado has modified this rule as such, the owner of the upper lands has an easement over lower lands for drainage or surface waters, and natural drainage conditions can be altered by an upper proprietor provided the water is not sent down in a manner or quantity to do more harm than formerly. The small 0.22 acre undetained drainage area as described in Section D of this report states the area will be landscaped and discharge rates will mirror that of the historic drainage characteristics.

B. Design Effectiveness

This report demonstrates a design to effectively detain the 10- and 100-year, 24-hour storm event with one-foot of free board on-site. The detention pond and water quality design mitigate downstream runoff and water quality impacts (i.e., sediment pollutants).

C. Areas in Flood Hazard Zone

The site is located outside of any mapped Special Flood Hazard Area, as depicted on the Flood Insurance Rate Map (FIRM), Map Number 08077C0806G [5]. A copy of the FIRM is included in **Appendix C**.

D. Variances from Manual

There are no requested variances for this report.

VI. REFERENCES

[1] Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. *Web Soil Survey*. Internet: http://websoilsurvey.nrcs.usda.gov/. Accessed [1/20/2012].

[2] "City of Grand Junction GIS – Development Map," Internet: http://gjcity.org, Accessed [5/10/2012].

[3] Huddleston-Berry Engineering & Testing LLC, *Geotechnical and Geologic Hazards Investigation for Karis Affordable Housing*, Grand Junction, Colorado, [12/16/19].

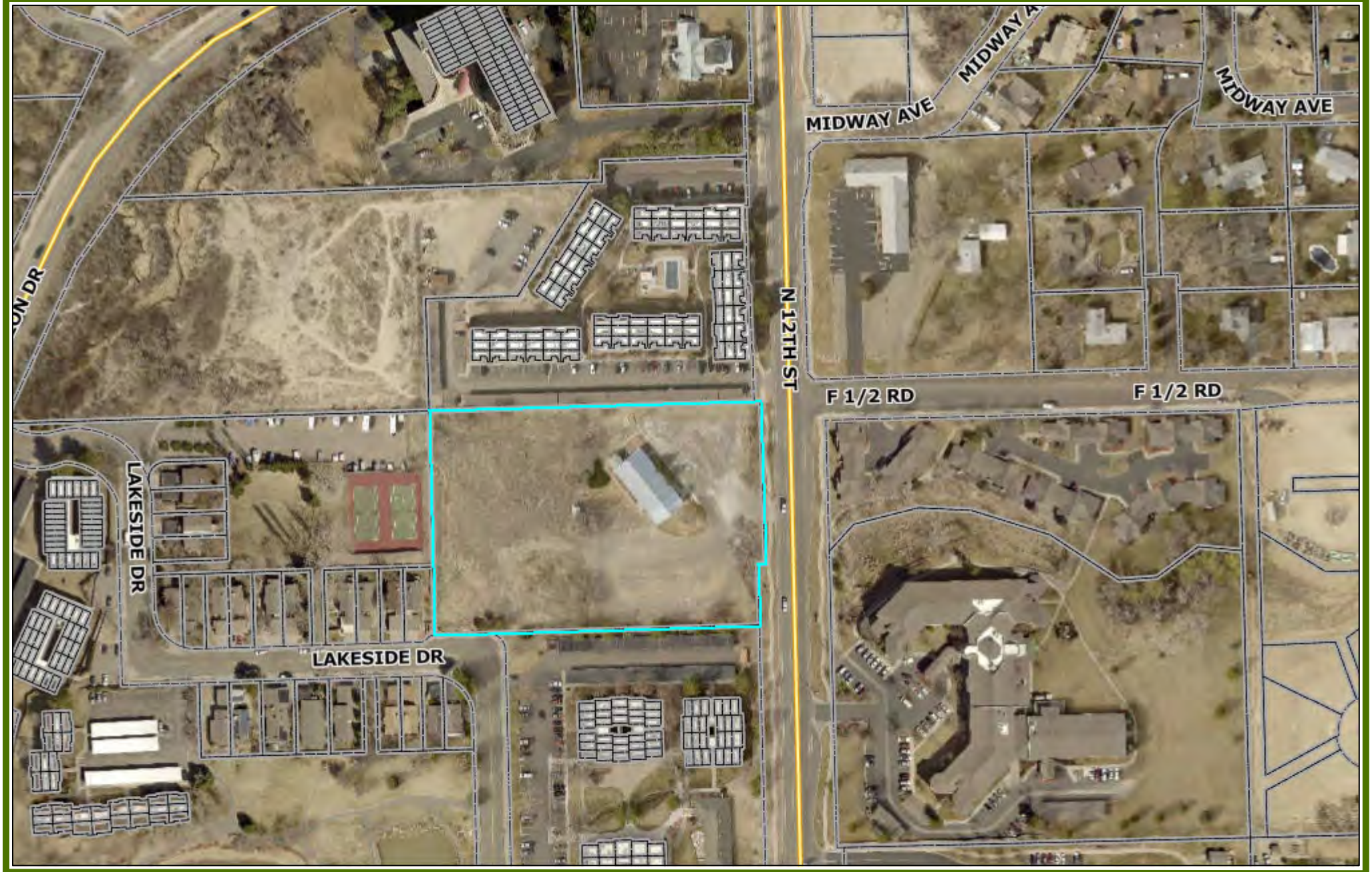
[4] Mesa County/City of Grand Junction, *Storm Water Management Manual* (SWMM), Mesa County, Colorado, December 2007.

[5] Federal Emergency Management Agency (FEMA), *Flood Insurance Rate Map*, Map Number: 08077CO806G, Mesa County, Colorado, Revised Date October 16, 2012.

Appendix A

Location Map

Location Map



N

0 0.05 0.1 mi

Printed: 3/26/2019

1 inch = 188 feet

CITY OF Grand Junction COLORADO GEOGRAPHIC INFORMATION SYSTEM

Appendix B

NRCS Soil Information &

Geotechnical Report Information

108° 33' 15" W
108° 33' 8" W
711490
711510
711530
711550
711570
711590
711610
711630
711650
711670
39° 5' 57" N
39° 5' 53" N
4330620
4330600
4330580
4330560
4330540
4330520
BkD
Cc
Ff
BkD
N 12th St
12th
Soil Map may not be valid at this scale.
Map Scale: 1:850 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 10 20 40 60
Feet
0 40 80 160 240
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 9, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 13, 2010—Aug 8, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BkD	Blackston very gravelly loam, 5 to 25 percent slopes	C	0.1	2.3%
Cc	Persayo silty clay loam, 5 to 12 percent slopes	D	0.7	18.3%
Ff	Fruita clay loam, 2 to 5 percent slopes	C	3.0	79.4%
Totals for Area of Interest			**3.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Huddleston-Berry
Engineering & Testing, LLC

GEOTECHNICAL AND GEOLOGIC HAZARDS INVESTIGATION
KARIS AFFORDABLE HOUSING
3205 N 12TH STREET
GRAND JUNCTION, COLORADO
PROJECT#01892-0001

KARIS APARTMENTS, LLLP
1004 SOUTH AVENUE WEST
MISSOULA, MONTANA 59801

JANUARY 16, 2019

Huddleston-Berry Engineering and Testing, LLC
640 White Avenue,
Grand Junction, Colorado 81501

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

A geologic hazards and geotechnical investigation was conducted for the new Karis Affordable Housing project in Grand Junction, Colorado. The project location is shown on Figure 1 – Site Location Map. The purpose of the investigation was to evaluate the surface and subsurface conditions at the site with respect to geologic hazards, foundation design, pavement design, and earthwork for the proposed construction. This summary has been prepared to include the information required by civil engineers, structural engineers, and contractors involved in the project.

Subsurface Conditions (p. 2)

The current subsurface investigation consisted of five borings, drilled on December 7th, 2018. The locations of the borings are shown on Figure 2 – Site Plan. The borings generally encountered native clay and silt soils in the shallow subsurface. Shale bedrock was encountered at depths of between 2.5 and 7.0 feet. Groundwater was not encountered in the subsurface at the time of the investigation.

The native soils are anticipated to be slightly collapsible to slightly expansive. The shale bedrock is anticipated to be slightly to moderately expansive.

Geologic Hazards and Constraints (p. 3)

The primary geologic hazard and constraint at the site is the presence of moisture sensitive soils and bedrock.

Summary of Foundation Recommendations

Micro Piles or Drilled Piers

- *Minimum Length* – 25 feet. (p. 4)
- *Free Length* – 15 feet (p. 4)
- *Skin Friction Capacity* – 1,500 psf. (p. 5)
- *Allowable End Bearing Capacity* – 15,000 psf for drilled piers. (p. 5)

Spread Footings, Voided Spread Footings, or Isolated Pads and Grade Beams

- *Structural Fill* – Minimum of 48-inches below foundations. The low plasticity native soils are suitable for re-use as structural fill. Imported structural fill should consist of crusher fines, CDOT Class 6 base course, or other granular material approved by the engineer. (p. 5)
- *Maximum Allowable Bearing Capacity* – 2,500 psf. (p. 6)
- *Minimum Dead Load* – 750 pcf. (p. 6)

Other Foundation Criteria

- *Seismic Design* – Site Class D. (p. 6)
- *Lateral Earth Pressure* – 55 pcf active. 75 pcf at-rest. (p. 7)

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

FIGURE 2
Site Plan

N

CONCEPTUAL SITE PLAN
SCALE = 1:40

shopworks architecture

Karis Affordable Housing
Grand Junction, CO • 05/30/18

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-1

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION ---- **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES ----
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		GRAVEL Pavement										
		Lean CLAY (CL), brown, moist, very stiff										
		*** Lab Classified SS1										
2.5			SS 1	100	11-15-15 (30)			13	47	21	26	93
5.0												
7.5		SHALE, grey, soft to medium hard, highly weathered	SS 2	100	15-17-19 (36)							
10.0			SS 3	100	16-20				38	21	17	
		Bottom of hole at 11.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-2

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ML) to Sandy Lean CLAY (cl), brown, moist, medium stiff to hard										
		*** Lab Classified SS1										
2.5			SS 1	89	14-17-18 (35)			4	21	19	2	63
5.0												
7.5		SHALE, grey, soft to medium hard, highly weathered	SS 2	100	9-11-16 (27)							
10.0												
		Bottom of hole at 11.0 feet.	SS 3	100	16-24				32	17	15	

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
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Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-3

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	89	8-11-12 (23)							
5.0												
7.5			SS 2	100	14-29							
10.0												
12.5			SS 3	100	12-21							
		Bottom of hole at 13.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-4

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	94	9-10-10 (20)							
5.0												
7.5			SS 2	94	12-16-26 (42)							
10.0												
12.5			SS 3	100	22-36							
		Bottom of hole at 13.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

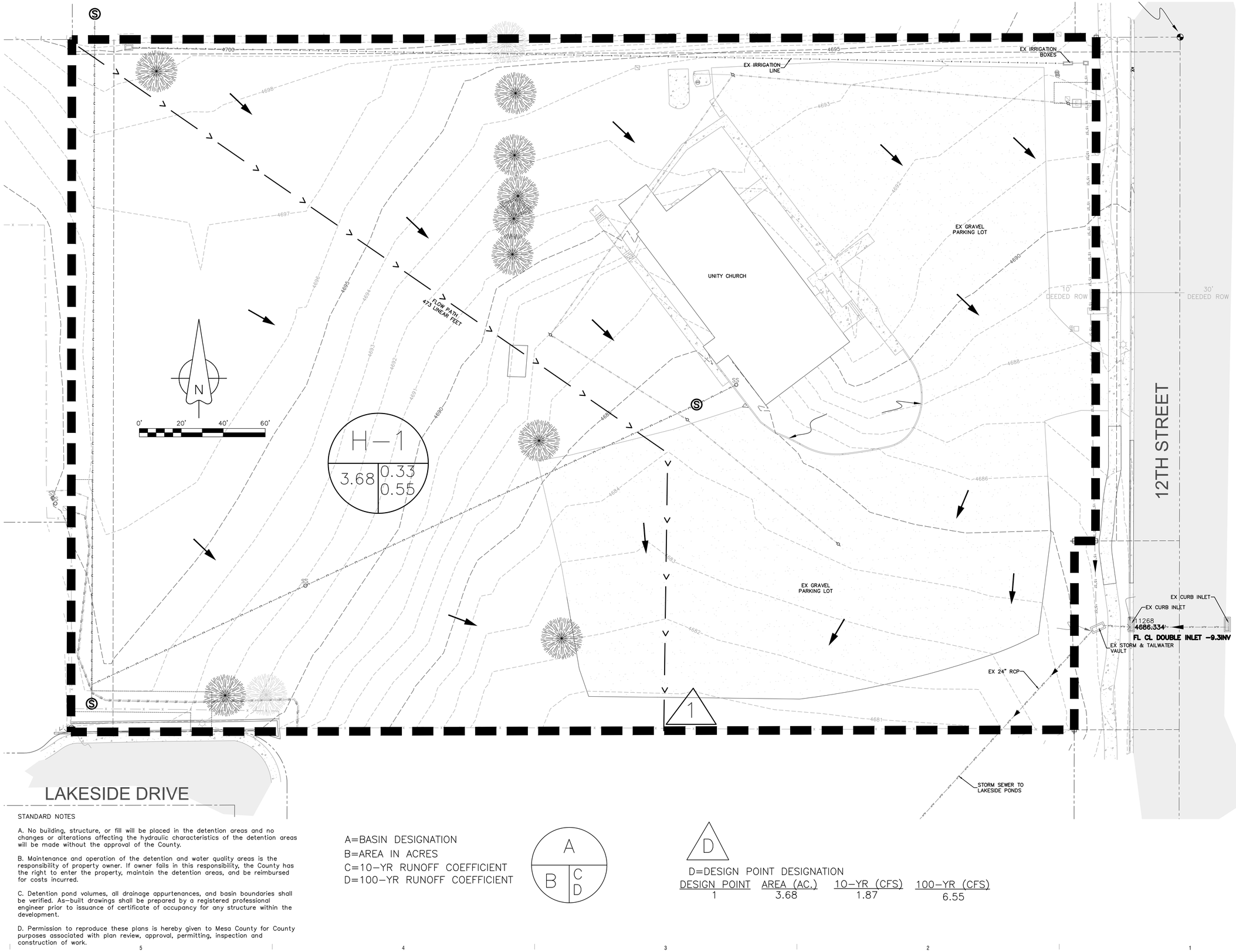
Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-5

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	83	5-6-9 (15)							
5.0												
7.5			SS 2	89	14-14-20 (34)							
10.0												
12.5			SS 3	100	20-30							
		Bottom of hole at 13.0 feet.										

Appendix C
Existing Drainage



STANDARD NOTES

A. No building, structure, or fill will be placed in the detention areas and no changes or alterations affecting the hydraulic characteristics of the detention areas will be made without the approval of the County.

B. Maintenance and operation of the detention and water quality areas is the responsibility of property owner. If owner fails in this responsibility, the County has the right to enter the property, maintain the detention areas, and be reimbursed for costs incurred.

C. Detention pond volumes, all drainage appurtenances, and basin boundaries shall be verified. As-built drawings shall be prepared by a registered professional engineer prior to issuance of certificate of occupancy for any structure within the development.

D. Permission to reproduce these plans is hereby given to Mesa County for County purposes associated with plan review, approval, permitting, inspection and construction of work.

A=BASIN DESIGNATION
B=AREA IN ACRES
C=10-YR RUNOFF COEFFICIENT
D=100-YR RUNOFF COEFFICIENT

A
B | C D

D

D=DESIGN POINT DESIGNATION

DESIGN POINT	AREA (AC.)	10-YR (CFS)	100-YR (CFS)
1	3.68	1.87	6.55

shopworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4068

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL

DRAWN: STS
REVIEWED: STS
PROJECT #: 18007 (ACG-1360.0001)

SHEET TITLE:
HISTORIC DRAINAGE

SCALE:

NO. C.20

M:\PROJECTS\1360\0001 - Karis Multi-Family\Drawings\CSD\Production Drawings\PROD-HISTORIC.dwg, 3/26/2019 2:11:55 PM, DWG To PDF.pc3

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 12. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov/.

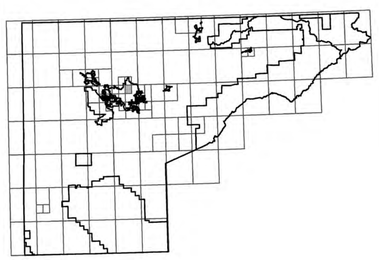
Base map information on this FIRM was derived from multiple sources. Data was provided by Mesa County GIS Dept., derived from ½ ft digital orthophotos, dated March 2010. Additional imagery was provided by the US Dept. of Agriculture, derived from 1 meter digital orthophotos, dated 2009.

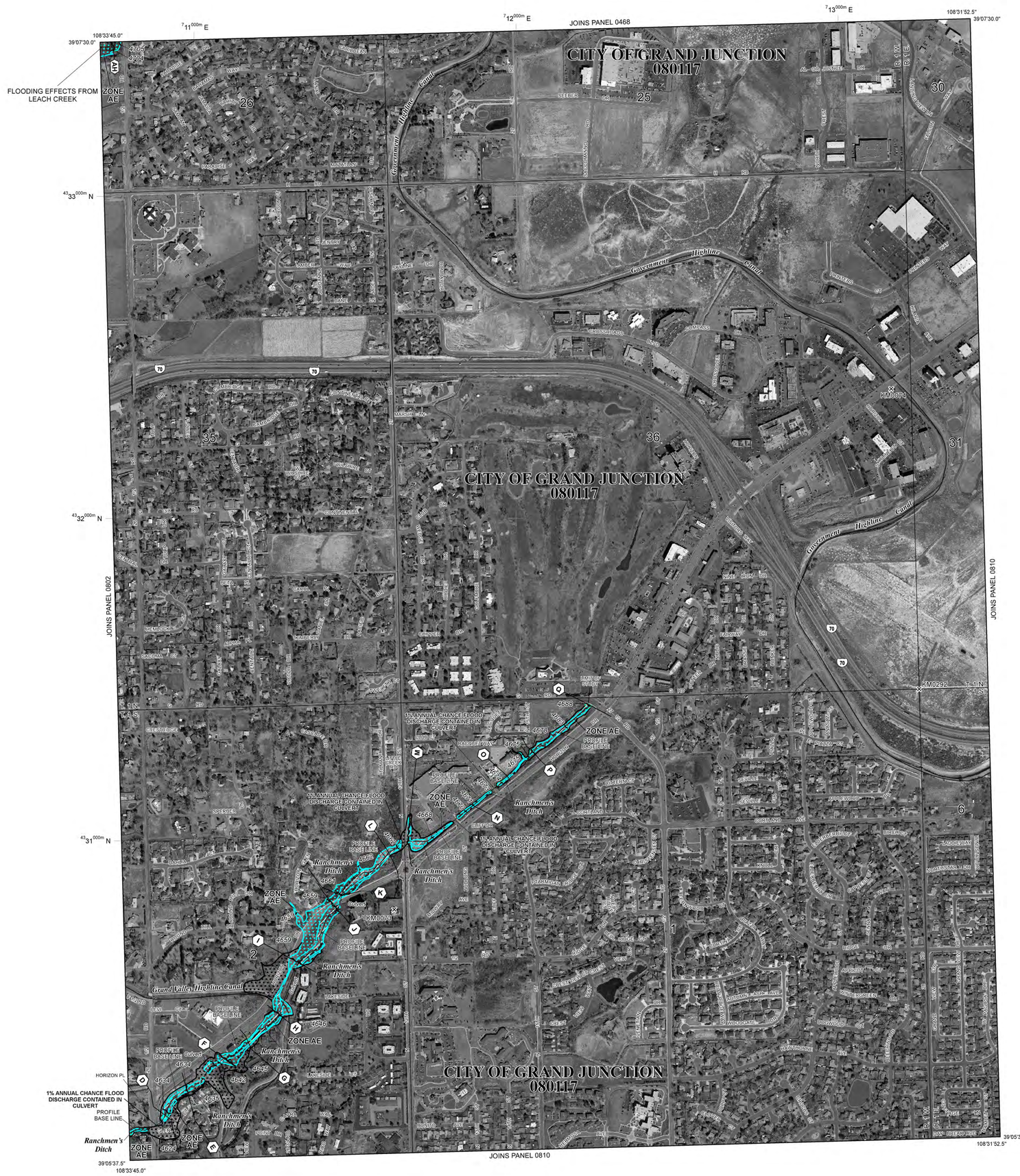
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the **FEMA Map Service Center** website at http://msc.fema.gov. Available products may include previously issued Letters ofMap Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the **FEMA Map Service Center** website or by calling the FEMA Map Information eXchange.





LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275 000m N — 1000-meter Universal Transverse Mercator grid ticks, zone 12
- 6000000 FT — 5000-foot grid ticks: Colorado State Plane coordinate system, central zone (FIPSZONE 0502), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 6, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
October 16, 2012 - to update corporate limits, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to add roads and road names, to change floodway, to decrease Base Flood Elevations, and to increase Base Flood Elevations.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0806G

FIRM
FLOOD INSURANCE RATE MAP

MESA COUNTY, COLORADO
AND INCORPORATED AREAS

PANEL 806 OF 1725
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GRAND JUNCTION, CITY OF	080117	0806	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

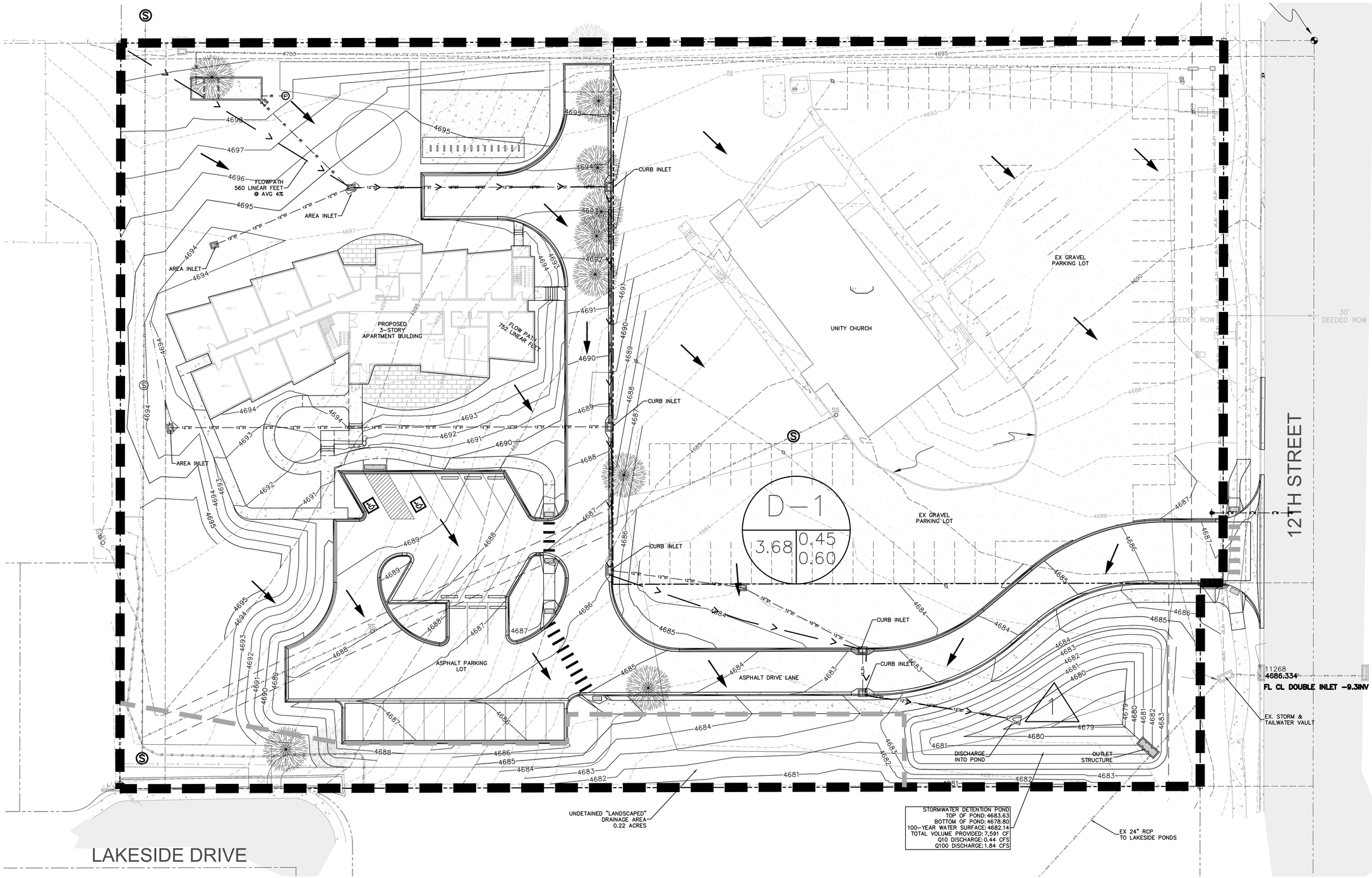
MAP NUMBER
08077C0806G

MAP REVISED
OCTOBER 16, 2012

Federal Emergency Management Agency

Appendix D

Proposed Drainage



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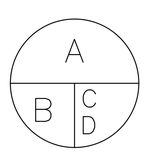
C. Detention pond volumes, all drainage appurtenances, and basin boundaries shall be verified. As-built drawings shall be prepared by a registered professional engineer prior to issuance of certificate of occupancy for any structure within the development.

D. Permission to reproduce these plans is hereby given to Mesa County for County purposes associated with plan review, approval, permitting, inspection and construction of work.

A=BASIN DESIGNATION
B=AREA IN ACRES
C=10-YR RUNOFF COEFFICIENT
D=100-YR RUNOFF COEFFICIENT



D=DESIGN POINT DESIGNATION

DESIGN POINT	AREA (AC.)	10-YR (CFS)	100-YR (CFS)
1	3.68	2.69	7.58

shop works architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4068

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL

DRAWN: STS
REVIEWED: STS
PROJECT #: 18007 (ACG-1360.0001)

SHEET TITLE:
DEVELOPED DRAINAGE

SCALE:

NO.
C.30

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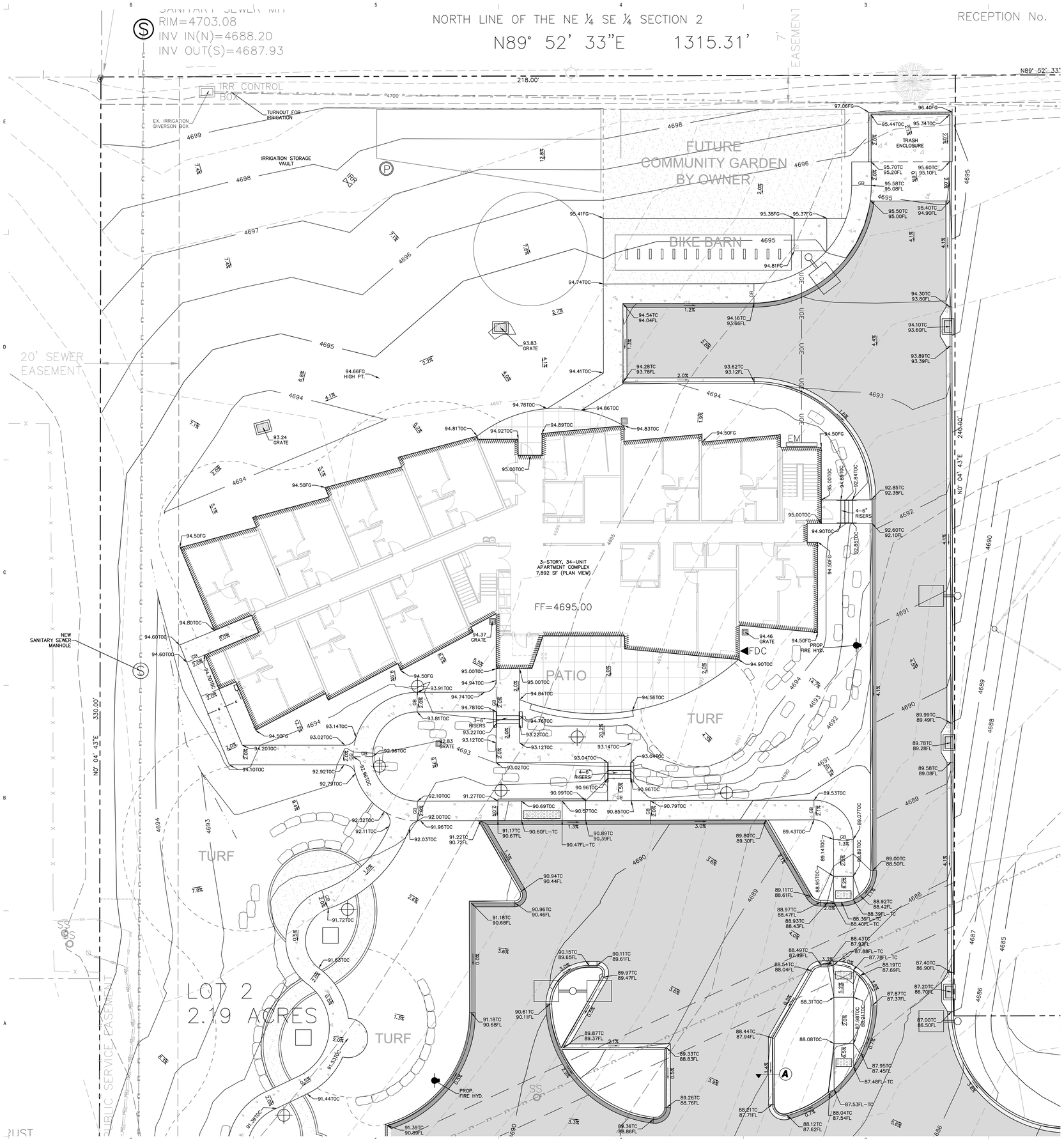

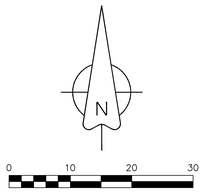

UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

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SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

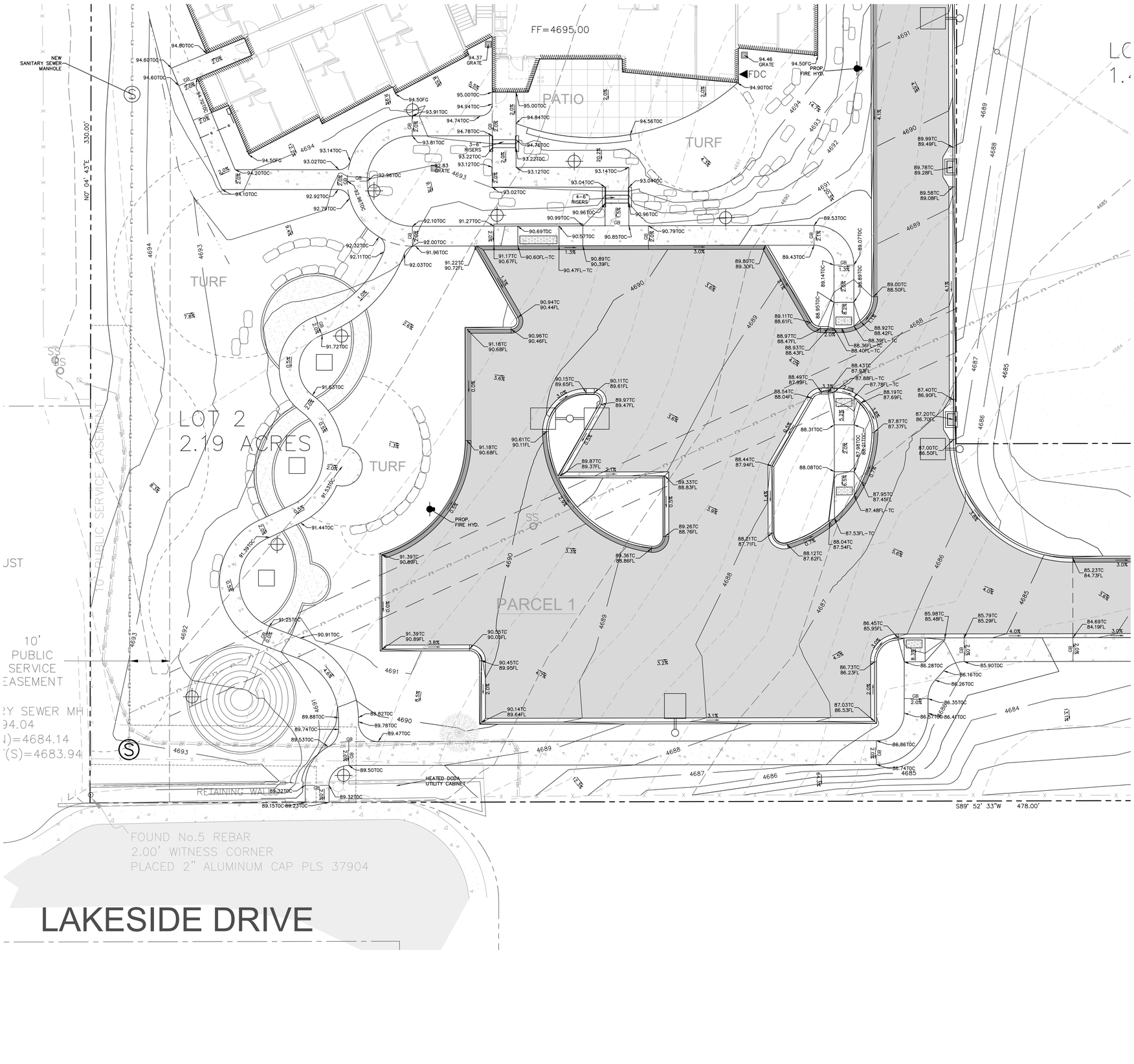
DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
GRADING AND DRAINAGE PLAN

SCALE: 1"=10'

NO. C8.00



UTILITIES AND AGENCIES		
CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C8.10

snop works architecture
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KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS
DATE: 3/21/19
PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN
SCALE: 1"=10'

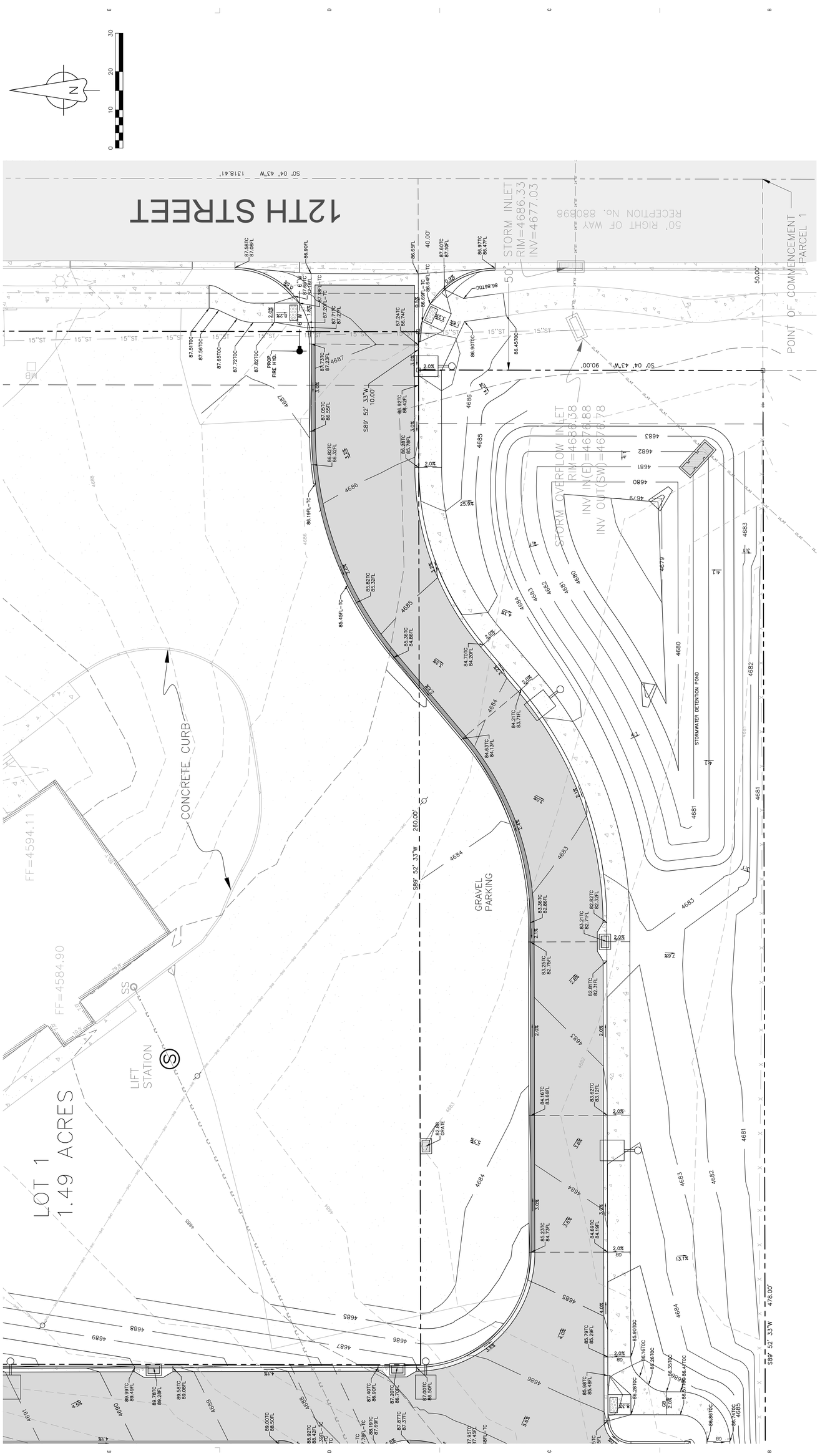
NO. C8.20

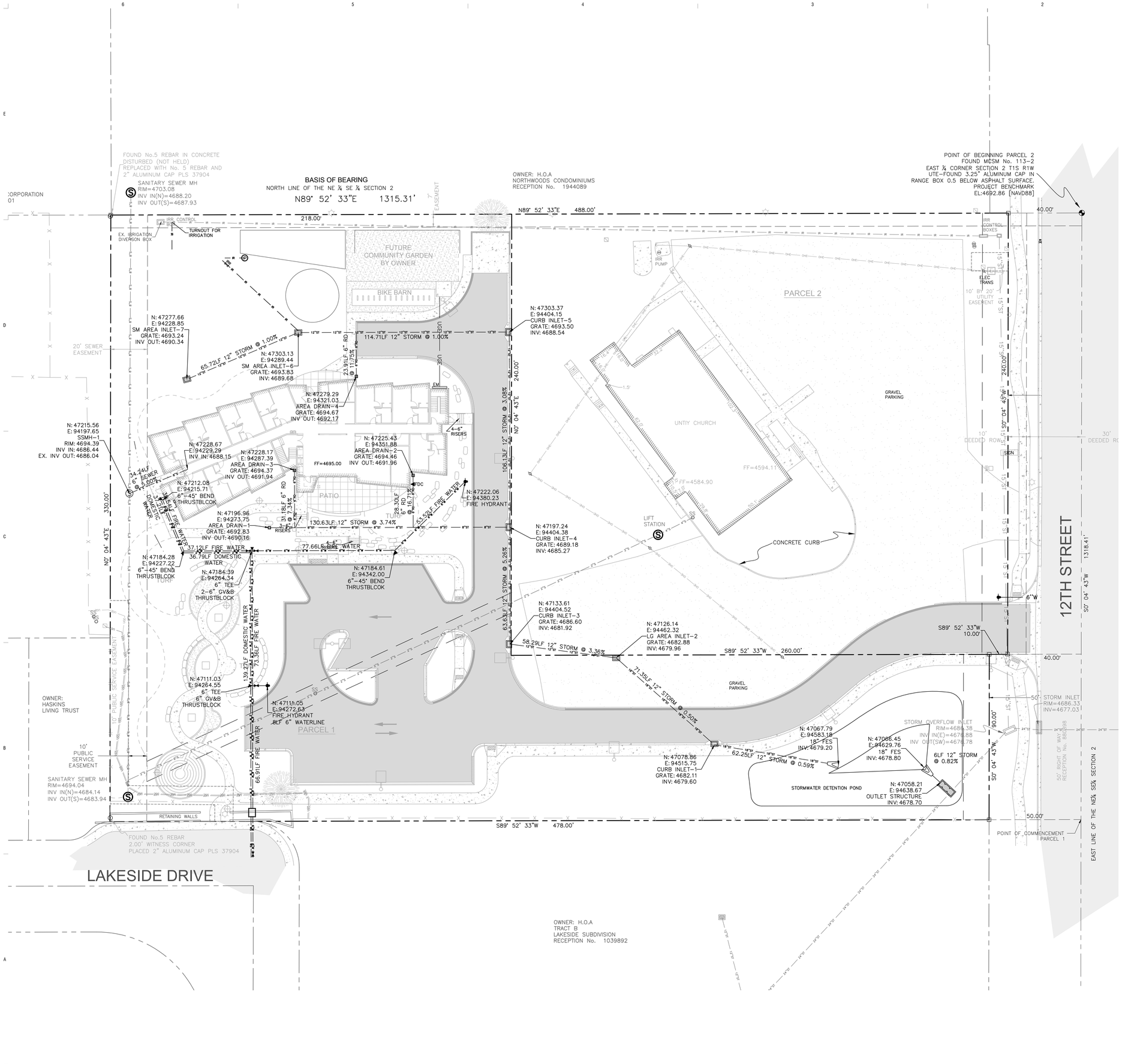
ASSISTANCE NOTICE
THE DEVELOPMENT CONSTRUCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING ISSUED, SIGNED, AND UNDER THE CONDITIONS OF THE DEVELOPMENT AGREEMENT. THE CITY'S REVIEW DOES NOT RELIEVE THE DESIGNERS, ENGINEERS, THE DESIGN CALCULATIONS FROM THE RESPONSIBILITY OF THE PROJECT DESIGN.
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

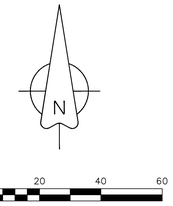
CITY DEVELOPMENT ENGINEER DATE

UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
CITY WATER	JIM BAUGHMAN	242-7491
GRAND VALLEY IRRIGATION	TRENT PRALL	244-1554
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	RANDAL REISS	244-5681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750







NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET
2. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

UTE WATER DISTRICT

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY:_____ DATE:_____

ACCEPTED AS CONSTRUCTED

BY:_____ DATE:_____

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS ON THE PLANS. THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER _____ DATE _____

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(970) 242-7540

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SCALE VERIFICATION
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KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
UTILITY COMPOSITE PLAN

SCALE: 1"=20'

NO. C5.00

Appendix E

Hydrologic Calculations

Karis Apartments
CIA Analysis

AREA + RUNOFF CURVE NUMBER CALCULATIONS																			TIME OF CONCENTRATION & RATE OF RUNOFF												
BASIN	STORM EVENT	SOIL	Total Basin Area (1)	Landscape / Bareground		Roof		Gravel		Impervious		Undeveloped		Commercial		Composite i(3)	Composite C(4)	Composite CN(5)	K(6)	Intitial Flow			Travel Time-Surface					Totals			
																				Length	Slope	t_i(7)	Length	S_w	Cv(8)	Vel(9)	t_t(10)	Average Slope(11)	T_c(12)	Intensity, I(13)	Runoff, Q(14)
				i(2)	A(1)	i(2)	A(1)	i(2)	A(1)	i(2)	A(1)	i(2)	A(1)	i(2)	A(1)					feet	%	min.	feet	ft/ft		ft/sec	min.		min.	in./hr.	cfs
H-1	10-YEAR	C	3.68	0.02		0.9	0.13	0.40	1.07	1.00	0.04	0.02	2.44	0.95		0.17	0.33	78	0.25	300	4.7	11.67	173	0.030	10	1.7	1.66	4.08	13.33	1.53	1.87
	100-YEAR	C	3.68	0.02		0.9	0.13	0.40	1.07	1.00	0.04	0.02	2.44	0.95		0.17	0.55	78	0.25	300	4.7	11.67	173	0.030	10	1.7	1.66	4.08	13.33	3.26	6.55
D-1	10-YEAR	C	3.68	0.02	1.87	0.9	0.34	0.40		1.00	1.47	0.02		0.95		0.49	0.45	86	0.39	115	4.8	8.14	445	0.010	20	2.0	3.71	1.78	11.85	1.61	2.69
	100-YEAR	C	3.68	0.02	1.87	0.9	0.34	0.40		1.00	1.47	0.02		0.95		0.49	0.60	86	0.39	115	4.8	8.14	445	0.010	20	2.0	3.71	1.78	11.85	3.43	7.58

(1) Area in acres

(2) Imperviousness Value from Table 701 of SWMM as a decimal

(3) Composite Impervious Value as a decimal - ((i1*A1)+(i2*A2)+(i3*A3)+(i4*A4)+(i5*A5)+(i6*A6))/(A1+A2+A3+A4+A5+A6)

(4) Runoff Coefficient from Table 702 in SWMM

ms pline

(6) Flow Resistance Coefficients = Table 702 of SWMM with $C_{5\text{-}yr}$ Value Based on Soil Type and Imperviousness Value in (4)

(7) Initial or Overland Flow Time (minutes): $t_i = (1.8 * (1.1\text{-}K) * L_o^{1/2}) / S^{1/3}$ - Limited to 300-ft max = Per SWMM, Equation 702; $t_{imin} = 5$ minutes; $t_{imax} = (L/180) + 10$ (urbanized watersheds) Equation 704

(8) Travel Time Conveyance Coefficient per Table 703 of SWMM

(9) $V = C_v * S_w^{1/2}$ -- per SWMM Equation 703

(10) Travel Time in Concentrated Flow: $t_t = L/(V*60)$

(11) Average Slope as a Percentage

(12) Total $T_c = t_i + t_t$

(13) Average Intensity (in./hr.); $I_{10yr} = (28.9 * 0.63)/(10 + T_c)^{0.786}$; $I_{100yr} = (28.9 * 1.34)/(10 + T_c)^{0.786}$ -- per SWMM 604

(14) Storm Runoff: $Q_{cfs} = C * I_{(in/hr)} * A_{(acres)}$ -- per SWMM Equation 710

Appendix F

Hydraulic Calculations

ALLOWABLE STORM EVENT RELEASE RATE			
Control Frequency	Soil Group[1]	Area[2]	Release Rate[3]
		acres	cfs
10-year	C	3.68	0.44
100-year	C	3.68	1.84

(1) NRCS Hydrologic Soil Group

(2) Tributary watershed area in acres

(3) Allowable Release Rates for Detention Ponds (cfs) --- per SWMM Table 1402

Appendix G

Stormwater Detention Pond & WQCV Calculations

REQUIRED DETENTION POND SIZING						
BASIN	STORM EVENT	A[1]	P[2]	X[3]	K[4]	V[5]
		acres	%			cubic feet
D-1	10 YEAR	3.68	49.00	0.26	0.0116	1,861
	100 YEAR	3.68	49.00	0.42	0.0368	5,899

(1) Area in acres (Basin D-0 + O-1)

(2) Developed Basin Imperviousness (%)

(3) Mesa County and the other local jurisdictions adjustment Factor -- per SWMM Table 1401

(4) $K_{10} = ((0.95*P_{10}) - 1.90) * (X_{10}/1000)$; $K_{100} = ((1.78*P_{100}) - (0.002*P_{100}^{2}) - 3.56) * (X_{100}/900)$

(5) Minimum Detention Volumes: $V_{\text{cubic feet}} = (K * A) * 43{,}560$

WATER QUALITY CAPTURE VOLUME (WQCV)

LOCATION	K[(1)]	a[(2)]	I[(3)]	WQCV[(4)]	A[(5)]	Design Volume[(6)]
			decimal	inches	acres	cubic feet
D-1	0.65	1.00	0.49	0.13	3.68	2,125

(1) Adjustment to equation for Mesa County area = $d_6/0.43$; where d_6 =0.28, therefore K = 0.65 --- per SWMM 1604.2

(2) Adjustment for BMPs drain time --- per SWMM 1604.2

(3) Watershed impervious as a decimal

(4) Water Quality Capture Volume is in watershed inches = $K(a((0.91*I^3) - (1.19*I^2) + (0.78*I)))$ ---- per SWMM 1604.2

(5) Tributary watershed area in acres

(6) Design Volume is 120% of the WQCV = WQCV * A * 1.2 * (1/12) * 43,560

STAGE STORAGE TABLE						
ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
4,678.800	29.08	N/A	N/A	0.00	N/A	0.00
4,678.900	103.71	0.100	6.64	6.64	6.26	6.26
4,679.000	202.82	0.100	15.33	21.97	15.05	21.31
4,679.100	331.53	0.100	26.72	48.68	26.45	47.76
4,679.200	487.29	0.100	40.94	89.62	40.69	88.46
4,679.300	653.29	0.100	57.03	146.65	56.83	145.28
4,679.400	814.94	0.100	73.41	220.07	73.26	218.55
4,679.500	972.24	0.100	89.36	309.42	89.24	307.79
4,679.600	1,082.00	0.100	102.71	412.14	102.66	410.45
4,679.700	1,149.32	0.100	111.57	523.70	111.55	522.00
4,679.800	1,219.10	0.100	118.42	642.12	118.40	640.41
4,679.900	1,291.33	0.100	125.52	767.65	125.50	765.91
4,680.000	1,366.02	0.100	132.87	900.51	132.85	898.76
4,680.100	1,443.17	0.100	140.46	1040.97	140.44	1039.20
4,680.200	1,522.78	0.100	148.30	1189.27	148.28	1187.48
4,680.300	1,604.84	0.100	156.38	1345.65	156.36	1343.84
4,680.400	1,689.35	0.100	164.71	1510.36	164.69	1508.54
4,680.500	1,776.33	0.100	173.28	1683.64	173.27	1681.80
4,680.600	1,866.48	0.100	182.14	1865.78	182.12	1863.92
4,680.700	1,958.85	0.100	191.27	2057.05	191.25	2055.17
4,680.800	2,052.38	0.100	200.56	2257.61	200.54	2255.71
4,680.900	2,147.10	0.100	209.97	2467.59	209.96	2465.67
4,681.000	2,242.99	0.100	219.50	2687.09	219.49	2685.16
4,681.100	2,340.06	0.100	229.15	2916.24	229.14	2914.29
4,681.200	2,438.31	0.100	238.92	3155.16	238.90	3153.20
4,681.300	2,537.73	0.100	248.80	3403.96	248.79	3401.98
4,681.400	2,638.32	0.100	258.80	3662.77	258.79	3660.77
4,681.500	2,740.10	0.100	268.92	3931.69	268.91	3929.67
4,681.600	2,843.37	0.100	279.17	4210.86	279.16	4208.83
4,681.700	2,948.06	0.100	289.57	4500.43	289.56	4498.39
4,681.800	3,053.82	0.100	300.09	4800.53	300.08	4798.46
4,681.900	3,160.65	0.100	310.72	5111.25	310.71	5109.17
4,682.000	3,268.55	0.100	321.46	5432.71	321.44	5430.62
4,682.100	3,377.52	0.100	332.30	5765.01	332.29	5762.90
4,682.200	3,487.56	0.100	343.25	6108.27	343.24	6106.14
4,682.300	3,598.67	0.100	354.31	6462.58	354.30	6460.44
4,682.400	3,710.86	0.100	365.48	6828.05	365.46	6825.90
4,682.500	3,824.11	0.100	376.75	7204.80	376.73	7202.64
4,682.600	3,938.42	0.100	388.13	7592.93	388.11	7590.75
4,682.700	4,053.69	0.100	399.61	7992.54	399.59	7990.34
4,682.800	4,169.92	0.100	411.18	8403.72	411.17	8401.51
4,682.900	4,287.11	0.100	422.85	8826.57	422.84	8824.35
4,683.000	4,405.27	0.100	434.62	9261.19	434.61	9258.95
4,683.100	4,524.39	0.100	446.48	9707.67	446.47	9705.42
4,683.200	4,644.48	0.100	458.44	10166.11	458.43	10163.85
4,683.300	4,765.53	0.100	470.50	10636.61	470.49	10634.34
4,683.400	4,887.54	0.100	482.65	11119.27	482.64	11116.98
4,683.500	5,010.52	0.100	494.90	11614.17	494.89	11611.87
4,683.600	5,150.31	0.100	508.04	12122.21	508.03	12119.89

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Proposed Detention Pond
Outlet Structure

Karis Apartments

Job #: 1360.0001
3/25/2019

Given:

Q_{10yr}=	0.44	cfs
$Q_{max100yr}$=	1.84	cfs
h_{10} =	0.2	ft
Invert Elevation=	4678.70	ft
10_{yr} Elevation=	4681.52	ft
100_{yr} Elevation=	4682.14	ft
g =	32.2	ft/sec^2

10_{yr} Orifice Design:

10_{yr} Orifice Control Equation= $Q=C_{10}*A*(2*g*H_{10})^{0.5}$

Solve for A = Area = $(h \times w)ft^2$

H_{10} =	2.72		$H_{10} = (10_{yr\ Elevation}$ - Invert of Intake - (h/2))
C_{10} =	0.630		(Type II, Table K-4)
A_{10} =	0.053	ft^2	
w=	0.26	ft	(length of orifice opening)

10-YEAR ORIFICE	
h_{10} =	**0.2 ft**
w_{10} =	**0.26 ft**

For 100_{yr} Storm Event:

Solving for Q_{100yr}= $C*A*(2*g*H_{100})^{0.5}$

A=	0.05	sf	(h10 x w10)
H_{100}=	3.34	ft	$H_{100} = (100_{yr\ Elevation}$ - Invert of Intake - (h/2))
C_{100}=	0.628		(Type II-B, Table K-4)
$Q_{orifice\text{-}100yr}$=	0.49	cfs	(100_{yr} Discharge for the 10_{yr} Orifice Control)

Top Weir Control for 100_{yr} Storm Event:

100-yr Weir Equation= $Q=C*L*(Ht)^{1.5}$

Solve for L :

Q_{100yr}=	1.35	cfs	($Q_{max100yr}$ - $Q_{orifice\text{-}100yr}$)
H_t=	0.62	ft	$H_t = (100_{yr\ Elevation}$ - $10_{yr\ Elevation}$)
C=	3.33		Francis Weir Coefficient
L =	0.83	ft	(length of weir opening)

100-YEAR WEIR LENGTH	
L =	**0.83 ft**

Karis Apartments
Water Quality Control Plate
Job #: 1360.0001
3/25/2019

Given:

WQCV =	2,125	cubic feet
Box Invert Elevation=	4678.70	ft
WQCV elevation =	4680.74	ft
10_{yr} Elevation=	4681.52	ft
100_{yr} Elevation=	4682.14	ft

Urban Drainage & Flood Control District Equation EDB-3 for 40-hr Drain Time, 4" Hole Spacing

A = (88*(WQCV^(0.95/H^0.085)))/(Td*S^0.09*H^(2.6*S^0.3))

A =	Hole Area in Square Inches for holes at 4" On Center
WQCV =	Water Quality Capture Volume in Acre-Feet
H =	Depth of Volume in feet (WQCV - Box Invert Elevation)
Td =	Time to Drain the WQCV Volume in hours
S =	Slope in feet vertical / feet horiziontal

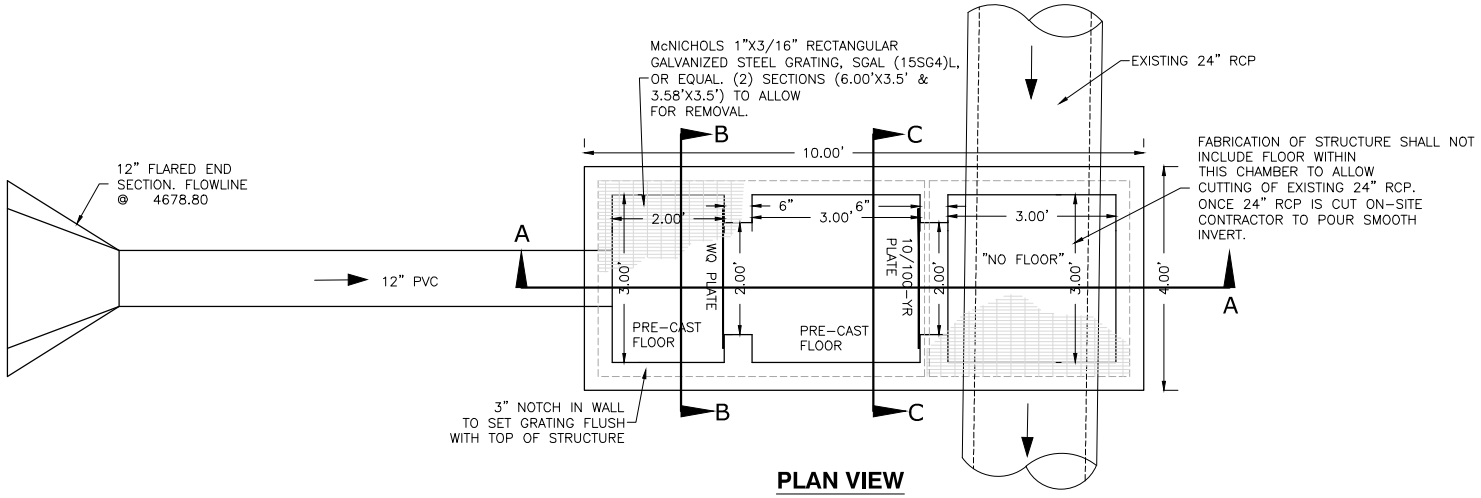
Solving for A:

WQCV =	0.05	Acre-Ft
H =	2.04	ft
Td =	40.000	
S =	0.020	ft/ft
A =	0.118	Area of Hole In Square inches

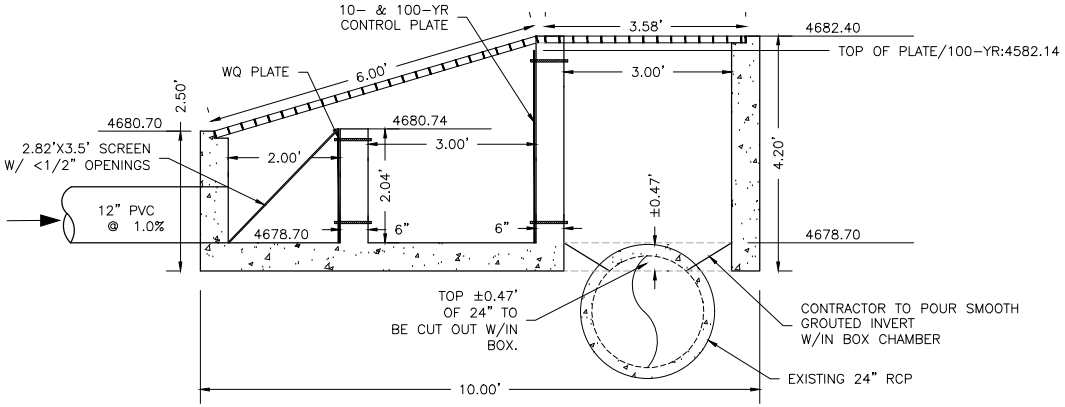
Hole Diameter In Inches = 0.388341 = Approx. 1/2"

Appendix H

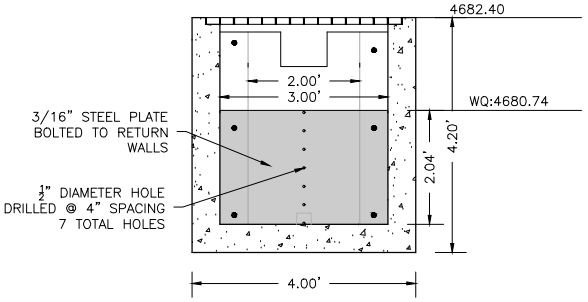
Outlet Structure Design



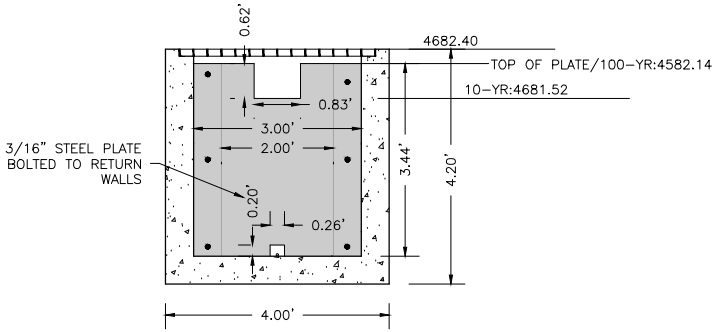
PLAN VIEW



SECTION A-A



SECTION B-B
WQ PLATE



SECTION C-C
10- & 100-YR PLATE

OUTLET STRUCTURE

NTS

Appendix I

Drainage Report Checklist

Table 302
Stormwater Management Manual
Drainage Report Checklist

Instructions:
1. Applicant to identify with a "check-mark" if information is provided with report. If applicant believes information is not required, indicate with "n/a" and attach separate sheet with explanation
2. The reviewer will determine if information labeled "n/a" is required and whether information must be submitted.
3. Those items noted with an "asterisk" are not typically required for conceptual/ preliminary report. Applicant shall confirm this with local jurisdiction.
4. Submit three (3) copies of report and include copy of check list bound with report.

TITLE PAGE

A. Type of report (Conceptual/Preliminary or Final Drainage Report).
B. Project Name.
C. Preparer name, firm, address, number, and date.
D. Professional Engineer's seal of preparer.
E. Certifications (see SWMM Section 303.1)

I. INTRODUCTION

A. Background
- ✓ 1. Identify report preparer and purpose.
- ✓ 2. Identify date of letter with previous County comments.

B. Project Location
- ✓ 1. Identify Township, Range, and Section.
- ✓ 2. Identify adjacent street and subdivision names.
- ✓ 3. Reference to General Location Map.

C. Property Description
- ✓ 1. Identify area in acres of entire contiguous ownership.
- ✓ 2. Describe existing ground cover, vegetation, soils, topography and slopes.
- ✓ 3. Describe existing drainage facilities, such as channels, detention areas, or structures.
- ✓ 4. Describe existing irrigation facilities, such as ditches, head-gates, or diversions.
- ✓ 5. Identify proposed types of land use and encumbrances.

D. Previous Investigations
- ✓ 1. Identify drainage master plans that include the project area, including floodplain studies.
- ✓ 2. Identify drainage reports for adjacent development.

II. DRAINAGE SYSTEM DESCRIPTION

A. Existing Drainage Conditions
- ✓ 1. Describe existing topography and provide map with contours extending a minimum of 100 feet beyond property limits.
- ✓ 2. Identify major drainageway or outfall drainageway and describe map showing location of proposed development within the drainageways.
- ✓ 3. Identify pre-developed drainage patterns and describe map showing pre-developed sub-basins and concentrated discharge locations. Provide calculations of pre-developed peak flows entering and leaving the site.

B. Master Drainage Plan
- ✓ 1. Describe location of the project relative to a previously prepared master drainage plan, including drainage plans prepared for adjacent development.

C. Offsite Tributary Area

1. Identify all offsite drainage basins that are tributary to the project.
2. Identify assumptions regarding existing and future land use and effects of offsite detention on peak flows.

D. Proposed Drainage System Description

1. Identify how offisite stormwater is collected and conveyed through the site and ultimately to the receiving water(s).
2. Identify sub-basins and describe, in general terms, how onsite stormwater is collected and conveyed through the site for each location where stormwater is discharged from the site.
3. Describe detention volumes, release rates and pool elevations. *
4. Identify the difference in elevation between pond invert and the groundwater table. *
5. Describe how stormwater is discharged from the site, including both concentrated and dispersed discharges and rates.
6. Describe stormwater quality facilities.
7. Describe maintenance access aspects of design. *
8. Describe easements and tracts for drainage purposes, including limitation on use. *

E. Drainage Facility Maintenance

1. Identify responsible parties for maintenance of each drainage and water quality facility. *
2. Identify general maintenance activities and schedules. *

III. DRAINAGE ANALYSIS AND DESIGN CRITERIA

A. Regulations

1. Identify that analysis and design was prepared in accordance with the provisions of the Manual.
2. Identify other regulations or criteria which have been used to prepare analysis and design.

B. Development Criteria

1. Identify drainage constraints placed on the project, such as by a major drainage study, floodplain study or other drainage reports relevant to the project.
2. Identify drainage constraints placed on the project, such as from major street alignments, utilities, existing structures, and other developments.

C. Hydrologic Criteria

(If Manual was followed without deviation, then a statement to that effect is all that is required. Otherwise provide the following information where the criteria used deviates from the Manual.)

1. Identify developed storm runoff peak flows and volumes and how they were determined, including rainfall intensity or design storm.
2. Identify which storm events were used for minor and major flood analysis and design.
3. Identify how and why any other deviations from the Manual occurred.

D. Hydraulic Criteria

(If Manual was followed without deviation, then a statement to that effect is all that is required. Otherwise provide the following information where the criteria used deviates from the Manual.)

1. Identify type(s) of streets within and adjacent to development and source for allowable street capacity. N4 *
2. Identify which type(s) of storm inlets were analyzed or designed and source for allowable capacity. N4 *
3. Identify which type of storm sewers which were analyzed or designed and

✓ * Manning's n-values used.

4. ✓ * Identify which method was used to determine detention volume requirements and how allowable release rates were determined.
5. NA * Identify how the capacity of open channels and culverts were determined.
6. ✓ * Identify any special analysis or design requirements not contained with the Manual.
7. ✓ Identify how and why any other deviations from the Manual occurred.

E. Variance from Criteria

1. ✓ Identify any provisions of the Manual for which a variance is requested.
2. ✓ Identify pre-existing conditions which cause the variance request.

*IV. POST CONSTRUCTION STORMWATER MANAGEMENT. See Manual Section 1600 for requirements.

Note: This section of the Final Drainage Report identifies additional information required by Mesa County's, City of Grand Junction's, and Town of Palisade's, Permit for Stormwater Discharges Associated with Municipal Separate Storm Sewer Systems (MS4s), permit No. COR-090000. The Final Drainage Plan and the Construction SWMP (see SWMM Section 1500) meets the requirements of the MS4s Permit. In general, this section identifies permanent BMP practices to control the discharge of pollutants after construction is complete.

*A. Stormwater Quality Control Measures

1. ✓ * Describe the post-construction BMPs to control discharge of pollutants from the project site.
2. NA * If compensating detention is provided, discuss practices to address water quality from area not tributary to detention area.
3. NA * If underground detention is proposed, discuss how water quality facilities will be provided on the surface.
4. NA If proprietary BMPs are proposed, provide the justification and sizing requirements (see SWMM Section 1603.3).

*B. Calculations

1. ✓ Provide methods and calculations for WQCV, sediment storage, and water quality outlet structure.

V. CONCLUSIONS

A. Compliance with Manual

✓ Compliance with Manual and other approved documents, such as drainage plans and floodplain studies.

B. Design Effectiveness

✓ Effectiveness of drainage design to control impacts of storm runoff.

C. Areas in Flood Hazard Zone

✓ Meet requirements of Floodplain Regulations: Mesa County Land Development Code, Section 7.13; City of Grand Junction Zoning and Development Code, Section 7.1.

D. Variances from Manual

✓ Applicant shall identify any requested variances and provide basis for approving variance. If no variances are requested, applicant shall state that none are requested.

VII. REFERENCES

✓ Provide a reference list of all criteria, master plans, drainage reports, and technical information used.

TABLES

✓ Include copy of all tables prepared for report.

FIGURES

✓ A. General Location Map (See Section 303.2a)

✓ B. Flood Plain Information
✓ C. Drainage Plan (See Section 303.2b)
✓ D. Other pertinent figures.

APPENDICIES

A. DESIGN CHARTS
   1. ✓ Provide copy of all design charts (i.e.: tables, figures, charts from other criteria) used for the report.

B. HYDROLOGIC CALCULATIONS (see Manual Sections 600 and 700)
   1. ✓ Land use assumptions for off-site runoff calculations.
   2. ✓ Time of concentration and runoff coefficients for pre-existing and post development conditions.
   3. ✓ Pre-developed hydrologic computations.
   4. ✓ Developed conditions hydrologic computations.

C. HYDRAULIC CALCULATIONS
   1. NA Capacity of existing channels, streets, storm sewers, inlets, culverts and other facilities.
   2. NA Calculations for existing storm sewer and open channel.
   3. NA Irrigation ditch flows and ditch system capacity.
   4. ✓ * Detention pond design (see Manual, Section 1400 for requirements).
      a. ✓ * Storage volume, release rates, and pool elevations for 10-year and 100-year storm.
      b. ✓ * Outlet structure dimensions, orifice diameter, weir lengths, pipe headwater and other data.
      c. NA * Outlet velocity and energy dissipation requirements.
      d. NA * Routing of outlet flows and emergency spillway flows.
   5. NA * Street capacity calculations, if data in Manual not used (see Section 1100).
   6. NA * Storm inlet capacity calculations, if data in Manual not used (see Section 1100).
   7. NA * Storm sewer capacity calculations, if data in Manual not used (see Section 1000).
   8. NA * Channel capacity calculations, if data in Manual not used (see Section 800).
   9. NA * Culvert capacity calculations (see Manual, Section 1200).
   10. NA * Other hydraulic structure calculations (see Manual, Section 900).

D. STORMWATER QUALITY CALCULATIONS
   1. ✓ Water Quality Capture Volume (WQCV).
   2. ✓ * Storage volume for sediment volume and pool elevations for WQCV.
   3. ✓ * Outlet calculations for required area per row, diameter of individual holes, number of holes per row, and number of holes per column.

✓ **CERTIFICATION – PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE**

ACKNOWLEDGEMENTS

Drainage Report checklist was prepared by: _____

Table 303
Stormwater Management Manual

Drainage Plan Checklist

Instructions:
1. Applicant to identify with a "check-mark" if information is provided. If applicant believes information is not required, indicate with "n/a".
2. County will determine if information labeled "n/a" is required and whether information must be submitted.

I. EXISTING FACILITIES

- ✓ A. Contours at two foot intervals, based on USGS datum. Contours to extend at least 50 feet past property line.
- ✓ B. Location and elevation of USGS benchmarks or benchmarks referenced to USGS.
- ✓ C. Property lines.
- ✓ D. Drainage easements.
- ✓ E. Street names.
- ✓ F. Major and minor channels and floodplains.
- ✓ G. A historic drainage plan including historic basin boundaries and flow paths.

II. PROPOSED FACILITIES

- ✓ A. Contours at two-foot intervals, based on USGS datum.
- ✓ B. Property lines.
- ✓ C. Drainage easements.
- ✓ D. Street names and grades.
- ✓ E. Right of way and easement.
- ✓ F. Finished floor elevations for protection from major storm run-off.
- ✓ G. Detention pond information:
  1. ✓ Location of each detention pond with site at 1"=50' scale or larger with 2-foot contour intervals.
  2. ✓ Inlet and outlet structure, and trickle channel design details.
  3. N/A Details of emergency spillway and channel.
  4. ✓ Landscape information, including side slopes, vegetation and planting requirements.
  5. ✓ Details of water quality outlet structure.
- N/A H. Channel Information:
  1. N/A Profiles with existing and proposed grades.
  2. ✓ Cross sections on 100-foot stations showing existing and proposed topography and required rights of way.
  3. N/A Locations and size of all existing and proposed structures.
  4. N/A Locations and profiles of adjacent utilities.
  5. Typical channel section and lining details.
- ✓ I. Storm sewer information:
  1. ✓ Alignment and location of manholes, inlets, and outlet structures.
  2. ✓ Profile of invert and pipe crown.
  3. ✓ Invert elevations at manholes and inlets.
  4. ✓ Lengths and grades between manholes and inlets.
  5. ✓ Locations and elevations of utilities adjacent to and crossing storm sewer.
  6. ✓ Easement and other O&M access geometry.
  7. ✓ Outlet details, such as end sections, headwall and wingwalls, erosion control, and vegetation.
- N/A J. Street cross sections with design 100-year flood depth.
- ✓ K. Other drainage related structures and facilities, including underdrains and sump pump discharge lines.
- ✓ L. Other permanent BMP measures to control pollutant discharges to the County's MS4 system.

III. HYDRAULIC AND HYDROLOGIC INFORMATION

A. Routing and accumulative runoff peaks at upstream and downstream ends of the site and at various critical points onsite for initial and major storms. Inflow and outflow from each subbasin shall be shown for both initial and major storms. ✓

B. Street cross sections showing 100-year flood levels. N/A

C. Major and minor channels and floodplains. ✓

D. Detention pond data: ✓

1. Release rates for 10- and 100-year storm events. ✓
2. Required and provided volumes for 10- and 100-year storm events. ✓
3. Design depths for 10- and 100-year storm events. ✓
4. Water quality capture volume and pool elevation. ✓

E. Channel data: N/A

1. Water surface profiles. N/A
2. Representative 100-year flow velocity and Froude number.

F. Storm sewer data: N/A

1. Profile of water surface for design flow rate. ✓
2. Peak flows for design flow, 2-year and 100-year storm events.

IV. STANDARD NOTES

A. No building, structure, or fill will be placed in the detention areas and no changes or alterations affecting the hydraulic characteristics of the detention areas will be made without the approval of the County. ✓

B. Maintenance and operation of the detention and water quality areas is the responsibility of property owner. If owner fails in this responsibility, the County has the right to enter the property, maintain the detention areas, and be reimbursed for costs incurred. ✓

C. Detention pond volumes, all drainage appurtenances, and basin boundaries shall be verified. As-built drawings shall be prepared by a registered professional engineer prior to issuance of certificate of occupancy for any structure within the development. ✓

D. Permission to reproduce these plans is hereby given to Mesa County for County purposes associated with plan review, approval, permitting, inspection and construction of work. ✓

V. PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE

VI. OTHER

A. Horizontal and vertical control information and ties to existing and proposed features. ✓

ACKNOWLEDGEMENTS

Drainage Plan checklist was prepared by: _____

Huddleston-Berry
Engineering & Testing, LLC

GEOTECHNICAL AND GEOLOGIC HAZARDS INVESTIGATION
KARIS AFFORDABLE HOUSING
3205 N 12TH STREET
GRAND JUNCTION, COLORADO
PROJECT#01892-0001

KARIS APARTMENTS, LLLP
1004 SOUTH AVENUE WEST
MISSOULA, MONTANA 59801

JANUARY 16, 2019

Huddleston-Berry Engineering and Testing, LLC
640 White Avenue,
Grand Junction, Colorado 81501

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

A geologic hazards and geotechnical investigation was conducted for the new Karis Affordable Housing project in Grand Junction, Colorado. The project location is shown on Figure 1 – Site Location Map. The purpose of the investigation was to evaluate the surface and subsurface conditions at the site with respect to geologic hazards, foundation design, pavement design, and earthwork for the proposed construction. This summary has been prepared to include the information required by civil engineers, structural engineers, and contractors involved in the project.

Subsurface Conditions (p. 2)

The current subsurface investigation consisted of five borings, drilled on December 7th, 2018. The locations of the borings are shown on Figure 2 – Site Plan. The borings generally encountered native clay and silt soils in the shallow subsurface. Shale bedrock was encountered at depths of between 2.5 and 7.0 feet. Groundwater was not encountered in the subsurface at the time of the investigation.

The native soils are anticipated to be slightly collapsible to slightly expansive. The shale bedrock is anticipated to be slightly to moderately expansive.

Geologic Hazards and Constraints (p. 3)

The primary geologic hazard and constraint at the site is the presence of moisture sensitive soils and bedrock.

Summary of Foundation Recommendations

Micro Piles or Drilled Piers

- *Minimum Length* – 25 feet. (p. 4)
- *Free Length* – 15 feet (p. 4)
- *Skin Friction Capacity* – 1,500 psf. (p. 5)
- *Allowable End Bearing Capacity* – 15,000 psf for drilled piers. (p. 5)

Spread Footings, Voided Spread Footings, or Isolated Pads and Grade Beams

- *Structural Fill* – Minimum of 48-inches below foundations. The low plasticity native soils are suitable for re-use as structural fill. Imported structural fill should consist of crusher fines, CDOT Class 6 base course, or other granular material approved by the engineer. (p. 5)
- *Maximum Allowable Bearing Capacity* – 2,500 psf. (p. 6)
- *Minimum Dead Load* – 750 pcf. (p. 6)

Other Foundation Criteria

- *Seismic Design* – Site Class D. (p. 6)
- *Lateral Earth Pressure* – 55 pcf active. 75 pcf at-rest. (p. 7)

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

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FIGURES

Figure 1 – Site Location Map
Figure 2 – Site Plan

APPENDICES

Appendix A – UDSA NRCS Soil Survey Data
Appendix B – Typed Boring Logs
Appendix C – Laboratory Testing Results

1.0 INTRODUCTION

As part of extensive development in Western Colorado, a new multi-story affordable housing facility is proposed in Grand Junction. As part of the development process, Huddleston-Berry Engineering and Testing, LLC (HBET) was retained by Karis Apartment, LLLP to conduct a geologic hazards and geotechnical investigation at the site.

1.1 Scope

As discussed above, a geologic hazards and geotechnical investigation was conducted for the Karis Affordable Housing project in Grand Junction, Colorado. The scope of the investigation included the following components:

- Conducting a subsurface investigation to evaluate the subsurface conditions at the site.
- Collecting soil and bedrock samples and conducting laboratory testing to determine the engineering properties of the soils and bedrock at the site.
- Providing recommendations for foundation type and subgrade preparation.
- Providing recommendations for bearing capacity.
- Providing recommendations for lateral earth pressure.
- Providing recommendations for drainage, grading, and general earthwork.
- Providing recommendations for pavements.
- Evaluating potential geologic hazards at the site.

The investigation and report were completed by a Colorado registered professional engineer in accordance with generally accepted geotechnical and geological engineering practices. This report has been prepared for the exclusive use of Karis Apartments, LLLP.

1.2 Site Location and Description

The site is located at 3205 N 12th Street in Grand Junction, Colorado. The project location is shown on Figure 1 – Site Location Map.

At the time of the investigation, the eastern portion of the site was occupied by an existing church and gravel parking areas. The western portion of the site was open. The site generally sloped down gently to the south/southeast. Vegetation at the site included grasses, weeds, brush, and trees. The site was bordered to the north, south, and west by existing residential properties, and to the east by N 12th Street.

1.3 Proposed Construction

The proposed construction is anticipated to include a new three story apartment building. New utilities and pavements are also anticipated as part of the construction.

2.0 GEOLOGIC SETTING

2.1 Soils

Soils data was obtained from the USDA Natural Resource Conservation Service Web Soil Survey. The data indicates that the site is underlain by several soil types. Soil survey data is included in Appendix A.

Structure construction in the site soils is described as being somewhat limited to very limited due to slope, subsidence risk, and/or depth to soft bedrock. Excavation in the site soils is described as being somewhat limited to very limited due to slope, dust, unstable excavation walls, and/or depth to soft bedrock. The site soils are indicated to have a moderate potential for frost action, moderate to high risk of corrosion of steel, and moderate to high risk of corrosion of concrete.

2.2 Geology

According to the *Geologic Map of the Grand Junction Quadrangle, Mesa County, Colorado* (2002), the site is underlain by the pediment deposit of Walker Field. The surficial materials are underlain by Mancos shale bedrock.

2.3 Groundwater

Groundwater was not encountered in the subsurface at the time of the investigation.

3.0 FIELD INVESTIGATION

3.1 Subsurface Investigation

The current subsurface investigation was conducted on December 7th, 2018 and consisted of five borings as shown on Figure 2 – Site Plan. The borings were drilled to depths of between 11.0 and 13.0 feet below the existing ground surface. The borings were located in the field relative to existing site features. Typed boring logs are included in Appendix B. Samples of the native soils were collected during Standard Penetration Testing (SPT) and using bulk sampling methods at the locations shown on the logs.

As indicated on the logs, the subsurface conditions at the site were slightly variable. Boring B-1, conducted in the southeastern portion of the site, encountered 1.5 feet of gravel pavement above brown, moist, very stiff lean clay soils to a depth of 7.0 feet. The clay was underlain by gray, soft to medium hard, highly weathered shale bedrock to the bottom of the boring. Groundwater was not encountered in B-1 at the time of the investigation.

Borings B-2 through B-5, conducted in the western portion of the site, encountered 1.0 foot of topsoil above brown, moist, medium stiff to hard sandy silt and sandy lean clay soils to depths of between 2.5 and 7.0 feet. The silt and clay was underlain by gray, soft to medium hard, highly weathered shale bedrock to the bottoms of the borings. Groundwater was not encountered in B-2 through B-5 at the time of the investigation.

3.2 Field Reconnaissance

The field reconnaissance included walking the site during the subsurface investigation. In general, the site was gently sloping. No evidence of active landslides, debris flows, rockfalls, etc. was observed.

4.0 LABORATORY TESTING

Selected native soil and bedrock samples collected from the borings were tested in the Huddleston-Berry Engineering and Testing LLC geotechnical laboratory for natural moisture content determination, grain size analysis, maximum dry density and optimum moisture content (Proctor) determination, Atterberg limits determination, California Bearing Ratio (CBR) determination, and soluble sulfates content determination. The laboratory testing results are included in Appendix C.

The laboratory testing results indicate that the native lean clay soils encountered in B-1 are moderately plastic. Based upon the plasticity of the material and upon our experience with similar soils in the vicinity of the subject site, these soils are anticipated to be slightly expansive.

The native silt and clay soils encountered in the western portion of the site were indicated to be slightly plastic. In general, these soils are anticipated to be slightly collapsible at their existing density. Water soluble sulfates were detected in these soils in a concentration of 0.3%.

The native shale bedrock was indicated to be moderately plastic. Based upon our experience with the Mancos shale in Western Colorado, the shale bedrock is anticipated to be slightly to moderately expansive.

5.0 GEOLOGIC INTERPRETATION

5.1 Geologic Hazards

The primary geologic hazard at the site is the presence of moisture sensitive soils and bedrock.

5.2 Geologic Constraints

The primary geologic constraint to construction at the site is the presence of moisture sensitive soils and bedrock.

5.3 Water Resources

No water supply wells were observed on the property. In addition, shallow groundwater was not encountered at the site. In general, with proper design and construction, the proposed construction at the site is not anticipated to adversely affect surface water or groundwater.

5.4 Mineral Resources

Potential mineral resources in Western Colorado generally include gravel, uranium ore, and commercial rock products such as flagstone. As discussed previously, the site is mapped as being underlain by pediment gravels. However, gravels were not encountered in the subsurface and HBET does not believe that commercial quality mineral resources exist at this site.

6.0 CONCLUSIONS

Based upon the available data sources, field investigation, and nature of the proposed construction, HBET does not believe that there are any geologic conditions which should preclude construction at the site. However, the presence of moisture sensitive soils and bedrock will likely impact the design and construction.

7.0 RECOMMENDATIONS

7.1 Foundations

Based upon the results of the subsurface investigation and nature of the proposed construction, both shallow and deep foundations should be considered. In general, deep foundations will provide more protection against heave related movements associated with expansion of the shale bedrock. However, properly constructed shallow foundations will limit the risk of excessive differential movements where significant changes in subsurface moisture ***do not*** occur. The alternatives are discussed in the following sections.

Deep Foundations

In general, micro piles and drilled piers are both appropriate foundation alternatives for this site. However, drilled piers may be more expensive due to the absence of a local pier driller.

For a micro pile or drilled pier foundation, it is recommended that the piles/piers have a minimum length of 25 feet. However, the upper 15 feet of micro piles should be sleeved to eliminate the grout/bar bond in this zone. Similarly, skin friction should be ignored along the upper 15 feet of piers.

Pile/pier holes should be clean and dry. Grout used for micro piles should have a minimum 28-day compressive strength of 3,000 psi and concrete used for piers should have a minimum 28-day compressive strength of 4,000 psi. Grout/concrete should be placed using tremie tubes and should be placed the same day as drilling.

An allowable skin friction value of 1,500 psf may be used for the shale bedrock for the bonded portion of the piles and portion of the piers beyond 15 feet. An allowable end bearing capacity of 15,000 psf may also be used for drilled piers.

Micro piles and/or drilled pers be installed with a center-to-center spacing of at least three times the pile/pier diameter. However, to the extent practical, smaller numbers of longer piles/piers should be used in lieu of larger numbers of shorter piles/piers. The longer the piles/piers and larger the loads on the piles/piers, the lower the risk of movement. A minimum 6-inch void should be provided below the grade beams to concentrate loadings on the piles/piers.

In general, for properly constructed micro piles or drilled piers, HBET anticipates total settlement will be 1.0-inch or less.

Shallow Foundations

The recommended shallow foundation alternatives include spread footings, voided spread footings, and isolated pads and grade beams. However, to help limit the potential for excessive differential movements, it is recommended that the foundations be constructed above a minimum of 48-inches of structural fill resting on competent shale bedrock.

In general, the native low plasticity silt and clay soils, exclusive of topsoil, are suitable for reuse as structural fill. However, the higher plasticity clay soils and shale bedrock materials are not suitable for reuse as structural fill. Imported structural fill should consist of a granular, non-expansive, ***non-free draining*** material such as ¼-inch minus crusher fines or CDOT Class 6 base course. Unless it can be demonstrated that the materials are non-free draining, pit-run should not be used as structural fill.

Prior to placement of structural fill, it is recommended that the bottoms of the foundation excavations in bedrock be proofrolled to identify any soft or weak materials. Soft or weak materials should be removed and replaced with structural fill. Due to the potential for expansion, no moisture should be added to the subgrade.

Structural fill should extend laterally beyond the edges of the foundations a minimum of 36-inches. Structural fill should be moisture conditioned, placed in maximum 8-inch loose lifts, and compacted to a minimum of 95% of the standard Proctor maximum dry density for fine grained soils and modified Proctor maximum dry density for coarse grained soils, within ±2% of the optimum moisture content as determined in accordance with ASTM D698 and D1557, respectively.

For the foundation building pad prepared as recommended, a maximum allowable bearing capacity of 2,500 psf may be used. However, a minimum dead-load bearing pressure of 750 psf is recommended. In addition, to limit the potential for a punching shear bearing capacity failure in the structural fill, footings should not be less than 12-inches wide. Footings subject to frost should be at least 24-inches below the finished grade.

In general, for properly constructed micro piles or drilled piers, HBET anticipates total settlement will be 1.0-inch or less

7.2 Seismic Design Criteria

In general, based upon the results of the subsurface investigation, the site generally classifies as Site Class D for a stiff soil profile.

7.3 Lateral Resistance for Seismic and Wind Loads

Based upon the results of the subsurface investigation, the soil parameters in the following table are recommended for use in lateral pile/pier capacity analyses for the portion of the piles in the overburden soils. For large lateral loads, piles/piers battered up to 15º can be used.

Soil Type	Medium Clay
Density (pci)	0.0585
Cohesion (psi)	5
Friction Angle (ϕ)	0
ε_{50} (in/in)	0.01
K (pci)	100

7.4 Corrosion of Concrete and Steel

As indicated previously, water soluble sulfates were encountered in the site soils in a concentration of 0.3%. This concentration represents a severe degree of potential sulfate attack on concrete exposed to these materials. Therefore, Type V sulfate resistant cement is recommended for construction at this site in accordance with the International Building Code (IBC). However, Type V cement can be difficult to obtain in Western Colorado. Where Type V cement is unavailable, a minimum of Type I-II cement is recommended.

The USDA Soil Survey Data indicates that the site soils have a moderate to high potential for corrosion of uncoated steel. Therefore, buried steel utilities or foundation elements should consider corrosion in their design.

7.5 Flooring Systems and Exterior Flatwork

As discussed previously, moisture sensitive soils and bedrock were encountered at the site. In general, slabs-on-grade cannot develop sufficient bearing pressures to resist heave. Therefore, ***some movement of slabs-on-grade should be anticipated***. As a result, HBET recommends that the structure utilize a framed first floor or fully voided structural slab supported by deep foundations. It is impractical to support all of the exterior flatwork on deep foundations. However, in order to limit the potential for excessive differential movements, it is recommended that exterior slabs-on-grade be constructed above a minimum of 18-inches of structural fill with subgrade preparation, structural fill materials, and structural fill placement in accordance with the *Shallow Foundations* section of this report.

7.6 Lateral Earth Pressures

Grade beams, stemwalls, and/or retaining walls should be designed to resist lateral earth pressures. For backfill consisting of the native soils or imported granular, non-free draining, non-expansive material, we recommend that the walls be designed for an active equivalent fluid unit weight of 55 pcf in areas where no surcharge loads are present. An at-rest equivalent fluid unit weight of 75 pcf is recommended for braced walls. Lateral earth pressures should be increased as necessary to reflect any surcharge loading behind the walls. Native shale bedrock materials should not be used as backfill

7.7 Drainage

Proper site grading is critical to the performance of the structure. In order to improve the long-term performance of the foundations and slabs-on-grade, grading around the structure should be designed to carry precipitation and runoff away from the structure. It is recommended that the finished ground surface drop at least twelve inches within the first ten feet away from the structure. However, where impermeable surfaces (i.e. sidewalks, pavements, etc.) are adjacent to the structure, the grade can be reduced to 2.5-inches (ADA grade) within the first ten feet away from the structure.

HBET recommends that surface downspout extensions be used which discharge a minimum of 10 feet from the structure or beyond the backfill zone, whichever is greater. However, if subsurface downspout drains are utilized, they should be carefully constructed of solid-wall PVC and should daylight a minimum of 15 feet from the structure. In addition, an impermeable membrane is recommended below subsurface downspout drain lines. Dry wells should not be used.

In order to limit the potential for surface water to impact the structure, a perimeter foundation drain is recommended. In general, the perimeter foundation drain should consist of prefabricated drain materials or perforated pipe and gravel with the flowline of the drain at the bottoms of the foundations (at the highest point). The perimeter drain should slope at a minimum of 1.0% to daylight or to a sump with pump. An impermeable membrane is also recommended at the base of the drain to limit the potential for moisture to infiltrate into the subsurface below the foundations.

7.8 Excavations

Excavations in the soils at the site may stand for short periods of time but should not be considered to be stable. Trenching and excavations should be sloped back, shored, or shielded for worker protection in accordance with applicable OSHA standards. The soils generally classify as Type C soil with regard to OSHA's *Construction Standards for Excavations*. For Type C soils, the maximum allowable slope in temporary cuts is 1.5H:1V. For deeper excavations, the shale bedrock may classify as Type A soils or bedrock. However, HBET should be provided the opportunity to evaluate the site soils and bedrock during construction to verify the soil classification.

7.9 Pavements

The proposed construction is anticipated to include paved parking lots and a site access road. From the subsurface investigations, the pavement subgrade soils at the site consist of clay and silt soils. The design California Bearing Ratio (CBR) of the native soils was determined in the laboratory to be less than 2.0. Therefore, the minimum recommended Resilient Modulus of 3,000 psi was used for the pavement section design.

Based upon the subgrade conditions and anticipated traffic loading, pavement section alternatives were developed in accordance with AASHTO design methodologies. The following minimum pavement section alternatives are recommended:

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

Prior to pavement placement, areas to be paved should be stripped of all topsoil, fill, or other unsuitable materials. It is recommended that the subgrade soils be scarified to a depth of 12-inches; moisture conditioned, and recompacted to a minimum of 95% of the standard Proctor maximum dry density, within ±2% of optimum moisture content as determined by AASHTO T-99.

Aggregate base course and subbase course should be placed in maximum 9-inch loose lifts, moisture conditioned, and compacted to a minimum of 95% and 93% of the maximum dry density, respectively, at -2% to +3% of optimum moisture content as determined by AASHTO T-180. In addition to density testing, base course should be proofrolled to verify subgrade stability.

It is recommended that Hot-Mix Asphaltic (HMA) pavement conform to CDOT grading SX or S specifications and consist of an approved 75 gyration Superpave method mix design. HMA pavement should be compacted to between 92% and 96% of the maximum theoretical density. An end point stress of 50 psi should be used. It is recommended that rigid pavements consist of CDOT Class P concrete or alternative approved by the Engineer. Dowels at transverse joints and tie bars at longitudinal joints should be considered to limit the potential for differential movements between panels. In addition, reinforcement of the concrete should be considered to limit cracking.

The long-term performance of the pavements is dependent on positive drainage away from the pavements. Ditches, culverts, and inlet structures in the vicinity of paved areas must be maintained to prevent ponding of water on the pavement.

8.0 GENERAL

The recommendations included above are based upon the results of the subsurface investigation and on our local experience. These conclusions and recommendations are valid only for the proposed construction.

As discussed previously, the subsurface conditions encountered in the borings were slightly variable. However, the precise nature and extent of subsurface variability may not become evident until construction. The recommendations contained herein are designed to reduce the risk and magnitude of movements and it is extremely critical that ***ALL*** of the recommendations herein be applied to the design and construction. However, HBET cannot predict long-term changes in subsurface moisture conditions and/or the precise magnitude or extent of any volume change in the subgrade materials. ***Where significant increases in subsurface moisture occur due to poor grading, improper stormwater management, utility line failure, excess irrigation, or other cause, during or after construction, significant movements are possible***.

In addition, the success of the structure foundations, slabs, etc. is critically dependent upon proper construction. Therefore, HBET should be retained to provide materials testing, special inspections, and engineering oversight during ***ALL*** phases of the construction to ensure conformance with the recommendations herein.

Huddleston-Berry Engineering and Testing, LLC is pleased to be of service to your project. Please contact us if you have any questions or comments regarding the contents of this report.

Respectfully Submitted:
Huddleston-Berry Engineering and Testing, LLC

Michael A. Berry, P.E.
Vice President of Engineering

FIGURES

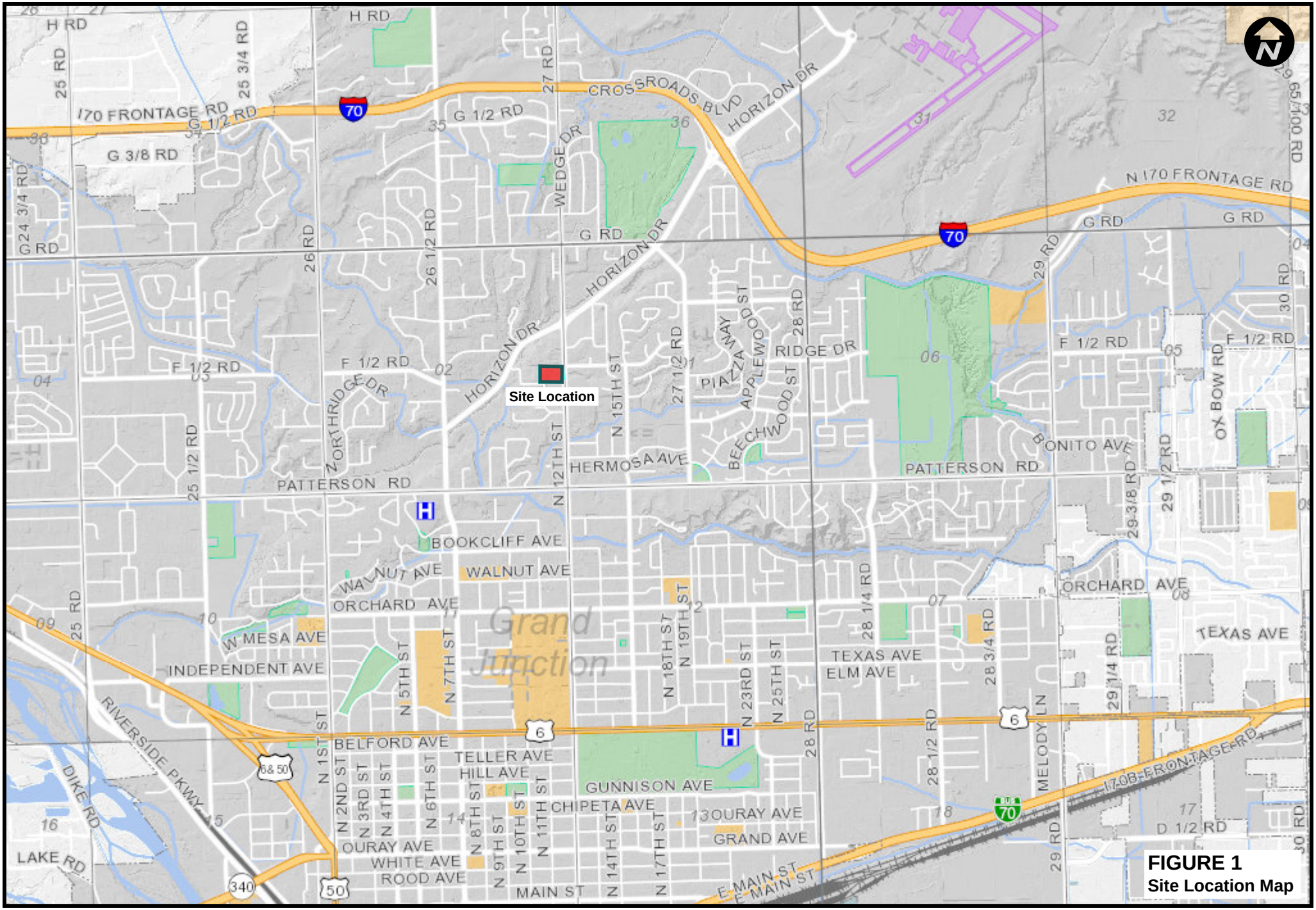


FIGURE 1
Site Location Map

Mesa County Map

The Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended or does not replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of location in this GIS cannot be substitute for actual legal surveys.
The information contained herein is believed accurate and suitable for the limited uses, and subject to the limitations, set forth above. Mesa County makes no warranty as to the accuracy or suitability of any information contained herein. Users assume all risk and responsibility for any and all damages, including consequential damages, which may flow from the user's use of this information.

0 0.25 0.5 1 mi
0 0.3 0.6 1.2 km

Print Date: January 9, 2019

Mesa County, Colorado
GIS/IT Department
gis.mesacounty.us

FIGURE 2
Site Plan

N

CONCEPTUAL SITE PLAN
SCALE = 1:40

shopworks architecture

Karis Affordable Housing
Grand Junction, CO • 05/30/18

APPENDIX A
Soil Survey Data

Map Scale: 1:864 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 9, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 13, 2010—Aug 8, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BkD	Blackston very gravelly loam, 5 to 25 percent slopes	0.1	2.4%
Cc	Persayo silty clay loam, 5 to 12 percent slopes	0.7	18.3%
Ff	Fruita clay loam, 2 to 5 percent slopes	3.0	79.3%
Totals for Area of Interest		**3.8**	**100.0%**

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description

Mesa County Area, Colorado

BkD—Blackston very gravelly loam, 5 to 25 percent slopes

Map Unit Setting

National map unit symbol: k0bw
Elevation: 4,490 to 4,900 feet

Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Blackston and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Blackston

Setting

Landform: Strath terraces
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 3 inches: very gravelly loam
Bk1 - 3 to 7 inches: gravelly clay loam
Bk2 - 7 to 15 inches: very gravelly sandy clay loam
2Bk3 - 15 to 35 inches: extremely gravelly sandy loam
2C - 35 to 60 inches: extremely gravelly sand

Properties and qualities

Slope: 5 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 35 percent
Gypsum, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to slightly saline (1.0 to 4.0 mmhos/cm)
Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: Desert Loam (Shadscale) (R034BY106UT)
Hydric soil rating: No

Cc—Persayo silty clay loam, 5 to 12 percent slopes

Map Unit Setting

National map unit symbol: k0c0
Elevation: 4,490 to 5,220 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Persayo and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Persayo

Setting

Landform: Pediments
Landform position (two-dimensional): Backslope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Cretaceous source residuum weathered from calcareous shale

Typical profile

Ap - 0 to 4 inches: silty clay loam
C - 4 to 15 inches: silty clay loam
Cr - 15 to 60 inches: bedrock

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: 10 to 20 inches to paralithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.00 to 0.28 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Gypsum, maximum in profile: 10 percent
Salinity, maximum in profile: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 6s
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: D
Ecological site: Desert Loamy Clay (Shadscale) (R034BY109UT)
Hydric soil rating: No

Ff—Fruita clay loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: k0c4
Elevation: 4,490 to 4,890 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Fruita and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fruita

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Cretaceous source alluvium derived from sandstone and shale

Typical profile

Ap1 - 0 to 2 inches: clay loam
Ap2 - 2 to 6 inches: clay loam
Btk1 - 6 to 16 inches: clay loam
Btk2 - 16 to 22 inches: clay loam
Btk3 - 22 to 32 inches: loam
Bky - 32 to 60 inches: gypsiferous sandy loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Gypsum, maximum in profile: 50 percent
Salinity, maximum in profile: Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 10.0
Available water storage in profile: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7c

Hydrologic Soil Group: C
Ecological site: Desert Loam (Shadscale) (R034BY106UT)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 9, Sep 10, 2018

Dwellings and Small Commercial Buildings

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. This table shows the degree and kind of soil limitations that affect dwellings and small commercial buildings.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Information in this table is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this table. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Report—Dwellings and Small Commercial Buildings

[Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

Dwellings and Small Commercial Buildings–Mesa County Area, Colorado							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BkD—Blackston very gravelly loam, 5 to 25 percent slopes							
Blackston	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Dwellings and Small Commercial Buildings–Mesa County Area, Colorado							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Cc—Persayo silty clay loam, 5 to 12 percent slopes							
Persayo	90	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
Ff—Fruita clay loam, 2 to 5 percent slopes							
Fruita	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Subsidence risk severe	0.95	Subsidence risk severe	0.95	Subsidence risk severe	0.95
						Slope	0.01

Data Source Information

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 9, Sep 10, 2018

Roads and Streets, Shallow Excavations, and Lawns and Landscaping

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. This table shows the degree and kind of soil limitations that affect local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Information in this table is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this table. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Report—Roads and Streets, Shallow Excavations, and Lawns and Landscaping

[Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

Roads and Streets, Shallow Excavations, and Lawns and Landscaping–Mesa County Area, Colorado							
Map symbol and soil name	Pct. of map unit	Lawns and landscaping		Local roads and streets		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BkD—Blackston very gravelly loam, 5 to 25 percent slopes							
Blackston	90	Very limited		Very limited		Very limited	
		Gravel content	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Frost action	0.50	Dusty	0.19
		Droughty	0.81			Unstable excavation walls	0.02
		Dusty	0.19				

Roads and Streets, Shallow Excavations, and Lawns and Landscaping–Mesa County Area, Colorado							
Map symbol and soil name	Pct. of map unit	Lawns and landscaping		Local roads and streets		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Cc—Persayo silty clay loam, 5 to 12 percent slopes							
Persayo	90	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Droughty	0.87	Low strength	1.00	Dusty	0.50
		Dusty	0.50	Frost action	0.50	Slope	0.04
		Low exchange capacity	0.50	Slope	0.04	Unstable excavation walls	0.01
		Slope	0.04				
Ff—Fruita clay loam, 2 to 5 percent slopes							
Fruita	90	Somewhat limited		Very limited		Somewhat limited	
		Dusty	0.38	Low strength	1.00	Dusty	0.38
				Frost action	0.50	Unstable excavation walls	0.01
				Subsidence risk	0.15		

Data Source Information

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 9, Sep 10, 2018

Soil Features

This table gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage, or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (Ksat), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low*, *moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low*, *moderate*, or *high.* It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Report—Soil Features

Soil Features–Mesa County Area, Colorado									
Map symbol and soil name	Restrictive Layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		Low-RV-High	*Range*		*Low-High*	*Low-High*			
		In	*In*		*In*	*In*			
BkD—Blackston very gravelly loam, 5 to 25 percent slopes									
Blackston		—	—		0	0	Moderate	Moderate	Moderate
Cc—Persayo silty clay loam, 5 to 12 percent slopes									
Persayo	Paralithic bedrock	10-15-20	—	Weakly cemented	0	0	Moderate	High	High
Ff—Fruita clay loam, 2 to 5 percent slopes									
Fruita		—	—		0	0	Moderate	High	High

Data Source Information

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 9, Sep 10, 2018

APPENDIX B
Typed Boring Logs

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-1

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		GRAVEL Pavement										
		Lean CLAY (CL), brown, moist, very stiff										
		*** Lab Classified SS1										
2.5			SS 1	100	11-15-15 (30)			13	47	21	26	93
5.0												
7.5		SHALE, grey, soft to medium hard, highly weathered	SS 2	100	15-17-19 (36)							
10.0			SS 3	100	16-20				38	21	17	
		Bottom of hole at 11.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-2

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ML) to Sandy Lean CLAY (cl), brown, moist, medium stiff to hard										
		*** Lab Classified SS1										
2.5			SS 1	89	14-17-18 (35)			4	21	19	2	63
5.0												
7.5		SHALE, grey, soft to medium hard, highly weathered	SS 2	100	9-11-16 (27)							
10.0												
		Bottom of hole at 11.0 feet.	SS 3	100	16-24				32	17	15	

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-3

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	89	8-11-12 (23)							
5.0												
7.5			SS 2	100	14-29							
10.0												
12.5			SS 3	100	12-21							
		Bottom of hole at 13.0 feet.										

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-4

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	94	9-10-10 (20)							
5.0												
7.5			SS 2	94	12-16-26 (42)							
10.0												
12.5			SS 3	100	22-36							
		Bottom of hole at 13.0 feet.										

GEOTECH BH COLUMNS 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/16/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

BORING NUMBER B-5

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 12/7/18 **COMPLETED** 12/7/18
GROUND ELEVATION _____ **HOLE SIZE** 4-inches
DRILLING CONTRACTOR S. McKracken
GROUND WATER LEVELS:
DRILLING METHOD Simco 2000 Track Rig
AT TIME OF DRILLING dry
LOGGED BY SD **CHECKED BY** MAB
AT END OF DRILLING dry
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy SILT with Organics (TOPSOIL)										
		Sandy SILT (ml) to Sandy Lean CLAY (cl), brown, moist, medium stiff to very stiff										
2.5		SHALE, grey, medium hard, highly weathered	SS 1	83	5-6-9 (15)							
5.0												
7.5			SS 2	89	14-14-20 (34)							
10.0												
12.5			SS 3	100	20-30							
		Bottom of hole at 13.0 feet.										

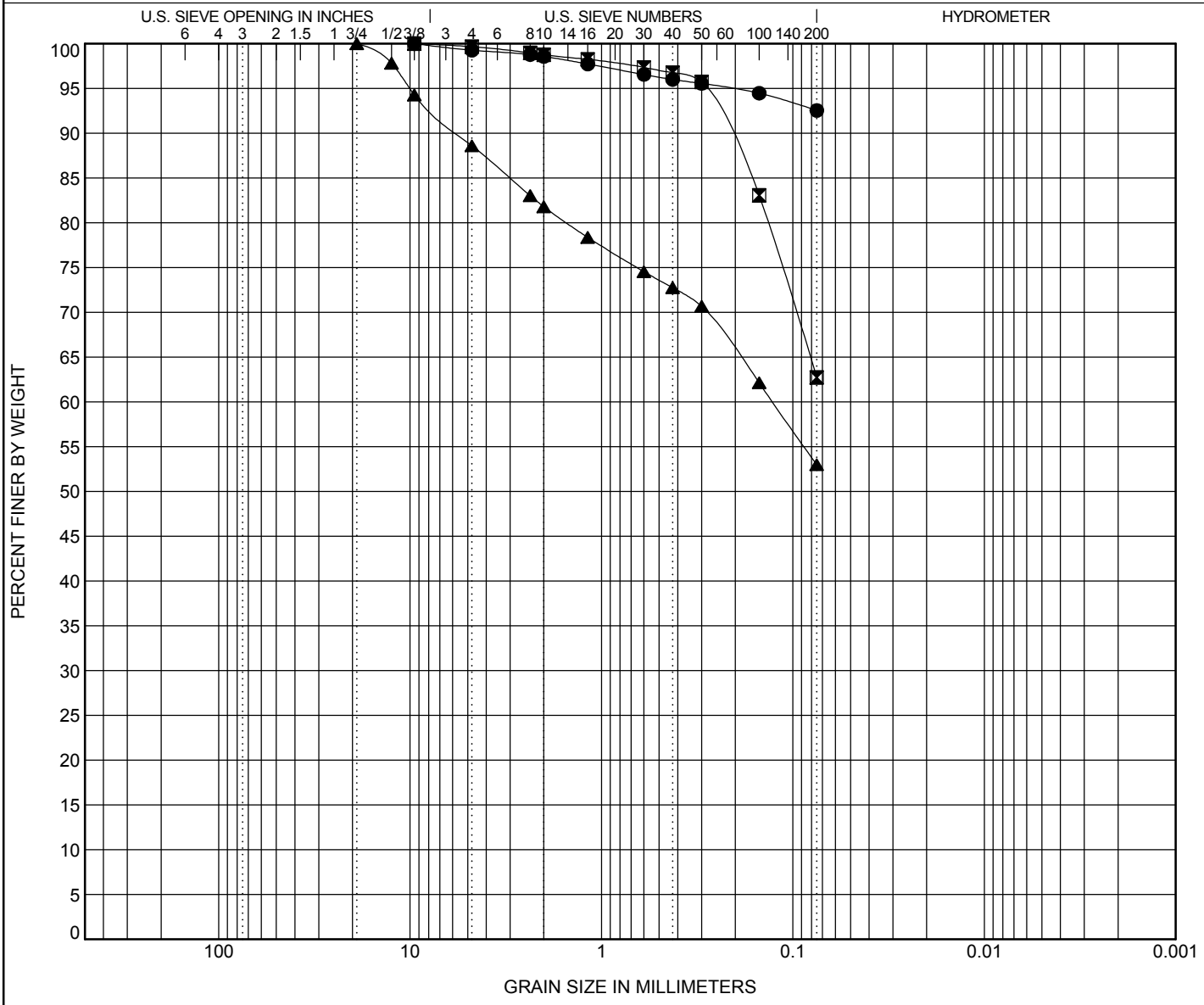
APPENDIX C
Laboratory Testing Results

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

GRAIN SIZE DISTRIBUTION

CLIENT Karis Apartments, LLLP **PROJECT NAME** Karis Affordable Housing

PROJECT NUMBER 01892-0001 **PROJECT LOCATION** Grand Junction, CO



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**B-1, SS1 12/2018**	**LEAN CLAY(CL)**	**47**	**21**	**26**		
⊠	**B-2, SS1 12/2018**	**SANDY SILT(ML)**	**21**	**19**	**2**		
▲	**Composite 12/2018**	**SANDY LEAN CLAY(CL)**	**28**	**18**	**10**		

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**B-1, SS1 12/2018**	**9.5**				**0.7**	**6.7**	**92.5**	
⊠	**B-2, SS1 12/2018**	**9.5**				**0.3**	**36.9**	**62.7**	
▲	**Composite 12/2018**	**19**	**0.128**			**11.4**	**35.6**	**53.0**	

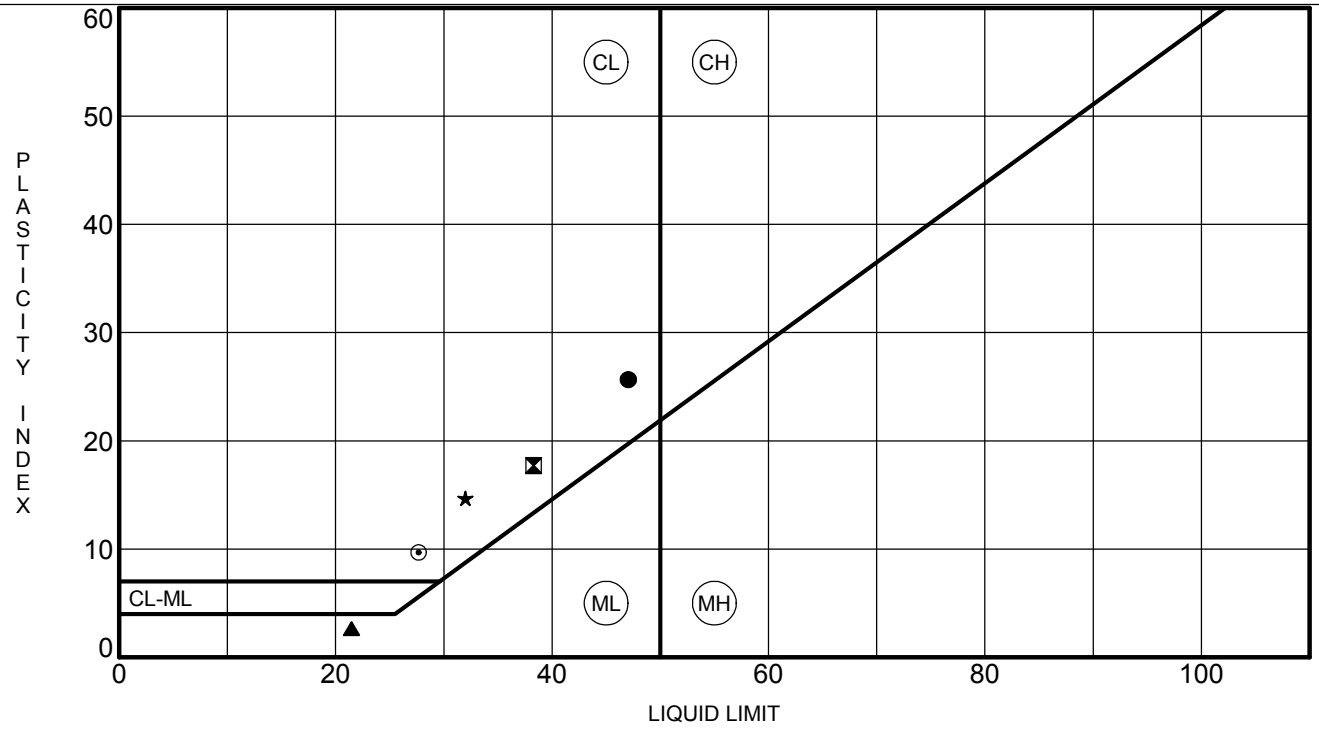
GRAIN SIZE 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/9/19

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

ATTERBERG LIMITS' RESULTS

CLIENT Karis Apartments, LLLP **PROJECT NAME** Karis Affordable Housing

PROJECT NUMBER 01892-0001 **PROJECT LOCATION** Grand Junction, CO

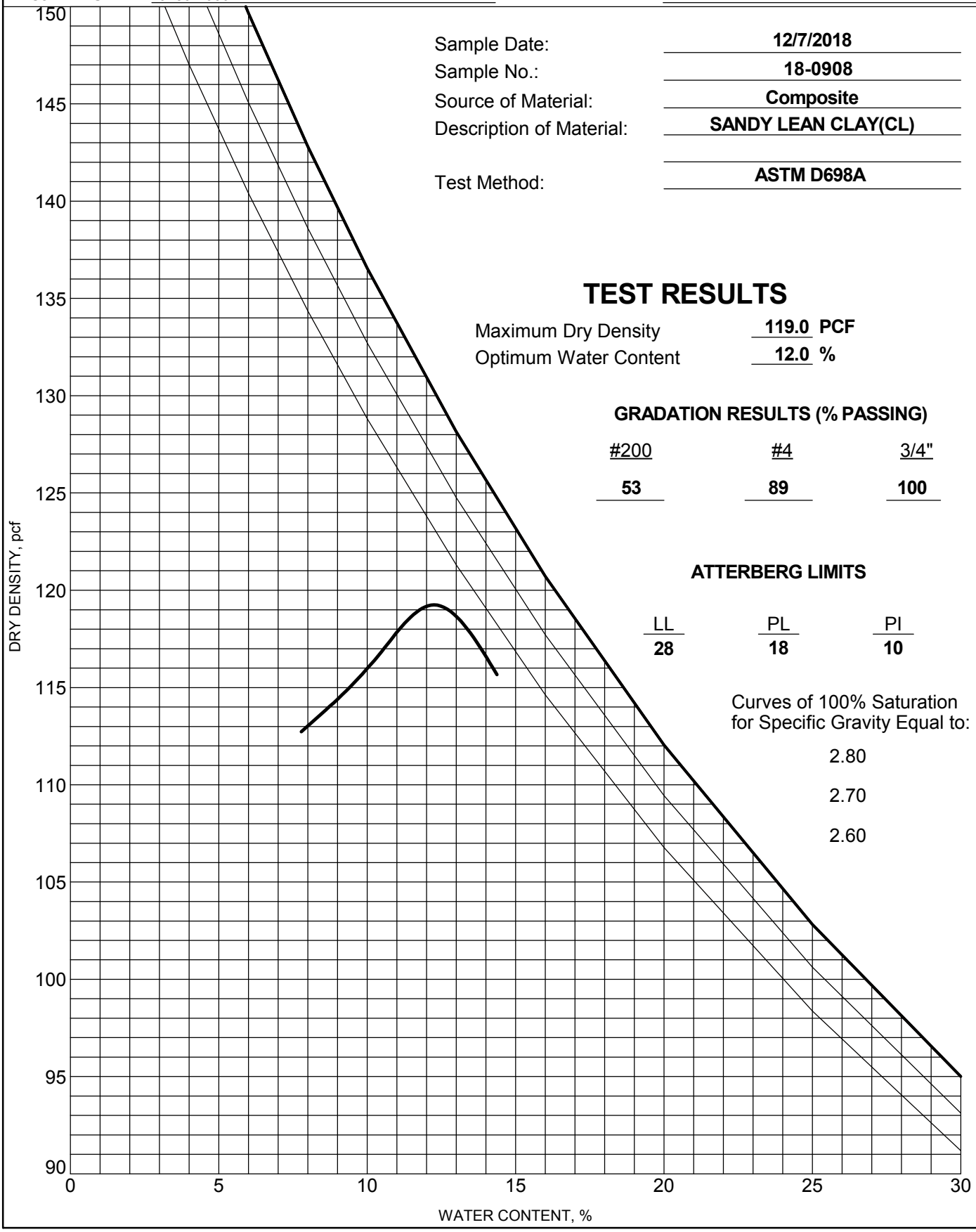


	Specimen Identification		LL	PL	PI	#200	Classification
●	**B-1, SS1**	**12/2018**	**47**	**21**	**26**	**93**	**LEAN CLAY(CL)**
⊠	**B-1, SS3**	**12/2018**	**38**	**21**	**17**		**SHALE**
▲	**B-2, SS1**	**12/2018**	**21**	**19**	**2**	**63**	**SANDY SILT(ML)**
★	**B-5, SS3**	**12/2018**	**32**	**17**	**15**		**SHALE**
⊙	**Composite**	**12/2018**	**28**	**18**	**10**	**53**	**SANDY LEAN CLAY(CL)**

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

MOISTURE-DENSITY RELATIONSHIP

CLIENT Karis Apartments, LLLP
PROJECT NAME Karis Affordable Housing
PROJECT NUMBER 01892-0001
PROJECT LOCATION Grand Junction, CO



Sample Date: **12/7/2018**
Sample No.: **18-0908**
Source of Material: **Composite**
Description of Material: **SANDY LEAN CLAY(CL)**
Test Method: **ASTM D698A**

TEST RESULTS

Maximum Dry Density **119.0** PCF
Optimum Water Content **12.0** %

GRADATION RESULTS (% PASSING)

#200	#4	3/4"
53	89	100

ATTERBERG LIMITS

LL	PL	PI
28	18	10

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION 01892-0001 KARIS APARTMENTS.GPJ GINT US LAB.GDT 1/9/19

Huddleston-Berry
Engineering & Testing, LLC

CALIFORNIA BEARING RATIO
ASTM D1883

Project No.:	01892-0001		**Authorized By:**	Client	**Date:** 12/07/18
Project Name:	Karis Affordable Housing		**Sampled By:**	SD	**Date:** 12/07/18
Client Name:	Karis Apartments, LLLP		**Submitted By:**	CM	**Date:** 01/10/19
Sample Number:	18-0908	**Location:** Composite	**Reviewed By:**	MAB	**Date:** 01/15/19

Compaction Method ASTM D698, Method A

Maximum Dry Density (pcf): 119.0

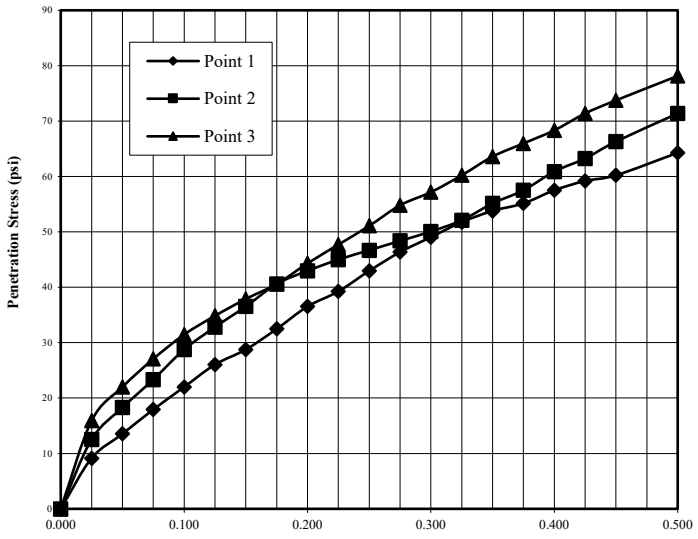
Opt. Moisture Content (%): 12.0

Sample Condition: Soaked

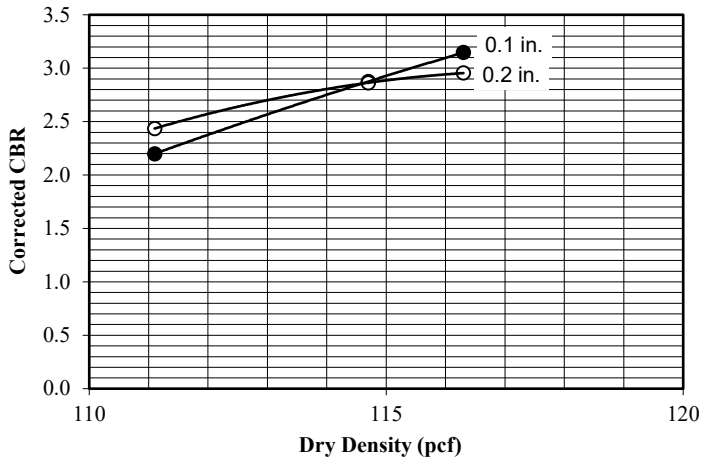
Remarks:

		Sample Data		
		Point 1	Point 2	Point 3
Blows per Compacted Lift:		15	25	56
Surcharge Weight (lbs):		10.0	10.0	10.0
Dry Density Before Soak (pcf):		111.1	114.7	116.3
Dry Density After Soak (pcf):		111.0	114.6	116.2
Moisture Content (%)	Bottom Pre-Test	14.1	14.3	14.5
	Top Pre-Test	14.0	13.9	14.3
	Top 1" After Test	16.9	16.4	15.7
	Average After Soak:	17.6	16.3	16.3
Percent Swell After Soak:		0.1	0.1	0.1

Load Pentration Curve(s)



Dry Density vs CBR



Penetration Data								
Point 1			Point 2			Point 3		
Dist. (in)	Load (lbs)	Stress (psi)	Dist. (in)	Load (lbs)	Stress (psi)	Dist. (in)	Load (lbs)	Stress (psi)
0.000	0	0	0.000	0	0	0.000	0	0
0.025	27	9	0.025	37	13	0.025	47	16
0.050	40	14	0.050	54	18	0.050	65	22
0.075	53	18	0.075	69	23	0.075	80	27
0.100	65	22	0.100	85	29	0.100	93	31
0.125	77	26	0.125	97	33	0.125	103	35
0.150	85	29	0.150	108	37	0.150	112	38
0.175	96	32	0.175	120	41	0.175	120	41
0.200	108	37	0.200	127	43	0.200	131	44
0.225	116	39	0.225	133	45	0.225	141	48
0.250	127	43	0.250	138	47	0.250	151	51
0.275	137	46	0.275	143	48	0.275	162	55
0.300	145	49	0.300	148	50	0.300	169	57
0.325	153	52	0.325	154	52	0.325	178	60
0.350	159	54	0.350	163	55	0.350	188	64
0.375	163	55	0.375	170	58	0.375	195	66
0.400	170	58	0.400	180	61	0.400	202	68
0.425	175	59	0.425	187	63	0.425	211	71
0.450	178	60	0.450	196	66	0.450	218	74
0.500	190	64	0.500	211	71	0.500	231	78

Corrected CBR @ 0.1"		
2.2	2.9	3.1
Corrected CBR @ 0.2"		
2.4	2.9	3.0

Penetration Distance Correction (in)		
0.000	0.000	0.000

Figure: ____

Grand Junction Fire Department New Development Fire Flow Form

Instructions to process the application: Step 1) Applicant's engineer should first fill out all items in Section A. Step 2) Deliver/mail this form to the appropriate water purveyor.[1] The water supplier signs and provides the required information of Section B. Step 3) Deliver/mail the completed and fully signed form to the City or County Planning Department.[2]

SECTION A

Date: 3-26-19

Project Name: Karis Apartments

Project Street Address: 3205 North 12th Street

Assessor's Tax Parcel Number: 2945-024-00-059

Project Owner Name: Unity Church

City or County project file #: TBD

Name of Water Purveyor: Ute Water

Applicant Name/Phone Number: Scott Sorensen - 970-270-6748

Applicant E-mail: scotts@austincivilgroup.com

1. If the project includes one or more one or two-family dwelling(s):
   a. The maximum fire area (see notes below) for each one or two family dwelling will be 21,146 square feet.
   b. All dwelling units will ■, will not ☐ include an approved automatic sprinkler system.
   Comments: NFPA 13 Fire Suppression System per IFC 903.3.1.1
2. If the project includes a building other than one and two-family dwelling(s):
   a. List the fire area and type of construction (See International Building Code [IBC]for all buildings used to determine the minimum fire flow requirements:
   Gross Building Area = 21,146, Construction Type V-B
   b. List each building that will be provided with an approved fire sprinkler system:
   Yes
3. List the minimum fire flow required for this project (based on Appendix B and C in the International Fire Code[IFC]):
   1,500 GPM * 0.25 = 375GPM

Comments: PER B105.2,

Note:
Fire Area: The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or horizontal assemblies of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.

Fire Flow Rule: The City's Fire Code[3] sets minimum fire flows for all structures. In general, at least 1000 g.p.m. at 20 p.s.i. is required for residential one or two family dwellings up to 3,600 square feet (sf) of fire area. For dwellings greater than 3,600 sf of fire area or all commercial structures, the minimum fire flow is 1,500 gpm at 20 p.s.i. (See Fire Flow Guidance Packet[4]. Inadequate fire flows are normally due to water supply pipes that are too small or too little water pressure, or a combination of both.

Applicant/Project Engineer: Refer to City of Grand Junction most recently adopted IFC, Appendix B and C, [IFC 2012], to determine the minimum fire flow required for this project, based on the Water Purveyor's information (*i.e.*, location, looping and size of water lines; water pressure at the site, *etc.*) and the type, density and location of all structures. Base your professional judgment on the City approved utility plans and Water Provider information shown on this Form. Each time the utility plans/other information relating to treated water changes, resubmit this form just as you did the first time.

End of Section A. Section B continues on the next page

Grand Junction Fire Department New Development Fire Flow Form

SECTION B
[To be completed by the Water Supplier]

Attach fire flow test data for the hydrants
Failure to attach the fire flow test data and/or diagram may delay your project review.

1. Circle the name of the water supplier: **Ute** **Clifton** **Grand Junction**
2. List the approximate location, type and size of supply lines for this project, or attach a map with the same information:
   See Attached Map

3. Attach the fire flow test data @ 20 p.s.i. for the fire hydrants nearest to the development/project that must be use to determine available fire flow. Test data is to be completed within the previous 12 months or year. Identify the fire hydrants used to determine the fire flow:
   See Attached Results

[Or: **1.** attach a map or diagram with the same information, or **2.** attach a map/diagram with flow modeling information.]

4. If new lines are needed (or if existing lines must be looped) to supply the required fire flows, or if more information is needed to state the available minimum g.p.m. @ 20 p.s.i. residual pressure, please list what the applicant/developer must do or obtain: ---

Print Name and Title of Water Supplier Employee completing this Form:

Dusty Kriegshauser Maintenance I/Hydrants Date: 4/1/2019

Contact phone/E-mail of Water Supplier: 970-242-7491 hydrant@utewater.org

****

Note: Based on the facts and circumstances, the Fire Chief may require the applicant/developer to engage an engineer[5] to verify/certify that the proposed water system improvements, as reflected in the approved utility plans submitted in support of the application/development, will provide the minimum fire flows to all structures in this project. If required, a State of Colorado Licensed Professional Engineer shall submit a complete stamped-seal report to the Grand Junction Fire Department. All necessary support documentation shall be included.

[1] There are three drinking water suppliers: Ute Water 970-242-7491, Clifton Water 970-434-7328 and City of Grand Junction water 970-244-1572.

[2] Address: City – 250 N 5th St, Grand Junction, CO 81501; County – PO Box 20000, Grand Junction, CO 81502

[3] International Fire Code, 2012 Edition

[4] http://www.gjcity.org/residents/public-safety/fire-department/fire-prevention-and-contractors/

[5] City Code defines engineer as one who is licensed as a P.E. by the state of Colorado.

Fire Flow Hydrant Master
With Graph

Company Name: Ute Water Conservancy District
Address: 2190 H 1/4 Rd
City: Grand Junction
State: Colorado
Zip: 81505

Work Order: 811
Operator: Dusty K, Braden B.

Test Date: 4/1/19 12:00 am

NFPA Classification:

Blue	AA
2963.78	

Test did not reach recommended drop of 25% per NFPA 291

Test Hydrant: 1699
Address: 3127 LAKESIDE WY
Cross Street:
Location:
District:
Sub-Division: LAKESIDE SUB

Latitude: 711527.561
Longitude: 4330317.727
Elevation: 4689.19
State X / Y: _____ / _____

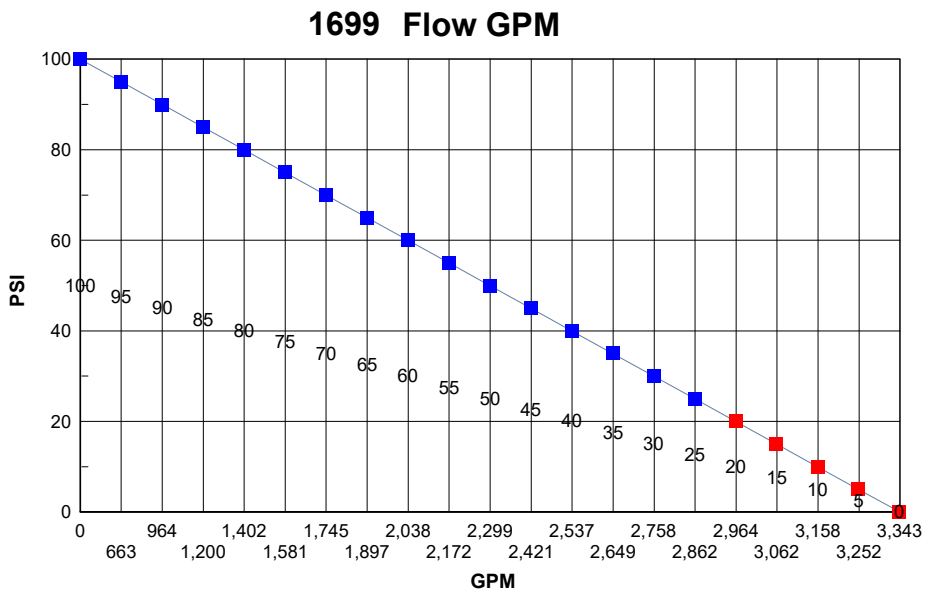
Pumpers: **Nozzles:** **Open Dir:**

Manuf: Mueller
Model: Improved
Installed: 01/01/1972
Main Size: 0.00
Vandal Proof:
Bury Depth: 0.00

	Flow Hydrant	Flow Device	Diameter	GPM	Gallon Used
1:	1578	2.5" Hose Monster	2.50	1156.34	5781.72
2:					
3:					
4:					
5:					

Pitot / Nozzle PSI: 47.00
Static PSI: 100.00
Residual PSI: 86.00
Percent Drop: 14.00

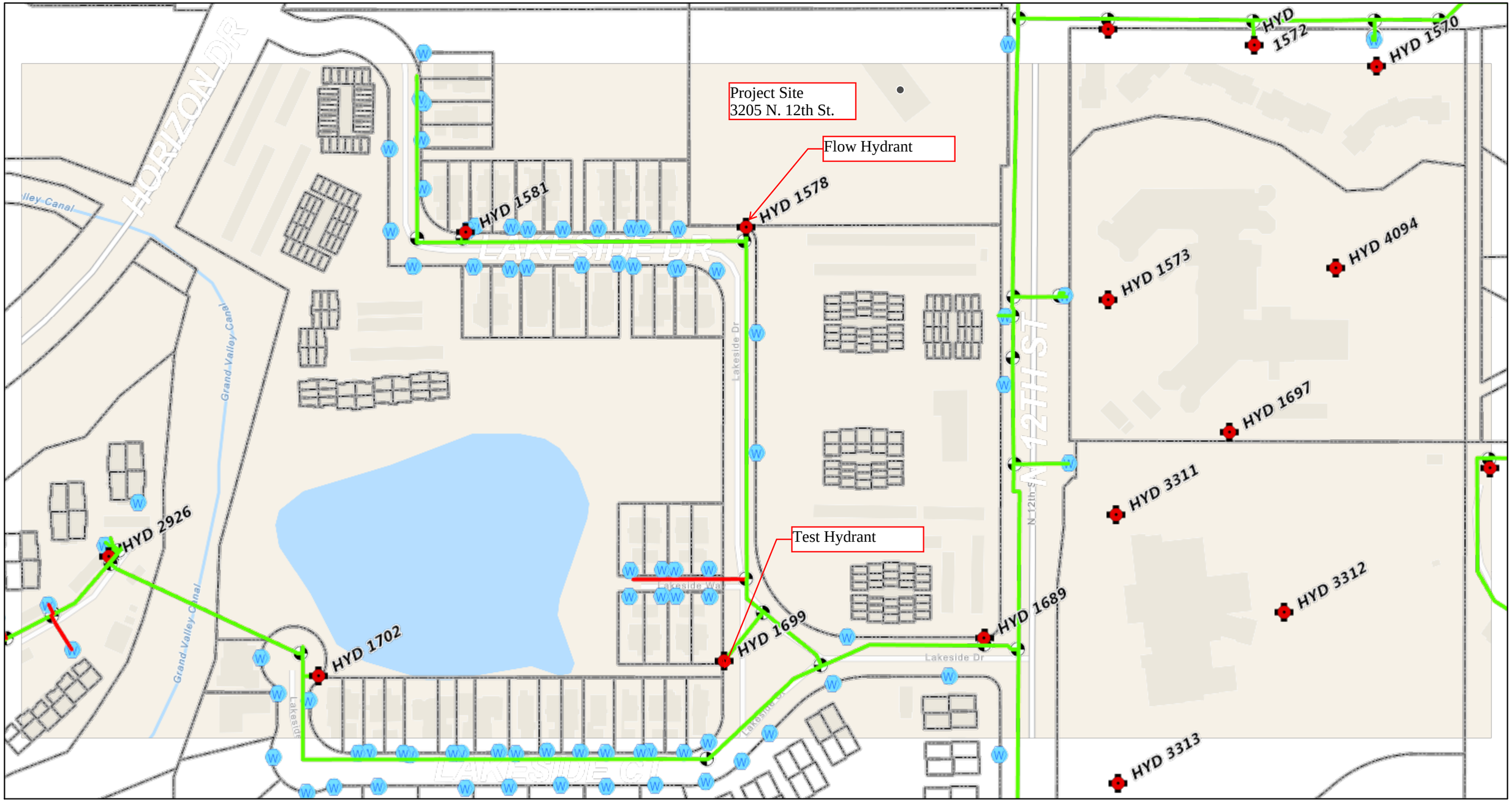
Total Gallons Used: 5781.72
Max GPM during test: 1,156.34
Elapsed Time Min:Sec: 5 : 0
Predicted GPM @ 20 PSI: 2963.78



GPM rounded to nearest gallon

Values inside grid below flow line are PSI @ predicted flow

3205 N. 12 th St.



April 1, 2019

1:1,754

0 0.02 0.04 0.08 mi
0 0.03 0.07 0.13 km

Ute Water, Mesa County

- Tanks
- Fill Station
- Sample Station
- Lateral Lines
- Mains
  - 12" Larger
  - 6" thru 10"
  - 1" thru 4"
- Cathodic Station
- Control Valve
- Curb Stop Valve
- System Valves
  - Gate Valve
  - Ball Valve
- Butterfly Valve
- Meter
- Regulator
- Fire Hydrant
- Parcels
- Roads

Ute Water 2018

FOUND No.5 REBAR IN CONCRETE
DISTURBED (NOT HELD)
REPLACED WITH No. 5 REBAR AND
2" ALUMINUM CAP PLS 37904

SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

CORPORATION
:801

BASIS OF BEARING
NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

OWNER: H.O.A
NORTHWOODS CONDOMINIUMS
RECEPTION No. 1944089

POINT OF BEGINNING PARCEL 2
FOUND MCSM No. 113-2
EAST ¼ CORNER SECTION 2 T1S R1W
UTE-FOUND 3.25" ALUMINUM CAP IN
RANGE BOX 0.5 BELOW ASPHALT SURFACE.
PROJECT BENCHMARK
EL:4692.86 [NAVD88]

N89° 52' 33"E 488.00'

218.00'

7' EASEMENT

IRR CONTROL BOX

IRRIGATION STORAGE VAULT

FUTURE COMMUNITY GARDEN BY OWNER

TRASH ENCLOSURE

BIKE BARN

BLDG-PL

10.16'

18.4'

20' SEWER EASEMENT

125.88' HOSE PULL LENGTH

20.38'

3-STORY, 34-UNIT APARTMENT COMPLEX
GROSS BUILDING AREA: 21,146 SF
CONSTRUCTION TYPE V-B
FIRE PROTECTION SYSTEM: NFPA 13

FF=4695.00

4-6" RISERS

34.84' BLDG-PL

34.71'

N0° 04' 43"E 240.00'

330.00'

N0° 04' 43"E

HOSE PULL LENGTH

HOSE 50.46' PULL LENGTH

HOSE 75.34' PULL LENGTH

PATIO

TURF

FIRE DEPARTMENT CONNECTION

PROPOSED FIRE HYDRANT

3-6" RISERS

4-6" RISERS

20'

6 SPACES

5 SPACES

18'

60.0'

LOT 2
2.19 ACRES

PROPOSED FIRE HYDRANT

10' PUBLIC SERVICE EASEMENT

10' PROPOSED SEWER EASEMENT

SANITARY SEWER MH
RIM=4694.04
INV IN(N)=4684.14
INV OUT(S)=4683.94

RETAINING WALLS

HEATED DCDA UTILITY CABINET

EXISTING FIRE HYDRANT

UTE WATER FLOW HYDRANT
2983 GPM @ 20 PSI

FOUND No.5 REBAR
2.00' WITNESS CORNER
PLACED 2" ALUMINUM CAP PLS 37904

8"W 8"W 8"W 8"W 8"W 8"W

LAKESIDE DRIVE

LOT 3, BLOCK 3
LAKESIDE SUBDIVISION
RECEPTION No. 1039892

PARCEL 2

14 SPACES

IRR PUMP

ELEC TRANS

10' BY 20' UTILITY EASEMENT

POSSIBLE 76 SPACES
1 SPACE / 4 SEATS
304 SEATS
(1 SEAT = 18" PEW SPACE)

4 SPACES

GRAVEL PARKING

18 SPACES

12 SPACES

UNTIY CHURCH

FF=4594.11

FF=4584.90

LOT 1
1.49 ACRES

LIFT STATION

SS

CONCRETE CURB

11 SPACES

14' PROPOSED MULTI-PURPOSE EASEMENT

10' DEEDED ROW

30' DEEDED ROW

SIGN

240.00'

S0° 04' 43"W

1318.41'

12TH STREET

1 WAY

PROPOSED FIRE HYDRANT

6"W

S89° 52' 33"W 10.00'

17 SPACES

S89° 52' 33"W 260.00'

GJ FIRE TRUCK 1

GRAVEL PARKING

14' PROPOSED MULTI-PURPOSE EASEMENT

STORM OVERFLOW INLET
RIM=4686.38
INV IN(E)=4678.88
INV OUT(SW)=4678.78

50' STORM INLET
RIM=4686.33
INV=4677.03

90.00'

S0° 04' 43"W

50' RIGHT OF WAY DEDICATION No.2848

40.00'

50.00'

POINT OF COMMENCEMENT PARCEL 1

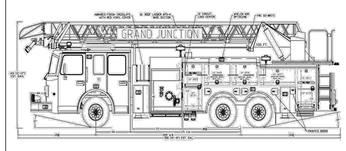
EAST LINE OF THE NE¼ SE¼ SECTION 2

S89° 52' 33"W 478.00'

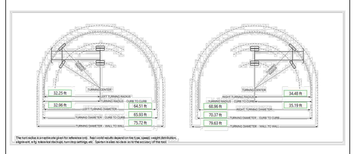
ALL NEW FIRE APPARATUS ACCESS ROADS AND FIRE APPARATUS TURNAROUNDS MEET GVW 75,000LBS MINIMUM H-20 LOADING, ALL-WEATHER REQUIREMENT.

OWNER: H.O.A
TRACT B
LAKESIDE SUBDIVISION
RECEPTION No. 1039892

Fire Apparatus Dimensions-Truck 1



Weight: 75,000 gvw	Smeal Apparatus/Chassis Model 0100-012 Gladiator
Length: 42 feet	Left hand outside tire turn angle 33.50 deg.
Width: 9 feet	Right hand outside tire turn angle 31.00 deg.
Height: 12 feet	Left hand curb to curb turning radius 32.96 ft.
Outrigger Max: 19 feet	Right hand curb to curb turning radius 35.19 ft.
Angle of Approach: 11 degrees	Left hand wall to wall turning radius 37.86
Angle of Departure: 10 degrees	Right hand wall to wall turning radius 39.81 ft.



LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

0 20 40 60

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2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

Know what's below. Call before you dig.
811
SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

COLORADO LICENSED
CHRISTIAN A. SEEBER
No. 42780
4/2/19
PROFESSIONAL ENGINEER

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

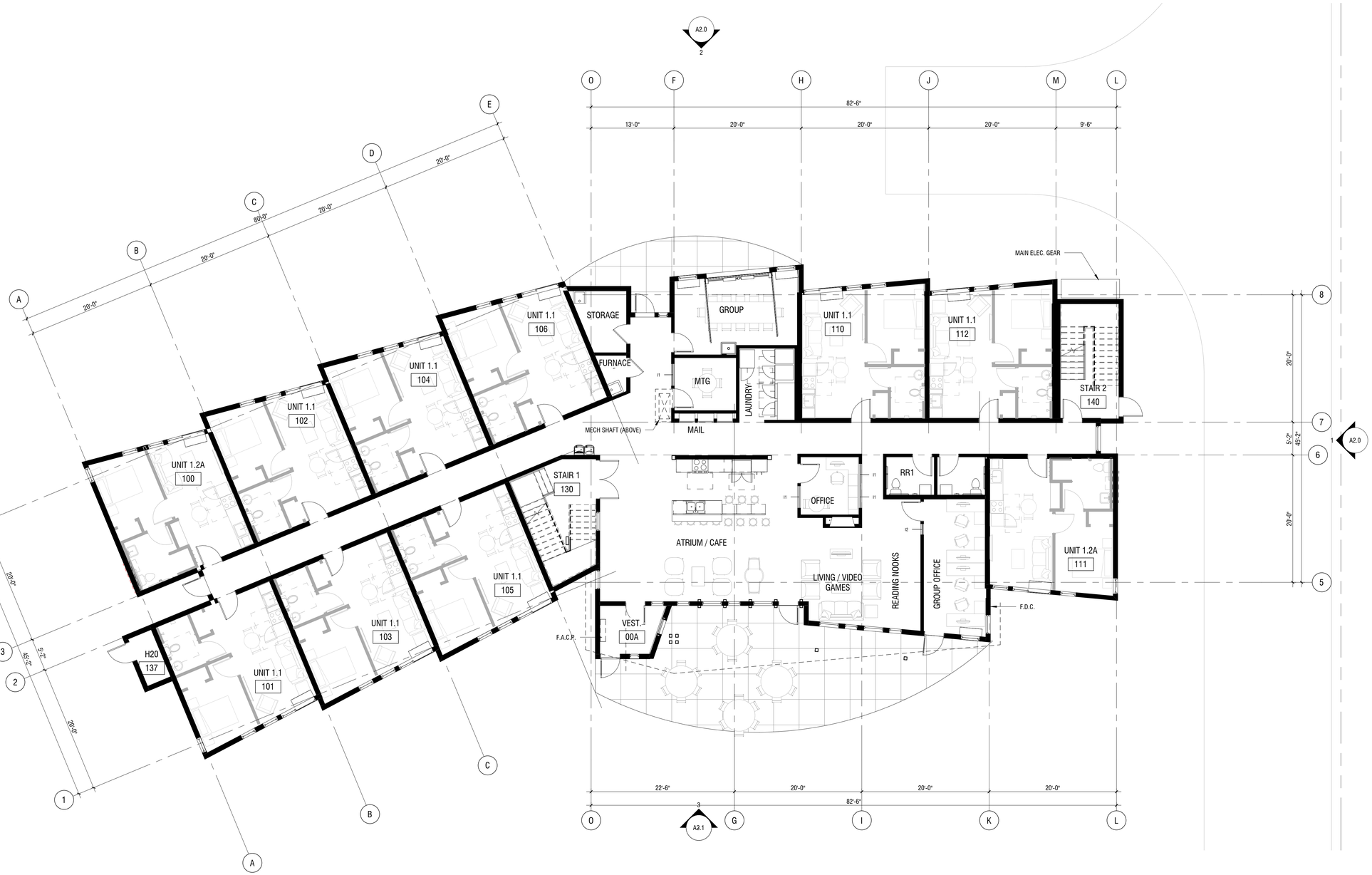
DATE: 3/21/19

PROJECT #: 18007
FILE:
SHEET TITLE:
FIRE SITE PLAN

SCALE: 1"=20'

NO. C4.10

M:\PROJECTS\13600\001 - Karis Multi-Family\Drawings\CD\Production Drawings\PROD-FIRE SITE PLAN.dwg, 4/2/2019 1:43:53 PM, DWG To PDF.pc3



1 FIRST FLOOR
1/8" = 1'-0"

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

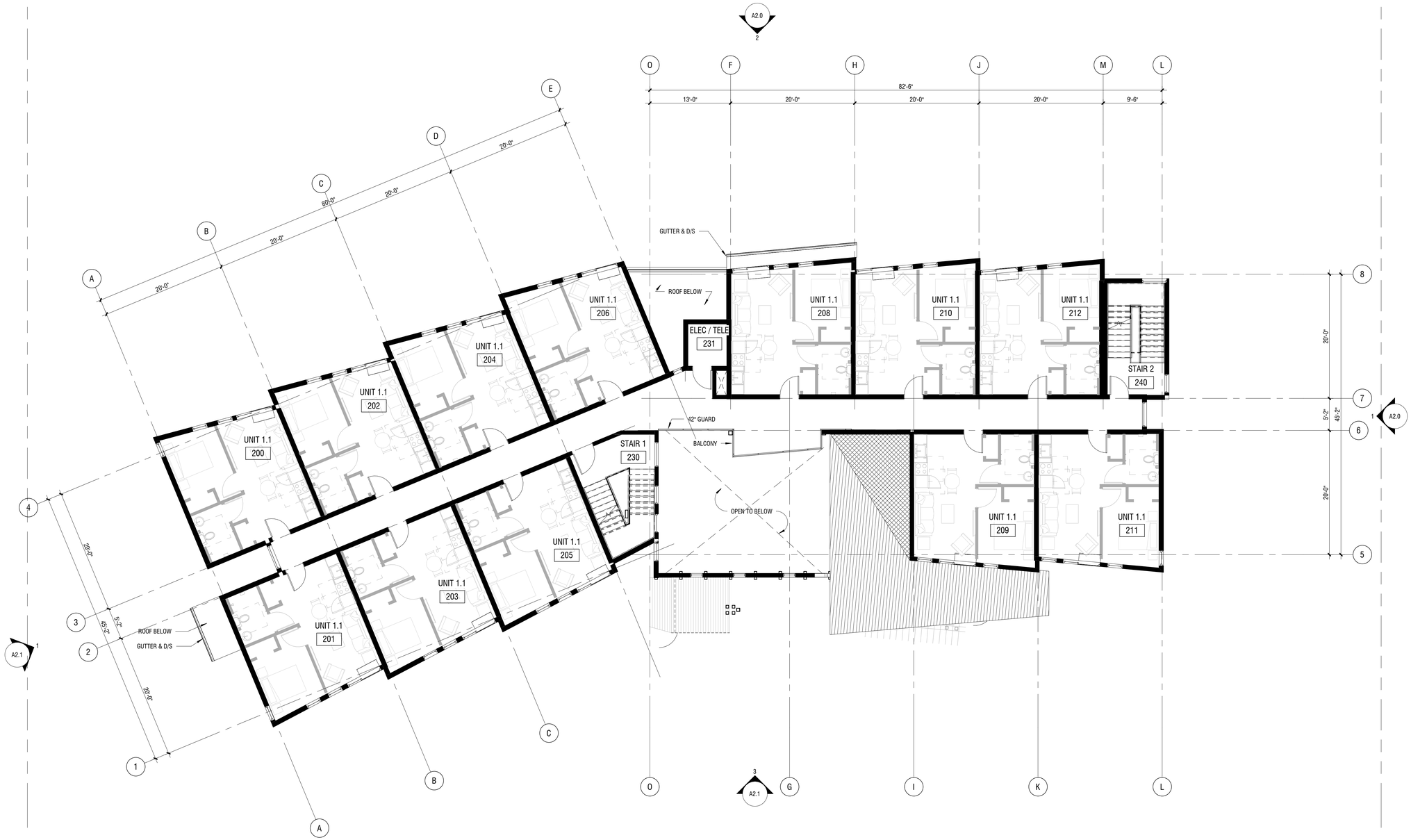
DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
LEVEL1 FLOORPLAN

SCALE: 1/8" = 1'-0"

NO. A1.0



1 SECOND FLOOR
1/8" = 1'-0"

N

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
LEVEL2 FLOORPLAN

SCALE: 1/8" = 1'-0"

NO. A1.2

1 THIRD FLOOR

1/8" = 1'-0"

N

shopworks architecture
331 W. 145TH WAY • DENVER, CO 80216 • 303-439-4994

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
LEVEL3 FLOORPLAN

SCALE: 1/8" = 1'-0"

NO. A1.3

1 ROOF
1/8" = 1'-0"

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KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
ROOF PLAN

SCALE: 1/8" = 1'-0"

NO. A1.4

ALTA/ NSPS LAND TITLE SURVEY

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

TABLE A

OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

1. Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner.
- shown hereon

2. Address(es) of the surveyed property if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork.
- 3205 N. 12th Street Grand Junction, Colorado 81506

3. Flood zone classification (with proper annotation based on federal Flood Insurance Rate Maps or the state or local equivalent) depicted by scaled map location and graphic plotting only.
The Property described on this Survey does not lie within a Special Flood Hazard Area ("SFHA") as defined by the Federal Emergency Management Agency; the Property lies within Zone(s) X of the Flood Insurance Rate Map identified as Community Panel No 08077C0806 Suffix G, bearing an effective date of October 16, 2012.

4. Gross land area.
- 3.676 acres

6. (a) If set forth in a zoning report or letter provided to the surveyor by the client, list the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements. Identify the date and source of the report or letter.
- letter not provided

7. (a) Exterior dimensions of all buildings at ground level.
- shown hereon

8. Substantial features observed in the process of conducting the fieldwork (in addition to the improvements and features required pursuant to Section 5 above) (e.g., parking lots, billboards, signs, swimming pools, landscaped areas, substantial areas of refuse).
- shown hereon

9. Number and type (e.g., disabled, motorcycle, regular and other marked specialized types) of clearly identifiable parking spaces on surface parking areas, lots and in parking structures. Striping of clearly identifiable parking spaces on surface parking areas and lots.
- gravel parking no marked spaces

10. (a) As designated by the client, a determination of the relationship and location of certain division or party walls with respect to adjoining properties (client to obtain necessary permissions).
- no walls were designated

11. Location of utilities existing on or serving the surveyed property as determined by:
- shown hereon
- observed evidence collected pursuant to Section 5.E.iv.
- evidence from plans requested by the surveyor and obtained from utility companies, or provided by client (with reference as to the sources of information), and
- markings requested by the surveyor pursuant to an 811 utility locate or similar request

Representative examples of such utilities include, but are not limited to:
- Manholes, catch basins, valve vaults and other surface indications of subterranean uses;
- Wires and cables (including their function, if readily identifiable) crossing the surveyed property, and all poles on or within ten feet of the surveyed property. Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the dimensions of all encroaching utility pole crossmembers or overhangs; and
- Utility company installations on the surveyed property.

Note to the client, insurer, and lender – With regard to Table A, item 11, source information from plans and markings will be combined with observed evidence of utilities pursuant to Section 5.E.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response, in which case the surveyor shall note on the plat or map how this affected the surveyor's assessment of the location of the utilities. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary.

12. As specified by the client, Governmental Agency survey–related requirements (e.g., HUD surveys, surveys for leases on Bureau of Land Management managed lands).
- none specified

13. Names of adjoining owners according to current tax records. If more than one owner, identify the first owner's name listed in the tax records followed by "et al."
- shown hereon

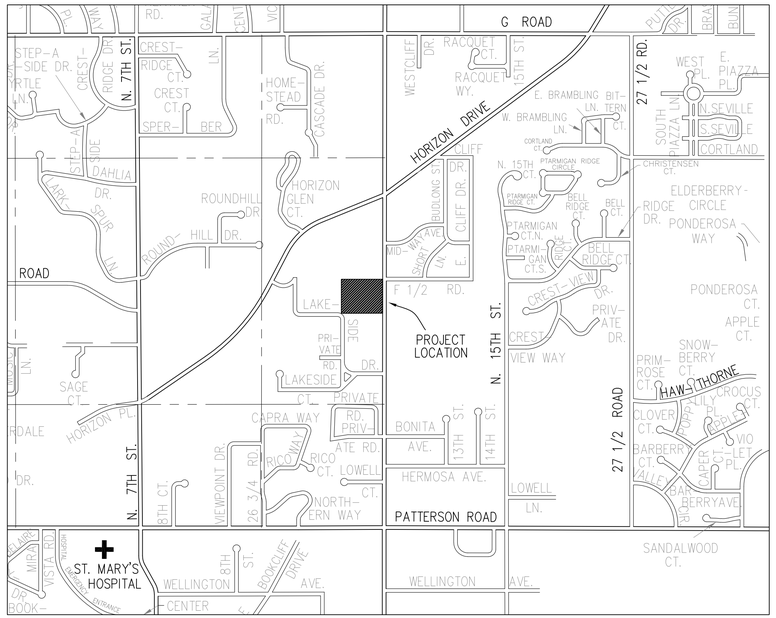
14. As specified by the client, distance to the nearest intersecting street.
- non specified

16. Evidence of recent earth moving work, building construction, or building additions observed in the process of conducting the fieldwork.
- none observed

17. Proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction. Evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.
- none observed

18. If there has been a field delineation of wetlands conducted by a qualified specialist hired by the client, the surveyor shall locate any delineation markers observed in the process of conducting the fieldwork and show them on the face of the plat or map. If no markers were observed, the surveyor shall so state.
- no field delineation was conducted

19. Include any plottable offsite (i.e., appurtenant) easements or servitudes disclosed in documents provided to or obtained by the surveyor as a part of the survey pursuant to Sections 5 and 6 (and applicable selected Table A items) (client to obtain necessary permissions).
- shown hereon



VICINITY MAP
N.T.S

SURVEYORS CERTIFICATION:

To Land Title Guarantee Company, Caprock Building Corporation, Sunflower Bank n.a., and Kline Alvarado Veio PC, Caprock Academy, Colorado Educational and Cultural Facilities Authority, UMB Bank, n.a., as Trustee, Sunflower Public Finance, LLC,

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17, and 19 of Table A thereof. The fieldwork was completed on December 7, 2018.

Date of Plat or Map: December 20, 2018
Patrick W. Click

Dated: December 20, 2018 Registration No. 37904

SCHEDULE B SECTION TWO EXCEPTIONS

1. Rights or claims of parties in possession, not shown of public record.
2. Easements, or claims of easements, not shown by the public record.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land and not shown by the public records.
4. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
5. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the Effective Date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment.
6. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) Minerals of whatsoever kind, subsurface and surface substances, in, on, under and that may be produced from the Land, together with all rights, privileges, and immunities relating thereto, whether or not the matters excepted under (a), (b) or (c) are shown by the Public Records or listed in Schedule B.
7. Water rights, claims or title to water.
8. Any and all unpaid taxes and assessments and any unredeemed tax sales.
9. Reservations and exceptions in Patents, or Acts authorizing the issuance thereof, including the reservations of the right of way for ditches or canals constructed by the authority of the United States, as reserved in United States Patent recorded July 28, 1891 at Reception No. 12022.
10. Reservations and exceptions in Patents, or Acts authorizing the issuance thereof, including the reservations of the right of proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to penetrate or intersect the premises as reserved in United States Patent recorded July 28, 1891 at Reception No. 12022.
11. Terms, conditions, provisions, agreements and obligations as contained in Agreement with Destination Properties, Inc. recorded May 28, 1981 at Reception No. 1258383.
12. Easement granted to The City of Grand Junction by instrument recorded May 28, 1981 at Reception No. 1258384.
13. Easement granted to Public Service Company of Colorado by instrument recorded November 13, 2012 at Reception No. 2633146.
14. Right of way granted to Grand Valley Rural Power Lines, Inc. by instrument recorded July 31, 1941 at Reception No. 387756.
15. Utility easement granted to the City of Grand Junction by instrument recorded at Reception No. 1872316.

LEGAL DESCRIPTION:

Parcel 1:
Beginning at a point from whence the Northeast corner of the SE1/4 of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears S89°59'E 310 feet and due North a distance of 330 feet;
thence from said point of beginning N89°59'W 218 feet;
thence due North 330 feet;
thence S89°59'E 218 feet;
thence due South 310 feet to the point of beginning;
AND
Commencing at a point from whence the E1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears North a distance of 330 feet;
thence running from said point of beginning N89°59'W 310 feet;
thence due North 90 feet;
thence S89°59'E 310 feet;
thence due South 90 feet to the point of beginning.
EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880898.
County of Mesa, State of Colorado

Parcel 2:
Beginning at the East 1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, which point is the Northeast Corner of the tract:
thence due South 240.00 feet to the Southeast Corner;
thence North 89°59' West 310.00 feet to the Southwest Corner;
thence due North 240.00 feet to the Northwest Corner;
thence South 89°59' East 310.00 feet to the place of beginning.
EXCEPT the East 30 feet for right of way,
AND EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880896.
County of Mesa, State of Colorado

General Notes:

1. OWNERSHIP, RECORDED RIGHTS–OF–WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

ALTA/NSPS LAND TITLE SURVEY
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: SL
DATE: 12/20/18 DRAWING NAME: 2018162 DRAWN BY: MDM

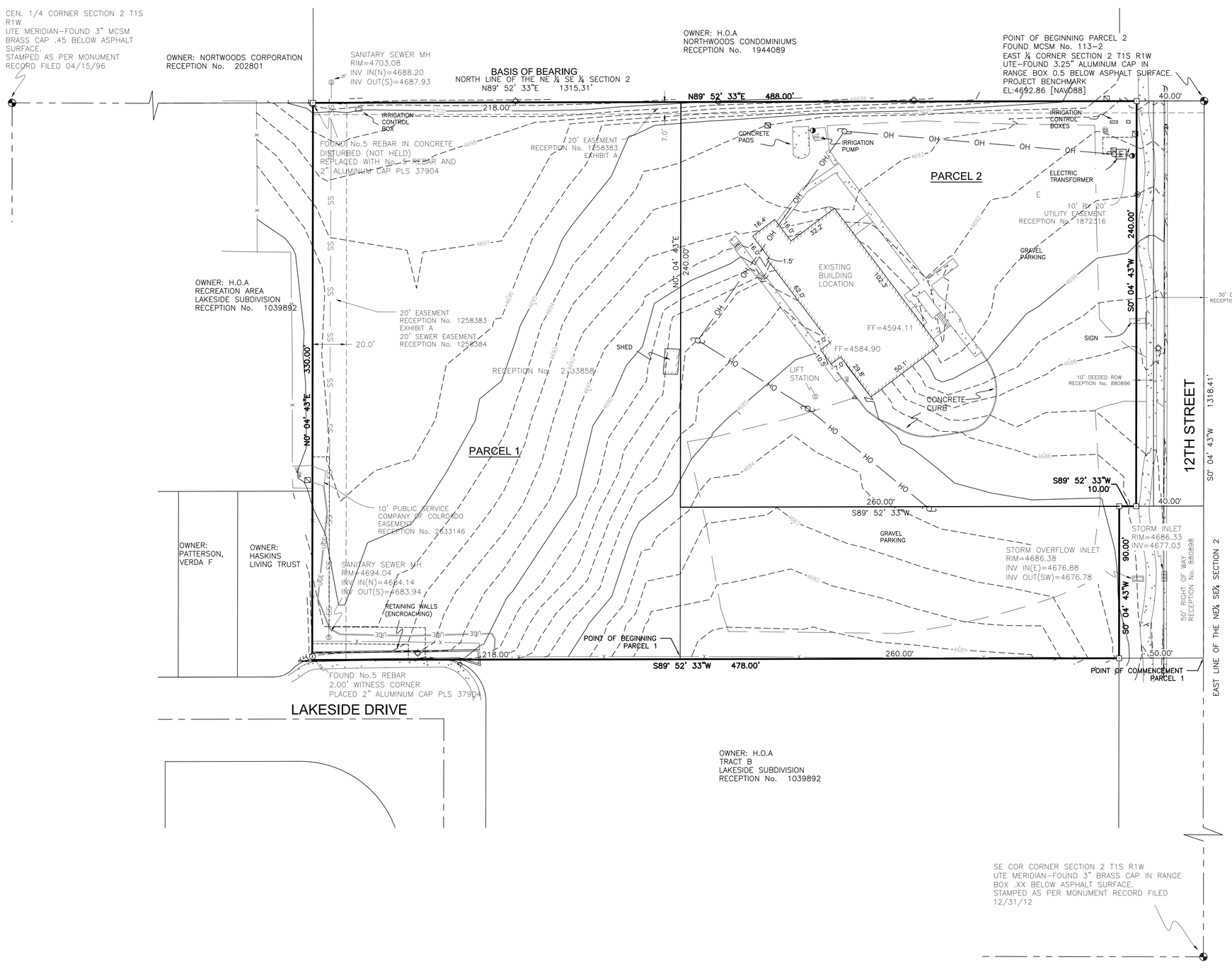
POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434–7038

SH: 1 OF 2

ALTA/NSPS LAND TITLE SURVEY

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO



N

GRAPHIC SCALE:
1"=30'

30' 0 30' 60'

LINEAR UNITS ARE U.S. SURVEY FEET

LEGEND:

FOUND CITY SURVEY MARKER AS DESCRIBED	⊕
FOUND No. 5 REBAR AS DESCRIBED HEREON	⊙
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904	▲
EXISTING UTILITY POLE	
EXISTING GUY WIRE	GUY
EXISTING SIGN	
EXISTING UTILITY PEDESTAL	
EXISTING ELECTRIC TRANSFORMER	E
EXISTING SANITARY SEWER MANHOLE	S
EXISTING SANITARY SEWER CLEANOUT	
EXISTING WATER VALVE	
EXISTING FIRE HYDRANT	
EXISTING WATER METER	
EXISTING LIGHT POLE	
EXISTING IRRIGATION STRUCTURE	RIS

EXISTING UNDERGROUND GAS LINE	GAS GAS
EXISTING OVERHEAD UTILITY LINE	OH OH
EXISTING FENCE LINE	X
EXISTING UNDERGROUND ELECTRIC	UGE UGE UGE
EXISTING UNDERGROUND TELEPHONE	T T T

COLORADO REGISTERED
12/20/18
37904
PROFESSIONAL LAND SURVEYOR

ALTA/NSPS LAND TITLE SURVEY

SITUATED IN THE SE¼ SE¼ SECTION 33
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: SL
DATE: 12/20/18 DRAWING NAME: 2018162 DRAWN BY: MDM

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434-7038

SH: 2 OF 2

Industrial Pretreatment Division
Persigo Wastewater Plant
2145 River Road
Grand Junction, CO 81505
970-256-4180

INDUSTRIAL PRETREATMENT SURVEY

FOR ALL INDUSTRIAL and COMMERCIAL (Non-Residential) BUSINESSES

The United States Environmental Protection Agency (USEPA) requires the City of Grand Junction (City) Industrial Pretreatment Program to regulate industrial and commercial facilities in our service area that generate wastewater that may be significant to the Persigo Wastewater Treatment Facility. To support this requirement, the City performs business and facility surveys and inspections to obtain information regarding facility operations and chemical usage, and to evaluate the significance of a facility's wastewater discharge to the publicly owned sewer system. This survey is a screening tool to determine if additional City requirements are required and to add local commercial and industrial businesses to the City's Industrial Pretreatment database.

Facility Name: Karis Apartments

Facility Location: 3205 N. 12th Street

Mailing Address: P.O. BOX 2837, GRAND JUNCTION, CO 81502

Facility Owner: KARIS, INC.

Name	Title	Phone #

Facility Contact:

JOHN MOK-LAMME	EXECUTIVE DIRECTOR	970-234-1810
Name	**Title**	**Phone #**

e-mail address: jmoklamme@karisinc.org

Contractor Contact:

Marc Litzen / FCI Constructors	970-434-9093	mlitzen@fciol.com
Name	**Phone #**	**e-mail**

1. Provide a brief description of new project (ex: new building construction, painting, roofing, remodel, etc.)

New 3 story, 34 unit apartment building

2. Provide a brief description of the operations at this facility including primary products and services (ex: restaurant, retail, garage, office, medical, etc.) Residential apartments with ground floor amenity space including great room, kitchen area, group room, and offices for service providers.

3. Please answer the following questions to determine if other Pretreatment applications may be required to be completed for your project or facility. *****All Questions Must Be Answered*****

Yes	No	Industrial Pretreatment Survey Form
	X	Is this facility an office or retail store?
X		Will this facility discharge only domestic wastewater or sewage that is typically only found in a residential home? (Note: *Domestic wastewater* is wastewater generated *only* from typical bathroom and breakroom facilities, such as toilets and breakroom sinks, hand sinks and showers. *All other industrial or commercial wastewater is considered process wastewater*.)

	X	Will there be any changes to the existing plumbing? If Yes, briefly describe the change: There is no existing plumbing
	x	Is this facility under new ownership or lease agreement?
	X	Has this facility stopped operation or been closed for a period of 12 months or longer?

Yes	No	Food Service
	X	Is this a food service or food processing facility (ex: restaurant, coffee shop, fast food, catering, etc.) or has any of the following: bar, bistro, bakery, butcher shop, cannery, etc?
	x	Does this facility have a commercial kitchen?

Yes	No	Vehicle/Equipment
	x	Does this facility service or clean any vehicles or equipment (ex: engines, parts, valves)?
	X	Does this facility do any **materials** or **metal** fabrication (ex: grinding, polishing, cutting, welding, forging, tumbling, etc.)?
	x	Are there any floor drains in the shop area?

Yes	No	Medical
	x	Does this facility provide medical services?
	x	Does this facility provide dental services?
	x	Does this facility operate a laboratory?

Yes	No	Recreational Vehicle Dump Station
	x	Does this facility provide a Recreational Vehicle Septage Dump Station?

Yes	No	Other Industrial Discharge
	X	Does this facility discharge or produce any processed industrial or commercial wastewater other than the types listed above?

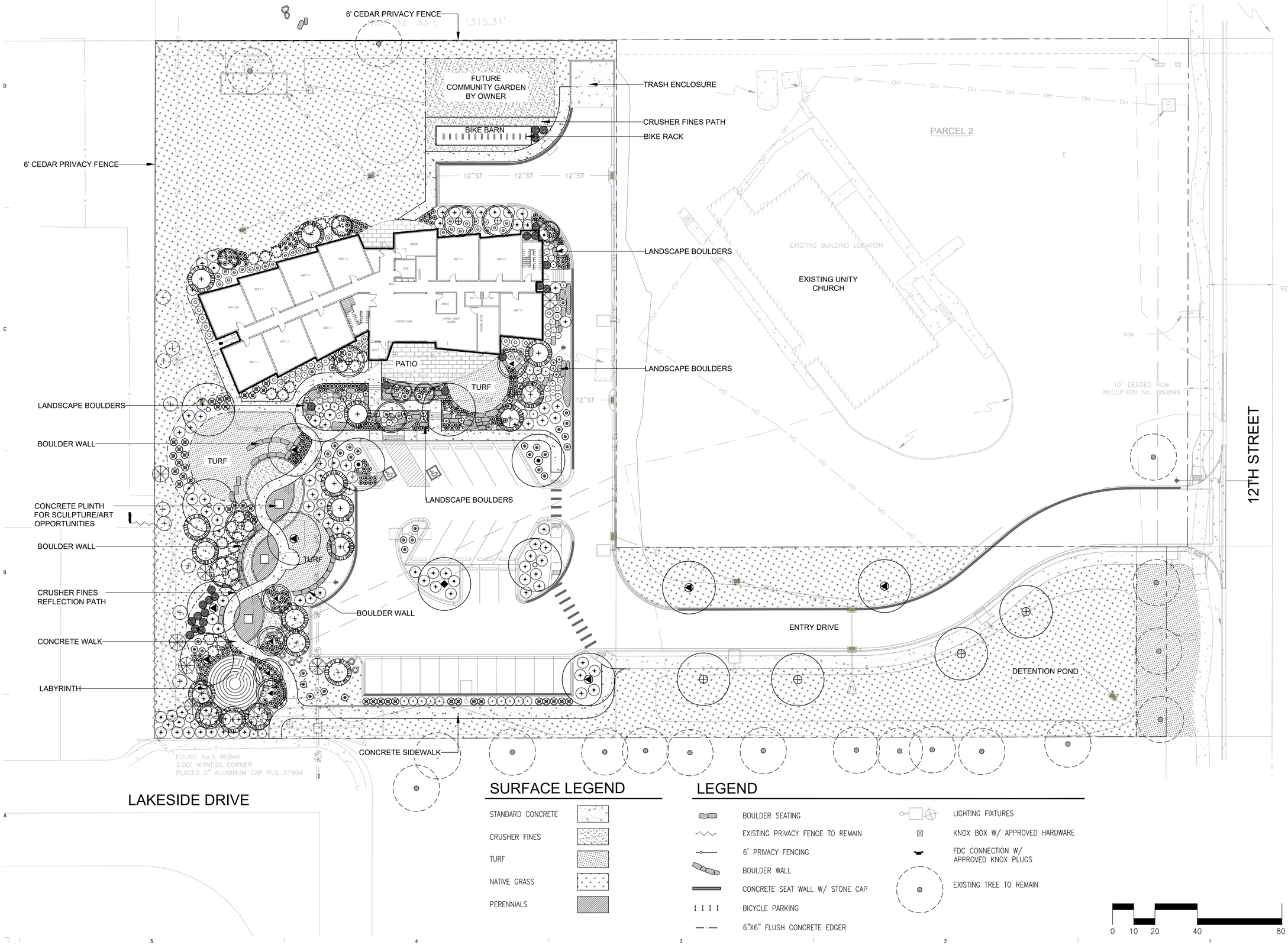
Yes	No	Material Use
	x	Will this facility use, store or generate any flammable, toxic, corrosive or hazardous materials?

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. *By submitting this survey, I certify that I am the owner/officer/manager of the property or that I have the authority to submit this survey on behalf of the owner.*

Printed Name & Title: KYLE MEAD; PROJECT MANAGER; SHOPWORKS ARCHITECTURE

Signature: **Date:** 3/27/19



SURFACE LEGEND

- STANDARD CONCRETE
- CRUSHER FINES
- TURF
- NATIVE GRASS
- PERENNIALS

LEGEND

- BOULDER SEATING
- EXISTING PRIVACY FENCE TO REMAIN
- 6' PRIVACY FENCING
- BOULDER WALL
- CONCRETE SEAT WALL W/ STONE CAP
- BICYCLE PARKING
- 6"X6" FLUSH CONCRETE EDGER
- LIGHTING FIXTURES
- KNOX BOX W/ APPROVED HARDWARE
- FDC CONNECTION W/ APPROVED KNOX PLUGS
- EXISTING TREE TO REMAIN

0 10 20 40 80

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flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
301 West 45th Avenue
Denver, CO 80216
303.406.1075

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
Landscape Site Plan

SCALE:

NO. LS101

LANDSCAPE PLANTING SCHEDULE

EVERGREEN TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
PIN	2	Piñon Pine	Pinus edulis	6' Height	Very Low
AUS	14	Austrian Pine	Pinus nigra	8' Height	Very Low

DECIDUOUS TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
OAK	7	Chinkapin Oak	Quercus muehlenbergii	2.5" Caliper	Low
HKB	2	Common Hackberry	Celtis occidentalis	2.5" Caliper	Very Low
SHA	5	Shademaster Honeylocust	Gleditsia triacanthos inermis	2.5" Caliper	Very Low
BOX	2	Sensation Boxelder	Acer negundo 'Sensation'	2.5" Caliper	Low
LPT	4	London Planetree	Platanus x acerifolia	2.5" Caliper	Low

ORNAMENTAL & SMALL TREES

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
ABS	6	Autumn Brilliance Serviceberry	Amelanchier x grandiflora	6'-8' Clump	Moderate
WKH	6	Winter King Hawthorn	Crataegus viridis 'Winter King'	2" Caliper	Low
RBC	2	Eastern Redbud	Cercis canadensis	6'-8' Clump	Low

DECIDUOUS SHRUBS

SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
RLC	41	Red Lake Currant	Ribes sativum 'Red Lake'	5 Gal. Cont.	Low
AAS	102	Autumn Amber Sumac	Rhus trilobata 'Autumn Amber'	5 Gal. Cont.	Low
RSA	38	Russian Sage	Perovskia artiplicifolia	5 Gal. Cont.	low
XXX	49	XXX	XXX	5 Gal. Cont.	Low
LEA	17	Leadplant	Amorpha canescens	5 Gal. Cont.	Very Low
RAB	9	Rabbitbrush	Chrysothamnus nauseosus	5 Gal. Cont.	Very Low
PAN	22	Panchito Manzanita	Arctostaphylos x coloradoensis	5 Gal. Cont.	Low
RLR	7	Red Leaf Rose	Rosa glauca	5 Gal. Cont.	Low

EVERGREEN SHRUBS

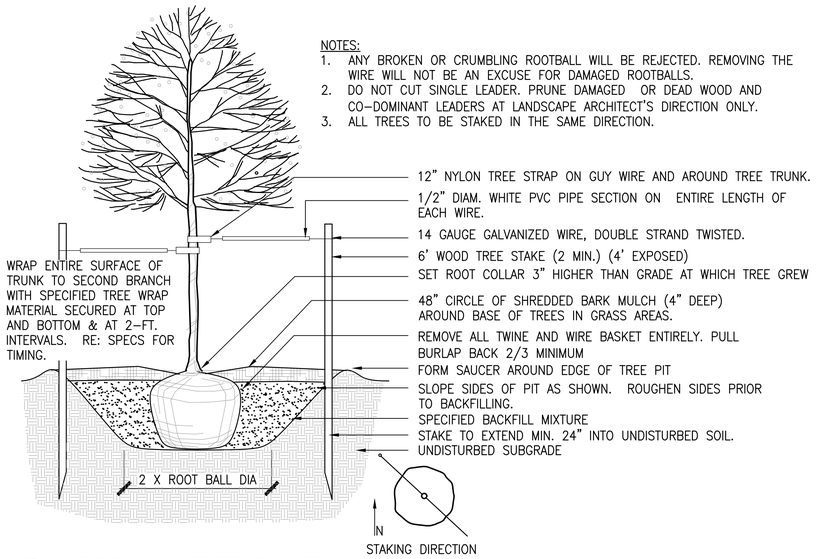
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
BCJ	35	Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	5 Gal. Cont.	Low

ORNAMENTAL GRASSES/PERENNIALS / GROUNDCOVERS

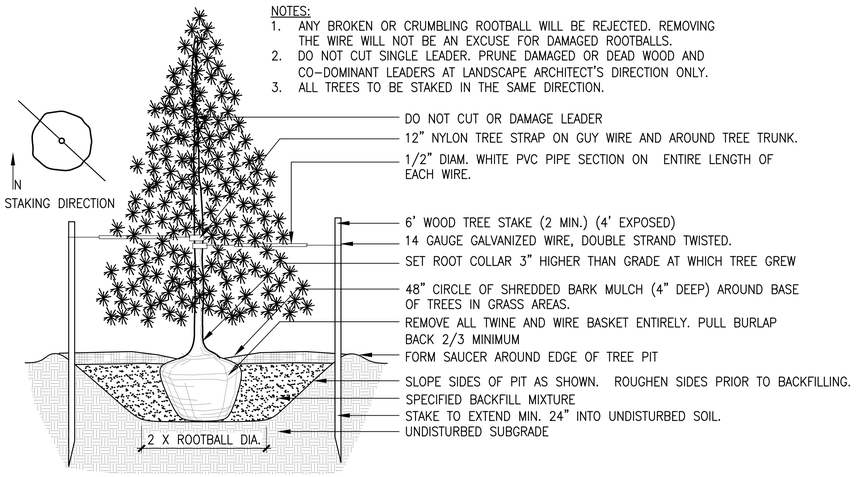
SYMBOL	QTY.	COMMON NAME	BOTANIC NAME	SIZE	WATER USE
YUC	41	Soapweed Yucca	Yucca glauca	1 Gal. Cont.	Low
FRG	45	Feather Reed Grass	Calamagrostis acutiflora 'Avalanche'	1 Gal. Cont.	Low
DMG	25	Dwarf Maiden Grass	Miscanthus sinensis 'Yaku Jima'	1 Gal. Cont.	Low
BGG	262	Blue Gramma Grass	Bouteloua gracilis	1 Gal. Cont.	Low
AST	150	Assorted Perennials & Groundcovers		1 Gal. Cont.	Low

LANDSCAPE NOTES

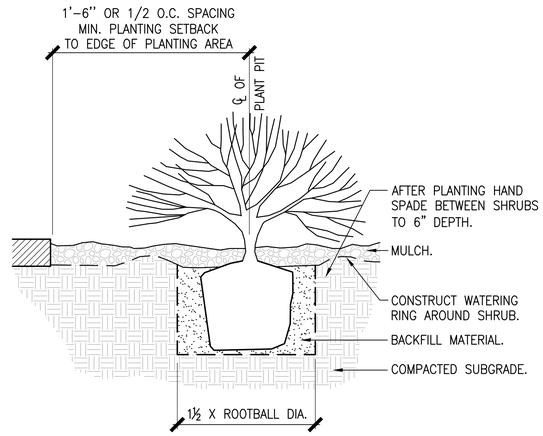
1. STAKE ALL TREES AND SHRUBS BASED ON THESE DRAWINGS. EXACT LOCATIONS OF PLANT MATERIALS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD PRIOR TO INSTALLATION. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST TO EXACT LOCATIONS IN THE FIELD.
2. ALL TREES TO MEET THE CITY OF GRAND JUNCTION LAND USE CODE STANDARDS FOR SIZE AND SPECIES.
3. PROVIDE MATCHING FORM AND SIZES FOR PLANT MATERIALS WITHIN EACH SPECIES AND SIZE AS DESIGNATED ON THE DRAWINGS.
4. ALL LANDSCAPE MATERIAL TO BE DISEASE AND INSECT FREE. LANDSCAPE ARCHITECT TO REVIEW PLANT MATERIAL AT SOURCE OR BY PHOTOGRAPHS PRIOR TO DIGGING OR SHIPPING OF PLANT MATERIAL.
5. ALL PLANTING BEDS ADJACENT TO THE BUILDING AND WITHIN THE OUTDOOR WALKS SHALL BE MULCHED WITH A 3/4"-6" LOCAL RIVER COBBLE BLEND. A WOVEN GEOTEXTILE WEED BARRIER IS REQUIRED UNDER COBBLE AND RIVER ROCK PLANTING BEDS. AREAS OF PERENNIALS, GROUNDCOVERS AND TREES IN TURF OR NATIVE AREAS TO BE MULCHED WITH 4" DEPTH OF WASHINGTON SHREDDED CEDAR MULCH WITH NO WEED BARRIER NECESSARY.
6. ALL LANDSCAPE BEDS AND TURF AREAS ARE TO RECEIVE ORGANIC SOIL AMENDMENTS AT A RATE OF 4 CY/1000 S.F. OF LANDSCAPE AREA. AMENDMENTS ARE TO BE TILLED TO A DEPTH OF 8" AND FINE GRADED TO A SMOOTH SURFACE WITH POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES.
8. 6"X6" FLUSH CONCRETE HEADER SHALL OCCUR BETWEEN CRUSHER FINES AND ALL OF THE FOLLOWING SURFACE MATERIALS: SOD & SEED, GARDEN MULCH & SOD, CRUSHER FINES & SOD, CRUSHER FINES & OR AS INDICATED ON THE DRAWINGS.
9. MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION WITH PRIOR APPROVAL FROM THE CITY OF GRAND JUNCTION, AS REQUIRED BY SITE CONDITIONS. OVERALL QUANTITY AND QUALITY TO BE CONSISTENT WITH APPROVED PLANS.
10. LOCATE ALL UTILITIES PRIOR TO ANY DIGGING OR LANDSCAPE PLANTING.



1 DECIDUOUS TREE PLANTING
SCALE: NTS



2 EVERGREEN TREE PLANTING
SCALE: NTS



3 SHRUB PLANTING
SCALE: NTS

shrb.dwg

shop works architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

flow DESIGN COLLABORATIVE LANDSCAPE ARCHITECTURE
301 West 45th Avenue
Denver, CO 80216
303.406.1075

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: Author
REVIEWED: Approver
PROJECT #: 18007

SHEET TITLE:
Landscape Schedules & Details

SCALE:

NO. LS102

LEGAL DESCRIPTION:

Parcel 1:

Beginning at a point from whence the Northeast corner of the SE1/4 of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears S89°59'E 310 feet and due North a distance of 330 feet;
thence from said point of beginning N89°59'W 218 feet;
thence due North 330 feet;
thence S89°59'E 218 feet;
thence due South 310 feet to the point of beginning;
AND
Commencing at a point from whence the E1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian bears North a distance of 330 feet;
thence running from said point of beginning N89°59'W 310 feet;
thence due North 90 feet;
thence S89°59'E 310 feet;
thence due South 90 feet to the point of beginning,
EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880898.
County of Mesa, State of Colorado

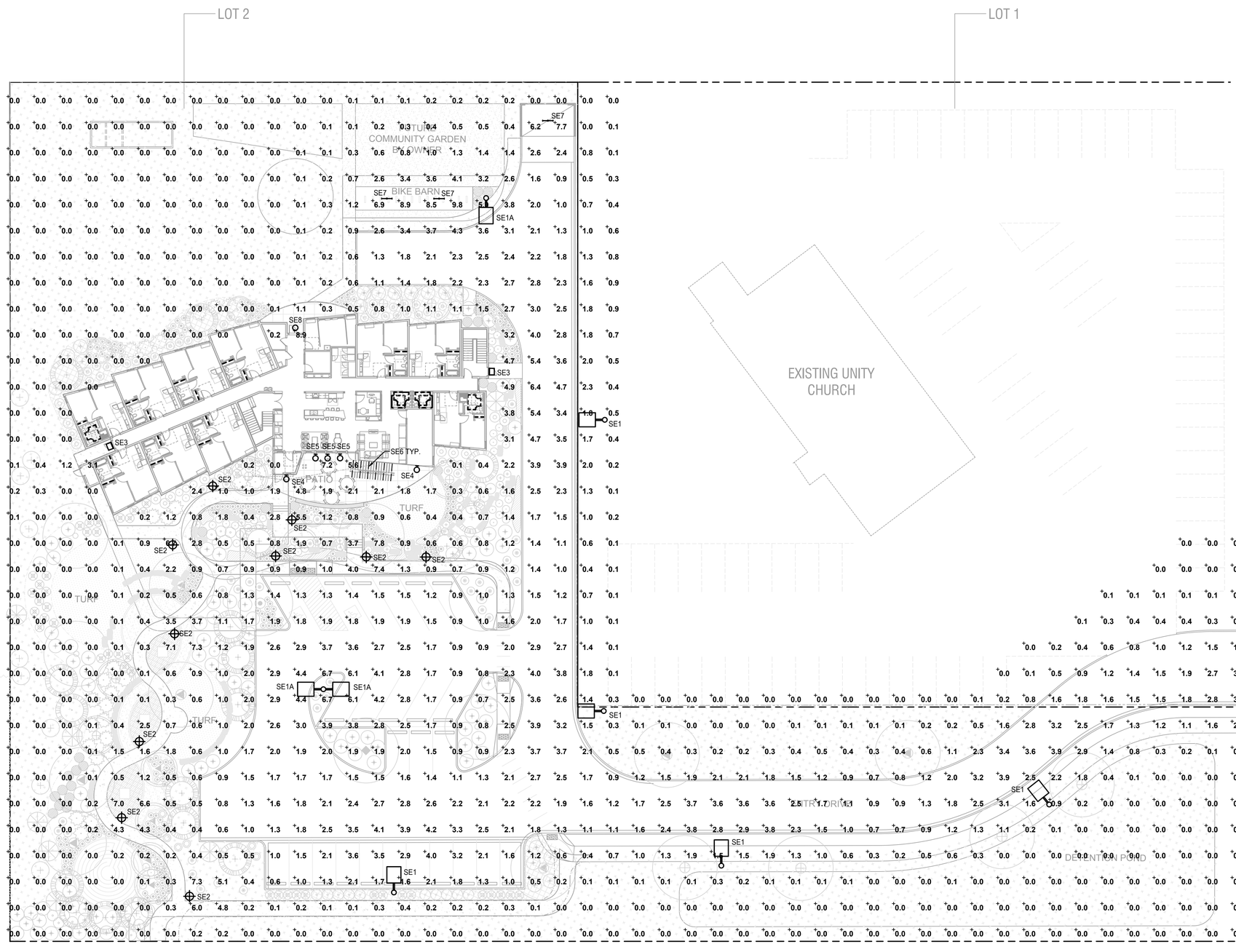
Parcel 2:

Beginning at the East 1/4 corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, which point is the Northeast Corner of the tract:
thence due South 240.00 feet to the Southeast Corner;
thence North 89°59' West 310.00 feet to the Southwest Corner;
thence due North 240.00 feet to the Northwest Corner;
thence South 89°59' East 310.00 feet to the place of beginning.
EXCEPT the East 30 feet for right of way,
AND EXCEPT a parcel of land conveyed to the County of Mesa by instrument recorded December 15, 1964 at Reception No. 880896.
County of Mesa, State of Colorado

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Calc Zone #1	+	1.1 fc	9.0 fc	0.0 fc	N/A	N/A	0.1:1

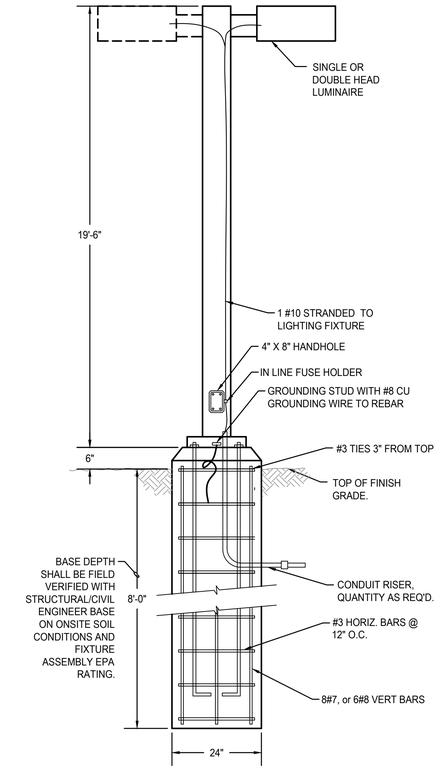
GENERAL NOTES

1. ANY PROPOSED LIGHT FIXTURES INSTALLED ON PRIVATE PROPERTY, ADJACENT TO THE PUBLIC ROW, SHALL BE ORIENTED IN SUCH A MANNER OR LIMITED IN LUMEN OUTPUT TO PREVENT GLARE PROBLEMS AND SHALL NOT EXCEED NATIONAL I.E.S. LIGHTING STANDARDS FOR DISABILITY GLARE.



1 E-1 ELECTRICAL PHOTOMETRIC PLAN

1" = 20'-0"



2 SE1, SE1A PARKING POLE BASE DETAIL

N.T.S.

shoPworks architecture
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CONSULTING INC
4649 PECOS STREET UNIT F DENVER, COLORADO 80211
303.935.9271 MVC-NET

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC PLAN

SCALE: AS NOTED

NO. E1

J:\2018\2018-108-00\Cad\Elec\PH-PHOTOMETRIC.dwg jonk 03.27.19 4:06 pm

Catalog # :	Project :
Prepared By :	Date :

Mirada Medium - MRM
Outdoor LED Area Light

The Mirada's sleek design makes it perfectly-suited for architectural & commercial applications, while its cost-effective die-cast aluminum housing makes its acquisition cost very competitive. The Mirada offers high performance factory-rotatable silicone optics, 5 standard CCTs, 42,000+ delivered lumens, and is available with integral Airlink™ Wireless Controls.

Features & Specifications

Optical System

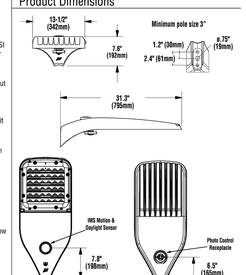
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, SW, FT and FTA.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance. See page 5 for more details.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L lumen package rated to +40°C.
- Power factor: ≥ .90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA · Title 24 2013 · IDA DARK SKY APPROVED · DLC Premium · DLC Premium

Product Dimensions



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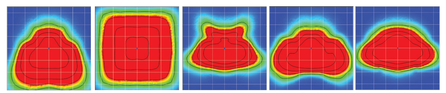
Mirada Medium - MRM
Outdoor LED Area Light

Performance (Cont.)

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada (MRM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Ordering Guide

TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Luminaire Prefix	Light Source	Lumen Package[4]	Light Output	Distribution	Orientation[5]	Voltage	Driver
MRM Mirada	**LED**	7L - 7,000 lms **9L** - 9,000 lms **12L** - 12,000 lms **16L** - 16,000 lms **24L** - 24,000 lms **30L** - 30,000 lms **36L** - 36,000 lms **42L** - 42,000 lms * Consult factory for programmable wattages and lumen packages	**SIL** - Silicone	**2** - Type 2 **3** - Type 3 **SW** - Type 5 Wide **FT** - Forward Throw - Symmetrical **FTA** - Forward Throw - Automotive	**(Blank)** - standard **L**- Optics rotated left 90 **R** - Optics rotated right 90	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347-480V)	**DIM** - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5,000 CCT **40** - 4,000 CCT **30** - 3,000 CCT **27** - 2,700 CCT **AMB** - Phosphor Converted Amber[2,3]	**70CRI** - 70 CRI	**(Blank)** - None **Wireless Controls System.** **ALSC** - AirLink Synapse Control System [4] **ALSCH** - AirLink Synapse Control System Host / Satellite [4,5] **ALSCS01** - AirLink Synapse Control System with 8-12' Motion Sensor [4] **ALSCH501** - AirLink Synapse Control System Host / Satellite with 8-12' Motion Sensor [4,5] **ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor [4] **ALSCH502** - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor [4,5] **ALSCS04** - AirLink Synapse Control System with 20-40' Motion Sensor [4] **ALSCH504** - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor [4,5] **Stand-Alone Controls** **EXT** - 0-10v Dimming (from external signal) **IMS09M1** - Integral Motion Sensor 8-12' 120-277V [4,6] **IMS09M2** - Integral Motion Sensor 12-20' 120-277V [4] **IMS09M4** - Integral Motion Sensor 20-40' 120-277V [4] **IMS09M1HV** - Integral Motion Sensor 8-12' 347-480V [4,6] **IMS09M2HV** - Integral Motion Sensor 12-20' 347-480V [4,6] **IMS09M4HV** - Integral Motion Sensor 20-40' 347-480V [4,6] **CRTP** - 7 Pin Control Receptacle ANSI C136.41 [7] **Button Type Photocells** **PC3120** - 120V **PC3200-277** - 208 -277V **PC3347** - 347V	**BRZ** - Bronze **BLK** - Black **GPT** - Graphite **MSV** - Metallic Silver **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green	**(Blank)** - None **IL** - Integral Louver HSS[8]

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Catalog # :	Project :
Prepared By :	Date :

Mirada Bollard - MRB
LED Architectural Bollard

The Mirada Architectural Bollard combines superior engineering with purity of design & attention to detail. The durable construction & virtually maintenance free qualities makes it ideal for illuminating low level mounting height areas, such as entryways, pathways and most pedestrian-scale applications, requiring unique aesthetics in tandem with outstanding performance.

Features & Specifications

Optical System

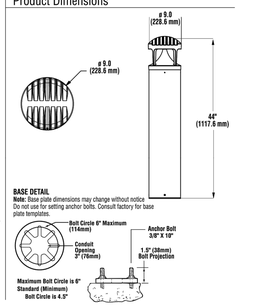
- Available in two optical distributions, symmetrical and asymmetrical.
- High transmission clear flat acylic lens seals the luminaire's optical chamber to IP66.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Also available in Phosphor Converted Amber. Consult Factory for other color temperature requirements.
- Minimum CRI of 70. Consult Factory for Higher CRI requirements.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347-480 Vac Input available.
- L91 Calculated Life: >100k Hours calculated @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F); Cold-weather emergency battery backup rated for -20°C minimum ambient.
- Power factor: ≥ .90
- Input power stays constant over life.
- High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
- Driver components are fully encased in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Electrical components are mounted on a removable power tray.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Optional 120v-277v integral emergency battery pack is available. The 90-minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance.

Dimmable · IDA DARK SKY APPROVED · IP66 · RoHS COMPLIANT · ARRA Funding Compliant · cULus LISTED · USA

Product Dimensions



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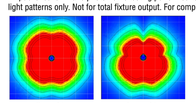
Mirada Bollard - MRB
LED Architectural Bollard

Performance

DELIVERED LUMENS*													
				AMB CCT		2700K CCT		3000K CCT		4000K CCT		5000K CCT	
Lumen Package	Lens Type	Distribution	CRI	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Wattage
25L	ACR	S	70	1713	56	2242	74	2156	71	2487	82	2485	81	30.5
30L	ACR	S	70	2110	55	2761	71.9	2655	69	3063	80	3061	80	38.4
25L	ACR	A	70	1327	58	1736	75.5	1670	73	1926	84	1925	84	23.0
30L	ACR	A	70	1634	56	2138	73.5	2056	71	2372	82	2370	81	29.1

*LED Chips are frequently updated therefore values are nominal.

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the (MRB) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Luminaire Ordering Information

TYPICAL ORDER EXAMPLE: **MRB LED 30L ACR S UNV DIM 40 PCI120 BB BRZ HSS**

Prefix	Source	Lumen Package	Lens	Distribution	Voltage	Driver
MRB (Mirada Bollard)	**LED**	**25L** - 2,500 lm **30L** - 3,000 lm	**ACR** - Acrylic	**A** - Asymmetric **S** - Symmetrical	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347 - 480v)	**DIM** - 0-10v Dimming (10-100%)

Color Temp	CRI	Controls (Choose one)	Battery Backup[4]	Finish	Options
50 - 5,000K **40** - 4,000K **30** - 3,000K **27** - 2,700K **AMB** - Phosphor Converted Amber[1]	**(Blank)** - 70CRI	Button Type Photocells **PCI120** - 120V **PCI208-277** - 208-277V **PCI347** - 347V	**BB** - Battery Backup **CWBB** - Cold Weather Battery Backup	**BRZ** - Bronze **BLK** - Black **WHT** - White **PLP** - Platinum Plus **SVG** - Satin Verde Green **GPT** - Graphite **MSV** - Metallic Silver	**H** - XX (Specify Height)[4] **GFR** - GFI Duplex Receptacle **LAB** - Less Anchor Bolts **RR** - Roughneck Heavy Duty Mtg Plate **HSS** - House Side Shield

Accessory Ordering Information[3]

Description	Order Number
HSS - House Side Shield	699100
Galvanized anchor Bolt kit	285560

FOOTNOTES:
1 - Consult Factory for availability.
2 - Standard height is 44". Non Standard heights are available in 6" increments. Minimum height is 26", 32" with battery backup option. Maximum height is 62".
3 - Accessories are shipped seperately and field installed.
4 - Not available in HV Voltage.

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1 FIXTURE TYPE SE1, SE1A
N.T.S.

2 FIXTURE TYPE SE2
N.T.S.

MIRADA WALL SCONCE (XWM)

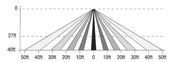
DOE LIGHTING FACTS
Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

LIGHT OUTPUT - XWM - 3 5000K CCT			
	Lumens	Wattage	LPW
03	3410	29	117
04	4417	40	111
06	6609	59	113
08	8610	82	105

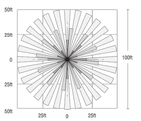
LED Chips are frequently updated therefore values may increase.

COVERAGE DIAGRAM

SIDE VIEW



TOP VIEW



US & Int'l. patents pending

SMARTTEC™ - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature

ENERGY SAVING CONTROL OPTIONS - DIM - 0-10 volt dimming enabled with LSI wireless controls.

OPTIONAL INTEGRAL MOTION SENSOR - Passive infrared motion sensor activates switching of luminaire light levels. High level light is activated when passersby enter target zone and increased to full bright in 1-2 seconds. Low light level (30% of maximum drive current) is activated when target zone is absent of motion activity for 5 minutes and is gradually ramped down (10 seconds) to low level. Sensor detection range 110° horizontal x 93° vertical x 10 meters maximum distance.

LEDS - Available with 5000K, 4000K or 3000K color temperature, 70 CRI min.

OPTICS/DISTRIBUTIONS - Ultra-high efficiency reflectors provide this distributions. Choose from Type 2, Type 3 or Type FT.

HOUSING - Three-piece die-cast aluminum housing is smoothly contoured low-profile shape. Mounting hardware is stainless steel or electro-zinc plated steel. Housing and optical unit are sealed with extruded silicone gasket; supply conductors with molded EPDM bushing.

OPTICAL UNIT - Proprietary silicone refractor optics provide exceptional coverage and uniformity. Pressure stabilizing breather allows super-tight protection while preventing cycling from building up internal pressures and vacuums that can stress optical unit seals

WALL MOUNTING - Galvanized-steel universal wall mounting plate easily mounts directly to 4" octagonal or square junction box. EPDM gasket is supplied to be installed between mounting plate and junction box, sealing junction box from entrance of water. Universal plate permits fixture to be mounted in uplighting (indoor only) or downlighting position. Optional pole-mounting bracket permits mounting to standard poles (XPMA).

ELECTRICAL - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (50/60Hz input) or 347-480VAC.

DRIVER - Drivers are dimming, standard. Components are fully encased in potting material for IP65 moisture resistance. Driver complies with IEC and FCC standards. Driver can be easily accessed.

EMERGENCY OPTIONS - Optional integral emergency battery-back-up options are available. BB option operates in 0°C to 60°C ambient temperature and CWBB operates in -20°C to 60°C ambient temperature. When primary AC power failure occurs, both options operate 10 LEDs for minimum of 90 minutes.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F)

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT (in carton) - 30 lbs./13.6Kg

LISTING - UL listed to ANSI/UL1598, UL8750 and other U.S. and international safety standards. Suitable for wet locations in downlight position. IDA compliant; with 3000K color temperature selection

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · cULus wet location · CE · ARRA Funding Compliant · IP65 · FC · IDA DARK SKY APPROVED · DLC Premium

Project Name _____ Fixture Type _____
Catalog # _____
3/13/19
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MIRADA WALL SCONCE (XWM)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XWM FT LED 08L 50 UE WHT IMS**

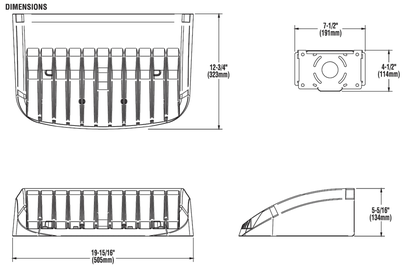
Prefix	Distribution	Light Source	Output[6]	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XWM - Mirada Wall Sconce	2 - Type 2 3 - Type 3 (Wide Throw) FT - Type 4 (Forward Throw)	LED	05L - 3,400 Lumens 08L - 4,400 Lumens 09L - 6,600 Lumens 08L - 8,600 Lumens	50 - 5000K 40 - 4000K 30 - 3000K	UE - Universal Voltage (120-277) HV - 347-480	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus WHT - White	**Wireless Control System[1,4]** (Blank) - None PCM - Platinum Control System SCM - Gold Control System DIM - 0-10 volt dimming (required for satellite fixtures) ALSC - AirLink Synapse Control System **Stand-Alone Control** (Blank) - None DIM - 0-10 volt dimming[2] (from external signal)	**Sensor** IMS - Integral Motion Sensor[4,7] **Options** BB - Battery Back-up[3] CWBB - Cold Weather Battery Back-up[3] XPMA - Pole Mounting Bracket

ACCESSORY ORDERING INFORMATION[1] (Accessories are field installed)

Description	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	3069158LA	DPK208 – Double Fusing	DPK208
FX120 – Single Fusing	PX120	DFK240 – Double Fusing	DFK240
FX277 – Single Fusing	PX277	DFK480 – Double Fusing	DFK480
FK347 - Single Fusing	PK347	IMS/PC Remote Configurator Tool[7]	584929

FOOTNOTES:
1 – For wireless controls information and accessories, see Controls Section.
2 – Requires a SiteManager and override switch. Not compatible with battery back-up, IMS or HL Option.
3 – Not compatible with IMS Option
4 – Not compatible with DIM or Wireless Control System
5 – Not compatible with Wireless Control System
6 – Not available with BB, CWBB, IMS Option or Wireless Control System
7 – IMS is the WattStopper Dual Sensor (Daylight & Motion) which is field adjustable, via a handheld remote configurator tool
8 – Output based on type 3 optics in cool white color temperature, see IES files for exact delivered lumens

DIMENSIONS



Project Name _____ Fixture Type _____
Catalog # _____
3/13/19
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3 FIXTURE TYPE SE3
N.T.S.

Luminaire Schedule

Symbol	Label	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	SE1	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-3-30-70CRI-IL	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE TYPE 3 OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	8626.55	1	94
	SE1A	LSI INDUSTRIES, INC	MRM-LED-12L-SIL-FT-30-70CRI	LED ARCHITECTURAL AREA LIGHT WITH 20'-0" POLE FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD 3000K CCT		1	11448.25	1	94
	SE2	LSI INDUSTRIES, INC	MRB-LED-30L-ACR-S-30	LED BOLARD LIGHT GROUND MOUNTED 42" SYMETRICAL OPTICS 3000K CCT		1	2655.92	1	38.4
	SE3	LSI INDUSTRIES, INC	XWM-FT-LED-04-30	LED WALL MOUNT LIGHT 12'-0" AFG FORWARD THROW OPTICS 3000K CCT		1	4207.454	1	38
	SE4	PROGRESS	P563000-143-30K	3" Wall-Mount Cylinder, Graphite w/ Textured, Opal Glass Lens; Tested as Down-Light 8'-0" AFG MOUNTING HEIGHT 3000K CCT	22- Nichia 3000K LEDs	1	906.9812	1	12.204
	SE5	PROGRESS	P563001-143-30K	3" Wall Mount Up/Down Cylinder - Graphite 12'-0" AFG MOUNTING HEIGHT 3000K CCT	44- Nichia 3000K LEDs	1	1765.549	1	24
	SE6	MARKET LITE	ML2000-CA-24-LED-30K-GSFL-WET	LED STRING LIGHT 24" OC. WITH CUTOFF SHADE MOUNTED 10'-0"AFG 3000K CCT	44- Nichia 3000K LEDs	1	91.35894	1	0.97
	SE7	LSI INDUSTRIES, INC	S4-LED-40L-30	4'-0" LINEAR STRIP LIGHT DAMP LISTED SURFACE MOUNTED 3000K CCT	44- Nichia 3000K LEDs	1	4013.724	0.8	27.7
	SE8	LSI INDUSTRIES, INC	LCD4_LAD4_LAD4R-LED-14L-30-NF-TR4R-SF-HAZ	4" APERTURE LED DOWNLIGHT 3000K CCT RECESSED CEILING MOUNT.		1	1142.191	0.8	13.9

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E2

shop drawings
architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094
CONSULTING INC
4640 PECOS STREET UNIT F DENVER, COLORADO 80211
303.525.0271 MV-C-NET

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PROGRESS LIGHTING™

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Downlight Cylinder

Wall mounted • Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

Number of Modules	1
Input Power	12w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	907/75 (LM-79)
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563000-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 5-5/8"
H/CTR: 3"

4 FIXTURE TYPE SE4
N.T.S.

PROGRESS LIGHTING™

Project:
Fixture Type:
Location:
Contact:

3IN Wall Mount Up/ Down Cylinder

Wall mounted • Wet location listed PROGRESS LED

Description:

Sleek, cylindrical forms in elegant finish selections. Die-cast aluminum wall brackets and heavy-duty aluminum framing. Fade and chip-resistant. CSA listed for wet locations. Can be used indoor or outdoor. Ideal for residential and commercial applications.

Specifications:

- Graphite (-143) (Powder Coat)
- Aluminum construction
- Clear glass lens
- 3" LED wall mount up/downlight cylinder
- Ideal for indoor or outdoor applications
- Warm white, 3000K, color temperature, 90 CRI
- Dimmable to 10% brightness (See Dimming Notes)
- Backplate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6" of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 JA8-2016

Performance:

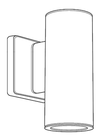
Number of Modules	2
Input Power	24w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW	1766/73 (LM-79) per module
CCT	3000 K
CRI	90 CRI
Life (hours)	50,000 (L70/TM-21)
FCC	FCC Title 47, Part 15 Class B
Min. Start Temp	-10 °C
Max. Operating Temp	40 °C
Warranty	5 year warranty
Labels	CSA Wet location listed ENERGY STAR® qualified Meets California Title 24 JA8-2016

P563001-143-30K

Images:

Dimensions:

Diameter: Width: 4-1/2"
Depth: 5-1/2"
Height: 8-1/4"
H/CTR: 5"

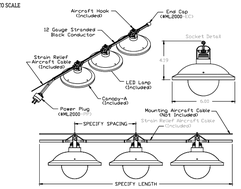


5 FIXTURE TYPE SE5
N.T.S.

marketLITE™
Manufactured in the U.S.A.

MODEL NUMBER: ML2000-CA
FIXTURE TYPE:

NOT TO SCALE



FEATURES

APPLICATIONS	Indoor and Outdoor
VOLTAGE	120V
LAMP	LED Lamp Included
DIMMING	Forward Phase
WATTS	1W or 3W
LENGTH	Built to Order
FINISH	Black
FEED	Standard 6' Leads
STRAIN RELIEF	Aircraft Cable Included
MOUNTING	Aircraft Cable Not Included
LISTING	Dry or Wet Location ANSI/UL1598 CSA 22.2 No. 250.0-04, 2nd Edition
OPTIONS	Mesh, Cages, Canopies
LED LAMP LIFE	50,000 hrs. (GSF, GSC, SSF, SSC) 20,000 hrs. (GSFL)
UV RATING	SunLight Resistance
MAXIMUM RUN	250 Feet

APPLICATIONS

Designed for indoor and outdoor use, *marketLITE* is ideal for many applications including the amusement, recreation, and architectural industries.

marketLITE is used in: Restaurants, Casinos, Street Decorations, Amusement Parks, Shopping Malls, Promenades, and more.

ELECTRICAL

marketLITE with LEDs is available in 120 Volts. *marketLITE* is a 20 amp system (12 gauge wire). No transformers or drivers are required.

INSTALLATION

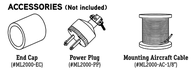
marketLITE is an easy-to-install lighting product that can be field-cut to meet your lighting requirements. See installation instructions for additional details.

LED SPECIFICATIONS

LAMP NUMBER	DESCRIPTION
LED-2.4K*†	2400E Warm White
LED-2.7K	2700K Warm White
LED-3.0K*†	3000K Warm White
LED-5.0K	5000K Cool White
LED-A*†	Amber
LED-R*†	Red
LED-G*†	Green
LED-B*†	Blue

Note: *marketLITE* can be hardwired for Dry and Wet Location
See installation instructions for additional information

ACCESSORIES (Not included)



End Cap (ML2000-EC) | Power Plug (ML2000-PP) | Mounting Aircraft Cable (ML2000-AC-120')

SPECIFY PRODUCT CODE (Use drop down menu to complete table or fill in the blanks)

ML2000-CA - - - - - -

SERIES	SPACING	LAMP	LAMP TYPE	DRY OR WET	DIMMING	CANOPY INSIDE	CANOPY OUTSIDE
Ex: ML2000-CA	12"	LED-2.7K	GSF	WET	DM	BK	BK
ML2000-CA	12" O/C	LED-2.4K*†	GSF*†	Indoor (DRY)	Forward Phase (DM)	Natural (NA)	Natural (NA)
	18" O/C	LED-2.7K	GSC			Polished (PA)	Polished (PA)
	24" O/C	LED-3.0K*†	GSFL	Outdoor (WET)		White (WH)	White (WH)
	36" O/C	LED-5.0K	SSF		Leave blank for Non-Dimming	Black (BK)	Black (BK)
	48" O/C	LED-A*†	SSC			Green (GN)	Green (GN)
	60" O/C	LED-R*†				Bronze (BR)	Bronze (BR)
		LED-G*†				Satin (SA)	Satin (SA)
		LED-B*†				Silver (SR)	Silver (SR)
						Red (RD)	Red (RD)

*† Standard bulb if left blank
** Only available in GSFL
*** Only available in SSC and GSC

CALIFORNIA ACCENT LIGHTING, INC.
2034 E. Lincoln Ave. #431, Anaheim, CA 92806
ph. 800.921.CALI (2254) or 714.535-7900 \ fx. 714.535.7902
info@calilighting.com \ calilighting.com

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2017.12.04 R7

6 FIXTURE TYPE SE6
N.T.S.

Catalog # :	Project :
Prepared By :	Date :

S4'
LED Strip

The sleek architectural S is designed with tooless entry features saving time and money on installation. Optimizing industry leading LED technology, the S series delivers unparalleled performance and efficiency meeting stringent energy requirements. Offering 3000K, 3500K, 4000K and 5000K color temperatures. Innovative programmable drivers offer expansive lumen packages and cones standard with 0-10V dimming down to 1%. Designed with uncompromised aesthetics, the high-performance luminaire is well suited for commercial, industrial, retail and residential applications.

Features & Specifications

Optical System

- Use of closely spaced medium-power, high brightness chips provides uniform luminance.
- Available in 5000K, 4000K, 3500K, and 3000K color temperatures per ANSI C78.377. Consult Factory for other color temperature requirements.
- Minimum CRI of 80.

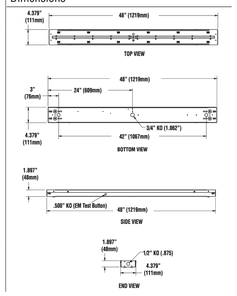
Electrical

- Class 2 high-performance programmable driver features short circuit, open circuit protection for LED + and LED - and temperature foldback. Driver complies with FCC standards.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal voltage (120-277 Vac) Input 50/60 Hz. Optional high Voltage 347 Vac Input available, consult factory for lead time and DLC® qualification information. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- L70 Calculated Life: >60k Hours @ 25°C per IESNA TM-21-11. (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Optional (120-277V) integral 10 watt battery backup is available. The 90-minute batteries provide constant power to the LED system. The fixture delivers 1300 lumens during emergency mode. A test switch/indicator button is installed in the housing for ease of maintenance.

Controls

- Optional Bolt-on integral passive infrared motion and/or daylight sensor activates switching of luminaire light levels (see page 5 for more details).
- Optional Step-level dimming driver allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Dimensions



7 FIXTURE TYPE SE7
N.T.S.

S4'
LED Strip

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **S4 LED 40L UNV DIM1 35 80CRI**

Family Size	LED Gen	Lumen Package	Lens	Voltage	Driver	Color Temp	CRI	Controls	Options	Packaging
S4 - 4' Strip	**LED**	**20L** - 2000 **30L** - 3000 **40L** - 4000 **50L** - 5000 **60L** - 6000 **70L** - 7000 **80L** - 8000 *Consult factory for programmable wattages and lumen packages	**(Blank)** - None	**UNV** - 120-277V[1] **347** - 347V[2]	**DIM1** - Dims to 1%(0-10V) **BD50** - Step dimming to 50%[1]	**30** - 3000K **35** - 3500K **40** - 4000K **50** - 5000K	**80CRI** - 80 CRI	**(Blank)** - None **OCSUE** - Occupancy Sensor 120-277V[1] **DHSUE** - Daylight harvesting/Occupancy Sensor 120-277V[1]	**(Blank)** - None **EM10** - 10W Battery Backup (1300 Lumens)[1] **PM1** - SFT Pre-wired plug in assembly (standard)[1] **PM1TLV** - SFT Pre-wired plug in assembly (0-10V Dimming)[1] **PM2** - SFT Pre-wired plug in assembly (S2S0 or EM10)[1] **PM2LV** - SFT Pre-wired plug in assembly (S2S0 or EM10 with 0-10V Dimming)[1]	**(Blank)** - Single Pack

NOTES:
1. Consult factory for leadtime & DLC qualifications.
2. Not available with 347V

Accessory Ordering Information (Accessories are field installed)

Description: T-Grid Hanger Kit
Order Number: (Qty 2) - 671560

Description: T-Grid Collar (including junction box, wire collar & grid hanger)
Order Number: (Qty 1) - 559851

Description: Chain Hanger Set (36" length)
Order Number: (Qty 2) - M38258

Description: 24" Pendant
Order Number: (Qty 1) - 667400

Description: Chain Hanger Set (60" length)
Order Number: (Qty 2) - 251057

Description: 36" Pendant
Order Number: (Qty 1) - 681509

Description: Wire Guard - 4 foot
Order Number: (Qty 1) - 549301

Description: 48" Pendant
Order Number: (Qty 1) - 667382

8 FIXTURE TYPE SE8
N.T.S.

Catalog # :	Project :
Prepared By :	Date :

LCD4
4" LED Commercial Downlight

4 inch LED new construction downlight delivers superior performance and energy efficiency. Designed to use anodized aluminum reflectors delivering even illumination and low glare. The high performance luminaire offers 1000 up to 2000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K at 80 CRI. Standard driver offers universal (120-277V) and 0 -10V dimming down to 1%. The LCD series is ideal for low to medium ceiling heights for retail, hospitality and commercial applications.

origin™

Features & Specifications

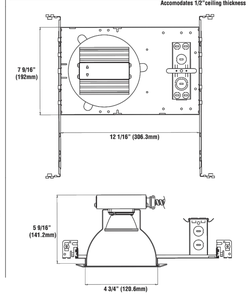
Optical System

- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Available in 4000K, 3500K, 3000K, and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80.

Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Compatible with Triac (forward-phase or leading-edge), ELV (reverse-phase or trailing edge) dimming only at 120 Vac.
- Driver can be accessed from below plenum for servicing.
- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) field installed is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance.To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions located on website.

Dimensions



LCD4
4" LED Commercial Downlight

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **LCD4 LED 24L UNV DIM1 35 NF TR4R HAZ**

Family/ Size	LED Gen	Lumen Package	Voltage	Driver	Color Temperature	CRI	Beam Optics[2]
LCD4 - 4" New Construction[1]	**LED**	**14L** - 1400 **24L** - 2400	**UNV** - 120-277V	**DIM1** - Dims to 1% (0-10V dimming)	**27** - 2700K **30** - 3000K **35** - 3500K **40** - 4000K	**Blank** - 80 CRI	**SF** - Spot **NF** - Narrow Flood **FL** - Flood **WF** - Wide Flood

	Reflector	Finish
Self-Fange	**TR4R** - Open Reflector	**SF HAZ** - Haze semi-diffused
		SF SPC - Specular clear
	TR4WRW - Wall Wash[3]	**SF HAZ** - Haze semi-diffused
Flangeless (ship standard w/ white plastic trim ring)	**TR4R** - Open Reflector	**HAZ** - Haze semi-diffused, white trim ring
		SPC - Specular clear, white trim ring
	TR4RFL - Frosted Floating Lens[3]	**HAZ** - Haze semi-diffused Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible)
		SPC - Specular Clear Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional ring not compatible)
	TR4RWW - Wall Wash[3]	**HAZ** - Haze semi-diffused wall wash reflector, white trim ring
	TR4B - Baffle	**WH** - White baffle and white trim ring
		BL - Black Baffle and white trim ring
	TR4RL - Baffle w/ Regressed Lens[3]	**HAZ** - Hazed semi-diffused
		WH - White baffle and white trim ring
		SPC - Specular clear
		BL - Black baffle and white trim ring
	TR4RL - Regressed Lens[3]	**HAZ** - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring
		SPC - Specular clear reflector w/ specular clear regressed lens and white trim ring

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
WH - White metal trim ring (only compatible w/flangeless trims)	616105
EM - Emergency Battery	658633

NOTES:
1. Regressed lens trims are wet location listed. All other trims are rated for damp location.
2. TR4RWW wall wash reflector comes with 40° integrated optic additional beam optics not compatible
3. TR4RFL frosted floating lens comes with integrated white metal trim; accessory white metal trim ring not required)
4. Housing can ship ahead of the light engine and reflector
5. 90 CRI requires 55 day leadtime & 100 MOQ; Consult Factory
6. Refer to IES Files for Beam Spread.

shop WORKS architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4094

CONSULTING INC
#640 PECOS STREET UNIT F DENVER, COLORADO 80211
303.505.0271 MV-C.NET

KARIS APARTMENTS
3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
4/3/19	CITY SUBMITTAL

DRAWN: JJK
REVIEWED: MTV
PROJECT #: 2018-108-00

SHEET TITLE:
SITE PHOTOMETRIC DETAILS

SCALE: AS NOTED

NO. E3

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KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO

Owners' Statement and Dedication:

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned Unity Church, a Colorado nonprofit corporation is the owners of that real property situate in the NE¼ SE¼ of Section 2, Township 1 South, Range 1 West of the Ute Meridian, City of Grand Junction, County of Mesa, State of Colorado as evidenced by Deed, filed in the office of the Mesa County, Colorado, Clerk and Recorder, at Reception Numbers 2783858 and 1273201, being more particularly described as follows:

Commencing at the East Quarter Corner of Section 2, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado from whence the Center–East Sixteenth Corner of said Section 2 bears S89°52'33"W, thence S89°52'33"W along the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2 a distance of 40.00 feet to a point on the West Right of Way for North 12th Street as described at Reception Number 880896 of the Mesa County Clerk's Office and the Point of Beginning:

thence S0°04'43"W along said West Right of Way a distance of 240.00 feet to the North Right of Way line as recorded at Reception Number 88098;

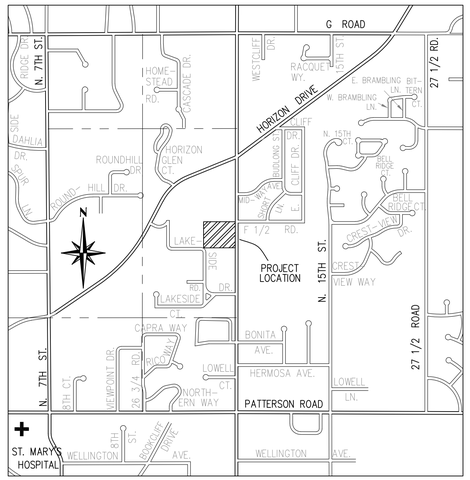
thence S89°52'33"W along the North line of said Right of Way a distance of 10.00 feet;

thence S0°04'43"W along West line of said Right of Way a distance of 90.00 feet to the Northeast Corner of Lakeside Subdivision Filing Two as recorded at Reception Number 1039892 of the Mesa County Clerk's Office;

thence along said Lakeside Subdivision Filing Two the following two courses and distances
- S89°52'33"W a distance of 478.00 feet
- N0°04'43"E a distance of 330.00 feet to the North Line of the Northeast Quarter of the Southeast Quarter of said Section 2;

thence N89°52'33"E along said North Line a distance of 488.00 feet to the Point of Beginning.

Containing 3.676 acres.



VICINITY MAP
N.T.S

That said owner has laid out, platted and subdivided the above described real property into lots as shown heron, and designate the same as KARIS SUBDIVISION, in the City of Grand Junction, County of Mesa, State of Colorado, and do hereby make the following grants:

All Multipurpose Easements are dedicated to the City of Grand Junction as perpetual easements for City approved utilities including the installation, operation, maintenance and repair of said utilities and appurtenances which may include but are not limited to, electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, storm sewers, water lines, telephone lines, traffic control facilities, street lighting, landscaping, trees and grade structures.

All lienholders appear hereon.

IN WITNESS WHEREOF, said owner, Unity Church, a Colorado nonprofit corporation, have caused their names to be hereunto subscribed this
_____day of_____, A. D. 2019.

_____
By: For: Unity Church, a Colorado nonprofit corporation

NOTARY PUBLIC CERTIFICATION

STATE OF COLORADO)
) SS
COUNTY OF MESA)

The foregoing instrument was acknowledged before me by_____ For: Unity Church, a Colorado nonprofit corporation this_____day of _____ A.D. 20__.

Witness my hand and official seal_____.
Notary Public
My commission expires _____.

City Use Block:

The below listed recording information for Associated Record Documents was not prepared under the professional land surveyor's responsible charge, Board Rule 6.2.1, State of Colorado

The recording information is to be completed by the City of Grand Junction personnel.
The accuracy of this information is the responsibility of the City of Grand Junction.

1. 10' Utility Easement granted by document at Reception Number _____.
2. Storm Water and Drainage Easement granted by document at Reception Number _____.
3. Ingress/Egress Easement granted by document at Reception Number _____.
4. 15' Grading Easement granted by document at Reception Number _____.

TITLE CERTIFICATION

STATE OF COLORADO)
COUNTY OF MESA)ss

WE, ADVANCED TITLE COMPANY, A TITLE INSURANCE COMPANY, AS DULY LICENSED IN THE STATE OF COLORADO, HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE TO THE HEREON DESCRIBED PROPERTY, THAT WE FIND THE TITLE TO THE PROPERTY VESTED TO UNITY CHURCH, A COLORADO NONPROFIT CORPORATION; THAT THE CURRENT TAXES HAVE BEEN PAID; THAT ALL MORTGAGES NOT SATISFIED OR RELEASED OF RECORD NOR OTHERWISE TERMINATED BY LAW ARE SHOWN HEREON AND THAT THERE ARE NO OTHER ENCUMBRANCES OF RECORD; THAT ALL EASEMENTS, RESERVATIONS AND RIGHTS OF WAY OF RECORD ARE SHOWN HEREON.

DATE:_____BY: _____
NAME AND TITLE
ADVANCED TITLE COMPANY

ABBREVIATIONS:

N	NORTH
S	SOUTH
E	EAST
W	WEST
T	TOWNSHIP
R	RANGE
MCSM	MESA COUNTY SURVEY MARKER
ROW	RIGHT OF WAY
PLS	PROFESSIONAL LAND SURVEYOR
No.	NUMBER
GPS	GLOBAL POSITIONING SYSTEM
ID	IDENTIFICATION
SQ	SQUARE
FT	FEET

LAND USE SUMMARY		
LOTS	3.676 ACRES	100%
TOTAL	3.676 ACRES	100%

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO :
:ss
COUNTY OF MESA :

This plat was accepted for filing in the office of the Clerk and Recorder of Mesa County, Colorado, at _____o'clock____ .m., on this____ day of _____ 20 ___ and was recorded at Reception No. _____.

Drawer No. _____ , and Fees _____.

_____ _____
Clerk and Recorder Deputy

CITY APPROVAL

This plat of KARIS SUBDIVISION, a subdivision of the City of Grand Junction, County of Mesa, State of Colorado, is hereby approved and dedications accepted this_____day of _____ 20 _____ .

_____ _____
City Manager Mayor

LIENHOLDER RATIFICATION

THE UNDERSIGNED, HEREBY CERTIFIES THAT IT IS A HOLDER OF A SECURITY INTEREST UPON THE PROPERTY HEREON DESCRIBED AND DOES HEREBY JOIN IN AND CONSENT TO THE DEDICATION OF THE LAND DESCRIBED IN SAID DEDICATION BY THE OWNERS THEREOF AND AGREE THAT ITS SECURITY INTEREST WHICH IS RECORDED DECEMBER 12, 2016, AT RECEPTION NUMBER 2783859 OF THE PUBLIC RECORDS OF MESA COUNTY, COLORADO SHALL BE SUBORDINATED TO THE DEDICATIONS SHOWN HEREON.

IN WITNESS WHEREOF, THE SAID CORPORATION HAS CAUSED THESE PRESENTS TO SIGNED BY ITS _____,WITH THE AUTHORITY OF ITS BOARD OF DIRECTORS, THIS_____ DAY OF _____.

_____ FOR: _____
TITLE FOR: Solar Electric, Inc.

NOTARY PUBLIC CERTIFICATION

STATE OF _____ :
:ss
COUNTY OF _____ :

The foregoing instrument was acknowledged before me this _____day of_____, A.D. 2019.

by _____for Solar Electric, Inc.

Witness my hand and official seal

My Commission Expires _____ _____
Notary Public

SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, do hereby certify that I am a registered land surveyor licensed under the laws of the State of Colorado, that this Plat is a true, correct and complete Final Plat of the KARIS SUBDIVISION, as laid out, platted, dedicated and shown hereon, that such Final Plat was made from an accurate survey of said property by me and under my supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

FOR REVIEW ONLY

_____
PATRICK W. CLICK DATE
COLORADO REGISTERED LAND SURVEYOR PLS No.37904

REVISION RECORD
Number DATE
___ _____ _____
___ _____ _____

KARIS SUBDIVISION
SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

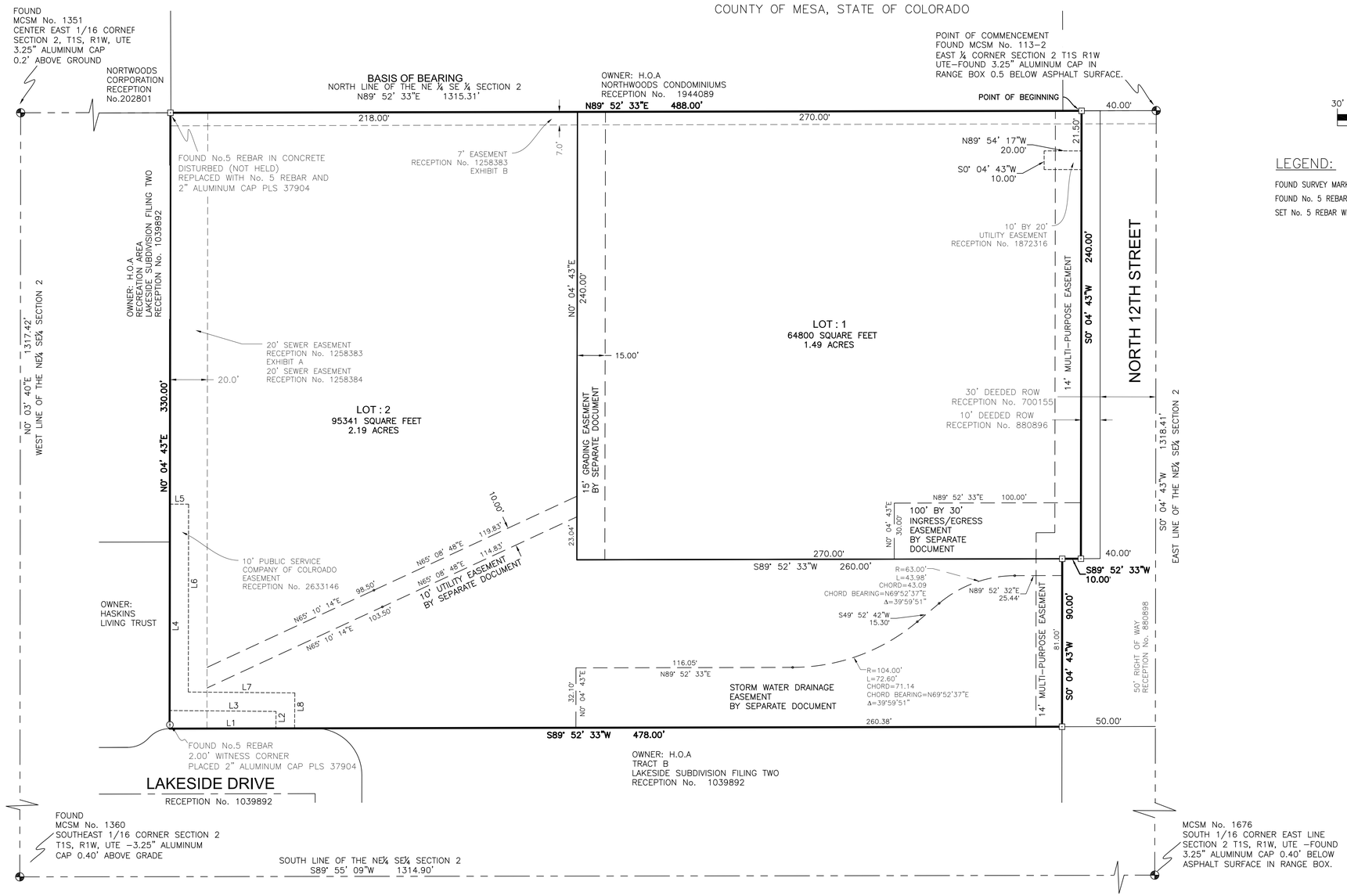
JOB #: 2018162 FIELD WORK: MDM
DATE: 3/27/19 DRAWING NAME: 2018162 DRAWN BY: PC

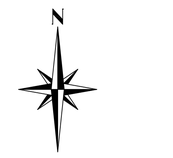
POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434–7038

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN

COUNTY OF MESA, STATE OF COLORADO





LEGEND:

FOUND SURVEY MARKER AS DESCRIBED	⊕
FOUND No. 5 REBAR AS DESCRIBED HEREON	⊙
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904	⊡

Line Table		
Line #	Direction	Length
L1	N89° 52' 33"E	56.93'
L2	S00° 28' 53"W	9.10'
L3	S89° 31' 07"E	57.00'
L4	S00° 04' 43"W	110.60'
L5	N89° 55' 18"W	10.00'
L6	N00° 04' 42"E	100.68'
L7	N89° 31' 07"W	57.07'
L8	N00° 28' 53"E	19.00'

General Notes:

1. OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE COMMITMENT BY ADVANCED TITLE COMPANY. ORDER NUMBER 53381SK.

2. BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN. FOUND IN PLACE WERE MESA COUNTY SURVEY MARKERS AS SHOWN HEREIN. THE VALUE USED N89°52'33"E WAS BASED ON GPS OBSERVATIONS WHILE USING THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

KARIS SUBDIVISION

SITUATED IN THE NE¼ SE¼ SECTION 2
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2018162 FIELD WORK: MDM
DATE: 3/26/19 DRAWING NAME: 2018162 DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE (970)434-7038

GENERAL CONSTRUCTION NOTES

1. Locations of existing utilities shown on these plans are approximate only. Contractor is to contact affected utility for specific locations before digging.

2. The Contractor shall notify the engineer if unanticipated conditions area encountered during completion of the work which require modifications to the contract drawings. The engineer can be reached at 970-242-7540.

3. Contractor shall give 48-hour notice to all authorized inspectors, superintendents, or person in charge of public and private utilities affected by his operations prior commencement of work. Contractor shall assure himself that all construction permits are current.

4. Contractor shall confine his construction operations to the right-of-way, easements, and lots, as shown on plans and plat. Any damage to private facilities outside these limits shall be repaired by the Contractor at no expense to the Owner.

5. All road construction, related work, materials, performance and quality of work provided shall conform to the requirements of the City of Grand Junction Standard Specifications and Drawings and the applicable sections of the most current edition of the Division of Highways, State of Colorado Standard Specifications for Road and Bridge Construction, Colorado Standard Plans, Division of Highways M & S Standards.

6. Contractor shall familiarize himself with the geotechnical testing requirements of the City of Grand Junction. The results of the required types of tests and numbers of passing tests shall be furnished to the Engineer for verification before final acceptance by the Owner will be granted. All failing tests shall be brought to the immediate attention of the Engineer and retests shall be performed until passing results are obtained. All utility lines, including service lines falling shall be tested.

7. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for utility trench back fill unless otherwise approved by the Engineer.

8. All utility installations are to be performed in accordance with the City of Grand Junction Standard Specifications for the Construction of Underground Utilities and Standard Details.

9. All sewer lines must be tested and approved PRIOR to street construction. Contractor is required to notify the Owner's representative PRIOR to testing. The Owner's representative must be present to witness testing of water and sewer lines or the City will not approve the installation.

10. In the event of a descrepancy between the construction notes contained herein and the notes and details in the City of Grand Junction Standard Contract Documents for Capital Improvements Construction manual, the City's manual shall control.

11. All work within the City of Grand Junction Right-of-Way shall required a "Work in the Right-of-Way" Permit. All construction work shall be in accordance with the latest edition of the City of Grand Junction Standard Specifications.

12. All concrete in driveways to be 6" minimum, Class VI ABC, unless otherwise noted.

13. All finished grades around the building perimeter shall slope a minimum of 2% away from the building for a minimum of 10-ft.

14. All roof drains that discharge to the finished ground surface shall be provided with splash blocks that extend beyond the building foundation excavation zone.

15. The Contractor shall be required to comply with the requirements and recommendations of Huddleston-Berry Geotechnical report titled Geotechnical and Geologic Investigation Karis Affordable Housing, Project # 01892-0001 dated January 16, 2019, unless otherwise noted.

16. All fill, building, concrete or asphalt pavement areas shall be stripped of a minimum 6-inches of topsoil.

PAVING CONSTRUCTION NOTES

1. All road widths and radii are to flow line unless noted otherwise. Any "spot" design elevations are to flow line of curb and gutter unless otherwise noted.

2. Prior to pavement placement, the pavement prism should be stripped of all unsuitable materials. It is recommended that the subgrade soils be scarified to a depth of 12-inches, moisture conditioned, and recompacted to a minimum of 95% of the standard Proctor maximum dry density, within ±2% of optimum moisture as determined by AASHTO T-99.

3. Contractor to protect existing utilities and appurtenances. Manholes, drainage inlets, utility lines, etc., damaged, covered, or filled with dirt or debris by the Contractor shall be cleaned and repaired at no expense to the Owner.

4. Where proposed pavement is to match existing pavement, existing pavement is to be squared cut, full base thickness is to be brought to match line and existing surface is to be tack-coated before proposed surface is placed.

5. All handicap ramps, sidewalks and curb and gutter are to be constructed where indicated on the plans and in accordance The City of Grand Junction requirements..

6. Curb, gutter, and drainage pans are to have expansion joints at each change in horizontal alignment of curb and gutter, but in no case at a greater distance apart than 100 feet. Locate dummy grooved joints between expansion joints at intervals not exceeding 10 feet. Where length of pour precludes 10 foot intervals, the end sections may be less then 10 feet but not less than 5 feet.

7. PAVEMENT SECTION: "Hot-Mix Asphalt" 4-inch HMA over 7-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade. " Rigid Pavement" 6-inch Portland Cement Concrete w/ #4 bars @ 16" cntrs., E.W. over 6-inch CDOT Class 6 over 12-inch scarified & recompacted subgrade.

Summary of Pavement Recommendations (p. 8)

Automobile Parking Areas
EDLA = 5, Structural Number = 2.75

ALTERNATIVE	PAVEMENT SECTION (Inches)				
	Hot-Mix Asphalt Pavement	CDOT Class 6 Base Course	CDOT Class 3 Subbase Course	Concrete Pavement	TOTAL
Full Depth HMA	7.0				7.0
A	3.0	10.0			13.0
B	4.0	7.0			11.0
C	3.0	6.0	6.0		15.0
Rigid Pavement		6.0		6.0	12.0

In drive lanes and other areas subject to truck traffic, a layer of Mirafi HP570 geotextile fabric is recommended below the base course.

WATER LINE CONSTRUCTION

1. All water line construction shall be constructed in accordance with the Ute Water District Standards and Specifications.

2. Contractor shall notify the Ute Water Conservancy 48 hours prior to the beginning of construction.

3. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined by AASHTO T-99. Contractor shall be required to perform all necessary compaction tests through a certified soils lab.

4. Minimum cover required over top of new waterlines is 4'-6".

5. All water mains to be DR-18 PVC, Class 150 conforming to AWWA C-900.

6. Ductile Iron fittings to conform to AWWA C-110.

7. Fire Hydrants shall conform to AWWA C-502, Mueller Super Centurian or Kennedy Guardian.

8. All materials labor and equipment required for testing and disinfection of water lines shall be furnished by Contractor. Disinfection of water lines shall conform to AWWA C-651-86 or latest revision thereof. No separate pay.

9. All pipe bends/angle points, both horizontal and vertical, as called for on the plans are to be thrust blocked per Ute Water Conservancy District details and Technical Specifications.

10. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for water line trench backfill unless otherwise approved by the Engineer.

11. All Ute Water Mains are to be bedded per City of Grand Junction Standards.

12. All customer water service lines 2" or less shall be 200 psi rated "Pure Core" Blue HDPE, or approved equal.

STORM SEWER CONSTRUCTION NOTES

1. All storm sewer line construction shall be in accordance with the City of Grand Junction Standards and Specifications.

2. All Reinforced Concrete storm sewer pipe shall conform to ASTM Standard Specifications, C-76, Class III unless otherwise noted.

3. All polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM Standard Specifications, D3034 and F679, SDR-35 unless otherwise noted.

4. All High Density Polyethylene (HDPE) pipe and fittings shall be smooth bore and shall conform to the following:
12 inch to 36 inch shall meet ASSHTO M294
42 inch to 48 inch shall meet ASSHTO MP6
All HDPE pipe up to 30" shall be backfilled to springline with Class-6.

FUGITIVE DUST CONTROL PLAN

1. Before stripping of the site preparation for overlot grading, the surface is to be pre-wet to control dust.

2. Any stockpiles of stripping materials are to be periodically sprayed with water or a crusting agent to stabilize potentially wind blown material.

3. Haul road both into and around the site are to be sprayed as needed to suppress dust.

4. The Storm Water Management Plan and permit shall be obtained and kept onsite before starting any construction work. Gravel pads are to be constructed at the entrances to the site to help in removing mud from the wheels of haulage trucks before they enter onto City streets.

5. Trucks hauling import fill are to be tarped to aid in the control of airborne dust.

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

SANITARY SEWER CONSTRUCTION NOTES

1. All materials and workmanship shall comply to the Standards and Specifications of the City of Grand Junction. The City of Grand Junction reserves the right to accept or reject any materials and or workmanship that does not conform.

2. The Contractor shall have one signed copy of plans and a copy of the City of Grand Junction Standards and Specifications at the job site at all times.

3. All sanitary sewer pipe shall be PVC SDR-35 (ASTM 3034) unless otherwise specified.

4. All sewer lines to be laid to grade utilizing a "pipe laser".

5. All connections to the new sewer lines shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed, except as noted.

6. All trenches shall be compacted to 95% within 2% of optimum moisture content, as determined AASHTO T-99.

7. A minimum of 10 ft. of separation shall be maintained at all times between the waterline and sewer line except at specified crossings.

8. The contractor is responsible for all required sewer line testing to be completed in accordance with the City of Grand Junction Standards and Specifications. Final testing to be accomplished only after all other infrastructure has been installed. This includes waterlines, gas lines, electric lines, etc. Testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will also be accomplished after paving is completed to insure that the line is clean. These tests will be the basis for issuing the initial acceptance of the seer line extension.

9. Manholes shall be constructed as shown on the City of Grand Junction Standard Sanitary Sewer Detail sheets SS-02 of SS-03 as appropriate.

10. Water stop gaskets and clamp assemblies are to be furnished and installed at all connections to manholes. No separate pay.

11. Metal grade rings are NOT to be used on tip of manhole rings to adjust to finish pavement elevations. All adjustments to finish grade on new manholes shall be made using concrete grade rings and grout as shown on the standard details.

12. Where sanitary sewers cross under a water line with less than 18 inches of vertical separation, and in all cases where the sanitary sewer crosses over the waterline at any depth, provide total concrete encasement of pipe for a length of 10 feet to either side of the waterline.

13. Only materials on which a proctor test can be performed and accurate nuclear density tests can be run are approved for sewer line trench backfill unless otherwise approved by the Engineer.

14. To inhibit the movement of ground water through sewer bedding and haunching material, clay cutoff wall of native material are to be constructed approximately 10 feet upstream from each manhole and shown on sanitary sewer plan and profiles.

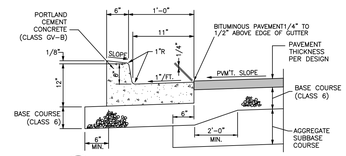
15. Notify the City of Grand Junction 48 hours prior to the construction of the sanitary sewer facilities.

16. The contractor shall obtain a City of Grand Junction Street Cut Permit for all work within existing City right-of-way prior to construction.

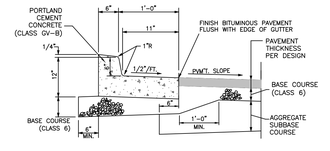
UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

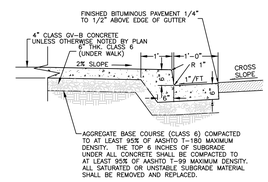
TYPICAL CONCRETE SECTIONS



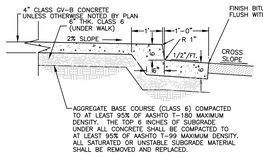
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE

shop WORKS architecture
2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

Know what's below. Call before you dig. 811

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
GENERAL CONSTRUCTION NOTES

SCALE: NTS

NO. C2.00

COLORADO LICENSED
CHRISTOPHER T. SHANAHAN
42780
4/3/19
PROFESSIONAL ENGINEER

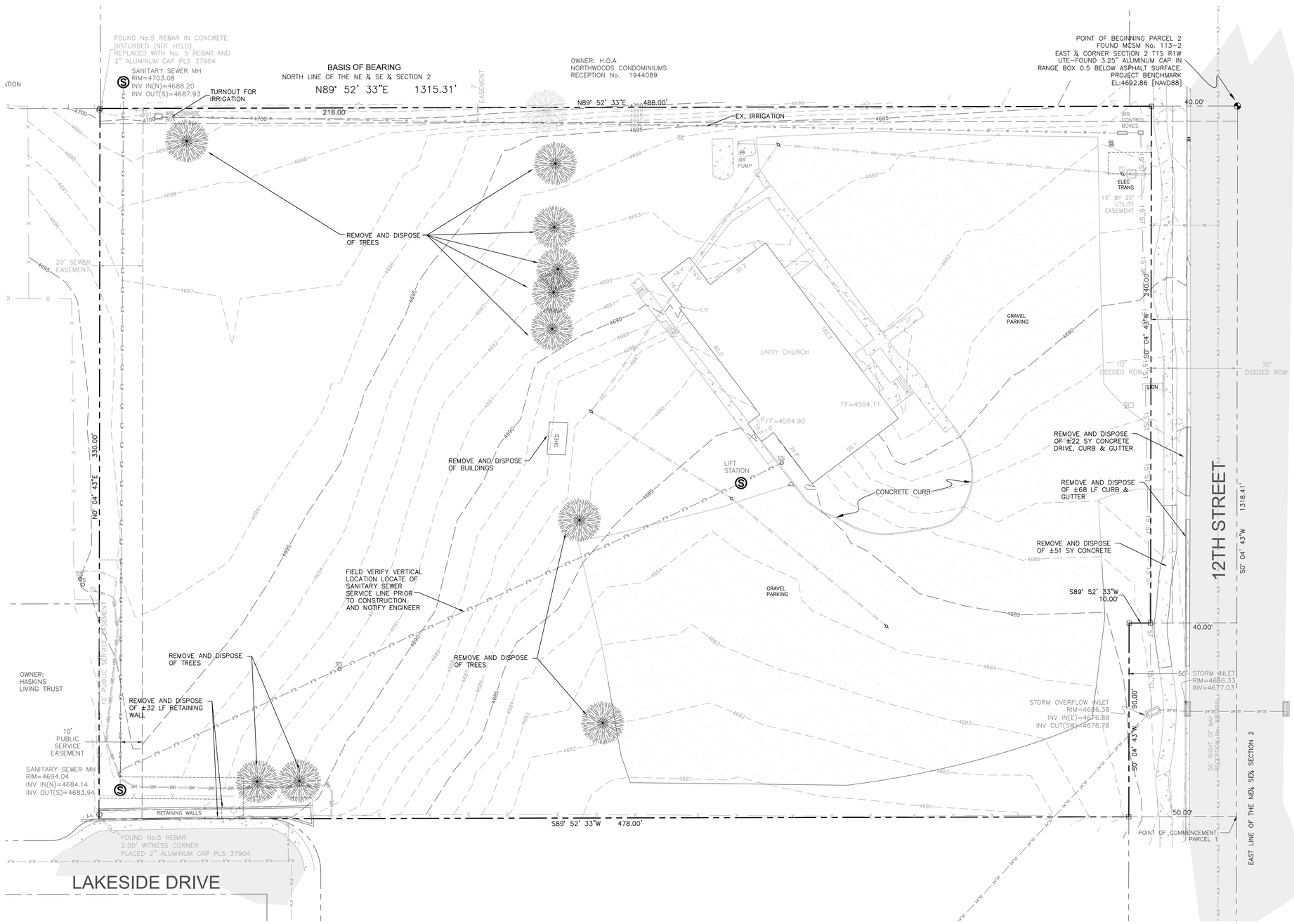
ACCEPTANCE BLOCK
THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

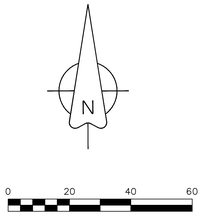
CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER _____ DATE _____

NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12th STREET





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811 Know what's below. Call before you dig.

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
DEMOLITION PLAN

SCALE: 1"=20'

NO. C3.00

COLORADO LICENSED PROFESSIONAL ENGINEER 42780 4/2/19

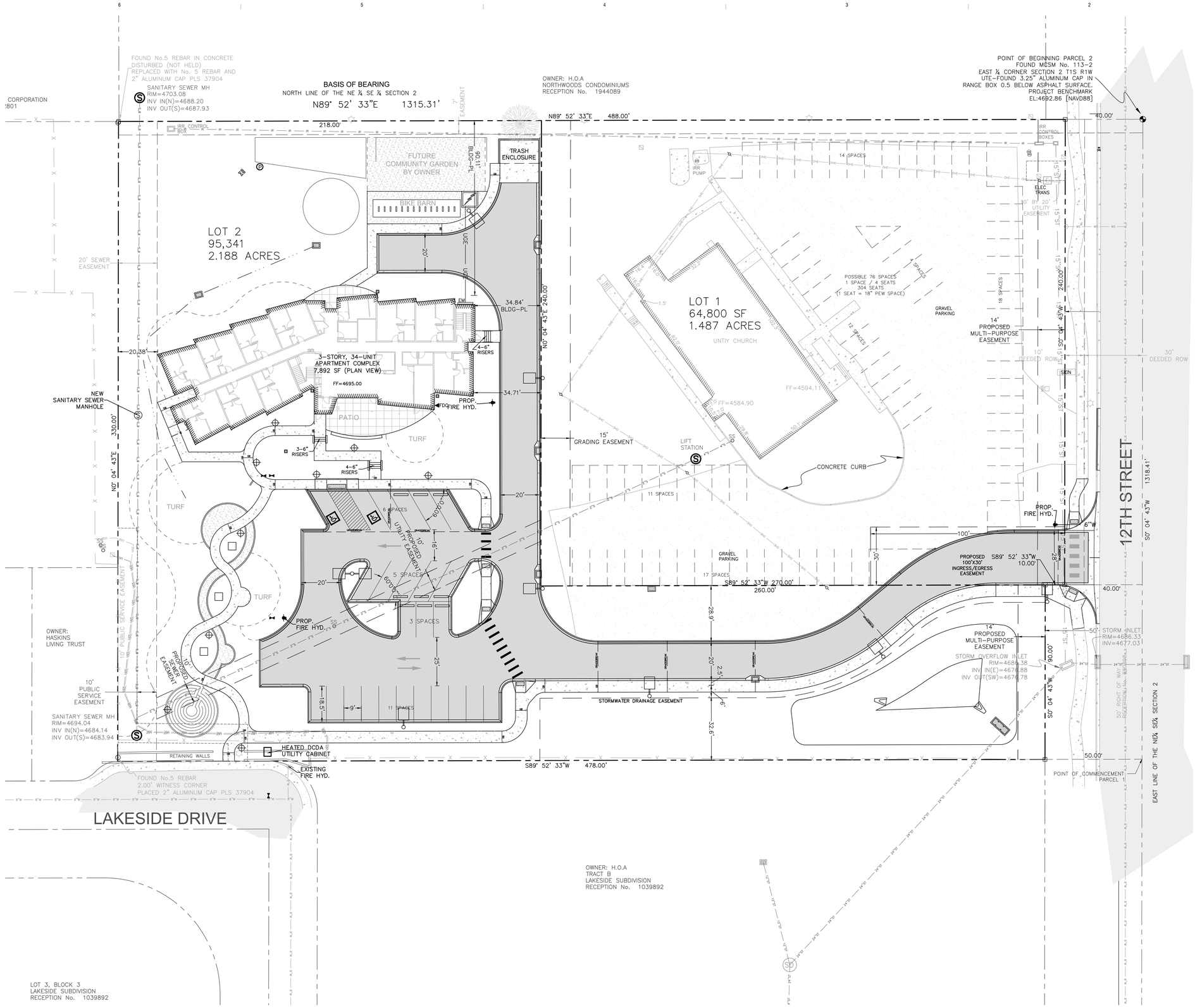
ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

M:\PROJECTS\1360\0001 - Karis Multi-Family\Drawings\C3D\Production Drawings\PROD-SITE KARIS.dwg, 4/3/2019 1:14:59 PM, DWG To PDF.pc3



GENERAL NOTES:

1. ALL PARKING SPACES ARE 9-FT WIDE X 18.5-FT LONG UNLESS OTHERWISE NOTED.
2. ALL SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
3. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

LAND USE SUMMARY		
USE	SQUARE FT	PERCENT
BUILDING	7,892	8.3%
LANDSCAPE	55,109	57.8%
ASPHALT/PKG/CONC	32,340	33.9%
TOTAL	95,341	100%

PARKING SUMMARY

7,892 SF Group Home @ 1/4 Beds + 1/3 Emp = 25

Total Parking Required = 25 Spaces

Total Parking Provided On Site = 25 Spaces

UTILITIES AND AGENCIES		
CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY A COLORADO REGISTERED PROFESSIONAL ENGINEER AND ANY CHANGES MADE DURING CONSTRUCTION OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER _____ DATE _____

COLORADO LICENSED PROFESSIONAL ENGINEER 42780 4/24/19 SCOTT T. STOMP

shoPworks architecture
2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

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AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

Know what's below. Call before you dig. 811

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

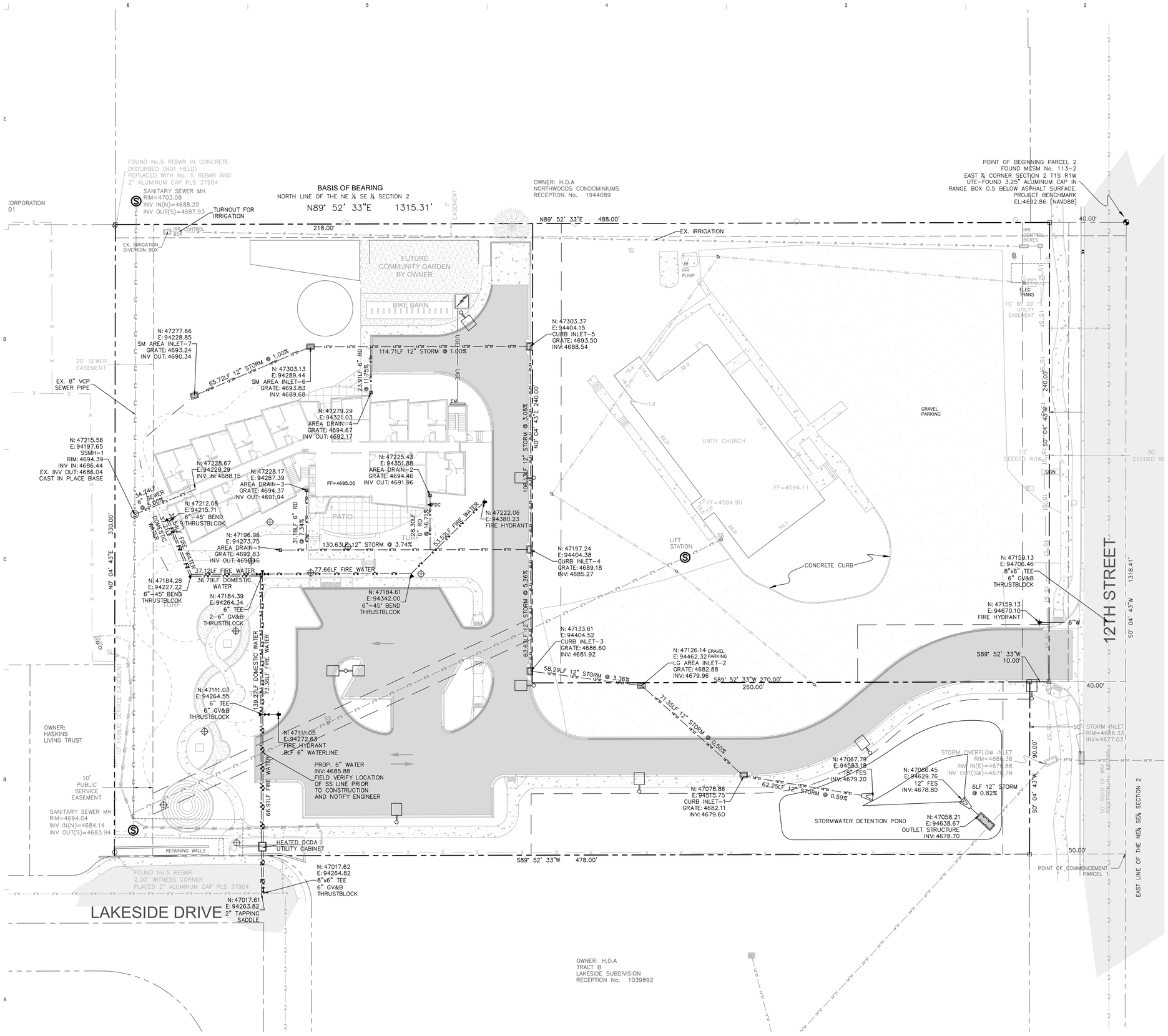
DRAWN: LMS
REVIEWED: STS

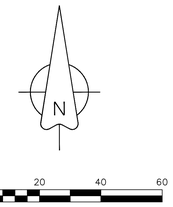
DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
SITE PLAN

SCALE: 1"=20'

NO. C4.00

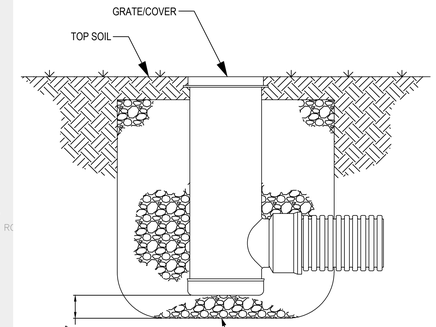




NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 12TH STREET
2. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

DRAIN BASIN



UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

UTE WATER DISTRICT

APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE.

BY:_____ DATE:_____

ACCEPTED AS CONSTRUCTED

BY:_____ DATE:_____

ACCEPTANCE BLOCK

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CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

COLORADO LICENSED CHRISTOPHER M. CHAMBERLAIN 42780 4/2/19 PROFESSIONAL ENGINEER

shop works architecture
2882 WYANDOT ST • DENVER, CO 80211 • 303.433.4094

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

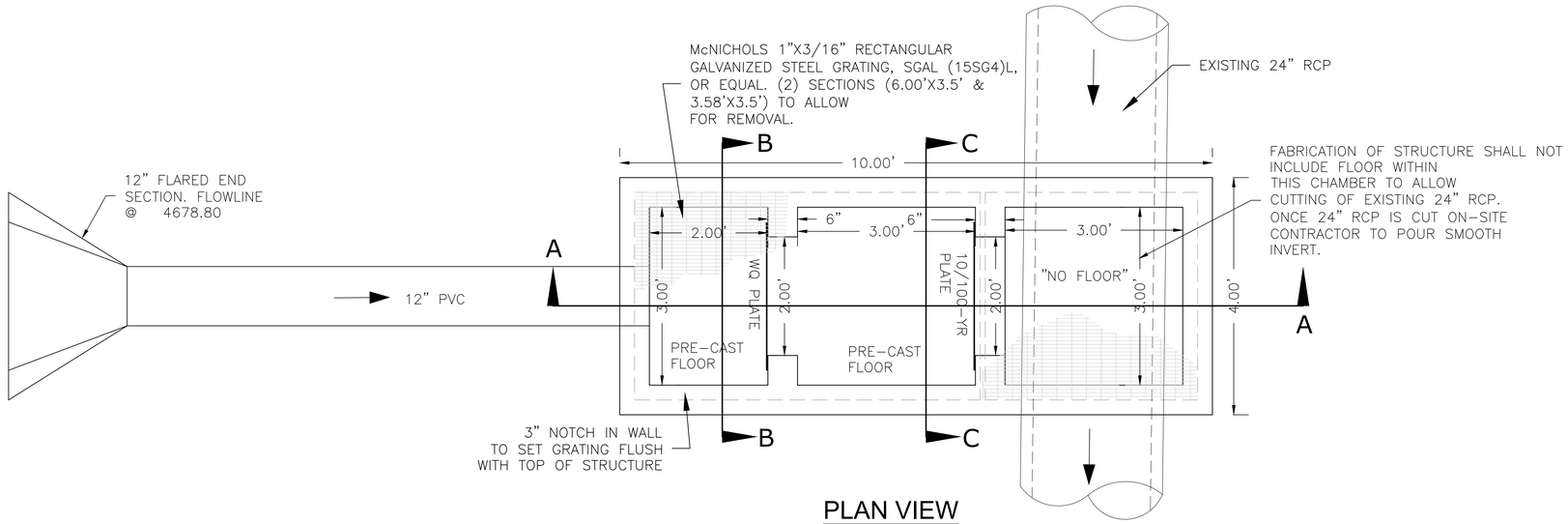
DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
UTILITY COMPOSITE PLAN

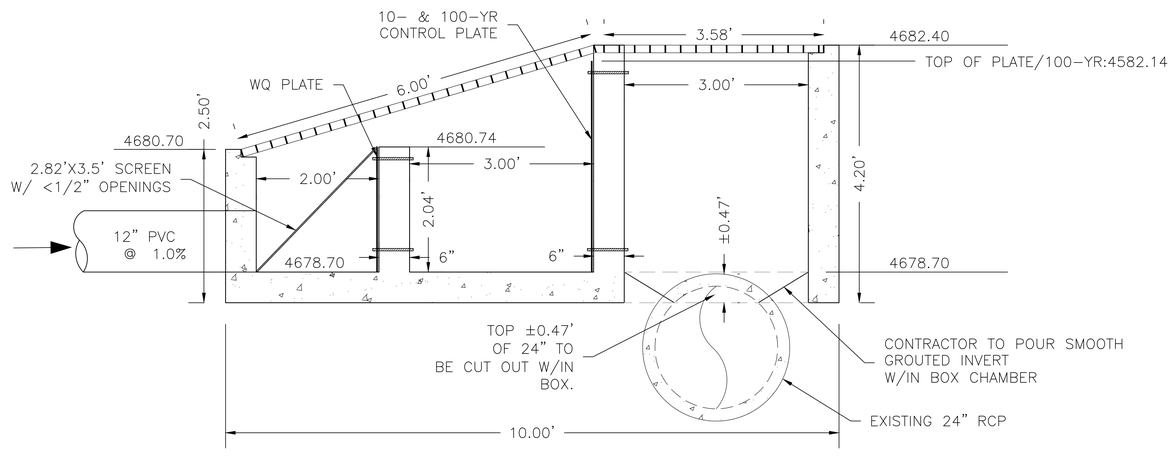
SCALE: 1"=20'

NO. C5.00

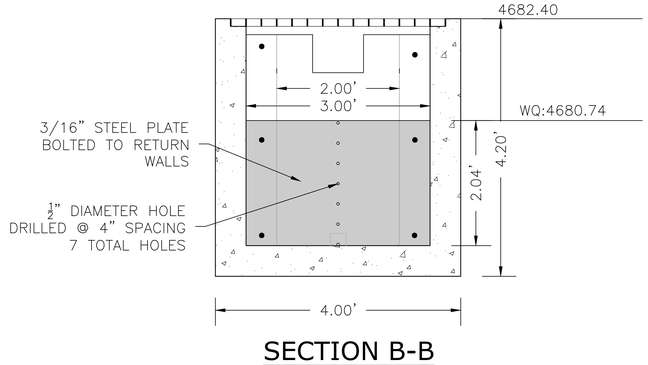
M:\PROJECTS\18XXX\18007 - Karis Multi-Family\Drawings\CDs\Production Drawings\PROD-SITE 6ADS.dwg, 4/1/2019 1:14:28 PM, DWG To PDF.pc3



PLAN VIEW

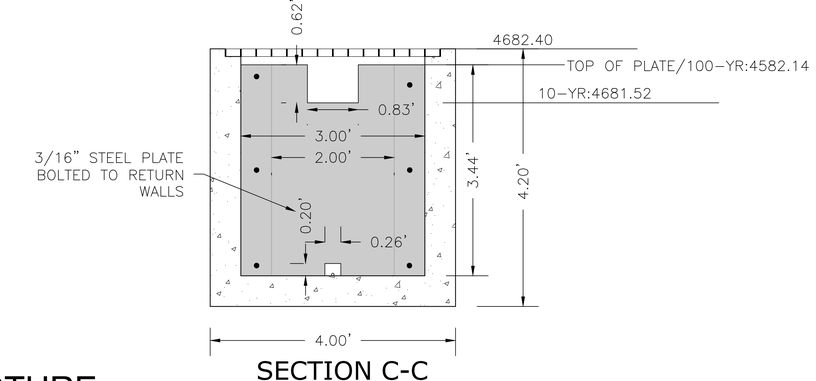


SECTION A-A



SECTION B-B

WQ PLATE



SECTION C-C

10- & 100-YR PLATE

OUTLET STRUCTURE

NTS

shop WORKS architecture
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KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
OUTLET STRUCTURE

SCALE: NTS

NO. C6.00

COLORADO LICENSED
CERTIFIED
SCOTT T. STOMP
427B0
4/3/19
PROFESSIONAL ENGINEER

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS IN THE PLANS. THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

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CITY DEVELOPMENT ENGINEER _____ DATE _____

SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93

NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'

RECEPTION No.

7' EASEMENT

TURNOUT FOR IRRIGATION

IRR. CONTROL BOX

EX. IRRIGATION DIVERSON BOX

218.00'

N89° 52' 33"

FUTURE COMMUNITY GARDEN BY OWNER

TRASH ENCLOSURE

BIKE BARN

LOT 2
95,341
2.188 ACRES

20' SEWER EASEMENT

3-STORY, 34-UNIT APARTMENT COMPLEX
7,892 SF (PLAN VIEW)

FF=4695.00

PATIO

TURF

NEW SANITARY SEWER MANHOLE

PROP. FIRE HYD.

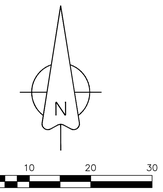
FDC

PROP. FIRE HYD.

PUBLIC SERVICE EASEMENT

N0° 04' 43"E 330.00'

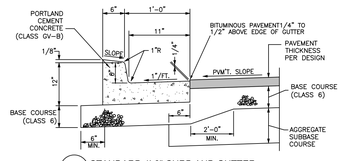
N0° 04' 43"E 240.00'



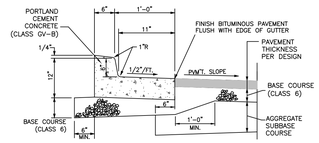
LEGEND

PROPERTY LINE	PROPOSED INLINE DRAIN
ADJACENT PROPERTY LINE	EXISTING 8" WATER MAIN
EXISTING EASEMENT	PROPOSED 2" DOMESTIC SERVICE
PROPOSED EASEMENT	PROPOSED 4" FIRE LINE
EXISTING BUILDING	EXISTING FIRE HYDRANT
PROPOSED BUILDING	PROPOSED FIRE HYDRANT
EXISTING CURB/GUTTER	EXISTING WATER METER
PROPOSED CURB/GUTTER	PROPOSED WATER METER
PROPOSED SPILL CURB/GUTTER	PROPOSED METER/BACKFLOW VAULT
PROPOSED TRANSITION CURB/GUTTER	PROPOSED IRRIGATION MANHOLE
EXISTING RETAINING WALL	PROPOSED FENCE
EXISTING 1-FT CONTOUR	EXISTING FENCE
EXISTING 5-FT CONTOUR	PROPOSED TRAFFIC FLOW
PROPOSED 1-FT CONTOUR	GRADE BREAK
PROPOSED 5-FT CONTOUR	ROOF DRAIN (RD)
EXISTING ASPHALT	STREET LIGHT POLE
PROPOSED ASPHALT	FIRE DEPARTMENT CONNETION
PROPOSED HEAVY DUTY ASPHALT	PARKING LOT LIGHT
EXISTING CONCRETE	PROPOSED BUILDING LIGHT
PROPOSED CONCRETE	POWER POLE
PROPOSED HEAVY DUTY CONCRETE	FL FLOWLINE
EXISTING SANITARY SEWER	EOP EDGE OF PAVEMENT
PROPOSED SANITARY SEWER	TOC TOP OF CONCRETE
EXISTING SANITARY SEWER MANHOLE	TOW TOP OF WALL
PROPOSED SANITARY SEWER MANHOLE	BOW BOTTOM OF WALL
PROPOSED SANITARY SEWER CLEANOUT	TBW TOP BACK OF WALK
EXISTING STORM SEWER	TC TOP OF CURB
PROPOSED STORM SEWER	BOC BACK OF CURB
EXISTING STORM SEWER INLET	LS LANDSCAPE AREA
PROPOSED STORM SEWER INLET	UTILITY PEDESTALS
EXISTING STORM SEWER MANHOLE	
PROPOSED STORM SEWER MANHOLE	

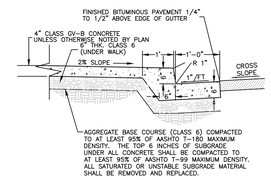
TYPICAL CONCRETE SECTIONS



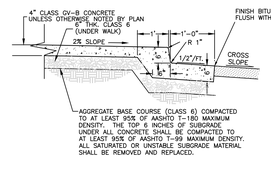
A *STANDARD 1'-6" CURB AND GUTTER*
NOT TO SCALE



B *1'-6" SPILL CURB AND GUTTER*
NOT TO SCALE



C *CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE



D *SPILL CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE

COLORADO LICENSED
TIMOTHY S. STOLTMAN
42780
4/2/19
PROFESSIONAL ENGINEER

ACCEPTANCE BLOCK
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CITY DEVELOPMENT ENGINEER _____ DATE _____

shop works architecture
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Land Planning • Civil Engineering • Development Services
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(970) 242-7540

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SCALE VERIFICATION
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ADJUST SCALE ACCORDINGLY

KARIS GRAND JUNCTION
3205 North 12th Street
Grand Junction, CO 81506

REV:

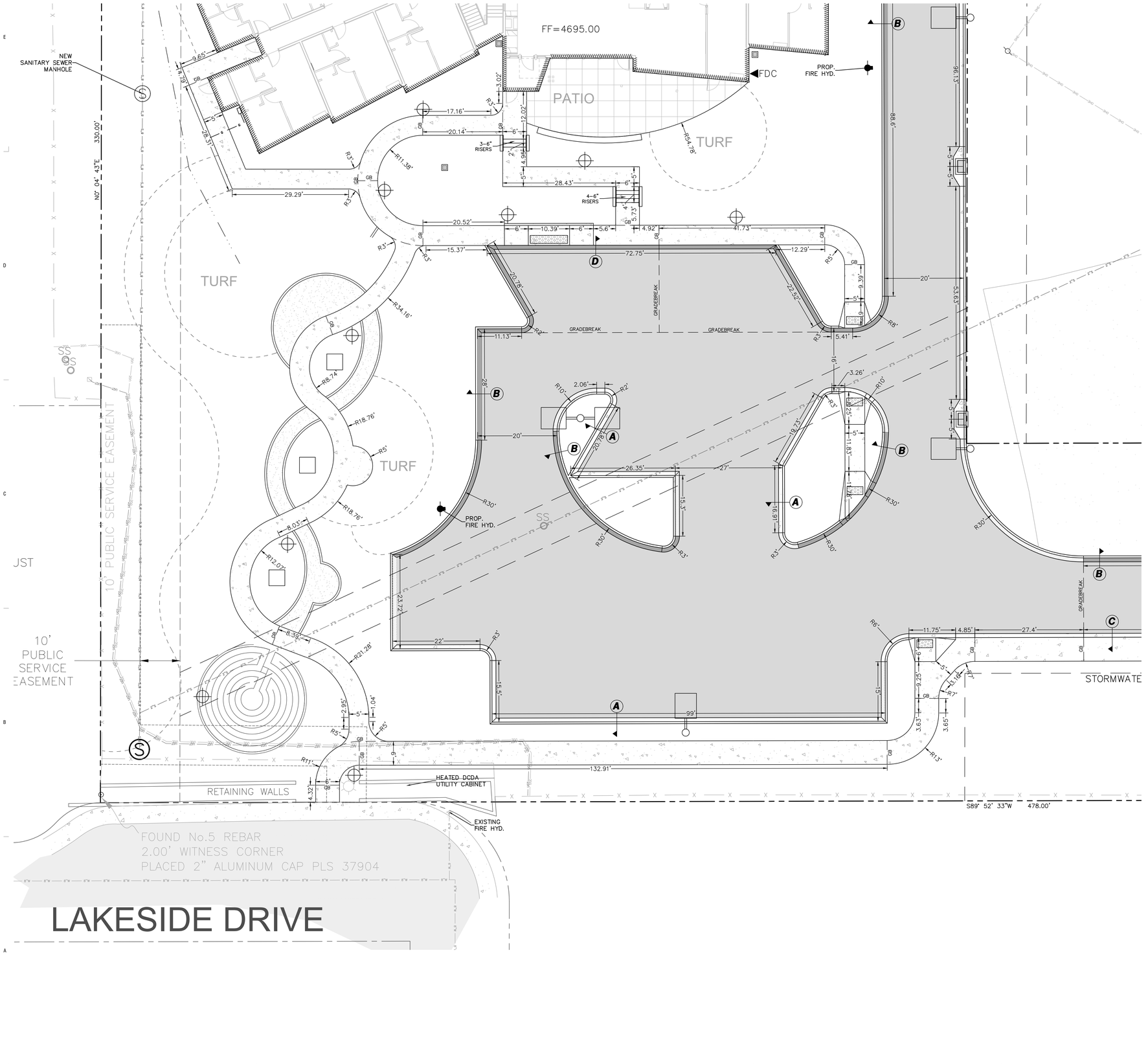
DRAWN: LMS
REVIEWED: STS

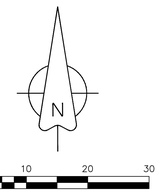
DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.00

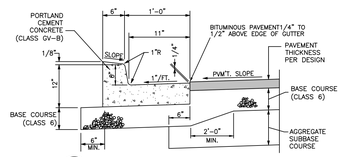




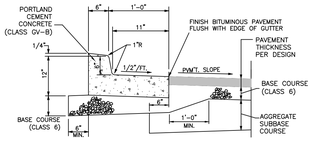
LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FL FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

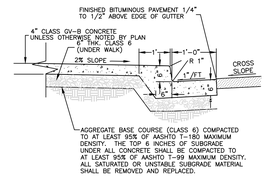
TYPICAL CONCRETE SECTIONS



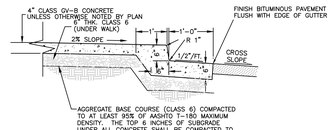
A *STANDARD 1'-6" CURB AND GUTTER*
NOT TO SCALE



B *1'-6" SPILL CURB AND GUTTER*
NOT TO SCALE



C *CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE



D *SPILL CURB, GUTTER & SIDEWALK SECTION*
NOT TO SCALE

COLORADO LICENSED PROFESSIONAL ENGINEER 42780 4/21/19 PROFESSIONAL ENGINEER

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PLAN DESIGNER OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF QUANTITIES, DIMENSIONS, OR ELEVATIONS. THE ACCURACY OF ALL QUANTITIES, DIMENSIONS OR ELEVATIONS, ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER DATE

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

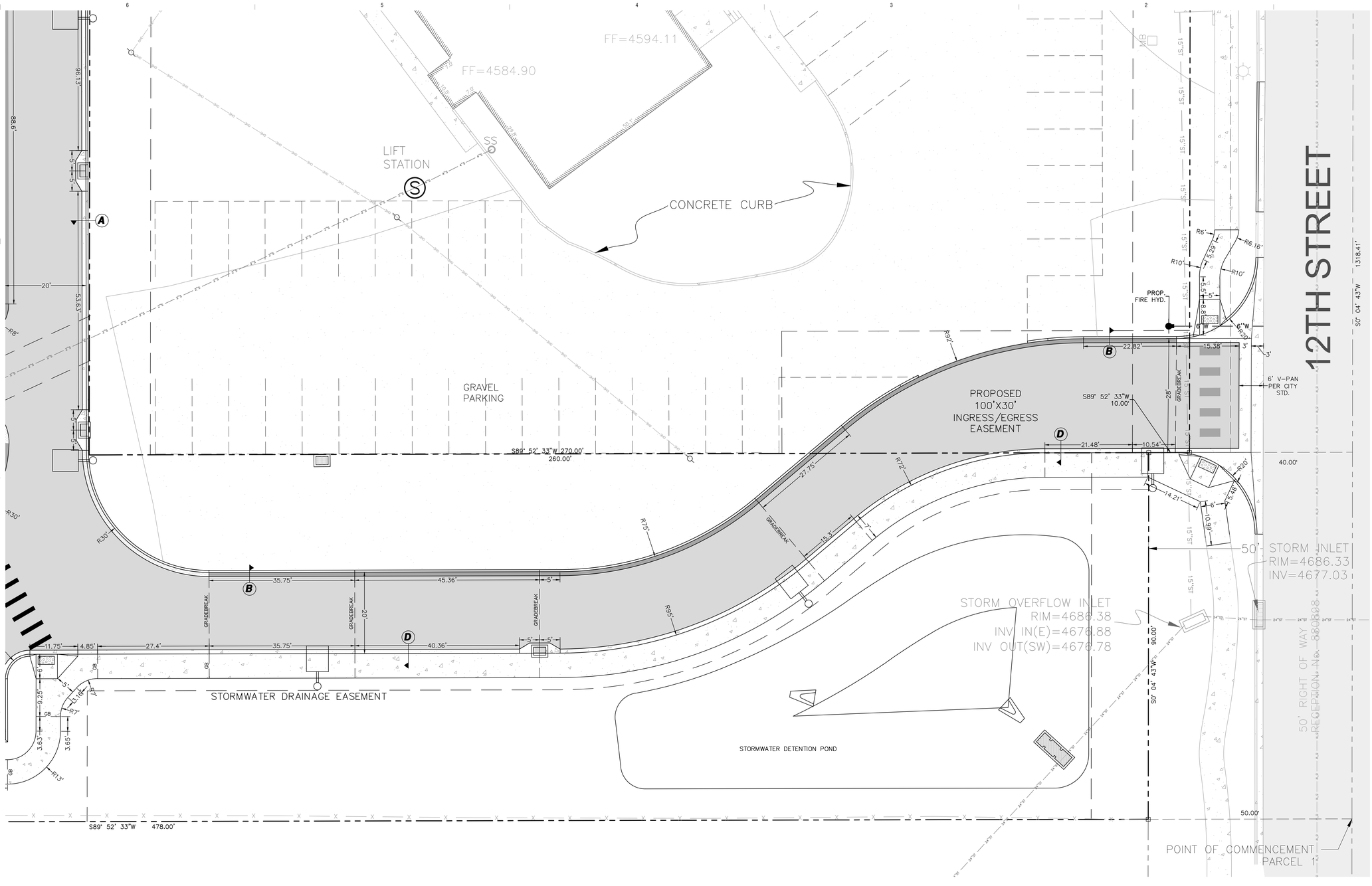
DRAWN: LMS
REVIEWED: STS

DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

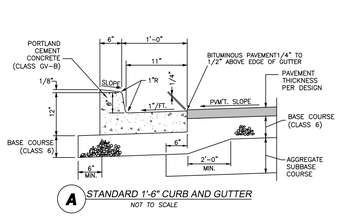
NO. C7.10



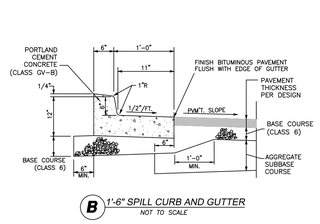
LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING CURB/GUTTER
- PROPOSED CURB/GUTTER
- PROPOSED SPILL CURB/GUTTER
- PROPOSED TRANSITION CURB/GUTTER
- EXISTING RETAINING WALL
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER INLET
- PROPOSED STORM SEWER INLET
- EXISTING STORM SEWER MANHOLE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED INLINE DRAIN
- EXISTING 8" WATER MAIN
- PROPOSED 2" DOMESTIC SERVICE
- PROPOSED 4" FIRE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- PROPOSED METER/BACKFLOW VAULT
- PROPOSED IRRIGATION MANHOLE
- PROPOSED FENCE
- EXISTING FENCE
- PROPOSED TRAFFIC FLOW
- GRADE BREAK
- ROOF DRAIN (RD)
- STREET LIGHT POLE
- FIRE DEPARTMENT CONNETION
- PARKING LOT LIGHT
- PROPOSED BUILDING LIGHT
- POWER POLE
- FLOWLINE
- EOP EDGE OF PAVEMENT
- TOC TOP OF CONCRETE
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- TBW TOP BACK OF WALK
- TC TOP OF CURB
- BOC BACK OF CURB
- LS LANDSCAPE AREA
- UTILITY PEDESTALS

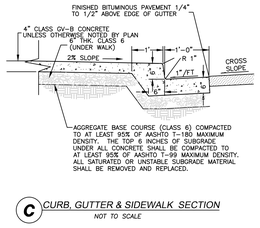
TYPICAL CONCRETE SECTIONS



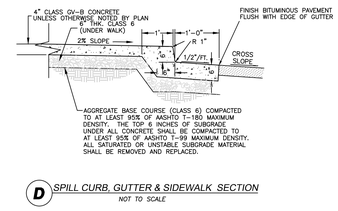
A STANDARD 1'-6" CURB AND GUTTER
NOT TO SCALE



B 1'-6" SPILL CURB AND GUTTER
NOT TO SCALE



C CURB, GUTTER & SIDEWALK SECTION
NOT TO SCALE



D SPILL CURB, GUTTER & SIDEWALK SECTION
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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

DRAWN: LMS
REVIEWED: STS

DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C7.20

COLORADO LICENSED CERTIFICATE NUMBER 42780 PROFESSIONAL ENGINEER 4/2/19

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

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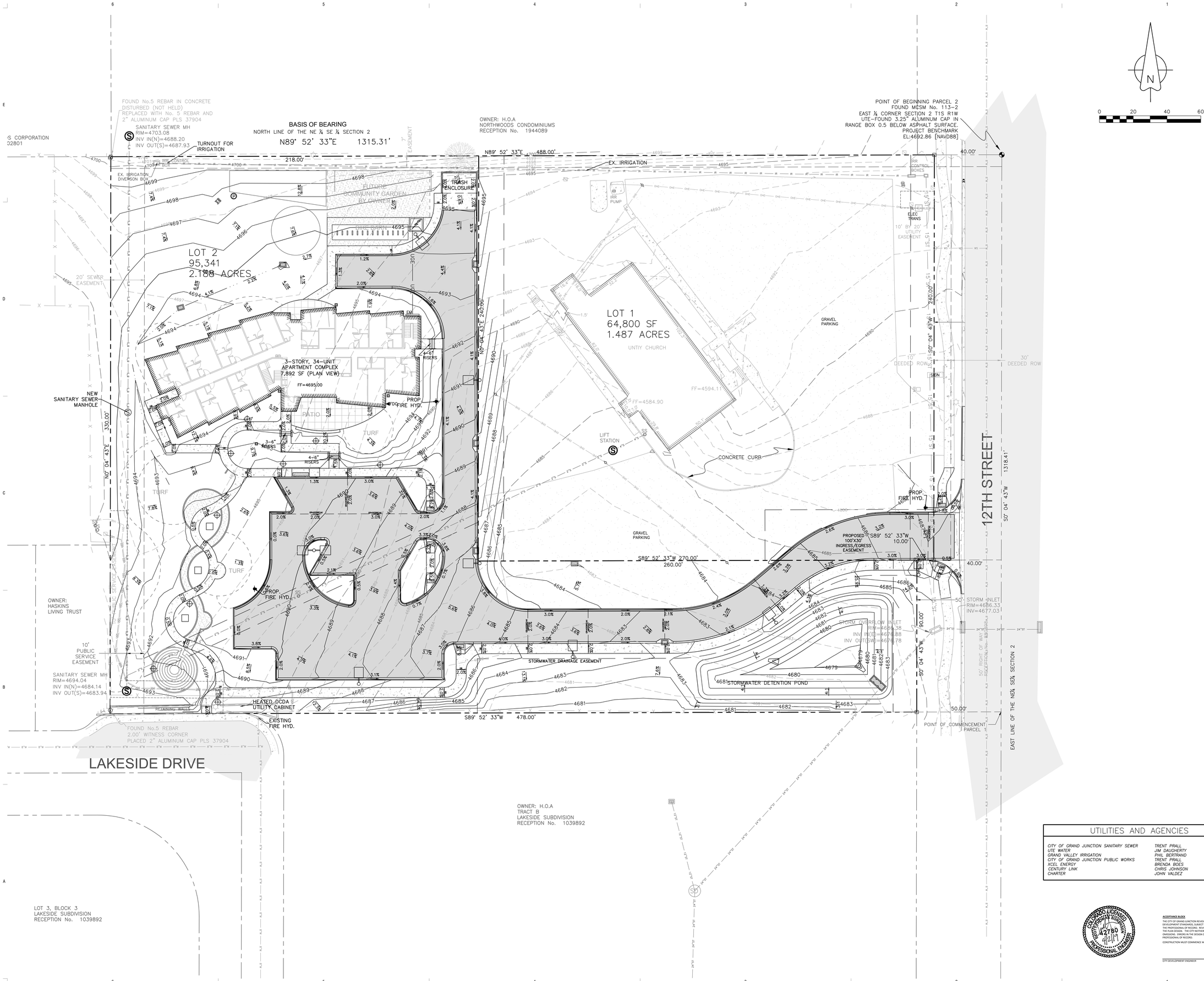
CITY DEVELOPMENT ENGINEER _____ DATE _____



UTILITIES AND AGENCIES		
CITY OF GRAND JUNCTION SANITARY SEWER	TRENT PRALL	244-1554
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION PUBLIC WORKS	TRENT PRALL	244-1554
XCEL ENERGY	BRENDA BOES	244-2681
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

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CITY DEVELOPMENT ENGINEER DATE

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REV:

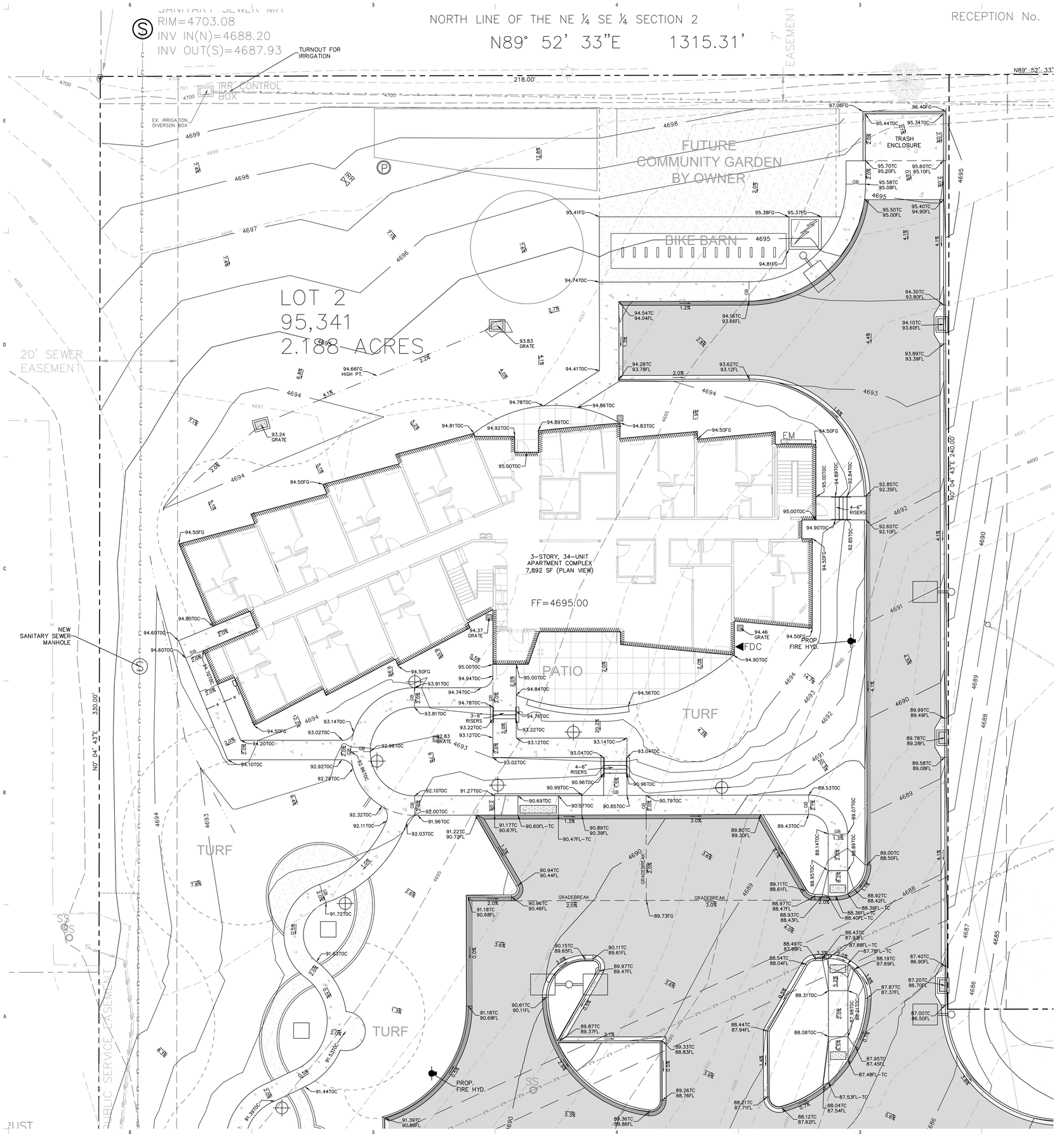
DRAWN: LMS
REVIEWED: STS

DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
OVERALL GRADING PLAN

SCALE: 1"=20'

NO. C8.00


SANITARY SEWER MH
RIM=4703.08
INV IN(N)=4688.20
INV OUT(S)=4687.93
NORTH LINE OF THE NE ¼ SE ¼ SECTION 2
N89° 52' 33"E 1315.31'
RECEPTION No.
7' EASEMENT
TURNOUT FOR IRRIGATION
IRR. CONTROL BOX
EX. IRRIGATION DIVERSON BOX
218.00'
N89° 52' 33"E
FUTURE COMMUNITY GARDEN BY OWNER
TRASH ENCLOSURE
BIKE BARN
LOT 2
95,341
2.188 ACRES
20' SEWER EASEMENT
3-STORY, 34-UNIT APARTMENT COMPLEX
7,892 SF (PLAN VIEW)
FF=4695.00
PATIO
TURF
EM
4-6" RISERS
3-6" RISERS
PROP. FIRE HYD.
FDC
NEW SANITARY SEWER MANHOLE
N0° 04' 43"E 330.00'
N0° 04' 43"E 240.00'
PUBLIC SERVICE EASEMENT
GRADEBREAK
97.06FG
96.40FG
95.44TOC
95.34TOC
95.70TC
95.20FL
95.60TC
95.10FL
95.58TC
95.08FL
95.50TC
95.00FL
95.40TC
94.90FL
95.41FG
95.38FG
95.37FG
94.81FG
94.74TOC
94.30TC
93.80FL
94.54TC
94.04FL
94.16TC
93.66FL
94.10TC
93.60FL
93.89TC
93.39FL
94.28TC
93.78FL
93.62TC
93.12FL
94.41TOC
93.83 GRATE
94.66FG HIGH PT.
93.24 GRATE
94.78TOC
94.86TOC
94.89TOC
94.83TOC
94.81TOC
94.92TOC
95.00TOC
94.50FG
92.85TC
92.35FL
92.84TOC
94.89TOC
95.00TOC
4-6" RISERS
92.60TC
92.10FL
94.90TOC
92.85TOC
94.80TOC
94.60TOC
94.37 GRATE
94.46 GRATE
94.90TOC
95.00TOC
94.94TOC
93.91TOC
94.74TOC
94.84TOC
94.56TOC
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94.20TOC
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92.83 GRATE
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90.67FL
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90.47FL-TC
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90.96TC
90.46FL
89.73FG
89.11TC
88.61FL
88.97TC
88.47FL
88.93TC
88.43FL
88.92TC
88.42FL
88.39FL-TC
88.36FL-TC
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91.72TOC
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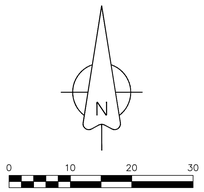
94.50FG



UTILITIES AND AGENCIES		
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UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
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COLORADO LICENSED PROFESSIONAL ENGINEER 42780 4/2/19

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CITY DEVELOPMENT ENGINEER DATE

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KARIS GRAND JUNCTION

3205 North 12th Street
Grand Junction, CO 81506

REV:

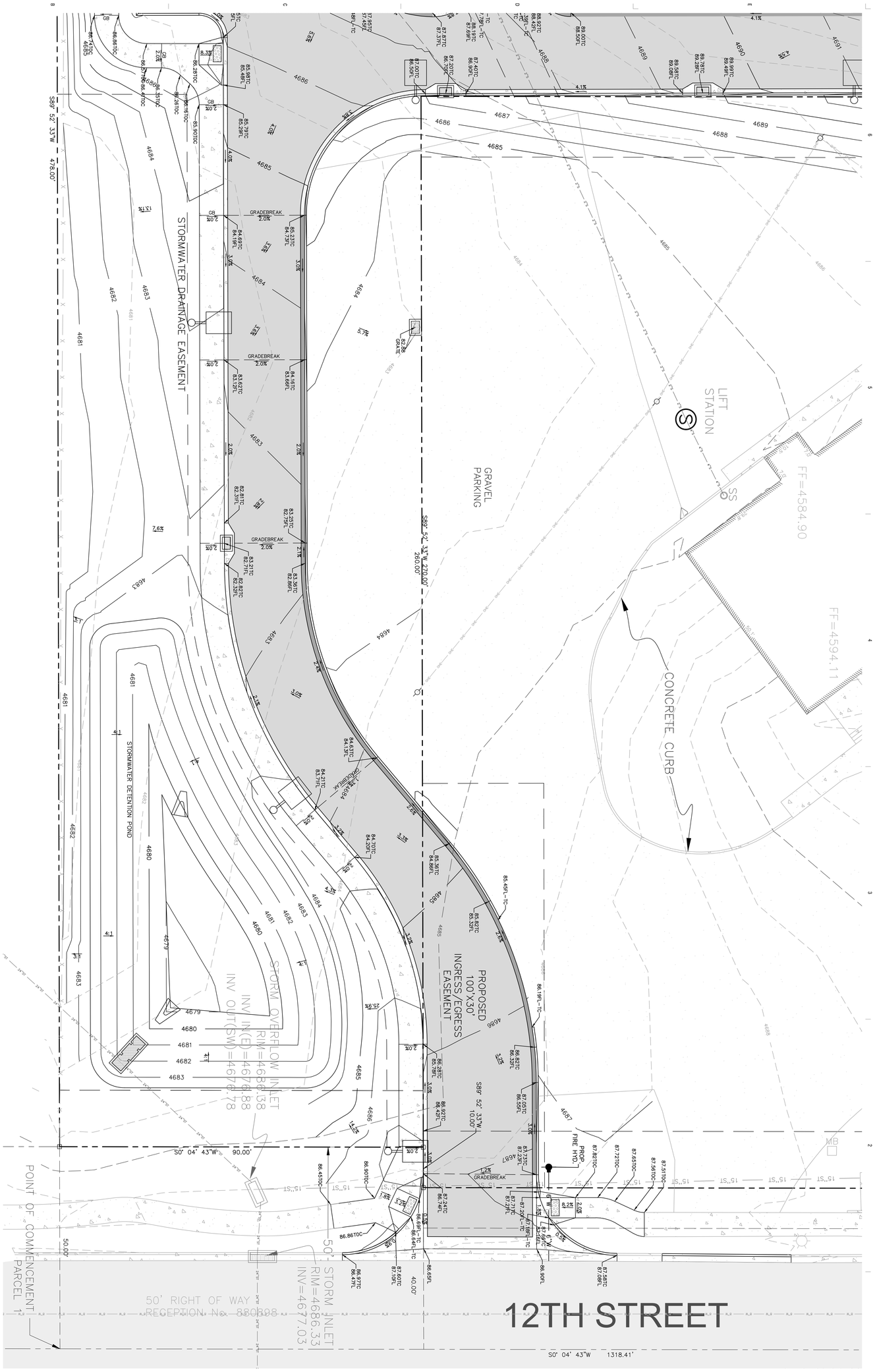
DRAWN: LMS
REVIEWED: STS

DATE: 4/3/19

PROJECT #: 18007
FILE:
SHEET TITLE:
HORIZONTAL CONTROL PLAN

SCALE: 1"=10'

NO. C8.20



UTILITIES AND AGENCIES

CITY OF GRAND JUNCTION SANITARY SEWER	PHILIP FRALL	244-1564
UTE WATER	JIM DAUGHERTY	242-7491
GRAND VALLEY IRRIGATION	PHIL BERTRAND	242-2762
CITY OF GRAND JUNCTION	PHIL FRALL	244-1564
XCEL ENERGY	BRENDA BOES	244-2681
COMMUNITY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750

COLORADO LICENSED PROFESSIONAL ENGINEER
42780
SEPTEMBER 30, 2020
4419

ADDENDUM BOOK

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REV:

KARIS GRAND JUNCTION

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DRAWN: LMS
REVIEWED: STS
DATE: 4/3/19
PROJECT #: 18007
SHEET TITLE:
HORIZONTAL CONTROL PLAN
SCALE: 1"=10'
NO. C8.30

POST-CONSTRUCTION STORMWATER CONTROL OPERATIONS AND MAINTENANCE AGREEMENT

Agreement No. _____

THIS AGREEMENT ("Agreement") is made and entered into this 3rd day of April, 20___, by and between Karis Apartments, LLLP, (hereinafter the "Landowner"), and the 5-2-1 Drainage Authority (hereinafter the "Authority") as a representative of the City of Grand Junction ("City").

RECITALS

The Landowner is the owner of the following real property (hereinafter referred to as "the Property"):

[insert legal description].

Street Address: 3205 N. 12th G.J. CO. 81506

Parcel Number: Parcel #1

Development Name: Karis Inc.

The Landowner is developing the Property.

The Authority and the Landowner, on behalf of all successors and assigns, agree that the health, safety, and welfare of the residents and the protection and maintenance of water quality require that on-site stormwater Best Management Practices be constructed and maintained on the Property. The Landowner acknowledges the 521 Drainage Authority has been granted legal authority by the City to execute this Agreement and perform the activities identified in this agreement within the jurisdiction of the City.

For the purposes of this Agreement, the following definition shall apply:

> BMP – "Best Management Practice;" activities, facilities, designs, measures or procedures used to manage stormwater impacts from land development, to protect and maintain water quality and groundwater recharge and to otherwise meet the purposes of the Municipal Stormwater Pollution Prevention Ordinance, including but not limited to infiltration trenches, seepage pits, filter strips, bioretention, wet ponds, permeable paving, grassed swales, forested buffers, sand filters and detention basins.

As part of the approval of the development of the property, the Authority will review and approve a Final Drainage Report which will implement Post-Construction Storm Water Management BMPs required by the Mesa County/City of Grand Junction Stormwater Management Manual.

The purpose of this Agreement is to insure the adequate maintenance, operation and repair of the storm water management facilities, in perpetuity, by the owners of the property served by these facilities.
The Landowner desires to subject and place upon the Property the covenants and servitudes set forth herein which shall run with the Property and be binding on all parties having any right, title, or interests in the Property or any part thereof, their heirs, personal representatives, successors and assigns, and shall inure to the benefit of each owner thereof.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein and the following terms and conditions, the parties hereto agree as follows:

1. The BMPs shall be constructed by the Landowner in accordance with the plans and specifications shown and described in the Final Drainage Report.

2. The Landowner shall operate and maintain in perpetuity the BMP(s) as shown and described on the Final Drainage Report in good working order as reasonably determined by the Authority and in accordance with the specific maintenance requirements noted on the Final Drainage Report.

3. The Landowner shall cause the BMP(s) to be inspected annually by a Qualified Erosion Control Specialist to ensure good working order and shall send a report from said inspection to the Authority annually, on or before December 31st of each year.

4. The Landowner hereby grants a perpetual easement to the Authority, its authorized agents and employees, to enter upon the Property, at reasonable times and upon presentation of proper identification, to inspect the BMP(s) whenever it deems necessary. The Authority shall make reasonable efforts to notify the Landowner prior to entering the Property.

5. In the event the Landowner fails to operate and maintain the BMP(s) as shown and described on the Final Drainage Report in good working order as reasonably determined by the Authority, the Authority and the City may enter upon the Property and take action to maintain and/or repair and/or reconstruct said BMP(s). It is expressly understood and agreed that the Authority and the City are under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Authority and the City.

6. In the event the Authority and the City, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Authority and the City for all reasonable expenses (direct and indirect) incurred within 10 days of receipt of invoice from the Authority and the City.

7. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMP(s) by the Landowner. This Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.

8. The Authority may conduct routine inspections of the BMP(s) to verify their continued adequate functioning. The Authority may also inspect the BMP(s) in the event of reported or

suspected failure to function adequately. These inspection activities shall not absolve the Landowner of its obligation to maintain the BMPs in perpetuity or to provide the Authority with the required Landowner inspection report.

9. This Agreement shall not be interpreted or deemed to limit the authority, privilege or right of the Authority and the City pursuant to any duly enacted ordinance of the Authority or the City, charter provision, statute or any duly granted federal or state water discharge permit.

10. Notifications and reports made under this Agreement shall be provided to the Authority at:

5-2-1 Drainage Authority
P.O. Box 3389
Grand Junction, CO 81502

and to the Landowner at:

Karis, Inc.
P.O. Box 2837
G.J. CO. 81502

This Agreement shall be recorded in the Mesa County, Colorado land records and shall, once recorded, constitute a covenant running with the Property and shall be an equitable servitude binding on present and subsequent owners of the Property in whole or in part, and their administrators, executors, assigns, heirs and successors in interest, in perpetuity

WITNESS the following signatures and seals:

FOR THE AUTHORITY:

By: _____
Trent Prall, Manager

ATTEST:

_____

_____
Printed Name & Title

LANDOWNER: Kuris LLLP (SEAL – if incorporated)

By: _____

Printed name and title: John Mok-Lamme, E.D.

State of Colorado)
County of Mesa) ss.

Subscribed and sworn to before me on this 3 day of April, 2019, by John Mok-Lamme.

Witness my hand and seal.
My Notary Commission expires on 09/02/2020 (date).

Michelle Cliff
Notary Public Signature

MICHELLE CLIFF
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #20164033988
My Commission Expires September 2, 2020

Stormwater Management Plan
for
Karis Apartments
3205 North 12th Street
Grand Junction, Colorado

Prepared by:

A · C · G

Austin Civil Group, Inc.

Land Planning · Civil Engineering · Development Services

REV #	DESCRIPTION OF CHANGES MADE	BY	DATE
	ORIGINAL	STS	3-26-19

Construction Stormwater Management Plan
For
Karis Apartments

Introduction

The purpose of this stormwater management plan (SWMP) is to:

- Identify all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the facility;
- Describe the practices to be used to reduce the pollutants in stormwater discharges associated with construction activity at the facility;
- Ensure the practices are selected and described in accordance with good engineering practices, including the installation, implementation and maintenance requirements.

This plan is intended to be a starting point to identify and implement actions to achieve this goal. This plan is NOT written in stone and can easily be modified or altered if the Contractor and/or SWMP Administrator identify better ways of implementing protective measures to accomplish the overall purpose of this plan. Simply revise this plan accordingly to reflect the changes made.

This CSWMP for the Cooper Subdivision is formatted and presented consistent with State of Colorado SWMP criteria, and local guidance provided by the 5-2-1 Drainage Authority. There are no exceptions to State required inclusions in the plan. The following CSWMP is organized and presented as follows:

Section 1: Site Description

Section 2: Site Map

Section 3: Stormwater Management Controls

Section 4: Final Stabilization

Section 5: Inspection and Maintenance Procedures

Appendix A: BMP & Details

Appendix B: Site Photos (existing conditions)

Appendix C: Spill Prevention Control and Countermeasure Plan

This CSWMP was prepared by Scott Sorensen, Austin Civil Group, 123 N. 7th Street, suite 300, Grand Junction, CO (970) 242-7540

1. Site Description

A) The nature of the construction activity at the site. The description should include the physical location and address or cross streets, type of project, a summary of the grading activities, installation of utilities, paving, excavation, landscaping, and the final disposition of the property.

The subject property is located at 3205 North 12th Street in Grand Junction, Colorado. The site consists of approximately 3.68 acres and contains the Unity Church facility. In addition, a large gravel parking lot wraps around the east and south side of the church. The remainder of the property is vacant land with 2 to 5 percent slopes.

Development of the property will consist of construction an approximate 7,900 square foot (plan view), 3-story apartment complex. Asphalt drive lane will be constructed from N 12th Street to the apartment building with associated asphalt parking lot, landscaping and utility service improvements. No improvements are proposed for the Unity Church site.

There is good site slope, 2 to 5 percent, from the north to the south. A low spot near the middle of the southern boundary is where the majority of the site's runoff goes. Runoff that is not absorbed by site soils continues south across the Lakeside Apartment parking lot to eventually discharge into an area drain. The runoff combines with a storm sewer / tailwater system that conveys from N 12th Street to the ponds located within the Lakeside Community Park.

The site is located within Zone X, areas determined to be outside the 500-year floodplain, as depicted on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM).

B) The proposed sequence for major activities. Describe the sequence of events involved in the construction project, such as grading, excavation, final landscaping, etc.

- Installation of site boundary sediment control protective measures;
  - Install all perimeter erosion control inlet protection and silt fences;
  - Install vehicle tracking pad at construction site entrance location, if applicable. The Contractor shall amend this plan accordingly to reflect the accurate location of best management practices;
  - Establish concrete wash area (if required), storage area, staging area, office trailer and sanitary facilities;
- Clear and grubbing;
- Site Overlot grading;
- Utility Infrastructure Installation;
- Install erosion control inlet protection;
- Site Concrete;
- Asphalt Paving;
- Final Grading and Landscaping;

C) Estimates of the total area of the site, and the area and location expected to be disturbed by clearing, excavation, grading, or other construction activities.

Construction activities will occur on approximately 2.29 acres of the total 3.68 acres.

D) A summary of any existing data used in the development of the site construction plans or SWMP that describe the soil or existing potential for soil erosion.

Site visit was used in the development of the site construction plans and/or SWMP.

E) A description of the existing vegetation at the site and an estimate of the percent vegetative ground cover.

Subject property contains an existing church building and gravel parking lots. The remainder of the site is vacant ground.

F) The location and description of all potential pollution sources, including ground surface disturbing activities, vehicle fueling, storage of fertilizers or chemicals, etc.

Sediment will be the primary potential pollution source for this project. Other potential sources of stormwater pollutants are possible from the heavy equipment fueling and oiling operations that will occur during construction of the improvements as well as solid trash debris. Any other construction materials which will be required shall be noted herein prior to placement on the project site. Storage of all construction materials shall be located at the area indicated on the SWMP-1 & SWMP-2 sheets provided in Appendix A.

Thirteen (13) potential pollutants are commonly encountered during building and site improvement projects. These thirteen (13) pollutants are better identified, described, evaluated and located in section 3.B. of this report.

G) The location and description of any anticipated allowable sources of non-stormwater discharge at the site, e.g., uncontaminated springs, landscape irrigation return flow, construction dewatering, and concrete washout.

There are no springs, irrigation return flow or construction dewatering or concrete washouts.

H) The name of the receiving water (s) and the size, type and location of any outfall(s). If the stormwater discharge is to a municipal separate storm sewer system, the name of that system, the location of the storm sewer discharge, and the ultimate receiving water(s).

Runoff will be collected a new stormwater detention pond located at the southeast corner of the site. Controlled release rates will be discharged into an existing 24" RCP that clips the southeast corner of the property. Runoff continues through the Lakeside Development and discharges into the development's ponds.

2. Site Map

The SWMP must include a site map showing the entire area and identifying the following components:
Two (2) Stormwater Management Plans have been prepared depicting erosion control measures during the phases of the project. Sheet SWMP-1 depicts erosion control measures that shall be implemented during mobilization, and overlot grading. Sheet SWMP-2 depicts erosion control measures that shall be implemented during the building and site improvement phase. It is likely that several of the erosion control measures will intermix and function together. **A) Construction site boundaries;**
The construction site boundaries are identified on Sheet SWMP-1 & 2 provided in Appendix A of this report.
B) All areas of ground surface disturbance;
The area of disturbance (disturbance limits) are identified on Sheets SWMP-1 & 2 provided in Appendix A of this report.
C) Areas of cut and fill;
Significant cut and fill areas may exist during construction in the magnitude of 3-4 feet.
D) Areas used for storage of building materials, equipment, soil, or waste;
Identified on Sheets SWMP-2 provided in Appendix A of this report.
E) Locations of dedicated asphalt or concrete batch plants;
No dedicated asphalt or concrete batch plants will be used for this project.
F) Locations of all structural BMPs;
Identified on Sheets SWMP-1 & 2 that is provided within Appendix A of this report.
G) Locations of non-structural BMPs as applicable; and
There are no non-structural BMPs in this phase of demolition.
H) Locations of springs, streams, wetlands and other surface waters.
There are no existing springs, streams, wetlands or other surface waters within the immediate vicinity of the project site.

3. Stormwater Management Controls

The SWMP must include a description of all stormwater management controls that will be implemented as part of the construction activity to control pollutants in stormwater discharges. The appropriateness and priorities of stormwater management controls in the SWMP shall reflect the potential pollutant sources identified at the facility. The description of the stormwater management controls shall address the following, at a minimum:
A) <u>SWMP Administrator</u>- The SWMP shall identify a specific individual(s), position, or title who is responsible for developing, implementing, maintaining, and revising the SWMP. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP.
A general contractor for the project, who will be the SWMP Administrator will be FCI Constructors, Inc.

B) Identification of Potential Pollution Sources- All potential pollutant sources, including materials and activities, at a site must be identified, described, evaluated and located for the potential to contribute pollutants to stormwater discharges. The SWMP shall identify and describe those sources determined to have the potential to contribute pollutants to stormwater discharges, and the sources must be controlled through BMP selection and implementation, as required in paragraph (c) below. At a minimum each of the following sources and activities shall be evaluated for the potential to contribute pollutants to stormwater discharges, and identified in the SWMP if found to have such potential:

1) All disturbed and stored soils;

Disturbed soils will be a result of the demolition process. Multiple erosion control measures have been implemented to control the transport of the soils off the site. Those measures consist but are not limited to erosion bales and/or logs and silt fences. The area of disturbance and erosion control measures to address the transport of sediment off the site can be found on Sheets SWMP-1 & 2 provided in Appendix A of this report.

2) Vehicle tracking of sediments;

The construction site has been provided with one means of access. North 12th Street will be the main access point. The entrance or area near the entrance will be provided with a vehicle tracking pad. Construction vehicles other than heavy equipment shall limit access onto the native soils and rather park on the southern gravel parking lot limit mud on tires. SWMP administrator though must be responsive if mud and debris becomes an issue on the existing drive/streets. Maintenance shall be performed immediately and any measures implemented into the site minimize the conditions.

3) Management of contaminated soils;

Soils on the site are not expected to be contaminated, however they may become contaminated with vehicle fuel, hydraulic and other vehicle lubricants and fluids and other materials that may enter the site during construction. Contaminates can potentially be spilled during the transfer of material, fueling, spills, and leaks. Contaminated soil will be temporarily stored in the Construction Material Storage area as shown on Sheets SWMP-1 & 2 provided in Appendix A until it is properly disposed of off-site.

4) Loading and unloading operations;

Spills of pollutants and building construction materials can potentially occur during construction material delivery, and removal of construction waste. Loading and unloading of material shall be conducted in manner to reduce the likely hood of spills and try to be conducted in the construction material storage area as shown on Sheet SWMP-1 & 2 provided in Appendix A. If the delivery of goods can not be conducted in the construction material storage area, the SWMP Administrator shall assess the situation and determine the appropriate measures to mitigate spills.

5) Outdoor storage activities (building materials, fertilizers, chemicals, etc.)

If any material or chemicals are to be stored on site, then they shall be stored in the construction materials storage area as shown in Sheet SWMP-1 & 2 provided in Appendix A.

6) Vehicle and equipment maintenance and fueling;

All work shall exercise care in fueling and oiling operations. Construction equipment located on the jobsite shall be in proper working order and shall not have leaking fluid or hydraulic hoses. Fueling equipment shall be equipped with automatic shut off capability to prevent the equipment's fuel tank capacity to overfill. Equipment Operators shall be instructed to properly dispose of empty grease gun cartridges. When possible, construction equipment that requires routine service shall be serviced prior to bringing the equipment on site, or hauled offsite when service is required. Fueling and greasing of construction equipment shall try to be done within the storage and staging area but if not appropriate, special care shall be taken to mitigate spills. Some potential pollutants include motor oil, diesel fuel, gasoline, antifreeze, grease, and hydraulic fluid.

7) Significant dust or particulate generating processes;
Dust will be a major pollution concern, and it will be addressed, as needed, using a water truck to keep the area moist. Dust and particulate generating processes will need to be postponed during times of high wind.
8) Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.;
Maintenance activities involving any material which contains a pollutant source that could potentially spill shall take place in the Construction Material Storage area as shown in Sheet SWMP-1 and SWMP-2 provided in Appendix A.
9) On-site waste management practices (waste piles, liquid wastes, dumpsters, etc.);
On-site waste shall be stored and covered within the designated construction storage area shown on Sheet SWMP-1 & 2 provided in Appendix A. The contractor shall remove waste from the site as soon as possible. During high winds the SWMP Administrator shall check that dumpsters and waste piles check if they are properly secured and to ensure that debris is not transported off the construction site.
10) Concrete truck/equipment washing, including concrete truck chute and associated fixtures and equipment;
Waste concrete is potential pollutant that will occur during construction.
11) Dedicated asphalt and concrete batch plants;
No asphalt or concrete batch plants will be built.
12) Non-industrial waste sources such as worker trash and portable toilets;
The Construction Contractor shall provide waste disposal receptacles on the jobsite and require construction trash, debris, and wastes to be disposed of in a proper manner. Trash shall be stored in an approved dumpster and emptied when full. The site shall be provided with a portable toilet that is securely located to prevent tipping due to high wind. Maintenance of the toilet shall be routinely conducted as prescribed by the maintenance schedule.
13) Other areas or procedures where potential spills can occur.
Another possible area of spill will be common construction debris that will be handled in a manner as described in item 12) above.

C) <u>Best Management Practices.</u> The SWMP shall identify and describe appropriate BMPs, including, but not limited to, those required by paragraphs 1 through 8 below, that will be implemented at the facility to reduce the potential of the sources identified in part b, above, to contribute pollutants to stormwater discharges. The SWMP shall clearly describe the installation and implementation specifications for each BMP identified in the SWMP to ensure proper implementation, operation, and maintenance of the BMP.
1. <u>Structural Practices for Erosion Control</u>. The SWMP shall clearly describe and locate all structural practices implemented at the site to minimize erosion and sediment transport. Practices may include, but are not limited to: straw bales, wattles/sediment control logs, silt fences, earth dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, and temporary or permanent sediment basins.
1. Roadway Sediment (Vehicle Tracking Pad) – **GOAL** = to prevent transportation of mud and debris to the public roadway system that adheres to construction vehicle's tires. a. The vehicle tracking pad shall be constructed and maintained per details provided in Appendix A. 2. Perimeter Erosion Control (silt fencing or berm/swale– **GOAL** = to intercept site generated runoff prior to be releasing off site. a. Install along all sides of the project as identified on Sheet SWMP-1 & 2. b. Shall be installed and maintained per detail provided in Appendix A.

3. Inlet Protection (Dandy Bags or equal) – **GOAL** = to prevent transport of site generated sediment and debris to storm sewer collection systems.
   a. Locate around all existing inlets and proposed inlets as identified on Sheet SWMP-1 & 2 provided in Appendix A.
   b. Shall be installed and maintained per detail provided in Appendix A.

2) <u>Non-Structural Practices for Erosion and Sediment Control</u>. The SWMP shall clearly describe and locate, as applicable, all non-structural practices implemented at the site to minimize erosion and sediment transport. Description must include interim and permanent stabilization practices, and site-specific scheduling for implementation of the practices. The SWMP should include practices to ensure that existing vegetation is preserved where possible. Non-structural practices may include, but are not limited to: temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, vegetative buffer strips, protection of trees, and preservation of mature vegetation.

There will be no non-structural BMP in this phase of demolition.

3) <u>Phased BMP Implementation</u> The SWMP shall clearly describe the relationship between the phases of construction, and the implementation and maintenance of both structural and non-structural stormwater management controls. The SWMP must identify the stormwater management controls to be implemented during the project phases, which can include, but are not limited to, clearing and grubbing; road construction; utility and infrastructure installation; vertical construction; final grading; and final stabilization.

The following is a timeline of the installation and implementation of the BMPs:

1. Vehicle Tracking Pad.
2. Install perimeter erosion control measures (silt fencing and/or berm/swale).
3. Install protection around existing and proposed inlets and culverts as identified on Sheet SWMP-1 & 2.
4. Install catch basin insert filters.

4) <u>Materials Handling and Spill Prevention.</u> The SWMP shall clearly describe and locate all practices implemented at the site to minimize impacts from procedures or significant materials that could contribute pollutants to runoff. Such procedures or significant materials could include: exposed storage of building materials; paints and solvents; fertilizers or chemicals; waste material; and equipment maintenance or fueling procedures. Areas or procedures where potential spills can occur <u>must</u> have spill prevention and response procedures identified in the SWMP.

A Spill Prevention Control and Countermeasure Plan (SPCC) is provided in Appendix G of this report. The Contractor will provide the materials necessary to clean-up spills in accordance with the SPCC.

Dust will be the major pollution concern, and it will be addressed, as needed, using a water truck to keep area moist. Dust and particulate generating processes will need to be postponed during times of high wind.

On-site waste shall be stored and covered within the designated area shown in Appendix A. The contractor shall remove waste from the site as soon as possible.

All work shall exercise care in fueling and oiling operations. Construction equipment located on the jobsite shall be in proper working order and shall not have leaking fluid or hydraulic hoses. If possible, fueling equipment shall be equipped with automatic shut off capability to prevent the equipment's fuel tank capacity. Equipment Operators shall be instructed to properly dispose of empty grease gun cartridges. When possible, construction equipment that requires routine service shall be serviced prior to bringing the equipment on site, or hauled offsite when service is required. The Construction Contractor shall provide portable toilets and waste disposal receptacles on the jobsite and require construction trash and wastes to be disposed of in a proper manner. Trash shall be stored in the location specified in Appendix A. Trash shall not be permitted to accumulate in the waste receptacles when the containers are full. All waste containers shall be secured to prevent wind from removing lids or blowing over.

No other sources are anticipated for this site. Should a potential contaminant not mentioned above be introduced to the site the SWMP Administrator shall revise this CSWMP to identify the source of the pollutant and procedure for mitigating the impacts to State waters.

5) <u>Dedicated Concrete or Asphalt Batch Plants.</u> The SWMP shall clearly describe and locate all practices implemented at the site to control stormwater pollution from dedicated concrete batch plants or dedicated asphalt batch plants covered by this certification.

No concrete or asphalt batch plants will be implemented for this site.

6) <u>Vehicle Tracking Control.</u> The SWMP shall clearly describe and locate all practices implemented at the site to control potential sediment discharges from vehicle tracking. Practices must be implemented for all areas of potential vehicle tracking, and can include: minimizing site access; street sweeping or scraping; tracking pads; graveled parking areas; requiring that vehicles stay on paved areas on-site; wash racks; contractor education; and/or sediment control BMPs, etc.

Reference Sections 3.B.2, 3.C.1.1 and 3.C.3 of this Stormwater Management Plan for location, description, evaluation and identification of the vehicle tracking control pad.

7) <u>Waste Management and Disposal, Including Concrete Washout.</u> The SWMP shall clearly describe and locate the practices implemented at the site to control stormwater pollution from <u>all</u> construction site wastes (liquid and solid), including concrete washout activities. The practices used for concrete washout must ensure that these activities do not result in the contribution of pollutants associated with the washing activity to stormwater runoff. The SWMP shall clearly describe and locate the practices to be used that will ensure that no washout water from concrete washout activities is discharged from the site as surface runoff or to surface waters.
Trash shall be stored in the location specified in Appendix A. Waste shall be stored in spill proof containers with lids. All waste containers shall be secured to prevent wind from removing lids or blowing over. Trash shall ***NOT*** be permitted to accumulate in the waste receptacles when the containers are full. The contractor shall remove waste from the site as soon as possible. Portable toilets will be provided, staked down, and maintained as prescribed with a maintenance schedule provided on site.
8) <u>Groundwater and Stormwater Dewatering</u>. The SWMP shall clearly describe and locate the practices implemented at the site to control stormwater pollution from the dewatering of groundwater or stormwater from excavations, wells, etc. Part I.D.3.d of the permit authorizes the conditional discharge of construction dewatering to the ground. For any construction dewatering of groundwater not authorized under a separate CDPS discharge permit, the SWMP shall clearly describe and locate the practices to be used that will ensure that no groundwater from construction dewatering is discharged from the site as surface runoff or to surface waters.
No ground water is anticipated for the project. For construction dewatering not meeting the conditions of Part I.D.3.d of the permit the appropriate CDPS permit shall be obtained and indicated in this section.

4. <u>Final Stabilization and Long-term Stormwater Management</u>

A) The SWMP shall clearly describe the practices used to achieve final stabilization of all disturbed areas at the site, and any planned practices to control pollutants in stormwater discharges that will occur after construction operations have been completed at the site. b) Final stabilization practices for obtaining a vegetative cover should include, as appropriate: seed mix selection and application methods; soil preparation and amendments; soil stabilization practices (e.g. crimped straw, hydro mulch or rolled erosion control products); and appropriate sediment control BMPs as needed until final stabilization is achieved; etc.
Final stabilization is reached when all ground surface disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent physical erosion reduction methods have been employed. Final stabilization will be achieved once final grading and landscaping is completed.
B) Final stabilization is reached when all ground surface disturbing activities at the site have been completed, and uniform vegetative cover has been established within an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.
Final stabilization of the project will occur after completion of site landscaping.

5. Inspection and Maintenance Procedures

A) The SWMP shall clearly describe the inspection and maintenance procedures implemented at the site to maintain all erosion and sediment control practices and other protective practices identified in the SWMP, in good and effective operation condition.

1. The minimum inspection schedule will be every 14 days and within 24 hours of precipitation or snowmelt that causes erosion during construction. After the project has been completed, ("completed" is defined in the State Permit Section I.D.6.a.1) inspection frequency may be reduced to once per month. Two other variances are permitted under certain conditions, see the State Permit.
2. The scope of the inspections shall meet the requirements is found in the State Permit Section I.D.6.
3. Inspection Report Form:

INSPECTION REPORT FORM:

This form is to be amended when there is a change in design, construction, operation, or maintenance of the site, which would require the implementation of new or revised BMPs, if the construction SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity, if any interim BMPs are needed to comply with the permit, or when BMPs are determined unnecessary and are removed. All changes shall be in conformance with the State Permit. Changes and insufficiencies found during inspections shall be reflected by revisions to the Construction SWMP. The revisions may include, but are not limited to: potential pollutant source identification; selection of appropriate BMPs for site conditions; BMP maintenance procedures; and interim and final stabilization practices. The Construction SWMP changes may include a schedule for further BMP design and implementation, provided that, if any interim BMPs are needed to comply with the permit, they are also included in the Construction SWMP and implemented during the interim period.

A) INSPECTION DATE:

B) INSPECTOR(S):

NAME:
TITLE:

C) AREAS AND BMPS INSPECTED:

1) GENERAL SITE INSPECTION

AMOUNT OF SITE ROUGHENED:

CONDITION OF ROUGHENING;

IS SLOPE ROUGHENING EFFECTIVE TO ELIMINATE SEDIMENT OR OTHER POLLUTANT DISCHARGE FROM SITE:

POLLUTANTS ON-SITE NOT IDENTIFIED WITHIN CSWMP:

LIST MATERIALS NOT WITHIN STORED MATERIAL AREA:

LIST WASTE AND TRASH NOT WITHIN DESIGNATED AREA:

LIST CONSTRUCTION EQUIPMENT WITH LEAKS, AND/OR UNDER POOR MAINTENANCE:
LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS INTO STATE WATERS:
LOCATION(S) OF BMPS THAT NEED MAINTENANCE:
LOCATION(S) OF BMPS THAT FAIL TO OPERATE AS DESIGNED OR ARE INADEQUATE AT THE PARTICULAR LOCATION:
LOCATION(S) OF ADDITIONAL BMPS REQUIRED THAT WERE NOT INSTALLED AT TIME OF INSPECTION:
WHAT PART(S) OF THE CSWMP NEED TO BE MODIFIED:
CORRECTIVE ACTION(S) REQUIRED:
DATE CORRECTIVE ACTION(S) WAS COMPLETED:
2) PERIMETER CONTROLS
LOCATIONS OF BERMS AND EROSION SWALES INSTALLED:
WAS INSTALLATION ACCORDING TO DETAILS:
DESCRIBE CONDITION OF PERIMETER CONTROLS:
DESCRIBE CONDITION OF EROSION BALES:
CORRECTIVE ACTION(S) REQUIRED:
DATE CORRECTIVE ACTION(S) WAS COMPLETED:
3) VEHICLE TRACKING PAD
IS SEDIMENT ON ASPHALT DRIVE LANE:
CORRECTIVE ACTION(S) REQUIRED:
DATE CORRECTIVE ACTION(S) WAS COMPLETED:
4) INLET/ OUTLET STRUCTURE PROTECTION:
LOCATION(S) OF INLET/OUTLET STRUCTURE PROTECTION WHICH ARE INSTALLED:
WAS INSTALLATION ACCORDING TO DETAILS:
DESCRIBE CONDITION OF EROSION BALES:

SEDIMENT ACCUMULATION:
CORRECTIVE ACTION(S) REQUIRED:
DATE CORRECTIVE ACTION(S) WAS COMPLETED:
5) STORAGE, FUELING, AND TRASH COLLECTION AREA
DESCRIBE GENERAL CONDITION OF AREA INCLUDING MATERIALS IN THE AREA:
IS TRASH ACCUMULATING IN THE AREA:
LIST ALL CONTAINERS WITHOUT SPILL PROOF LIDS TIGHTLY COVERING THEM:
WHAT MATERIALS, TRASH, CHEMICALS, ETC. ARE LOOSE OR SPILLED ON THE GROUND:
CORRECTIVE ACTION(S) REQUIRED:
DATE CORRECTIVE ACTION(S) WAS COMPLETED:
6) STRAW WATTLES
WAS INSTALLATION ACCORDING TO DETAILS:
DESCRIBE CONDITION OF STRAW WATTLES:
SEDIMENT ACCUMULATION:
CORRECTIVE ACTION(S) REQUIRED:
DATE CORRECTIVE ACTION(S) WAS COMPLETED:
By signing below, I affirm that all *adequate corrective action(s) have been taken, and that my inspection of the site does not identify any incidents requiring corrective action:*
PRINT NAME
SIGN
DATE

4. BMP Maintenance

a) Preventive maintenance must be done according to the specifications of the maintenance details of each BMP included in the Structural and Non-Structural BMP section of this permit. These details include tolerances, or levels which sediment must not be allowed to accumulate past, which must be maintained and can be seen Appendix A. After the inspector identifies maintenance needs, they will submit a work order to the contractor. After the contractor performs the work they will notify the

inspector, who will document the date of completion on the inspection report.

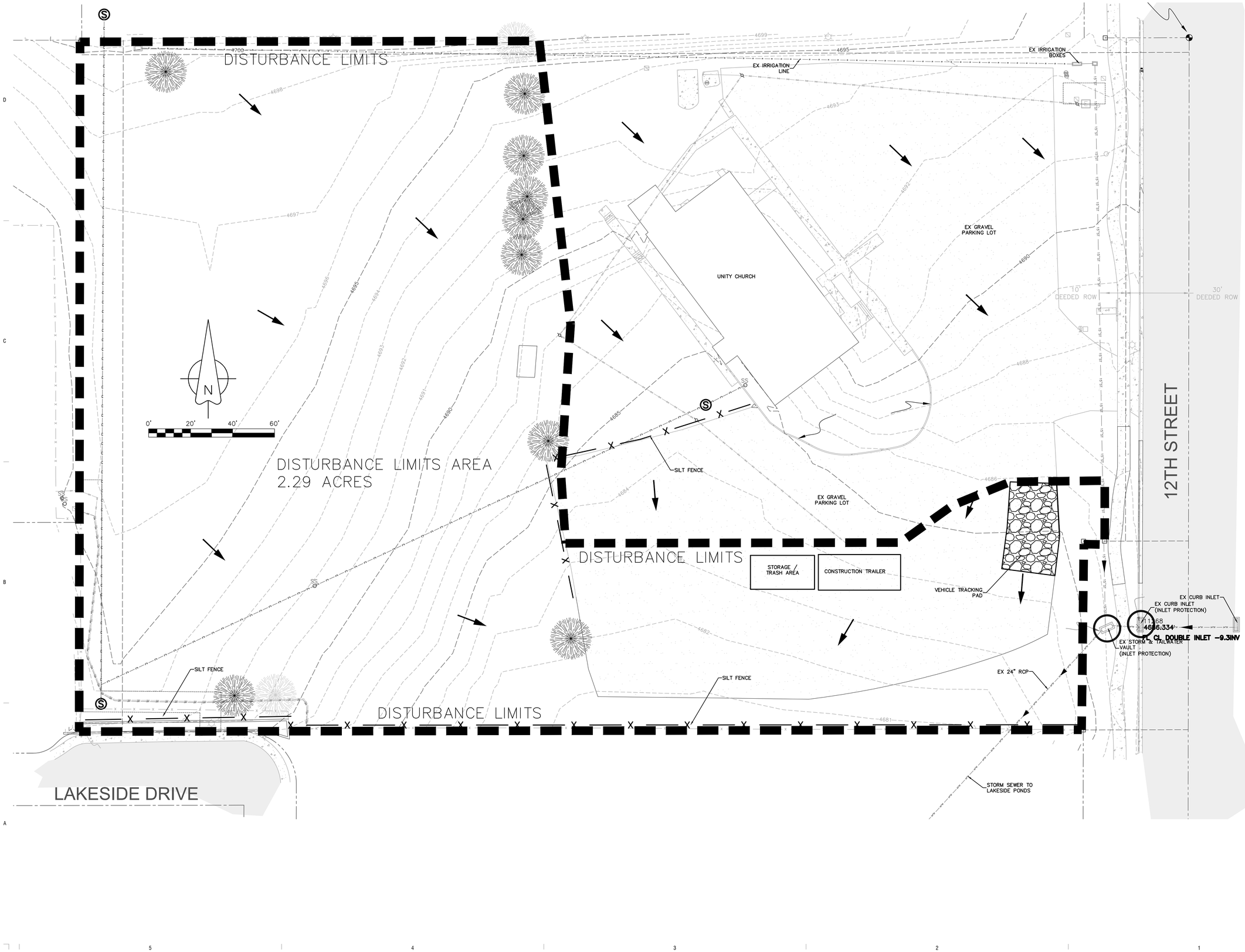
b) Construction SWMP changes addressing BMP installation and/or implementation are often required to be made in response to changing conditions, or when current BMPs are determined ineffective. The majority of Construction SWMP revisions to address these changes can be made immediately with quick in-the-field revisions to the Construction SWMP. In the less common scenario where more complex development of materials to modify the Construction SWMP is necessary, Construction SWMP revisions shall be made in accordance with the following requirements:

i. The Construction SWMP shall be revised as soon as practicable, but in no case more than 72 hours after the change(s) in BMP installation and/or implementation occur at the site,

ii. A notation must be included in the Construction SWMP prior to the site change(s) that includes the time and date of the change(s) in the field, an identification of the BMP(s) removed or added, and the location(s) of those BMP(s).

Appendix A

BMP & DETAILS



shopworks architecture
301 W. 45TH AVE. • DENVER, CO 80216 • 303.433.4088

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL

DRAWN: STS
REVIEWED: STS
PROJECT #: 18007 (ACG-1360.0001)

SHEET TITLE:
BEST MANAGEMENT PLAN

SCALE:

NO. SWMP-1

M:\PROJECTS\13600001 - Karis Multi-Family\Drawings\C3D\Production Drawings\PROD-SWMP.dwg, 3/27/2019 12:26:53 PM, DWG To PDF.pc3

DISTURBANCE LIMITS

FLOWPATH
560 LINEAR FEET
@ AVG 4%

AREA INLET
(INLET PROTECTION)

AREA INLET
(INLET PROTECTION)

AREA INLET
(INLET PROTECTION)

PROPOSED
3-STORY
APARTMENT BUILDING

FLOW PATH
752 LINEAR FEET

CURB INLET
(INLET PROTECTION)

CURB INLET
(INLET PROTECTION)

CURB INLET
(INLET PROTECTION)

SILT FENCE
KEEP UP UNTIL
SLOPE STABILIZES

EX GRAVEL
PARKING LOT

UNITY CHURCH

EX GRAVEL
PARKING LOT

CURB INLET
(INLET PROTECTION)

DISTURBANCE LIMITS

CURB INLET
(INLET PROTECTION)

CURB INLET
(INLET PROTECTION)

ASPHALT PARKING
LOT

ASPHALT DRIVE LANE

FLARED END SECTION
(INLET PROTECTION)

DISCHARGE
INTO POND

OUTLET
STRUCTURE

EX. CURB INLET
(INLET PROTECTION)

11.68
4686.334
FL CL DOUBLE INLET -9.3INV

EX. STORM &
TAILWATER VAULT
(INLET PROTECTION)

DISTURBANCE LIMITS

SILT FENCE
KEEP UP UNTIL LANDSCAPING
ESTABLISHED

STORMWATER DETENTION POND
TOP OF POND: 4683.63
BOTTOM OF POND: 4678.80
100-YEAR WATER SURFACE: 4682.14
TOTAL VOLUME PROVIDED: 7,591 CF
Q10 DISCHARGE: 0.44 CFS
Q100 DISCHARGE: 1.84 CFS

EX 24" RCP
TO LAKESIDE PONDS

LAKESIDE DRIVE

30'
DEEDED ROW

30'
DEEDED ROW

12TH STREET

shopworks architecture
301 W. 45TH AVE • DENVER, CO 80216 • 303.433.4068

KARIS APARTMENTS

3205 North 12th Street
Grand Junction, CO 81506

DATE	DESCRIPTION
3/27/19	CITY SUBMITTAL

DRAWN: STS
REVIEWED: STS
PROJECT #: 18007 (ACG-1360.0001)

SHEET TITLE:
BEST
MANAGEMENT
PLAN

SCALE:

NO.
SWMP-2

M:\PROJECTS\1360.0001 - Karis Multi-Family\Drawings\C3D\Production Drawings\PROD-SWMP2.dwg, 3/27/2019 12:27:12 PM, DWG To PDF.pc3

Silt Fence (SF) SC-1

Description

A silt fence is a woven geotextile fabric attached to wooden posts and trenched into the ground. It is designed as a sediment barrier to intercept sheet flow runoff from disturbed areas.

Photograph SF-1. Silt fence creates a sediment barrier, forcing sheet flow runoff to evaporate or infiltrate.

Appropriate Uses

A silt fence can be used where runoff is conveyed from a disturbed area as sheet flow. Silt fence is not designed to receive concentrated flow or to be used as a filter fabric. Typical uses include:

- Down slope of a disturbed area to accept sheet flow.
- Along the perimeter of a receiving water such as a stream, pond or wetland.
- At the perimeter of a construction site.

Design and Installation

Silt fence should be installed along the contour of slopes so that it intercepts sheet flow. The maximum recommended tributary drainage area per 100 lineal feet of silt fence, installed along the contour, is approximately 0.25 acres with a disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1. Longer and steeper slopes require additional measures. This recommendation only applies to silt fence installed along the contour. Silt fence installed for other uses, such as perimeter control, should be installed in a way that will not produce concentrated flows. For example, a "J-hook" installation may be appropriate to force runoff to pond and evaporate or infiltrate in multiple areas rather than concentrate and cause erosive conditions parallel to the silt fence.

See Detail SF-1 for proper silt fence installation, which involves proper trenching, staking, securing the fabric to the stakes, and backfilling the silt fence. Properly installed silt fence should not be easily pulled out by hand and there should be no gaps between the ground and the fabric.

Silt fence must meet the minimum allowable strength requirements, depth of installation requirement, and other specifications in the design details. Improper installation of silt fence is a common reason for silt fence failure; however, when properly installed and used for the appropriate purposes, it can be highly effective.

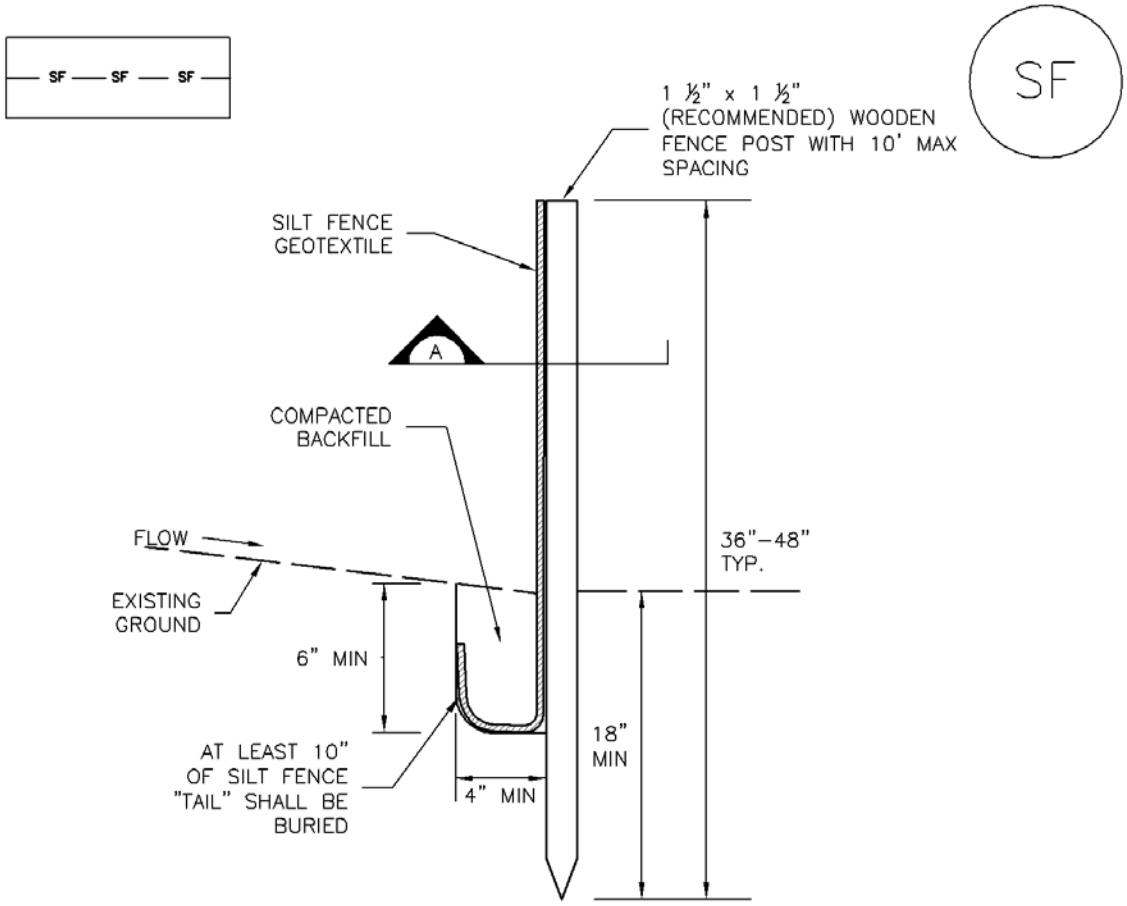
Silt Fence	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No

Maintenance and Removal

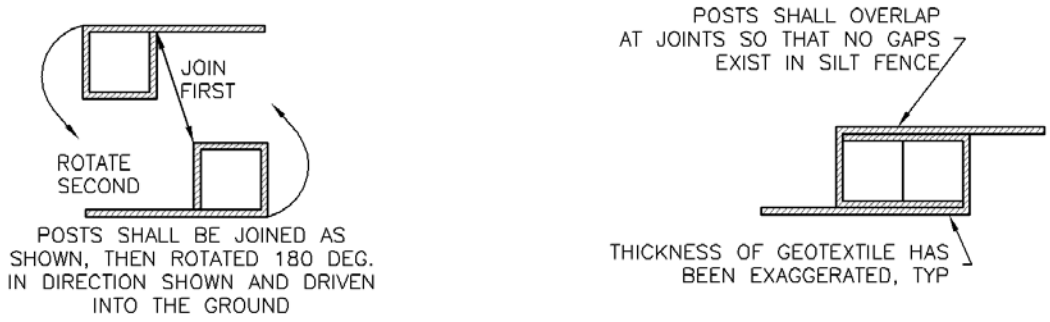
Inspection of silt fence includes observing the material for tears or holes and checking for slumping fence and undercut areas bypassing flows. Repair of silt fence typically involves replacing the damaged section with a new section. Sediment accumulated behind silt fence should be removed, as needed to maintain BMP effectiveness, typically before it reaches a depth of 6 inches.

Silt fence may be removed when the upstream area has reached final stabilization.

Photograph SF-2. When silt fence is not installed along the contour, a "J-hook" installation may be appropriate to ensure that the BMP does not create concentrated flow parallel to the silt fence. Photo courtesy of Tom Gore.



SILT FENCE



SECTION A

SF–1. SILT FENCE

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

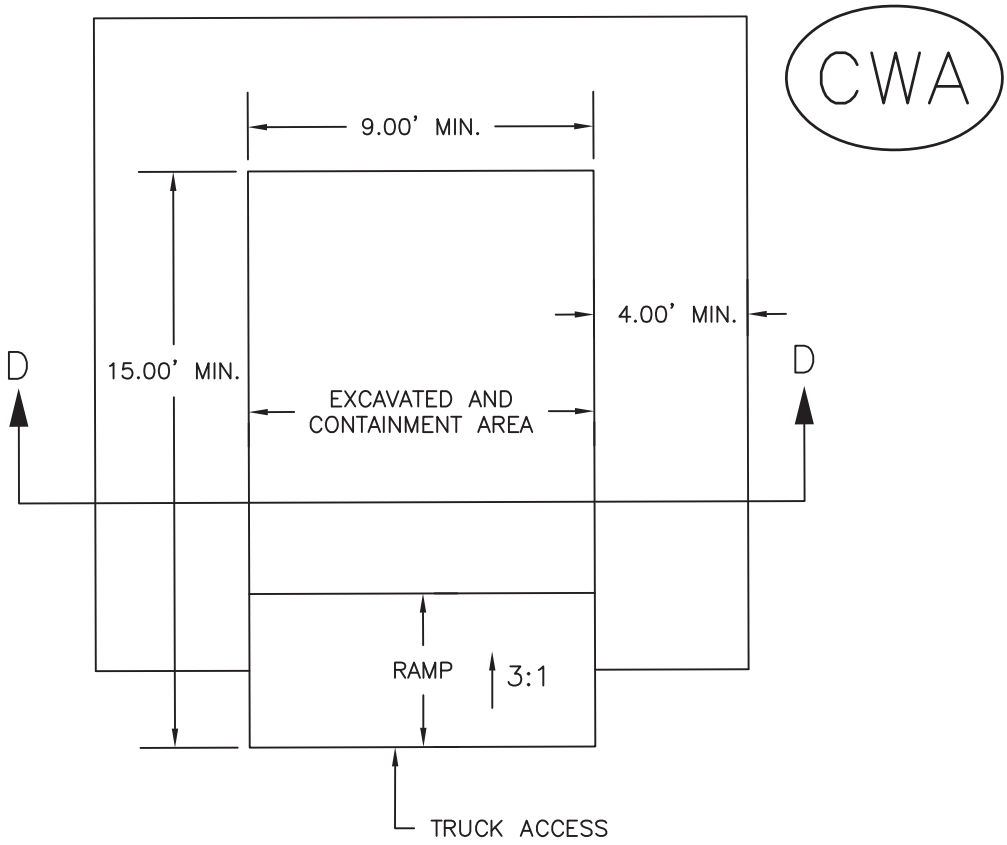
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

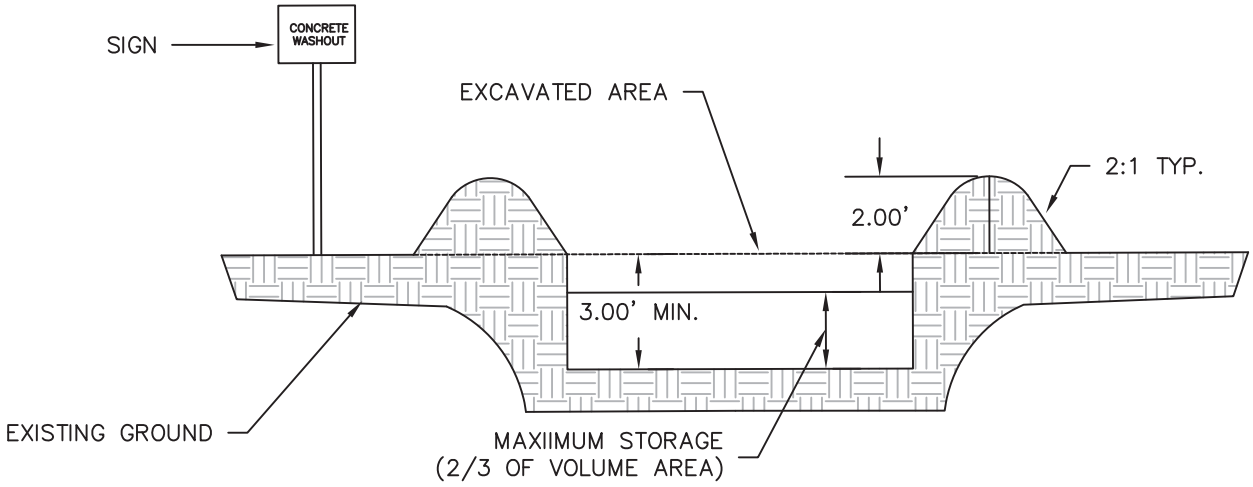
7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



PLAN VIEW



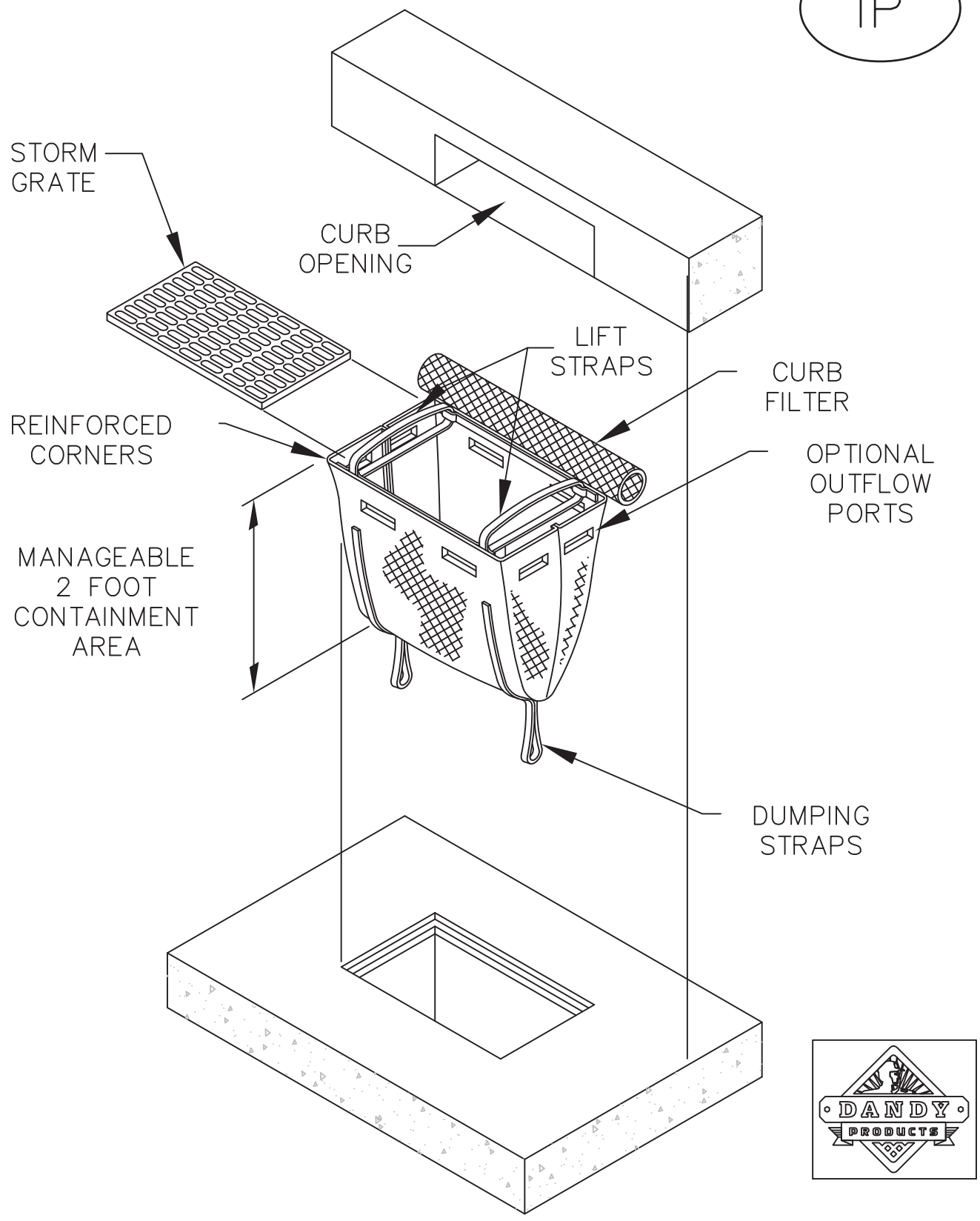
SECTION D–D

CONCRETE WASHOUT STRUCTURE

NOTE:
1. EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.

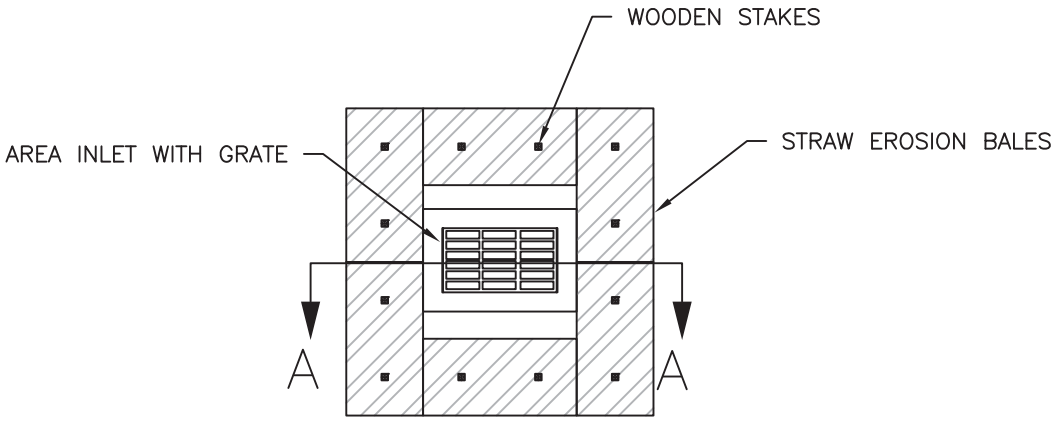
DANDY CURB SACK™

IP

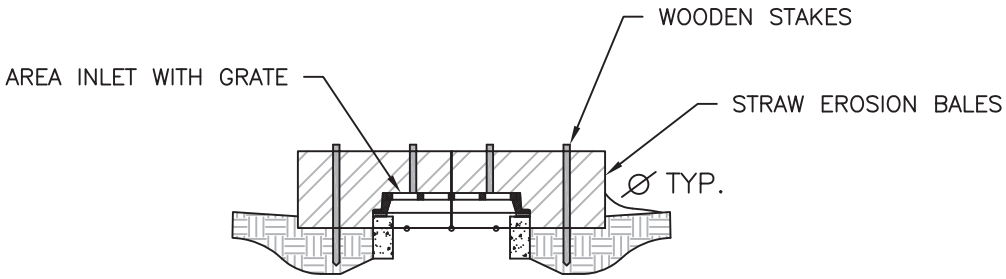


INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

IP



PLAN VIEW



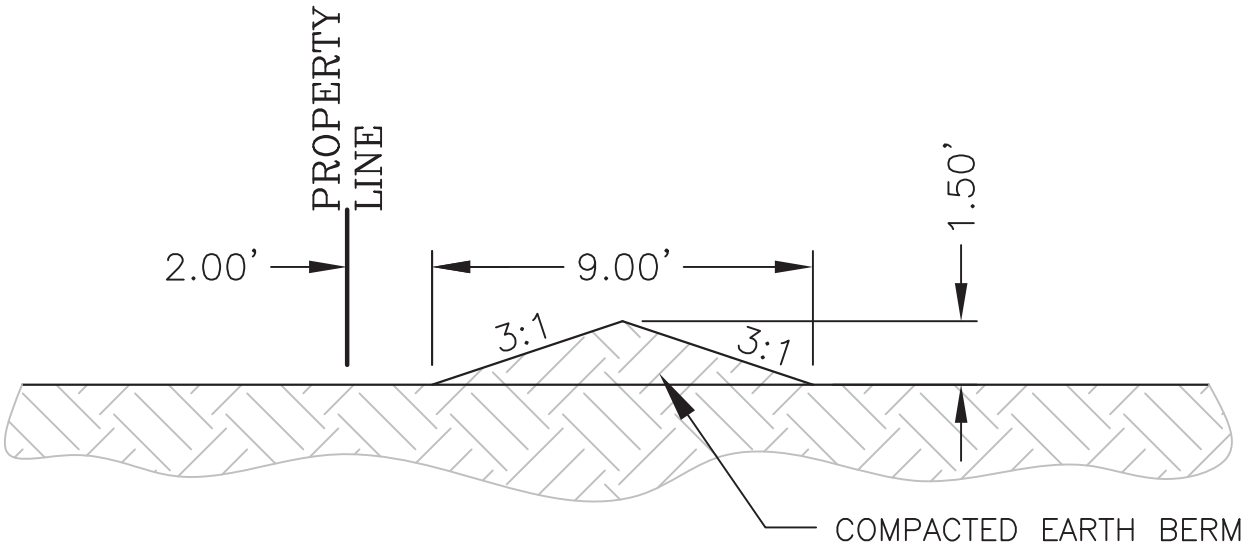
SECTION A–A

INLET EROSION BALE FILTER

NOTE:
EROSION BALES ARE TO BE ENTRENCHED 4 IN. INTO THE SOIL. TIGHTLY ABUTTING WITH NO GAPS, STAKED AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER OF THE GRATE OR SLOPE AND DITCH PAVING.

Ø REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF THE EXPOSED INLET PROTECTION HEIGHT. INSPECTION SHALL BE PERFORMED CONTINUOUSLY FOR PROPER FUNCTION.

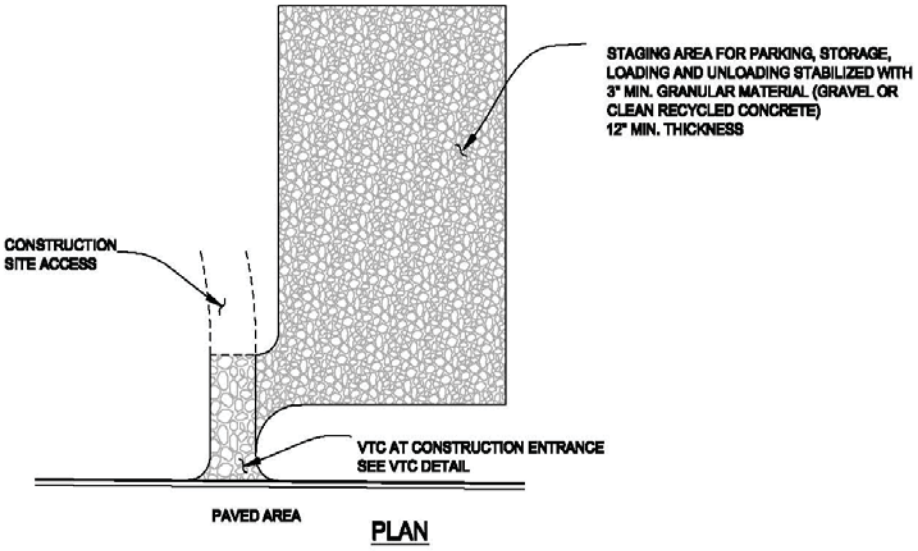
SFB



TYPICAL EROSION CONTROL BERM SECTION

NTS

SSA



PLAN

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH APPROVAL FROM LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.

3. IF REQUIRED BY THE LOCAL JURISDICTION, SITE ACCESS ROADS SHALL BE STABILIZED IN THE SAME MANNER AS THE STAGING AREA.

4. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.

5. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" OF GRANULAR MATERIAL (GRAVEL OR CLEAN RECYCLED CONCRETE).

STABILIZED STAGING AREA MAINTENANCE NOTES

1. THE SWMP MANAGER SHALL INSPECT THE STABILIZED STAGING AREA WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.

2. SWMP MANAGER SHALL PROVIDE ADDITIONAL THICKNESS OF GRANULAR MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

3. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.

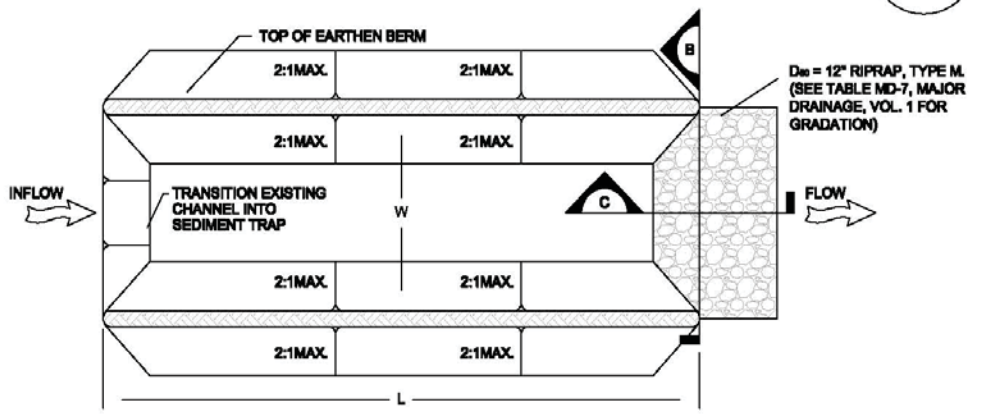
4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.

5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

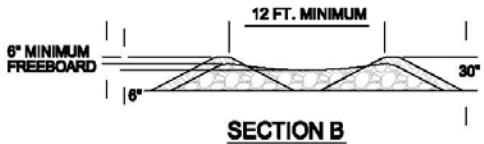
DETAIL BASED ON DETAILS PROVIDED BY DOUGLAS COUNTY

Urban Drainage and Flood Control District Drainage Criteria Manual (V.3)	Figure C3–1 STABILIZED STAGING AREA

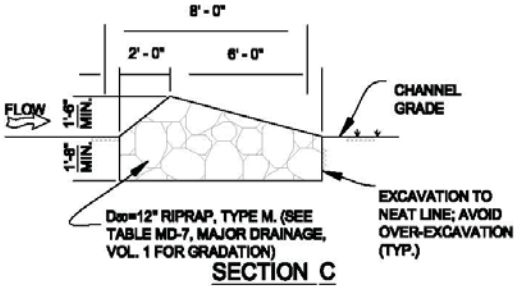
ST



PLAN VIEW



SECTION B



SECTION C

SEDIMENT TRAP INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP.
2. SEDIMENT TRAPS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
4. RIPRAP OUTLET SHALL BE CONSTRUCTED WITH D_{50} =12" RIPRAP (TYPE M, SEE TABLE MD-7, MAJOR DRAINAGE, VOL. 1 FOR GRADATION) WITH A MINIMUM OVERFLOW OF 6".
5. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.
6. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE MINIMUM OF 6" HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE.

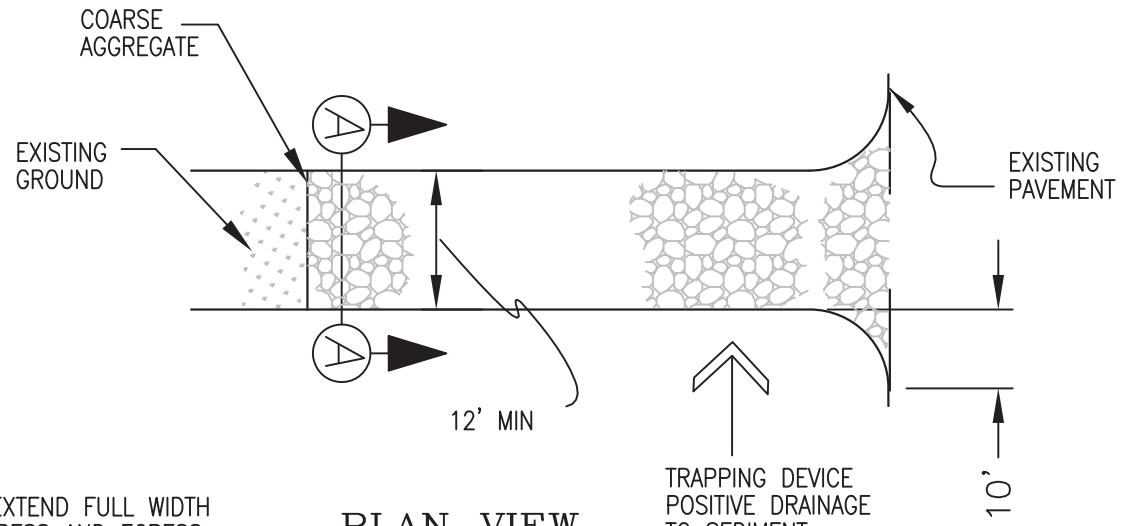
SEDIMENT TRAP MAINTENANCE NOTES

1. THE SWMP MANAGER SHALL INSPECT SEDIMENT TRAPS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF RIPRAP SHALL BE REMOVED WHEN THE UPSTREAM DEPTH IS WITHIN ½ THE HEIGHT OF THE RIPRAP OUTLET STRUCTURE.
3. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVERAGE IS APPROVED BY THE LOCAL JURISDICTION.
4. WHEN SEDIMENT TRAPS ARE REMOVED THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, DRILLED SEEDED AND CRIMP MULCHED OR STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

DETAIL BASED ON DETAILS PROVIDED BY DOUGLAS COUNTY

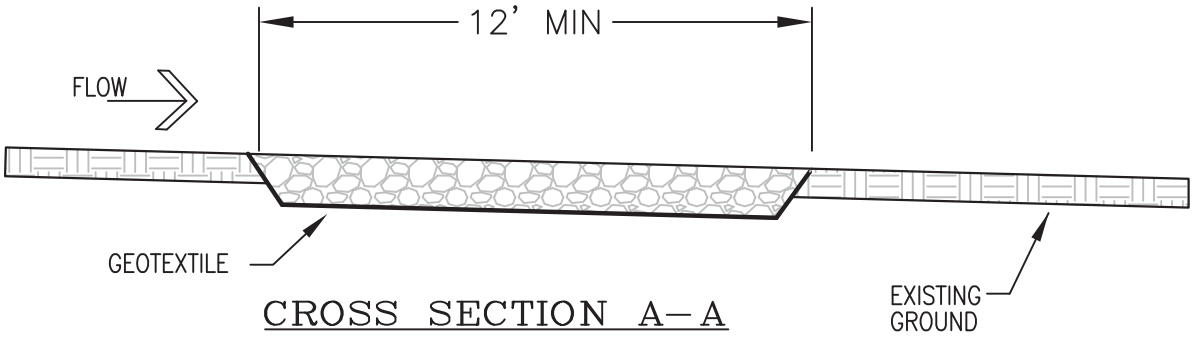
Urban Drainage and Flood Control District Drainage Criteria Manual (V.3)	Figure C5-13 SEDIMENT TRAP

VTC

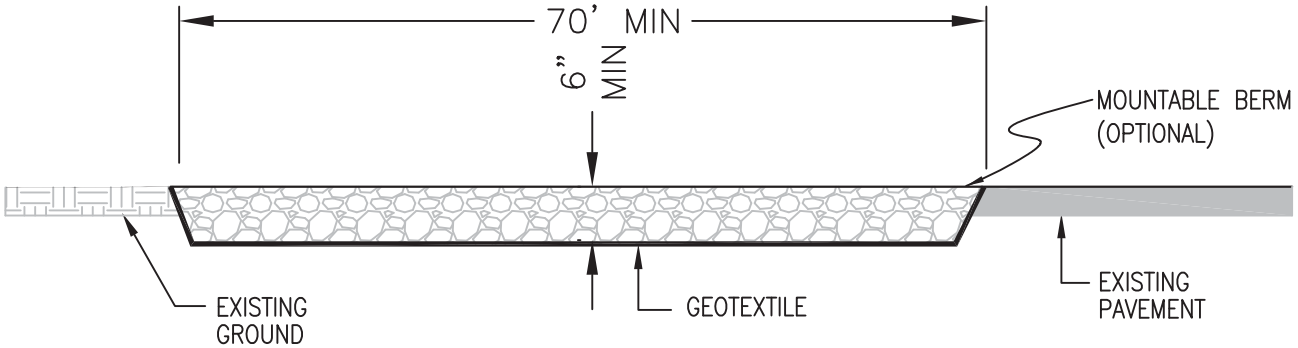


* MUST EXTEND FULL WIDTH OF INGRESS AND EGRESS OPERATION.

PLAN VIEW
NTS



CROSS SECTION A–A



SIDE ELEVATION
NTS

VEHICLE TRACKING PAD
NTS

Rock Sock (RS) SC-5

Description

A rock sock is constructed of gravel that has been wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Rock socks are typically used either as a perimeter control or as part of inlet protection. When placed at angles in the curb line, rock socks are typically referred to as curb socks. Rock socks are intended to trap sediment from stormwater runoff that flows onto roadways as a result of construction activities.

Photograph RS-1. Rock socks placed at regular intervals in a curb line can help reduce sediment loading to storm sewer inlets. Rock socks can also be used as perimeter controls.

Appropriate Uses

Rock socks can be used at the perimeter of a disturbed area to control localized sediment loading. A benefit of rock socks as opposed to other perimeter controls is that they do not have to be trenched or staked into the ground; therefore, they are often used on roadway construction projects where paved surfaces are present.

Use rock socks in inlet protection applications when the construction of a roadway is substantially complete and the roadway has been directly connected to a receiving storm system.

Design and Installation

When rock socks are used as perimeter controls, the maximum recommended tributary drainage area per 100 lineal feet of rock socks is approximately 0.25 acres with disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1. A rock sock design detail and notes are provided in Detail RS-1. Also see the Inlet Protection Fact Sheet for design and installation guidance when rock socks are used for inlet protection and in the curb line.

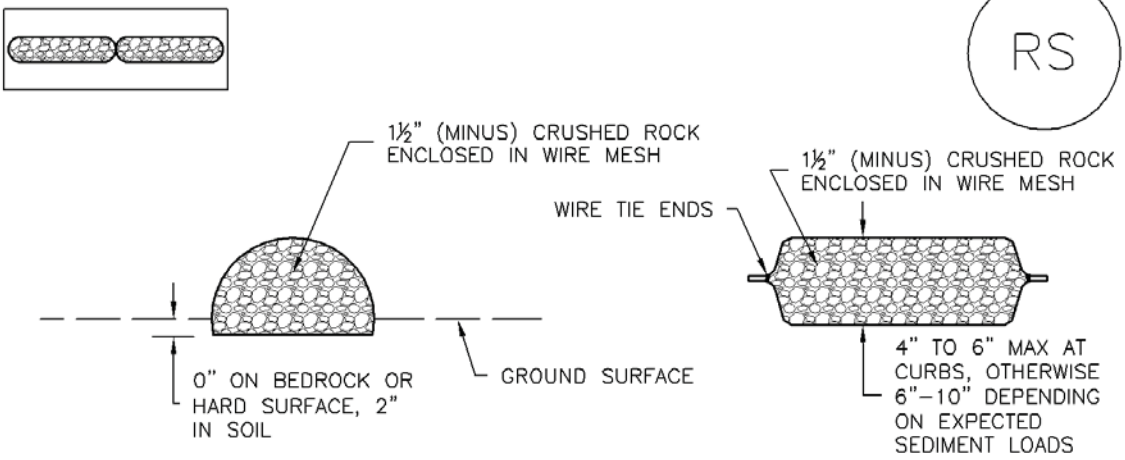
When placed in the gutter adjacent to a curb, rock socks should protrude no more than two feet from the curb in order for traffic to pass safely. If located in a high traffic area, place construction markers to alert drivers and street maintenance workers of their presence.

Maintenance and Removal

Rock socks are susceptible to displacement and breaking due to vehicle traffic. Inspect rock socks for damage and repair or replace as necessary. Remove sediment by sweeping or vacuuming as needed to maintain the functionality of the BMP, typically when sediment has accumulated behind the rock sock to one-half of the sock's height.

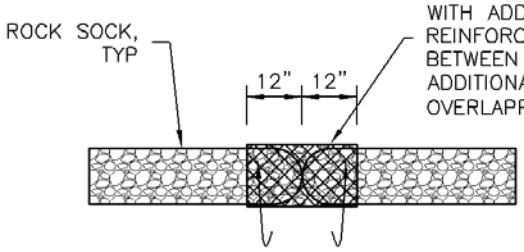
Once upstream stabilization is complete, rock socks and accumulated sediment should be removed and properly disposed.

Rock Sock	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No



ROCK SOCK SECTION

ROCK SOCK PLAN



ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12–INCH OVERLAP) TO AVOID GAPS.

ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

Appendix B

SITE PHOTOS

Appendix C

Spill Prevention Control and Countermeasure Plan

Spill Prevention and Response Plan

Spill Prevention:

Site inspections are done weekly and documented on the Contractor's Site Safety Inspection Report.

When loading, unloading or transferring materials that have a spill potential, employees will:

1. Inspect drums, cartons and containers for leaks.
2. Ensure all containers are labeled and have lids.
3. Ensure all containers are placed in secondary containment if necessary.
4. Store all materials where they will not be damaged by surrounding work, vehicles or equipment.

Spill Response:

In case of a spill, the following actions should be taken:

1. Notify the site superintendent, building owner, etc.
2. Use absorbent material to contain the spill.
3. Cover or block any drains in the spill area to prevent material from entering the sewer, storm water system or septic system.
4. If spill is too large or exceeds the reportable quantities, contact the emergency response agencies below:

911

Emergency Reporting Line 1-877-518-5608

National Spill Response Center 1-800-424-8802

CITY OF GRAND JUNCTION

(03-21-12)

SURVEYOR VERIFICATION INITIAL SUBMITTAL CHECKLIST

(GS = GRAPHIC STANDARDS F = FEATURES)

Plat Name Karis Subdivision

	Yes	N/A
1. A legible scale is indicated and a graphic bar scale included (GS A)	☒	☐
2. Drawing size is 24"x36" (GS B)	☒	☐
3. Margins; 2" minimum left, 1" top, 1/2" bottom and right, minimum (GS B)	☒	☐
4. Minimum text height is 0.08" lower case letter height (GS R)	☒	☐
5. Limits of platted parcel are depicted with a bold, heavy line weight (GS E)	☒	☐
6. North arrow appears on each sheet (GS I)	☒	☐
7. All abbreviations and symbols used on the plat listed in a legend (GS M,N)	☒	☐
8. Match lines used for multiple sheet plats (GS P)	☐	☒
9. A graphical key index map for multiple sheet plats (GS P)	☐	☒
10. Legible site/vicinity map (all major streets or roads within 1/2 mile radius) (F 26)	☒	☐
11. All section, 1/4 section and 1/16 section lines within the plat or used for control are drawn with lightly dashed lines and accurately described (GS K)	☒	☐
12. Plat name in large bold characters in top center of sheet (GS K)	☒	☐
13. Plat name cannot begin with "The", "A", "Replat" or numerals (GS K)	☒	☐
14. All descriptive references shall be placed beneath the plat name (GS K)	☒	☐
15. Crosshatching, if used, neat and legible and doesn't obscure text (GS E)	☐	☒
16. Replats shall not depict existing lots, tracts or parcels (F 27)	☒	☐
17. Improvement survey meeting State and City requirements (F 1)	☒	☐
18. All recorded and apparent rights-of-way and easements are depicted (F 2a)	☒	☐
19. Indicate the source for the recorded easements and rights-of-way (F 2b)	☒	☐
20. Book and page recording information for easements and rights-of-way (F 2b)	☒	☐
21. Easements and rights-of-way completely dimensioned (F 2c)	☒	☐
22. Easements and rights-of-way dimensioned to lot lines and boundaries (F 2c)	☒	☐
23. All easements identified on the Plat (f 2D)	☒	☐
24. Blanket easements noted with all recording information noted (F 2e)	☒	☐
25. All dimensions necessary to establish boundaries in field (F 21)	☒	☐
26. Statement that survey was performed under responsible charge of surveyor (F 22)	☒	☐
27. All interior "excepted" parcels labeled as "NOT PLATTED HEREON" (F 23)	☐	☒
28. A written statement describing the Basis of Bearings (F 3a)	☒	☐

	Yes	N/A
29. Basis of Bearings line graphically depicted and tied to boundary of plat (F 3b)	☒	☐
30. Boundary monuments fully described with size, composition and markings (F 4b)	☒	☐
31. Boundary monuments no further than 1400' apart (F 4c)	☒	☐
32. Monuments set at all angle points and at the beginning and end of curves (F 4f)	☒	☐
33. Witness corners set on line or prolongation thereof (f 4g)	☒	☐
34. Two reference monuments for each corner if not set on line or extension (F 4g)	☐	☒
35. Control monuments shown and identified (F 4h)	☒	☐
36. Monuments set at the boundary intersection of newly dedicated rights-of-way (F 4i)	☐	☒
37. Description references the City, County and State (F 5a)	☒	☐
38. Description references the Section, Township, Range and Meridian (F 5a)	☒	☐
39. Descriptions for replats include recording information of prior plat (F 5b)	☒	☐
40. Descriptions for replats include reference to lots and blocks being replatted	☒	☐
41. Description and boundary is complete and has a mathematical closure of +/- 0.01' (F 5c, 20a)	☒	☐
42. The Point of Commencement and Beginning clearly indicated (F 5d)	☒	☐
43. Conflicts from adjoining descriptions shown and method of resolution noted (F 7a)	☐	☒
44. Physical evidence of boundary conflicts noted (F 7b)	☐	☒
45. Recorded boundary agreements noted and recording information included	☐	☒
46. Dedication language matching approved City Model Language and corresponds with items such as new easements labeled on the plat (GS 2)	☒	☐
47. Consent to subordination for all known lienholders (F 8a)	☒	☐
48. Notary statement for all known lienholders (F 8b)	☒	☐
49. The record owner(s) signature(s) which shall be notarized (F 9a)	☒	☐
50. Statement by owner `that all lienholders appear hereon' or "there are no lienholders of record" (F 9b)	☒	☐
51. Total area of lands being platted noted in acres or square feet (F 10a)	☒	☐
52. Summary table provided, including percentage of the whole (F 10c)	☒	☐
53. Adjoining subdivisions noted with plat title and recording information (F 11a)	☒	☐
54. If Plat includes a portion of a previously recorded plat, sufficient ties to controlling lines (F 11b)	☐	☒
55. All adjoining recorded and apparent easements depicted (F 11c)	☒	☐
56. All adjoining recorded and apparent rights-of-way depicted (F 11c)	☒	☐
57. Width and use of adjoining rights-of-way, easements and reservations (F 11d)	☒	☐

	Yes	N/A
58. Recording information for adjoining rights-of-way, easements & reservations (F 11a)	☒	☐
59. Tabular data of lines and curves on applicable sheet, if possible (F 28)	☒	☐
60. Vertical datum must be referenced to NAVD88, unless otherwise pre-approved (F 12a)	☐	☒
61. Horizontal data shall be the Mesa County Local Coordinate System, unless otherwise pre-approved (F 12b)	☒	☐
62. Title block contains the Section, Township, Range and Meridian (F 13a)	☒	☐
63. The name of the plat appears in the title block (F 13b)	☒	☐
64. Every revision must be dated and noted in the title block (F 13c)	☒	☐
65. All curves must show the delta, arc length, radius, chord bearing and length (F 14a)	☒	☐
66. All non-tangent curves must be identified and labeled (including table data) (F 14b)	☐	☒
67. Blocks and lots numbered consecutively (F 15a)	☒	☐
68. Additional filings, when contiguous, must continue with sequential numbering of lots and blocks from previous filings (F 15b)	☐	☒
69. City Model language on the plat for the City Manager and Mayor to sign (GS T, F 16a)	☒	☐
70. City Model language on the plat for the Title Company to sign (GS T, F 17)	☒	☐
71. City Model language on the plat for the Clerk and Recorder's certificate (GS T, F 16b)	☒	☐
72. City Model language on the plat for any lienholder to sign (GS T, F 8)	☒	☐
73. Proper language on the plat for the Owner(s) to sign (GS T, F 9)	☒	☐
74. Proper language on the Surveyor to sign and seal (GS T, F 6)	☒	☐
75. A "City Use Block" provided for City personnel to use (F 30)	☒	☐
INTERNAL STAFF ITEMS ONLY		
76. Surveyor's Verification Form	☐	☐
77. Plat name does not duplicate the title of an existing plat or is not so nearly the same as an existing plat as to create confusion.	☐	☐
78. Legible copies provided for all documents referenced on the plat	☐	☐
79. Legible copies provided for all documents referenced in the title commitment	☐	☐
80. Legible copies provided of all recorded covenants and restrictions	☐	☐
81. Legible copies provided of all proposed covenants and restrictions	☐	☐
82. Copies of all instruments dedicating non-public easements or tracts	☐	☐
83. Exterior boundary monuments in place	☐	☐
84. Boundary monuments must be embedded in concrete	☐	☐
85. Alternative monumentation anchored in concrete or rock	☐	☐

By: Patrick W. Click

Professional Land Surveyor

P.L.S. Number 37904

Date: Mar 27, 2019

MEMO 4/3/2019

To: Tom Dixon, City of Grand Junction Planning Department
From: Kyle Mead, Shopworks Architecture
Regarding: Karis Apartments – Alternative Parking Plan

CC: File

architecture

Message

Tom,

The proposed Karis Apartments, located at 3175 N. 12th street, proposes to use reduced parking ratios from those identified in section 21.06.050 of the City of Grand Junction Development Regulations. We propose to provide 25 total parking stalls (23 standard stalls, and 2 ADA accessible parking stalls). All stalls will conform with the City of Grand Junction design requirements. This memo is to serve as rationale for this request in accordance with *21.06.050 (e) Alternative Parking Plan*.

We believe that a reduced quantity of parking stalls is appropriate for this project based on a combination of factors, including national data, location of the site, project specific demand, and overall impact on the quality of the project.

Our office has experience analyzing parking demand for affordable housing projects and has employed the services of transportation engineering firms in the past to conduct studies specific to affordable multi-unit apartment projects. These studies generally cite a few means of calculating parking demand specific to affordable housing projects.

The first of these methods is a calculation developed by the Institute of Transportation Engineers, *Parking Generation (4th Edition)*, whereby Peak Parking demand = 0.92x + 4; where x equals the number of dwelling units (DU). Applying this formula to our project = 0.92(34) + 4 = 35 spaces; however, traffic engineers conclude that of the 40 sites studied to generate this calculation method, only 4 were considered affordable housing. Thus, this method tends to be conservatively high for use in calculating affordable housing demand.

The second method is generated from the *San Diego Affordable Housing Parking Study* which was commissioned by the City of San Diego and examined 265 projects including 21 affordable projects. The results represent the most comprehensive data collection of affordable housing projects in the country, and the found that in affordable housing projects, demand was around half of what market-rate apartments experienced, and nearly half of the dwelling units had no vehicle at all. The study resulted in a calculation method for affordable housing based on the 'walkability' of a site. For the purposes of this analysis, we considered the Karis Apartments a 'medium' walkable site because of the proximity to commercial amenities downtown, and the adjacency to the Route 1 bus line and multi-modal routes along 12th St. and Horizon Dr. For medium walkable sites, the San Diego model provides parking ratios of 0.5/DU, 0.15/DU, and 0.05/DU for resident, visitor, and staff parking respectively. Applying this formula to the proposed 34 one-bedroom apartments = (34 x 0.5) + (34 x 0.15) + (34 x 0.05) = 23.7 spaces.

The third method is based on findings from a study commissioned by the City of Los Angeles intended to inform parking requirements for municipal guidelines related to Affordable Housing projects. The findings of the studies found that again, based on walkability and proximity to transit, affordable housing parking ratios ranged between 0.29/DU to 0.43/DU. Applying this calculation to our project, we find that 34 x 0.29 = 10 and 34 x 0.15, or an average of 12.5 spaces.

2882 Wyandot St. Denver, CO 80211 303 433-4094
shopworks

architecture

Finally, we surveyed the existing Karis facilities for current parking demand, and tabulated the anticipated trips generated to the site by staff, service providers and partners. This study found that on average 10% of residents would own a vehicle, and that various staff and service providers would visit the site on a daily, weekly, and monthly basis. We found that if every service provider, plus 10 % of residents had a vehicle on site at the same exact time, the parking demand would be 28 spaces. However, the likelihood of this happening is very unlikely given the nature in which service providers are staggered throughout the month. This information is presented in an attached table.

In conclusion, we believe that the 25 proposed spaces are adequate and appropriate for the Karis Apartments. We believe this is supported by the four different means of analysis presented here, which suggest the parking demand for this project to be between 12.5 spaces and 35 spaces, or an average of 24 spaces.

Please let me know if you have any questions about this analysis.

Thank you,

Kyle Mead
Shopworks Architecture

End of Memo

Karis Parking Statistics

Frequency of visits	**9a-5p M-F**	Daily	Weekly	Monthly		**weekends/nights**
Partner						
DHS			1			
WestCAP				2		
Medicaid HW						
Substance use CM			2			
Cooking matters			1			
MH Case Mngr				2		
Parents as Teachers						
Staff						
Peer Specialist		1.5				1.5 (24 hrs per day)
Leasing			3			
Maintenance			3			
Services		2				1 (8 hrs. per day)
Nurse			1			
Residents						
10%		4				4
Visitor/Volunteers						
Youth Advocate			1			1x per week
Program Coor.			4			
Totals		**7.5**	**16**	**4**		6.5
						1 additional per wk

Breakout

Daily M-F 8-5 8 cars

Maximum 28

*It would be rare to have every partner/ staff/resident on site with cars at the same time

*Most partner visits will happen between 10a-4p during non-peak hours

Off peak hours 8 cars

COLDWELL BANKER COMMERCIAL PRIME PROPERTIES

Coldwell Banker Commercial Prime Properties
Mike Foster mfoster@cbcwest.com
Ph: 970-244-6602

The printed portions of this form, except differentiated additions, have been approved by the Colorado Real Estate Commission.(CBS4-6-15) (Mandatory 1-16)

THIS FORM HAS IMPORTANT LEGAL CONSEQUENCES AND THE PARTIES SHOULD CONSULT LEGAL AND TAX OR OTHER COUNSEL BEFORE SIGNING.

CONTRACT TO BUY AND SELL REAL ESTATE
(LAND)
(☒ Property with No Residences)
(☐ Property with Residences-Residential Addendum Attached)

Date: ***5/1/2018***

AGREEMENT

1. AGREEMENT. Buyer agrees to buy and Seller agrees to sell, the Property described below on the terms and conditions set forth in this contract (Contract).

2. PARTIES AND PROPERTY.

2.1. Buyer. Buyer, ***Blueline Development, Inc.*** , will take title to the Property described below as ☐ **Joint Tenants** ☐ **Tenants In Common** ☒ **Other** ***Corporation***.

2.2. No Assignability. This Contract **Is Not** assignable by Buyer unless otherwise specified in **Additional Provisions**.

2.3. Seller. Seller, ***Unity Church*** , is the current owner of the Property described below.

2.4. Property. The Property is the following legally described real estate in the County of ***Mesa***, Colorado:

Beg. at a point from whence the NE corner pf the SE 1/4 of Sec. 2, T1S, R1W ofthe UM bears S 89 degrees 99` E 310ft. and due N a distance of 330 ft., th from said point of beg. N89 degrees 59` W 218 ft, th due N 330 ft, th S 89 degrees 59` E 218 ft, th due S 330 ft, AND

Com. at a point from whence the E 1/2 corner of Sec. 2, T1S. R1W of the UM bears N a distance of 330 ft, and running th from said point of beg. N 89 degrees 59` W 310 ft, th due N 90 ft, th S 89 degrees 59` E 310 ft, th due S 90 ft. to the point of beginning. As shown on the Attached Exhibit A

known as No. ***3205 N 12th Street, Grand Junction, CO 81506***,
together with the interests, easements, rights, benefits, improvements and attached fixtures appurtenant thereto, and all interest of Seller in vacated streets and alleys adjacent thereto, except as herein excluded (Property).

~~**2.5. Inclusions.** The Purchase Price includes the following items (Inclusions):~~
~~**2.5.1. Inclusions.** The following items, whether fixtures or personal property, are included in the Purchase Price unless excluded under **Exclusions**:~~
N/A ~~If any additional items are attached to the Property after the date of this Contract, such additional items are also included in the Purchase Price.~~
~~**2.5.2. Personal Property - Conveyance.** Any personal property must be conveyed at Closing by Seller free and clear of all taxes (except personal property taxes for the year of Closing), liens and encumbrances, except~~ ***N/A***.

Conveyance of all personal property will be by bill of sale or other applicable legal instrument.

2.6. Exclusions. The following items are excluded (Exclusions): ***N/A***

2.7. Water Rights, Well Rights, Water and Sewer Taps.

☐ **2.7.1. Deeded Water Rights.** The following legally described water rights:

N/A

Any deeded water rights will be conveyed by a good and sufficient ***n/a*** deed at Closing.

☐ **2.7.2. Other Rights Relating to Water.** The following rights relating to water not included in §§ 2.7.1, 2.7.3, 2.7.4 and 2.7.5, will be transferred to Buyer at Closing: ***N/A***

☐ ~~**2.7.3. Well Rights.** Seller agrees to supply required information to Buyer about the well. Buyer understands that if the well to be transferred is a "Small Capacity Well" or a "Domestic Exempt Water Well," used for ordinary household purposes, Buyer must, prior to or at Closing, complete a Change in Ownership form for the well. If an existing well has not been registered with the Colorado Division of Water Resources in the Department of Natural Resources (Division), Buyer must complete a registration of existing well form for the well and pay the cost of registration. If no person will be providing a closing service in connection with the transaction, Buyer must file the form with the Division within sixty days after Closing. The Well Permit # is ***n/a***.~~

☐ **2.7.4. Water Stock Certificates.** The water stock certificates to be transferred at Closing are as follows: ***N/A***

2.7.5. Water and Sewer Taps. The parties agree that water and sewer taps listed below for the Property are being conveyed as part of the Purchase Price as follows: ***N/A***

If any water or sewer taps are included in the sale, Buyer is advised to obtain, from the provider, written confirmation of the amount remaining to be paid, if any, time and other restrictions for transfer and use of the taps.

2.7.6. Conveyance. If Buyer is to receive any rights to water pursuant to § 2.7.2 (Other Rights Relating to Water), § 2.7.3 (Well Rights), or § 2.7.4 (Water Stock Certificates), Seller agrees to convey such rights to Buyer by executing the applicable legal instrument at Closing.

2.8. Growing Crops. With respect to growing crops, Seller and Buyer agree as follows:

N/A

3. DATES AND DEADLINES.

Item No.	Reference	Event	Date or Deadline	
1	§4.3	Alternative Earnest Money Deadline	***MEC + 10 Days***	
		Title		
2	§8.1	Record Title Deadline	***MEC + 10 Days***	
3	§8.2	Record Title Objection Deadline	***MEC + 60 Days***	
4	§8.3	Off-Record Title Deadline	***MEC + 10 Days***	
5	§8.3	Off-Record Title Objection Deadline	***MEC + 60 Days***	
6	§8.4	Title Resolution Deadline	***MEC + 90 Days***	
7	§8.6	Right of First Refusal Deadline	***N/A***	
		Owners' Association		
8	§7.3	Association Documents Deadline	***N/A***	
9	§7.4	Association Documents Objection Deadline	***N/A***	
		Seller's Property Disclosure		
10	§10.1	Seller's Property Disclosure Deadline	***N/A***	
		Loan and Credit		
11	§5.1	Loan Application Deadline	***N/A***	
12	§5.2	Loan Objection Deadline	***N/A***	
13	§5.3	Buyer's Credit Information Deadline	***N/A***	

14	§5.3	Disapproval of Buyer's Credit Information Deadline	***N/A***	
15	§5.4	Existing Loan Documents Deadline	***N/A***	
16	§5.4	Existing Loan Documents Objection Deadline	***N/A***	
17	§5.4	Loan Transfer Approval Deadline	***N/A***	
18	§4.7	Seller or Private Financing Deadline	***N/A***	
		Appraisal		
19	§6.2	Appraisal Deadline	***MEC + 180 Days***	
20	§6.2	Appraisal Objection Deadline	***MEC + 180 Days***	
21	§6.2	Appraisal Resolution Deadline	***MEC + 180 Days***	
		Survey		
22	§9.1	New ILC or New Survey Deadline	***MEC + 180 Days***	
23	§9.3	New ILC or New Survey Objection Deadline	***MEC + 180 Days***	
24	§9.4	New ILC or New Survey Resolution Deadline	***MEc + 180 Days***	
		Inspection and Due Diligence		
25	§10.3	Inspection Objection Deadline	***MEC + 180 Days***	
26	§10.3	Inspection Resolution Deadline	***MEC + 180 Days***	
27	§10.5	Property Insurance Objection Deadline	***N/A***	
28	§10.6	Due Diligence Documents Delivery Deadline	***MEC + 10 Days***	
29	§10.6	Due Diligence Documents Objection Deadline	***MEC + 180 Days***	
30	§10.6	Due Diligence Documents Resolution Deadline	***MEC + 180 Days***	
31	§10.6	Environmental Inspection Objection Deadline	***MEC + 180 Days***	
32	§10.6	ADA Evaluation Objection Deadline	***N/A***	
33	§10.7	Conditional Sale Deadline	***N/A***	
34	§11.1	Tenant Estoppel Statements Deadline	***N/A***	
35	§11.2	Tenant Estoppel Statements Objection Deadline	***N/A***	
		Closing and Possession		
36	§12.3	Closing Date	***9/10/2019***	Tuesday
37	§17	Possession Date	***Date of Closing***	
38	§17	Possession Time	***Time of Closing***	
39	§28	**Acceptance Deadline Date** 5/20/2018	***5/18/2018***	Wednesday
40	§28	**Acceptance Deadline Time**	***5 PM***	
41	***n/a***	***n/a*** KG	***n/a***	
42	***n/a***	***n/a***	***n/a***	

3.1. Applicability of Terms. Any box checked in this Contract means the corresponding provision applies. Any box, blank or line in this Contract left blank or completed with the abbreviation "N/A", or the word "Deleted" means such provision, including any deadline, is not applicable and the corresponding provision of this Contract to which reference is made is deleted. If no box is checked in a provision that contains a selection of "None", such provision means that "None" applies.

The abbreviation "MEC" (mutual execution of this Contract) means the date upon which both parties have signed this Contract.

4. PURCHASE PRICE AND TERMS.

4.1. Price and Terms. The Purchase Price set forth below is payable in U.S. Dollars by Buyer as follows:

Item No.	Reference	Item	Amount	Amount
1	§ 4.1	Purchase Price	***$449,000.00***	
2	§ 4.3	Earnest Money		***$10,000.00***
3	§ 4.5	New Loan		
4	§ 4.6	Assumption Balance		
5	§ 4.7	Private Financing		
6	§ 4.7	Seller Financing		
7	***n/a***	***n/a***		
8	***n/a***	***n/a***		
9	§ 4.4	Cash at Closing		***$439,000.00***
10		**TOTAL**	***$449,000.00***	***$449,000.00***

4.2. Seller Concession. At Closing, Seller will credit to Buyer $ ***n/a*** ~~(Seller Concession). The Seller Concession may be used for any Buyer fee, cost, charge or expenditure to the extent the amount is allowed by the Buyer's lender and is included in the Closing Statement or Closing Disclosure, at Closing. Examples of allowable items to be paid for by the Seller Concession include, but are not limited to: Buyer's closing costs, loan discount points, loan origination fees, prepaid items and any other fee, cost, charge, expense or expenditure. Seller Concession is in addition to any sum Seller has agreed to pay or credit Buyer elsewhere in this Contract.~~

4.3. Earnest Money. The Earnest Money set forth in this section, in the form of a ***check***, will be payable to and held by ***the Title Company*** (Earnest Money Holder), in its trust account, on behalf of both Seller and Buyer. The Earnest Money deposit must be tendered, by Buyer, with this Contract unless the parties mutually agree to an **Alternative Earnest Money Deadline** for its payment. The parties authorize delivery of the Earnest Money deposit to the company conducting the Closing (Closing Company), if any, at or before Closing. In the event Earnest Money Holder has agreed to have interest on Earnest Money deposits transferred to a fund established for the purpose of providing affordable housing to Colorado residents, Seller and Buyer acknowledge and agree that any interest accruing on the Earnest Money deposited with the Earnest Money Holder in this transaction will be transferred to such fund.

4.3.1. Alternative Earnest Money Deadline. The deadline for delivering the Earnest Money, if other than at the time of tender of this Contract, is as set forth as the **Alternative Earnest Money Deadline**.

4.3.2. Return of Earnest Money. If Buyer has a Right to Terminate and timely terminates, Buyer is entitled to the return of Earnest Money as provided in this Contract. If this Contract is terminated as set forth in § 25 and, except as provided in § 24, if the Earnest Money has not already been returned following receipt of a Notice to Terminate, Seller agrees to execute and return to Buyer or Broker working with Buyer, written mutual instructions (e.g., Earnest Money Release form), within three days of Seller's receipt of such form.

4.4. Form of Funds; Time of Payment; Available Funds.

4.4.1. Good Funds. All amounts payable by the parties at Closing, including any loan proceeds, Cash at Closing and closing costs, must be in funds that comply with all applicable Colorado laws, including electronic transfer funds, certified check, savings and loan teller's check and cashier's check (Good Funds).

4.4.2. Time of Payment; Available Funds. All funds, including the Purchase Price to be paid by Buyer, must be paid before or at Closing or as otherwise agreed in writing between the parties to allow disbursement by Closing Company at Closing **OR SUCH NONPAYING PARTY WILL BE IN DEFAULT**. Buyer represents that Buyer, as of the date of this Contract, ☐ **Does** ☒ **Does Not** have funds that are immediately verifiable and available in an amount not less than the amount stated as Cash at Closing in § 4.1.

4.5. New Loan. (Omitted as inapplicable)

4.6. Assumption. (Omitted as inapplicable)

4.7. Seller or Private Financing. (Omitted as inapplicable)

TRANSACTION PROVISIONS

5. FINANCING CONDITIONS AND OBLIGATIONS. (Omitted as inapplicable)

5.3. Credit Information and Buyer's New Senior Loan. (Omitted as inapplicable)

5.4. Existing Loan Review. (Omitted as inapplicable)

6. APPRAISAL PROVISIONS.

6.1. Appraisal Definition. An "Appraisal" is an opinion of value prepared by a licensed or certified appraiser, engaged on behalf of Buyer or Buyer's lender, to determine the Property's market value (Appraised Value). The Appraisal may also set forth certain lender requirements, replacements, removals or repairs necessary on or to the Property as a condition for the Property to be valued at the Appraised Value.

6.2. Appraisal Condition. The applicable appraisal provision set forth below applies to the respective loan type set forth in § 4.5.3, or if a cash transaction (i.e. no financing), § 6.2.1 applies.

6.2.1. Conventional/Other. Buyer has the right to obtain an Appraisal. If the Appraised Value is less than the Purchase Price, or if the Appraisal is not received by Buyer on or before **Appraisal Deadline** Buyer may, on or before **Appraisal Objection Deadline**, notwithstanding § 8.3 or § 13:

6.2.1.1. Notice to Terminate. Notify Seller in writing that this Contract is terminated; or

6.2.1.2. Appraisal Objection. Deliver to Seller a written objection accompanied by either a copy of the Appraisal or written notice from lender that confirms the Appraisal Value is less than the Purchase Price.

6.2.1.3. Appraisal Resolution. If an Appraisal Objection is received by Seller, on or before **Appraisal Objection Deadline**, and if Buyer and Seller have not agreed in writing to a settlement thereof on or before **Appraisal Resolution Deadline** (§ 3), this Contract will terminate on the **Appraisal Resolution Deadline**, unless Seller receives Buyer's written withdrawal of the Appraisal Objection before such termination, i.e., on or before expiration of **Appraisal Resolution Deadline**.

6.3. Lender Property Requirements. If the lender imposes any requirements, replacements, removals or repairs, including any specified in the Appraisal (Lender Requirements) to be made to the Property (e.g., roof repair, repainting), beyond those matters already agreed to by Seller in this Contract, Seller has the Right to Terminate under § 25.1, (notwithstanding § 10 of this Contract), on or before three days following Seller's receipt of the Lender Requirements, in Seller's sole subjective discretion. Seller's Right to Terminate in this § 6.3 does not apply if, on or before any termination by Seller pursuant to this § 6.3: (1) the parties enter into a written agreement regarding the Lender Requirements; or (2) the Lender Requirements have been completed; or (3) the satisfaction of the Lender Requirements is waived in writing by Buyer.

6.4. Cost of Appraisal. Cost of the Appraisal to be obtained after the date of this Contract must be timely paid by ☒ **Buyer** ☐ **Seller**. The cost of the Appraisal may include any and all fees paid to the appraiser, appraisal management company, lender's agent or all three.

~~**7. OWNERS' ASSOCIATION. This Section is applicable if the Property is located within a Common Interest Community and subject to such declaration.**~~

~~**7.1. Common Interest Community Disclosure. THE PROPERTY IS LOCATED WITHIN A COMMON INTEREST COMMUNITY AND IS SUBJECT TO THE DECLARATION FOR THE COMMUNITY. THE OWNER OF THE PROPERTY WILL BE REQUIRED TO BE A MEMBER OF THE OWNERS' ASSOCIATION FOR THE COMMUNITY AND WILL BE SUBJECT TO THE BYLAWS AND RULES AND REGULATIONS OF THE ASSOCIATION. THE DECLARATION, BYLAWS, AND RULES AND REGULATIONS WILL IMPOSE FINANCIAL OBLIGATIONS UPON THE OWNER OF THE PROPERTY, INCLUDING AN OBLIGATION TO PAY ASSESSMENTS OF THE ASSOCIATION. IF THE OWNER DOES NOT PAY THESE ASSESSMENTS, THE ASSOCIATION COULD PLACE A LIEN ON THE PROPERTY AND POSSIBLY SELL IT TO PAY THE DEBT. THE DECLARATION, BYLAWS, AND RULES AND REGULATIONS**~~

~~OF THE COMMUNITY MAY PROHIBIT THE OWNER FROM MAKING CHANGES TO THE PROPERTY WITHOUT AN ARCHITECTURAL REVIEW BY THE ASSOCIATION (OR A COMMITTEE OF THE ASSOCIATION) AND THE APPROVAL OF THE ASSOCIATION. PURCHASERS OF PROPERTY WITHIN THE COMMON INTEREST COMMUNITY SHOULD INVESTIGATE THE FINANCIAL OBLIGATIONS OF MEMBERS OF THE ASSOCIATION. PURCHASERS SHOULD CAREFULLY READ THE DECLARATION FOR THE COMMUNITY AND THE BYLAWS AND RULES AND REGULATIONS OF THE ASSOCIATION.~~

~~**7.2. Owners' Association Documents.** Owners' Association Documents (Association Documents) consist of the following:~~

~~**7.2.1.** All Owners' Association declarations, articles of incorporation, bylaws, articles of organization, operating agreements, rules and regulations, party wall agreements;~~

~~**7.2.2.** Minutes of most recent annual owners' meeting;~~

~~**7.2.3.** Minutes of any directors' or managers' meetings during the six-month period immediately preceding the date of this Contract. If none of the preceding minutes exist, then the most recent minutes, if any (§§ 7.2.1, 7.2.2 and 7.2.3, collectively, Governing Documents); and~~

~~**7.2.4.** The most recent financial documents which consist of: (1) annual and most recent balance sheet, (2) annual and most recent income and expenditures statement, (3) annual budget, (4) reserve study, and (5) notice of unpaid assessments, if any (collectively, Financial Documents).~~

~~**7.3. Association Documents to Buyer.**~~

~~**7.3.1. Seller to Provide Association Documents.** Seller is obligated to provide to Buyer the Association Documents, at Seller's expense, on or before **Association Documents Deadline**. Seller authorizes the Association to provide the Association Documents to Buyer, at Seller's expense. Seller's obligation to provide the Association Documents is fulfilled upon Buyer's receipt of the Association Documents, regardless of who provides such documents.~~

~~**7.4. Conditional on Buyer's Review.** Buyer has the right to review the Association Documents. Buyer has the Right to Terminate under § 25.1, on or before **Association Documents Objection Deadline**, based on any unsatisfactory provision in any of the Association Documents, in Buyer's sole subjective discretion. Should Buyer receive the Association Documents after **Association Documents Deadline**, Buyer, at Buyer's option, has the Right to Terminate under § 25.1 by Buyer's Notice to Terminate received by Seller on or before ten days after Buyer's receipt of the Association Documents. If Buyer does not receive the Association Documents, or if Buyer's Notice to Terminate would otherwise be required to be received by Seller after **Closing Date**, Buyer's Notice to Terminate must be received by Seller on or before Closing. If Seller does not receive Buyer's Notice to Terminate within such time, Buyer accepts the provisions of the Association Documents as satisfactory, and Buyer waives any Right to Terminate under this provision, notwithstanding the provisions of § 8.6 (Right of First Refusal or Contract Approval).~~

8. TITLE INSURANCE, RECORD TITLE AND OFF-RECORD TITLE.

8.1. Evidence of Record Title.

☐ **8.1.1. Seller Selects Title Insurance Company.** If this box is checked, Seller will select the title insurance company to furnish the owner's title insurance policy at Seller's expense. On or before **Record Title Deadline**, Seller must furnish to Buyer, a current commitment for an owner's title insurance policy (Title Commitment), in an amount equal to the Purchase Price, or if this box is checked, ☐ an **Abstract of Title** certified to a current date. Seller will cause the title insurance policy to be issued and delivered to Buyer as soon as practicable at or after Closing.

☒ **8.1.2. Buyer Selects Title Insurance Company.** If this box is checked, Buyer will select the title insurance company to furnish the owner's title insurance policy at Buyer's expense. On or before **Record Title Deadline**, Buyer must furnish to Seller, a current commitment for owner's title insurance policy (Title Commitment), in an amount equal to the Purchase Price.

If neither box in § 8.1.1 or § 8.1.2 is checked, § 8.1.1 applies.

8.1.3. Owner's Extended Coverage (OEC). The Title Commitment ☒**Will** ☐**Will Not** contain Owner's Extended Coverage (OEC). If the Title Commitment is to contain OEC, it will commit to delete or insure over the standard exceptions which relate to: (1) parties in possession, (2) unrecorded easements, (3) survey matters, (4) unrecorded mechanics' liens, (5) gap period (period between the effective date and time of commitment to the date and time the deed is recorded), and (6) unpaid taxes, assessments and

unredeemed tax sales prior to the year of Closing. Any additional premium expense to obtain OEC will be paid by ☐**Buyer** ☒ **Seller** ☐ **One-Half by Buyer and One-Half by Seller** ☐ **Other** ***n/a***.
Regardless of whether the Contract requires OEC, the Title Insurance Commitment may not provide OEC or delete or insure over any or all of the standard exceptions for OEC. The Title Insurance Company may require a New Survey or New ILC, defined below, among other requirements for OEC. If the Title Insurance Commitment is not satisfactory to Buyer, Buyer has a right to object under § 8.4 (Right to Object to Title, Resolution).

8.1.4. Title Documents. Title Documents consist of the following: (1) copies of any plats, declarations, covenants, conditions and restrictions burdening the Property, and (2) copies of any other documents (or, if illegible, summaries of such documents) listed in the schedule of exceptions (Exceptions) in the Title Commitment furnished to Buyer (collectively, Title Documents).

8.1.5. Copies of Title Documents. Buyer must receive, on or before **Record Title Deadline**, copies of all Title Documents. This requirement pertains only to documents as shown of record in the office of the clerk and recorder in the county where the Property is located. The cost of furnishing copies of the documents required in this Section will be at the expense of the party or parties obligated to pay for the owner's title insurance policy.

8.1.6. Existing Abstracts of Title. Seller must deliver to Buyer copies of any abstracts of title covering all or any portion of the Property (Abstract of Title) in Seller's possession on or before **Record Title Deadline**.

8.2. Record Title. Buyer has the right to review and object to the Abstract of Title or Title Commitment and any of the Title Documents as set forth in § 8.4 (Right to Object to Title, Resolution) on or before **Record Title Objection Deadline**. Buyer's objection may be based on any unsatisfactory form or content of Title Commitment or Abstract of Title, notwithstanding § 13, or any other unsatisfactory title condition, in Buyer's sole subjective discretion. If the Abstract of Title, Title Commitment or Title Documents are not received by Buyer on or before the **Record Title Deadline**, or if there is an endorsement to the Title Commitment that adds a new Exception to title, a copy of the new Exception to title and the modified Title Commitment will be delivered to Buyer. Buyer has until the earlier of Closing or ten days after receipt of such documents by Buyer to review and object to: (1) any required Title Document not timely received by Buyer, (2) any change to the Abstract of Title, Title Commitment or Title Documents, or (3) any endorsement to the Title Commitment. If Seller receives Buyer's Notice to Terminate or Notice of Title Objection, pursuant to this § 8.2 (Record Title), any title objection by Buyer is governed by the provisions set forth in § 8.4 (Right to Object to Title, Resolution). If Seller has fulfilled all Seller's obligations, if any, to deliver to Buyer all documents required by § 8.1 (Evidence of Record Title) and Seller does not receive Buyer's Notice to Terminate or Notice of Title Objection by the applicable deadline specified above, Buyer accepts the condition of title as disclosed by the Abstract of Title, Title Commitment and Title Documents as satisfactory.

8.3. Off-Record Title. Seller must deliver to Buyer, on or before **Off-Record Title Deadline**, true copies of all existing surveys in Seller's possession pertaining to the Property and must disclose to Buyer all easements, liens (including, without limitation, governmental improvements approved, but not yet installed) or other title matters (including, without limitation, rights of first refusal and options) not shown by public records, of which Seller has actual knowledge (Off-Record Matters). Buyer has the right to inspect the Property to investigate if any third party has any right in the Property not shown by public records (e.g., unrecorded easement, boundary line discrepancy or water rights). Buyer's Notice to Terminate or Notice of Title Objection of any unsatisfactory condition (whether disclosed by Seller or revealed by such inspection, notwithstanding § 8.2 and § 13), in Buyer's sole subjective discretion, must be received by Seller on or before **Off-Record Title Objection Deadline**. If an Off-Record Matter is received by Buyer after the **Off-Record Title Deadline**, Buyer has until the earlier of Closing or ten days after receipt by Buyer to review and object to such Off-Record Matter. If Seller receives Buyer's Notice to Terminate or Notice of Title Objection pursuant to this § 8.3 (Off-Record Title), any title objection by Buyer and this Contract are governed by the provisions set forth in § 8.4 (Right to Object to Title, Resolution). If Seller does not receive Buyer's Notice to Terminate or Notice of Title Objection by the applicable deadline specified above, Buyer accepts title subject to such rights, if any, of third parties of which Buyer has actual knowledge.

8.4. Right to Object to Title, Resolution. Buyer's right to object to any title matters includes, but is not limited to those matters set forth in §§ 8.2 (Record Title), 8.3 (Off-Record Title) and 13 (Transfer of Title), in

Buyer's sole subjective discretion. If Buyer objects to any title matter, on or before the applicable deadline, Buyer has the following options:

8.4.1. Title Objection, Resolution. If Seller receives Buyer's written notice objecting to any title matter (Notice of Title Objection) on or before the applicable deadline, and if Buyer and Seller have not agreed to a written settlement thereof on or before **Title Resolution Deadline**, this Contract will terminate on the expiration of **Title Resolution Deadline**, unless Seller receives Buyer's written withdrawal of Buyer's Notice of Title Objection (i.e., Buyer's written notice to waive objection to such items and waives the Right to Terminate for that reason), on or before expiration of **Title Resolution Deadline**. If either the Record Title Deadline or the Off-Record Title Deadline, or both, are extended to the earlier of Closing or ten days after receipt of the applicable documents by Buyer, pursuant to § 8.2 (Record Title) or § 8.3 (Off-Record Title), the Title Resolution Deadline also will be automatically extended to the earlier of Closing or fifteen days after Buyer's receipt of the applicable documents; or

8.4.2. Title Objection, Right to Terminate. Buyer may exercise the Right to Terminate under § 25.1, on or before the applicable deadline, based on any unsatisfactory title matter, in Buyer's sole subjective discretion.

8.5. Special Taxing Districts. SPECIAL TAXING DISTRICTS MAY BE SUBJECT TO GENERAL OBLIGATION INDEBTEDNESS THAT IS PAID BY REVENUES PRODUCED FROM ANNUAL TAX LEVIES ON THE TAXABLE PROPERTY WITHIN SUCH DISTRICTS. PROPERTY OWNERS IN SUCH DISTRICTS MAY BE PLACED AT RISK FOR INCREASED MILL LEVIES AND TAX TO SUPPORT THE SERVICING OF SUCH DEBT WHERE CIRCUMSTANCES ARISE RESULTING IN THE INABILITY OF SUCH A DISTRICT TO DISCHARGE SUCH INDEBTEDNESS WITHOUT SUCH AN INCREASE IN MILL LEVIES. BUYERS SHOULD INVESTIGATE THE SPECIAL TAXING DISTRICTS IN WHICH THE PROPERTY IS LOCATED BY CONTACTING THE COUNTY TREASURER, BY REVIEWING THE CERTIFICATE OF TAXES DUE FOR THE PROPERTY, AND BY OBTAINING FURTHER INFORMATION FROM THE BOARD OF COUNTY COMMISSIONERS, THE COUNTY CLERK AND RECORDER, OR THE COUNTY ASSESSOR.

Buyer has the Right to Terminate under § 25.1, on or before **Off-Record Title Objection Deadline**, based on any unsatisfactory effect of the Property being located within a special taxing district, in Buyer's sole subjective discretion.

8.6. Right of First Refusal or Contract Approval. If there is a right of first refusal on the Property or a right to approve this Contract, Seller must promptly submit this Contract according to the terms and conditions of such right. If the holder of the right of first refusal exercises such right or the holder of a right to approve disapproves this Contract, this Contract will terminate. If the right of first refusal is waived explicitly or expires, or the Contract is approved, this Contract will remain in full force and effect. Seller must promptly notify Buyer in writing of the foregoing. If expiration or waiver of the right of first refusal or approval of this Contract has not occurred on or before **Right of First Refusal Deadline**, this Contract will then terminate.

8.7. Title Advisory. The Title Documents affect the title, ownership and use of the Property and should be reviewed carefully. Additionally, other matters not reflected in the Title Documents may affect the title, ownership and use of the Property, including, without limitation, boundary lines and encroachments, set-back requirements, area, zoning, building code violations, unrecorded easements and claims of easements, leases and other unrecorded agreements, water on or under the Property, and various laws and governmental regulations concerning land use, development and environmental matters.

8.7.1. OIL, GAS, WATER AND MINERAL DISCLOSURE. THE SURFACE ESTATE OF THE PROPERTY MAY BE OWNED SEPARATELY FROM THE UNDERLYING MINERAL ESTATE, AND TRANSFER OF THE SURFACE ESTATE MAY NOT NECESSARILY INCLUDE TRANSFER OF THE MINERAL ESTATE OR WATER RIGHTS. THIRD PARTIES MAY OWN OR LEASE INTERESTS IN OIL, GAS, OTHER MINERALS, GEOTHERMAL ENERGY OR WATER ON OR UNDER THE SURFACE OF THE PROPERTY, WHICH INTERESTS MAY GIVE THEM RIGHTS TO ENTER AND USE THE SURFACE OF THE PROPERTY TO ACCESS THE MINERAL ESTATE, OIL, GAS OR WATER.

8.7.2. SURFACE USE AGREEMENT. THE USE OF THE SURFACE ESTATE OF THE PROPERTY TO ACCESS THE OIL, GAS OR MINERALS MAY BE GOVERNED BY A SURFACE USE AGREEMENT, A MEMORANDUM OR OTHER NOTICE OF WHICH MAY BE RECORDED WITH THE COUNTY CLERK AND RECORDER.

8.7.3. OIL AND GAS ACTIVITY. OIL AND GAS ACTIVITY THAT MAY OCCUR ON OR

ADJACENT TO THE PROPERTY MAY INCLUDE, BUT IS NOT LIMITED TO, SURVEYING, DRILLING, WELL COMPLETION OPERATIONS, STORAGE, OIL AND GAS, OR PRODUCTION FACILITIES, PRODUCING WELLS, REWORKING OF CURRENT WELLS, AND GAS GATHERING AND PROCESSING FACILITIES.

8.7.4. ADDITIONAL INFORMATION. BUYER IS ENCOURAGED TO SEEK ADDITIONAL INFORMATION REGARDING OIL AND GAS ACTIVITY ON OR ADJACENT TO THE PROPERTY, INCLUDING DRILLING PERMIT APPLICATIONS. THIS INFORMATION MAY BE AVAILABLE FROM THE COLORADO OIL AND GAS CONSERVATION COMMISSION.

8.7.5. Title Insurance Exclusions. Matters set forth in this Section, and others, may be excepted, excluded from, or not covered by the owner's title insurance policy.

8.8. Consult an Attorney. Buyer is advised to timely consult legal counsel with respect to all such matters as there are strict time limits provided in this Contract (e.g., **Record Title Objection Deadline** and **Off-Record Title Objection Deadline**).

9. NEW ILC, NEW SURVEY.

9.1. New ILC or New Survey. If the box is checked, a ☐ **New Improvement Location Certificate (New ILC)** ☒ **New Survey** in the form of ***TBD by Buyer*** is required and the following will apply:

9.1.1. Ordering of New ILC or New Survey. ☐**Seller** ☒**Buyer** will order the New ILC or New Survey. The New ILC or New Survey may also be a previous ILC or survey that is in the above-required form, certified and updated as of a date after the date of this Contract.

9.1.2. Payment for New ILC or New Survey. The cost of the New ILC or New Survey will be paid, on or before Closing, by: ☐**Seller** ☒**Buyer** or: ***n/a***

9.1.3. Delivery of New ILC or New Survey. Buyer, Seller, the issuer of the Title Commitment (or the provider of the opinion of title if an Abstract of Title), and ***n/a*** will receive a New ILC or New Survey on or before **New ILC or New Survey Deadline**.

9.1.4. Certification of New ILC or New Survey. The New ILC or New Survey will be certified by the surveyor to all those who are to receive the New ILC or New Survey.

9.2. Buyer's Right to Waive or Change New ILC or New Survey Selection. Buyer may select a New ILC or New Survey different than initially specified in this Contract if there is no additional cost to Seller or change to the **New ILC or New Survey Objection Deadline**. Buyer may, in Buyer's sole subjective discretion, waive a New ILC or New Survey if done prior to Seller incurring any cost for the same.

9.3. New ILC or New Survey Objection. Buyer has the right to review and object to the **New** ILC or New Survey. If the New ILC or New Survey is not timely received by Buyer or is unsatisfactory to Buyer, in Buyer's sole subjective discretion, Buyer may, on or before **New ILC or New Survey Objection Deadline**, notwithstanding § 8.3 or § 13:

9.3.1. Notice to Terminate. Notify Seller in writing that this Contract is terminated; or

9.3.2. New ILC or New Survey Objection. Deliver to Seller a written description of any matter that was to be shown or is shown in the New ILC or New Survey that is unsatisfactory and that Buyer requires Seller to correct.

9.3.3. New ILC or New Survey Resolution. If a **New ILC or New Survey Objection** is received by Seller, on or before **New ILC or New Survey Objection Deadline**, and if Buyer and Seller have not agreed in writing to a settlement thereof on or before **New ILC or New Survey Resolution Deadline**, this Contract will terminate on expiration of the **New ILC or New Survey Resolution Deadline**, unless Seller receives Buyer's written withdrawal of the New ILC or New Survey Objection before such termination, i.e., on or before expiration of **New ILC or New Survey Resolution Deadline**.

DISCLOSURE, INSPECTION AND DUE DILIGENCE

10. PROPERTY DISCLOSURE, INSPECTION, INDEMNITY, INSURABILITY, DUE DILIGENCE SOURCE OF WATER.

~~**10.1. Seller's Property Disclosure.** On or before **Seller's Property Disclosure Deadline**, Seller agrees to deliver to Buyer the most current version of the applicable Colorado Real Estate Commission's Seller's Property Disclosure form completed by Seller to Seller's actual knowledge, current as of the date of~~

~~this Contract.~~

10.2. Disclosure of Latent Defects; Present Condition. Seller must disclose to Buyer any latent defects actually known by Seller. Seller agrees that disclosure of latent defects will be in writing. Except as otherwise provided in this Contract, Buyer acknowledges that Seller is conveying the Property to Buyer in an "**As Is**" condition, " **Where Is**" and " **With All Faults**."

10.3. Inspection. Unless otherwise provided in this Contract, Buyer, acting in good faith, has the right to have inspections (by one or more third parties, personally or both) of the Property and Inclusions (Inspection), at Buyer's expense. If (1) the physical condition of the Property, including, but not limited to, the roof, walls, structural integrity of the Property, the electrical, plumbing, HVAC and other mechanical systems of the Property, (2) the physical condition of the Inclusions, (3) service to the Property (including utilities and communication services), systems and components of the Property (e.g., heating and plumbing), (4) any proposed or existing transportation project, road, street or highway, or (5) any other activity, odor or noise (whether on or off the Property) and its effect or expected effect on the Property or its occupants is unsatisfactory, in Buyer's sole subjective discretion, Buyer may, on or before **Inspection Objection Deadline**:

10.3.1. Notice to Terminate. Notify Seller in writing that this Contract is terminated; or

10.3.2. Inspection Objection. Deliver to Seller a written description of any unsatisfactory physical condition that Buyer requires Seller to correct.

10.3.3. Inspection Resolution. If an Inspection Objection is received by Seller, on or before **Inspection Objection Deadline**, and if Buyer and Seller have not agreed in writing to a settlement thereof on or before **Inspection Resolution Deadline**, this Contract will terminate on **Inspection Resolution Deadline** unless Seller receives Buyer's written withdrawal of the Inspection Objection before such termination, i.e., on or before expiration of **Inspection Resolution Deadline**.

10.4. Damage, Liens and Indemnity. Buyer, except as otherwise provided in this Contract or other written agreement between the parties, is responsible for payment for all inspections, tests, surveys, engineering reports, or other reports performed at Buyer's request (Work) and must pay for any damage that occurs to the Property and Inclusions as a result of such Work. Buyer must not permit claims or liens of any kind against the Property for Work performed on the Property. Buyer agrees to indemnify, protect and hold Seller harmless from and against any liability, damage, cost or expense incurred by Seller and caused by any such Work, claim, or lien. This indemnity includes Seller's right to recover all costs and expenses incurred by Seller to defend against any such liability, damage, cost or expense, or to enforce this section, including Seller's reasonable attorney fees, legal fees and expenses. The provisions of this section survive the termination of this Contract. This § 10.4 does not apply to items performed pursuant to an Inspection Resolution.

10.5. Insurability. Buyer has the right to review and object to the availability, terms and conditions of and premium for property insurance (Property Insurance). Buyer has the Right to Terminate under § 25.1, on or before **Property Insurance Objection Deadline**, based on any unsatisfactory provision of the Property Insurance, in Buyer's sole subjective discretion.

10.6. Due Diligence.

10.6.1. Due Diligence Documents. If the respective box is checked, Seller agrees to deliver copies of the following documents and information pertaining to the Property (Due Diligence Documents) to Buyer on or before **Due Diligence Documents Delivery Deadline**:

☐ **10.6.1.1.** All contracts relating to the operation, maintenance and management of the Property;

☒ **10.6.1.2.** Property tax bills for the last ***1*** years;

☐ **10.6.1.3.** As-built construction plans to the Property and the tenant improvements, including architectural, electrical, mechanical, and structural systems, engineering reports, and permanent Certificates of Occupancy, to the extent now available;

☐ **10.6.1.4.** A list of all Inclusions to be conveyed to Buyer;

☐ **10.6.1.5.** Operating statements for the past ***n/a*** years;

☐ **10.6.1.6.** A rent roll accurate and correct to the date of this Contract;

☐ **10.6.1.7.** All current leases, including any amendments or other occupancy agreements, pertaining to the Property. Those leases or other occupancy agreements pertaining to the Property that survive Closing are as follows (Leases): ***n/a***

☐ **10.6.1.8.** A schedule of any tenant improvement work Seller is obligated to complete but has not yet been completed and capital improvement work either scheduled or in process on the date of this Contract;

☐ **10.6.1.9.** All insurance policies pertaining to the Property and copies of any claims which have been made for the past ***n/a*** years;

☒ **10.6.1.10.** Soils reports, surveys and engineering reports or data pertaining to the Property (if not delivered earlier under § 8.3);

☒ **10.6.1.11.** Any and all existing documentation and reports regarding Phase I and II environmental reports, letters, test results, advisories, and similar documents respective to the existence or nonexistence of asbestos, PCB transformers, or other toxic, hazardous or contaminated substances, and/or underground storage tanks and/or radon gas. If no reports are in Seller's possession or known to Seller, Seller warrants that no such reports are in Seller's possession or known to Seller;

☐ **10.6.1.12.** Any *Americans with Disabilities Act* reports, studies or surveys concerning the compliance of the Property with said Act;

☐ **10.6.1.13.** All permits, licenses and other building or use authorizations issued by any governmental authority with jurisdiction over the Property and written notice of any violation of any such permits, licenses or use authorizations, if any; and

☐ **10.6.1.14.** Other documents and information:

n/a

10.6.2. Due Diligence Documents Review and Objection. Buyer has the right to review and object to Due Diligence Documents. If the Due Diligence Documents are not supplied to Buyer or are unsatisfactory in Buyer's sole subjective discretion, Buyer may, on or before **Due Diligence Documents Objection Deadline**:

10.6.2.1. Notice to Terminate. Notify Seller in writing that this Contract is terminated; or

10.6.2.2. Due Diligence Documents Objection. Deliver to Seller a written description of any unsatisfactory Due Diligence Documents that Buyer requires Seller to correct.

10.6.2.3. Due Diligence Documents Resolution. If a Due Diligence Documents Objection is received by Seller, on or before **Due Diligence Documents Objection Deadline**, and if Buyer and Seller have not agreed in writing to a settlement thereof on or before **Due Diligence Documents Resolution Deadline**, this Contract will terminate on **Due Diligence Documents Resolution Deadline** unless Seller receives Buyer's written withdrawal of the Due Diligence Documents Objection before such termination, i.e., on or before expiration of **Due Diligence Documents Resolution Deadline**.

10.6.3. Zoning. Buyer has the Right to Terminate under § 25.1, on or before **Due Diligence Documents Objection Deadline**, based on any unsatisfactory zoning and any use restrictions imposed by any governmental agency with jurisdiction over the Property, in Buyer's sole subjective discretion.

10.6.4. Due Diligence – Environmental, ADA. Buyer has the right to obtain environmental inspections of the Property including Phase I and Phase II Environmental Site Assessments, as applicable. ☐ **Seller** ☒**Buyer** will order or provide **Phase I Environmental Site Assessment**, **Phase II Environmental Site Assessment** (compliant with most current version of the applicable ASTM E1527standard practices for Environmental Site Assessments) and/or ☒ ***TBD by Buyer***, at the expense of ☐**Seller** ☒**Buyer** (Environmental Inspection). In addition, Buyer, at Buyer's expense, may also conduct an evaluation whether the Property complies with the *Americans with Disabilities Act* (ADA Evaluation). All such inspections and evaluations must be conducted at such times as are mutually agreeable to minimize the interruption of Seller's and any Seller's tenants' business uses of the Property, if any.

If Buyer's Phase I Environmental Site Assessment recommends a Phase II Environmental Site Assessment, the **Environmental Inspection Objection Deadline** will be extended by ***60*** days (Extended Environmental Inspection Objection Deadline) and if such Extended Environmental Inspection Objection Deadline extends beyond the **Closing Date**, the **Closing Date** will be extended a like period of time. In such event, ☐**Seller** ☒**Buyer** must pay the cost for such Phase II Environmental Site Assessment.

Notwithstanding Buyer`s right to obtain additional environmental inspections of the Property in this § 10.6.5, Buyer has the Right to Terminate under § 25.1, on or before **Environmental Inspection Objection**

Deadline, or if applicable, the Extended Environmental Inspection Objection Deadline, based on any unsatisfactory results of Environmental Inspection, in Buyer's sole subjective discretion.

Buyer has the Right to Terminate under § 25.1, on or before **ADA Evaluation Objection Deadline**, based on any unsatisfactory ADA Evaluation, in Buyer's sole subjective discretion.

10.7. Conditional Upon Sale of Property. This Contract is conditional upon the sale and closing of that certain property owned by Buyer and commonly known as ***n/a***. Buyer has the Right to Terminate under § 25.1 effective upon Seller's receipt of Buyer's Notice to Terminate on or before **Conditional Sale Deadline** if such property is not sold and closed by such deadline. This § 10.7 is for the sole benefit of Buyer. If Seller does not receive Buyer's Notice to Terminate on or before **Conditional Sale Deadline**, Buyer waives any Right to Terminate under this provision.

10.8. Source of Potable Water (Residential Land and Residential Improvements Only). Buyer ☐**Does** ☐**Does Not** acknowledge receipt of a copy of Seller's Property Disclosure or Source of Water Addendum disclosing the source of potable water for the Property. ☒ There is **No Well**. Buyer ☐**Does** ☐**Does Not** acknowledge receipt of a copy of the current well permit.

~~**Note to Buyer: SOME WATER PROVIDERS RELY, TO VARYING DEGREES, ON NONRENEWABLE GROUND WATER. YOU MAY WISH TO CONTACT YOUR PROVIDER (OR INVESTIGATE THE DESCRIBED SOURCE) TO DETERMINE THE LONG-TERM SUFFICIENCY OF THE PROVIDER'S WATER SUPPLIES.**~~

~~**10.9. Existing Leases; Modification of Existing Leases; New Leases.** Seller states that none of the Leases to be assigned to the Buyer at the time of Closing contain any rent concessions, rent reductions or rent abatements except as disclosed in the Lease or other writing received by Buyer. Seller will not amend, alter, modify, extend or cancel any of the Leases nor will Seller enter into any new leases affecting the Property without the prior written consent of Buyer, which consent will not be unreasonably withheld or delayed.~~

~~**11. TENANT ESTOPPEL STATEMENTS.**~~

~~**11.1. Tenant Estoppel Statements Conditions.** Buyer has the right to review and object to any Estoppel Statements. Seller must obtain and deliver to Buyer on or before **Tenant Estoppel Statements Deadline**, statements in a form and substance reasonably acceptable to Buyer, from each occupant or tenant at the Property (Estoppel Statement) attached to a copy of the Lease stating:~~

~~**11.1.1.** The commencement date of the Lease and scheduled termination date of the Lease;~~

~~**11.1.2.** That said Lease is in full force and effect and that there have been no subsequent modifications or amendments;~~

~~**11.1.3.** The amount of any advance rentals paid, rent concessions given, and deposits paid to Seller;~~

~~**11.1.4.** The amount of monthly (or other applicable period) rental paid to Seller;~~

~~**11.1.5.** That there is no default under the terms of said Lease by landlord or occupant; and~~

~~**11.1.6.** That the Lease to which the Estoppel is attached is a true, correct and complete copy of the Lease demising the premises it describes.~~

~~**11.2. Tenant Estoppel Statements Objection.** Buyer has the Right to Terminate under § 25.1, on or before **Tenant Estoppel Statements Objection Deadline**, based on any unsatisfactory Estoppel Statement, in Buyer's sole subjective discretion, or if Seller fails to deliver the Estoppel Statements on or before **Tenant Estoppel Statements Deadline**. Buyer also has the unilateral right to waive any unsatisfactory Estoppel Statement.~~

CLOSING PROVISIONS

12. CLOSING DOCUMENTS, INSTRUCTIONS AND CLOSING.

12.1. Closing Documents and Closing Information. Seller and Buyer will cooperate with the Closing Company to enable the Closing Company to prepare and deliver documents required for Closing to Buyer and Seller and their designees. If Buyer is obtaining a new loan to purchase the Property, Buyer acknowledges Buyer's lender is required to provide the Closing Company, in a timely manner, all required loan documents and financial information concerning Buyer's new loan. Buyer and Seller will furnish any additional information and documents required by Closing Company that will be necessary to complete this transaction. Buyer and Seller will sign and complete all customary or reasonably required documents at or before Closing.

12.2. Closing Instructions. Colorado Real Estate Commission's Closing Instructions ☐**Are** ☒**Are Not** executed with this Contract.

12.3. Closing. Delivery of deed from Seller to Buyer will be at closing (Closing). Closing will be on the date specified as the **Closing Date** or by mutual agreement at an earlier date. The hour and place of Closing will be as designated by ***the Title Company.***.

12.4. Disclosure of Settlement Costs. Buyer and Seller acknowledge that costs, quality, and extent of service vary between different settlement service providers (e.g., attorneys, lenders, inspectors and title companies).

13. TRANSFER OF TITLE. Subject to tender of payment at Closing as required herein and compliance by Buyer with the other terms and provisions hereof, Seller must execute and deliver a good and sufficient ***Special Warranty*** deed to Buyer, at Closing, conveying the Property free and clear of all taxes except the general taxes for the year of Closing. Except as provided herein, title will be conveyed free and clear of all liens, including any governmental liens for special improvements installed as of the date of Buyer's signature hereon, whether assessed or not. Title will be conveyed subject to:

13.1. Those specific Exceptions described by reference to recorded documents as reflected in the Title Documents accepted by Buyer in accordance with **Record Title**,

13.2. Distribution utility easements (including cable TV),

13.3. Those specifically described rights of third parties not shown by the public records of which Buyer has actual knowledge and which were accepted by Buyer in accordance with **Off-Record Title** and **New ILC or New Survey**,

13.4. Inclusion of the Property within any special taxing district, and

13.5. Any special assessment if the improvements were not installed as of the date of Buyer's signature hereon, whether assessed prior to or after Closing, and

13.6. Other ***n/a***.

14. PAYMENT OF ENCUMBRANCES. Any encumbrance required to be paid will be paid at or before Closing from the proceeds of this transaction or from any other source.

15. CLOSING COSTS, CLOSING FEE, ASSOCIATION FEES AND TAXES.

15.1. Closing Costs. Buyer and Seller must pay, in Good Funds, their respective closing costs and all other items required to be paid at Closing, except as otherwise provided herein.

15.2. Closing Services Fee. The fee for real estate closing services must be paid at Closing by ☐ **Buyer** ☐ **Seller** ☒ **One-Half by Buyer and One-Half by Seller** ☐ **Other** ***n/a***.

15.3. Status Letter and Record Change Fees. Any fees incident to the issuance of Association's statement of assessments (Status Letter) must be paid by ☒**None** ☐**Buyer** ☐**Seller** ☐**One-Half by Buyer and One-Half by Seller.** Any record change fee assessed by the Association including, but not limited to, ownership record transfer fees regardless of name or title of such fee (Association's Record Change Fee) must be paid by ☒**None** ☐ **Buyer** ☐ **Seller** ☐ **One-Half by Buyer and One-Half by Seller**.

15.4. Local Transfer Tax. ☐ **The Local Transfer Tax** of ***n/a*** % of the Purchase Price must be paid at Closing by ☒**None** ☐ **Buyer** ☐ **Seller** ☐ **One-Half by Buyer and One-Half by Seller.**

15.5. Private Transfer Fee. Private transfer fees and other fees due to a transfer of the Property, payable at Closing, such as community association fees, developer fees and foundation fees, must be paid at Closing by ☒**None** ☐**Buyer** ☐**Seller** ☐**One-Half by Buyer and One-Half by Seller**. The Private Transfer fee, whether one or more, is for the following association(s): ***n/a*** in the total amount of ***na***% of the Purchase Price or $ ***n/a***.

15.6. Water Transfer Fees. The Water Transfer Fees can change. The fees, as of the date of this Contract, do not exceed $ ***n/a*** for:
☐ Water Stock/Certificates ☐ Water District
☐ Augmentation Membership ☐ Small Domestic Water Company ☐ ***n/a*** and must be paid at Closing by ☒ **None** ☐ **Buyer** ☐ **Seller** ☐ **One-Half by Buyer and One-Half by Seller**

15.7. Sales and Use Tax. Any sales and use tax that may accrue because of this transaction must be paid when due by ☒ **None** ☐ **Buyer** ☐ **Seller** ☐ **One-Half by Buyer and One-Half by Seller**.

16. PRORATIONS. The following will be prorated to the **Closing Date**, except as otherwise provided:

16.1. Taxes. Personal property taxes, if any, special taxing district assessments, if any, and general real estate taxes for the year of Closing, based on ☒ **Taxes for the Calendar Year Immediately Preceding Closing** ☐ **Most Recent Mill Levy and Most Recent Assessed Valuation**, ☐ **Other** ***n/a***.

16.2. Rents. Rents based on ☐ **Rents Actually Received** ☐**Accrued**. ~~At Closing, Seller will transfer or credit to Buyer the security deposits for all Leases assigned, or any remainder after lawful deductions, and notify all tenants in writing of such transfer and of the transferee's name and address. Seller must assign to Buyer all Leases in effect at Closing and Buyer must assume Seller's obligations under such Leases.~~

~~**16.3. Association Assessments.** Current regular Association assessments and dues (Association Assessments) paid in advance will be credited to Seller at Closing. Cash reserves held out of the regular Association Assessments for deferred maintenance by the Association will not be credited to Seller except as may be otherwise provided by the Governing Documents. Buyer acknowledges that Buyer may be obligated to pay the Association, at Closing, an amount for reserves or working capital. Any special assessment assessed prior to **Closing Date** by the Association will be the obligation of ☐**Buyer** ☐**Seller**.~~ Except however, any special assessment by the Association for improvements that have been installed as of the date of Buyer's signature hereon, whether assessed prior to or after Closing, will be the obligation of Seller. Seller represents that the Association Assessments are currently payable at approximately $ ***n/a*** per ***n/a*** and that there are no unpaid regular or special assessments against the Property except the current regular assessments and ***n/a***. Such assessments are subject to change as provided in the Governing Documents. Seller agrees to promptly request the Association to deliver to Buyer before **Closing Date** a current Status Letter.

16.4. Other Prorations. Water and sewer charges, propane, interest on continuing loan, and ***n/a***.

16.5. Final Settlement. Unless otherwise agreed in writing, these prorations are final.

17. POSSESSION. Possession of the Property will be delivered to Buyer on **Possession Date** at **Possession Time**, subject to the Leases as set forth in § 10.6.1.7.

If Seller, after Closing, fails to deliver possession as specified, Seller will be subject to eviction and will be additionally liable to Buyer for payment of $ ***100*** per day (or any part of a day notwithstanding § 18.1) from **Possession Date** and **Possession Time** until possession is delivered.

GENERAL PROVISIONS

18. DAY; COMPUTATION OF PERIOD OF DAYS, DEADLINE.

18.1. Day. As used in this Contract, the term "day" means the entire day ending at 11:59 p.m., United States Mountain Time (Standard or Daylight Savings as applicable).

18.2. Computation of Period of Days, Deadline. In computing a period of days, when the ending date is not specified, the first day is excluded and the last day is included (e.g., three days after MEC). If any deadline falls on a Saturday, Sunday or federal or Colorado state holiday (Holiday), such deadline ☒ **Will** ☐ **Will Not** be extended to the next day that is not a Saturday, Sunday or Holiday. Should neither box be checked, the deadline will not be extended.

~~**19. CAUSES OF LOSS, INSURANCE; DAMAGE TO INCLUSIONS AND SERVICES; CONDEMNATION; AND WALK-THROUGH.** Except as otherwise provided in this Contract, the Property, Inclusions or both will be delivered in the condition existing as of the date of this Contract, ordinary wear and tear excepted.~~

~~**19.1. Causes of Loss, Insurance.** In the event the Property or Inclusions are damaged by fire, other perils or causes of loss prior to Closing in an amount of not more than ten percent of the total Purchase Price (Property Damage), and if the repair of the damage will be paid by insurance (other than the deductible to be paid by Seller), then Seller, upon receipt of the insurance proceeds, will use Seller's reasonable efforts to~~

~~repair the Property before **Closing Date**. Buyer has the Right to Terminate under § 25.1, on or before **Closing Date** if the Property is not repaired before **Closing Date** or if the damage exceeds such sum. Should Buyer elect to carry out this Contract despite such Property Damage, Buyer is entitled to a credit at Closing for all insurance proceeds that were received by Seller (but not the Association, if any) resulting from damage to the Property and Inclusions, plus the amount of any deductible provided for in the insurance policy. This credit may not exceed the Purchase Price. In the event Seller has not received the insurance proceeds prior to Closing, the parties may agree to extend the **Closing Date** to have the Property repaired prior to Closing or, at the option of Buyer, (1) Seller must assign to Buyer the right to the proceeds at Closing, if acceptable to Seller's insurance company and Buyer's lender; or (2) the parties may enter into a written agreement prepared by the parties or their attorney requiring the Seller to escrow at Closing from Seller's sale proceeds the amount Seller has received and will receive due to such damage, not exceeding the total Purchase Price, plus the amount of any deductible that applies to the insurance claim.~~

~~**19.2. Damage, Inclusions and Services.** Should any Inclusion or service (including utilities and communication services), system, component or fixture of the Property (collectively Service) (e.g., heating or plumbing), fail or be damaged between the date of this Contract and Closing or possession, whichever is earlier, then Seller is liable for the repair or replacement of such Inclusion or Service with a unit of similar size, age and quality, or an equivalent credit, but only to the extent that the maintenance or replacement of such Inclusion or Service is not the responsibility of the Association, if any, less any insurance proceeds received by Buyer covering such repair or replacement. If the failed or damaged Inclusion or Service is not repaired or replaced on or before Closing or possession, whichever is earlier, Buyer has the Right to Terminate under § 25.1, on or before **Closing Date**, or, at the option of Buyer, Buyer is entitled to a credit at Closing for the repair or replacement of such Inclusion or Service. Such credit must not exceed the Purchase Price. If Buyer receives such a credit, Seller's right for any claim against the Association, if any, will survive Closing. Seller and Buyer are aware of the existence of pre-owned home warranty programs that may be purchased and may cover the repair or replacement of such Inclusions.~~

~~**19.3. Condemnation.** In the event Seller receives actual notice prior to Closing that a pending condemnation action may result in a taking of all or part of the Property or Inclusions, Seller must promptly notify Buyer, in writing, of such condemnation action. Buyer has the Right to Terminate under § 25.1, on or before **Closing Date**, based on such condemnation action, in Buyer's sole subjective discretion. Should Buyer elect to consummate this Contract despite such diminution of value to the Property and Inclusions, Buyer is entitled to a credit at Closing for all condemnation proceeds awarded to Seller for the diminution in the value of the Property or Inclusions but such credit will not include relocation benefits or expenses, or exceed the Purchase Price.~~

~~**19.4. Walk-Through and Verification of Condition.** Buyer, upon reasonable notice, has the right to walk through the Property prior to Closing to verify that the physical condition of the Property and Inclusions complies with this Contract.~~

~~**19.5. Risk of Loss - Growing Crops.** The risk of loss for damage to growing crops by fire or other casualty will be borne by the party entitled to the growing crops as provided in § 2.8 and such party is entitled to such insurance proceeds or benefits for the growing crops.~~

20. RECOMMENDATION OF LEGAL AND TAX COUNSEL. By signing this Contract, Buyer and Seller acknowledge that the respective broker has advised that this Contract has important legal consequences and has recommended the examination of title and consultation with legal and tax or other counsel before signing this Contract.

21. TIME OF ESSENCE, DEFAULT AND REMEDIES. Time is of the essence for all dates and deadlines in this Contract. This means that all dates and deadlines are strict and absolute. If any payment due, including Earnest Money, is not paid, honored or tendered when due, or if any obligation is not performed timely as provided in this Contract or waived, the non-defaulting party has the following remedies:

21.1. If Buyer is in Default:

☐ **21.1.1. Specific Performance.** Seller may elect to cancel this Contract and all Earnest Money (whether or not paid by Buyer) will be paid to Seller and retained by Seller. It is agreed that the Earnest Money is not a penalty, and the Parties agree the amount is fair and reasonable. Seller may recover such

additional damages as may be proper. Alternatively, Seller may elect to treat this Contract as being in full force and effect and Seller has the right to specific performance or damages, or both.

21.1.2. Liquidated Damages, Applicable. This § 21.1.2 applies unless the box in § 21.1.1. is checked. Seller may cancel this Contract. All Earnest Money (whether or not paid by Buyer) will be paid to Seller, and retained by Seller. It is agreed that the Earnest Money specified in § 4.1 is LIQUIDATED DAMAGES, and not a penalty, which amount the parties agree is fair and reasonable and (except as provided in §§ 10.4, 22, 23 and 24), said payment of Earnest Money is SELLER'S ONLY REMEDY for Buyer's failure to perform the obligations of this Contract. Seller expressly waives the remedies of specific performance and additional damages.

21.2. If Seller is in Default: Buyer may elect to treat this Contract as canceled, in which case all Earnest Money received hereunder will be returned and Buyer may recover such damages as may be proper. Alternatively, Buyer may elect to treat this Contract as being in full force and effect and Buyer has the right to specific performance or damages, or both.

22. LEGAL FEES, COST AND EXPENSES. Anything to the contrary herein notwithstanding, in the event of any arbitration or litigation relating to this Contract, prior to or after **Closing Date**, the arbitrator or court must award to the prevailing party all reasonable costs and expenses, including attorney fees, legal fees and expenses.

23. MEDIATION. If a dispute arises relating to this Contract, (whether prior to or after Closing) and is not resolved, the parties must first proceed, in good faith, to mediation. Mediation is a process in which the parties meet with an impartial person who helps to resolve the dispute informally and confidentially. Mediators cannot impose binding decisions. Before any mediated settlement is binding, the parties to the dispute must agree to the settlement, in writing. The parties will jointly appoint an acceptable mediator and will share equally in the cost of such mediation. The obligation to mediate, unless otherwise agreed, will terminate if the entire dispute is not resolved within thirty days of the date written notice requesting mediation is delivered by one party to the other at that party's last known address (physical or electronic as provided in § 27). Nothing in this Section prohibits either party from filing a lawsuit and recording a *lis pendens* affecting the Property, before or after the date of written notice requesting mediation. This section will not alter any date in this Contract, unless otherwise agreed.

24. EARNEST MONEY DISPUTE. Except as otherwise provided herein, Earnest Money Holder must release the Earnest Money following receipt of written mutual instructions, signed by both Buyer and Seller. In the event of any controversy regarding the Earnest Money, Earnest Money Holder is not required to release the Earnest Money. Earnest Money Holder, in its sole subjective discretion, has several options: (1) wait for any proceeding between Buyer and Seller; (2) interplead all parties and deposit Earnest Money into a court of competent jurisdiction, (Earnest Money Holder is entitled to recover court costs and reasonable attorney and legal fees incurred with such action); or (3) provide notice to Buyer and Seller that unless Earnest Money Holder receives a copy of the Summons and Complaint or Claim (between Buyer and Seller) containing the case number of the lawsuit (Lawsuit) within one hundred twenty days of Earnest Money Holder's notice to the parties, Earnest Money Holder is authorized to return the Earnest Money to Buyer. In the event Earnest Money Holder does receive a copy of the Lawsuit, and has not interpled the monies at the time of any Order, Earnest Money Holder must disburse the Earnest Money pursuant to the Order of the Court. The parties reaffirm the obligation of **Mediation**. This Section will survive cancellation or termination of this Contract.

25. TERMINATION.

25.1. Right to Terminate. If a party has a right to terminate, as provided in this Contract (Right to Terminate), the termination is effective upon the other party's receipt of a written notice to terminate (Notice to Terminate), provided such written notice was received on or before the applicable deadline specified in this Contract. If the Notice to Terminate is not received on or before the specified deadline, the party with the Right to Terminate accepts the specified matter, document or condition as satisfactory and waives the Right to Terminate under such provision.

25.2. Effect of Termination. In the event this Contract is terminated, all Earnest Money received

hereunder will be returned and the parties are relieved of all obligations hereunder, subject to §§ 10.4, 22, 23 and 24.

26. ENTIRE AGREEMENT, MODIFICATION, SURVIVAL; SUCCESSORS. This Contract, its exhibits and specified addenda, constitute the entire agreement between the parties relating to the subject hereof, and any prior agreements pertaining thereto, whether oral or written, have been merged and integrated into this Contract. No subsequent modification of any of the terms of this Contract is valid, binding upon the parties, or enforceable unless made in writing and signed by the parties. Any right or obligation in this Contract that, by its terms, exists or is intended to be performed after termination or Closing survives the same. Any successor to a Party receives the predecessor's benefits and obligations of this Contract.

27. NOTICE, DELIVERY, AND CHOICE OF LAW.

27.1. Physical Delivery and Notice. Any document, or notice to Buyer or Seller must be in writing, except as provided in § 27.2, and is effective when physically received by such party, any individual named in this Contract to receive documents or notices for such party, the Broker, or Brokerage Firm of Broker working with such party (except any notice or delivery after Closing must be received by the party, not Broker or Brokerage Firm).

27.2. Electronic Notice. As an alternative to physical delivery, any notice, may be delivered in electronic form to Buyer or Seller, any individual named in this Contract to receive documents or notices for such party, the Broker or Brokerage Firm of Broker working with such party (except any notice or delivery after Closing must be received by the party; not Broker or Brokerage Firm) at the electronic address of the recipient by facsimile, email or ***n/a***.

27.3. Electronic Delivery. Electronic Delivery of documents and notice may be delivered by: (1) email at the email address of the recipient, (2) a link or access to a website or server provided the recipient receives the information necessary to access the documents, or (3) facsimile at the Fax No. of the recipient.

27.4. Choice of Law. This Contract and all disputes arising hereunder are governed by and construed in accordance with the laws of the State of Colorado that would be applicable to Colorado residents who sign a contract in Colorado for real property located in Colorado.

28. NOTICE OF ACCEPTANCE, COUNTERPARTS. This proposal will expire unless accepted in writing, by Buyer and Seller, as evidenced by their signatures below, and the offering party receives notice of such acceptance pursuant to § 27 on or before **Acceptance Deadline Date** and **Acceptance Deadline Time**. If accepted, this document will become a contract between Seller and Buyer. A copy of this Contract may be executed by each party, separately, and when each party has executed a copy thereof, such copies taken together are deemed to be a full and complete contract between the parties.

29. GOOD FAITH. Buyer and Seller acknowledge that each party has an obligation to act in good faith including, but not limited to, exercising the rights and obligations set forth in the provisions of **Financing Conditions and Obligations**, **Title Insurance, Record Title and Off-Record Title**, **New ILC, New Survey** and **Property Disclosure, Inspection, Indemnity**, **Insurability, Due Diligence, Buyer Disclosure and Source of Water**.

ADDITIONAL PROVISIONS AND ATTACHMENTS

30. ADDITIONAL PROVISIONS. (The following additional provisions have not been approved by the Colorado Real Estate Commission.)

1) Seller warrants that the Property is currently vacant. The Property shall be delivered vacant and free of all leases and tenancies at Closing.

2) Because Federal Funds may be used in the purchase we are required to disclose to you the following information: Seller understands that the Sale is Voluntary and that if Seller does not wish to Sell, Blueline Development, Inc; and Its Successor or Assigns will not acquire the Property. Also BlueLine Development, Inc. and its Successors or Assigns does not have the

power to acquire the Property by condemnation or through the power of eminent domain.

3) Seller acknowledges that Purchaser is acquiring the Property for the purpose of erecting Low Income Housing Tax Credit apartments pursuant to bid award from the Colorado Housing and Finance Agency. It is Purchaser's sole and exclusive responsibility to ascertain that it may use the Property for its intended purpose. If Purchaser determines that any rule, regulation, requirement, condition, or Property feature exists which restricts or hinders its intended use of the Property, Purchaser shall be entitled, after providing notice to that effect to Seller prior to the expiration of Purchaser's due diligence period as set forth this section, to rescind this Agreement and receive the return of its earnest money deposit.
Fees and/or assessments or expenses associated with obtaining permits or approvals for any site compliance, such as access cutouts or traffic mitigation costs, shall be borne solely and exclusively by Purchaser. Additionally, Purchaser assumes all responsibility for development costs which may be associated with access or road improvement, deposits for improvement guarantees, utility service, or other actions necessary in order to develop the Property for the Purchaser's contemplated use.

4) The Buyer estimates the fair market value of the Property to be $449,000. The price represents the Listing Price of the Property and is comparable to sales of similar properties. Since the purchase price would be a voluntary, arm`s length transaction, the Seller will not be eligible for relocation payments of other relocation assistance under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA) or any other law or regulation. Also, as indicated herein this offer is made on the condition that no tenant will be permitted to occupy the property before the Sale is completed. Again, Seller should understand that if Seller does not wish to sell the Property Buyer will not take further action to acquire it. However by signing this Contract To Buyer and Sell Real Estate Seller is indicating Its willingness to sell the Property under the conditions described herein and Seller understands the disclosures herein.

5) Buyer is acquiring the property and inclusions "As Is" and with all faults based on buyer/s own investigation; buyer is not relying on, nor has seller or any broker made any oral representation or warranty of any kind relating to the condition of the property or inclusions. Except for the warranties of title to be contained in the deed to be delivered by seller, and except for the representations of seller contained in sellers' property disclosure (as required in Section 10 of this contract), seller hereby disclaims, and buyer hereby waives all representations and warranties, express or implied, of any kind, nature, or type whatsoever with respect to the property and inclusions, including but not limited to those of condition, habitability, suitability for a particular purpose, and compliance with any applicable laws, codes, ordinances, or regulations. This provision shall not in any way limit buyers'/s rights under Section 10 of this contract.

6) Notwithstanding § 2.2 or anything contained in this Contract to the contrary, Buyer or Buyer`s partner Karis Inc. has the right to assign this Contract to a trust, limited liability company or other entity that controls, is controlled by, or under common control with Buyer or Karis Inc.

7) Sixty (60) days following the Inspection Objection Deadline if Buyer has not sooner Terminated the Contract the Earnest Money shall be released to Seller and shall become nonrefundable to Buyer.

8) Buyer shall be responsible to complete any subdivision process that is required to convey the Property at Buyer`s sole cost and expense. Seller shall cooperate with Buyer`s efforts at no cost to Seller.

9) The Due Diligence Period, for the benefit of Purchaser, is hereby declared to be one hundred eighty (180) days from the date of full execution of this Agreement. During the due diligence period, Purchaser shall undertake such investigation as required to ensure itself that all specified conditions and contingencies for its benefit are satisfied. In the event Purchaser, in its sole discretion, concludes that any of the specified conditions and contingencies cannot be so satisfied, it shall notify Seller as set forth herein and this Agreement shall be deemed rescinded and Purchaser shall receive the return of its earnest money deposit. This sale is contingent upon Purchaser's approval of the results of all environmental studies, inquiries and related reports, which approval shall be predicated upon the absence of any reasonable prospect for the existence of a potential environmental hazard or soil stability problem upon or related to the Property which would in any way adversely impact Purchaser's ability to develop the Property as it intends.

The parties agree that the aforementioned investigation and testing will be undertaken by Purchaser in order to enable Purchaser to make its own sole, absolute and independent decision regarding its ability to develop the Property. Purchaser shall proceed in good faith and shall exercise due diligence in undertaking and completing the aforementioned matters before the expiration of the due diligence period. Any costs or fees associated with the studies conducted on the Property shall be borne solely and exclusively by Purchaser. Purchaser and its agents or representatives shall have the right to enter upon the Property at any reasonable time during the due diligence period for purpose of conducting all investigations, verifications of information, and tests and studies. Purchaser shall: (i) restore the Property to the condition that it was in prior to any testing; (ii) keep the Property free from liens arising out of any testing or activity of Purchaser on the Property; and (iii) indemnify and save and hold Seller harmless from any liability resulting from Purchaser's acts or negligence of its agents or representatives in connection with such testing.

The contingencies provided for in this section shall be deemed fully satisfied unless Purchaser delivers written notice to Seller that any such contingency has not been satisfied by 12:00 noon on the day which is the last day of the Due Diligence Period or any extensions thereof. A copy of any report or test results obtained by Purchaser and constituting a basis for Purchaser's notice to Seller shall be furnished to Seller contemporaneous with Purchaser's notice to Seller. In the event Purchaser declines to close based upon its determination that any contingency enumerated in this Section has not been satisfied, the basis for Purchaser's belief that the contingency has not been satisfied shall be enumerated in the written notice and, if applicable, shall be corroborated by specific reference to pertinent portions of the report and/or test results.

In the event any contingency is deemed not satisfied and proper notice has been given, this Agreement shall terminate and the earnest money shall be returned to Purchaser. Purchaser also expressly acknowledges, covenants and agrees, however, that Purchaser's failure to provide Seller with any such notice within the required time frame shall be deemed an unequivocal waiver and/or satisfaction of the contingency, entitling Seller to exercise its rights and remedies in accordance with Section 16 hereof and other applicable provisions of this Agreement.

Buyer intends to operate the development as a Low Income Housing Tax Credit property and will be executing a Land Use Restrictive Agreement with the Colorado Housing Finance Agency for a period of 40 years outlining the affordability restrictions.

10) Paragraph 25.1 - Each party shall have ten (10) days to cure any Notice to Terminate issued by the other.

31. ATTACHMENTS.

31.1. The following attachments **are a part** of this Contract:
Exhibit A - The Property.

31.2. The following disclosure forms **are attached** but are **not** a part of this Contract:
n/a

SIGNATURES

Kelly Gill
_____ Date: 5/2/18

Buyer: ***Blueline Development, Inc.***
By: Nathan Richmond

Kelly Gill

[NOTE: If this offer is being countered or rejected, do not sign this document. Refer to § 32]

_____ Date: 5/20/18

Seller: ***Unity Church***
By: President of Unity Church Board of Trustees

32. COUNTER; REJECTION. This offer is ☐ **Countered** ☐ **Rejected.**
Initials only of party (Buyer or Seller) who countered or rejected offer

_____
Unity Church

By: _____ _____

END OF CONTRACT TO BUY AND SELL REAL ESTATE

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33. BROKER'S ACKNOWLEDGMENTS AND COMPENSATION DISCLOSURE.
(To be completed by Broker working with Buyer)

Broker ☐ **Does** ☒ **Does Not** acknowledge receipt of Earnest Money deposit and, while not a party to the Contract, agrees to cooperate upon request with any mediation concluded under § 23. Broker agrees that if Brokerage Firm is the Earnest Money Holder and, except as provided in § 24, if the Earnest Money has not already been returned following receipt of a Notice to Terminate or other written notice of termination, Earnest Money Holder will release the Earnest Money as directed by the written mutual instructions. Such release of Earnest Money will be made within five days of Earnest Money Holder's receipt of the executed written mutual instructions, provided the Earnest Money check has cleared.

Broker is working with Buyer as a ☐ **Buyer's Agent** ☐ **Seller's Agent** ☒ **Transaction-Broker** in this transaction. ☐ This is a **Change of Status.**

Brokerage Firm's compensation or commission is to be paid by ☐ **Listing Brokerage Firm** ☐ **Buyer** ☒ **Other *Seller*.**

Brokerage Firm's Name: ***Coldwell Banker Commercial Prime Properties***

_____ Date: _____

Broker's Name: ***Mike Foster***
Address: ***131 N. 6th Street, Suite 300 Grand Junction, CO 81501***
Ph: ***970-244-6602*** Fax: Email: ***mfoster@cbcwest.com***

34. BROKER'S ACKNOWLEDGMENTS AND COMPENSATION DISCLOSURE.
(To be completed by Broker working with Seller)

Broker ☐ **Does** ☒ **Does Not** acknowledge receipt of Earnest Money deposit and, while not a party to the Contract, agrees to cooperate upon request with any mediation concluded under § 23. Broker agrees that if Brokerage Firm is the Earnest Money Holder and, except as provided in § 24, if the Earnest Money has not already been returned following receipt of a Notice to Terminate or other written notice of termination, Earnest Money Holder will release the Earnest Money as directed by the written mutual instructions. Such release of Earnest Money will be made within five days of Earnest Money Holder's receipt of the executed written mutual instructions, provided the Earnest Money check has cleared.

Broker is working with Seller as a ☐ **Seller's Agent** ☐ **Buyer's Agent** ☒ **Transaction-Broker** in this transaction. ☐ This is a **Change of Status**.

Brokerage Firm's compensation or commission is to be paid by ☒ **Seller** ☐ **Buyer** ☐ **Other *n/a***.
Brokerage Firm's Name: ***Coldwell Banker Commercial Prime Properties***

_____ Date: _____

Broker's Name: ***Mike Foster***
Address: ***131 N. 6th Street, Suite 300 Grand Junction, CO 81501***
Ph: 970-244-6602 Fax: 970-251-5119 Email: mfoster@cbcwest.com

CTM eContracts - ®2016 CTM Software Corp.

Grand Junction Planning Commission

Regular Session

Item #3.

Meeting Date: October 8, 2019

Presented By: Lance Gloss, Associate Planner

Department: Community Development

Submitted By: Lance Gloss, Associate Planner

Information

SUBJECT:

Consider a request by Downtown Development Authority of Grand Junction, Colorado (DDA) to adopt the 2019 DDA Plan of Development entitled “Vibrant Together.”

RECOMMENDATION:

Staff recommends approval of this request.

EXECUTIVE SUMMARY:

The Plan of Development (POD) for the Grand Junction, Colorado, Downtown Development Authority (DDA) was originally adopted in 1981 and needs to be updated to address evolving conditions in the Downtown. The POD is the product of public outreach, stakeholder discussions, design workshops, and the cooperation of agencies, consultants, and the City of Grand Junction. The POD identifies conditions in the Downtown area that pose negative effects on property values and the quality of residents’ experiences within the Downtown. The POD also identifies means of improving the Downtown area, particularly the area within the boundary of the Downtown Partnership, which is comprised of the Grand Junction, Colorado, Downtown Development Authority and the Downtown Grand Junction Business Improvement District. The Plan identifies three core aims for improving Downtown: Connectivity; Place-making; and Infill Development. The plan specifies strategies for achievement of these aims, and includes actions, policies, and programs comprising each strategy.

The Board of the Downtown Partnership reviewed the POD at its September 26, 2019 meeting and unanimously (in a 7-0 vote) recommended its approval. C.R.S. 31-25-807(4)(b) requires review and recommendation by the Planning Commission and

adoption by the City Council.

BACKGROUND OR DETAILED INFORMATION:

Background and Detailed Information

The purpose of the Grand Junction DDA is to "plan and propose public facilities and other improvements to public and private property of all kinds which will aid and improve the Downtown development area with the goal of preventing and remediating slum and blight within the DDA boundaries." Further, in cooperation with the planning board and the planning department of the municipality, the DDA is enabled to develop long-range plans designed to carry out the purposes of the authority (as stated in C.R.S. 31-25-801) and to promote the economic growth of the district and may take such steps as may be necessary to persuade property owners and business proprietors to implement such plans to the fullest extent possible.

As identified in Section V of the existing 1981 Plan of Development, the purpose of the Plan of Development is to establish a mechanism whereby the Authority and City can implement projects and programs that aid in halting the economic and physical decline of the Plan of Development area and Commercial Renovation Districts, and assist in the revitalization of and reinvestment in the Downtown generally.

Many of the projects and programs identified in the 1981 POD have been initiated and completed. Significant changes have also occurred the physical, cultural, and economic landscape of the Downtown. These conditions merit a reconsideration of priorities and the development of a new plan for the future of Downtown. Thus, the proposed 2019 Plan of Development identifies three purposes for the updated plan: To provide a unified vision for Downtown; To identify projects that advance the vision; and To bring local leaders together in pursuit of that vision.

The POD is designed and intended to function as the guiding document for the Downtown Partnership, which is comprised of the Grand Junction, Colorado, Downtown Development Authority and the Downtown Grand Junction Business Improvement District.

The POD was produced over a year, including a six-month period of community engagement from February 2018 to September 2019. Online and social media surveys, focus group meetings, stakeholder meetings, a Community Open House, and other outreach methods were employed to solicit input. Included in this effort was the work of a member Community Action Team of approximately 60 members that met regularly to review progress and to provide guidance and input on the process, deliverables and draft plan. Overall, approximately 25,000 people were reached online and over 500 community members were engaged in person. Direct links between the public outreach data collected and the aims and strategies in the Plan are evident throughout the Plan

document.

Beyond identifying conditions that require remediation, the proposed POD proposes three high-level aims intended to afford maximum opportunity for improving conditions in the Downtown. These are connectivity; place-making; and infill development.

“Connectivity” as used in the POD means the safe and comfortable movement of people, bikes, and cars along and among streets. Among proposals for improving connectivity in the POD, those highlighted include: converting 4th and 5th Streets into two-way streets; improving bicycle and pedestrian infrastructure with an emphasis on access to the river; developing a promenade on 2nd Street; and initiating studies and projects to improve wayfinding.

“Place-making” as used in the POD means the impression of Downtown as a distinguishable environment, including the experiences, events, and interactions that are definitive of that area. Some proposals for encouraging place-making in the Downtown include: efforts to activate Colorado Avenue between 4th and 7th Streets; new events and event spaces Downtown; the activation of alleys through the arts and alley-facing storefronts; low-cost design interventions to reduce socially unacceptable behaviors in Whitman Park; greater efficiency of parking areas; and adaptive reuse of existing structures.

“Infill development” as used in the POD means redevelopment, new development, and adaptive reuse of existing structures within the Downtown, with an emphasis on the connections between Main Street, the largely industrial Rail District, and the presently redeveloping riverfront. Some high-priority proposals for encouraging infill development in the Downtown include: to support existing businesses and attract new ones; to develop a grant program to promote small scale local reinvestment in Downtown; to adjust codes and policies presently limiting development, such as parking requirements; to leverage the financial tools of the Downtown Partnership; and for the DDA to become involved in a catalytic development project(s).

The Board of the Downtown Partnership met on September 26, 2019 to review the new Plan of Development. Seven board members voted to approve the Vibrant Together plan, and none dissented, thus the Resolution to approve the POD passed unanimously.

Notification Requirements
As required by C.R.S. 31-25-807(4)(c), prior to its approval of a Plan of Development, notice was provided that a public hearing on this Plan of Development in the form of one publication in the Grand Junction Daily Sentinel, the newspaper having general circulation in the municipality. The notice described the time, date, place, and purpose of the hearing, generally identified the plan of development area covered by the plan,

and outlined the general scope of the projects under consideration.

Analysis
Pursuant to C.R.S. 31-25-807(4)(b), prior to its approval of a Plan of Development, the governing body shall submit such plan to the planning board of the municipality, if any, for review and recommendations. This planning board is recognized as the City's Planning Commission. Further, the planning board shall submit its written recommendations with respect to the proposed plan of development to the governing body within thirty days after receipt of the plan for review.

In accordance with C.R.S. 31-25-802(5.5) the governing body of the DDA is the City Council. As provided in the C.R.S., the governing body shall hold a public hearing on a plan of development or substantial modification of an approved plan of development. Following such a hearing, the governing body may approve a plan of development if it finds that there is a need to take corrective measures in order to halt or prevent deterioration of property values or structures within the plan of development area or to halt or prevent the growth of blighted areas therein, or any combination thereof, and if it further finds that the plan will afford maximum opportunity, consistent with the sound need and plans of the municipality as a whole, for the development or redevelopment of the plan of development area by the authority and by private enterprise.

Conditions in the Downtown have changed significantly since the 1981 POD was implemented 38 years ago. Whereas the 1981 POD emphasized the reversal of trends toward blight and included redevelopment goals of a relatively limited scope, the proposed 2019 POD focuses on perpetuating positive momentum in the Downtown area through projects meant to catalyze investment and participation in the area. However, conditions identified throughout the proposed POD indicate the clear need to take corrective measures to halt, prevent, and reverse blight.

A primary example of blight and potential blight include severely limited housing opportunities relative to demand, due to limited stock and deterioration in quality. A significant amount of property is also vacant and underutilized. The proposed POD demonstrates that more than 60 parcels totaling approximately 45 acres that have been identified as opportunity sites for adaptive/interim uses, urban housing, and vertical mixed use development. Small businesses in the downtown also face challenges to economic development related to deteriorating facades and high rents. Blight conditions also pose challenges to mobility within the Downtown. Likewise, Street connections between centers of activity within the DDA boundary do not afford adequate safety to pedestrians and cyclists due to lack of sidewalks and dedicated bike lanes, damaged pavement, and inadequate signaling and striping of crosswalks.

Those measures provided for in the proposed POD that are intended to slow and reverse conditions of blight in the Downtown are comprehensive and well-

substantiated. Evidence of highly detailed analysis authenticating the potential of such measures can be identified throughout the proposed POD.

Staff Recommendation and Findings of Fact
Staff has reviewed both the proposed POD and the existing POD. The proposed POD is consistent with the City's overall vision, as included in the Comprehensive Plan, the Greater Downtown Plan, and sections of the Zoning and Development Code specifically related to Downtown. Staff finds that the proposed POD also enters into a higher level of detail than these documents, which is appropriate to enable focused and efficient actions for Downtown development by the authority and by private enterprise.

Staff finds that a range of conditions in the downtown district require corrective measures to halt and/or prevent blight, including such measures as to improve housing opportunities, economic opportunities, and mobility within the downtown. Staff also finds the plan will afford maximum opportunity, consistent with the needs and plans of the municipality as a whole, for the development or redevelopment of the Downtown Development Authority's area.

Staff therefore recommends approval of this proposal to repeal and replace the Downtown Development Authority's Plan of Development with the "Vibrant Together" plan with the following findings of fact:

1. The plan complies with C.R.S. 31-25-802 in that there is a need to take corrective measures in order to halt or prevent deterioration of property values or structures within the plan of development area or to halt or prevent the growth of blighted areas therein, or any combination thereof, and

2. Further finds that the plan will afford maximum opportunity, consistent with the sound need and plans of the municipality as a whole, for the development or redevelopment of the plan of development area by the authority and by private enterprise.

SUGGESTED MOTION:

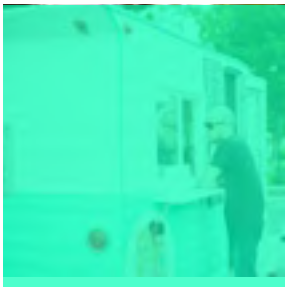
Suggested Motion

Madam Chair, on the Plan of Development for the Grand Junction CPA-2019-496, I move that Planning Commission forward a recommendation of approval of the proposal to supersede the 1981 Plan of Development and associated ordinances and resolutions and adopt the Grand Junction Downtown Development Authority's Plan of Development entitled "Vibrant Together" with the findings of fact as listed in the staff report.

Attachments

1. EXHIBIT 3 _ Proposed POD
2. EXHIBIT 4 _ DDA Map
3. EXHIBIT 2 _ 1981 DDA POD
4. EXHIBIT 5 _ proposed ordinance _ DDA POD
5. Exhibit List - DDA POD

EXHIBIT 3 – Grand Junction Downtown Development Authority proposed Plan of Development dated September 2019



VIBRANT
TOGETHER
A DOWNTOWN INITIATIVE

My favorite thing about Grand Junction is...
My favorite thing about Grand Junction is...
The Sunsets
My favorite thing about Grand Junction is...
All the Artwork on Main
My favorite thing about Grand Junction is...
community
My favorite thing about Grand Junction is...
Outdoor activities
My favorite thing about Grand Junction is...
Small Town Feel!
My favorite thing about Grand Junction is...
My favorite thing about Grand Junction is...
the ART
My favorite thing about Grand Junction is...
GJ Rockies
My favorite thing about Grand Junction is...
It's small, and my Church.
My favorite thing about Grand Junction is...
Mountains on every side of me
My favorite thing about Grand Junction is...
The Art Scene
My favorite thing about Grand Junction is...
Bruce from Benge's
My favorite thing about Grand Junction is...
Location!
My favorite thing about Grand Junction is...
Downtown!
My favorite thing about Grand Junction is...
Small town Community Vibes
My favorite thing about Grand Junction is...
No traffic
My favorite thing about Grand Junction is...
BEER
My favorite thing about Grand Junction is...
First Friday ART Walks
My favorite thing about Grand Junction is...
our beautiful Downtown
My favorite thing about Grand Junction is...

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Public Input Summary

ACKNOWLEDGMENTS

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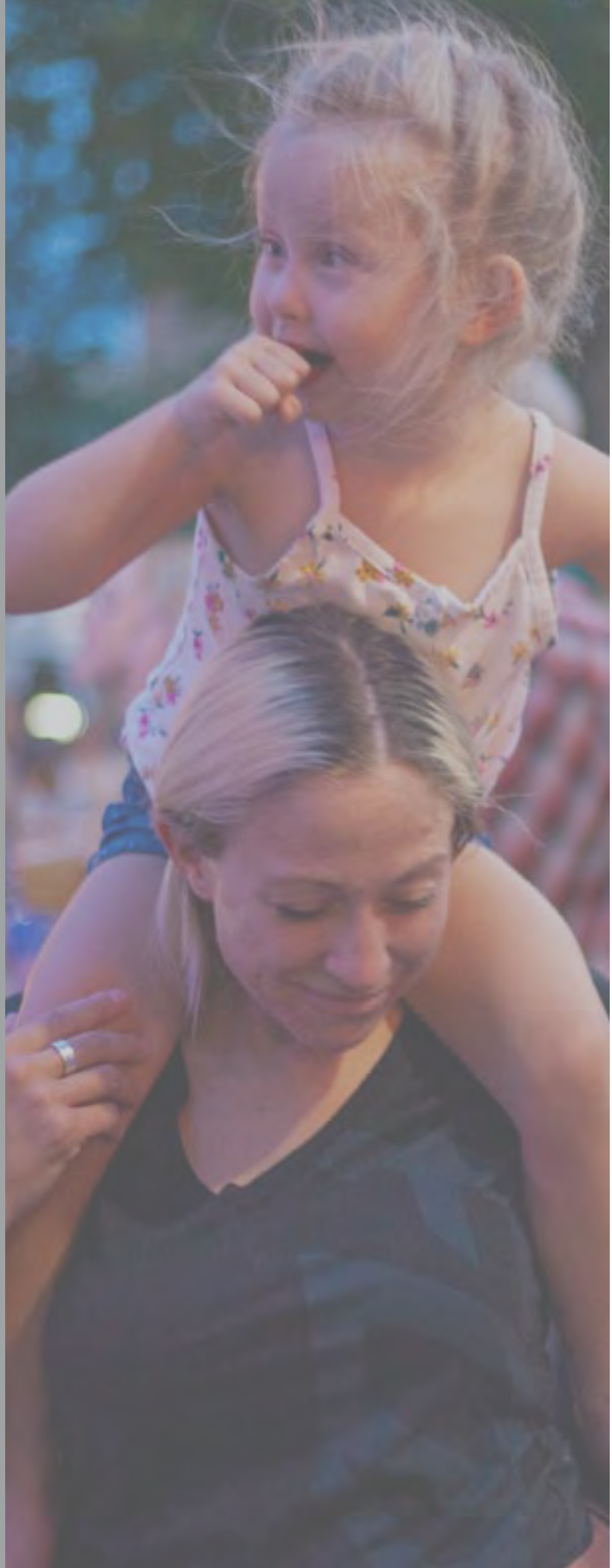


ABOUT COMMUNITY BUILDERS

Community Builders (CB) is a non-profit dedicated to helping local leaders create strong and prosperous communities in the American West. CB provides information, analysis, assistance and trainings to support the many people and organizations working to build better places by aligning their community values to planning and economic goals.

The goal of the Community Builders Assistance Program is to provide communities with the tools and resources to spark meaningful on-the-ground progress, while building local capacity and creating success stories that inspire and transform places.

ABOUT THIS REPORT

This report is the product of a collaborative effort between the Downtown Development Authority of Grand Junction, The City of Grand Junction, Community Builders, The Community Action Team, Cascadia Partners, Jim Leggitt Studios, Swift Engineering. Special thanks to the stakeholders and the community members who provided feedback throughout the project.

PROJECT FUNDERS

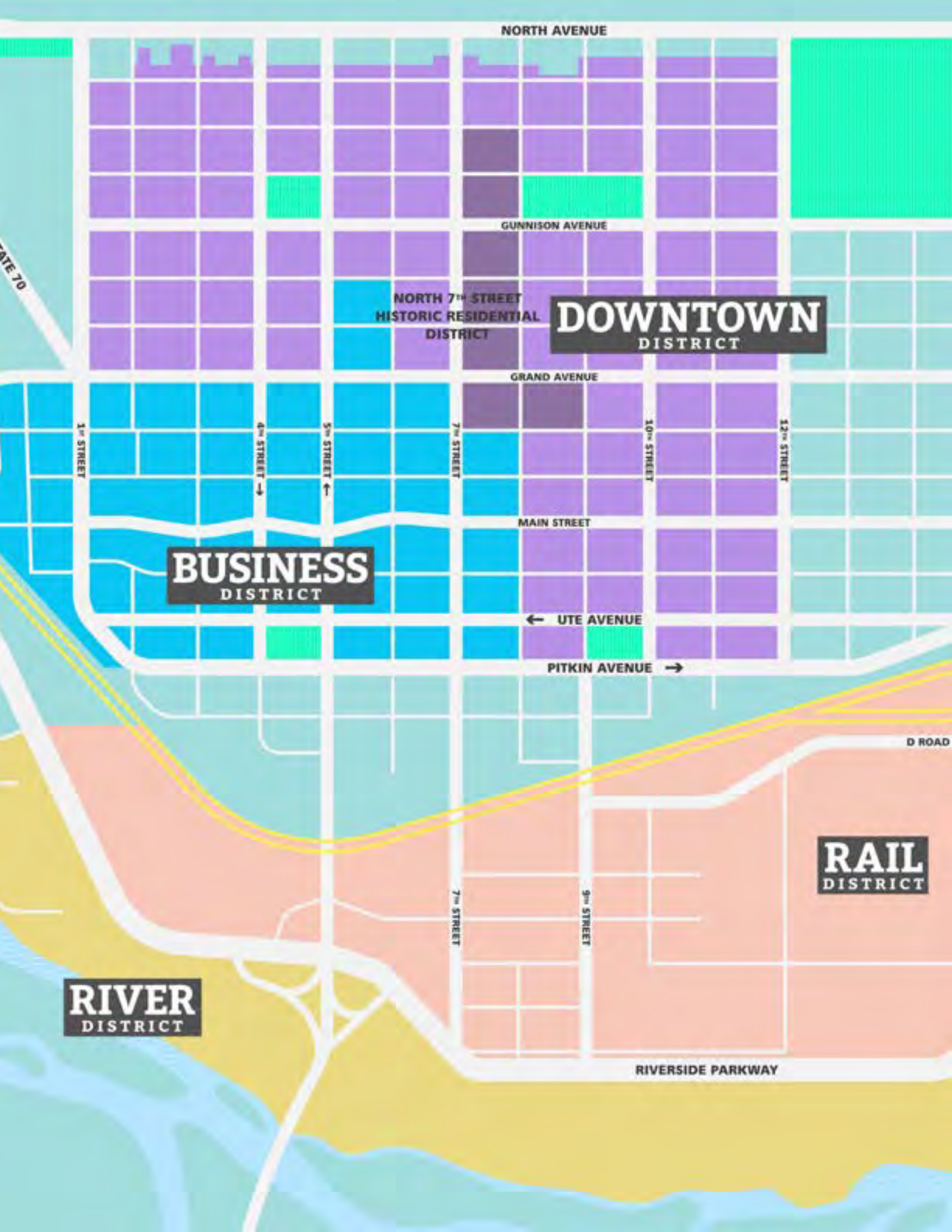
Special thanks to the LOR Foundation, the Gates Family Foundation and the Downtown Development Authority for providing the funding necessary to make the Vibrant Together: A Downtown Initiative possible.

WHY A PLAN OF DEVELOPMENT?

Throughout the course of its 38-year history the DDA has been involved in a diverse array of activities with the goal of sustaining Downtown Grand Junction's role as a hub for economic activity and vibrancy that benefits the entire valley. Many of the projects over this time have involved collaboration as it takes a pooling of resources and knowledge to make progress. Some of the noteworthy projects include the development of Downtown hotels, Avalon Theatre renovation, the Mainstreet uplift and development of the riverfront.

While the DDA has had many successes one of the major hurdles the organization has had is the lack of a current road map that addresses the challenges of today while also looking at potential challenges in the future. The 1981 Plan of Development provided many great concepts and ideas for the DDA to pursue, many of which have been completed and some that are still being worked toward. The updated plan builds upon the past success and challenges of the past while identifying what the current trends, issues and solutions are. Having a current Plan of Development will provide Downtown with a vision for the future along with strategies for achieving the goals and outcomes identified in the Plan.

- Brandon Stam
Downtown Development Partnership Executive Director

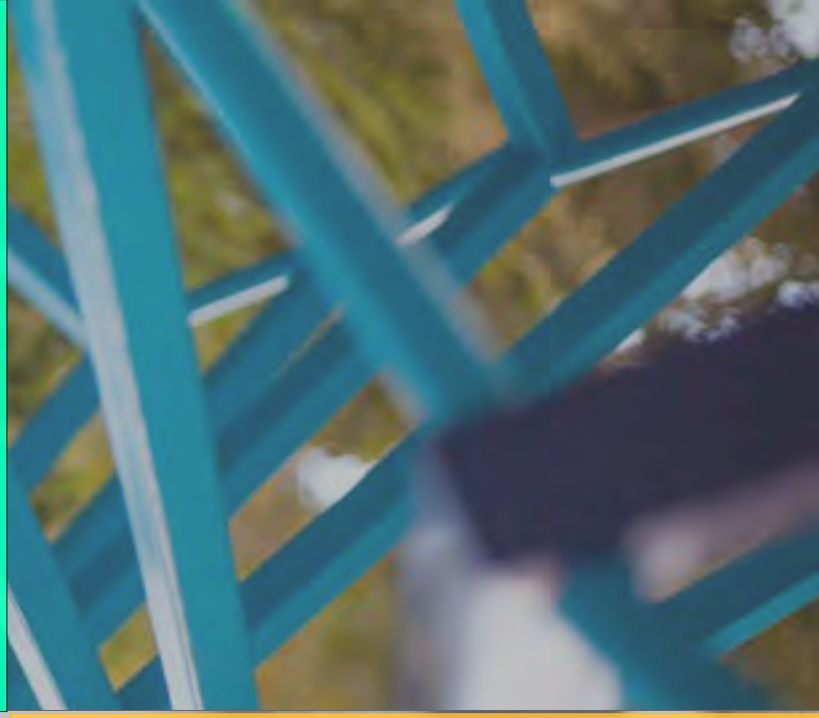

NORTH AVENUE
GUNNISON AVENUE
NORTH 7TH STREET HISTORIC RESIDENTIAL DISTRICT
DOWNTOWN DISTRICT
GRAND AVENUE
1ST STREET
4TH STREET
5TH STREET
7TH STREET
10TH STREET
12TH STREET
MAIN STREET
BUSINESS DISTRICT
UTE AVENUE
PITKIN AVENUE
D ROAD
RAIL DISTRICT
7TH STREET
9TH STREET
RIVER DISTRICT
RIVERSIDE PARKWAY

"I love the potential of Downtown GJ. I get excited about what this place can be."

"Vibrancy is characteristically Downtown Grand Junction. It has a unique character."

"I tell all of out of town folks- Downtown GJ is the best downtown in the state!"

“I live downtown. It means everything to me and my husband.”



“The downtown is one of the main reasons I moved here. It’s so alive and thriving.”

“Going downtown is my hobby... not joking.”

PLAN SUMMARY

GOALS & STRATEGIES

Goal setting provides an opportunity for people to work together and build consensus. These goals serve several key purposes. First, they provide direction for advancing the community's vision of building a thriving downtown for everyone. They should act as a tool for guiding future decisions, like determining if a new project or policy is in line with the vision. They are also useful for monitoring progress, to build upon successful efforts, or to identify unmet goals and gaps to address. From the input gathered and building upon priorities set by the Downtown Partnership and the City, five goals were identified for the Vibrant Together Project that will be the benchmark for future revitalization efforts.

IDENTITY
Downtown is recognized as the hub of regional culture for the western slope.

DOWNTOWN DEVELOPMENT
Downtown offers a diversity of quality housing choices for all price points to bring more people to live, work and play downtown.

SAFETY AND COMFORT
Downtown is safe and comfortable environment that is welcoming to all.

CONNECTIVITY
Downtown is connected to local destinations and outdoor amenities through safe pathways for bikes and pedestrians.

VIBRANCY
Downtown is the "The heart of it all" as a 18 hour/7 days a week center of activity for all ages and income levels.

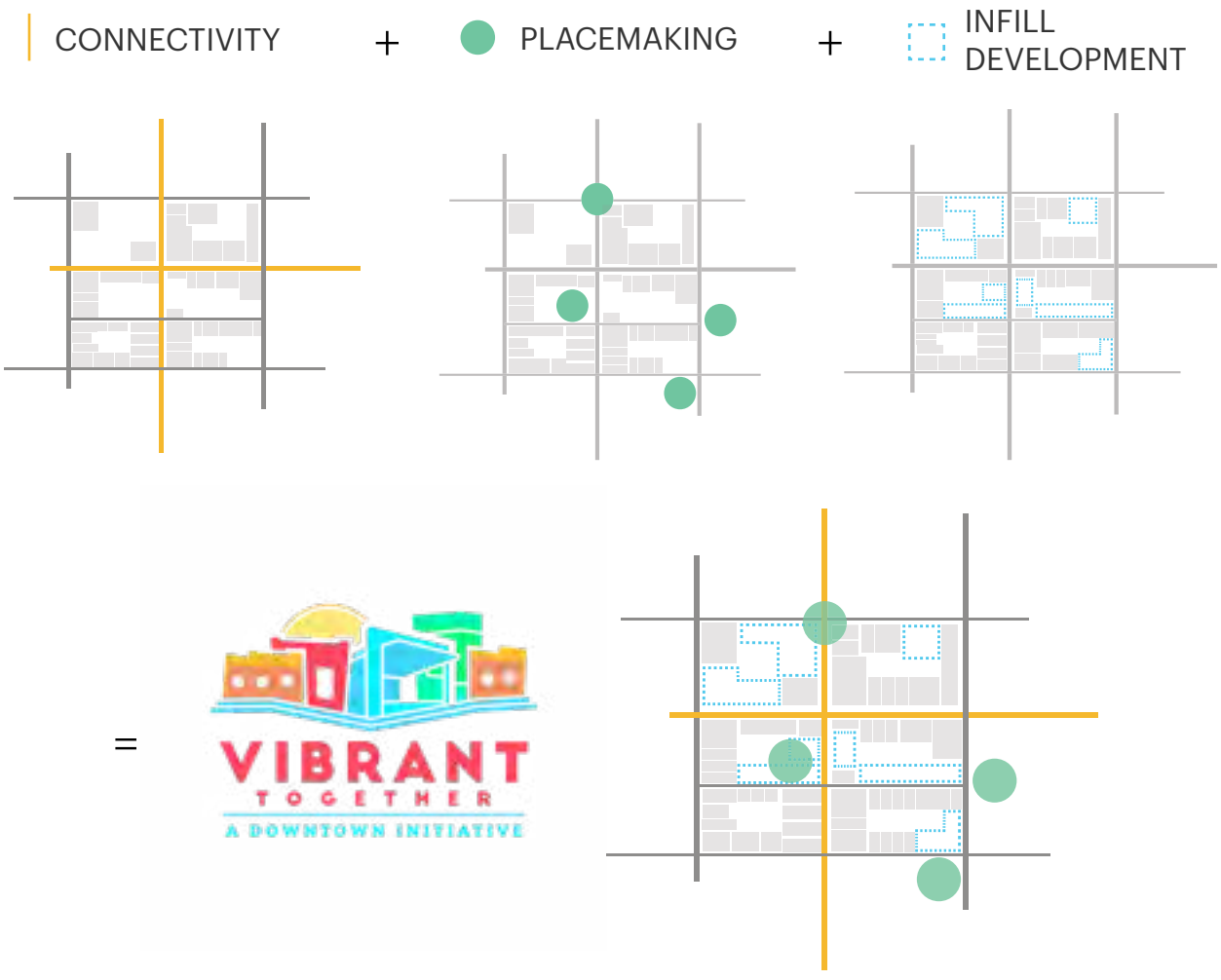
THE BIG IDEAS

The biggest of the big ideas that emerged from the process is to bring more people downtown by creating more vibe and connecting this vibe to the River. This Plan will identify different strategies for achieving this through;

CONNECTIVITY Looking at the relationships and connections between key destinations in the downtown. (Chapter 3)

PLACEMAKING Enhancing the vibe in strategic locations. (Chapter 4)

DEVELOPMENT Identifying specific opportunities for infill development to activate opportunity sites along key corridors. (Chapter 5)



PRIORITIES

CONNECTIVITY

C1: Convert 4th and 5th to Two-way Streets

C2: Prioritize pedestrian and bike improvements to improve mobility throughout downtown and to the river.

C3: Create a 2nd Street Promenade connecting the Train Depot to Two Rivers Plaza.

C4: Initiate a Gateway and Wayfinding Study to improve ease of navigation for pedestrians, bike and vehicles in downtown.

PLACEMAKING

P1: Extend the vibrancy from Main to Colorado between 4th and 7th.

P2: Encourage more community gathering and event space in downtown.

P3: Activate alleys and breezeways.

P4: Low-cost design strategies for Whitman Park.

P5: Develop a program(s) to better utilize parking.

P6: Adaptive Reuse of Buildings and Spaces to active the street frontage

INFILL DEVELOPMENT

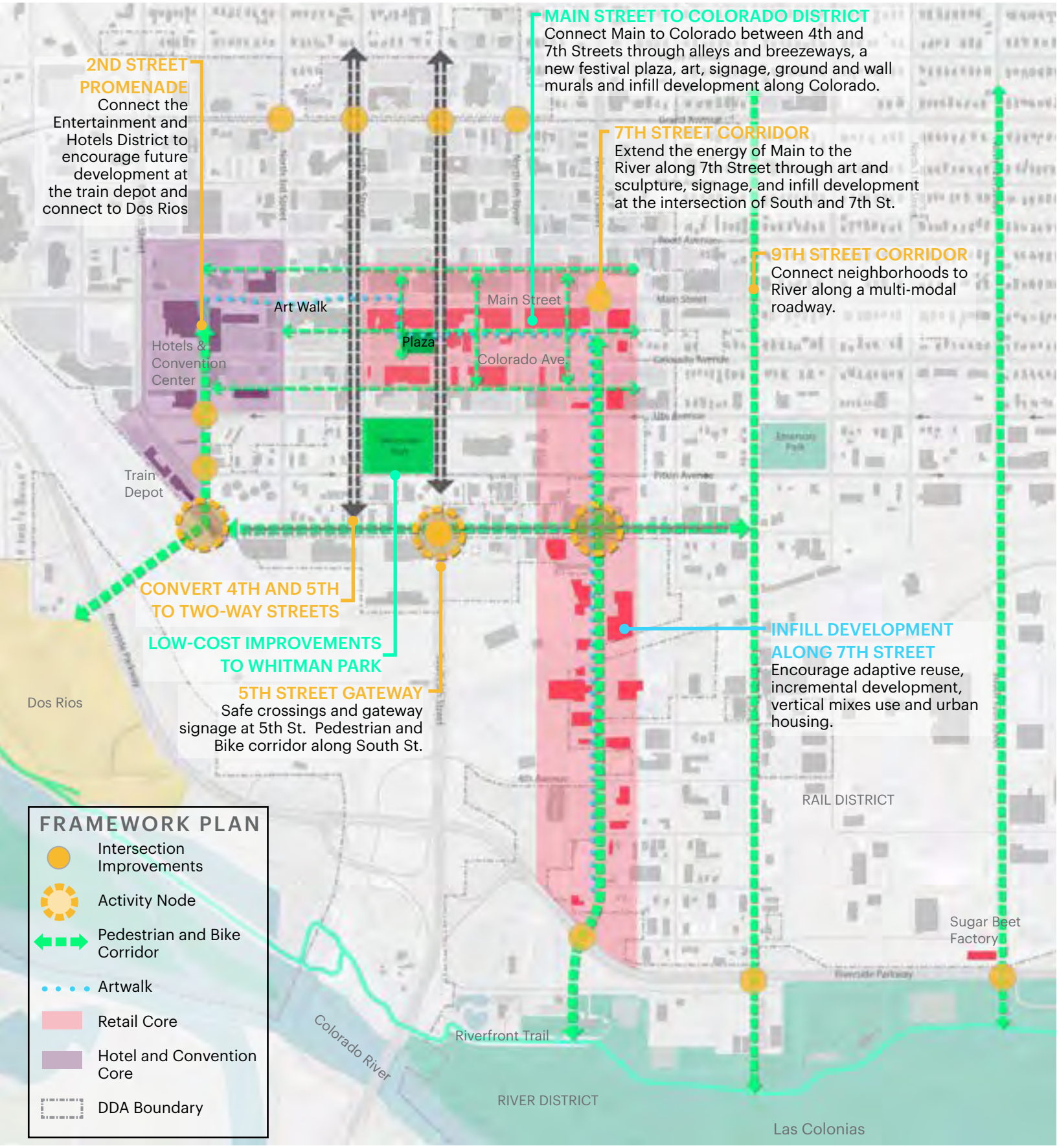
D1: Support existing businesses in the downtown through programs and Attract more business diversity to downtown.

D2: Develop (a) Grant Program(s) to incentivize small scale local reinvestment in the downtown

D3: Adjustments to codes and policy that are barriers to development.

D4: Leverage the DDA financial tools to incentivize development

D5: DDA to lead a strategic catalytic development project


2ND STREET PROMENADE
Connect the Entertainment and Hotels District to encourage future development at the train depot and connect to Dos Rios
MAIN STREET TO COLORADO DISTRICT
Connect Main to Colorado between 4th and 7th Streets through alleys and breezeways, a new festival plaza, art, signage, ground and wall murals and infill development along Colorado.
7TH STREET CORRIDOR
Extend the energy of Main to the River along 7th Street through art and sculpture, signage, and infill development at the intersection of South and 7th St.
9TH STREET CORRIDOR
Connect neighborhoods to River along a multi-modal roadway.
Art Walk
Main Street
Plaza
Colorado Ave.
Hotels & Convention Center
Train Depot
CONVERT 4TH AND 5TH TO TWO-WAY STREETS
LOW-COST IMPROVEMENTS TO WHITMAN PARK
5TH STREET GATEWAY
Safe crossings and gateway signage at 5th St. Pedestrian and Bike corridor along South St.
INFILL DEVELOPMENT ALONG 7TH STREET
Encourage adaptive reuse, incremental development, vertical mixes use and urban housing.
Dos Rios
RAIL DISTRICT
Sugar Beet Factory
Riverfront Trail
Colorado River
RIVER DISTRICT
Las Colonias
FRAMEWORK PLAN
Intersection Improvements
Activity Node
Pedestrian and Bike Corridor
Artwalk
Retail Core
Hotel and Convention Core
DDA Boundary

BACKGROUND

The current DDA Plan of Development is 38 years old, and therefore, is challenged to guide development that is reflective of both the current market or the vision of the community for what the future of greater downtown should be. In this time of growth, the DDA should have a strong governing document that is reflective of the community's wants and needs in downtown and develop strong partnerships for making a positive impact to the downtown. Future growth needs to happen in a way that protects the unique history and celebrate the local assets of the community.

This Plan will identify a vision the downtown that is aligned with the needs of the community.

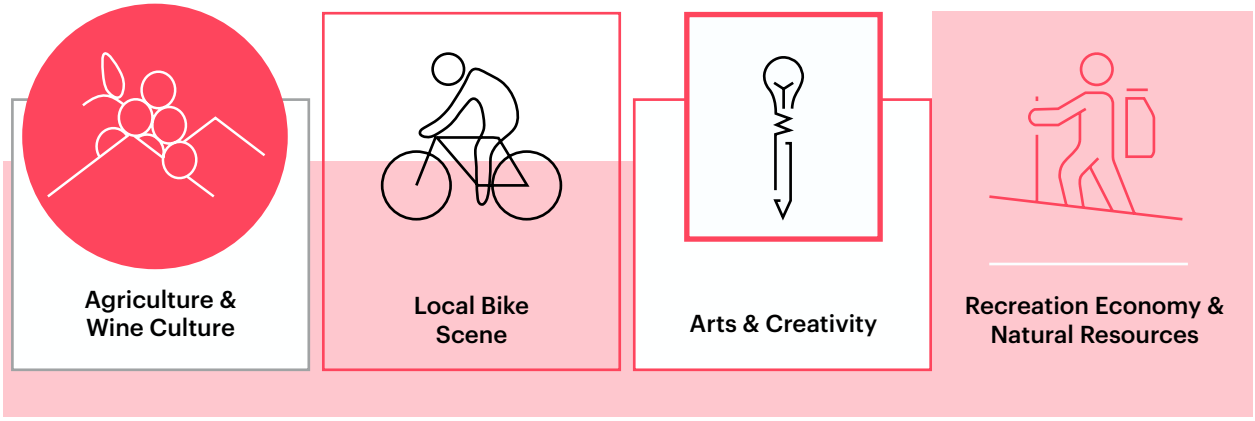
01

BACKGROUND INFORMATION

INTRODUCTION

WHAT MAKES GRAND JUNCTION SPECIAL?

We asked you!



"Downtown Grand Junction creates a sense of home - this is where we bring our friends when they visit - this is where we take them to show off our community."

Local residents describe the City of Grand Junction as a welcoming community with a small-town vibe characterized by strong local arts, culture and history. At the heart of it all is the downtown. However, residents also feel there is lot of potential for improvement in downtown. Regional population and economic growth are creating a demand for development. With this growth comes the need for strategic thought about what is best for the community.

The goal of this Plan of Development, called "Vibrant Together: A Downtown Initiative," (referred in this document as 'the Plan' or 'the POD') is to communicate our shared values for growth in Downtown Grand Junction. This Plan will be a governing document for the Downtown Partnership (DP) and will identify a clear plan of action for priority projects, strategies, and partnerships in that are aligned with the community's vision for downtown. To achieve this the Plan will;

Provide a unified vision for downtown;

Identify projects that advance the vision;

Bring local leaders together in pursuit of that vision.

WHY DO THIS NOW?

The primary responsibility of the Downtown Partnership is to support and facilitate economic development efforts to enhance the vitality of the Downtown community through capital investment and construction. While the City Comprehensive Plan, The Greater Downtown Plan and other guiding vision documents and strategic plans identify opportunities and regulate growth in the downtown, this Plan of Development will guide the types of projects and programs for downtown with the goal of sustaining Downtown Grand Junction's role as the preeminent hub for economic activity and commerce, cultural experiences and as a vibrant place to live and visit.

ABOUT

THE DOWNTOWN PARTNERSHIP

The Downtown Partnership (DP) consists of two special districts, the Downtown Development Authority (DDA) and the Business Improvement District (BID) which share the same staff and Board of Directors. Large and small, Downtown Grand Junction is involved in a wide array of activities and projects Downtown, all with the goal of sustaining Downtown Grand Junction's role as the preeminent hub for economic activity and commerce, cultural experiences and as a vibrant place to live and visit.

The Downtown Development Authority was established in 1981 by the City of Grand Junction after receiving approval through a special election of the Downtown property owners and businesses. The DDA was established to halt and prevent deterioration of property values within its district and to assist in the development and redevelopment of its district and to use its power to promote the general welfare of the district by the use of its direct and supplemental powers. The Authority was one of the first such organizations in the State of Colorado and focuses on supporting and facilitating economic development efforts to enhance the viability of Downtown through grants, capital investment and improvements to public amenities.

In late 2005, business and property owners within the boundaries of the BID voted to impose a special assessment which would fund marketing, promotions, public relations, advertising and special events. The BID affects Downtown Grand Junction commercial property owners only and excludes residential properties. The Business Improvement District produces and supports events that attract visitors, enrich life for residents, and drive revenue to local businesses. The BID also develops advertising, marketing, and public relations campaigns that reach regional, statewide and national audiences and help brand Downtown as a regional hub.

The Downtown Development Authority (DDA) focuses on supporting and facilitating economic development efforts to enhance the viability of Downtown through grants, capital investment and improvements to public amenities.

The Downtown Parthnership should have a strong governing document that is reflective of the community's wants and needs. Through the process develop strong partnerships for making a positive impact to the downtown.

ORGANIZATION

This nine-member board is appointed by the Grand Junction City Council. Eight of the members must be a resident, business lessee, or own real property within the boundaries of the DDA and BID. The City Council shall appoint one member that is exempt from the above qualifications. The four-year terms expire in June.

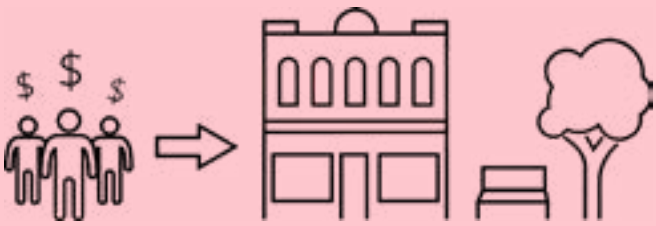
POWERS AND INITIATIVES

Downtown Grand Junction is involved in potential catalytic projects such as the Las Colonias Business Park and the Las Colonias Amphitheater that are transforming Downtown's River District into a vibrant area that will incorporate recreation, entertainment and job clustering into an area that has historically seen little investment. The Downtown Partnership is also engaged in helping bring two new hotels to downtown as well as much needed renovation to Two Rivers that will allow it to continue to operate as an economic driver for downtown. Potential new downtown housing is also on the way as the DP reached an agreement with a developer for the former R-5 building site to develop townhomes and find an adaptive reuse of the former school building. The most recent project is a public/ private partnership with Kaart Group which will add four and six story class A office space to 7th and Main and add roughly 80 new jobs to Downtown.

POLICY AND DECISION MAKING

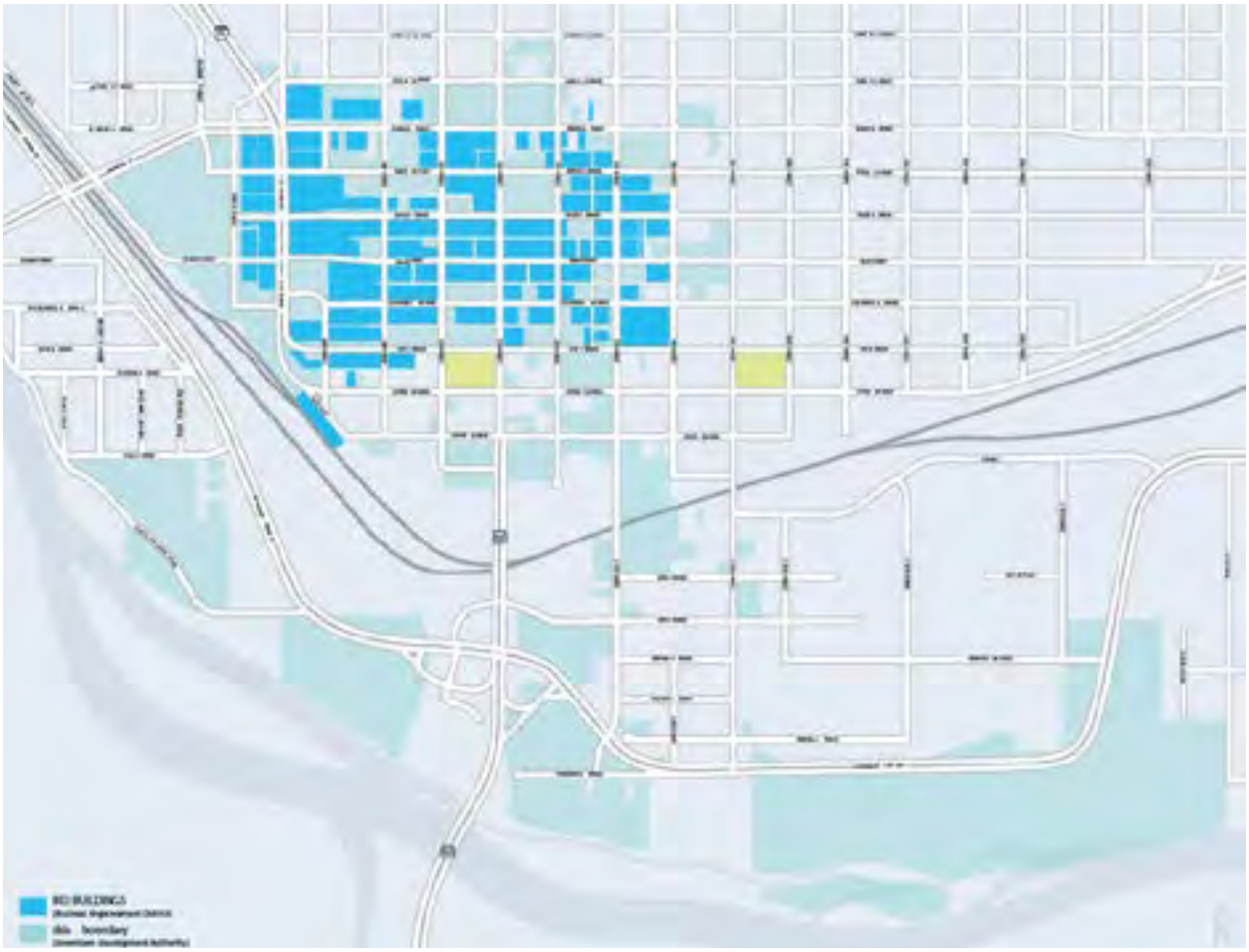
The Plan of Development will be approved by the Downtown Board. Following Board approval, the Planning Commission will review the plan and make a recommendation to City Council for final approval and adoption.

The Business Improvement District (BID) produces and supports events that attract visitors, enrich life for residents, and drive revenue to local businesses. The BID also develops advertising, marketing, and public relations campaigns that reach regional, statewide and national audiences and help brand Downtown as a regional hub.



DDA BOUNDARY

The boundary is important in that these are the properties and general areas in which the DDA has the ability to utilize its powers to assist in project, programs and policy as outlined by this Plan. Throughout this Plan, 'downtown' is used more generally to refer to the area defined by the Greater Downtown Plan, which encompasses the Central Business District, the Rail District and the River District. The DDA boundary includes properties within the DDA District that extends from the Central Business District to the Rail District and River District. The Business Improvement District largely consists of the Central Business District as well as some properties within the River District. It should be noted that properties can voluntarily incorporate into both Districts with DDA/BID and City Council approval.



PLAN CONSISTENCY

There are a number of existing plans that are of significant influence to Downtown Grand Junction, including the 1981 Plan of Development. It is important to consider how these existing plans will support and work in collaboration with this Plan of Development. Vibrant Together will work in alignment with the City's Plans such as the Great Downtown Plan and provide recommendations from this update should help to inform revisions to the Comprehensive Plan update currently underway with the City. Key considerations and potential impacts are outlined in the Appendix.

HOW THIS DOCUMENT IS ORGANIZED

CHAPTER 1: BACKGROUND

The introduction sets the stage for the ideas in the Plan. It provides background context for how history has informed current trends in Grand Junction. It provides information on the history of Downtown Partnership and how this plan is consistent with related, past planning efforts in Grand Junction.

CHAPTER 2: PROCESS

This chapter explains the planning process that was undertaken to develop the strategies in the Plan. Results from community outreach which engaged over 500 community members in person and over 25,000 people online.

CHAPTER 3, 4 & 5: BIG IDEAS, STRATEGIES AND ACTIONS

These chapters explore specific strategies to achieve the goals with recommendations for action around three overarching themes; connectivity, placemaking and development. Each strategy describes some of the background of the ideas and why it matters to downtown and outlines key action items.

ACTION
Outlines specific actions the DP should take to move ideas forward.

POLICY
The DP should coordinate with the City to modify codes and regulations.

PROGRAM
A program the DP should develop and/or coordinate with a partner to develop.

PROJECT
A specific project or study to work with partners on detailed design and costs.

CHAPTER 6: IMPLEMENTATION

This section provides a frameworks for how the Downtown Partnership and local partners can build momentum in the downtown on the strategies and specific actions, priorities to guide the actions, projects, policy and programs for the next 3 to 5 years.

UNDERSTANDING

GRAND JUNCTION

Grand Junction gets its name from its location at the confluence of the Colorado River (formerly named the Grand River) and the Gunnison River and offers sweeping views of the Grand Mesa, Colorado National Monument and the Book Cliffs. The Grand Junction town site was settled September 26, 1881, although human civilization in the area dates back thousands of years to include the Ute and Fremont tribes, among others. Grand Junction has been shaped by natural geography as well as man-made transportation connections, first by the Denver and Rio Grande Railroads in 1882 and again when the Interstate system reached the City in the 1960's. These connections supported the economic growth of agriculture across the Western Slope, and in later years wholesale goods and energy production. The River has a significant role in shaping Grand Junction and the surrounding landscapes. This powerful river provided water in the desert for the growth of both towns and agriculture. Between the river and the rail, Grand Junction became a regional hub of agricultural and mining industries that transformed the downtown.

In the 1950's, a time when many cities were looking towards pedestrian malls, Downtown Grand Junction embraced the concept of a chicane, which is a serpentine street design with pockets of green space and public art. Grand Junction's Main Street is celebrated as an innovative and successful downtown revitalization strategy, the design of which is part of the unique character and history of the community. The downtown was first recognized nationally in 1962 when Operation Foresight began to reconstruct Main Street into a 'downtown shopping park' with landscape, parking and updated streets for which the city was awarded All America City recognition by Look magazine.

GRAND JUNCTION

TODAY

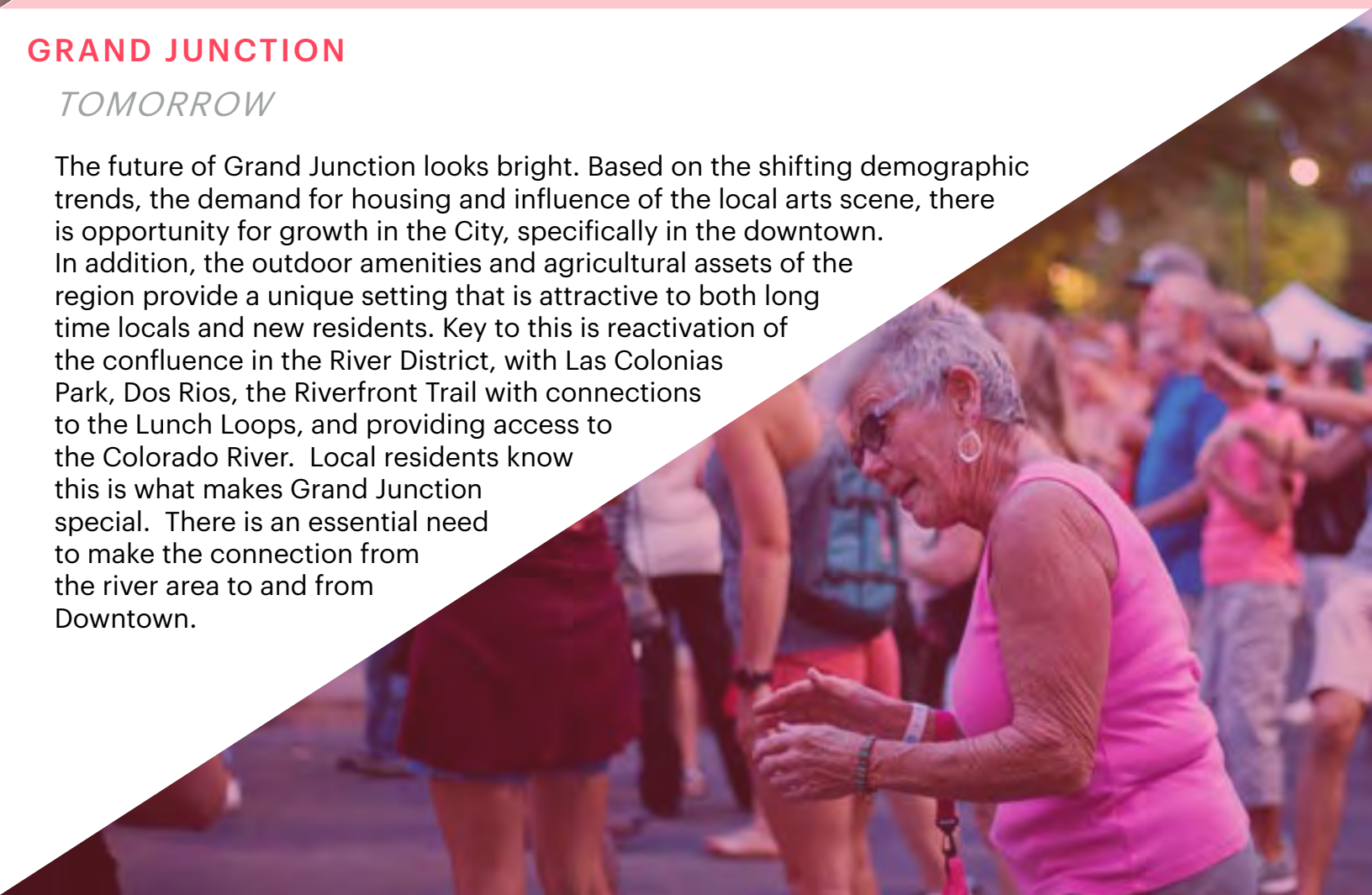
Downtown Grand Junction is now home to dozens of outstanding locally-owned shops, music venues, restaurants, galleries and area services with a large collection of public art, fountains and historic buildings.

Art on the Corner (AOTC) is a year-round outdoor sculpture exhibit which was established in 1984 by local sculptor, Dave Davis and was one of the first of its kind in the country. Art on the Corner, First Friday's, farmers markets and events at the Avalon are noted as some of people's favorite events in the downtown that make Main Street a source of pride for local residents as well as a draw for visitors.

GRAND JUNCTION

TOMORROW

The future of Grand Junction looks bright. Based on the shifting demographic trends, the demand for housing and influence of the local arts scene, there is opportunity for growth in the City, specifically in the downtown. In addition, the outdoor amenities and agricultural assets of the region provide a unique setting that is attractive to both long time locals and new residents. Key to this is reactivation of the confluence in the River District, with Las Colonias Park, Dos Rios, the Riverfront Trail with connections to the Lunch Loops, and providing access to the Colorado River. Local residents know this is what makes Grand Junction special. There is an essential need to make the connection from the river area to and from Downtown.

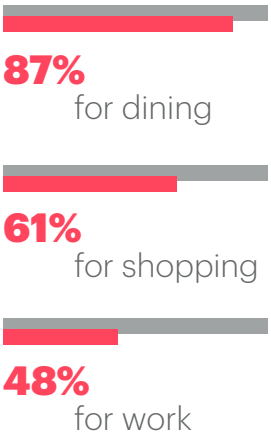


Understanding current trends and market shifts in the downtown assists in making informed decisions around planning and policy. While the future is always an unknown, markets can shift and change. A keen understanding is needed for how economic growth has affected development in the downtown and how current shifts in the market can inform future growth for the Plan. An understanding of the markets is included in Appendix B.

DEMOGRAPHICS

Grand Junction today is the largest City along the I-70 corridor between Denver and Salt Lake City with a City population of 58,000 and a metropolitan area of 146,000 people. As the major population and employment center in the region, the City is home to county and state offices, three major hospitals and Colorado Mesa University. The downtown population represents 25,000 people with approximately 10,000 residences.

Why do you go DOWNTOWN?



OFFICE MARKET

As a regional hub, Grand Junction has a strong daytime population with downtown banks, real estate and other professional services as well as being the central location of many City and County offices. In addition, The Grand Junction Business Incubator is locally training and producing young entrepreneurs and emphasizes the creation of local jobs emerging in the downtown. The City has also focused attention on the outdoor recreation industry that is inherent to the region. To attract growth in this sector, the 15-acre business park within the Las Colonias development at the riverfront will offer outdoor recreation companies a new office submarket within the Greater Downtown.

78% of survey respondents go downtown **1X OR MORE PER WEEK**

RETAIL MARKET

Downtown serves as an important retail node for local and regional residents as well as tourists. Community input shows that 76% of people go to downtown Grand Junction once or more each week. The downtown is supported by a large regional population of people that come to downtown for work (40%), shopping (54%) and/or for dining and drinks (78%). There is a growing market potential for restaurants and bars in the downtown as this area has seen 13% growth over the last 10 years. There is also a momentum in the downtown market driven by the recreation and tourism culture in the area exemplified by the Las Colonias River Development and 15-acre business park.

HOUSING MARKET

Demographic research suggests that downtown is attracting a young generation of people starting their careers, and an older generation of retirees 'empty-nesters' who are downsizing. This in addition to a strong residential rental and for sale housing market in downtown, suggests a demand for increased housing and infill development in the downtown.

28%
Residents want more **dining** and **shopping** downtown.

12%
Residents want **longer hours** for businesses.

PROCESS

The goal of Vibrant Together Project is to work with residents and local organizations to create a vision for a thriving downtown. In addition to providing strategies for the downtown, the process has built support from the community as well as local partnerships for successful implementation.

"Everything that matters most to me in GJ is downtown"

02

A COMMUNITY DRIVEN PROCESS TO CREATE A GREAT DOWNTOWN

DOWNTOWN TODAY

Where are we?

Understand the current conditions and trends that influence downtown. This phase will result in a market analysis and understanding of local issues and concerns.

1

DOWNTOWN TOMORROW

Where do we want to be?

Develop downtown goals that align community priorities. This phase will result in goals that provide a framework for action and guide decision making.

2

24,456
People Reached on Social Media

24
Focus Group Meetings

362 INDIVIDUAL SURVEY RESPONSES
Comment Boxes & Community Survey

7
Community Action Team Meetings

OVER **500**
Engaged Community Members

The Vibrant Together process followed four distinct phases, looking broadly at the issues, developing community driven goals, and moving towards more specific strategies and actions to achieve these goals. Each phase provided a number of meaningful opportunities to engage in community dialogue to gain more awareness around the challenges in the community and provide feedback on ideas for change. Through the process there has been a perceivable shift in the community conversation around working together towards common objectives and putting ideas into action.

STRATEGIES

How will we get there?

Explore and refine ideas and strategies to advance downtown goals. This phase will result in a series of strategies that focus on achieving community goals.

3

PRIORITIES AND ACTIONS

Where and how do we start?

This phase will result in a Plan of Development update that identifies key concepts for downtown, implementation recommendations, and key partnerships for taking action.

4

METHODS

COMMUNITY ENGAGEMENT

Feedback from local residents and visitors is essential to understanding the community vision for downtown. Vibrant Together aimed at a wide variety of public engagement activities and strategies to reach a broad spectrum of the population and to make providing input easy and fun. A complete summary of the engagement process and activities is provided in the Appendix. Community engagement took place in three phases through the project;

DOWNTOWN TODAY AND TOMORROW

The first step in community engagement was working with and listening to the community to identify their perspectives on what works and what doesn't downtown. Between September 2018 and February 2019 community feedback was received at pop up events, comment boxes around town, through an online survey and Instagram surveys, focus group meetings, meetings with stakeholders, the Community Action Team and at a series of strategy workshops followed by a Community Open House. Feedback asked a series of questions that looked to better understand;

1. What downtown means to residents and visitors in Grand Junction;
2. How people get around and what challenges they face;
3. What people like to see or do in downtown now and what they would like to see or do in the future.

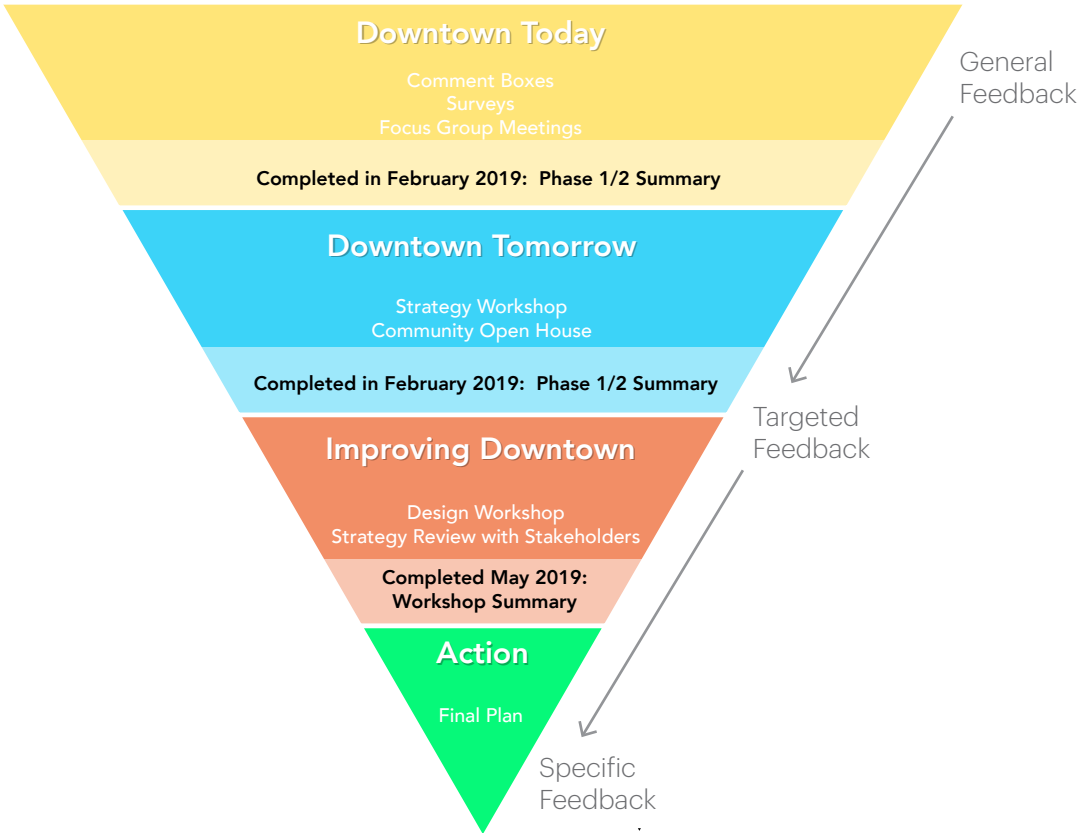
IDEAS FOR IMPROVING DOWNTOWN

The next step in the process was working with stakeholders and the public to identify specific actions to work towards achieving the goals identified in the first phase. A week-long Design Workshop took place in April 30-May 2 2019. The workshop brought together a team of experts to produce conceptual drawings and renderings while gathering immediate feedback from the DDA, CAT, stakeholders and public. This was a collaborative team-based approach that resulted in developing design concepts and strategies. Following the workshop, we met with property owners and potential project partners for review and input on the ideas and strategies encompassed in this Plan.

RECOMMENDATIONS FOR ACTION

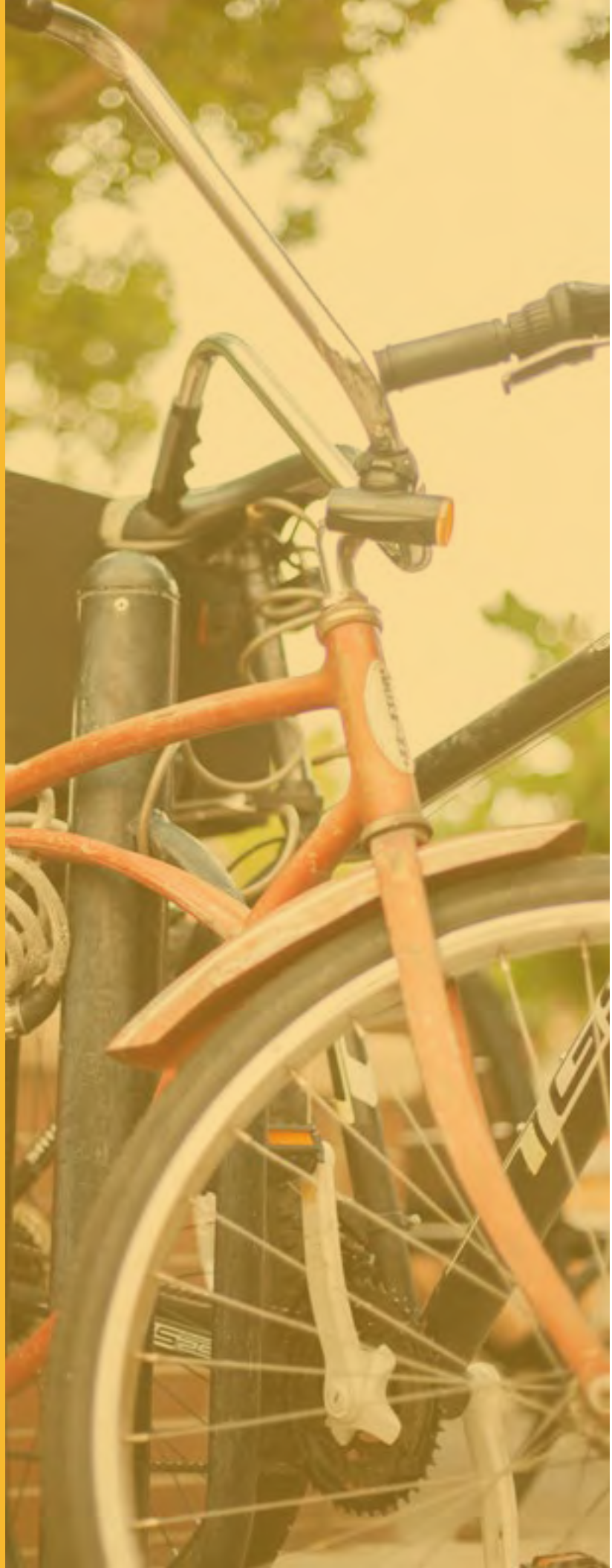
A number of videos were produced about the big ideas the Plan would highlight that were distributed on social media. An Instagram Live and Facebook Live answered questions from the community about the ideas in the Plan. Community Action Team members provided blogs on their key takeaways from the project that were shared on the website, social media and in the Sentinel. The goal was to share the ideas in this Plan to build an understanding of these strategies and why they matter to the future of downtown.

COMMUNITY ENGAGEMENT PROCESS DIAGRAM



CONNECTIVITY

Streets are the connective networks of downtown essential to creating a vibrant community. They are an important part of getting people where they need to go- whether it is to a favorite restaurant on Main Street or a show and the Avalon. A great street moves people, bikes and cars safely and comfortably. Cars should travel slow enough to see businesses and keep people safe, as well as get them where they need to go. Primary corridors, such as Ute and Pitkin prioritize cars. Others, such as Main and Colorado balance the movement of cars, people and bikes. Streets also play an important role in the success of businesses that front them. The space between the street and the building is where the magic happens. From running into a neighbor at a street café to stopping to take a selfie with a piece of art to window shopping for a new pair of shoes, this is what great downtown experiences are made.

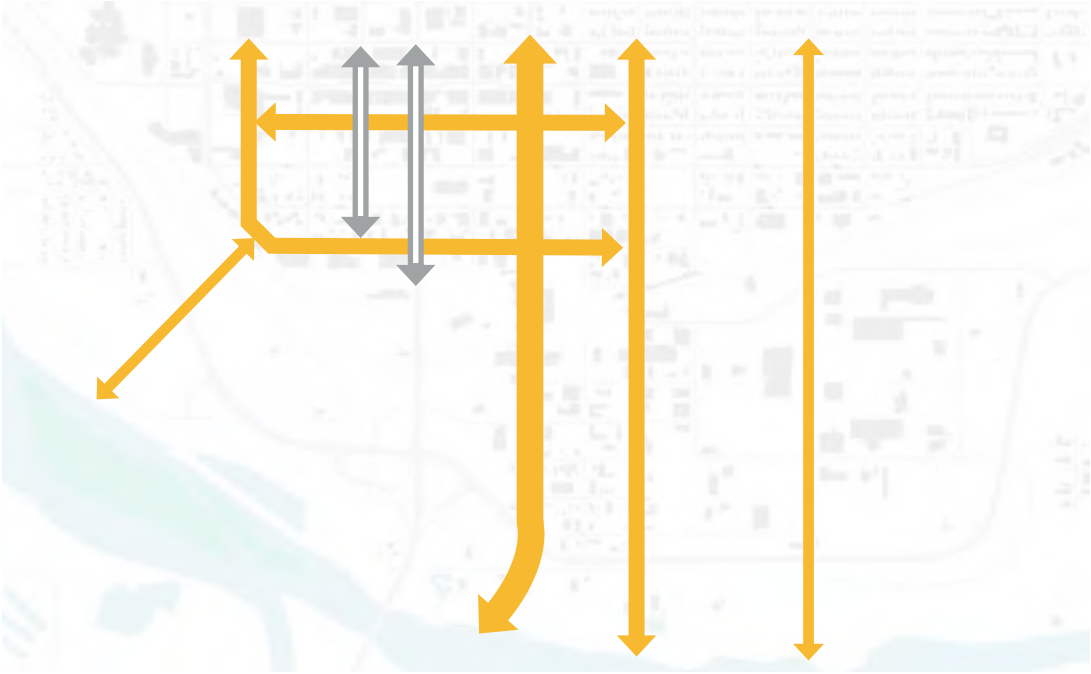


"It's a beautiful place to hang out. I love the old buildings, trees, and walk-able lifestyle."

03

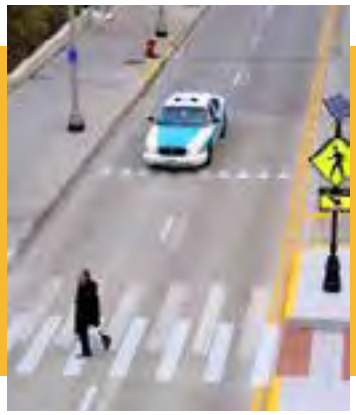
BIG IDEAS: CONNECTIVITY

CONNECT KEY DESTINATIONS TO DOWNTOWN



1

Convert 4th and 5th to Two Way Streets.



Prioritize pedestrian and bike improvements to improve mobility throughout downtown and to the river.

2

3

Create a 2nd Street Promenade connecting the Train Depot to Two Rivers Plaza.

Initiate a Gateway and Wayfinding Study to improve ease of navigation for pedestrians, bike and vehicles in downtown.

4

C1.

CONVERT 4TH AND 5TH TO A TWO-WAY STREET:

Converting 4th and 5th to two way streets would promote safer, more comfortable, walking and biking and support more successful businesses along these key corridors. This creates more experiential streets by attracting more foot traffic. More people walking attracts more restaurants with outdoor seating, promotes more drop-in business, and encourages more chances to meet and interact as a community. On the Vibrant Together walking tour, stakeholders noticed 5th Street is significantly noisier and feels less safe with traffic whizzing past. In comparison, walking along 6th Street which has slower traffic, street trees, and nice places to sit feels more comfortable and local residents more often choose to take this route.

Converting 4th and 5th Streets is not a new discussion for the City of Grand Junction. The 1981 Plan of Development addressed this idea and more recently in the Greater Downtown Plan in 2015. Stakeholder meetings with CDOT and the City were generally receptive to the idea of converting to two-way streets. The biggest concerns noted are how this change would be perceived by the community and increased traffic along 5th. Preliminary discussions with traffic engineers suggest that the existing grid would disperse traffic and not provide significant traffic implications to downtown.

Two-way streets are slower, safer, and quieter- which attracts more people to walk and bike along these corridors.

SAFER
STREETS
+
QUIETER
STREETS
+
SLOWER
STREETS
=
ECONOMIC DEVELOPMENT

KEY ACTION ITEMS

ACTION

Increase awareness of the importance and value of two-way streets in downtown among business owners and residents to gather support from the community.

PROJECT

Engage a transportation engineer to model roadway design and configuration to better understand traffic impacts and costs. Explore a temporary re-striping study to 'test' the project, identify potential problem areas for further study, and gain the trust of the community before a larger infrastructure investment.

PROJECT

Following a successful launch of a test project, and with support from the local community, the City could work with the Downtown Partnership to identify a series of larger infrastructure related projects for 4th and 5th that would convert them into multi-modal streets with two-way traffic, on-street parking, bike lanes and sidewalks with street trees and furnishings.

C2.

PRIORITIZE PEDESTRIAN AND BIKE IMPROVEMENTS TO IMPROVE MOBILITY THROUGHOUT DOWNTOWN AND TO THE RIVER.

The Colorado River is an east-west spine of the community. It represents the identity and the history of Grand Junction. A consistent message heard from the community was to promote better walkable-bikable connections from downtown to the River and future development at Las Colonias and Dos Rios.

Street design has an impact on if people choose to walk or bike and how they experience a downtown. Some areas of downtown, such as Main Street, have a very comfortable walking environment. However, off Main, there is a need for safety improvements such as better lighting, improved crosswalks and better-quality sidewalks. Design elements to promote safe walking or biking and encourage more active streets include curb extensions, ramps, street trees, street furnishings art and signage as well as lighting to feel safe. Some of these strategies, such as crosswalks and bump outs, could be applied throughout the downtown- or at key intersections- as a low-cost, high-impact strategy.

People need to move safely from north to south and east to west- and everywhere in between- to create a vibrant downtown. There are opportunities to enhance existing roadway corridors to provide multiples routes to connect to key destinations in downtown and to the river.

QUICK WINS FOR MOBILITY

CROSSWALKS

Painted with white stripes or bright colors, these provide increased visibly of legal pedestrian movements to inform vehicles of shared space and inform pedestrians of safe places to cross. Crosswalks could be painted by local artists or community members within the Creative District, tie to local arts and include the history of Grand Junction.

CURB EXTENSIONS

Curb extensions (often referred to as bulb outs) are a simple strategy in downtown to improve pedestrian safety and increase the aesthetics of a street. Curb extensions increase pedestrian safety by decreasing the crossing distance and increasing visibility by extending the curb and sidewalk into streets where on-street parking exists. These can be built as a test project with paint before installing permanent curbs.

7TH STREET

7th should function as a primary connective corridor from Main Street to the Riverfront. It is critical that it be an engaging, walkable and bikeable street. The existing 7th St. corridor has recently updated infrastructure, buildings framing the street, and emerging local businesses. Redevelopment projects along the 7th St. corridor would bring the energy of downtown towards the River and encourage future redevelopment within the Rail District. An 'art trail', with art as a visual beacon, to lead people from the art on Main Street to the river is another strategy to activate the corridor.

PEDESTRIAN BRIDGES

12th Street connects north to Colorado Mesa University and to Riverside Parkway including the future development at the Sugar Beet Factory.

ILLUSTRATIVE PERSPECTIVE OF 12TH ST. BRIDGE

The City has discussed vehicular connections over the Railroad tracks to reconnect the grid along 12th Street as a major north-south thoroughfare. A different way to think about increasing connectivity at this location may be to shift the conversation towards a Pedestrian/Bike Bridge which would have less impact to rail operations and have lower infrastructure costs.

Future planning around the Dos Rios Development would benefit from a pedestrian and bike connection to downtown. It is a relatively short distance from the Dos Rios project area to downtown. However, due to high speed roads and rail lines future residents would need to walk over a mile to dine and shop. A pedestrian bridge from Dos Rios to the Train Depot and potential 2nd Street promenade would significantly increase access in this part of downtown.

7TH & SOUTH

Main Street is approximately 1 mile from 7th and Riverside Parkway. The 7th and South St. intersection is ¼ mile, commonly understood to be a comfortable 5-minute walk, from Main Street. Activating this node will help to draw people along the 7th Street corridor.

9TH STREET

9th Street is a great connection to the river with a lot of potential to provide a safe, walkable pathway.

ILLUSTRATIVE PERSPECTIVE OF 9TH STREET

Many local residents stated 9th Street is preferred walking route because it is quieter and provides a more direct connection from downtown neighborhoods to the River. This street should be a multi-modal road. Streetscape infrastructure improvements should include curb and gutter, buffered bike lanes, sidewalks and art along the corridor.

RIVERSIDE PARKWAY

Riverside Parkway is a road designed for vehicles, not pedestrians. As such it is a barrier between potential redevelopment to access to Las Colonias and the River. Efforts should be made to improve pedestrian at-grade crossings at 7th, 9th, 12th and Winters Ave, which are spaced at about ¼ mile. Pedestrian signals, high visibility crosswalks, bump outs, narrowed turn radii, and refuge islands are strategies that could help to increase pedestrian and bike safety.

SOUTH STREET

Main Street is a great east to west connection but it is a challenging route for bikes. South Street would be an east-west alternative and bike route. It is not highly trafficked, has a wide ROW that could accommodate additional infrastructure, and is a comfortable, treelined street. In addition, Ouray could be modified to accommodate bikes and provide a safe bike connection to the lanes along 10th Street. These connections would offer a safe bike and pedestrian alternatives to higher-speed streets like Grand Avenue and I-70B.

The intersection of 5th and South Street is an important arrival gateway into downtown but is challenged with heavy infrastructure. Cars travel at significant speeds, traffic merges at Ute and Pitkin, and Whitman Park does little to welcome to downtown. A median in the roadway at the 5th and South intersection restricts for east-west movement for vehicles, bikes and pedestrians. Yet this important intersection also provides access to the bus terminal and 7th Street corridor. Discussions with CDOT should identify strategies to slow vehicles and improve multi-modal access at this location. This could include as lane narrowing after the bridge to slow traffic entering downtown. Bump outs, sidewalks, signage and landscape to improvements along the roadway provide visual cues for cars to slow and increases pedestrian comfort and safety. Safe pedestrian and bike access must be provided to the bus terminal for the success of transit in the downtown.

COORDINATE WITH CDOT

SIGNAL WARRANT

A warrant is a condition that an intersection must meet to justify a signal installation. A thorough investigation of traffic conditions, accident history, and physical characteristics of the location is necessary to establish warrants for the installation of a traffic signal. The Region Traffic Engineer will conduct the signal warrant study with all the necessary calculations and shall certify that warrants have been met by documenting them in a letter.

Traffic Control Signals can be justified when warrants are met as indicated in the Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD), Part IV. The following eight “traffic control signal needs studies”, are warrants for a new signal;

Warrant 1, Eight-Hour Vehicular Volume

Warrant 2, Four-Hour Vehicular Volume

Warrant 3, Peak Hour

Warrant 4, Pedestrian Volume

Warrant 5, School Crossing

Warrant 6, Coordinated Signal System

Warrant 7, Crash Experience

Warrant 8, Roadway Network

Warrant 9, Intersection Near a Grade Crossing

KEY ACTION ITEMS

POLICY

The City should amend the GDP to update the 9th Street sections to be more multimodal.

ACTION

The City and the Downtown Partnership should initiate conversations with BNSF to improve pedestrian and bike access over the Rail lines.

ACTION

The City and the Downtown Partnership should engage in discussion with CDOT for traffic calming tools and a better pedestrian crossing at 5th and South.

PROGRAM

The Downtown Partnership to coordinate a community crosswalk paint program at the intersections along Colorado as a pilot project.

PROJECT

The City, with support of the Downtown Partnership, should review intersections along Riverside Parkway, 5th and South, 7th and South, Ute and 2nd, Pitkin and 2nd, and the roundabout at 7th and Main for an improved pedestrian access.

PROJECT

The Downtown Partnership should work with City Public Works, Urban Trails Committee and Neighborhood Groups to better understand the types of bike lanes facilities the community wants. Develop a design plan and identify funding to implement bike lanes.

C3.

CREATE A 2ND STREET PROMENADE CONNECTING THE TRAIN DEPOT TO TWO RIVERS PLAZA.

Connecting the Train Depot to more active areas of downtown is an important goal. The railroad is a strong part of the history of Grand Junction and influenced how the City grew and prospered. Today, people visiting Grand Junction by train stay at the hotels along Main Street a couple of blocks north. Yet, navigating this area is both uncomfortable and confusing for local residents as well as visitors arriving to Grand Junction by train. The roadways are fast, pedestrian crossings are limited, and the sidewalks are in disrepair.

The Old Train Depot is under new ownership for potential redevelopment and was noted as many peoples favorite building in downtown. Second street is a direct connection from the Train Depot to Two Rivers Plaza on Main St. This should be a safe, visible corridor inviting visitors and locals from to the heart of Grand Junction. There is some emerging redevelopment along Second Street such as restoration of the old Train Depot, a brewery and wine bar and a new hotel. Investment along 2nd Street would likely spur additional redevelopment in the area.

For this to be a safe and viable route for pedestrians, signalized intersections are critical. Ute Street and Pitkin Street are currently State-owned highways managed and maintained by CDOT. Transportation departments across the country are increasingly recognizing the value of multi-modal streets-street that pedestrians and bicycles, as well as vehicles safely. A key focus in discussions with CDOT should emphasize the importance of moving pedestrian's safely from north to south along the I-70B corridor. This is an obtainable goal and a strong compromise for mitigating the impacts of I-70B on the downtown.

CONCEPTUAL PLAN OF 2ND STREET AND SOUTH STREET CONNECTIVITY

2ND STREET ILLUSTRATIVE PERSPECTIVE

A road diet could allocate 20' of 2nd St. to a pedestrian tree-lined promenade with signage, art, sidewalks, and street furnishings. A pedestrian crossing at South Street, a city-owned and maintained street, would provide safe access from the Train Depot to the 2nd Street promenade.

KEY ACTION ITEMS

PROJECT

The City convened a stakeholder meeting in July 2019 to get feedback about a 2nd Street promenade from nearby businesses and relevant stakeholders. The City hired local landscape architect to help develop design concepts based upon the feedback with the goal of having a completed concept for the 2nd Street Promenade by the end of 2019.

POLICY

Downtown Partnership should coordinate with CDOT to obtain a signalized intersection through a warrant study.

C4.

INITIATE A GATEWAY AND WAYFINDING STUDY TO IMPROVE EASE OF NAVIGATION FOR PEDESTRIANS, BIKE AND VEHICLES IN DOWNTOWN.

Downtown Grand Junction is bisected by highways, rail lines and vacant areas which creates divisions within downtown and makes it challenging to navigate. To encourage people to walk, shop and explore downtown needs to be safe and easy to get around for both residents and visitors. Wayfinding references how people navigate from place to place. Wayfinding is most successful when it is looked at comprehensively through a family of sign elements along key corridors to strategic destinations. Gateways, directional signs, street banners, pavement markings, public art and map kiosks are ways to direct people in a manner that is simple and understandable.

Signage should be provided at a range of scales to assist drivers, bikes and pedestrians in navigating the downtown district. Signage that designates times or distances to local destination is more motivating for people to walk or bike. A wayfinding study should look at other elements of this Plan such as providing ease of access to public parking, an 'Artline', and activation of the alleys. This is also an opportunity to collaborate with local artists and local businesses for how the brand and identity should connect to local history, the arts and culture of Grand Junction.

KEY ACTION ITEMS

ACTION

The Downtown Partnership should initiate a comprehensive wayfinding and gateway study to provide a strategy for bringing people to and navigating around downtown.

51%

of comments would like to see more bike lanes and bike racks.

78%

of survey respondents go downtown 1X or more per week

73%
DRIVE

20%
WALK

7%
BIKE

Streets are an important part of getting people where they need to go- whether it is to a favorite restaurant on Main Street or a show and the Avalon. A great street moves people, bikes and cars safely and comfortably.

PLACEMAKING

People are looking for more than just a shopping in downtowns. They are looking for an experience that includes dining, events and interacting with neighbors. Placemaking key to creating a downtown experience. Interesting, interactive spaces create thriving places that people want to live and hangout. Placemaking can be creative in leveraging local arts and culture to highlight a community. It can be transformative in building character and quality of place that sparks reinvestment. It can also be low cost by looking at opportunities for small changes using minimal or reused materials. Anyone can be a placemaker; a business who builds a parklet in front of their store, a developer who adds a plaza with a park and cafe seating in their project, and community of artists that come together to paint a ground mural at an intersection.

"Downtown GJ is the hip, cool, artsy, exciting part of town."

04

BIG IDEAS: PLACEMAKING

ENHANCE THE VIBE IN THE DOWNTOWN

1

Extend the vibrancy from Main Street to Colorado Avenue between 4th and 7th Streets.

Encourage more community gathering and event space in downtown.

2

3

Activate alleys and breezeways.

Low-cost improvements to improve safety at Whitman Park.

4

5

Develop (a) parking program(s) to better utilize parking.

Adaptive reuse of buildings to activate the street frontage.

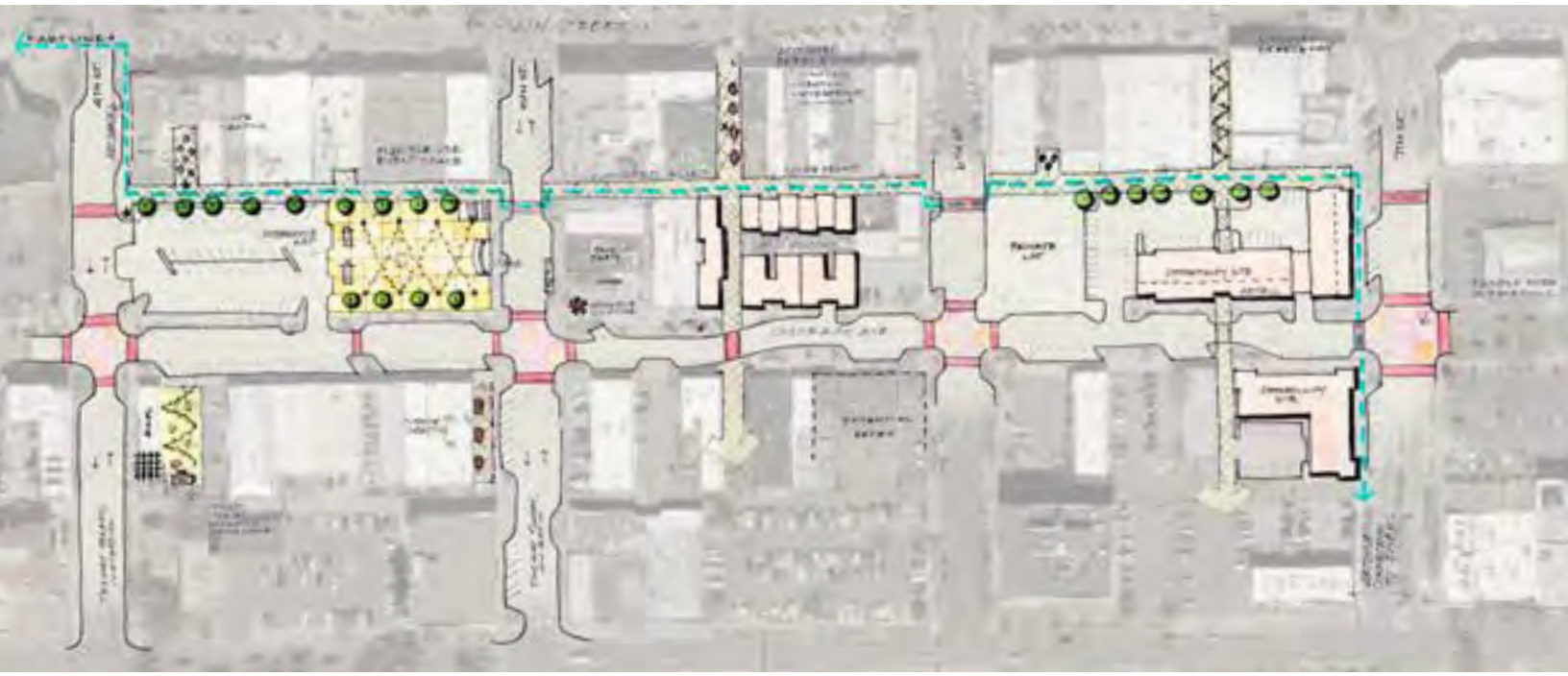
6

P1.

EXTEND THE VIBRANCY FROM MAIN STREET TO COLORADO AVENUE BETWEEN 4TH AND 7TH STREETS.

Great downtowns are more than a great Main Street. They are a network of streets, spaces, and buildings that work together. Expanding the energy of Main Street towards the emerging businesses along Colorado will extend the vibe to create more activity downtown. New and different businesses in downtown will capture a more diverse set of shoppers, which will attract new and different people to come downtown, which will in turn attract more businesses. This business diversity is healthy for downtowns to serve a wide range of people, from students to families to active retirees, and contribute to interesting and engaging place to hang out. Encouraging business expansion along Colorado makes sense. Colorado is a great street, with updated infrastructure and strong local businesses to frame to the street on the south side. Extending the momentum to the south of Main Street is a first step towards extending this energy towards the river, and encourages development towards the Rail and River Districts.

CONCEPT DISTRICT PLAN



DOWNTOWN CONCEPT DIAGRAM

KEY ACTION ITEMS

ACTION

The Downtown Partnership should work with the local businesses to create a brand and marketing strategy for this area which could include the 'Artline', identity of the alleys and breezeways, murals, creative district programs and event programs.

P2.

ENCOURAGE MORE COMMUNITY GATHERING SPACES IN DOWNTOWN.

The community expressed interest in more spaces downtown for people of all ages to hang out. Currently, events are a huge success in downtown and do a great job of bringing people downtown - but it is cumbersome to close Main Street. An additional event space or plaza would provide a venue and the infrastructure to increase and/or improve events in the downtown as well as to provide a location for casual public gathering in downtown during off-event times.

An event plaza could be implemented incrementally. The first step would be to keep the parking and block off the space during events. A next step could be incorporating low-cost improvements such as a ground mural, temporary seating and overhead lighting. Finally, if successful based on feedback from businesses and the local community, options could be explored for dedicating a permanent event space with a stage, plaza paving, new safe-restrooms, lighting, electrical, tents spaces, sculptural/interactive art pieces and/or play equipment could be installed. Parking could be incorporated as an off-event use in any option, but could be phased out based on community and business preference.

The City-owned lot between 4th and 5th Street along Colorado would be an ideal, central location for a future event plaza. It is located central to Main Street, fronts to an active alley with strong businesses and is in the proximity of other local businesses that would benefit from increased customers in the area.

20% of people would like to see more spaces to **TO HANGOUT DOWNTOWN**

of survey comments would like to see more events including **LIVE MUSIC AND FESTIVALS** **20%**

KEY ACTION ITEMS

ACTION

Test the concept of a flexible use event space at 5th and Colorado within the existing Downtown Partnership programs/event schedule. Locate farmers markets, chalk art festival, adding a temporary music stage to an existing event and/or as a designated food truck location.

ACTION

Utilize the lot at 5th and Colorado for a pilot food truck program, that happens once or twice a month.

POLICY

Update the Downtown mobile vending ordinance to incorporate food trucks into Downtown and identify potential pod sites for food trucks Downtown.

PROJECT

Based on feedback from the businesses and local community, develop a plan to implement permanent improvements in the plaza.

PROGRAM

Develop a pop-up shop program to activate spaces downtown.

P3.

ACTIVATE THE ALLEYS AND BREEZEWAYS

The alley and breezeway networks are a unique part of downtown Grand Junction and could become part of the identity for the Grand Junction arts scene. Defining a of a 'sense of place' in the alleys and breezeways through specialty paving, wall and ground murals, overhead lighting, and businesses with rear entrances would enhance the permeability between Main and Colorado to boost a vibrant, creative, active district. Activating the alleys serves a dual purpose of making the alleys a safer by improving visibility and sense of comfort while maintaining function of the alleys. Local maintenance and utility companies should be coordinated with so improvements do not impede operations.

KEY ACTION ITEMS

ACTION

The Downtown Partnership and the Arts Commission should collaborate to develop a Murals Grant Program to encourage both local and regional artists and highlight the unique history and character of Grand Junction.

POLICY

Review and/or revise the existing façade grant program to include back of building improvements.

POLICY

The Downtown Partnership should partner with existing businesses and the City on revising the regulatory requirements to allow for a sizable site to be used by multiple businesses as a way to lower costs.

PROJECT

Develop a plan to implement larger scale investments such as improved paving, increased lighting, signage in the alleys.

ILLUSTRATIVE OF ALLEY IMPROVEMENTS

Businesses should be encouraged to locate entrances along the back alleys. Some local businesses have already put entrances at the back of their buildings to address the parking along Colorado.

ILLUSTRATIVE OF ALLEY IMPROVEMENTS

Some Main Street business owners commented that the deep retail spaces are difficult to fill. Activating the backs of the buildings with entrances offers the additional benefit for businesses to co-share spaces, sub-divide to two separate businesses or expand their operations.

FOOD TRUCKS

Another way of activating spaces downtown and bringing people together is to bring food trucks to a central location. Food trucks are becoming an 'indicator' for cool places to hang out. A common misconception is that food trucks offer too much competition to existing restaurants. In reality, food trucks often draw people more people to a central place by offering a range of food choices that can bring more customers to nearby restaurants. Food trucks have the unique ability to activate a space temporarily or permanently for a low-cost investment. Additionally, a popular food truck will often out-grow the food truck space and find the need to move to a brick and mortar building, bringing more restaurants to activate downtown.

Murals, both on the walls and on the ground, are a great way to make alley and breezeways seem more vibrant and connect to the arts scene in Grand Junction.

WALL MURALS

Murals are associated with increased foot-traffic in an area, the colors and messaging offer positive benefits for mental health and have been linked to equitable development when derived from a community driven process. A blank wall with no street activity can be activated through wall murals, as well as other adaptive reuse strategies, to make the street frontage feel more engaging. Murals in the alleys could be a destination along the Artwalk from Main Street to the River.

ACTIVATION KEEP IT SIMPLE

The community must own and drive ideas

Use success to educate about the power of local retail clustering

Expect to vendor pod to spur permanent real estate activity

Consider some permanent vendors that are not food related

use a lean startup model

Vendors can also cluster under a single roof

Find community champions

Unnecessary to be slick and over-designed

Keeps things real and funky

ATTRACTION PARTNERS ARE KEY

The DP could help to provide a tap with multi-unit adaptor or encourage the vendor to bring their own water.

The DP can work with The Incubator to develop programs to help incentivize food trucks and mobile vendors in downtown.

Food Preparation could be coordinate with the Business Incubator for shared commissary kitchen(s).

Consider functional operations; access to water, food preparation, waste disposal and on-site electricity.

The DP could provide on-site dumpster or haul-away service and electricity through a truck generator or through a shared utility agreement.

P4.

LOW COST DESIGN STRATEGIES FOR WHITMAN PARK

Whitman Park has long struggled to serve the downtown as a park should, for respite, enjoyment and relaxation. The perception that the park is enclosed by streets and is cut off from the city allows for the park to serve as a haven for socially unacceptable activities. A redesign of the park is needed to encourage visibility from the street. Some simple, low-cost strategies to improve visibility include activating the edges with parking, high branching trees lining the sidewalks at the edge, removing trees and visual obstructions from the center of the park and replacing with an active lawn with moveable chairs, and encouraging development across the street to face towards the park. Critical to the success of any redesign effort will be addressing the nature of the roadways that surround the park to be more active and less of an island.

KEY ACTION ITEMS

ACTION
Bring a design competition to redesign Whitman Park. This should engage local or national experts to think creatively about low cost solutions for Whitman Park.

PROJECT
Work with the Downtown Community to build low cost safety improvements to Whitman Park.

PROGRAM
Establish a Public-private partnership oversee maintenance and a sense of ownership to protect the transformation of the uses of the park.

P5.

DEVELOP (A) PROGRAM(S) TO BETTER UTILIZE PARKING

Downtowns need the right amount of parking, in the right places, to thrive. Too much parking takes up valuable space that could be generating revenue for downtown and instead creating voids that discourage the activated streets needed for a vibrant downtown. Insufficient parking can create traffic congestion and create challenges for local businesses.

What draws people downtown is great shops, restaurants and spaces in the downtown in an active, comfortable walking environment. A more walkable and vibrant downtown is difficult to achieve when the priority is put on providing parking. Future development in downtown should aim for a better utilization of parking to encourage infill and activation of the downtown.

DOWNTOWN PARKING STUDY 2015

DOWNTOWN BUILDINGS

DOWNTOWN PARKING LOTS

A significant amount of downtown is dedicated to surface parking lots. A parking study, initiated by the City in 2016, shows most of these lots are in downtown are under-utilized.

SHARED PARKING AGREEMENTS

Shared parking utilizes parking jointly among different buildings or businesses so parking can be used at all times of day. This strategy may target providing more employee parking downtown with potential new housing in the downtown. Other agreements could provide overnight security during events/ off hours. Parking Agreements with private property owners at 7th and Ute and the Elks Lodge lot could provide opportunities for increased employee parking downtown.

EASE OF ACCESS TO PARKING

Wayfinding signs should direct and inform people to underutilized parking facilities. Connecting physical wayfinding navigational signs to a smart parking app can show people how many spaces are available in a garage, lot, or along the street and direct them how to get there to make an easy, positive parking experience.

ACTIVE PARKING MANAGEMENT

Active enforcement of parking has the potential to increase revenues for parking in downtown. Parking management encourages more efficient use of parking resources and more efficient travel choices. Additional regulations on parking such as dedicated delivery times and parking durations (such as 15 minute and 2 hour parking zones) can help increase retail turnover and make parking easier to find for customers. Pricing incentives such as increased pricing for higher demand spaces or discounted parking for downtown business owners or residents can help to offset the impacts.

PARKING TECHNOLOGY

Integrating the use of apps is an effective strategy to manage parking and offer the ability to adjust parking prices based on demand or let users know where there is a vacant parking space. Providing credit card readers will capture customers that typically pay by phone or credit/debit card.

DOWNTOWN PARKING DISTRICT

A parking district defines an area to be managed holistically from a parking and transportation perspective. A district-wide parking approach allows for vehicle to utilize parking reservoirs, while taking into consideration a reduction in parking to support active modes of transportation.

PARK AND RIDES

Larger events and long-term parking strategies could look to provide park and ride options utilizing the new Dash Shuttle Route. Overflow lots for downtown events could be located at Las Colonias, the airport, CMU or on underutilized sites in the Rail District. Coordinating a parking agreement with an under-utilized lot in the Rail District with a park and ride (and/or bike share) would provide a quick win strategy for increasing employee parking options in the downtown. As the Dash becomes more viable- stakeholder CMU and Airport. Look at commuter passes.

ZONING CODE UPDATES

Plan review requirements may include maximum parking requirements, flexibility in providing parking off-site, and incentives for shared parking. Parking reductions for affordable/workforce housing or transit-oriented developments could be considered.

KEY ACTION ITEMS

ACTION
Hire an app developer to update existing parking app to coordinate wayfinding and parking locations, on demand parking pricing structures.

PROJECT
Add credit card readers to downtown meters and enforce parking.

ACTION
Look at opportunities for shared use agreements in private lots and/or a pilot park and ride employee parking program utilizing the Dash.

POLICY
Review zoning code to incorporate smart parking strategies to reduce parking demands that may inhibit development.

P6.

ADAPTIVE REUSE OF BUILDINGS AND SPACES TO ACTIVATE THE STREET FRONTAGE

Incremental development is the idea that growth doesn't happen all at once, but incrementally over time. This model is focused on small projects in the scale and context of the existing neighborhood. This encourages local business owners and homeowners to take on the roles a developer usually plays through strategies such as ADUs, adding rental units over a business, building housing units or retail space on existing property, or bringing food trucks to activate a vacant space. Incremental development is tangible and even a tiny development can build value and contribute to community.

Adaptive reuse is often a first step in incremental development by re-purposing buildings from their original purposes for different functions while at the same time retaining their historic features to maintain the character of a certain area. These projects are often easier to achieve because of lower infrastructure and construction costs. Adaptive reuse can be done through reactivation of a site or maintaining portions of an existing building as a part of a large project. This provides powerful story-telling to future generations and visitors while protecting a distinct architectural identity that positively impacts the community.

ILLUSTRATIVE OF FOUND SPACES

Building improvements that are small scale and low cost can do a lot to activate the street frontage and bring more vibe to downtown. Overhead lighting, seating, rooftops and food trucks create a cool place to hangout.

ILLUSTRATIVE OF BUILDING IMPROVEMENTS

Murals, garage doors, outdoor seating, lighting and landscape are strategies building owners can do to increase their personal property value as well as create an engaging downtown experience.

BUILDING IMPROVEMENTS

Redevelopment doesn't always need to be a big project. There are opportunities to activate the street frontage through low-cost private investment. There is no shortage of unique historic buildings in downtown Grand Junction that could be rehabilitated through potential grant programs and low-interest loan programs.

FOUND SPACES

Found spaces are small or large, under-utilized spaces that private property owners can activate on their lots to provide places for respite along the street. Pallet benches, tables and chairs, picnic tables, overhead lighting, grass mats, painted asphalt, lawn games and planters are all low-cost ways to invite people to hangout. The more 'dwell time' people spend in a space or area, the more likely they are to buy something. There are many vacant spaces along downtown streets that business owners could activate the property to capture more customers.

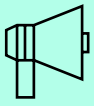
START UPS AND POP UP BUSINESS

Outdoor markets offer low-cost, low-risk entry into a small business and also serve to activate certain areas of downtown. Markets can also come together under one roof to offer food and wares, effectively creating a larger grocery store. Multiple vendors, such as the butcher, florist, baker, and dry goods vendors act as individual entities yet partner together visually and legally to provide food access for downtown residents. There should be a focus to extend this type of local small business atmosphere along 7th St to activate the corridor.

The concept of implementing a 'Holiday Pop-Up Shop' is an opportunity for growing retailers or entrepreneurs to test the Downtown Grand Junction market as a viable option for a brick-and-mortar location while contributing to the consumer experience during one of our busiest shopping seasons. It's also a creative strategy for attracting new retail concepts to Downtown and filling vacant spaces during the holidays.

This program is recommended to be carried out from October 15 - First Week of January each year. Selected retailers would be notified of their approval into the program before the short term lease start date. The Downtown Partnership would work with current property owners in vacant buildings to explore short term leases for applicants that are accepted for the particular calendar year.

KEY ACTION ITEMS



ACTION

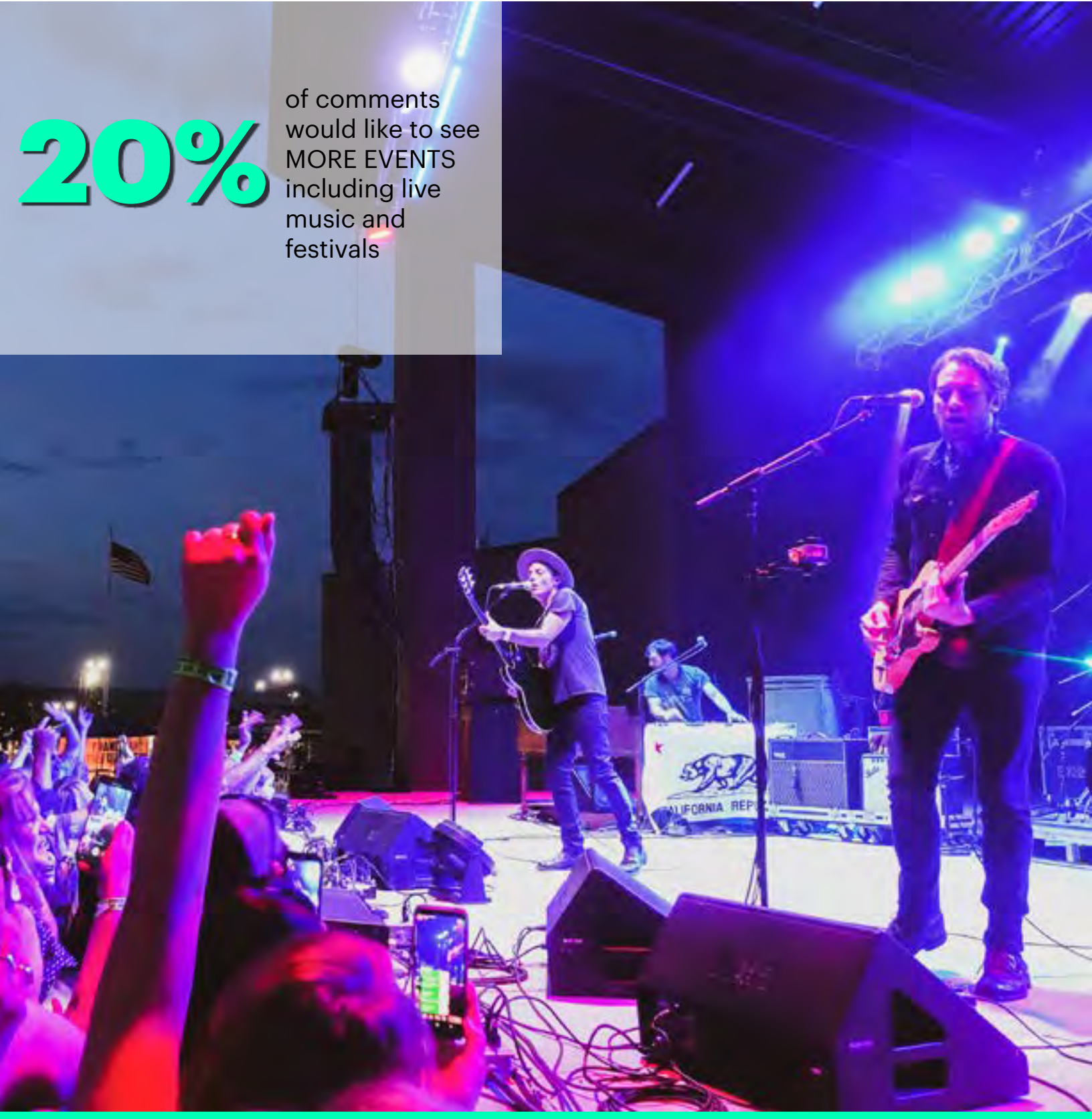
Encourage local businesses and artist to bring temporary art/sculpture, movable seating, lighting and other temporary design ideas to activate the space.

POLICY

Remove restrictive regulations that make small business startups difficult and allow them to cluster to create a larger entity.

PROGRAM

Create incentives for private property improvements through grants.

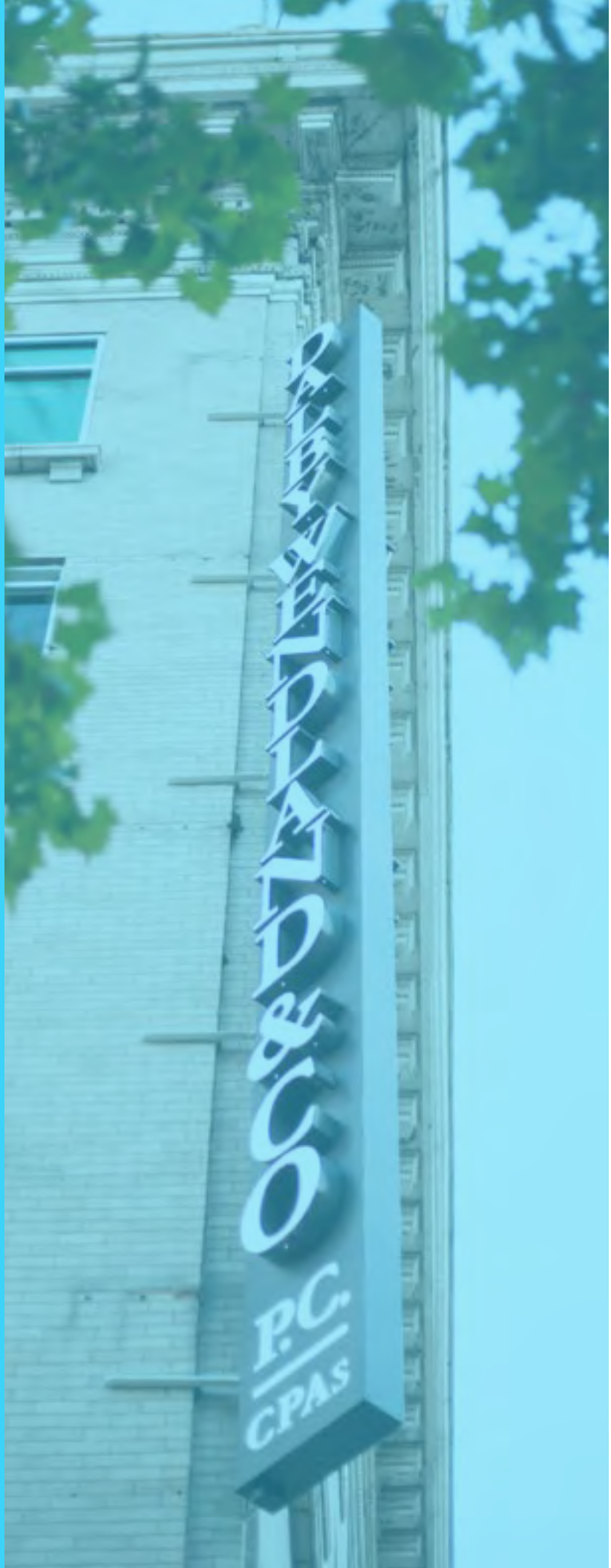


20% of comments would like to see MORE EVENTS including live music and festivals

Placemaking is key to creating a downtown experience. Interesting, interactive spaces create thriving places that people want to live and hangout.

DEVELOPMENT

While Main Street is at the heart of downtown, there is a need to look at infill opportunities in the Rail and River Districts as a way of creating a bridge between Downtown and the River. Infill development is important to bringing more people living and working downtown, which is important for making downtown feel more active and safer. There is a significant momentum for development in Grand Junction, including redevelopment along the Riverfront at Los Colonias and Dos Rios, new infill development downtown including GIS offices and townhomes at R5, and adaptive reuse projects such as the Train Depot and Sugar Beet Buildings.



"I have lived downtown before and I loved it and miss it. I hope too again."

05

BIG IDEAS: DEVELOPMENT

BRING MORE PEOPLE DOWNTOWN

1

Support existing businesses in the downtown through programs and attract more business diversity downtown.

Develop (a) grant program to incentivize small scale local reinvestment.

2

3

Adjustments to codes and policy that are barriers to development.

Leverage the Downtown Partnership financial tools to incentivize development.

4

D1.

SUPPORT EXISTING BUSINESSES IN THE DOWNTOWN THROUGH PROGRAMS AND ATTRACT MORE BUSINESS DIVERSITY DOWNTOWN.

Small business owners and downtown property owners are in some cases struggling to be successful. A history of vacancies in downtown has led to a fear that expanded development around downtown will shrink business for existing shops. The truth about vibrant downtowns is that expanding activity and options creates a virtuous cycle of prosperity. People like to be in places where other people are. The DDA should work with businesses to help foster their success and to understand that more businesses is good for all businesses.

KEY ACTION ITEMS

ACTION
Contract with a Retail and/or Small Business consultant to offer to aid building owners to encourage better business marketing, trainings, and address business hours.

PROGRAM
Utilize Business Improvement District (BID) and work with GJEP on attracting business to the downtown.

PROGRAM
Coordinate with the Business Incubator on a Feasibility Study to connect local entrepreneurs, educational programs and resources to downtown.

PROGRAM
Creating Spaces for Artist/Artists in Residence, maker spaces and pop up shops.

D2.

ADJUSTMENTS TO CODES AND POLICY THAT ARE BARRIERS TO DEVELOPMENT.

The main barrier to substantial new investment in downtown that is off-street parking standards. The 7th St. corridor is a key multi-modal corridor connecting the downtown core with the new Las Colonias development and the Colorado River. While there is clearly an intent to bring new development and interesting uses to this corridor, parking requirements and limitations on what is allowed in the C-2 zone make reuse of these sites challenging. The City has taken steps to reduce barriers to development and redevelopment within the downtown core, such as on-site parking reduction allowances. These strategic zone changes should be considered beyond the downtown core, such as along 7th Street.

KEY ACTION ITEMS

POLICY

Reduce off-street parking requirements within zones in the larger downtown area. Expand off-street parking reduction allowances beyond the downtown core.

POLICY

Identify and revise code barriers that make adaptive reuse difficult to achieve. For instance, allow flexibility in achieving key life safety requirements of building code to encourage adaptive reuse of older buildings and avoid incentivizing them being torn down.

POLICY

Conduct a code audit to identify additional barriers to development and allow for greater flexibility to incentivize good projects that support the goals of this Plan.

D3.

DEVELOP (A) GRANT PROGRAM(S) TO INCENTIVIZE SMALL SCALE LOCAL REINVESTMENT IN THE DOWNTOWN

Incremental development and adaptive reuse are small scale local reinvestment strategies that can be leveraged to activate vacant areas of downtown. Some strategies to encourage this type of development in downtown would be to develop grant and loan programs administrated by the Downtown Partnership to encourage small scale investments. These would be an application process and awarded to maximize public benefit and are targeted to deliver outcomes unlikely to occur without the resources. Grants would be awarded to support business and/or property redevelopment in projects to support the goals of this Plan.

ILLUSTRATIVE OF LOCAL REINVESTMENT

Examples of potential projects include storefront improvements, upper floor retrofit grants, and "storeback" improvements.

KEY ACTION ITEMS

ACTION
Coordinate with the City to incentivize redevelopment on existing parking lots to activate the street frontage along this key section of Colorado.

PROGRAM
Develop a Storefront and "Storeback" Improvement Grant to encourage property improvements for local retailer including building facades facing the alleys and bisecting spaces for co-retail.

PROGRAM
Develop a Grant program Tenant Improvement Grants: Aimed at larger building activation strategies, making the building commercially viable or renovating historic buildings and bringing them up to code.

PROGRAM
Develop a program for start up grants or start up loans/microloans to encourage new businesses downtown. These should be aimed at small scale local investors such as food trucks, pop-ups and micro-retail entrepreneurs.

D4.

LEVERAGE THE DOWNTOWN PARTNERSHIP FINANCIAL TOOLS TO INCENTIVIZE DEVELOPMENT.

Pre-development costs are the highest risk funds in development because many well-intentioned projects fail before they get off the ground. Municipal fees, like tap fees, and property taxes can also be significant development costs that local governments can consider changing, abating or discounting in order to spur increased development. One of the benefits of downtown infill is the infrastructure is in place. This can justify a reduction of impact fees as it does not require the City to build new roads or put new utilities in place. The Downtown Partnership and City should work together evaluate establishing property tax abatement programs could be incentivize development. Term-limited property tax abatements are an increasingly common tool being used to jump-start redevelopment within downtown areas.

KEY ACTION ITEMS

POLICY

The DP and City should work together reduce, remove or reimburse impact fees to encourage development within the DP through incentive programs.

PROGRAM

The DP could work with the City to develop a Property Tax Reimbursement or a 10-year tax abatement program to jump-start redevelopment by lowering operating costs for developers.

D5.

IDENTIFY A CATALYST PROJECT FOR THE DEVELOPMENT PARTNERSHIP IN THE DOWNTOWN

The first redevelopment project in a downtown area is always the most difficult to finance, because banks relay on "comparable" projects to underwrite development loans. If there are no recent examples of new downtown projects, banks are reluctant to lend. Cities and DDAs can help jump start private investment by partnering on early projects, which make every subsequent project easier.

There is an opportunity to build momentum for downtown development through a catalytic Public-Private Partnership (PPP) development project. This would require securing a site, defining a set of incentives and partnering with a developer to build a project. The level of partnership can range from facilitation and identifying incentives, to grants and land cost discounts, to co-investing in the project depending on the risk tolerance of the Downtown Partnership.

A similar strategy has been used at R5, and the lessons learned from this project can help to improve future RFP processes. The selected site should be strategic to achieving the goals of this plan. A site along the 7th Street or Colorado St. corridors would be an ideal project to activating these key corridors. Some case studies have been identified as potential projects on the Startek site, a city owned parking lot at 7th and Colorado, and the former Flea Market site.

KEY ACTION ITEMS

ACTION

Partner with the City or private property owners on site identification/land acquisition. Prepare and issue a Request for Interest (RFI) to developers. Pro-actively market to qualified developers in and out of the local market. Marketing materials should include key goals and an identification of incentives, such as land cost discounts, pre-development funds, etc.

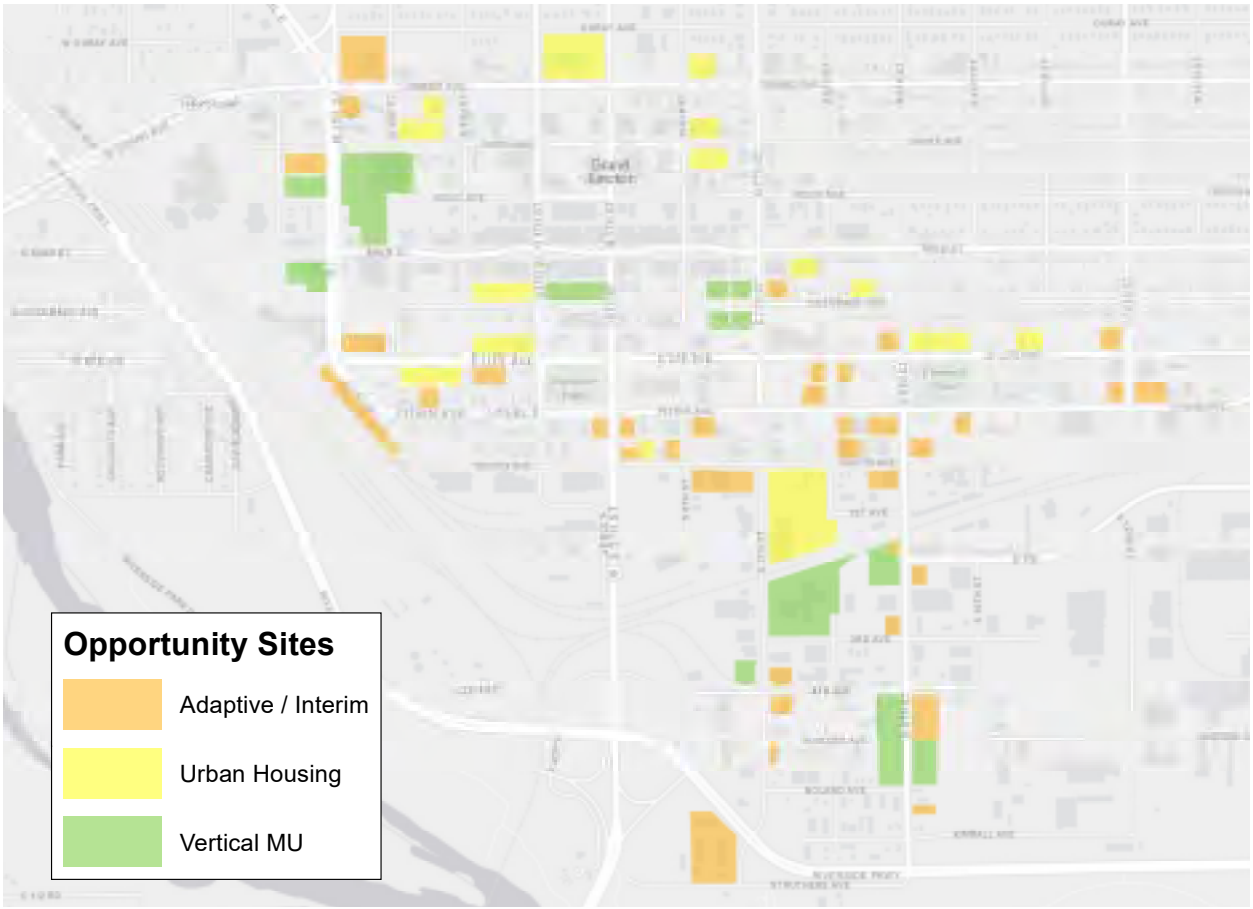
CASE STUDIES

OPPORTUNITY SITES

Three development types were identified as key opportunities for increasing activity in the downtown; adaptive reuse, vertical mixed use and urban housing. These can be applied to a broad range of opportunity sites within the downtown.

Three case studies were explored to better understand the development potential for downtown within the current market and assure that recommendations realistic and achievable. The goal is to identify roadblocks and inform recommendations for creating a more development friendly downtown.

OPPORTUNITY SITES IN DOWNTOWN GRAND JUNCTION



	VERTICAL MIXED USE	URBAN HOUSING	ADAPTIVE REUSE
LOCATION	Downtown core and commercial corridors	Downtown areas without good commercial frontage, residential areas at edge of downtown	Edge of downtown core, railyards district, industrial areas
USES	Residential w/ retail ground floor	Downtown areas without good commercial frontage, residential areas at edge of downtown	Edge of downtown core, railyards district, industrial areas
BUILDING CHARACTERISTICS	4-6 stories wood frame over 1 story of parking and/or retail or 3-4 stories all wood frame with small retail component	1-3 stories wood frame	good street-frontage, historic character, covered outdoor space (Re-Use) / Parking lots, gravel lots (incremental)
LOT CONDITIONS	at least ½ acre, retail-friendly street frontage	at least 1/4 acre	at least 1/4 acre

SITE PLAN

The Flea Market site is a 1.3acre parcel located at S. 7th St. and South Ave. It is zoned C-2 (general commercial) with a commercial corridor overlay. It features an existing 14,000 square foot industrial building as well as a large paved surface parking lot. This corner site is a prime development opportunity that is ideally located at the edge of the downtown core along a stretch of S. 7th that recently received significant public investment in the form of a streetscape treatment.

FLEA MARKET SITE | WHAT WE LEARNED

Lower barriers to entry for local entrepreneurs - lower rents

Concept can be applied broadly– many underutilized parcels throughout downtown.

Clustering spurs innovation and creates regional destination.

Opportunity to expand food access

Work with business owners to become future owners of brick and mortar buildings through seller-financing.

Cultivate future brick and mortar tenants

Food carts on a vacant lot 1/10 cost of ground up retail

SITE PLAN

The former StarTek site is a 5.25 acre parcel located at S. 7th St. and South Ave. It is zoned C-2 (general commercial) with a commercial corridor overlay. It features an existing 50,000 square foot industrial building as well as several large surface parking lots and an undeveloped area formerly occupied by several older structures. This large site is a prime development opportunity that is ideally located at the edge of the downtown core along a stretch of S. 7th that recently received significant public investment in the form of a streetscape treatment.

STARTEK SITE | WHAT WE LEARNED

Parcels are largely shovel ready - require minimal site improvements to start development

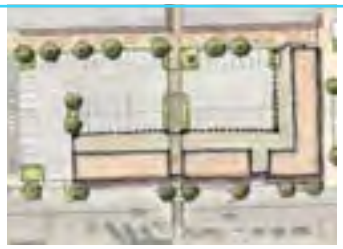
C-2 zone parking requirements restricts feasibility

Having low-cost industrial building offers opportunity for creative adaptive reuses

Potentially streamline permitting / reduce plan review for downtown housing development projects.

Functional parking minimums for high density - .5 spaces per unit, 1 space per 1,000sf commercial

With construction costs escalating 30% over the last few years. New construction may be feasible at 120% of AMI



SITE PLAN

The city-owned site at 7th and Colorado is an ideal candidate for more intense mixed-use infill development. This can take the form of a traditional development model or, with the site already in public ownership, a public-private partnership.

7TH COLORADO | WHAT WE LEARNED

B-2 zone is extremely flexible

With construction costs escalating 30% per year, new construction may be feasible at 120% of AMI

No parking required (with caveats)

Public-Private Partnerships should require downtown-supportive outcomes (workforce housing, lower on-site parking standards, street-activating uses and building forms

Potentially streamline permitting or reduce plan review

Marketing does not support structured or underground parking

Public participation may be required to get initial projects off the ground

27% of survey respondents not currently living downtown would like to.

Infill development is important to bring more people living and working downtown, which is important for making downtown feel more active and safer.

IMPLEMENTATION

This Plan provides a roadmap for how to approach development in the downtown. It is meant to guide progress that is reflective of a community vision. The intent is to provide actionable strategies for success with enough flexibility to adapt to a market shifts and changing trends.

When it comes to development, the Downtown Partnership should serve the role of a partner and a facilitator to match resources to get people in the market to get things done. Another key outcome of these strategies will be to attract more properties by increasing the influence and strength of resources. The improvements outlined in this Plan will to help the Downtown Partnership to be more effective and yield more influence which will in turn encourage additional properties to participate and expand the boundary.

"I love the potential of Downtown GJ. I get excited about what this place can be."

06

CONNECTIVITY

IMPLEMENTATION STRATEGIES

STRATEGY	ACTION	TIMING
C1: Convert 4th and 5th to Two Way Streets	Action. Informational sessions to increase awareness of the importance and value of two-way streets in downtown among business owners and residents to gather support from the community. City Council should vote to make this a project.	Short Term
	Project. Temporary re-striping study to 'test' the project north of Grand Avenue. Identify potential problem areas for further study, and gain the trust of the community before a larger infrastructure investment.	Mid Term
	Project. Following a successful launch of a test project, and with support from the local community, the City could work with the DP to identify a series of larger infrastructure related projects for 4th and 5th that would convert them into multi-modal streets with two-way traffic, on-street parking, bike lanes and sidewalks with street trees and furnishings.	Long Term
C2: Prioritize pedestrian and bike improvements to improve mobility throughout downtown and to the river.	Policy. Amend the GDP to update the 9th Street sections to be more multi-modal.	Short Term
	Action. Initiate conversations with BNSF to improve pedestrian and bike access over the Rail lines at 2nd Street and 12th Street.	Mid Term-(With New Projects)
	Program. Coordinate a community crosswalk paint program at the intersections along Colorado as a pilot project.	Short Term
	Project. Review intersections along Riverside Parkway, 5th and South, 7th and South, Ute and 2nd, Pitkin and 2nd, and the roundabout at 7th and Main for an improved pedestrian access. 6th and Grand, 3rd and Grand.	Long Term
	Project. Better understand the types of bike lanes facilities the community wants. Develop a design plan and identify funding to implement bike lanes.	

DP ROLE	PARTNERSHIPS	FUNDING
City Led Project, DP to assist with advocacy. Business and neighbour outreach and support.	Business Owners, Stakeholders, Neighbourhoods	
	City Lead, DP Support	
	City Lead, DP Support	Potential Funding Partnership with the DP.
		Identify CIP funding
Support implementation of multi-modal facilities in new projects.		Identify CIP funding
Facilitate with artists and City.	DP Lead, City Support, Arts and Community Support.	City and DP to partner on Funding. Look for Grant funding and Creative District Funding.
City Led Project, DP to assist with advocacy. Business and neighbour outreach and support.	City lead Pedestrian Access Plan.	Identify CIP funding
City Led Project, DP to assist with advocacy. Business and neighbour outreach and support.	Neighbourhood Organizations, City of Grand Junction, Urban Trails	Identify CIP funding

STRATEGY	ACTION	TIMING
	Action. Engage in discussion with CDOT for traffic calming tools and a better pedestrian crossing at 5th and South.	Mid Term
C3: Create a 2nd Street Promenade connecting the Train Depot to Two Rivers Plaza.	Project. As of summer, 2019, the City has initiated a study group to look at ideas for a pedestrian corridor along 2nd Street and has identified this as an important project for downtown.	Short Term
	Action. Coordinate with CDOT to obtain a signalized intersection through a warrant study to better understand the need for a signal at these intersections and the Communities support.	Short Term
C4: Initiate a Gateway and Wayfinding Study to improve ease of navigation for pedestrians, bike and vehicles in downtown.	Action. The DDA should initiate a comprehensive wayfinding and gateway study to provide a strategy for bringing people to and navigating around downtown.	Mid Term

PLACEMAKING

IMPLEMENTATION STRATEGIES

STRATEGY	ACTION	TIMING
P1: Extend the vibrancy from Main to Colorado between 4th and 7th.	Action. The DDA should work with the local businesses to create a brand and marketing strategy for this area which could include the 'Artline', identity of the alleys and breezeways, murals, creative district programs and event programs.	Short Term
P2: Encourage more community gathering and event space in downtown.	Action. Test the concept of a flexible use event space at 5th and Colorado within the existing DDA programs/event schedule. Locate farmers markets, chalk art festival, adding a temporary music stage to an existing event and/or as a designated food truck location.	Short Term
	Action. Utilize the lot at 5th and Colorado for a pilot food truck program, that happens once or twice a month.	Mid Term
	Policy. Change the municipal code to allow vendors to cluster, no required distance separation of clustered vendor pods, allow a range of vendor types (truck, carts, clothing, double decker bus), allow mobile vendors to stay in place for extended periods of time.	Short Term

DP ROLE	PARTNERSHIPS	FUNDING
DP to advocate for downtown stakeholders	City lead, DP Support	Active Transportation Plan
Align Objectives	City Lead, DP Support	Potential Funding Partnership with the DDA.
DP to advocate for downtown stakeholders	City Lead, DP Support	
DP retain consultants. Coordinate stakeholders and implementation.	DP Lead with City Support. Coordinate with Local Businesses, Arts and Creative District. Visit Grand Junction Branding?	Potential Creative District Funds. Includes 2 Creative District Signs Locations.

DP ROLE	PARTNERSHIPS	FUNDING
		CGOCO Grant
DP to bring events, City to permit use.	City to support permitting and use of property.	
DP lead on enhancements and infrastructure project with support from City.	City to support permitting and use of property.	DP Funding.
DP to support/advocate for businesses.	City to Lead Code Review.	

STRATEGY	ACTION	TIMING
	Project. Based on feedback from the businesses and local community, develop a plan to implement permanent improvements in the plaza.	Mid Term
	Program. Develop a pop-up shop program to activate spaces downtown	Mid Term
P3: Activate alleys and breezeways.	Action. The DDA and the Arts Commission should collaborate to develop a Murals Grant Program to encourage both local and regional artists and highlight the unique history and character of Grand Junction.	Short Term
	Policy. Review and/or revise the existing façade grant program to include back of building improvements.	Short Term
	Project. Develop a plan to implement larger scale investments such as improved paving, increased lighting, signage in the alleys.	Mid to Long Term
P4: Design Competition for Whitman Park	Action. Bring a design competition to redesign Whitman Park. This should engage local or national experts to think creatively about low cost solutions for Whitman Park.	Mid Term
	Project. Identify low cost safety improvements to Whitman Park.	Mid Term
	Program. Establish a Public-private partnership oversee maintenance and a sense of ownership to protect the transformation of the uses of the park.	Mid Term
P5: Develop a program(s) to better utilize parking.	Action. Hire an app developer to update existing parking app to coordinate wayfinding and parking locations, on demand parking pricing structures.	Mid Term
	Project. Add credit card readers to downtown meters and enforce parking.	Short Term
	Action. Look at opportunities for shared use agreements in private lots and/or a pilot park and ride employee parking program utilizing the Dash.	Short Term
	Policy. Review zoning code to incorporate smart parking strategies to reduce parking demands.	Mid Term

DDA ROLE	PARTNERSHIPS	FUNDING
DP to lead on planning.	City to coordinate property, maintenance as a public park. Potential partnership.	CIP funding partnership or allocation of TIF (BID)
DP to lead on programs	Coordinate with Business Incubator an the DDA's in Colorado.	
DP	Arts Commission, Park Department	DP Funding. Explore Creative District Funding and Grants.
DP to review program policy.		
DP to lead on planning.	City to coordinate property. Maintenance as a public park. Coordination with Utilities. Potential funding partnership.	CIP funding partnership or allocation of TIF (BID)
DP to lead on planning.	`	
DP to lead on planning.	Shared costs for City, downtown agencies.	DOLA placemaking grants and/or GOCO funds
DP to lead on planning.	Public Private Partnership or coordinate a 501C3 to organize and maintain park.	
DP to hire consultant to best inform the City.	City to advocate for best practices in downtown.	
DP to lead on identifying private partners for shared use agreements.	Private property owners	
DP to support/advocate for businesses.	City to Lead Code Review.	

STRATEGY	ACTION	TIMING
P6: Adaptive Reuse of Buildings and Spaces to active the street frontage.	Action. Encourage local businesses and artist to bring temporary art/sculpture, movable seating, lighting and other temporary design ideas to activate private properties.	Short Term
	Policy. Remove restrictive regulations that make small business startups difficult and allow them to cluster to create a larger entity.	Mid Term
	Program. Create incentives for private property improvements through grants.	Mid Term

DEVELOPMENT

IMPLEMENTATION STRATEGIES

STRATEGY	ACTION	TIMING
D1: Support existing businesses in the downtown through programs and Attract more business diversity to downtown.	Action. Contract with a Retail and/or Small Business consultant to offer to aid building owners to encourage better business marketing, trainings, and address business hours.	Short Term
	Program. Develop programs and incentives for attracting business to the downtown.	Short Term
	Program. Coordinate with the Business Incubator on a Feasibility Study to connect local entrepreneurs, educational programs and resources to downtown.	Short Term
	Program. Creating Spaces for Artist/Artists in Residence, maker spaces and pop up shops.	Mid Term
D2: Develop (a) Grant Program(s) to incentivize small scale local reinvestment in the downtown.	Action. Incentivize redevelopment on existing parking lots to activate the street frontage along this key section of Colorado.	Mid Term
	Program. Develop a Storefront and "Storeback" Improvement Grant to encourage property improvements for local retailer including building façades facing the alleys and bisecting spaces for co-retail.	Short Term
	Program. Develop a Grant program Tenant Improvement Grants: Aimed at larger building activation strategies, making the building commercially viable or renovating historic buildings and bringing them up to code.	Short Term

DDA ROLE	PARTNERSHIPS	FUNDING
DP to develop programs to support.	DP, Businesses, Business Incubator	
DP to advocate for down-town stakeholders	City to Lead.	
DP to Lead.		

DDA ROLE	PARTNERSHIPS	FUNDING
	GJEP	
	Business Incubator	
	Business Incubator	
	Coordinate with City	
	Coordinate with City	
	Coordinate with City	

STRATEGY	ACTION	TIMING
	Program. Develop a program for start up grants or start up loans/microloans to encourage new businesses downtown. These should be aimed at small scale local investors such as food trucks, pop-ups and micro-retail entrepreneurs.	Short Term
D3: Adjustments to codes and policy that are barriers to development.	Policy: Reduce off-street parking requirements within zones in the larger downtown area. Expand off-street parking reduction allowances beyond the downtown core.	Short Term
	Policy: Identify and revise code barriers that make adaptive reuse difficult to achieve. For instance, allow flexibility in achieving key life safety requirements of building code to encourage adaptive reuse of older buildings and avoid incentivizing them being torn down.	Mid Term
	Policy. Conduct a code audit to identify additional barriers to development and allow for greater flexibility to incentivize good projects that support the goals of this Plan.	Mid Term
D4: Leverage the DDA financial tools to incentivize development.	Policy. Reduce, remove or reimburse impact fees to encourage development within the DP through incentive programs.	Mid Term
	Program. Develop a Property Tax Reimbursement or a 10-year tax abatement program to jump-start redevelopment by lowering operating costs for developers.	Mid Term
D5: DDA to lead a strategic catalytic development project.	Action: Partner on site identification / land acquisition and prepare and issue a Request for Interest (RFI) to developers. Pro-actively market to qualified developers in and out of the local market. Marketing materials should include key goals and an identification of incentives, such as land cost discounts and pre-development funds.	Short Term

DDA ROLE	PARTNERSHIPS	FUNDING
	Coordinate with City	
	City to Lead	
	City to Lead	
	City to Lead	
	The DP and City should work together	
	the DP and City should work together	
	Partner with City or Private Property Owners.	

The Plan of Development goals, strategies and actions are intended to provide an outline to the Downtown Partnership Board in implementing a community vision for downtown over the next 10 years. The Downtown Partnership will use the above strategies and actions in annual strategic plan containing specific programs and project focus areas for the year. The strategies and actions should be reviewed every year to identify successful outcomes, reassess the yearly priorities and problem solve future issues.

These strategies and actions should be updated as needed with input by the City, stakeholders, and elected officials.

APPENDIX

The following documents capture critical aspects of the project that cannot be entirely communicated in this Plan. These documents can be used for reference to understand how the ideas in the Plan evolved.

APPENDIX A

The Phase 1 and Phase 2 Input Summary documents the issues and opportunities from the first phases of work. This document describes the feedback received from the community and how this informed the goals of the plan. Ideas for potential strategies are also explored.

The Phase 1 and 2 Summary can be found here.

APPENDIX B

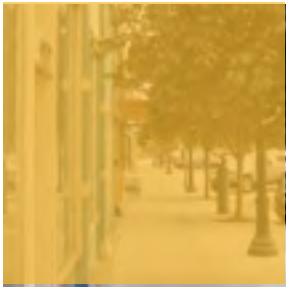
The Design Workshop took place in April 2019. The week long workshop looked at ideas and strategies to achieve the goals identified by the community. This document outlines the approach, ideas and outreach efforts that led to the strategies outlined in the Plan.

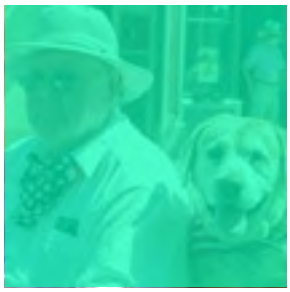
The Design Workshop Summary can be found here.

APPENDIX C

The community was an essential part of the planning process. From focus groups, to surveys, to comment boxes, to online surveys, to social media engagement and in-person workshops- the community of Grand Junction had an important role in shaping the future of downtown.

A Summary of Engagement can be found here.





DOWNTOWN
GRAND JUNCTION, COLORADO
Life Happens Here

EXHIBIT 4 – Map of DDA POD Boundary

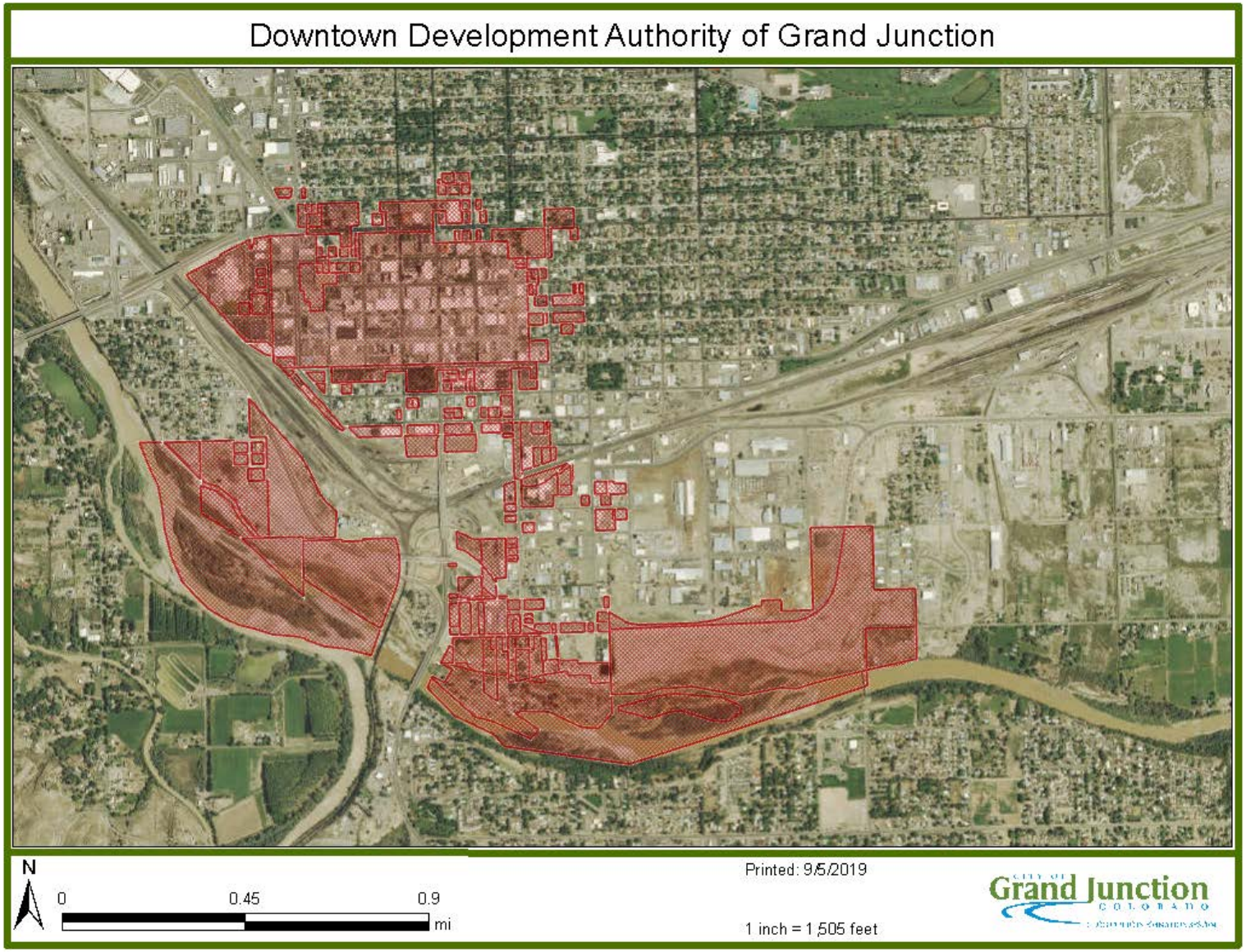


EXHIBIT 2 – Grand Junction Downtown Development Authority Plan of Development dated December 16, 1981

POD82DDA

TYPE OF RECORD:	PERMANENT
CATEGORY OF RECORD:	CONTRACT
NAME OF CONTRACTOR:	DOWNTOWN DEVELOPMENT AUTHORITY (DDA)
SUBJECT/PROJECT:	PLAN OF DEVELOPMENT
CITY DEPARTMENT:	GRAND JUNCTION DOWNTOWN DEVELOPMENT AUTHORITY
YEAR:	1982
EXPIRATION DATE:	NONE
DESTRUCTION DATE:	NONE

Grand Junction
Downtown Development Authority
200 North Sixth Street, Suite 204 P.O. Box 296
Grand Junction, Colorado 81502
Phone (303) 245-2926

DOWNTOWN DEVELOPMENT AUTHORITY

PLAN OF DEVELOPMENT

FOR GRAND JUNCTION, COLORADO

Including The Designation Of
Commercial Renovation Districts
And A Plan Of Development Area
Within Which
Tax Increment Financing Will Be Utilized

PREPARED BY:
Grand Junction
Downtown Development Authority

DERIVED FROM:
The Grand Junction Downtown
Development Strategy
Prepared By The Consulting Firm
Of Johnson, Johnson & Roy, Inc.
Ann Arbor, Michigan

EFFECTIVE DATE: DECEMBER 16, 1981

CERTIFIED RECORD

OF

PROCEEDINGS

OF

THE CITY COUNCIL

OF

THE CITY OF GRAND JUNCTION, COLORADO

RELATING TO

A RESOLUTION

APPROVING

A

PLAN OF DEVELOPMENT

FOR

GRAND JUNCTION, COLORADO, DOWNTOWN DEVELOPMENT AUTHORITY

STATE OF COLORADO)
)
COUNTY OF MESA) ss.
CITY OF GRAND JUNCTION)

The City Council of the City of Grand Junction, Colorado, held a regular meeting open to the public at the Council Chambers at City Hall, 250 North Fifth Street, Grand Junction, Colorado, on Wednesday, the 16th day of December, 1981, at the hour of 7:30 p.m.

The following members of the City Council, constituting a quorum thereof, were present:

Name	Title
Louis R. Brach	President
Frank Dunn	President Pro-Tem
Gary Lucero	Member
Karl Johnson	Member
Robert Holmes	Member
Betsy Clark	Member

The following members of the City Council were absent:

None

The following persons were also present:

Neva B. Lockhart, City Clerk

James E. Wysocki, City Manager

Gerald J. Ashby, City Attorney

The President declared that this was the time and place for a public hearing on the proposed Plan of Development for Grand Junction, Colorado, Downtown Development Authority.

The City Clerk reported that a notice of this hearing in the form required by Section 31-25-807(4)(c), Colorado Revised Statutes 1973, as amended, was given by publication once by one publication during the week immediately preceding this hearing in The Daily Sentinel, Grand Junction, Colorado, a newspaper having a general circulation in the City. The form of the notice and the proof of publication thereof were approved by the City Council and are attached hereto as pages 16 and 17, respectively.

Thereupon all persons having comments on the proposed Plan of Development we afforded the opportunity to be heard. The names of such persons and the substance of their remarks are as follows:

Thereupon, Council Member Holmes introduced and moved the adoption of the following Resolution:

RESOLUTION

A RESOLUTION APPROVING A PLAN OF DEVELOPMENT FORGRAND JUNCTION, COLORADO, DOWNTOWN DEVELOPMENT AUTHORITY.

WHEREAS, Grand Junction, Colorado, Downtown Development Authority (the Authority) has studied conditions within the central business district of the City of Grand Junction (the City); and

WHEREAS, said study has resulted in the preparation of a Downtown Development Strategy; and

WHEREAS, the Authority is authorized to plan and propose public facilities and other improvements to public and private property of all kinds which will aid and improve the downtown development area; and

WHEREAS, Johnson, Johnson & Roy, Inc., authors of the Downtown Development Strategy reported therein that blight exists within the downtown development area; and

WHEREAS, the plan of development attached hereto as Exhibit A (the Plan of Development) was presented to the Board of Directors of the Authority for its consideration; and

WHEREAS, Mesa County Valley School District No. 51, within which the entire plan of development area (the Plan of Development Area) designated in the Plan of Development lies, was permitted to participate in an advisory capacity with respect to the inclusion in the Plan of Development of the provision for the utilization of tax increment financing; and

WHEREAS, the Authority held a public meeting on the Plan of Development on November 13, 1981, which meeting was preceded by a notice of the meeting published in The Daily Sentinel on November 11, 1981; and

WHEREAS, the Authority adopted the Plan of Development by resolution on December 2, 1981; and

WHEREAS, the Plan of Development was presented to the City Council (the City Council) on December 2, 1981, at which time the City Council referred the Plan of Development to the City Planning Commission for its review and recommendations; and

WHEREAS, the Planning Commission has made written its recommendations to the City Council concerning the Plan of Development, which recommendations are attached hereto at page 18; and

WHEREAS, a notice of a public hearing before the City Council was given by publication once by one publication during the week immediately preceding the hearing in The Daily Sentinel, a newspaper having a general circulation in the City, on December 11, 1981; and

WHEREAS, a public hearing was held before the City Council on December 16, 1981, wherein comments were taken from those in attendance concerning the Plan of Development; and

WHEREAS, the City Council has been adequately informed in this matter because of public input prior to the completion of the Plan of Development, the public hearing on the Plan of Development, the evidence presented in the Downtown Development Stategy and the Plan of Development, a review of the Grand

Junction Downtown Development Plan Information Base, and the personal knowledge of the members of the City Council,

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO, THAT:

Section 1. The City Council hereby finds and determines as follows:

A) There is a presence of a substantial number of deteriorated or deteriorating structures within the Authority as shown by:

1) Of the buildings within the Authority, approximately 85% are 30 or more years old, and although generally sound, they will require various amounts of renovation to meet present fire and building codes;

2) There are presently older buildings that are vacant, and therefore deteriorating from lack of use, located at the southeast corner of Fifth and Main, the northwest corner of Fourth and Main, the southeast corner of Third and Main and the middle of the block between Second and Third on Main; and

3) Approximately 18.8% of the retail space available is vacant, even though demand is high in areas outside the central business districts;

B) There is a predominance of defective or inadequate street layout as shown by:

1) The lack of adequate long-term parking because of time limits on meters; and

2) The existence of one-way streets on Rood and Colorado and Fourth and Fifth, which cause drivers to travel

from four to six blocks out of their way to reach desired destinations because of the effect of the one-way streets combined with the effect of restricted turning intersections on Main Street; and

3) An under-utilization of parking areas to the south of Main Street while the parking areas to the north of Main Street are over-utilized;

C) There exists faulty lot layout in relation to size, adequacy, accessibility or usefulness as shown by:

1) The lot and block layout in the downtown area developed at an early date and resulted in long, narrow lots with the average lot being 25 feet by 125 feet; a size not compatible with modern architectural approaches;

2) Although west of Seventh Street significant pieces of land have been aggregated for potential development, many potential development sites are still held by a number of individual owners, including trusts and estates, and are subdivided by alleys and streets making it difficult to consolidate the needed land for redevelopment;

3) Of land within the Authority, between one-third and one-half is publicly owned and used for streets, alleys or public buildings, and, therefore, not available for private use and redevelopment;

D) There exists deterioration of site or other improvements as shown by:

1) Sidewalk repairs are necessary within the area.

2) There are deteriorating underdrains in the Shopping Park along Main Street from Third to Fifth Streets;

3) Foundation work on some of the older buildings has deteriorated in the past or is presently in a deteriorated condition, thereby making these buildings more susceptible to damage;

E) Unsanitary or unsafe conditions exist as shown by:

1) Combined sanitary and storm sewers in the downtown area have the potential to back up into the drains of property owners after extreme rains, thereby creating an unsanitary condition;

2) Older buildings are located near railroad property which encourages transients to seek shelter in or around such older buildings;

3) There is a need to improve and upgrade utilities and sewers in the downtown area before any major redevelopment, for the present system would not be adequate under increased use;

4) The alleys in the downtown area are still major delivery and service routes; however, heavy pedestrain traffic has been encouraged by the use of walkthroughs at the U.S. Bank Building and on the north side of the 600 block of Main Street, and by the placement of parking areas across an alley from business establishments. Many business have

encouraged the use of back doors as the most direct entrace from a parking area to their establishment. However, the alley surfaces are not adapted to pedestrian travel; there are no crosswalks, the lighting at night is inadequate, and during business hours, there is a flow of both delivery trucks and trash collection trucks which pose a potential threat to pedestrians.

5) The presence of older buildings and their ornate building facades encourage pigeons to nest in and around these buildings causing unsanitary conditions to exist around such nesting sites.

6) The alleys are used for utilities upon poles, and this factor, combined with the lack of adequate lighting at night, can encourage burglars to gain access to building roofs by climbing these utility poles.

F) There exist conditions which endanger life or property by fire or other causes as shown by:

1) The use of second stories of buildings as storage areas; and

2) The density of buildings of an older nature along Main Street which increases the opportunity for fire spreading from one building to another because of the lack of adequate fire walls in the design of older buildings.

3) There are no north/south water mains on Second, Third and Fourth, and the east/west mains on Grand, White and Rood are no larger than 6 inches, thereby providing

limited supplies for fire protection.

Section 2. The City Council hereby finds and determines that there is a deterioration of property values or structures within the Authority as shown by:

A) A decrease in sales tax revenue in the central downtown area along both sides of Main Street from $408,088 in 1979 to $384,140 in 1980, and $304,338 in 1981 (in the first eight months of the year); and

B) A decrease in the total assessed valuation of the Authority of 9.02% within the last year despite approximately a 6% increase in the size of the Authority because of recent inclusions.

Section 3. Based upon the foregoing, the City Council hereby finds and determines that there exists blight in the Authority within the meaning of Section 31-25-802(1.5), Colorado Revised Statutes 1973, as amended, and that there is a need to take corrective measures in order to halt or prevent the growth of blighted areas within the Plan of Development Area and the commercial renovation districts designated in the Plan of Development.

Section 4. The City Council hereby finds and determines that the approval of the Plan of Development will serve a public use; will promote the health, safety, prosperity, security, and general welfare of the inhabitants of the City and of its central business district; will halt or prevent the deterioration of property values or structures within said

central business district; will halt or prevent the growth of blighted areas within said district; and will assist the City and the Authority in the development and redevelopment of said district and in the overall planning to restore or provide for the continuance of the health thereof; and will be of special benefit to the property within the boundaries of the Authority.

Section 5. The Plan of Development is hereby approved by the City Council, and the Authority is hereby authorized to undertake development projects as described in the Plan of Development.

Section 6. The City Council hereby finds and determines that the Plan of Development will afford maximum opportunity, consistent with the sound needs and plans of the City as a whole, for the development or redevelopment of the Plan of Development Area and the commercial renovation districts designated therein by the Authority and by private enterprise.

Section 7. In accordance with the Plan of Development, there is hereby designated the Plan of Development Area (the boundaries of which are described with particularity on page 9 of the Plan of Development), in connection with which tax increment financing shall be utilized as provided in Section 31-25-807, Colorado Revised Statutes 1973, as amended, for the purposes specified in the Plan of Development.

Section 8. There is hereby created a separate special fund of the City designated as the "Tax Increment Fund" into which shall be deposited the ad valorem and municipal sales tax

increment funds described in Section 31-25-807, Colorado Revised Statutes 1973, as amended, derived from and attributable to development and redevelopment within the Plan of Development Area. Said funds shall be held, invested, reinvested and applied as permitted by law. For the purpose of ascertaining the amount of funds to be deposited in the Tax Increment Fund as provided by law, the County Assessor is hereby requested to certify to the City Council on or before December 31, 1981, the valuation for assessment of the Plan of Development Area as of the effective date of this Resolution. For the same purpose, the City Finance Director is hereby directed to certify to the City Council on or before April 1, 1982, the amount of municipal sales taxes collected within the Plan of Development Area for the period from December 1, 1980, to November 30, 1981.

Section 9. Those parcels described on page 12 of the Plan of Development are a part of a development or redevelopment area designated by the City Council pursuant to Section 39-5-105, Colorado Revised Statutes 1973, as amended, and commercial buildings or structures on such parcels are therefore entitled to the benefits granted under said statute.

Section 10. No public servant of the City who is authorized to take part in any manner in preparing, presenting, or approving the Plan of Development or any contract contemplated thereby has a potential interest in the Plan of Development or any such contract which has not been disclosed in accordance with the requirements of Section 18-8-308, Colorado Revised Statutes 1973, as amended, and no such public servant has

received any pecuniary benefit from the Plan of Development or any such contract.

Section 11. If any provision of this Resolution is judicially adjudged invalid or unenforceable, such judgment shall not affect the remaining provisions hereof, it being the intention of the City Council that the provisions hereof are severable.

Section 12. This Resolution shall be effective immediately upon its adoption and approval.

ADOPTED AND APPROVED this 16th day of December, 1981.

CITY OF GRAND JUNCTION, COLORADO

By: Louis M. Brach
President, City Council

(CITY)
(SEAL)

ATTEST:

Neva B. Lockhart, CMC
City Clerk

CITY - COUNTY PLANNING
grand junction-mesa county 559 white ave. rm. 60 grand jct.,colo. 8150
(303) 244-1628

December 12, 1981

TO: Grand Junction City Council

FROM: Planning Commission of Grand Junction

SUBJECT: Plan of Development of Grand Junction, Colorado
Downtown Development Authority

On December 2, 1981, the Grand Junction City Council, pursuant to C.R.S. 1973, §§ 31-25-807(4)(b), submitted the Plan of Development of the Grand Junction, Colorado, Downtown Development Authority to the Planning Commission for review and recommendations.

Because of such request, we have obtained copies of the Plan of Development for study and review and have also provided copies to the personnel of the Planning Department for their review. On December 12, 1981, the Planning Commission held a work session at which we considered the comments of the employees of the Planning Department, reviewed the Plan of Development in light of past policies for development and renovation, and considered the questions and comments of the members of the Commission. After this review, we offer the following comments and recommendations:

The Plan of Development, as presented, is a coherent and unified approach to redevelopment and renovation within the downtown area. The Plan of Development does call for certain projects that may require or result in changes in present use and zoning patterns. However, as constituted, the Plan of Development is consistent with the policies adopted by the Commission in the past.

The Plan of Development contains no redevelopment or renovation plans which are not feasible under current policies. Neither does the Plan of Development call for policies or development patterns in conflict with city-wide policies or patterns. It appears to be consistent with the Downtown Development Strategy which has been adopted as an element of the Master Plan for Grand Junction, as well as consistent with other current policies.

On the basis of this review, and the considerations expressed here, the Commission feels that it is not necessary that we specifically enumerate those areas of the Plan with which we are in agreement since the Plan of Development contains no items to which we specifically object. We, therefore, can endorse the Plan of Development as being consistent with existing city policies and recommend that the City hold a Public Hearing on the Plan of Development.

Respectfully submitted,

Jane Quimby, Chairman

RESOLUTION
BY THE
BOARD OF DIRECTORS
OF THE GRAND JUNCTION, COLORADO,
DOWNTOWN DEVELOPMENT AUTHORITY
ADOPTING A PLAN OF DEVELOPMENT

WHEREAS, the Grand Junction, Colorado, Downtown Development Authority has studied conditions within the central business district, pursuant to C.R.S. 1973, § 31-25-807; and

WHEREAS, such study has resulted in the preparation of a Downtown Development Strategy; and

WHEREAS, the Grand Junction, Colorado, Downtown Development Authority is authorized, pursuant to C.R.S. 1973, § 31-25-807, to plan and propose public facilities and other improvements to public and private property which will aid and improve the downtown development area; and

WHEREAS, Johnson, Johnson & Roy, Inc., authors of the Downtown Development Strategy, reported therein that areas of blight exist within the downtown area; and

WHEREAS, a plan of development has been presented to this Board for its consideration; and

WHEREAS, this Board has held a public meeting on such plan of development, which meeting was preceded by a notice of such meeting published in the Daily Sentinel on November 11, 1981, prior to such meeting; and

WHEREAS, Mesa County Valley School District #51, within which the entire area of development designated in the Plan of Development lies, has been permitted to participate in an advisory capacity with respect to the inclusion in the Plan of Development of the provision for utilization of tax increment financing; and

WHEREAS, the Board has been adequately informed in this matter because of public input prior to the completion of the plan of development, the public meeting on the proposed plan of development, the evidence presented in the Downtown Development Strategy and the plan of development, a review of the Grand Junction Downtown Development Plan Information Base,

and the personal knowledge of the members of this Board;

NOW THEREFORE BE IT RESOLVED THAT:

1. The Board hereby finds;

A) There is a presence of a substantial number of deteriorated or deteriorating structures within the Downtown Development Authority as shown by:

1) Of the buildings within the Downtown Development Authority, approximately 85% are 30 or more years old, and although generally sound, will require various amounts of renovation to meet present fire and building codes;

2) There are presently older buildings that are vacant, and therefore, deteriorating from lack of use, located at the southeast corner of Fifth and Main, the northwest corner of Fourth and Main, the southeast corner of Third and Main and the middle of the block between Second and Third on Main; and

3) Approximately 18.8% of the retail space available is vacant, even though demand is high in areas outside the central business district;

B) There is a predominance of defective or inadequate street layout as shown by:

1) The lack of adequate long-term parking because of time limits on meters; and

2) The existence of one-way streets on Rood and Colorado and Fourth and Fifth, which cause drivers to travel from four to six blocks out of their way to reach desired destinations because of the effect of the one-way streets combined with the effect of restricted turning intersections on Main Street; and

3) An under-utilization of parking areas to the south of Main Street while the parking areas to the north of Main Street are over-utilized;

C) There exists faulty lot layout in relation to size, adequacy, accessibility or usefulness as shown by:

1) The lot and block layout in the downtown area developed at an early date and resulted in long, narrow lots with the average lot being 25 feet by 125 feet; a size not compatible with modern architectural approaches;

2) Although west of Seventh Street significant pieces of land have been aggregated for potential development, many potential development sites are still held by a number of individual owners, including trusts and estates, and are subdivided by alleys and streets making it difficult to consolidate the needed land for redevelopment;

3) Of land within the Downtown Development Authority, between 1/3 and 1/2 is publicly owned and used for streets, alleys, or public buildings, and, therefore, not available for private use and redevelopment;

D) There exists deterioration of site or other improvements as shown by:

1) There are sidewalks in a deteriorating condition on the southeast corner of Fifth and Rood and on the 200 block between Main and Colorado;

2) There are deteriorating underdrains in the Shopping Park along Main Street from Third to Fifth Streets;

3) Foundation work on some of the older buildings has deteriorated in the past or is presently in a deteriorated condition, thereby making these buildings more susceptible to damage;

E) Unsanitary or unsafe conditions exist as shown by:

1) Combined sanitary and storm sewers in the downtown area which have the potential to back up into the drains of property owners after extreme rains, thereby creating an unsanitary condition;

2) Older buildings are located near railroad property which encourages transients to seek shelter in or around such older buildings;

3) There is a need to improve and upgrade utilities and sewers in the downtown area before any major redevelopment, for the present system would not be adequate under increased use;

4) The alleys in the downtown area are still major delivery and service routes; however, heavy pedestrian traffic has been encouraged by the use of walkthroughs at the U.S. Bank building and the north side of the 600 block of Main Street, and by the placement of parking areas across alleys from business establishments. Many businesses have encouraged the use of back doors as the most direct entrance from a parking

area to their establishment. However, the alley surfaces are uneven and not adapted to pedestrian travel; there are no crosswalks, the lighting at night is inadequate, and during business hours, there is a flow of both delivery trucks and trash collection trucks which pose a potential threat to pedestrians.

5) The presence of older buildings and their ornate building facades encourage pigeons to nest in and around these buildings causing unsanitary conditions to exist around such nesting sites.

6) The alleys are used for utilities upon poles and this factor, combined with the lack of adequate lighting at night, encourages burglars to gain access to building roofs by climbing these utility poles.

F) There exist conditions which endanger life or property by fire or other causes as shown by:

1) The use of second stories of buildings as storage areas; and

2) The density of buildings of an older nature along Main Street which increases the opportunity for fire spreading from one building to another because of the lack of adequate firewalls and the design of older buildings; and

3) There are no north/south water mains on Second, Third, and Fourth and the east/west mains on Grand, White and Rood are no larger than 6 inches, thereby providing limited supplies which are not adequate under present codes for fire protection.

2. The Board hereby finds and determines that there is a deterioration of property values or structures within the Downtown Development Authority as shown by:

A) A decrease in sales tax revenue in the central downtown area along both sides of Main Street from $454,727 in 1979 to $436,598 in 1980, and $343,484 in 1981 for the first nine months of each year; and

B) A decrease in the total assessed valuation of the Downtown Development Authority of 9.02% within the last year despite approximately a 6% increase in the size of the Downtown Development Authority because of recent inclusions,

3. Based upon the [illegible] exists blight in the Downtown Development Authority as defined in C.R.S. § 31-25-802(1.5) as amended, and that action is necessary to eliminate and prevent the growth of blighted areas and to halt deterioration of property values.

4. The Board hereby finds that the adoption of this Plan of Development will halt and prevent deterioration of property values and structures within the central business district, will halt and prevent the growth of blighted areas within the central business district, will assist the City of Grand Junction, Colorado, in the development and redevelopment of such central business district and in the overall planning to restore or provide for the continuance of the health thereof, and will be of especial benefit to the property within the boundaries of the Grand Junction, Colorado, Downtown Development Authority.

BE IT FURTHER RESOLVED THAT:

5. The Plan of Development, attached hereto and incorporated herein as Exhibit "A", is hereby adopted as the Plan of Development for the Grand Junction, Colorado, Downtown Development Authority, including those provisions designating a Plan of Development area within which tax increment financing will be utilized as described on Pages 8 through 10 and 49 through 52 , of the Plan of Development, and creation of three commercial renovation districts as described on Pages 12, 47 and 52 , of the Plan of Development, in which a five year tax deferral is allowed for renovation of commercial structures more than 30 years old.

6. Such Plan of Development shall be submitted to the City Council of Grand Junction, Colorado, with a request that they immediately submit said Plan of Development to the Planning Commission for their written recommendations; and that the City Council hold a public hearing on such Plan of Development, after public notice, and that the City Council be requested to approve such Plan of Development.

7. No Board member nor any employee of the Board with a specific financial interest, as defined in C.R.S. 1973, §31-25-819, as amended, in the adoption of the Plan of Development has voted thereon or otherwise participated in its preparation or presentation or failed to make such interest known to the Board.

8. If any part of this [illegible] unenforceable, such judgment shall not effect [illegible] it being the intention of the Board that the provisions hereof are [illegible] severable.

INTRODUCED, READ, PASSED and ADOPTED this 2nd day of December, 1981.

BY: Pat Gormley

Pat Gormley
Chairman of the Board
Grand Junction, Colorado
Downtown Development Authority

ATTEST: Sandra Gose

Sandra Gose
Secretary
Grand Junction, Colorado
Downtown Development Authority

Grand Junction
Downtown Development Authority
200 North Sixth Street, Suite 204 P.O. Box 296
Grand Junction, Colorado 81502
Phone (303) 245-2926

EXHIBIT A

DOWNTOWN DEVELOPMENT AUTHORITY

PLAN OF DEVELOPMENT

FOR GRAND JUNCTION, COLORADO

Including The Designation Of
Commercial Renovation Districts
And A Plan Of Development Area
Within Which
Tax Increment Financing Will Be Utilized

PREPARED BY:
The Grand Junction
Downtown Development Authority

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D.	National Main Street Center Resource Team Report on Grand Junction
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F.	Letter, Fire Chief, R. T. Mantlo
G.	Letter, Public Works Director, Jim Patterson
H.	Grand Junction Downtown Development Authority Interim Plan of Development Relating to Street Vendors

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SECTION I

INTRODUCTION AND RECOMMENDATIONS

A. INTRODUCTION

1. This Plan of Development is the result of the City of Grand Junction's continued interest in the revitalization of the downtown area. This interest began as early as 1962, when, in response to issues similar to today's concerns, a revitalization effort was undertaken by the City and the Main Street merchants. A General Improvement District was created to finance utilities and landscaping improvements to Main Street converting four blocks to a Shopping Park. Called Operation Foresight, this revitalization effort led to Grand Junction being named an All-American City.

2. These efforts were continued by the creation of the Grand Junction Downtown Development Authority (DDA) in April of 1977, by a 2 to 1 vote of the downtown electors. The Downtown Development Authority has had a full time director since February of 1980 and pursuant to C.R.S. 1973, S31-25-807, has been involved in the study and analysis of the impact of metropolitan growth upon the central business district. Studies of land use, urban design, parking, traffic and market conditions were made jointly by the City and DDA in 1980 and 1981.

3. As a result of such studies, a comprehensive Downtown Development Strategy was completed in November of 1981. Based upon the recommendations and evaluations contained within the Downtown Development Strategy, this Plan of Development was devised to promote the economic growth of the area encompassed by the boundaries of the DDA and to halt deterioration of existing structures and property values.

4. The Plan of Development, as presented here, attempts to rely upon the strength of the central business district to finance the public facilities, renovations, and repairs necessary to revitalize the area encompassed by the DDA boundaries. Three types of financing are of

primary importance in this Plan of Development.

5. First, a 5 mill ad valorem tax on all taxable real and personal property within the DDA has been imposed since 1978. The proceeds from such levy are used to finance the administrative and budgeted operations of the DDA, including necessary studies and promotional activities. It is anticipated that this source of funds will continue.

6. Secondly, for commercial buildings which are 30 or more years old, Colorado law (C.R.S. 539-5-105, 1973 as amended) allows an owner to defer for five years the assessment of the increased value caused by improvements made for rehabilitation or renovation. This encourages the owner to rehabilitate or renovate his property when he might otherwise not have done so. To qualify for such deferral, the renovation area must be included in a plan of development approved by the governing body of the City. However, the five year deferral of assessments may not be used for property which is included in a plan of development area wherein a tax increment financing district will be used.

7. Third, to foster development outside the areas designated for the five year deferral on assessments but within the DDA boundary, the plan of development calls for the use of tax increment financing.

8. With the adoption of a plan of development for a specific plan of development area within a city, the last certified assessment of taxable property in that area is calculated and becomes the "frozen tax base". Taxes generated from that frozen base continue to be received by the individual taxing entities within the project area; taxes collected upon the incremental assessed valuation over the frozen base are received by the entity undertaking the project to pay for project costs. That entity does not have the authority to levy any additional taxes and must rely specifically on the allocation of taxes produced by growth over the base year. The amount of allocated tax increment depends upon a combination of growth in assessed valuations and tax rates of the taxing jurisdictions. Before the funds from tax increment financing may be pledged for the payment of bonds, loans or other indebtedness, such pledge must be approved by the voters of the tax increment district at a special election.

9. Additionally, municipal sales tax revenues collected from a plan of development area can be frozen at an annual level. That level is defined as total collections in the twelve calendar months preceding the effective date of the plan of development. In subsequent years municipal sales tax collections up to the base year amount will continue to flow into the city's general fund. After the base year amount has been collected, however, all or any part of the incremental amount above the base year figure can be used to pay for bonds used to finance project costs in the same way property tax increment financing is used. Sales tax increment financing is used within the same limits as property tax increment financing. The entity does not have the authority to levy any additional taxes; the amount of increment depends upon growth in retail sales, and none of the tax increment funds can be pledged until approved by the electors of the district at a special election.

10. Revitalization of the downtown area must be a dynamic process that is flexible enough to allow for necessary changes in the plan of development. Under Colorado law, the Plan of Development may be amended by the same procedures necessary for adoption of the Plan. This provides needed flexibility for the changing downtown environment, which, at the present time, needs certain specific activities to commence if revitalization is to commence.

B. RECOMMENDATIONS

1. This Plan of Development describes the utilization of a five year property tax deferral on the increased value of commercial property due to renovation and the utilization of tax increment financing including the projects which could be funded. When adopted, this Plan will be complete and could be implemented solely with the tools described herein. However, the activities described in this Plan constitute only a few of many mechanisms that can and should be employed to effect the revitalization of Downtown Grand Junction. The following list of recommended actions, some of which are included in this Plan and some which are taken from the City Council's Policy Statement on Downtown Development dated April 15, 1981, the Downtown Development Strategy and the National Main Street

Center Resource Team Report attached hereto as exhibits C, A, and D, respectively, are suggested for consideration by the DDA and City Council. Each recommended action should be carefully considered to determine its effects on downtown revitalization activities, and the community generally, and if appropriate, implemented.

2. Continuation of the planning process for downtown redevelopment. Once the Downtown Development Strategy Plan is in place, specific implementation plans should be pursued including:

a. Design Guidelines for Downtown

b. Parking Management

c. Traffic Management

d. Zoning and Development Control Revisions

e. Housing Rehabilitation

f. Landscape and Street Lighting Plan

g. Detailed Improvement Designs

h. Retail Mix and Recruitment

3. Adopt a parking management plan and develop, adopt, and implement a parking district and a future parking development plan. Financing mechanisms for this include parking revenue bonds. In addition, a special study should be conducted to ensure that parking is provided and financed in a way amenable to downtown redevelopment.

4. Adopt revisions to the zoning ordinance that will combine development incentives, design guidelines and zoning regulations within a group of downtown zones. The Authority should be designated as the site plan review agency for all downtown project proposals.

5. Assist the state to develop a state office building in the downtown.

6. Provide Industrial Development Revenue Bond financing to downtown developers for appropriate economically feasible projects in accordance with state and federal statute.

7. Vacate alleys to accommodate new development provided that such vacation is necessary for the successful development of a project where the developer holds title to adjacent properties and construction is imminent.

8. Vacate or provide air rights or easements over street rights-of-way provided such vacation, air right or easement is necessary for the

successful development of a project when the developer holds title to adjacent properties and construction is imminent.

9. Apply for federal and/or state financial assistance to complement private development efforts when the development and application are consistent with the conditions of the federal or state assistance program.

10. Relocate municipal utilities to accommodate new development and continue to implement the agreement with Public Service Company of Colorado and Mountain Bell to underground utilities.

11. Designate the renovation districts delineated in the Plan as "Historic Commercial Renovation Districts" for the purposes of Section 104(f) of the Uniform Building Code, 1979 edition as adopted by the City of Grand Junction as a further incentive to renovate older buildings and reduce existing life and fire safety hazards.

12. Initiate redevelopment projects by obtaining control of redevelopment sites and soliciting development proposals and agreements from qualified developers to undertake priority redevelopment projects.

13. Extend Horizon Drive from 7th to 1st Street and upgrade Horizon Drive and 1st Streets to facilitate traffic flow.

14. Contract with a hotel developer for the facility and food service management of Two Rivers Plaza when a hotel project is undertaken adjacent to Two Rivers.

15. Pursue the preliminary design and feasibility analysis on a community performing arts/civic events center for eventual location in the immediate vicinity of Two Rivers Plaza.

16. Adopt and implement a Traffic Circulation Improvement Plan that specifically addresses two way traffic on Rood and Colorado Avenues and Fourth and Fifth Streets, the intersection at First and Grand, turns onto and off of Main Street, access to the many destinations in the downtown and traffic traveling through the downtown to other destinations.

17. Pursue the completion of a citywide Master Plan that recognizes the finite limits of real estate development potential in the city and that directs and manages that development for the benefit of the entire community. The downtown is an integral part of the community and what happens in the

community as a whole and what happens in the downtown are closely linked. Planning, development controls, and growth policies should reflect an awareness of those interrelationships.

SECTION II

DESCRIPTION OF DISTRICT BOUNDARIES

The Plan of Development Area within which Tax Increment Financing will be used shall be that property included within the boundaries of the Downtown Development Authority, except for that property included within the boundaries of the Commercial Renovation District.

The boundaries of the Grand Junction Downtown Authority which are:

"Exhibit A"

The description of the Plan of Development Area within which the Tax Increment Financing will be used is:

"Exhibit B"

The description of the Commercial Renovation Districts is:

"Exhibit C"

These areas are graphically displayed on the attached map.

"Exhibit D"

Beginning at the Northwest Corner of Wilsons Subdivision of Block 2 of Mobleys Subdivision; thence East along the South right-of-way line of Grand Avenue to the North Corner point common to Lots 9 and 10 of Block 78, City of Grand Junction; thence South along the common line of Lots 9 and 10 and the common line of Lots 15 and 16 all in Block 78, City of Grand Junction, to the North right-of-way line of White Avenue; thence East to the East right-of-way line of 2nd Street; thence South to the North right-of-way line of the East-West alley in Block 98; thence East along the North line of the East-West alley Block 98; City of Grand Junction, to the West right-of-way line of 3rd Street; thence North along the West right-of-way line of 3rd Street to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the East right-of-way line of 5th Street; thence South along the East right-of-way line of 5th Street to the North right-of-way line of the East-West alley in Block 82, City of Grand Junction, thence East to the Southwest corner of Lot 13 Block 82, City of Grand Junction; thence along the West line of Lot 13, Block 82, City of Grand Junction to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the East line of Lot 16, Block 82, City of Grand Junction; thence South along the East line of said Lot 16 to the North right-of-way line of the East-West alley in Block 81; thence East along the North right-of-way line of the East-West alley in Block 82 and 83 to the West line of Lot 9, Block 83, City of Grand Junction; thence North along the West line of said Lot 9 to the South right-of-way line of Grand Avenue; thence East along the South right-of-way of Grand Avenue to the West right-of-way line of 7th Street; thence South along the West right-of-way line of 7th Street to the South right-of-way line of White Avenue; thence East along the South right-of-way line of White Avenue to the West right-of-way line of the North-South alley in Block 93, City of Grand Junction; thence South along the West right-of-way line of the North-South alleys in Blocks 93, 106, 115, and 128, City of Grand Junction, to the North right-of-way

line of Ute Avenue; thence [illegible]
Avenue to the Southeast Corner [illegible]
west along the Southeast line of Block 10 [illegible]
section with the southerly projection of the [illegible]
Spruce Street; thence North along said East line to the [illegible]
Block 10, Mobley Subdivision; thence Northwesterly to a point [illegible]
415.8 feet West and South 41°03' East 68.97 feet from the Northeast Corner of the Southeast 1/4 and Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 89°57' West for 271.8 feet along a line parallel to the North line of the Southeast 1/4 of the Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 53°03' West 16.66 feet; thence North 53°03' West 70 feet to the Easterly right-of-way of the County Road to the East of the right-of-way of the Denver and Rio Grande Western right-of-way; thence Northwesterly along the Easterly right-of-way of said County Road to the South right-of-way of State Highway 340; thence Northeasterly along the Southern right-of-way of State Highway 340 to the Northwest Corner of Lot 9, Block 1, Richard D. Mobley's First Subdivision; thence South along the West line of said Lot 9 to the Southwest Corner; thence South to the center line of vacated alley; thence 25 feet East; thence North to a point 78 feet South of the North line of said Block 1; thence East to a point 7 1/2 feet West of the East line of Lot 11, Block 1, Richard D. Mobley's First Subdivision; thence North to the South right-of-way line of State Highway 340; thence along the South right-of-way line of State Highway 340 and Grand Avenue to the Point of Beginning.

However, excluding from the Downtown Development Authority of Grand Junction all of Block 5 of Richard D. Mobley's First Subdivision, and Lots 1 to 5, inclusive, of Block 4, Richard D. Mobley's First Subdivision, and Lots 12 to 16, inclusive, of Block 4, Richard D. Mobley's First Subdivision except the North 50 feet of Lots 12 to 16, exclusive of the West 15 feet of said North 50 feet of Lot 12.

And also excluding from the boundaries of the Grand Junction Downtown Development Authority that part of Tract 8, AMENDED SURVEY OF THE LITTLE BOOKCLIFFE RAILROAD YARDS lying South and East of a line beginning at a point

on the East line of Tract 1 of AMENDED SURVEY OF THE LITTLE BOOKLIFFE RAILROAD YARDS from which the East 1/4 Corner of Section 15, Township 1 South, Range 1 West of the Ute Meridian bears North 44°11' East 901.66 feet; thence North 89°58' West 126.0 feet; thence South 0°01' East 347.5 feet to a point on the South line of said Tract 8 which is the terminal point of said line; and also excluding from the boundaries of the Downtown Development Authority of Grand Junction, all of Tract 9 except that part of said Tract 9 included within the following described parcel:

That part of Tracts 1, 2, 3, 8, and 9 of AMENDED SURVEY OF THE LITTLE BOOKCLIFFE RAILRAOD YARDS described as follows:

Beginning at a point on the East line of said Tract 1 from which the East 1/4 Corner of Section 15, Township 1 South, Range 1 West of the Ute Meridian bears North 44°11' East 901.66 feet; thence North 89°58' West 126.0 feet; thence South 0°01' East 197.50 feet to the centerline of the railroad spur track; thence South 89°58' East 126.00 feet along said centerline; thence North 0°01' West 197.50 feet to the point of beginning.

TOGETHER with an easement over and across a strip of land extending South from the property hereby described to a line 3 feet South of and parallel to the South line of said railroad spur track.

EXHIBIT "B"

DESCRIPTION OF THE PLAN OF DEVELOPMENT AREA WITHIN WHICH TAX INCREMENT FINANCING WILL BE USED

Beginning at the Northwest Corner of Wilsons Subdivision of Block 2 of Mobleys Subdivision; thence East along the South right-of-way line of Grand Avenue to the North Corner point common to Lots 9 and 10 of Block 78, City of Grand Junction; thence South along the common line of Lots 9 and 10 and the common line of Lots 15 and 16 all in Block 78, City of Grand Junction, to the North right-of-way line of White Avenue; thence East to the East right-of-way line of 2nd Street; thence South to the North right-of-way line of the East-West alley in Block 98; thence East along the North line of the East-West alley Block 98, City of Grand Junction, to the West right-of-way line of 3rd Street; thence North along the West right-of-way line of 3rd Street to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the East right-of-way line of 5th Street; thence South along the East right-of-way line of 5th Street to the North right-of-way line of the East-West alley in Block 82, City of Grand Junction; thence East to teh Southwest Corner of Lot 13, Block 82, City of Grand Junction; thence along the West line of Lot 13, Block 82, City of Grand Junction to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the East line of Lot 16, Block 82, City of Grand Junction; thence South along the East line of said Lot 16 to the North right-of-way line of the East-West alley in Block 81; thence East along the North right-of-way line of the East-West alley in Block 82 and 83 to the West line of Lot 9, Block 83, City of Grand Junction; thence North along the West line of said Lot 9 to the South right-of-way line of Grand Avenue; thence East along the South right-of-way of Grand Avenue to the West right-of-way line of 7th Street; thence South along the West right-of-way line of 7th Street to the South right-of-way line of White Avenue; thence thence East along the South right-of-way line of White Avenue to the West right-of-way line of White Avenue to the West right-of-way line of the North-South alley in Block 93, City of Grand Junction; thence South along the West right-of-way line of the North-South alleys in Blocks 93, 106, 115, and 128,

City of Grand Junction, to the North right-of-way line of Ute Avenue; thence West along the North right-of-way line of Ute Avenue to the Southwest Corner, Block 10, Mobley Subdivision; thence Northwest along the Southwest line of Block 10, Mobley Subdivision to the intersection with the southerly projection of the East right-of-way line of Spruce Street; thence North along said East line to the Northwest Corner, Block 10, Mobley Subdivision; thence Northwesterly to a point which lies 415.8 feet West and South 41°03' East 68.97 feet from the Northeast Corner of the Southeast 1/4 and Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 89°57' West for 271.8 feet along a line parallel to the North line of the Southeast 1/4 of the Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 53"03' West 16.66 feet; thence North 53"03' West 70 feet to the Easterly right-of-way of the County Road to the East of the right-of-way of the Denver and Rio Grande Western right-of-way; thence Northwesterly along the Easterly right-of-way of said County Road to the South right-of-way of State Highway 340; thence Northeasterly along the Southern right-of-way of State Highway 340 to the Northwest Corner of Lot 9, Block 1, Richard D. Mobley's First Subdivision; thence South along the West line of said Lot 9 to the Southwest Corner; thence South to the centerline of vacated alley; thence 25 feet East; thence North to a point 78 feet South of the North line of said Block 1; thence East to a point 7 1/2 feet West of the East line of Lot 11, Block 1, Richard D. Mobley's First Subdivision; thence North to the South right-of-way line of State Highway 340; thence along the South right-of-way line of State Highway 340 and Grand Avenue to the Point of Beginning.

However, excluding from the Downtown Development Authority of Grand Junction all of Block 5 of Richard D. Mobley's First Subdivision, and Lots 1 to 5, inclusive, of Block 4, Richard D. Mobleys' First Subdivision, and Lots 12 to 16, inclusive, of Block 4, Richard D. Mobley's First Subdivision except the North 50 feet of Lots 12 to 16, exclusive of the West 15 feet of said North 50 feet of Lot 12.

And also excluding from the boundaries of the Grand Junction Downtown Development Authority that part of Tract 8, AMENDED SURVEY OF THE LITTLE BOOKCLIFFE RAILROAD YARDS from which the East 1/4 Corner of Section 15,

Township 1 South, Range 1, West of the Ute Meridian Bears North 44°11' East 901.66 feet; thence North 89°58' West 126.0 feet; thence South 0°01' East 347.5 feet to a point on the South line of said Tract 8 which is the terminal point of said line; and also excluding from the boundaries of the Downtown Development Authority of Grand Junction, all of Tract 9 except that part of said Tract 9 included within the following described parcel:

That part of Tracts 1, 2, 3, 8, and 9 of AMENDED SURVEY OF THE LITTLE BOOKCLIFFE RAILROAD YARDS described as follows:

Beginning at a point on the East line of said Tract 1 from which the East 1/4 Corner of Section 15, Township 1 South, Range 1 West of the Ute Meridian bears North 44° 11' East 901.66 feet; thence South 0°01' East 197.50 feet to the centerline of the railroad spur track; thence South 89°58' East 126.00 feet along said centerline; thence North 0°01' West 197.50 feet to the point of beginning.

TOGETHER with an easement over and across a strip of land extending South from the property hereby described to a line 3 feet South of and parallel to the South line of said railroad spur track.

And except the following parcels:

Lots 11 to 16, inclusive, in Block 83, City of Grand Junction, Mesa County, Colorado; and

The North 75 feet of Lots 1, 2, and 3 of Block 104, City of Grand Junction, Mesa County, Colorado; and

Lots 17 to 25, inclusive, in Block 102; Lots 17 to 32, inclusive, in Block 103, Lots 17 to 32, inclusive, in Block 104; Lots 16 to 30, inclusive, except all the East 71.95 feet of Lots 16 to 20, inclusive, except the North 30 feet of the East 71.95 feet of Lots 16 to 20 inclusive, in Block 105; Lots 1 to 15, inclusive, except the East 50.45 feet of Lots 11 to 15, inclusive, in Block 116; Lots 1 to 16 inclusive, in Block 117; and Lots 1 to 16, inclusive, in Block 118, all in the City of Grand Junction, Mesa County, Colorado.

EXHIBIT "C"

DESCRIPTION OF THE COMMERCIAL RENOVATION DISTRICTS

Lots 11 to 16, inclusive, in Block 83, City of Grand Junction, Mesa County, Colorado; and

The North 75 feet of Lots 1, 2, and 3 of Block 104, City of Grand Junction, Mesa County, Colorado; and

Lots 17 to 25, inclusive, in Block 102; Lots 17 to 32, inclusive, in Block 103, Lots 17 to 32, inclusive, in Block 104; Lots 16 to 30, inclusive, except all the East 71.95 feet of Lots 16 to 20, inclusive, except the North 30 feet of the East 71.95 feet of Lots 16 to 20, inclusive, in Block 105; Lots 1 to 15, inclusive, except the East 50.45 feet of Lots 11 to 15, inclusive, in Block 116; Lots 1 to 16 inclusive, in Block 117; and Lots 1 to 16, inclusive, in Block 118, all in the City of Grand Junction, Mesa County, Colorado

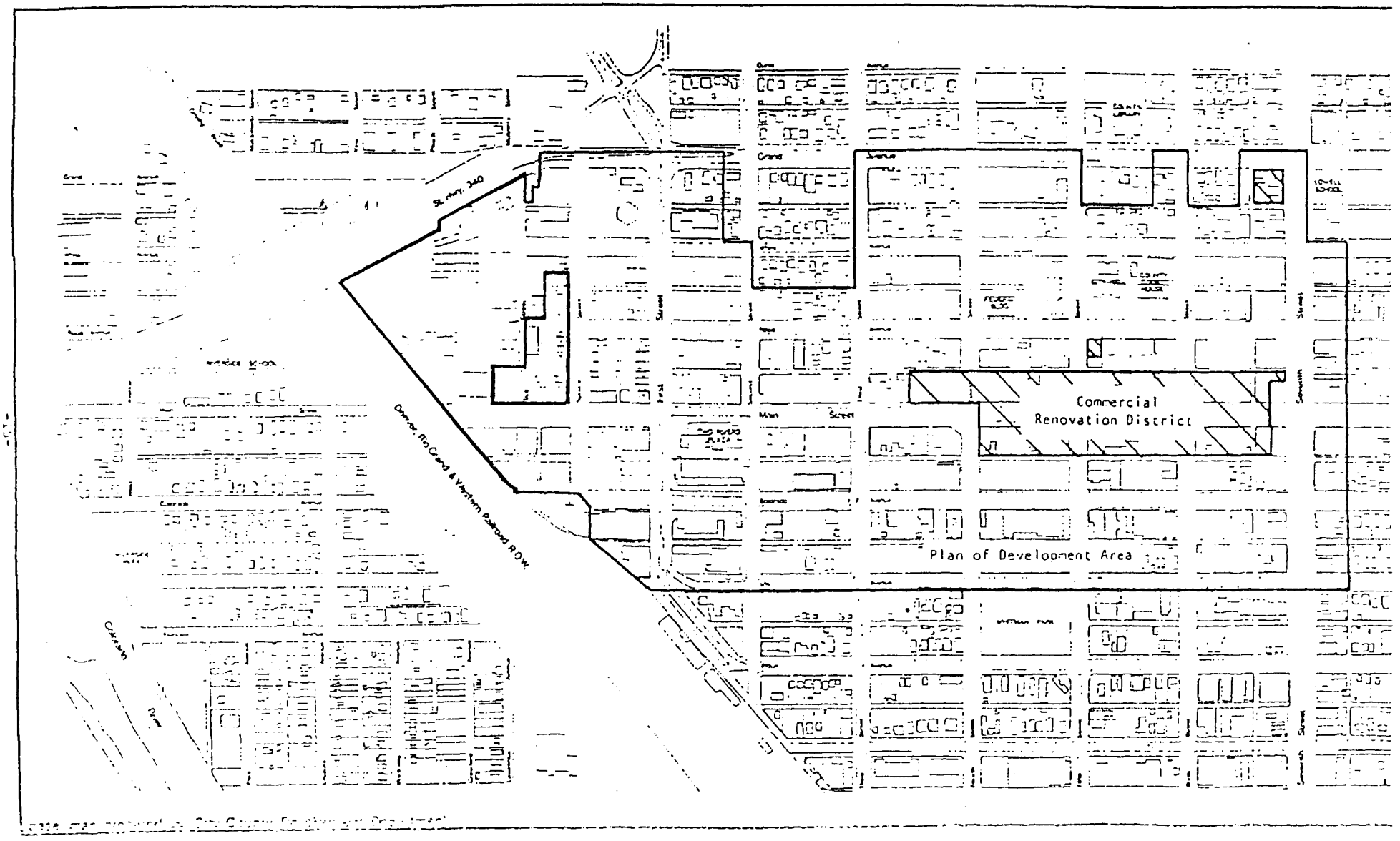


EXHIBIT D GRAND JUNCTION, COLORADO, DOWNTOWN DEVELOPMENT AUTHORITY DECEMBER 1981

SECTION III

STATUTORY REQUIREMENTS FOR ADOPTION AND IMPLEMENTATION OF A DOWNTOWN DEVELOPMENT AUTHORITY PLAN OF DEVELOPMENT WHICH INCLUDES BOTH RENOVATION DISTRICTS AND A PLAN OF DEVELOPMENT AREA WITHIN WHICH TAX INCREMENT FINANCING WILL BE USED

A. GENERAL

1. Revitalization of a downtown area is a time-consuming and dynamic process. The results of the planning phase may influence the downtown environment for years, and it is, therefore, necessary that those affected by a plan of development are provided adequate opportunity to voice their suggestions and concerns for the future of "their" downtown. The minimum requirements are those dictated by Colorado law.

2. The following summarizes the statutory requirements for adoption of this Plan of Development and indicates the date of completion of this Plan. Additionally, also shown are the other opportunities provided for input into the Plan and optional activities undertaken to assure maximum public input as well as compliance with the policies of the City Council.

B. DATE OF ACTION	C. STATUTORY REQUIREMENTS	D. OPTIONAL ACTIVITIES
1. 1/19/77	Resolution authorizing election of formation of DDA	
2. 2/8/77	Election	
3. 3/16/77	City Ordianance No. 1669 establishing DDA State Statute 31-25-804	
4. 6/2/80		Employment of consultants to study and analyze land use, urban design, parking, traffic, and market conditions
5. 8/21/80		Formation of Downtown Action Committee to Provide input on Plan of Development

B. DATE OF ACTION	C. STATUTORY REQUIREMENTS	D. OPTIONAL ACTIVITIES
(Continued)		
6. 4/15/81		Adoption by City Council of Policy Resolution for downtown
7. 10/2/81		Public presentation by Johnson, Johnson & Roy, Inc. of their conclusions concerning the downtown area
8. 10/7/81		Discussion with County Assessor and Treasurer concerning implementation of tax deferral and tax increment financing
9. 10/28/81	Meeting with school district personnel seeking their advice and comments on tax increment financing 31-25-807 (3)(d)	
10. 11/6/81		Review of Downtown Development Strategy Plan by DDA Board of Directors and invitation to Mesa County Commissioners to attend for explanation of Plan concept including tax increment financing
11. 11/11/81		Published notice of meeting of DDA Board to consider and adopt Plan of Development after public input
12. 11/11/81		Presentation of Plan to local architects, engineers, and planners
13. 11/13/81		Public meeting of DDA Board concerning Plan of Development concept

B. DATE OF ACTION	C. STATUTORY REQUIREMENTS	D. OPTIONAL ACTIVITIES
(Continued)		
22. Upon adoption of Plan of Development	Freezing of Ad Valorem tax base and sales tax base as of effective date of Plan 31-25-807(3)	
23. To be determined during 1982	Resolution of DDA Board to have election for pledging of tax increment funds 35-25-807(3)(b)	
24. To be determined during 1982	Approval by City Council of election at least 30 days prior to election 35-25-807(3)(b)	
25. To be determined during 1982	Election - qualified electors of district 35-25-807(3)(b)	
26. To be determined during 1982	City Council adoption of ordinance authorizing the issuance of bonds	
27. To be determined during 1982	Bonds issued for project	

SECTION IV

EXISTING CONDITIONS WITHIN THE BOUNDARIES OF THE DOWNTOWN DEVELOPMENT AUTHORITY

A. RESULTS OF THE ANALYSIS OF EXISTING CONDITIONS

1. Johnson, Johnson & Roy, Inc., concluded that a Downtown Development Strategy Plan was needed because: "Within the downtown area, there exist clear measures of blight and deterioration, which require improvements to ensure the economic well-being and quality of life of all our residents. We have a substantial number of deteriorating structures; some of these suffer from structural blight, some from functional blight. Although our street system is generally wide and adequate, we face circulation problems which call for simplification. The utility systems serving our downtown must be replaced both for our safety and our future growth. Most of all, we need to grasp the opportunity to bring life back into the downtown area through the addition of sound housing and attractive commercial and office space."

2. Among the many factors presently existing within the boundaries of the Downtown Development Authority which led Johnson, Johnson & Roy, Inc. to the above conclusion are:

a. Any increase in intensity of development or redevelopment will require replacement and upgrading of present utilities, including replacing and upgrading of water and sewer lines;

b. A present need for parking locations which provide reasonable location distribution of long and short term parking as well as effectively provide for long term parking.

c. A present combination of one-way streets and restricted turning intersections along Main Street which requires one to travel four to six blocks to find a parking space and which often prevents one from getting to visible parking lots on cross streets and inhibits the ability to reach offstreet lots;

d. Potential development sites at which ownership has not been consolidated and where the potential major development parcels are divided by alleys and streetways;

e. Present zoning classifications which do not always make it possible to attract the desired type of redevelopment;

f. Existing land use of adjacent parcels and existing zoning are not such as to encourage successful redevelopment of multiple family housing;

g. Fragmented ownership and land prices which put the area at a disadvantage in attracting new builders;

h. Lack of high quality lodging;

i. Areas adjacent to the DDA which contain areas that no longer fulfill their original function, and which are unattractive, at times unsafe, and provide a loitering spot for transients, such as Whitman Park; and

j. Upper stories of most downtown structures which are generally underutilized as activity generators for the downtown area because of their present use as storage areas.

B. ADDITIONAL FACTORS

1. In addition to the above factors, other factors indicate that, despite the traditional advantages of the central business district over other locations because of its core of governmental, financial, and related activities, the central business district is no longer able to attract new development or redevelopment.

2. The area within the boundaries of the Downtown Development Authority has traditionally been a strong retail area for the City. However, at the present time there are vacant buildings, not presently undergoing redevelopment or conversion, at the corners of 5th and Main, 2nd and Colorado, 4th and Main, and 3rd and Main. At the present time approximately one square foot of each five available for retail space is vacant since there is presently a retail vacancy rate of approximately 18.8% even though retail space is in high demand in other areas. Each square foot of vacant retail space means that there is lost revenue to the property owner, a loss in the entire spectrum of retail goods available to the consumer, and a loss of consumer-attracting businesses.

3. The downtown area is also an old area. Although there has been some new construction within the last 10 years, approximately 85% of all the structures are older than 30 years old. There have been three periods

of significant construction downtown: 1887 to 1894, 1907 to 1922, and 1946 to 1952. Because of the different building requirements during these periods, these older buildings, unless renovated, remodeled, or redeveloped, contain structural hazards to health and safety. For example, the large windows used on older buildings to provide sunlight and ventilation, now create safety problems because of the easy access they may provide for burglars and transients, and the high ceiling of many older buildings may provide more air space for combustible matter.

4. The decline of the downtown central business district can best be seen in a comparison of the sales income and assessed valuation of property in the last three years. Sales taxes collected in the central downtown area along both sides of Main Street have fallen from $408,088 in 1979 to $384,140 in 1980 and $304,338 in 1981, during the first eight months of each year. This reflects that the share of the city-wide retail market in this area has fallen from 13.23% to 7.24%.

5. This reduction in sales tax revenue is not due to a change of use, for the total assessed valuation of property has also declined. Although the total assessed valuation of real property within the boundaries of the Downtown Development Authority increased by 5.85% because of substantial inclusions of new property in the Downtown Development Authority, the assessed value of personal property fell by 31.80% and the overall assessed value fell by 9.02%. This decline in tax revenues, when viewed against the massive development occuring on Horizon Drive and in other areas, indicates that the central business district is failing to keep pace with the rest of the county.

6. All of these factors indicate that the conclusion by Johnson, Johnson & Roy, Inc., that blight exists within the downtown area, applies to the property within the Downtown Development Authority. Under Colorado law, a blighted area is not equated with what is traditionally thought of as a "slum", but, rather is an area in which sound growth, adequate housing provisions and the public health and welfare are impaired because of the type of structures and the land upon which they are located as well as other unsanitary, or unsafe conditions.

C. PUBLIC INPUT

1. During public meetings and through discussion with City officials, other potential problems have been identified. These problems vary in severity. Some problems are scheduled to be remedied by work programs in the future, while others are not scheduled for corrective action. The problems include:

a. Combined sanitary and storm sewers in the downtown area have the potential to back up into the drains of property owners after extreme rains, thereby creating an unsanitary condition. Any future sewer construction would require the installation of separate lines.

b. There are deteriorating underdrains in the Shopping Park along Main Street from 3rd to 5th.

c. There are sidewalks in a deteriorating condition on the southeast corner of 5th and Rood and on the 200 block between Main and Colorado.

d. The street lighting in the Shopping Park is on tall poles, but since the vegetation is now quite large on Main Street, little light reaches the sidewalks and walkways creating a potential public safety hazard.

e. There are no north-south water mains on 2nd, 3rd, and 4th and the east/west mains on Grand, White, and Rood are no larger than 6 inches, thereby providing limited supplies which are not adequte under present codes for adequate fire protection levels.

f. Public officials are aware that the foundation work on some of the older buildings have deteriorated in the past or are presently in a deteriorated condition. For example, one of the buildings has wooden piles which rotted because of a fluctuating water table. During the Main Street water main break, extensive damage occurred because of the old style, porous foundations.

g. The alleys in the downtown area are still major delivery and service routes; however, heavy pedestrian traffic has been encouraged by the use of walkthroughs at the U. S. Bank building and on the northside of the 600 block, and by the placementof parking areas across an alley from business establishments. Many businesses have encouraged the use of back doors as the most direct entrance from a parking area to their establishment. However, the alley surfaces are often uneven and not adapted to pedestrian travel, there are no crosswalks, the lighting at night is inade-

quate, and during business hours there is a flow of both delivery trucks and trash collection trucks which pose a potential threat to pedestrians.

2. The combination of these problems and those identified by Johnson, Johnson & Roy, Inc., presents a picture of large scale future problems as growth occurs in the community, creating a greater demand upon downtown facilities. Both public and private development will be needed to keep the downtown from further deterioration.

m. Construction Management: This is provided by either a skilled public agency or private sector specialists. It can help to assure completion of a project on time and within budget, and on complicated projects may become an absolute necessity.

n. Supervision of Project Planning and Design: This is the responsibility of the City and DDA and calls for both the establishment of a close working relationship between public and private professionals and an understanding by both of the goals and performance needs of the other.

B. IMPLEMENTATION TOOLS

A wide variety of tools are available to the City of Grand Junction and the Downtown Development Authority for the implementation of this Plan.

1. Most important of these to the implementation of this Plan of Development is the Downtown Development Authority. Under Colorado legislation, the Downtown Development Authority has the power to acquire by purchase, lease, license, option or otherwise, any property and to improve land and to construct and operate buildings and other improvements on it as well as to act as solicitor by any property owned by or under its control. The Authority can issue revenue bonds for the purpose of financing its development facilities.

2. Industrial development bonds, issued by the City after review by the industrial bond committee, are also an extremely powerful tool, which, to date, have not been directed in significant form to the downtown area.

3. Tax increment financing is an extremely important tool for the implementation of this Plan of Development. Tax increment financing can provide for the construction of public facilities in the Plan of Development area and for property acquisition for public or private redevelopment. A Plan of Development area is established by this Plan. An election is required to authorize issuance of bonds. TIF bonds, however, cannot be expected to fund all of the projects.

4. General improvement districts offer an opportunity to fund public improvements. General improvement districts may be of importance here as an overlay to allow wider improvement throughout the downtown area. General improvement districts become a taxing unit with the power to construct or install public improvements including off-street parking facilities.

5. The City also has the power to establish and maintain a pedestrian mall under the Public Mall Act of 1971. This act provides for both fully

pedestrian, or pedestrian/vehicular transit malls such as the existing Shopping Park. The City could conceivably employ this act to provide for the construction and payment for improvements throughout a general improvement district or a smaller commercial renovation area. The statute authorizes the City to levy a special assessment against property within the district to be expended for the maintenance, operation, repair or improvement of the mall.

6. Parking revenue bonds can be issued by the City to provide for the construction, maintenance and operation of public parking facilities, buildings, stations or lots and to pay for their costs by a general tax levy or otherwise by the issuance of revenue bonds. The principal and interest on such revenue bonds can be paid for solely out of revenues assessed and collected as rentals, fees, or charges from the operation of such facilities or from parking meter renewals, rentals or charges.

7. The City also has the authority, under the Public Parks Act, to establish, maintain and acquire land necessary or proper for boulevards, parkways, avenues, driveways and roadways, or for park or recreational purposes for the preservation and conservation of sites, scenes, open spaces, and vistas of scientific, historic, aesthetic or other public interest. Monies in the park fund can also be used for the maintenance and improvement of parks, parkways, boulevards, avenues, driveways and roads.

8. The City and the Downtown Development Authority have the authority to enter into long-term rentals and lease-holds, both for undeveloped or improved property. In addition, intergovernmental cooperation agreements can be used to establish and provide for joint use of public services or facilities.

9. A local, nonprofit development corporation may be necessary to provide coordination for large, private, multi-property developments. Industrial Development, Inc., is currently established as a nonprofit development corporation, but additional corporations such as this may be necessary and should be encouraged if coordination can be ensured.

10. The Capital Improvements Program established by the City and the County are major tools for insuring that public improvements are installed and maintained consistent with the goals and priorities of the community. Downtown projects should be set aside in a separate category, and prioritized on an annual basis.

11. By state statute, deferral of property tax assessments is available to owners of certain older buildings who improve their property through renovation. This is available for private home owners without special designation of their areas as a renovation district. For commercial property owners, a commercial renovation district is established under this Plan.

12. Urban development action grants, and community development block grants are federal programs offering assistance for a wide range of development and renovation activities. There are strict qualification requirements, and each year's funding level is subject to changes in federal policy and national economic shifts.

13. Main Street Program technical assistance, and historic structure designation are programs under the auspices of National and State Historic groups. Incentives for the preservation and judicious re-use of historic buildings are available, and geared to the needs of private owners.

14. Conventional financing is the normal course for most development projects. Recent interest rate fluctuations have led to greater use of devices such as the reduced rate loan pool established by the Authority.

15. Various other federal and state agencies offer specialty grant or technical assistance services for public improvement. Here, these can include: Federal Highway Administration and Urban Mass Transit Administration grants; Joint Budget Committee decision and expenditure; Colorado Energy Impact Assistance funds; Housing Authorities at the local, state and federal level; Colorado highway users trust fund.

C. IMPLEMENTATION-STEPS

The following list of actions will need to be taken, not necessarily in this order to implement this Plan.

1. The first step in the implementation strategy is the adoption of the Authority's Plan of Development and the continuation of the planning process. The agencies primarily responsible for this are the City and the Downtown Development Authority. Special studies and plans need to be developed for the following:

a. Parking Management
b. Design Guidelines for Downtown
c. Landscape and Street Lighting Plan

d. Zoning and Development Control Revisions
e. Traffic Management
f. Retail Mix and Recruitment
g. Detailed Improvement Designs
h. Housing Rehabilitation

2. The City should designate the Downtown Development Authority as the planning implementation agency for these projects.

3. The City and DDA will develop a detailed downtown implementation strategy and an annual work program based on fundable projects and activities. Specific planning and improvement projects will be paired with appropriate funding mechanisms.

4. The City and the DDA will hold a tax increment financing bond election.

5. The DDA and the City will prequalify for selected state and federal assistance programs. Although the exact use of these programs at the moment may not be clear, it is important that the City establish itself as qualified and interested in these funding programs for the implementation of this Plan of Development.

6. The DDA and the City will design and implement funding mechanisms for the commercial renovation district. These include those programs currently in place, such as the Low Interest Commercial Loan Pool and others which will require research and development.

7. The City and the DDA will prepare and consider for adoption revisions to the zoning ordinance. The DDA will be included in the Site Plan Review Process for all activities in the downtown.

8. The City, with DDA assistance, will provide industrial development bond financing for projects in the downtown in accordance with state and federal law.

9. The DDA and the City will coordinate market analysis studies, site plan designs, and packaging for projects such as the multi-use office/hotel/convention center.

10. The DDA, the City, and the Grand Junction Housing Authority will coordinate the development of market analysis studies, design studies, and packaging of properties for housing redevelopment projects where appropriate.

11. The DDA and the City will coordinate the market analysis, design planning, and packaging for the entry development project area.

12. The City and the DDA will coordinate selection of the state office building site and provide planning assistance for the state office building.

13. The DDA will need to coordinate design and development in a number of other redevelopment project areas, and should be aware of and anticipating the development of these.

14. The DDA with private sector assistance, will need to design and incorporate a local, private, non-profit development corporation. This corporation may be established for special projects, or may in fact begin to serve as an overall private partner to the Downtown Development Authority. The local development corporation could begin to coordinate implementation of the development of the downtown, taking some of the burden from the publicly financed DDA.

15. The City and DDA will adopt a parking management plan and may need to develop, adopt, and implement a parking district and a future parking development plan. Financing mechanisms for this include parking revenue bonds. A special study will be conducted to ensure that parking is provided and financed in a way amenable to downtown redevelopment.

16. The City and DDA will implement parking district improvements including property acquisition and constructing structures funded by parking revenue bonds, tax increment bonds, other sources or a combination of mechanisms.

17. The City, the DDA, the County, State and Federal governments and the school district could establish intergovernmental cooperation agreements for the joint provision and use of facilities and services. Such an example may occur in the governmental office district for the provision of parking or other maintenance, or property/street improvement activities.

18. The City, with the cooperation of the County, DDA and other agencies, needs to establish priorities and funding for federal and state urban transportation systems. These may include improvements to those major state highways bypassing or going through the downtown. It may require application or involvement with the Federal Highway Administration, the State Highway Users Trust Fund, the Colorado Department of Highways, the Federal

Urban Mass Transportaion Administration and perhaps the state's Energy Impact Assistance funds.

19. The City and DDA should establish financing for park, boulevard, median and landscaping improvements. The funding mechanisms for these, in addition to highway construction sources, may include the Public Parks Act which would allow this kind of construction. The City does not currently take advantage of this financing mechanism.

20. The City and the DDA should research, evaluate and develop special land development regulations for the downtown that combine development incentives and design guidelines with regulations. Considerable legal research will be necessary and modification to existing administrative systems may be necessary. This could include exploration of feasibility of transferrable development rights, condominium law applications to private home improvements, and the use of air rights in certain congested areas of the downtown.

21. The Downtown Development Authority's interim Plan of Development relating to street vendors, attached hereto as Appendix H, adopted by the Authority Board and City Council in response to Grand Junction City Ordinance Number 1989, is hereby made a part of this Plan of Development.

SECTION VII

PUBLIC FACILITIES

A. GENERAL

1. As mentioned in Section VI., the construction of public facilities and improvements can be used to support and encourage private redevelopment activities. Private redevelopment will encourage further reinvestment by the private sector. The result will be increased property values, increased tax revenues to the City, and reinforcement of land uses and business activities adjacent to the public facilities and improvements constructed as a result of this Plan.

2. A number of public works improvements will be undertaken to implement this Plan by the City and the Authority. Some of the improvements could be financed solely from tax increment revenues. Others could be financed with other available financing tools, i.e., special assessments, revenues bonds, general fund appropriations, general improvement districts, lease purchase, federal and state grant and loan programs and others. Some projects may be financed utilizing a combination of funding mechanisms.

3. The public improvements will be constructed to complement and provide incentives for private development. Scheduling the various public improvements will depend on the area and intensity of private sector redevelopment, the scheduling of the City's Capital Improvement Program, and the availability of tax increment and other financing mechanisms. The City and Authority will install and construct, or cooperate as appropriate with other public or private agencies, in the installation and construction of such public improvements, public facilities and utilities as are necessary to carry out this Plan. Such improvements, facilities, and utilities include, but are not limited to, any streets, parks, plazas, parking facilities, playgrounds, pedestrian malls, rights-of-way, structures, waterways, bridges, lakes, ponds, canals, utility lines or pipes, and buildings, including access routes to any of the foregoing, designed for use by the public generally or used by any public agency with or without charge, whether or not the same is revenue-producing. Improvements will be undertaken whenever possible in conjunction with and as an incentive for private redevelopment projects.

However, redevelopment priorities of the City and DDA, available funding and other demands, not the requests of redevelopers will determine the schedule of public improvement projects.

3. A more detailed description of the public facilities and improvements follows. Individual facilities and improvements will be further defined in the Public Improvement Design Guidelines and project specific implementation plans and specifications. The location of many of the projects listed in Section VII.B. below are identified by number in Exhibit E. on Page 43.

B. PROJECTS

1. Renovation of the Main Street Shopping Park. In addition to the improvement of facades along the shopping core being funded by the loan pool administered by the Downtown Development Authority, improvements to the landscaping, street furniture, and lighting will be accomplished.

2. Improvements to Alleyways. The improvements to alleyways include undergrounding utility systems, a general clean-up of the area, resurfacing, and improvements to pedestrian through-paths and parking areas.

3. Improvements to Rood Avenue. The 19.5 foot traffic lanes will be narrowed to 12 feet, and canopy trees and landscaping improvements will be added. The street will be returned to two-way traffic.

4. Improvements to Colorado Avenue. Traffic movement lanes will be narrowed from 19.5 to 12 feet, canopy trees and street landscaping improvements will be added. The street will be returned to two-way traffic.

5. Improvements to Seventh Street. This involves the extension of the boulevard from Grand to South. It will require minor alterations to parking along Seventh and the installation of a landscaped boulevard down the center of Seventh. It will require minor narrowing of the traffic lanes and will improve the movement of traffic along Seventh.

6. Restoration of Whitman Park. Although Whitman Park is not presently within the Authority's boundaries, it is hoped that it will become part of the DDA within the near future because of its influence upon adjacent DDA property. The improvements proposed to Whitman Park include clean-up and modification of the landscape and improvements to the lighting to improve safety and reduce loitering. These improvements will enhance its use as a neighborhood park for potential future housing development.

7. Extension of the Shopping Park. The Shopping Park will be extended into the 200 block of Main Street and a plaza could be constructed at Second and Main to include a large sculptured fountain. This project will enhance Two Rivers Plaza and provide incentive for the future development of a multi-use hotel and office facility in close proximity to Two Rivers Plaza. It will also provide incentive for a performing arts complex at that location. It will be undertaken in conjunction with private development.

8. Relocation of Regional Bus Terminal. This terminal needs to be relocated to a site more appropriate for regional transportation, and to allow improvements in the neighborhood of its current site to occur. The project will involve site selection, acquisition and development, and could include clearance and acquisition of its current property.

9. Image Improvement at Seventh and Main. This project involves improvements in parking, lighting landscape, and signage at the entry to the Shopping Park. In the future, the site can serve as a community bus transfer point, dependent upon installation of a line haul bus facility program in Grand Junction.

10. Identify, Designate and Acquire Future Parking Facility Locations. The City and Authority will identify specific locations for future parking facilities and acquire and maintain these properties as development staging areas to encourage and provide incentive to future development.

11. Construct Parking Facilities. The City and Authority will build parking facilities (surface or multi-level) on appropriate designated sites to accommodate parking demand created by new development.

12. Expansion of the Museum of Western Colorado. The City and Authority will assist the Museum in identifying and acquiring a site to permit the expansion of the Museum facility. This could involve acquisition and resale or a long term property lease.

13. Public Building Sites. The City and DDA will identify, acquire and assemble sites or key parcels appropriate for the development of public buildings individually or in cooperation with other agencies desiring to undertake projects consistent with the objectives of this Plan and within the redevelopment areas designated in this Plan. Public buildings could include a state office building, City Hall, performing arts/civic events center, County offices and others.

14. Redevelopment Sites. The City and DDA will identify, acquire and assemble sites or key parcels appropriate for redevelopment projects (commercial, office, hotel, housing, etc.) for resale or lease to public or private developers desiring to undertake projects consistent with the objectives of this Plan and within the redevelopment areas designated in this Plan.

15. Utilities. The City will expand or replace municipal utilities (water distributions, sanitary sewer, storm sewer, lighting) where necessary and appropriate, and desirable to accommodate the utilities demands of redevelopment projects provided funds are available.

16. Right-Of-Way Acquisition. The City will acquire rights-of-way or easements where necessary to accommodate utility relocations and roadway and traffic circulation improvements.

17. Parks. The City and Authority will acquire sites for and develop parks, plazas, fountains and pedestrian walkways between parking areas and activity centers in accordance with the Downtown Development Strategy Plan and subsequent landscaping, public improvement and redevelopment plans.

18. Improvements to First Street. In cooperation with the State Highway Department, First Street will be landscaped and intersections improved to accommodate pedestrian traffic across First Street without adversely affecting traffic flow.

C. PRELIMINARY COST ESTIMATES

1. The following cost estimates are for typical block or work areas for several of the public improvement projects listed and are based upon current (October 30, 1981) construction costs. The individual unit costs used are slightly inflated to include approximately 10% contingency to cover related work but not itemized. These estimates were prepared without the aid of accurate existing condition surveys or detailed development plans. The estimates do not include any allowance for major underground work except as noted, or for unforeseen construction problems.

2. TYPICAL UNIT AND PER BLOCK COSTS

a. Main Street Shopping Park Upgrade Cost Estimate - Typical Block

1.) Work Items	Units	Cost/Unit	Total
Remove dead trees	6 EA	$ 50.00 EA	$ 300.00
Install low plantings planters	6 EA	150.00 EA	900.00
Remove existing planters	6 EA	150.00 EA	900.00
Prune existing trees	12 EA	80.00 EA	960.00
Paint existing shelters	Allow	500.00	500.00
Reconstruct brickwork	Allow	2,000.00	2,000.00
		Subtotal	$5,560.00
+ 25% contingency and general conditions:			1,390.00
			$6,950.00
		Say:	$7,000.00

2.) Construct Small Fountain Feature

Allow $12,000 to $25,000 each

b. Typical Alley Treatment Cost Estimate - Typical Block

1.) Site Improvements

Site Preparation

Remove alley pavement	940 SY	6.00 SY	5,640.00
Miscellaneous removals	Allow	1,000.00	1,000.00
			$6,640.00

Utilities

Adjust existing m.h. covers	5 EA	100.00 EA	500.00
New inlets	2 EA	1,500.00 EA	3,000.00
			$3,500.00

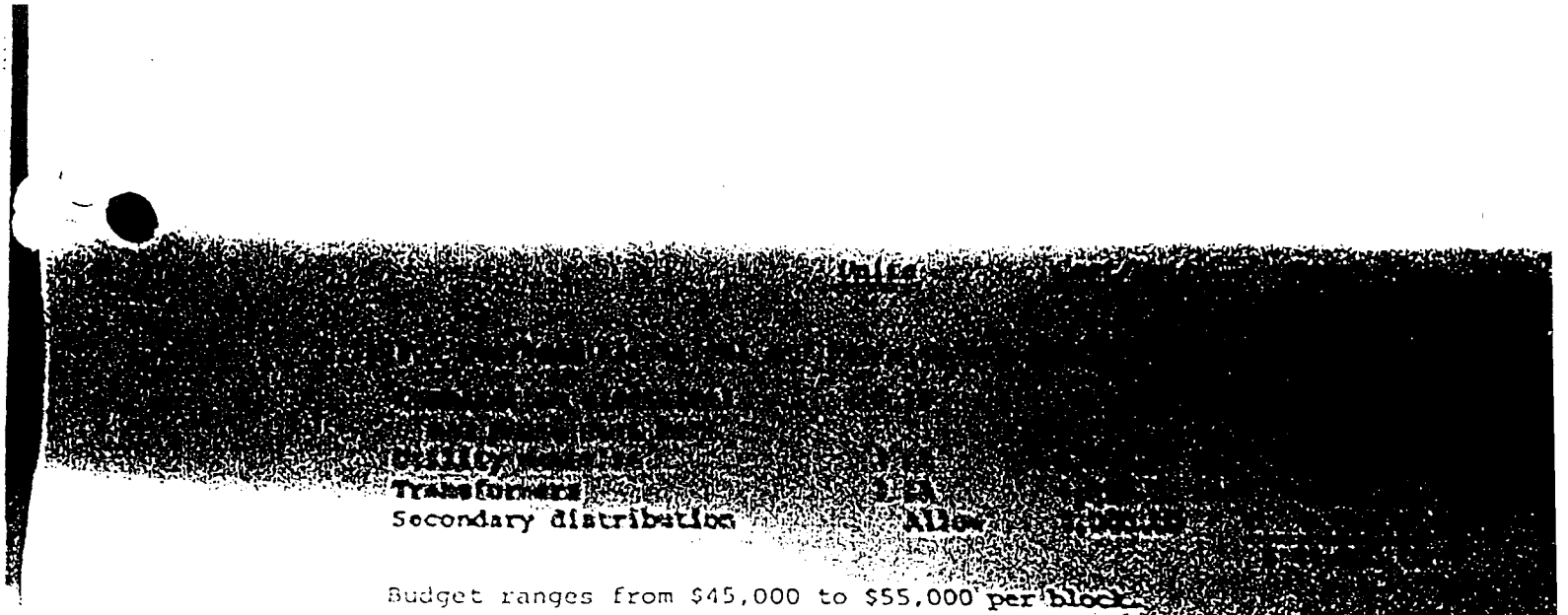
Sitework

New bituminous paint	620 SY	15.00 SY	9,300.00
New special concrete	2,900 SF	5.00 SF	14,500.00
Screen wall	210 LF	180.00 LF	37,800.00
Curb/seat wall	210 LF	50.00 LF	10,900.00
Entry trellis	Allow	5,000.00	5,000.00
Entry directory	Allow	3,000.00	3,000.00
Pedestrian lights	7 EA	2,000.00 EA	14,000.00
			$84,100.00

Landscape Furnishings

Flowering trees	10 EA	$ 200.00 EA	$ 2,000.00
Planting bed	1,260 SF	4.00 EA	5,040.00
Bench units	5 EA	400.00 EA	2,000.00
Irrigation	Allow	4,000.00	4,000.00
			$ 13,040.00
		TOTAL:	$107,280.00

Budget ranges from $105,000 to $135,000 per block.



Budget ranges from $45,000 to $55,000 per block.

c. Rood and Colorado Avenue Improvements Cost Estimate - Typical Block

1.) Site Improvements

Site Preparation

Remove existing street	1,130	SY	8.00 SY	9,040.00
Remove existing curb	1,040	LF	4.00 LF	4,160.00
Remove existing sidewalks	180	SY	5.00 SY	900.00
Remove existing lights	10	EA	250.00 EA	2,500.00
				$16,600.00

Utilities

Adjust existing m.h. covers	16	EA	100.00 EA	1,600.00
Abandon existing inlets	6	EA	150.00 EA	9,000.00
New inlets and pipe	14	EA	1,500.00 EA	21,000.00
Miscellaneous		Allow	3,000.00	3,000.00
				$26,500.00

Sitework

Concrete curbs	1,060	LF	10.00 LF	10,600.00
New brick/concrete walks	7,800	SF	4.50 LF	35,100.00
Concrete replacement	1,600	SF	2.00 SF	3,200.00
Street patching	100	SY	15.00 SY	1,500.00
30' lights	10	EA	3,000.00 EA	30,000.00
Brick crosswalks	1,600	SF	8.00 SF	12,800.00
				$93,200.00

Landscape/Furnishings

Street trees	36	EA	500.00 EA	18,000.00
Tree grates	36	EA	350.00 EA	12,600.00
Benches	6	EA	800.00 EA	4,800.00
Trash receptacles	6	EA	350.00 EA	2,100.00
Low planters	8	EA	1,000.00	8,000.00
				$45,500.00
			Subtotal	$ 182,000.00

Budget ranges from $180,000 to $225,000 per block.

d. Seventh Street Boulevard Improvements Cost Estimate - Typical Block

1.) Site Improvements	Units	Cost/Unit	Total
Site Preparation			
Remove existing street	1,450 SY	$ 8.00 SY	$ 11,600.00
Remove existing curb	800 LF	4.00 LF	3,200.00
Remove existing walks (20%)	180 SY	5.00 SY	900.00
			$ 14,800.00
Utilities			
Adjust existing m.h.	10 EA	100.00 EA	1,000.00
Abandon existing inlets	6 EA	150.00 EA	9,000.00
New inlets and pipe	8 EA	1,500.00 EA	12,000.00
Miscellaneous	Allow	2,000.00	2,000.00
			$ 24,000.00
Sitework			
Concrete curbs	1,300 LF	10.00 LF	13,000.00
New brick/concrete walks	7,200 SF	4.50 SF	32,400.00
Brick crosswalks	2,400 SF	8.00 SF	19,200.00
30' lights	6 EA	3,000.00 EA	18,000.00
Median lights	4 EA	2,000.00 EA	8,000.00
Irrigation	Allow	4,000.00	4,000.00
			$ 94,000.00
Landscape/Furnishings			
Street trees (5" cal.)	18 EA	500.00 EA	9,000.00
Tree grates	18 EA	350.00 EA	6,300.00
Benches	4 EA	800.00 EA	3,200.00
Trash receptacles	4 EA	350.00 EA	1,400.00
Lawn planting	300 SY	3.00 SY	900.00
Low planters	6 EA	1,000.00 EA	6,000.00
			$ 21,400.00
		Subtotal:	$154,800.00

Budget ranges from $155,000 to $195,000 per block.

2.) New Traffic Signalization

Budget ranges from $25,000 to $32,000 per block.

3. ESTIMATED TOTAL COSTS FOR SAMPLE PROJECTS

The final cost figures are given in a range from the base estimated cost to a figure escalated 25% to cover many of the unknown conditions and requirements that often occur on projects of these types. Actual costs will not be known until specific project development plans have been completed and projects are ready for construction.

a. Shopping Park Improvements, for the four block area on Main Street between Seventh and Third, including two small fountains:

$22,000	- $28,000
24,000	- 50,000
$46,000	- $78,000

b. Alleyway Improvements, for the four blocks of alleys north and south of Main Street between Fourth and Sixth.

$420,000 - $540,000

c. Rood Avenue Improvements between Fourth and Sixth

$360,000 - $450,000

d. Colorado Avenue Improvements between Fourth and Sixth

$360,000 - $450,000

e. Alleyway Improvements north and South of Main between Sixth and Seventh, and Third and Fourth

$420,000 - $540,000

f. Seventh Street Improvements, from Grand to Colorado, not including signal support changes

$620,000 - $780,000

g. Rood Avenue Improvements between Seventh and Sixth, and First and Fourth

$720,000 - $900,000

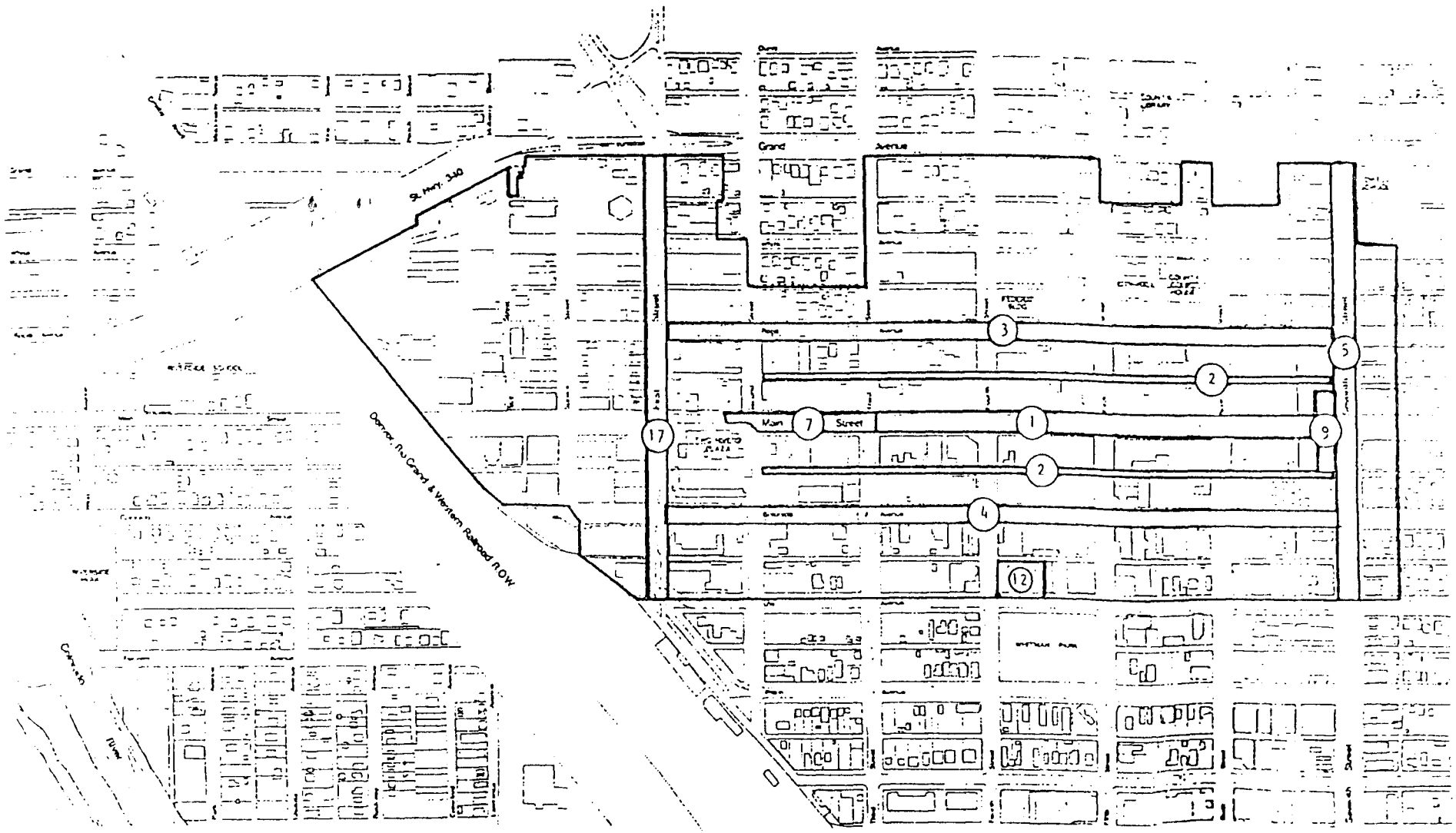
h. Colorado Avenue Improvements between Seventh and Sixth, and First and Fourth

$720,000 - $900,000

i. Seventh Street Improvements, from Colorado to Railroad Tracks

$550,000 - $685,000

As mentioned above, detailed costs of these and other projects will not be known until project specific planning and design has been accomplished. The cost of individual project planning and design has not been included in these estimates, but shall be included in the calculation of total cost for each project and may be financed in conjunction with the financing of the public improvement projects.



Source: Park & City County Development Department

EXHIBIT E PUBLIC IMPROVEMENT PROJECT LOCATIONS (NUMBERS REFER TO SOME OF THE PROJECTS LISTED IN SECTION VII. B.)
DECEMBER, 1981

SECTION VIII

REDEVELOPMENT AND RENOVATION PROJECT AREAS

A. GENERAL

1. The public facilities and improvements described in Section VII will provide some, but not all, of the needed incentives to the private sector to undertake desired redevelopment projects. Because of the difficulty in assembling small parcels with mixed ownerships into the large parcels necessary for redevelopment projects, the Authority and City will acquire key parcels and entire sites for priority redevelopment projects. Property so acquired can be cleared and prepared with utilities, surface treatment, landscaping and other amenities for lease or sale at fair value to redevelopers desiring to undertake a redevelopment project. Only qualified redevelopers submitting project plans consistent with this Plan and with any project specific criteria as determined by the Authority will be allowed to participate in projects on land acquired by the Authority and City.

2. The redevelopment areas, shown on the map in Exhibit F, establish a long-range land use and circulation framework for the future of the DDA Plan of Development area. Within each of the areas shown, redevelopment, both public and private, is intended to be predominantly concentrated within a certain type and to allow and provide for the redevelopment of properties at levels of intensity and density appropriate for the commercial and office center of the community. This Plan presents a flexible management concept for the downtown; the boundaries of the proposed areas make sense in light of today's opportunities, but must be regarded as indications of an intended future, not their literal representation.

3. This Plan will accommodate growth and change in two ways; by providing for the renovation and creative use of adaptable structures and properties which continue the community's heritage; and by providing for the redevelopment of properties unsuitable to further productive use and not providing a strong link to our heritage. It will concurrently balance downtown growth along both of these paths and proposes policies and programs which provide investment opportunities and returns to the community along both tracks.

4. The placement of public facilities, services and utilities described in Section VII will reflect this dual potential and future and provide a balance of incentives and management assistance.

5. Within each of the various areas shown in Exhibit F, growth management policies need to reflect the community's interests in sound property development. Sound principles of land planning need to be applied, and development concepts for district-wide areas need to be examined and re-examined.

6. The City and Authority, in accordance with Item A. 14. in Section VI of this Plan will acquire sites or key parcels appropriate for redevelopment projects. All purchasers of said sites or key parcels shall be obligated to develop the property in accordance with the provisions of this Plan and any design or development standards or criteria subsequently established by the City or Authority, to begin and complete the development of the property within a period of time which the Authority fixes as reasonable, and to comply with such other conditions as the City or Authority deem necessary to assure the achievement of the purposes of this Plan.

B. DESCRIPTIONS OF REDEVELOPMENT AREAS

1. Commercial Renovation District. The Shopping Park along Main Street is designated as a renovation district rather than redevelopment area, since the structures on Main Street provide strong opportunities for renovation rather than replacement. Historic district designation will be investigated, with the preservation of key structures a possibility in this area. Good building rehabilitation opportunities do exist. Restorations need to preserve architectural integrity, materials, sense of color, signage and the alignment of similar buildings elements.

2. Commercial Center Redevelopment Area. The Rood and Colorado corridors between Third and Seventh should be redeveloped with high intensity commercial emphasizing retail and service uses. Some properties will be appropriate for restoration or renovation work. This area is appropriate for the compatible integration of individual different uses.

3. Mixed-Use Redevelopment Area. Two Rivers Plaza provides an appropriate focus for a mixed-use development at the western terminus of the Shopping Park. This Plan calls for the combination of hotel, office and convention facilities

in a multi-block property, and proposes the use of parking lots for the staging and phasing of development and to insure flexibility in the trade and exchange of land. A multi-block project in this location could also provide for the performing arts or new state office facility. However, major projects in the mixed-use area will require an upgrading and replacement of current utility systems.

4. Primary Government and Professional Office Redevelopment Area. The existing City Hall, County Courthouse, Federal Building, Valley Federal building and Post Office, all north of Rood between Third and Sixth, offer the opportunities for significant massing of new government and professional office related buildings, the establishment of promenades and skyways connecting these buildings, and the location of a high-rise element for the skyline.

5. Secondary Government and Professional Office Redevelopment Area. The existing Police Station, Sheriff's Office, jail and Fire Station and available land offer the opportunity for new public safety, criminal justice, general government and associated professional office development.

6. Medium and Low Density Office Redevelopment Area. These areas should be developed at a smaller scale and intensity than the more central redevelopment areas with on-site parking and setbacks to provide a transition to existing older neighborhoods. Multi-family housing would be a compatible use in this area if the design is compatible.

7. Entrance Development District. The area west of First Street, south of State Highway 340 and north of Colorado is owned primarily in large parcels and would be appropriate for a large scale planned redevelopment project. This property is well enough located and large enough for development of a research or office park, high density housing, a regional transportation center, and a downtown food market. As an office or research park, it can provide a complement to the Two Rivers Plaza area immediately to the east. As a redevelopment parcel, it should be planned as a complete unit, with full mind given to the views it can provide of the downtown to those arriving from the west. Ultimate uses in this area will depend on the market analyses and site planning for the area.

C. REDEVELOPMENT AREA BOUNDARIES

1. It should be reiterated that the boundaries and descriptions of the

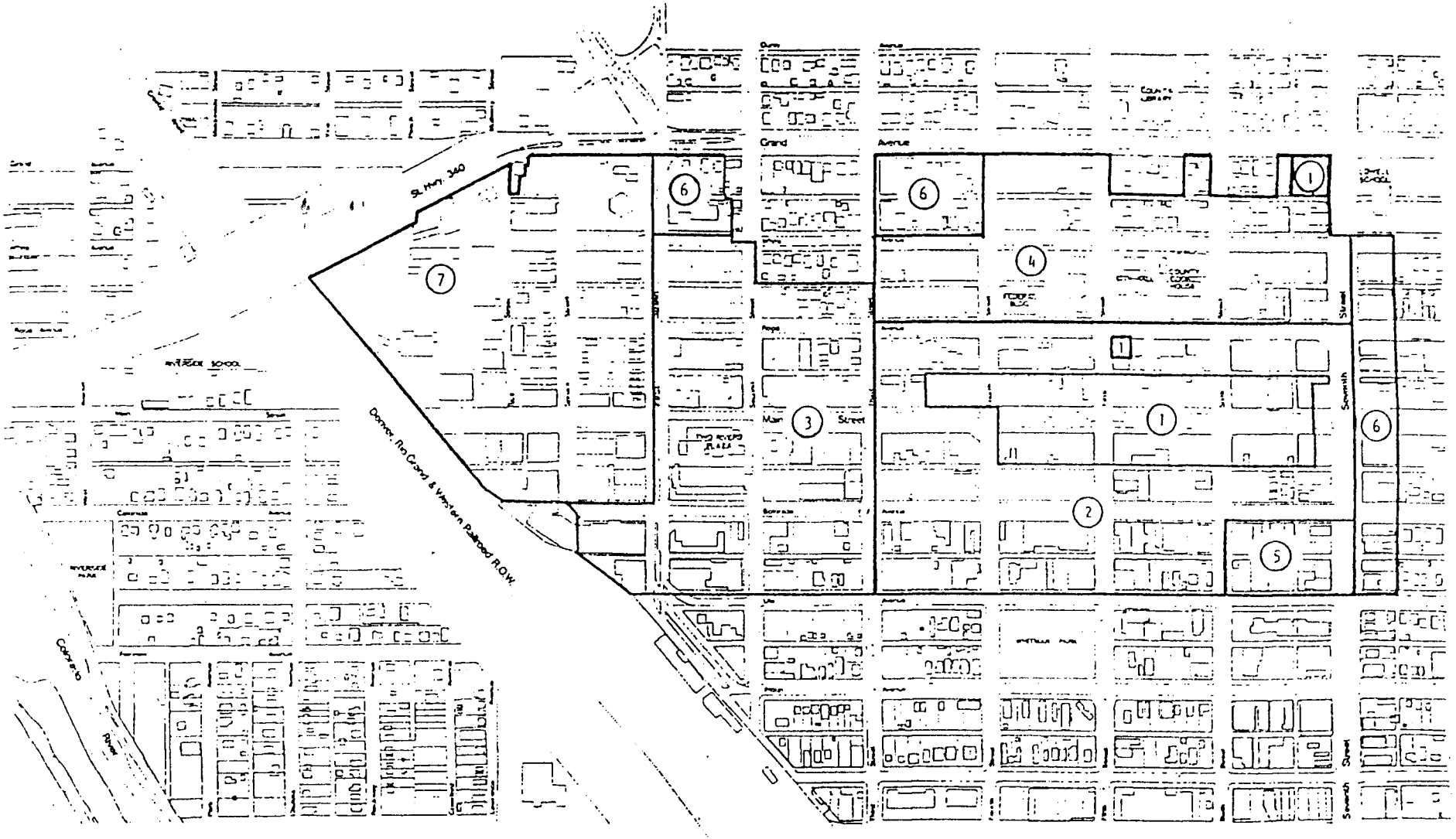
renovation areas described in this section and shown in Exhibit F are general. Acutal redevelopment projects may not entirely conform to the uses or areas designated for each area. Redevelopment projects, however, will be compatible with adjacent and surrounding uses. Various development incentives described in this Plan will be used to encourage redevelopment projects in appropriate locations. Revised zoning regulations called for and discussed in the Plan to be undertaken subsequent to adoption of this Plan will reference and reflect the redevelopment area boundaries and descriptions contained in this Section VIII.

2. The Commercial Renovation District, designated by the Number 1 on Exhibit F, consists of both sides of Main Street in a majority of the Shopping Park and two sites separate from Main Street. The Main Street properties and the other two sites (the IOOF Building and the two large residences on the southwest corner of Seventh and Grand) have been designated for commercial renovation because:

a. The structures therein comply with the criteria prescribed in S39-5-105 C.R.S. 1973 as amended, for the application of the five year deferral.

b. The structures therein exemplify the history of the development of Grand Junction and contribute significantly to the physical and visual character of the downtown.

c. Many of the structures therein, because of their age and lack of proper maintenance, contribute to life, health, and fire safety problems. The provision of the five year deferral on increases in assessed value resulting from renovation will provide an incentive to alleviate the safety problems and retain the visual character of the buildings.



Base map prepared by City/County Development Department

EXHIBIT F DDA PLAN OF DEVELOPMENT REDEVELOPMENT AREAS (NUMBERS REFER TO THE DESCRIPTIONS LISTED IN SECTION VIII.B.
DECEMBER 1981

SECTION IX

PROJECT FINANCING

A. FINANCING MECHANISMS

1. Any and all methods legally available to the City and/or Authority may be used to finance the public improvements described or anticipated in this Plan. Those methods include but are not limited to:

a. Property tax increment financing
b. Sales tax increment financing
c. General obligation bond financing
d. Municipal revenue bond financing
e. General improvement district financing
f. Local improvement district and special assessment financing
g. Mall improvement and maintenance district financing
h. Tax anticipation notes and warrants
i. Installment purchasing
j. Short term notes and loans
k. Tax exempt mortgage financing
l. Industrial development revenue bond financing
m. Conventional financing

2. These methods can be combined to finance individual portions of projects or whole projects as the City and Authority deem appropriate at the time projects are undertaken. These methods can also be used insofar as legally allowable to pay the principal of and interest on and to establish reserves for indebtedness (whether funded, refunded, assumed or otherwise) incurred by the City or Authority to finance or refinance in whole or in part, the projects contained in this Plan.

B. TAX INCREMENT FINANCING

1. Colorado Statute in S31-25-807 C.R.S. 1973 as amended, provides for the Authority and City, through the adoption of a Plan of Development to create a Plan of Development area utilizing either or both property and municipal sales taxes for a period not to exceed twenty-five years. Both property and municipal sales tax increments derived from the Plan of Development area will be used to redeem bonds issued to finance all or a portion of the cost of

projects within the Plan of Development area as described in this Plan. The following information describes the division of funds necessary to implement the tax increment mechanism for the City of Grand Junction and Grand Junction Downtown Development Authority under this Plan. This description relates to all property and municipal sales taxes generated within the Plan of Development area.

a. The effective date of this Plan shall be December 16, 1981, that date being subsequent to September 9, 1981, the last date of certification of valuation for assessment of taxable property within the boundaries of the Plan of Development area. The base year for property tax valuation shall be 1981.

b. The City shall establish, in the first calendar quarter of 1982, a tax increment revenue fund for the deposit of all funds generated pursuant to the division of property and municipal sales tax revenue described in this Section IX.B., other funds generated by tax increment financed projects, and any other funds so designated by the City and the Authority.

c. Municipal sales taxes collected in the Plan of Development area for the twelve month period ending on the last day of the month (November 30, 1981) prior to the effective date of this Plan (December 16, 1981) shall be calculated by the City Finance Director and certified to the City and Authority prior to April 1, 1982. The twelve month period base year for the division of sales taxes shall be December 1, 1980 through November 30, 1981.

d. The property and municipal sales tax shall be divided according to S31-25-807, C.R.S. 1973 as amended, for a period of twenty-five years from the effective date of this Plan unless the City and Authority deem that all of the projects anticipated in this Plan have been accomplished and all debts incurred to finance those projects have been repaid or otherwise disposed of in which event the City and Authority may declare the Plan implemented. Thenceforward, all taxes upon taxable property and total municipal sales tax collections derived from the Plan of Development area shall be paid into the funds of the respective public bodies.

e. The division of municipal sales taxes generated and collected from within the Plan of Development area after November 30, 1981, shall be:

1.) The base year amount shall be paid into the funds of the City annually commencing on December 1, of each year.

2.) Twenty percent (20%) of the incremental amount in excess of the base year amount shall be paid into the funds of the municipality.

3.) Eighty percent (80%) of the incremental amount in excess of the base year amount shall be paid into the tax increment revenue fund.

4.) Payment of incremental funds into the tax increment revenue fund shall commence only after the base year amount has been collected and paid into the funds of the muncipality. Thereafter and until November 30 of each year the percentages described in subsections 2. and 3. above shall be paid into the funds of the municipality and the tax increment revenue fund.

5.) All interest earned on the deposit or investment of funds allocated to the tax increment revenue fund shall be paid into the tax increment revenue fund.

f. All tax increment revenues described in this Section IX.B. will be irrevocably pledged by the City for the payment of the principal of the interest on and any premiums due in connection with bonds, loans, advances and indebtedness of the City and Authority only after the question of issuing such bonds or otherwise providing for such loans, advances, or indebtedness and the question of any such intended pledge are first submitted for approval to the qualified electors of the Downtown Development Authority district at a special election to be held for that purpose. Any such election shall be called by resolution of the Board of the Authority adopted at a regular or special meeting thereof and approved by the City Council by a vote of a majority of the members thereof at least 30 days prior to such election. It is anticipated that such election shall be held in the second half of calendar year 1982, or the first half of calendar year 1983. Any and all funds paid into the tax increment revenue fund prior to the approval of the debt question at a special election shall be retained in the tax increment fund until such election has been held and debt authorized.

g. Subsequent to authorization of debt and issuance of bonds, the City shall establish such other funds and accounts as may be necessary to:

1.) Service the debt on bonds, loans, notes and advances

2.) Create a debt service reserve to cover a portion of the debt service on bonds, notes, loans or advances

2. Pursuant to an election authorizing the issuance of tax increment bonds,

the City Council shall by ordinance authorize the issuance of bonds. Said ordinance shall adequately describe the flow of funds and priority of expenditures associated with each issue and relating to prior or subsequent issues.

C. COMMERCIAL RENOVATION DISTRICT DESIGNATION

1. Colorado Statute S39-5-105 C.R.S. 1973 as amended, provides for a five year deferral in the increase of assessed value of a property more than thirty years old as a result of any renovation done to the property. The commercial renovation districts called for in this Plan are described in Exhibit C and in Section VIII.C. The designation of the commercial renovation areas will result in property owners being able to save the amount their property tax liability would have increased due to the renovation for a period of five years. The amount saved could be used to amortize the cost of the renovation thereby acting as an incentive for commercial renovations within the designated areas.

2. With the adoption of this Plan, the areas described in Exhibit C shall be designated commercial renovation areas under S39-5-105 C.R.S. 1973 as amended. Any renovations undertaken to property within the commercial renovation districts after the effective date of this Plan shall not result in any increase in the assessed value of the properties so renovated for a period of five years from the date of completion of the renovation unless the property is sold.

SECTION X

AMENDMENTS TO THE PLAN OF DEVELOPMENT
AND FUTURE INCLUSIONS TO THE DOWNTOWN
DEVELOPMENT AUTHORITY DISTRICT

anticipated in this Plan, it
allows future decisions to deal with future
must, therefore, be flexible and allow for minor
amendments.

B. MODIFICATIONS TO AND VARIATION FROM THE APPROVED PLAN

1. This Plan may be modified pursuant to the provisions of the Colorado Downtown Development Authority Law governing such modifications, including S31-25-807 C.R.S. 1973 as amended.

2. Where a literal enforcement of the provisions contained in this Plan would constitute an unreasonable limitation beyond the intent and purpose of these provisions, the Authority and City may in specific cases allow minor variances from these provisions.

C. FUTURE INCLUSIONS OF PROPERTY TO THE AUTHORITY DISTRICT

1. Colorado law allows new property to be added to the Downtown Development Authority if such property is adjacent to existing property, and the property owner requests inclusion and provides proof of ownership. The Downtown Development Authority has already included several properties at owner request.

2. As Johnson, Johnson & Roy, Inc., indicated in their Downtown Development Strategy, the problems of the Grand Junction central business district are closely tied to the Grand Junction Downtown Development Strategy Plan area, described as the area within the City limits of Grand Junction, circumscribed by Ouray Avenue on the north, Twelfth Street on the east, the alley south of South Street on the south, and the railroad tracks on the west. Hopefully, the boundaries of the two may one day coincide so that management and planning can be facilitated.

3. However, until that time, guidelines need to be established to direct the growth of the Downtown Development Authority. Therefore, future inclusions should satisfy the following criteria as much as possible.

a. Included property should be property that faces the same problems as that property already within the Downtown Development Authority.

b. Included property should be adjacent to the Downtown Development Authority, but need not be adjacent at more than one point.

c. A patchwork effect should be avoided, however, inclusions which tend to reach areas with a community of interest similar to that of property within the Downtown Development Authority will be encouraged.

d. It is anticipated that inclusions may be more rapid along corridors into the Downtown Development Authority and these should be encouraged to facilitate management of the entry areas to downtown.

e. Inclusions between corridors should be allowed when they tend to show a uniform pattern of filling the area between corridors already included.

f. Areas outside the downtown area, as defined in the Downtown Development Strategy, should not be allowed.

g. Inclusions which would strengthen the character and economic base of the central business district, even though not of commercial property, should be encouraged.

h. Each inclusion, at the time a petition is considered by the Authority Board of Directors, should be designated for inclusion as:

1.) A Commercial Renovation District

2.) An inclusion to the Plan of Development area within which tax increment financing is utilized under this Plan of Development.

3.) An inclusion without designation, which inclusion may become part of a future Plan of Development area.

4. Commercial renovation districts allowing the tax deferral and the Plan of Development area are mutually exclusive, and therefore, it is anticipated that no new renovation areas can be created within the perimeter of the initial tax increment district. However, commercial renovation areas may be created if new property is subsequently added to the Downtown Development Authority in accordance with Section X.C.3. above, provided the building conditions prescribed in C.R.S. 39-5-105, 1973 as amended, exist at the time the property is included and a commercial renovation area designation will further the purposes of and assist in the implementation of this Plan as it exists at the time of the inclusion.

5. This Plan of Development designates areas in which tax increment financing will be used. Once the district boundaries are formed, additions may be made by complying with the necessary procedures to amend the Plan of Development. However, it is anticipated that once there is an election to pledge tax increment revenues, it could become burdensome to amend the boundaries of the tax increment district. Therefore, any subsequent inclusions to the Authority district which will also be included in the initial tax increment district should be accomplished according to the procedures in C.R.S. S31-25-807 and 822 and by this Section X of this Plan.

6. With these guidelines, the Downtown Development Authority can, hopefully, grow to a size necessary to assist in meeting the challenges of the future, but do so within a framework of controlled expansion.

GRAND JUNCTION DOWNTOWN DEVELOPMENT AUTHORITY
INTERIM PLAN OF DEVELOPMENT
RELATING TO STREET VENDORS

The Grand Junction Downtown Development Authority supports and encourages the permitting of street vendors, sidewalk cafes, and special entertainment events on the public right-of-way in the downtown Shopping Park. Vendors, sidewalk cafes, and special events assist in creating an atmosphere in the downtown that will draw people. Special street activities should appropriately be located in the Shopping Park where the public right-of-way of Main Street has been substantially altered in physical form so as to be condusive to allow for semi-permanent structures, kiosks, carts and the like, and because traffic on Main Street within the Shopping Park is controlled at low speeds with stops at intersections and at mid-block, allowing for street vendors and other activities on public property. Street activity of this nature will generate additional pedestrian and vehicular traffic into and within the downtown area. Additional traffic will enhance the image of the entire downtown area and will help to generate increased retail sales.

The Downtown Development Authority, as a separate part of the plan of development, is recommending a preferred mix of retail opportunities in the downtown area, so as to balance the city-wide and downtown retail market opportunities. The street vendors, special events, and special use permits described in this part will assist in establishing a preferred retail mix in the downtown. In the short term, street vendors will augment the availability of retail merchandis in the downtown. It is the express intent of the street vendor program to supplement and complement existing retail businesses, rather than to supplant them. The Shopping Park has been used by the City, downtown merchants, service clubs, and other organizations for parades, special fund raising events, etc. since it was contructed in 1963 for these same purposes.

1. Because of the wider sidewalks in many locations on the Shopping Park, restaurants are encouraged to expand their seating areas onto the sidewalk where space permits. Existing restaurants are encouraged to do this in order to integrate the interior of their establishments and the atmosphere of a restaurant with the Shopping Park. Because existing restaurants maintain the necessary Department of Health and Department of Revenue permits to undertake such an activity and because they maintain existing food and beverage preparation facilities, it will be relatively easy for existing establishments to expand. In no event will the width of the sidewalk be reduced beyond ten feet or will any sidewalk seating area be allowed to constrain or unnecessarily restrict pedestrian traffic. All requirements for sidewalk eating areas established by the Department of Health and the Department of Revenue shall be complied with.

2. The street vendor program encourages street vending carts, semi-permanent kiosk structures, pedestrian vendors and roving entertainers. The mode the individual vendor determines is most suitable to him and for the sale of his merchandise within these categories is acceptable provided that the number of permits for carts, kiosks, and pedestrian vendors does not exceed the number of locations specified in this part.

3. Because it is the intent of the DDA to balance the retail mix of the downtown area, it is important that the location of and merchandise sold by street vendors complement rather than conflict with businesses located in permanent structures on private property. Therefore, it would be inappropriate for a street vendor to be selling the same merchandise lines on a public right-of-way as those being sold by a business immediately adjacent located in a private permanent structure. Prior to the issuance of a permit, a vendor applying for a kiosk, mobile vending cart or sidewalk restaurant permit will be required to receive the written concurrence of not less than 2/3 of the operating businesses within a 75 foot raduis of the location in which he would establish his vending operation.

4. Permits will be allowed to vendors based upon the line of merchandise a vendor proposed to sell. Any change in merchandise lines will void the permit. Types of goods sold by street vendors will be limited in accordance with the preferred retail mix. In general, because of the semi-permanent nature of street vendor operations, the lack of space for storing inventory and displaying merchandise and because the intent of the program is to complement existing retail opportunities, merchandise lines to be permitted for sale will be limited to perishable goods, foodstuffs, hand-crafted products, artworks, sundries (candy, cigarettes, newspapers, magazines, etc.), and novelty items.

5. All vendors shall sell from the specific location or zone permitted as shown on the map in this part. Merchandise lines shall be specified in the issuance of a permit. Plans and specifications, including the design, color, size, and position of carts and temporary kiosks, will be submitted and reviewed for compliance with design guidelines for the downtown prior to the issuance of a permit. Vendors will not be allowed to utilize audio inducements to advertise their merchandise or to encourage sales, because audio inducements and advertising will adversely affect the tranquility of the Shopping Park. Permitted street entertainers will be exepted from this provision.

6. Because the Downtown Development Authority is encouraging small business entrepreneurship in the downtown and a diversity in business ownership, any individual or organization may obtain only one vending permit (excluding special use permits) to be effective at the same point in time. Special use permits, because of their very short duration, will be excluded from limitation. Special use permits, however, shall be awarded in accordance with traditional special uses of the Shopping Park, i.e., Farm and Ranch Days, Pancake Breakfast,

Art Festival, etc. Conflicting special use permits will not be issued. Coterminus special permits that will complement each other and the downtown will be issued.

7. Special use permits and vendor permits will be available at no cost to non-profit and charitable organizations undertaking their efforts with volunteers, provided that the gross proceeds are contributed to a charitable purpose.

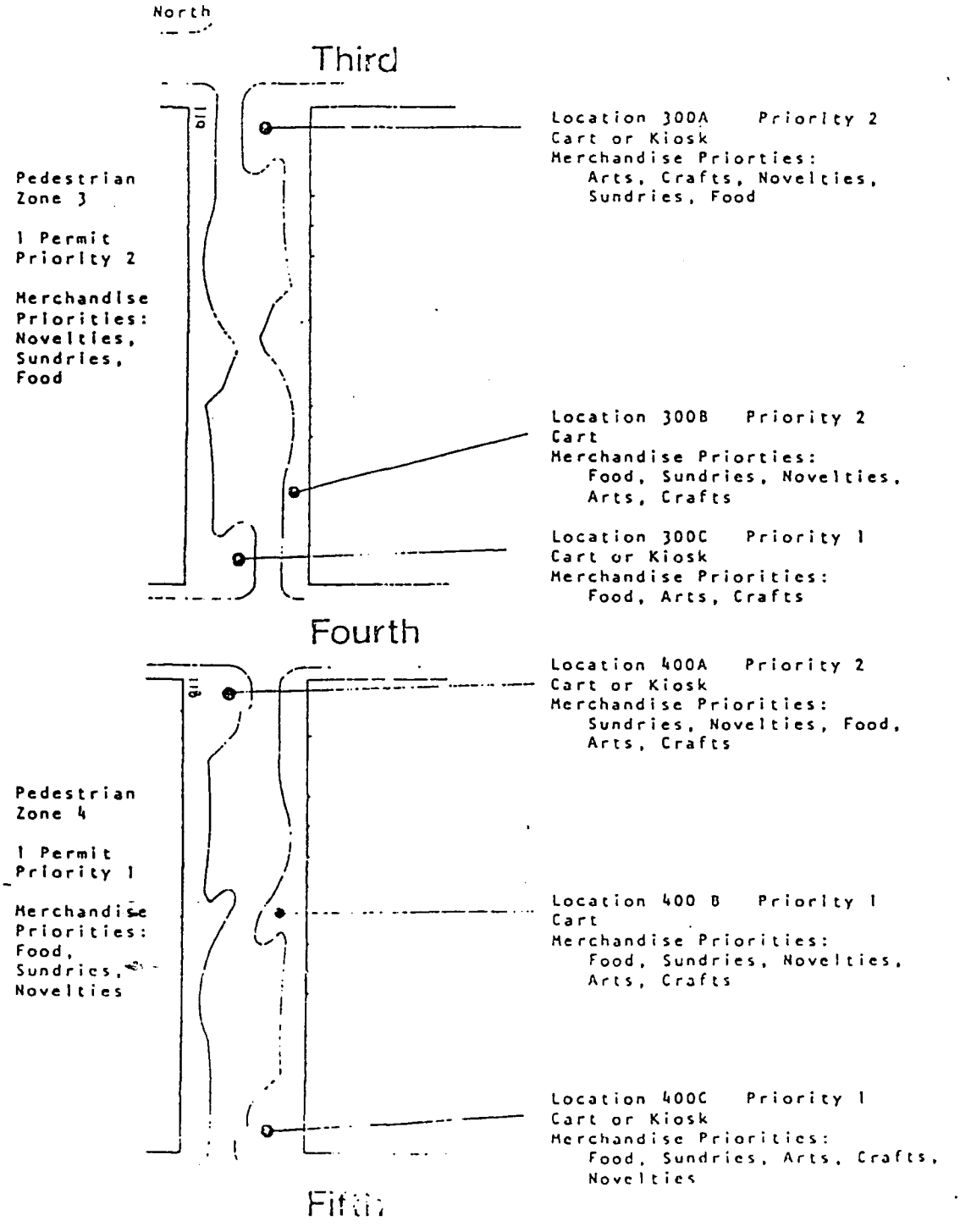
8. Individuals and/or organizations receiving permits may renew permits by reapplying and submitting the fee any number of times except: 1) when a permit has not been used for a majority of the time for which it was issued, 2) when a permit is not used in accordance with the terms of its issuance, 3) when reasonable complaints are received relating to the permittee or permitted operation, and, 4) for failure to comply with the ordained provisions relating to insurance, maintenance of the area, etc. If it is determined that a permitted vending operation creates congestion of sidewalks or streets or in any other way interferes with activity on Main Street through no fault of the vendor, a permit may be reissued for the remaining period of time authorized by the first permit at a different location at no cost.

9. Attachment 1A indicates the locations and zones for which kiosk, cart and pedestrian vendor permits will be used. The locations for kiosk and cart permits, three per block, are those that were determined would create the least pedestrian interference and cause the least amount of interference with existing street activities. These locations may need to be changed from time to time as street activities change and needs and demands are adjusted. As retail operations relocate on the Shopping Park, the potential for conflicts with street vendors will occur; therefore, changes in the locations of the vendors will be undertaken through the relocation of the vending permit rather than revocation.

10. The priority uses by merchandise line at each vendor location are also shown on Attachment 1A. The uses listed were determined after considering the existing retail activities and pedestrian traffic generators in each area. The uses specified in each location will enhance pedestrian activities within the Shopping Park, but may need to be adjusted as the retail mix in the downtown changes or as pedestrian traffic patterns change.

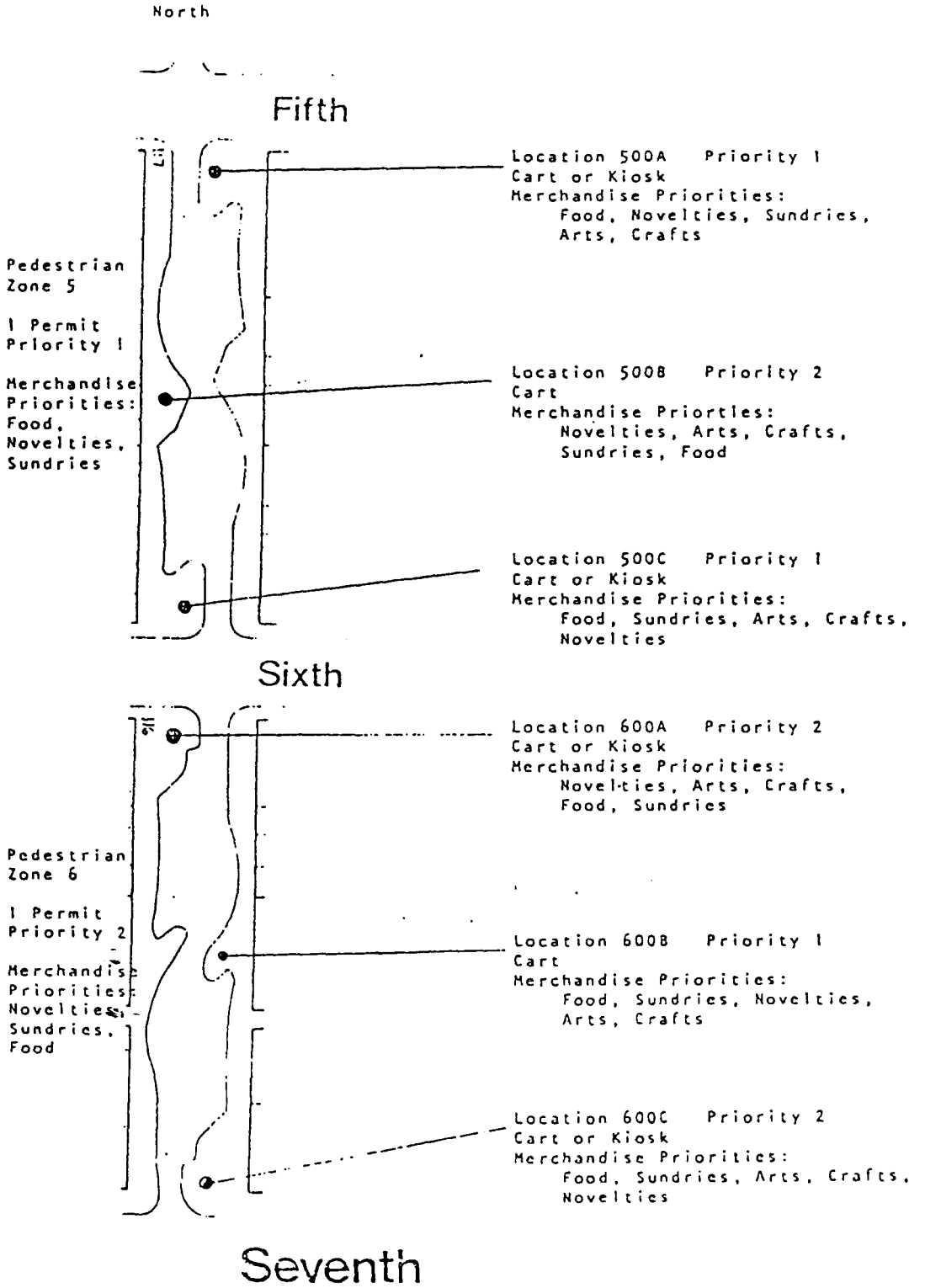
ATTACHMENT 1A

Zones 3 and 4



ATTACHMENT 1A

Zones 5 and 6



Grand Junction
Downtown Development Authority
200 North Sixth Street, Suite 204 P.O. Box 296
Grand Junction, Colorado 81502
Phone (303) 245-2926

March 15, 1983

MEMO

TO: Jim Wysocki

FROM: Skip Grkovic

SUBJECT: 1983 Amendments to the DDA Plan of Development

At the time the DDA Plan of Development was adopted, it was anticipated that periodic amendments to the Plan would be necessary as new property was included in the DDA district boundary, state laws were changed, general conditions in the downtown changed, or as project priorities were adjusted. The first amendment was made last April and, because of the long drawn out process required to amend the Plan, it was decided to amend the Plan only once a year. The amendment should occur prior to May 1 of each year because that is the annual deadline for adding property to the district tax roll in the Assessor's office. Amendments to the Plan require both an ordinance to amend the DDA boundary and a Council Resolution adopting the Plan amendments.

We would like to schedule both the ordinance and the resolution in April. The schedule is proposed as follows:

Friday, March 25 — DDA Board
1) Accepts additional Petitions for Inclusion and requests City Council to amend the DDA boundary.
2) Adopts amendments to the DDA Plan of Development.

Wednesday, April 6 — City Council
1) Considers the ordinance amending the DDA boundary on first reading.
2) Accepts the submission of the Plan of Development amendments and refers them to the Planning Commission for review and comment.

Tuesday, April 12 — Planning Commission
1) Reviews and comments on DDA Plan of Development amendments.

Wednesday, April 20 — City Council
1) Considers the ordinance amending the DDA boundary on second reading.
2) After a public hearing, considers a resolution adopting the 1983 Amendments to the DDA Plan of Development.

This year's amendments to the DDA Plan of Development include three major items,

1. Expansion of the Tax Increment District boundary to coincide with the expanded boundaries of the DDA due to new inclusions.

2. Elimination of the Commercial Renovation District designations (except for the Henry, Mayo, Berry property). The Legislature is repealing the statute which allows for Commerical Renovation Tax incentives because the constitutional amendment passed last October called for it. (Henry, Mayo and Berry are the only property owners to take advantage of the five-year renovation tax incentive and we are hoping they will be allowed to keep it.)

3. Inclusion of the property which was in the Commercial Renovation Districts into the Property and Sales Tax Increment Districts. This will probably require a modification in the base year for the Sales Tax Increment District - John Tasker is working with me on it.

If you have any questions, please give me a call.

GMG:lo

cc: DDA Board
Joe Skinner
Neva Lockhart
Jerry Ashby
John Tasker

Grand Junction
Downtown Development Authority
200 North Sixth Street, Suite 204 P.O. Box 296
Grand Junction, Colorado 81502
Phone (303) 245-2926

AMENDMENT

TO THE

DOWNTOWN DEVELOPMENT AUTHORITY

PLAN OF DEVELOPMENT

FOR GRAND JUNCTION, COLORADO

Including The Designation Of

Commercial Renovation Districts

And A Plan Of Development Area

Within Which

Tax Increment Financing Will Be Utilized

PREPARED BY:

Grand Junction

Downtown Development Authority

EFFECTIVE DATE OF PLAN: DECEMBER 16, 1981

EFFECTIVE DATE OF AMENDMENT: JUNE 2, 1982

RESOLUTION No. 35-82

APPROVING AMENDMENTS TO THE PLAN OF DEVELOPMENT
FOR THE GRAND JUNCTION, COLORADO,
DOWNTOWN DEVELOPMENT AUTHORITY

WHEREAS, the Grand Junction, Colorado, Downtown Development Authority (the Authority) has adopted a Plan of Development for the central business district within the boundaries of the Authority and such plan of development was approved by the Grand Junction, Colorado, City Council (the Council) on December 16, 1981; and

WHEREAS, since the approval of such plan of development, several individuals, pursuant to C.R.S. 1973, §31-25-822, as amended, and Article X of the Authority's Plan of Development, have petitioned for inclusion within the boundaries of the Grand Junction, Colorado, Downtown Development Authority, and the boundaries of the Grand Junction, Colorado, Downtown Development Authority were expanded by the Council by Ordinance 2045; and

WHEREAS, on May 7, 1982, the Board of the Authority passed a Resolution amending the Plan of Development to show such boundary changes and to make other minor changes in the Plan of Development; and

WHEREAS, such amendments were submitted to the Council on May 19, 1982, at which time the Council referred the Plan of Development to the City Planning Commission for its review and recommendations; and

WHEREAS, the Planning Commission has made written its recommendations to the City Council concerning the Plan of Development, which recommendations are attached hereto as Exhibit F; and

WHEREAS, a Notice of Public Hearing before the City Council was given by publication once by one publication during the week immediately preceeding the hearing in The Daily Sentinel, a newspaper having a general circulation in the City, on May 28, 1982; and

WHEREAS, a Public Hearing was held before the City Council on June 2, 1982, wherein comments were taken from those in attendance concerning the Plan of Development; and

WHEREAS, Mesa County Valley School District #51, within which the entire Plan of Development area designated in the amendments to the Plan of Development lies, was permitted to participate in an advisory capacity with respect to the amendments of the Plan of

Development of the provision for the utilization of tax increment financing and, furthermore, has petitioned for the inclusion of its property within the boundaries of the authority; and

WHEREAS, the City Council has been adequately informed in this matter because of public input prior to the amendments of the Plan of Development, public hearing on the amendments to the Plan of Development, the evidence presented, and the Plan of Development previously adopted, a review of the previous Resolution passed, and personal knowledge of the members of the Council,

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Grand Junction, Colorado, that:

1. The findings made by the Council in the Resolution adopting the Plan of Development on December 16, 1981, concerning the existence of blight within the authority within the meaning of §31-25-802(1.5), of Colorado Revised Statutes, 1973, as amended, still exist - there being no substantial change within such area between December 16, 1981, and June 2, 1982.

2. The Council hereby finds and determines that the approval of the amendments to the Plan of Development will serve a public use; will promote the health, safety, prosperity, security, and general welfare of the inhabitants of the City and of its central business district; will halt or prevent the deterioration of property values or structures within said central business district; will halt or prevent the growth of blighted areas within said district; will assist the City and the Authority in the development and redevelopment of said district and in the overall planning to restore or provide for the continuance of the health thereof; and will be of specific benefit to the property to be included within the amended boundaries of the Authority.

3. The amendments to the Plan of Development are hereby approved by the Council, and the Authority is authorized to undertake development projects as described in the amended Plan of Development.

4. The Plan of Development is hereby amended in the following respects:

A. The boundaries of the Grand Junction, Colorado, Downtown Development Authority, are amended to read as shown on the attached Exhibit "A", and Pages 8, 9 and 10 of the Plan of Development are amended by substituting Pages 8(a), 9(a), 10(a), 10(ab), 10(ac) and 10(ad) in the form of Exhibit "A".

B. The boundaries of the Plan of Development area within which tax increment financing will be used are amended to read as shown on the attached Exhibit "B" and Pages 11, 12 and 13 of the Plan of Development are amended by substituting pages 11(a), 12(a), 13(a), 13(ab), 13(ac), 13(ad) and 13(ae) in the form of Exhibit "B".

C. The boundaries of the Plan of Development area for commercial renovation districts are amended to read as shown on Exhibit "C" and Page 14 of the Plan of Development is amended by substituting Page 14(a) in the form of Exhibit "C".

D. The map of the boundaries of the Grand Junction, Colorado, Downtown Development Authority is amended to read as shown on the attached Exhibit "D" and Page 15 of the Plan of Development is amended by substituting Page 15(a) in the form of Exhibit "D".

E. Page 19 of the Plan of Development is amended as shown on the attached Exhibit "E" to show further statutory requirements and legal actions taken toward the implementation of the Downtown Development Authority Plan of Development and the planned events lending to the election for the authorization to pledge tax increment revenue, and Page 19 shown of the Plan of Development is amended by substituting Page 19(a) and Page 19(ab) in the form of Exhibit "E".

F. Section VI, Plan Implementation Activities, (B) Implementation Tools, Paragraph 4, Page 20 is amended to read as follows:

"4. Improvement (General Improvement) and special improvement districts offer an opportunity to fund public improvements. Such districts may be of importance here as an overlay to allow wider improvement throughout the downtown area. General improvement districts become a taxing unit with the power to construct or install public improvements including off street parking facilities."

5. The separate special fund of the City created by the Resolution by the Council of December 16, 1981, and designated as the "Tax Increment Fund" shall continue to receive the deposit of the ad valorem and municipal sales tax increment funds described in Section 31-25-807, Colorado Revised Statutes 1973, as amended, and derived from and attributable to development and redevelopment within the Plan of Development Area, as amended, in which tax increment financing is used. Said funds shall be held, invested, reinvested and applied as permitted by law. For the purpose of ascertaining the amount of funds to be deposited in the Tax

Increment Fund as provided by law, the County Assessor is hereby requested to certify to the City Council on or before September 1, 1982, the valuation for assessment of such Plan of Development Area as of the date of the last certification. For the same purpose, the City Finance Director is hereby directed to certify to the City Council on or before September 1, 1982, the amount of municipal sales taxes collected within such Plan of Development Area for the period from June 1, 1981, to May 31, 1982.

6. Those parcels described on page 14a of the amended Plan of Development are a part of a development or redevelopment area designated by the City Council pursuant to Section 39-5-105, Colorado Revised Statutes 1973, as amended, and commercial buildings or structures on such parcels are therefore entitled to the benefits granted under said statute.

7. No public servant of the City who is authorized to take part in any manner in preparing, presenting, or approving the Plan of Development or any contract contemplated thereby has a potential interest in the Plan of Development or any such contract which has not been disclosed in accordance with the requirements of Section 18-8-308, Colorado Revised Statutes 1973, as amended, and no such public servant has received any pecuniary benefit from the Plan of Development or any such contract.

8. If any provision of this Resolution is judicially adjudged invalid or unenforceable, such judgment shall not affect the remaining provisions hereof, it being the intention of the City Council that the provisions hereof are severable.

9. This Resolution shall be effective immediately upon its adoption and approval.

ADOPTED AND APPROVED this 2 day of June, 1982.

CITY OF GRAND JUNCTION, COLORADO

By: James R Beck
President, City Council

(CITY)
(SEAL)

ATTEST:

City Clerk

RESOLUTION
BY THE BOARD OF DIRECTORS OF THE
GRAND JUNCTION, COLORADO,
DOWNTOWN DEVELOPMENT AUTHORITY
AMENDING THE PLAN OF DEVELOPMENT

WHEREAS, the City Council of the City of Grand Junction, Colorado, on December 16, 1981, adopted and approved a resolution approving the Plan of Development of the Grand Junction, Colorado, Downtown Development Authority; and

WHEREAS, since that time, several individuals, pursuant to C.R.S. 1973, §31-25-822, as amended, and Article X of the Downtown Development Authority Plan of Development, have petitioned for inclusion within the boundaries of the Grand Junction, Colorado, Downtown Development Authority; and

WHEREAS, such petitions have been approved by the Board of the Grand Junction Downtown Development Authority and the City Council of the City of Grand Junction, Colorado; and

WHEREAS, conditions within the Downtown Development Authority exist in substantially the same manner as described in Section IV of the Plan of Development; and

WHEREAS, it is appropriate and desirable to update the Plan of Development to show the inclusion of such property, to show further work done toward a bond election, and to show other minor changes in the Plan of Development; and

WHEREAS, Mesa County Valley School District #51, within which the entire area of development designated in the Plan of Development lies, has continued to participate in an advisory capacity with respect to the inclusion in the Plan of Development of the provision for utilization of tax increment financing;

IT IS, THEREFORE, RESOLVED THAT:

1. The Board finds all property included within the boundaries of the Downtown Development Authority since the adoption of the Plan of Development are subject to and exist in areas of blight within the meaning of C.R.S. 1973, §31-25-802(1.5) as amended, based upon the findings of this Board by that Resolution passed December 2, 1981, adopting a Plan of Development.

2. The boundaries of the Grand Junction, Colorado, Downtown Development Authority, are amended to read as shown on the attached

Exhibit "A", and Pages 8, 9 and 10 of the Plan of Development are amended by substituting Pages 8(a), 9(a), 10(a), 10(ab), 10(ac) and 10(ad) in the form of Exhibit "A".

3. The boundaries of the Plan of Development area within which tax increment financing will be used are amended to read as shown on the attached Exhibit "B" and Pages 11, 12 and 13 of the Plan of Development are amended by substituting pages 11(a), 12(a) 13(a), 13(ab), 13(ac), 13(ad) and 13(ae) in the form of Exhibit "B".

4. The boundaries of the Plan of Development area for commercial renovation districts are amended to read as shown on Exhibit "C" and Page 14 of the Plan of Development is amended by substituting Page 14(a) in the form of Exhibit "C".

5. The map of the boundaries of the Grand Junction, Colorado, Downtown Development Authority is amended to read as shown on the attached Exhibit "D" and Page 15 of the Plan of Development is amended by substituting Page 15(a) in the form of Exhibit "D".

6. Page 19 of the Plan of Development is amended as shown on the attached Exhibit "E" to show further statutory requirements and legal actions taken toward the implementation of the Downtown Development Authority Plan of Development and the planned events leading to the election for the authorization to pledge tax increment revenue, and Page 19 shown of the Plan of Development is amended by substituting Page 19(a) and Page 19(ab) in the form of Exhibit "E".

7. Section VI, Plan Implementation Activities, (B) Implementation Tools, Paragraph 4, Page 20 is amended to read as follows:

"4. Improvement (General Improvement) and special improvement districts offer an opportunity to fund public improvements. Such districts may be of importance here as an overlay to allow wider improvement throughout the downtown area. General improvement districts become a taxing unit with the power to construct or install public improvements including off street parking facilities."

8. The Plan of Development for the Grand Junction, Colorado, Downtown Development Authority is amended as stated herein subject to the approval of the City Council of Grand Junction, Colorado.

9. Such Plan of Development amendments shall be submitted to the City Council of Grand Junction, Colorado, with a request that they immediately submit said Plan of Development amendments to the Planning Commission for their written recommendations; and that the City Council hold a public hearing on such Plan of Development amendments, after public notice, and that the City council be requested to approve such

Plan of Development amendments and incorporate said amendments into the Plan of Development.

10. The City Council is requested to ask the County Assessor to certify to the City Council the valuation for assessement of the new property included within the Plan of Development area as of the date of the last certification, and the City Council is further requested to direct the City Finance Director to certify on or before September 1, 1982, the amount of municipal sales taxes collected within the new inclusions to the Plan of Development area for the period from June 1, 1981 to May 31, 1982.

11. No Board member nor any employee of the Board with a specific financial interest, as defined in C.R.S. 1973, §31-25-819, as amended, in the adoption of this Resolution has voted thereon or otherwise participated in its preparation or failed to make such interest known to the Board.

12. If any part of this Resolution is judicially adjudged invalid or unenforceable, such judgment shall not effect the remaining provisions, it being the intention of the Board that the provisions hereof are severable.

INTRODUCED, READ, PASSED AND ADOPTED this 19th day of May, 1982.

Pat Gormley

Pat Gormley,
Chairman of the Board
Grand Junction, Colorado
Downtown Development Authority

ATTEST:

Sandra Gose

Sandra Gose, Secretary
Grand Junction, Colorado
Downtown Development Authority

EXHIBIT "A"

BOUNDARIES OF THE GRAND JUNCTION, COLORADO

DOWNTOWN DEVELOPMENT AUTHORITY

Beginning at the Northwest Corner of Wilson's Subdivision of Block 2 of Mobley's Subdivision; thence East along the South right-of-way line of Grand Avenue to the North corner point common to Lots 4 and 5 of Block 78, City of Grand Junction; thence North to a point on the North right-of-way line of Grand Avenue; which point is 15.835 feet West of the East boundary line of Lot 20, Block 77, City of Grand Junction; thence North to the North right-of-way line of the East-West alley in said Block 77; thence East to the Southernly point common to Lots 10 and 11, Block 77, City of Grand Junction; thence North along the Western boundary of said Lot 11 to the Southern right-of-way line of Ouray Avenue; thence East along the South right-of-way line of Ouray Avenue to the West right-of-way line of 3rd Street; thence South along the West right-of-way line of 3rd Street to the North right-of-way line of Grand Avenue; thence West along the North right-of-way line of Grand Avenue to the Southern point common to Lots 20 and 21, Block 76, City of Grand Junction; thence Southerly to the Northerly common corner of Lots 12 and 13 in Block 79, City of Grand Junction, thence South along the common lot line to a point on the South right-of-way line of the East-West alley in Block 79, City of Grand Junction; thence West along such South right-of-way line to a point 12 feet West of the Eastern line of Lot 7, Block 79, City of Grand Junction; thence North to the South right-of-way line of Grand Avenue; thence West to the North corner point common to Lots 9 and 10 of Block 78, City of Grand Junction; thence South along the common line of Lots 9 and 10 and the common line of Lots 15

and 16, all in Block 78, to the South right-of-way line of White Avenue; thence East to the West right-of-way line of 2nd Street; thence South to the North right-of-way line of the East-West alley in Block 99, City of Grand Junction; thence East along the North line of the East-West alley Block 98, City of Grand Junction, to the West right-of-way line of 3rd Street; thence North along the West right-of-way line of 3rd Street to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the Northwest corner of Lot 12, Block 80, City of Grand Junction; thence in a Northerly direction to the Southwest corner of Lot 21, Block 75, City of Grand Junction; thence North along the West line of Lot 21, Block 75, to the North right-of-way of the East-West alley in Block 75; thence West along the North right-of-way of the East-West alley in Block 75 to the Southwest corner of Lot 9, Block 75, City of Grand Junction; thence North along the West line of Lot 9, Block 75, to the South right-of-way line of Ouray Avenue; thence East along the South right-of-way line of Ouray Avenue to the Northeast point of Lot 11, Block 73, which borders the alley parallel to said Lot 11, Block 73; thence South along the West right-of-way of said alley bordering Lot 11, Block 73, to the South right-of-way line of the vacated East-West alley in Block 73; thence to the Northeast corner of Lot 21, Block 73, City of Grand Junction; thence along the East line of Lot 21, Block 73, to the North right-of-way line of Grand Avenue; thence along the North right-of-way line of Grand Avenue to the Southwest corner of Lot 28, Block 73, City of Grand Junction; thence North along the West line of Lot 28, Block 73, to the North right-of-way line of the vacated East-West alley in Block 73; thence West to the West right-of-way line of 5th Street; thence South along the West right-of-way line

of 5th Street to the North right-of-way line of the East-West alley in Block 81, City of Grand Junction, thence East along the North right-of-way line of the East-West alley in Blocks 81 and 82 to the Southwest corner of Lot 9, Block 82, City of Grand Junction; thence North along the West line of Lot 9, Block 82, City of Grand Junction, to the South right-of-way line of Grand Avenue, thence East along said South right-of-way line to the East line of Lot 10, Block 82, City of Grand Junction; thence South along the East line of Lot 10, to the North right-of-way line of the East-West alley in Block 82, City of Grand Junction; thence East to the Southwest corner of Lot 13 Block 82, City of Grand Junction, thence North along the West line of Lot 13, Block 82, City of Grand Junction to the South right-of-way line of Grand Avenue; thence East along the South right-of-way of Grand Avenue to the East line of Lot 16, Block 82, City of Grand Junction, thence South along the East line of said Lot 16 to the North right-of-way line of the East-West alley in Block 82; thence East along the North right-of-way line of the East-West alley in Block 83 to the West line of Lot 9, Block 83, City of Grand Junction; thence North along the West line of said Lot 9 to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the West right-of-way line of 8th Street; thence South along the West right-of-way line of 8th Street to the South right-of-way line of White Avenue; thence West along the South right-of-way line of White Avenue to the West right-of-way line of the North-South alley in Block 93, City of Grand Junction; thence South along the West right-of-way line of the North-South alley in Block 93 to the South right-of-way line of the East-West alley in Block 93, City of Grand Junction; thence East to the North point common to Lots 23 and 24, Block 93,

City of Grand Junction; thence South along the common line of Lots 23 and 24 to the South right-of-way line of Rood Avenue; thence West to the North point common to Lots 14 and 15 in Block 106, City of Grand Junction; thence South along the common line of Lots 14 and 15 to the North boundary of the East-West alley in Block 106, City of Grand Junction; thence West to the South point common to Lots 12 and 13, Block 106, City of Grand Junction; thence North to the South right-of-way line of Rood Avenue; thence West to the West right-of-way line of the North-South alley in Block 106, City of Grand Junction; thence South along the West right-of-way line of the North-South alleys in Block 106, 115 and 128, City of Grand Junction, to the North right-of-way line of Ute Avenue; thence East along the North right-of-way line of Ute Avenue to the South point common to Lots 25 and 26, Block 128, City of Grand Junction; thence South on the common line between Lots 13 and 14, Block 137, City of Grand Junction, to the North right-of-way line of the East-West alley in Block 137, City of Grand Junction; thence West to the West right-of-way line of the North-South alley in Block 137, City of Grand Junction; thence North along the West right-of-way line of the North-South alley in Block 137, City of Grand Junction, to the South right-of-way line of Ute Avenue; thence West to the West right-of-way line of 7th Street; thence South to the North right-of-way line of Pitkin Avenue; thence West to the West right-of-way line of 6th Street; thence North to the South right-of-way line of Ute Avenue; thence West to the North point common to Lots 12 and 13, Block 139, City of Grand Junction; thence South to the North right-of-way line of the East-West alley in Block 139, City of Grand Junction; thence West to the South point common to Lots 8 and 9, Block 139, City of Grand Junction; thence North along the West line

of Lot 9, Block 139, City of Grand Junction, to the South right-of-way line of Ute Avenue; thence West to the West right-of-way line of 5th Street; thence South to the North right-of-way line of Pitkin Avenue; thence West to the East right-of-way line of 4th Street; thence North to the South right-of-way line of Ute Avenue; thence West along the South right-of-way line of Ute Avenue to the North point separating the East one-half of Lot 9 from the West one-half of Lot 9, Block 141, City of Grand Junction; thence South to a point on the North right-of-way line of the East-West alley in Block 141; thence West along the North right-of-way line of the East-West alleys in Blocks 141 and 142 to the East right-of-way line of 2nd Street; thence North to the North right-of-way line of Ute Avenue; thence West along the North right-of-way line of Ute Avenue to the Southwest Corner Block 10 Mobley Subdivision; thence Northwest along the Southwest line of Block 10 Mobley Subdivision to the intersection with the Southerly projection of the East right-of-way line of Spruce Street; thence North along said East line to the Northwest corner Block 10, Mobley Subdivision, thence Northwesterly to a point which lies 415.8 feet West and South 41°03' East 68.97 feet from the Northeast Corner of the Southeast 1/4 Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 89°57' West for 271.8 feet along a line parallel to the North line of the Southeast 1/4 of the Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 53°03' West 16.66 feet; thence North 53°03' West 70 feet to the East right-of-way line of the County Road to the East of the right-of-way of the Denver and Rio Grande Western right-of-way; thence Northwesterly along the East right-of-way of said County Road to the South right-of-way of State Highway 340;

thence Northeasterly along the South right-of-way of State Highway 340 to the Northwest Corner of Lot 9, Block 1, Richard D. Mobley's First Subdivision; thence South along the West line of said Lot 9 to the Southwest corner; thence South to the center line of vacated alley; thence 25 feet East; thence North to a point 78 feet South of the North line of said Block 1, thence East to a point 7½ feet West of the East line of Lot 11, Block 1, Richard D. Mobley's First Subdivision, thence North to the South right-of-way line of State Highway 340; thence along the South right-of-way line of State Highway 340 and Grand Avenue to the Point of Beginning.

However, excluding from the Grand Junction, Colorado, Downtown Development Authority all of Block 5 of Richard D. Mobley's First Subdivision, and Lots 1 to 5, inclusive, of Block 4, Richard D. Mobley's First Subdivision, and Lots 12 to 16, inclusive, of Block 4, Richard D. Mobley's First Subdivision except the North 50 feet of Lots 12 to 16.

And also excluding from the boundaries of the Grand Junction, Colorado, Downtown Development Authority, that part of Tract 8 and Tract 9 of the AMENDED SURVEY OF THE LITTLE BOOKCLIFF RAILROAD YARDS described as beginning at a point which is South 44°11' West 901.66 feet and South 0°01' East 197.50 feet from East 1/4 corner of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 89°58' West 126.00 feet; thence South 0°01' East 150.00 feet; thence South 89°58' East 126.00 feet; thence North 0°01' West 150.00 feet to the point of beginning. AND ALSO excluding 14 feet adjoining said tract 9 on the East thereof.

EXHIBIT "B"

DESCRIPTION OF THE PLAN OF DEVELOPMENT AREA WITHIN WHICH TAX INCREMENT FINANCING WILL BE USED

Beginning at the Northwest Corner of Wilson's Subdivision of Block 2 of Mobley's Subdivision; thence East along the South right-of-way line of Grand Avenue to the North corner point common to Lots 4 and 5 of Block 78, City of Grand Junction; thence North to a point on the North right-of-way line of Grand Avenue; which point is 15.835 feet West of the East boundary line of Lot 20, Block 77, City of Grand Junction; thence North to the North right-of-way line of the East-West alley in said Block 77; thence East to the Southernly point common to Lots 10 and 11, Block 77, City of Grand Junction; thence North along the Western boundary of said Lot 11 to the Southern right-of-way line of Ouray Avenue; thence East along the South right-of-way line of Ouray Avenue to the West right-of-way line of 3rd Street; thence South along the West right-of-way line of 3rd Street to the North right-of-way line of Grand Avenue; thence West along the North right-ofway line of Grand Avenue to the Southern point common to Lots 20 and 21, Block 76, City of Grand Junction; thence Southerly to the Northerly common corner of Lots 12 and 13 in Block 79, City of Grand Junction, thence South along the common lot line to a point on the South right-of-way line of the EastWest alley in Block 79, City of Grand Junction; thence West along such South right-of-way line to a point 12 feet West of the Eastern line of Lot 7, Block 79, City of Grand Junction; thence North to the South right-of-way line of Grand Avenue; thence West to the North corner point common to Lots 9 and 10 of Block 78, City of Grand Junction; thence South along the common line of Lots 9 and 10 and the common line of Lots 15 and 16, all in Block 78, to the South right-of-way line of White Avenue; thence East to the West right-of-way line of 2nd Street;

thence South to the North right-of-way line of the East-West alley in Block 99, City of Grand Junction; thence East along the North line of the East-West alley Block 98, City of Grand Junction, to the West right-of-way line of 3rd Street; thence North along the West right-of-way line of 3rd Street to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the Northwest corner of Lot 12, Block 80, City of Grand Junction; thence in a Northerly direction to the Southwest corner of Lot 21, Block 75, City of Grand Junction; thence North along the West line of Lot 21, Block 75, to the North right-of-way of the East-West alley in Block 75; thence West along the North right-of-way of the East-West alley in Block 75 to the Southwest corner of Lot 9, Block 75, City of Grand Junction; thence North along the West line of Lot 9, Block 75, to the South right-of-way line of Ouray Avenue; thence East along the South right-of-way line of Ouray Avenue to the Northeast point of Lot 11, Block 73, which borders the alley parallel to said Lot 11, Block 73; thence South along the West right-of-way of said alley bordering Lot 11, Block 73, to the South right-of-way line of the vacated East-West alley in Block 73; thence to the Northeast corner of Lot 21, Block 73, City of Grand Junction; thence along the East line of Lot 21, Block 73, to the North right-of-way line of Grand Avenue; thence along the North right-of-way line of Grand Avenue to the Southwest corner of Lot 28, Block 73, City of Grand Junction; thence North along the West line of Lot 28, Block 73, to the North right-of-way line of the vacated East-West alley in Block 73; thence West to the West right-of-way line of 5th Street; thence South along the West right-of-way line of 5th Street to the North right-of-way line of the East-West alley in Block 81, City of Grand Junction, thence East along the North right-of-way line of the East-West alley in Blocks 81 and 82 to the Southwest corner of Lot 9, Block 82, City of Grand Junction; thence

North along the West line of Lot 9, Block 82, City of Grand Junction, to the South right-of-way line of Grand Avenue, thence East along said South right-of-way line to the East line of Lot 10, Block 82, City of Grand Junction; thence South along the East line of Lot 10, to the North right-of-way line of the East-West alley in Block 82, City of Grand Junction; thence East to the Southwest corner of Lot 13 Block 82, City of Grand Junction, thence North along the West line of Lot 13, Block 82, City of Grand Junction to the South right-of-way line of Grand Avenue; thence East along the South right-of-way of Grand Avenue to the East line of Lot 16, Block 82, City of Grand Junction, thence South along the East line of said Lot 16 to the North right-of-way line of the East-West alley in Block 82; thence East along the North right-of-way line of the East-West alley in Block 83 to the West line of Lot 9, Block 83, City of Grand Junction; thence North along the West line of said Lot 9 to the South right-of-way line of Grand Avenue; thence East along the South right-of-way line of Grand Avenue to the West right-of-way line of 8th Street; thence South along the West right-of-way line of 8th Street to the South right-of-way line of White Avenue; thence West along the South right-of-way line of White Avenue to the West right-of-way line of the North-South alley in Block 93, City of Grand Junction; thence South along the West right-of-way line of the North-South alley in Block 93 to the South right-of-way line of the East-West alley in Block 93, City of Grand Junction; thence East to the North point common to Lots 23 and 24, Block 93, City of Grand Junction; thence South along the common line of Lots 23 and 24 to the South right-of-way line of Rood Avenue; thence West to the North point common to Lots 14 and 15 in Block 106, City of Grand Junction; thence South along the common line of Lots 14 and 15 to the North boundary of the East-West alley in Block 106, City of Grand Junction; thence West to the South point common to Lots 12 and 13, Block 106,

City of Grand Junction; thence North to the South right-of-way line of Rood Avenue; thence West to the West right-of-way line of the North-South alley in Block 106, City of Grand Junction; thence South along the West right-of-way line of the North-South alleys in Block 106, 115 and 128, City of Grand Junction, to the North right-of-way line of Ute Avenue; thence East along the North right-of-way line of Ute Avenue to the South point common to Lots 25 and 26, Block 128, City of Grand Junction; thence South on the common line between Lots 13 and 14, Block 137, City of Grand Junction, to the North right-of-way line of the East-West alley in Block 137, City of Grand Junction; thence West to the West right-of-way line of the North-South alley in Block 137, City of Grand Junction; thence North along the West right-of-way line of the North-South alley in Block 137, City of Grand Junction, to the South right-of-way line of Ute Avenue; thence West to the West right-of-way line of 7th Street; thence South to the North right-of-way line of Pitkin Avenue; thence West to the West right-of-way line of 6th Street; thence North to the South right-of-way line of Ute Avenue; thence West to the North point common to Lots 12 and 13, Block 139, City of Grand Junction; thence South to the North right-of-way line of the East-West alley in Block 139, City of Grand Junction; thence West to the South point common to Lots 8 and 9, Block 139, City of Grand Junction; thence North along the West line of Lot 9, Block 139, City of Grand Junction, to the South right-of-way line of Ute Avenue; thence West to the West right-of-way line of 5th Street; thence South to the North right-of-way line of Pitkin Avenue; thence West to the East right-of-way line of 4th Street; thence North to the South right-of-way line of Ute Avenue; thence West along the South right-of-way line of Ute Avenue to the North point separating the East one-half of Lot 9 from the West one-half of Lot 9, Block 141, City of Grand Junction; thence South to a point on the

North right-of-way line of the East-West alley in Block 141; thence West along the North right-of-way line of the East-West alleys in Blocks 141 and 142 to the East right-of-way line of 2nd Street; thence North to the North right-of-way line of Ute Avenue; thence West along the North right-of-way line of Ute Avenue to the Southwest Corner Block 10 Mobley Subdivision; thence Northwest along the Southwest line of Block 10 Mobley Subdivision to the intersection with the Southerly projection of the East right-of-way line of Spruce Street; thence North along said East line to the Northwest corner Block 10, Mobley Subdivision, thence Northwesterly to a point which lies 415.8 feet West and South 41°03' East 68.97 feet from the Northeast Corner of the Southeast 1/4 Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 89°57' West for 271.8 feet along a line parallel to the North line of the Southeast 1/4 of the Southeast 1/4 of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 53°03' West 16.66 feet; thence North 53°03' West 70 feet to the East right-of-way line of the County Road to the East of the right-of-way of the Denver and Rio Grande Western right-of-way; thence Northwesterly along the East right-of-way of said County Road to the South right-of-way of State Highway 340; thence Northeasterly along the South right-of-way of State Highway 340 to the Northwest Corner of Lot 9, Block 1, Richard D. Mobley's First Subdivision; thence South along the West line of said Lot 9 to the Southwest corner; thence South to the center line of vacated alley; thence 25 feet East; thence North to a point 78 feet South of the North line of said Block 1, thence East to a point 7½ feet West of the East line of Lot 11, Block 1, Richard D. Mobley's First Subdivision, thence North to the South right-of-way line of State Highway 340; thence along the South right-of-way line of State Highway 340 and Grand Avenue to the Point of Beginning.

However, excluding from the Grand Junction, Colorado, Downtown Development Authority all of Block 5 of Richard D. Mobley's First Subdivision, and Lots 1 to 5, inclusive, of Block 4, Richard D. Mobley's First Subdivision, and Lots 12 to 16, inclusive, of Block 4, Richard D. Mobley's First Subdivision except the North 50 feet of Lots 12 to 16.

And also excluding from the boundaries of the Grand Junction, Colorado, Downtown Development Authority, that part of Tract 8 and Tract 9 of the AMENDED SURVEY OF THE LITTLE BOOKCLIFF RAILROAD YARDS described as beginning at a point which is South 44°11' West 901.66 feet and South 0°01' East 197.50 feet from East 1/4 corner of Section 15, Township 1 South, Range 1 West of the Ute Meridian; thence North 89°58' West 126.00 feet; thence South 0°01' East 150.00 feet; thence South 89°58' East 126.00 feet; thence North 0°01' West 150.00 feet to the point of beginning. AND ALSO excluding 14 feet adjoining said tract 9 on the East thereof.

And except the following parcels:

Lots 11 to 16, inclusive, in Block 83, City of Grand Junction, Mesa County, Colorado; and

The North 75 feet of Lots 1, 2, and 3 of Block 104, City of Grand Junction, Mesa County, Colorado; and

Lots 17 to 25, inclusive, in Block 102; Lots 17 to 32, inclusive, in Block 103, Lots 17 to 32, inclusive, in Block 104; Lots 16 to 30, inclusive, except all the East 71.95 feet of Lots 16 to 20, inclusive, except the North 30 feet of the East 71.95 feet of Lots 16 to 20 inclusive, in Block 105; Lots 1 to 15, inclusive, in Block 117; and Lots 1 to 16, inclusive, in

Block 118, and Lots 1 to 11 in Block 84, all in the City of Grand Junction, Mesa County, Colorado.

EXHIBIT "C"

DESCRIPTION OF THE COMMERCIAL RENOVATION DISTRICTS

Lots 11 to 16, inclusive, in Block 83, City of Grand Junction, Mesa County, Colorado; and

The North 75 feet of Lots 1, 2, and 3 of Block 104, City of Grand Junction, Mesa County, Colorado; and

Lots 17 to 25, inclusive, in Block 102; Lots 17 to 32, inclusive, in Block 103, Lots 17 to 32, inclusive, in Block 104; Lots 16 to 30, inclusive, except all the East 71.95 feet of Lots 16 to 20, inclusive, except the North 30 feet of the East 71.95 feet of Lots 16 to 20 inclusive, in Block 105; Lots 1 to 15, inclusive, in Block 117; and Lots 1 to 16, inclusive, in Block 118, and Lots 1 to 11 in Block 84, all in the City of Grand Junction, Mesa County, Colorado.

EXHIBIT "E"

B. DATE OF ACTION	C. STATUTORY REQUIREMENTS	D. OPTIONAL ACTIVITIES
(Continued)		
22. 12-31-81	Freezing of Ad Valorem tax base and sales tax base as of effective date of Plan 31-25-807(3)	
23. 5-7-82	Resolution of DDA Board to amend Plan of Development to show recent approved inclusions of property and make other minor changes and referral to City Council for approval	
	SCHEDULED FUTURE ACTIONS	
24. 5-19-82	City Council review of Plan of Development amendments and referral to Planning Commission	
25. 5-25-82	Planning Commission review and comment on Plan of Development amendments	
26. 5-26-82	Publish notice of public meeting before City Council on Plan of Development amendments	
27. 6-2-82	City Council public hearing on Plan of Development and adoption of resolution adopting Plan of Development amendments	
28. 6-4-82	Resolution of DDA Board to have election for pledging of tax increment funds 35-25-807(3)(b)	
29. 6-16-82	Approval by City Council of election at least 30 days prior to election 35-25-807(3)(b)	
30. 7-23-82	Publication of Public Notice of Election	

31.	8-3-82	Election - qualified electors of district 35-25-807(3)(b)
32	8-4-82	Canvass of votes
33.	To be determined during 1982	City Council adoption of ordinance authorizing the issuance of bonds
34.	To be determined during 1982	Bonds issued for project

EXHIBIT "F"

CITY - COUNTY PLANNING
grand junction-mesa county 559 white ave. rm. 60 grand jct.,colo. 81501
(303) 244-1628

MEMORANDUM

TO: GRAND JUNCTION CITY COUNCIL
FROM: GRAND JUNCTION PLANNING COMMISSION
DATE: MAY 25 , 1982

RE: AMENDMENTS TO THE PLAN OF DEVELOPMENT OF THE GRAND JUNCTION, COLORADO, DOWNTOWN DEVELOPMENT AUTHORITY

On May 19, 1982, the Grand Junction City Council, pursuant to C.R.S. 1973, S31-25-807(4)(b) submitted amendments to the Plan of Development of the Grand Junction, Colorado, Downtown Development Authority to the Planning Commission for review and recommendations.

We have reviewed the proposed amendments in light of the Plan of Development as adopted by the City and the Downtown Development Authority and we have considered these amendments in light of the comments of the employees of the Planning Department, and in light of past policies for development and renovation and considered the questions and comments of the members of the Commission. After this review, we offer the following comments and recommendations:

1. The proposed amendments to the Plan of Development are consistent with the Downtown Development Strategy which has been adopted as an element of the Master Plan for Grand Junction, as well as consistent with other current policies.

2. The proposed amendments to include other areas within the boundary of the Downtown Development Authority are largely technical in nature, and the properties sought to be included are within the limits of the ultimate DDA boundary as defined in the Downtown Development Strategy and the DDA Plan of Development.

On the basis of this review, we find the proposed amendments to the Plan of Development to be consistent with existing City policies and not in conflict with development patterns on a City-wide basis.

We, therefore, endorse the proposed amendments to the Plan of Development as being consistent with existing City policies and recommend that the City Council hold a Public Hearing on these amendments to the Plan of Development.

RESPECTFULLY SUBMITTED,

Jane Quimby

EXHIBIT 5 – Proposed Ordinance

CITY OF GRAND JUNCTION, COLORADO

ORDINANCE NO.

AN ORDINANCE ADOPTING THE DOWNTOWN DEVELOPMENT AUTHORITY 2019 PLAN OF DEVELOPMENT ENTITLED "VIBRANT ROGETHER"

Recitals

A Plan of Development for the Grand Junction, Colorado, Downtown Development Authority (DDA) was originally adopted in 1981 and has since received minor updates, mostl recently in 2017 in the form of updates to address public improvements to the Las Colonias area. This 2019 "Vibrant Together" Plan of Development identifies changes to conditions in the Downtown Development Authority area and explicitly delineates strategies to improve connectivity, infill development potential, and sense of place in the downtown.

Pursuant to C.R.S. 31-25-807(4)(b), prior to its approval of a plan of development, the governing body shall submit such plan to the planning board of the municipality, if any, for review and recommendations. The planning board shall submit its written recommendations with respect to the proposed plan of development to the governing body within thirty days after receipt of the plan for review.

After public notice and public hearing, the Planning Commission recommended approval of the proposal to supersede and replace the Plan of Development for the Grand Junction, Colorado, Downtown Development Authority and the City Council finds that the proposed superseding and replacement is consistent with the City's overall vision, as included in the Comprehensive Plan, the Greater Downtown Plan, and sections of the Zoning and Development Code specifically related to Downtown. Further, the City Council finds that the plan will afford maximum opportunity, consistent with the sound need and plans of the municipality as a whole, for the development or redevelopment of the plan of development area.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT:

The Plan of Development for Grand Junction, Colorado, Downtown Development Authority, as Adopted by Resolution of This City Council on December 16, 1981, be superseded,

And, that the 2019 "Vibrant Together" Plan of Development for the Downtown Development Authority of Grand Junction, Colorado (DDA), Adopted in the Form of the Document Attached Hereto.

_____
_____

INTRODUCED on first reading the ___ day of ___, 2019 and ordered published in pamphlet form.

ADOPTED on second reading the _____ day of _____, 2019 and ordered published in pamphlet form.

ATTEST:

_____
President of the Council

_____
City Clerk

EXHIBIT LIST

ADOPTING THE DOWNTOWN DEVELOPMENT AUTHORITY OF GRAND JUNCTION, COLORADO (DDA) 2019 PLAN OF DEVELOPMENT ENTITLED "VIBRANT TOGETHER"
FILE NO. CPA-2019-496

Exhibit Item #	Description
1	Staff Report dated October 8, 2019
2	1981 DDA Plan of Development
3	Proposed DDA Plan of Development ("Vibrant Together")
4	Map of DDA Boundary
5	Proposed Ordinance
6	Staff Presentation dated October 8, 2019

Grand Junction Planning Commission

Regular Session

Item #4.

Meeting Date: October 8, 2019

Presented By: Senta Costello, Planner

Department: Community Development

Submitted By: Senta Costello, Associate Planner

Information

SUBJECT:

Consider a request by the City of Grand Junction to amend various sections of the Zoning and Development Code (Title 21), Greater Downtown Overlay (Title 24), 24 Road Corridor Design Standards (Title 25), and Transportation Engineering Design Standards (Title 29) to clarify administrative procedures, remove inconsistencies and modify standards.

RECOMMENDATION:

Staff recommends approval of the proposed text amendments.

EXECUTIVE SUMMARY:

Staff is proposing amendments to various sections of the Zoning and Development Code (Title 21), the Greater Downtown Overlay (Title 24), the 24 Road Corridor Design Standards (Title 25), and the Transportation Engineering Design Standards (Title 29) to address the following:

1. Organizational changes for the appeals process for ease of administration and location of text regarding garage setbacks in the Downtown;
2. Modification of Bulk Standards for the R-5 zone district rear yard setback, removing minimum lot size for multi-family development, and removing the required 15 foot first floor height in the B-2 zone district;
3. Clarification of parking lot setbacks in the B-2 zone district and sign type in the 24 Road corridor Design Standards; and
4. Clarifying procedures and criteria related to variance criteria, fences requiring special permits, and accessory dwelling units.

BACKGROUND OR DETAILED INFORMATION:

In an effort to keep the Zoning and Development Code current and relevant, staff is proposing a number of amendments to modify standards, clarify sections and processes, and eliminate inconsistencies. The Planning Commission discussed several of these topics at its July 18, 2019 workshop and supported staff proceeding with the proposed changes. The proposed amendments are summarized as follows:

Section 21.02.120. Special Permit

Section 21.02.120(b)(2)(i). provides that fences over 6 feet in height require a Special Permit as issued by the City Council. With recent changes made to the Code by Ordinances 4778 and 4831, fences over 6 feet can now be considered by the Director through an Administrative Adjustment process and requires specific findings related to unique conditions, compatibility and lack of right-of-way/easement/neighboring property encroachments. In order to make the Code consistent between sections specifically the administrative adjustment process, this section needs to be removed.

> Section 21.02.120(b)(2). A special permit is allowed in all zone districts for the following uses and shall be required prior to:
>
> ~~(i) Allowing a fence over six feet in height in any district;~~

Section 21.02.200(c)(3). Variance, Approval Criteria.

This section provides one of the criterion for considering a variance. The language, as shown below appears to have an error in that it is missing a word and as currently reads is nonsensical. Staff is recommending to replace the unclear and confusing text so that the sentence is both grammatically correct and meets the intent of the criteria to be evaluated, as follows:

> Section 21.02.200(c)(3). The literal interpretation of the provisions of the regulations would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district and would ~~work~~ <u>cause</u> unnecessary and undue hardship on the applicant;

Section 21.02.210 – Administrative Permit, Rehearing and Appeal Procedures

Currently, Section 21.02.070(a)(8) Administrative development permits provides the requisite time period for which one can file and appeal of a decision on an Administrative Permit. The Code in Section 21.02.210 provides a specific section on Appeals, however this section does not include information regarding the requisite time period. This time period should be moved from 21.02.070 to the Appeal section in 21.02.210 to provide for ease of finding and use. The time period and language would remain unchanged. Additional renumbering of subsections would need to occur. The proposed changes are as follows:

Section 21.02.210(b). An aggrieved party may appeal the Director's decision by submitting a written appeal within 10 working days of the date of the Director's decision.

~~Section 21.02.070(a)(8). An aggrieved party may appeal the Director's decision by submitting a written appeal within 10 working days of the date of the Director's decision.~~

Re-letter (b) through (e).

21.03.040 Residential districts. Residential District Summary Table

Currently the R-8 and R-12 zone districts have a note that states "Minimum lot size, minimum lot width and minimum lot frontage do not apply to two-family dwellings or multifamily." Other zone districts that allow for multi-family including the R-5, R-16, R-24, R-O, B-1, C-1, M-U and BP zone districts do not contain this note and have instead a minimum lot size of designated. This is very limiting for various multi-family developments. For example, if a developer wanted to build a townhome in a R-5 zone district, the townhome would be required to have a minimum lot size of 20,000 square feet and as a result likely precluding townhomes to develop on the property or creating undesirability long narrow lots in order to utilize the shared wall type of construction of a townhome development. See attached Exhibit 2.

Staff recommends adding language to exempt all multi-family from having a minimum lot size. The Code changes would be as follows:

Add note to Residential District Summary Table: Note: Minimum Lot Area, Lot Width and Lot Frontage do not apply to two family dwellings or multifamily.

Remove notes from Residential District Summary Table:

R-5: Min. lot area ~~varies by building type; detached single-family – 4,000 sf, two-family attached – 6,000 sf, multifamily – 20,000 sf,~~ civic – 20,000 sf. ~~Min. lot width varies by building type; two-family – 60 ft., all other types – 40 ft.~~

R-8: Min. lot area ~~varies by building type; detached single-family – 3,000 sf and two-family attached – 6,000 sf, multifamily – 20,000 sf,~~ civic – 20,000 sf. ~~Min. lot width varies by building type; two-family – 60 ft., all other types – 40 ft~~

~~R-12: Min. lot width varies by building type; two-family – 45 ft., all other types – 30 ft.~~

Remove text from sections

~~21.03.040(g)(2)(iii) Minimum lot size, minimum lot width and minimum lot frontage do not apply to two-family dwellings or multifamily.~~

~~21.03.040(h)(2)(iii) Minimum lot size, minimum lot width and minimum lot frontage do not apply to two-family dwellings or multifamily.~~

21.03.040 Residential districts. Residential District Summary Table

The Residential District Summary Table provides for the bulk standards for all residential zone districts. Staff has been approached by members of the development community requesting a reduction in the R-5 rear yard setback dimension. The request has included a reduction from 25 feet to something smaller and has been suggested to be 15 feet. They have cited challenges regarding being able to meet this minimum setback and provide for the size of home they would like to be constructing on these lots. The current R-5 rear yard setback is equivalent to the rear yard setback in the R-4 zone district (25 feet), but is greater than the R-8 zone district rear yard setback of 10 feet. The benefit of reducing the rear yard setback is potentially providing for larger building envelopes on each 4,000 square foot lot (minimum lot size), however there may be undesirable results of this reduction including less yard space and buffering between the rear yards of homes in areas zoned R-5.

Should this reduction be considered the table would be amended to replace R-5, rear yard setback of 25 feet to 15 feet. Other rear yard setback dimensions could also be considered (e.g. 20 feet). See attached Exhibit 3.

Section 21.03.070. Mixed use districts. Mixed Use and Industrial Bulk Standard Summary Table

The Mixed Use and Industrial Bulk Standard Summary Table provides a note in the table, Note: B-2: Parking setback for principal structure – 30 ft., for accessory 6 ft". This note is confusing in that there are not structures, as defined in the Code, generally related to or a part of a parking lot. Staff has interpreted this section to mean that if parking is being provided as the sole or primary use on a lot in the B-2 Zone District, the lot must be setback 30 feet from the property line. As well, the note includes "for accessory 6 ft." Staff has interpreted this subsequent section to mean that if the parking lot is accessory to a primary use (usually a building), the parking lot must be setback 6 feet from the property line. See attached Exhibit 4.

Staff recommends clarifying this code language, as follows:

> Note: B-2: Parking <u>front</u> setback for ~~principal structure~~ <u>parking as a principal use</u>, 30 feet, ~~for~~ <u>as an</u> accessory <u>use</u> 6 feet.

Section 21.03.070. Mixed use districts. Mixed Use and Industrial Bulk Standard

Summary Table.
The Mixed Use and Industrial Bulk Standard Summary Table provides a note in the table, “B-2: first Floor min. height – 15 ft.” This issue recently arose in a request for a redevelopment project in the downtown area that was unable/uninterested in providing a first floor height of 15 feet. The project sought and ultimately received a variance due to the unique circumstances related to the project, however it brought to light some of the challenges of requiring a 15 foot first floor height for all buildings located in the B-2 zone district. As was provided in the testimony in the variance hearing, most of the buildings on the historic main street do not have a 15 feet first floor height while most range between 10 feet and 14 feet.

It is staff’s understanding that this code provision was put in place for two reasons. The primary reason being the desire for buildings to be constructed that could be repurposed to commercial uses in the future should they be constructed as residential (or other) initially. The 15 feet would allow for higher ceilings as well as necessary building systems such as ventilation, fire sprinkling, or other modifications to the mechanical components in a more cost efficient manner. The second intent of the code provision was aesthetics that were more in line with typical high ceiling and historic building façade elevations. See attached Exhibit 4.

Staff generally recommends that this type of standard is not necessary and may preclude creativity in architectural style and building design and recommends removing this note from the Table.

Note: B-2: ~~first floor min. height – 15 ft.~~

Section 21.02.070(f)(2)(vi). Accessory Dwelling Units Review process.
Section 21.04.040(f) was recently amended by Ordinance 4831 to update standards for Accessory Dwelling Units. Part of this amendment including removing the requirement for a proposed ADU to be reviewed through a Minor Site Plan Review process and replacing it with a simplified process that requires the review and issuance of a planning clearance. There exists an additional reference to this requirement in Section 21.02.070 that now needs to be removed.

Staff is recommending removal of text as follows:

~~Section 21.02.070(f)(2)(vi) The Director may use this review process if the proposed project is limited to: A proposed residential subunit or accessory unit.”~~

Staff has identified other provisions of the code regarding ADUs that will also be

considered for modification in the future, specifically sections regarding accessory structures allowed to be a maximum of 75 percent of the square foot of the principal structure as well as a standard requiring all ADUs to be located behind a principle structure.

Section 25.05.010 - 24 Road Corridor Design Standards - Sign standards.
The standards for 24 Road Corridor only allow for freestanding signs and flush wall signs. It further provides that all freestanding signs shall be single- or double-faced and constructed of a metal panel with stone or veneer base. In essence, this means that all freestanding signs will be monument style signs. Adding more clear language in the code would benefit the understanding and intent of these sign standards. Staff recommends the following clarification to the code.

> Section 25.05.010(a) Only the following sign types are permitted: freestanding <u>monument</u> signs, flush wall signs, exempt signs, and temporary signs as allowed/regulated by GJMC 21.06.070 Sign regulation, except as further restricted in this chapter.

Section 29.56.020 - Alley Standards, Garage Setbacks and Section 24.12.130(a)(2) – Downtown District Standards and Guidelines – Residential Areas

Section 29.56.020 of the TEDS Manual has a standard that requires garages with overhead doors facing the alley must be set back a minimum of 25 feet from the far edge of the alley or the zoning setback, whichever is greater. This allows adequate maneuver room for backing and turning. The Greater Downtown Plan adopted in 2018 has language that allows any accessory structure to have a zero-foot rear yard setback. The intent was to accommodate and allow for accessory structures to continue to exist and be built in a similar fashion to historical accessory buildings in the downtown area. Because these requirements are in two different sections of the municipal code, they appear contradictory and are confusing as to the interplay between the regulations. As such, staff recommends that the standard in TEDs is moved into the downtown standards which is a more typical location to find setback standards. **The proposed changes are as follows:**

> **Section 24.12.130(a)(2). Th**e setback for accessory structures is a zero-foot setback from the alley and three feet from neighboring property line(s). <u>Garages with overhead doors facing the alley must be set back a minimum of 25 feet from the far edge of the alley or the zoning setback, whichever is greater.</u>
>
> ~~Section 29.56.020 - Building setbacks. - Garages with overhead doors facing the alley must be set back a minimum of 25 feet from the far edge of the alley or the zoning setback, whichever is greater. This allows adequate maneuver room for~~

~~backing and turning.~~

IV. NOTIFICATION REQUIREMENTS

Notice was completed as required by Section 21.02.080(g). Notice of the public hearing was published on August 20, 2019, in the Grand Junction Daily Sentinel.

V. ANALYSIS

In accordance with Section 21.02.140(c), a proposed text amendment shall address in writing the reasons for the proposed amendment. There are no specific criteria for review because a code amendment is a legislative act and within the discretion of the City Council to decide with a recommendation from the Planning Commission. Reasons for the proposed amendments are provided in the Background section of this report.

VI. STAFF RECOMMENDATION AND FINDINGS OF FACT

Staff finds that the proposed amendments to the Zoning and Development Code are useful in that they eliminate inconsistencies within the code, provide necessary clarification for the administration of the code, eliminate unnecessary regulations and modify standards to provide regulations that assist in logical and orderly development.

SUGGESTED MOTION:

Madam Chairman, on the Zoning and Development Code Amendments, ZCA-2019-421, I move that the Planning Commission forward a recommendation of approval finding that the amendments as recommended by staff as well as change the R-5 rear yard setback from 25 feet to ____ feet, work to eliminate inconsistencies within the code, provide necessary clarification for the administration of the code, eliminate unnecessary regulations and modify standards to provide regulations that assist in logical and orderly development.

Attachments

1. Exhibit List - Zoning Code Amendments
2. Staff Report
3. Exhibit 2 - Residential District Summary Table
4. Exhibit 3 - Residential District Summary Table
5. Exhibit 4 - Mixed Use & Industrial Summary Table

EXHIBIT LIST

Zoning Code Amendments
FILE NO. ZCA-2019-421

Exhibit Item #	Description
1	Staff Report dated August 27
2	Residential District Summary Table
3	Residential District Summary Table - Setback
4	Mixed Use and Industrial Bulk Standards Summary Table

Exhibit 1

PLANNING COMMISSION AGENDA ITEM

Project Name:	Zoning Code Text Amendment, Title 21, Chapters 2, 3, 4 and 10; Title 24 Chapter 12, Title 25 Chapter 5 and Title 29 Chapter 56
Applicant:	City of Grand Junction
Address:	City Wide
Zoning:	N/A
Staff:	Senta Costello
File No.	ZCA-2019-421
Date:	August 27, 2019

I. SUBJECT

Consider a request by the City of Grand Junction to amend various sections of the Zoning and Development Code (Title 21), Greater Downtown Overlay (Title 24), 24 Road Corridor Design Standards (Title 25), and Transportation Engineering Design Standards (Title 29) to clarify administrative procedures, remove inconsistencies and modify bulk standards.

II. EXECUTIVE SUMMARY

Staff is proposing amendments to various sections of the Zoning and Development Code (Title 21), the Greater Downtown Overlay (Title 24), the 24 Road Corridor Design Standards (Title 25), and the Transportation Engineering Design Standards (Title 29) to address the following:

1) Organizational changes for the appeals process for ease of administration and location of text regarding garage setbacks in the Downtown;
2) Modification of Bulk Standards for the R-5 zone district rear yard setback, removing minimum lot size for multi-family development, and removing the required 15 foot first floor height in the B-2 zone district;
3) Clarification of parking lot setbacks in the B-2 zone district and sign type in the 24 Road corridor Design Standards; and
4) Clarifying procedures and criteria related to variance criteria, fences requiring special permits, and accessory dwelling units.

III. BACKGROUND

In an effort to keep the Zoning and Development Code current and relevant, staff is proposing a number of amendments to modify standards, clarify sections and processes, and eliminate inconsistencies. The Planning Commission discussed several of these topics at its July 18, 2019 workshop and supported staff proceeding with the proposed changes. The proposed amendments are summarized as follows:

Section 21.02.120. Special Permit

Section 21.02.120(b)(2)(i). provides that fences over 6 feet in height require a Special Permit as issued by the City Council. With recent changes made to the Code by Ordinances 4778 and 4831, fences over 6 feet can now be considered by the Director through an Administrative Adjustment process and requires specific findings related to unique conditions, compatibility and lack of right-of-way/easement/neighboring property encroachments. In order to make the Code consistent between sections specifically the administrative adjustment process, this section needs to be removed.

> Section 21.02.120(b)(2). A special permit is allowed in all zone districts for the following uses and shall be required prior to:
>
> ~~(i) Allowing a fence over six feet in height in any district;~~

Section 21.02.200(c)(3). Variance, Approval Criteria.

This section provides one of the criterion for considering a variance. The language, as shown below appears to have an error in that it is missing a word and as currently reads is nonsensical. Staff is recommending to replace the unclear and confusing text so that the sentence is both grammatically correct and meets the intent of the criteria to be evaluated, as follows:

> Section 21.02.200(c)(3). The literal interpretation of the provisions of the regulations would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district and would ~~work~~ cause unnecessary and undue hardship on the applicant;

Section 21.02.210 – Administrative Permit, Rehearing and Appeal Procedures

Currently, Section 21.02.070(a)(8) Administrative development permits provides the requisite time period for which one can file and appeal of a decision on an Administrative Permit. The Code in Section 21.02.210 provides a specific section on Appeals, however this section does not include information regarding the requisite time period. This time period should be moved from 21.02.070 to the Appeal section in 21.02.210 to provide for ease of finding and use. The time period and language would remain unchanged. Additional renumbering of subsections would need to occur. The proposed changes are as follows:

> Section 21.02.210(b). An aggrieved party may appeal the Director's decision by submitting a written appeal within 10 working days of the date of the Director's decision.
>
> ~~Section 21.02.070(a)(8). An aggrieved party may appeal the Director's decision by submitting a written appeal within 10 working days of the date of the Director's decision.~~

Re-letter (b) through (e).

21.03.040 Residential districts. Residential District Summary Table

Currently the R-8 and R-12 zone districts have a note that states “Minimum lot size, minimum lot width and minimum lot frontage do not apply to two-family dwellings or multifamily.” Other zone districts that allow for multi-family including the R-5, R-16, R-24, R-O, B-1, C-1, M-U and BP zone districts do not contain this note and have instead a minimum lot size of designated. This is very limiting for various multi-family developments. For example, if a developer wanted to build a townhome in a R-5 zone district, the townhome would be required to have a minimum lot size of 20,000 square feet and as a result likely precluding townhomes to develop on the property or creating undesirability long narrow lots in order to utilize the shared wall type of construction of a townhome development.

Residential District Summary Table

	RR	R-E	R-1	R-2	R-4	R-5	R-8	R-12	R-16	R-24
Lot										
Area (min. ft. unless otherwise specified)	5 acres	1 acre	30,000	15,000	7,000	4,000	3,000	n/a	n/a	n/a
Width (min. ft.)	150	100	100	100	70	40	40	30	30	30
Frontage (min. ft.)	50	50	50	50	20	20	20	20	20	20
Frontage on cul-de-sac (min. ft.)	30	30	30	30	n/a	n/a	n/a	n/a	n/a	n/a
Setback										
Principal structure										
Front (min. ft.)	20	20	20	20	20	20	20*	20*	20*	20*
Side (min. ft.)	50	15	15	15	7	5	5	5	5	5
Rear (min. ft.)	50	30	30	30	25	25	10	10	10	10
Accessory structure										
Front (min. ft.)	25	25	25	25	25	25	25	25	25	25
Side (min. ft.)	50	5	3	3	3	3	3	3	3	3
Rear (min. ft.)	50	10	10	5	5	5	5	5	5	5
Bulk										
Lot coverage (max.)	5%	15%	20%	30%	50%	60%	70%	75%	75%	80%
Height (max. ft.)	35	35	35	35	40	40	40	60	60	72
Density (min. units per acre)	n/a	n/a	n/a	n/a	2	3	5.5	8	12	16
Density (max. units per acre)	1 unit / 5 acres	1	1	2	4	5.5	8	12	16	n/a
Cluster allowed	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Notes										
*20 feet for the garage portion of a principal structure and 15 feet for the remainder of the principal structure. R-5: Min. lot area varies by building type; detached single-family – 4,000 sf, two-family attached – 6,000 sf, multifamily – 20,000 sf, civic – 20,000 sf. Min. lot width varies by building type; two-family – 60 ft., all other types – 40 ft. R-8: Min. lot area varies by building type; detached single-family – 3,000 sf and two-family attached – 6,000 sf, multifamily – 20,000 sf, civic – 20,000 sf. Min. lot width varies by building type; two-family – 60 ft., all other types – 40 ft. R-12: Min. lot width varies by building type; two-family – 45 ft., all other types – 30 ft.										

Staff recommends adding language to exempt all multi-family from having a minimum lot size. The Code changes would be as follows:

Add note to Residential District Summary Table: Note: Minimum Lot Area, Lot Width and Lot Frontage do not apply to two family dwellings or multifamily.

Remove notes from Residential District Summary Table:

R-5: Min. lot area ~~varies by building type; detached single-family – 4,000 sf, two-family attached – 6,000 sf, multifamily – 20,000 sf,~~ civic – 20,000 sf. ~~Min. lot width varies by building type; two-family – 60 ft., all other types – 40 ft.~~

R-8: Min. lot area ~~varies by building type; detached single-family – 3,000 sf and two-family attached – 6,000 sf, multifamily – 20,000 sf,~~ civic – 20,000 sf. ~~Min. lot width varies by building type; two-family – 60 ft., all other types – 40 ft~~

~~R-12: Min. lot width varies by building type; two-family – 45 ft., all other types – 30 ft.~~

Remove text from sections

~~21.03.040(g)(2)(iii) Minimum lot size, minimum lot width and minimum lot frontage do not apply to two-family dwellings or multifamily.~~

~~21.03.040(h)(2)(iii) Minimum lot size, minimum lot width and minimum lot frontage do not apply to two-family dwellings or multifamily.~~

21.03.040 Residential districts. Residential District Summary Table

The Residential District Summary Table provides for the bulk standards for all residential zone districts. Staff has been approached by members of the development community requesting a reduction in the R-5 rear yard setback dimension. The request has included a reduction from 25 feet to something smaller and has been suggested to be 15 feet. They have cited challenges regarding being able to meet this minimum setback and provide for the size of home they would like to be constructing on these lots. The current R-5 rear yard setback is equivalent to the rear yard setback in the R-4 zone district (25 feet), but is greater than the R-8 zone district rear yard setback of 10 feet. The benefit of reducing the rear yard setback is potentially providing for larger building envelopes on each 4,000 square foot lot (minimum lot size), however there may be undesirable results of this reduction including less yard space and buffering between the rear yards of homes in areas zoned R-5.

Should this reduction be considered the table would be amended to replace R-5, rear yard setback of 25 feet to 15 feet. Other rear yard setback dimensions could also be considered (eg. 20 feet).

	RR	R-E	R-1	R-2	R-4	R-5	R-8	R-12	R-16	R-24
Lot										
Area (min. ft. unless otherwise specified)	5 acres	1 acre	30,000	15,000	7,000	4,000	3,000	n/a	n/a	n/a
Width (min. ft.)	150	100	100	100	70	40	40	30	30	30
Frontage (min. ft.)	50	50	50	50	20	20	20	20	20	20
Frontage on cul-de-sac (min. ft.)	30	30	30	30	n/a	n/a	n/a	n/a	n/a	n/a
Setback										
Principal structure										
Front (min. ft.)	20	20	20	20	20	20	20*	20*	20*	20*
Side (min. ft.)	50	15	15	15	7	5	5	5	5	5
Rear (min. ft.)	50	30	30	30	25	25	10	10	10	10
Accessory structure										
Front (min. ft.)	25	25	25	25	25	25	25	25	25	25
Side (min. ft.)	50	5	3	3	3	3	3	3	3	3
Rear (min. ft.)	50	10	10	5	5	5	5	5	5	5

Section 21.03.070. Mixed use districts. Mixed Use and Industrial Bulk Standard Summary Table

The Mixed Use and Industrial Bulk Standard Summary Table provides a note in the table, Note: B-2: Parking setback for principal structure – 30 ft., for accessory 6 ft". This note is confusing in that there are not structures, as defined in the Code, generally related to or a part of a parking lot. Staff has interpreted this section to mean that if parking is being provided as the sole or primary use on a lot in the B-2 Zone District, the lot must be setback 30 feet from the property line. As well, the note includes "for accessory 6 ft." Staff has interpreted this subsequent section to mean that if the parking lot is accessory to a primary use (usually a building), the parking lot must be setback 6 feet from the property line.

Notes
B-1: Max. building size varies by use; retail – 15,000 sf (unless a CUP is approved), office 30,000
B-2: Parking setback for principal structure – 30 ft., for accessory 6 ft.; first floor min. height – 15 ft.
C-1: Min. rear setback – 0 if an alley is present
CSR: Maximum building height abutting residential – 40 ft.

Staff recommends clarifying this code language, as follows:

Note: B-2: Parking front setback for ~~principal structure~~ parking as a principal use, 30 feet, ~~for~~ as an accessory use 6 feet.

Section 21.03.070. Mixed use districts. Mixed Use and Industrial Bulk Standard Summary Table.

The Mixed Use and Industrial Bulk Standard Summary Table provides a note in the table, "B-2**:** first Floor min. height – 15 ft." This issue recently arose in a request for a redevelopment project in the downtown area that was unable/uninterested in providing a first floor height of 15 feet. The project sought and ultimately received a variance due to the unique circumstances related to the project, however it brought to light some of the challenges of requiring a 15 foot first floor height for all buildings located in the B-2 zone district. As was provided in the testimony in the variance hearing, most of the buildings on the historic main street do not have a 15 feet first floor height while most range between 10 feet and 14 feet.

It is staff's understanding that this code provision was put in place for two reasons. The primary reason being the desire for buildings to be constructed that could be repurposed to commercial uses in the future should they be constructed as residential (or other) initially. The 15 feet would allow for higher ceilings as well as necessary building systems such as ventilation, fire sprinkling, or other modifications to the mechanical components in a more cost efficient manner. The second intent of the code provision was aesthetics that were more in line with typical high ceiling and historic building façade elevations.

Notes
B-1: Max. building size varies by use; retail – 15,000 sf (unless a CUP is approved), office 30,000
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Staff generally recommends that this type of standard is not necessary and may preclude creativity in architectural style and building design and recommends removing this note from the Table.

Note: B-2: ~~first flor min. height – 15 ft.~~

Section 21.02.070(f)(2)(vi). Accessory Dwelling Units Review process.

Section 21.04.040(f) was recently amended by Ordinance 4831 to update standards for Accessory Dwelling Units. Part of this amendment including removing the requirement for a proposed ADU to be reviewed through a Minor Site Plan Review process and replacing it with a simplified process that requires the review and issuance of a planning

clearance. There exists an additional reference to this requirement in Section 21.02.070 that now needs to be removed.

Staff is recommending removal of text as follows:

> ~~Section 21.02.070(f)(2)(vi) The Director may use this review process if the proposed project is limited to: A proposed residential subunit or accessory unit.”~~

Staff has identified other provisions of the code regarding ADUs that will also be considered for modification in the future, specifically sections regarding accessary structures allowed to be a maximum of 75 percent of the square foot of the principal structure as well as a standard requiring all ADUs to be located behind a principle structure.

Section 25.05.010 - 24 Road Corridor Design Standards - Sign standards.
The standards for 24 Road Corridor only allow for freestanding signs and flush wall signs. It further provides that all freestanding signs shall be single- or double-faced and constructed of a metal panel with stone or veneer base. In essence, this means that all freestanding signs will be monument style signs. Adding more clear language in the code would benefit the understanding and intent of these sign standards. Staff recommends the following clarification to the code.

> Section 25.05.010(a) Only the following sign types are permitted: freestanding <u>monument</u> signs, flush wall signs, exempt signs, and temporary signs as allowed/regulated by GJMC 21.06.070 Sign regulation, except as further restricted in this chapter.

Section 29.56.020 - Alley Standards, Garage Setbacks and Section 24.12.130(a)(2) – Downtown District Standards and Guidelines – Residential Areas

Section 29.56.020 of the TEDS Manual has a standard that requires garages with overhead doors facing the alley must be set back a minimum of 25 feet from the far edge of the alley or the zoning setback, whichever is greater. This allows adequate maneuver room for backing and turning. The Greater Downtown Plan adopted in 2018 has language that allows any accessory structure to have a zero-foot rear yard setback. The intent was to accommodate and allow for accessory structures to continue to exist and be built in a similar fashion to historical accessory buildings in the downtown area. Because these requirements are in two different sections of the municipal code, they appear contradictory and are confusing as to the interplay between the regulations. As such, staff recommends that the standard in TEDs is moved into the downtown standards which is a more typical location to find setback standards. The proposed changes are as follows:

> Section 24.12.130(a)(2). The setback for accessory structures is a zero-foot setback from the alley and three feet from neighboring property line(s). <u>Garages with</u>

overhead doors facing the alley must be set back a minimum of 25 feet from the far edge of the alley or the zoning setback, whichever is greater.

~~Section 29.56.020 - Building setbacks. - Garages with overhead doors facing the alley must be set back a minimum of 25 feet from the far edge of the alley or the zoning setback, whichever is greater. This allows adequate maneuver room for backing and turning.~~

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Attachments:

Proposed Ordinance

Exhibit 2

Residential District Summary Table

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Setback										
Principal structure										
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Accessory structure										
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Side (min. ft.)	50	5	3	3	3	3	3	3	3	3
Rear (min. ft.)	50	10	10	5	5	5	5	5	5	5
Bulk										
Lot coverage (max.)	5%	15%	20%	30%	50%	60%	70%	75%	75%	80%
Height (max. ft.)	35	35	35	35	40	40	40	60	60	72
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Cluster allowed	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Notes										

*20 feet for the garage portion of a principal structure and 15 feet for the remainder of the principal structure.

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Frontage on cul-de-sac (min. ft.)	30	30	30	30	n/a	n/a	n/a	n/a	n/a	n/a
Setback										
Principal structure										
Front (min. ft.)	20	20	20	20	20	20	20*	20*	20*	20*
Side (min. ft.)	50	15	15	15	7	5	5	5	5	5
Rear (min. ft.)	50	30	30	30	25	25	10	10	10	10
Accessory structure										
Front (min. ft.)	25	25	25	25	25	25	25	25	25	25
Side (min. ft.)	50	5	3	3	3	3	3	3	3	3
Rear (min. ft.)	50	10	10	5	5	5	5	5	5	5

Exhibit 4

Notes
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