



AGENDA
CITY OF GLENWOOD SPRINGS
Planning and Zoning Commission
Regular Meeting
JULY 26, 2022
Council Chambers, First Floor
101 W. 8TH STREET
6:00 PM

1 Attendance Instructions

- A. This meeting will be held in person and via zoom.

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/81149043131?pwd=bnJlbER0RmJET25MbW41REVjNFFnQT09>

Passcode: 177366

Or Telephone:

Dial (for higher quality, dial a number based on your current location):

US: +1 346 248 7799 or +1 669 444 9171 or +1 669 900 6833 or +1 253 215 8782 or +1 312 626 6799 or +1 386 347 5053 or +1 564 217 2000 or +1 646 931 3860 or +1 929 205 6099 or +1 301 715 8592

Webinar ID: 811 4904 3131

2 Roll Call

3 Receipt of the Minutes

- A. Draft June 28, 2022 Planning and Zoning Commission Meeting Minutes

4 Comments from citizens appearing for items not on the agenda

5 New Items

- A. Planning File #54-21– Minor Site/Architectural Plan 175/185 County Road 135

6 Commissioner Comments

7 Director Comments

8 Adjournment

MINUTES

CITY OF GLENWOOD SPRINGS

Planning and Zoning Commission

Regular Meeting

JUNE 28, 2022

Council Chambers, First Floor

101 W. 8TH STREET

6:00 PM

1. Roll Call

Commissioners Present: Commissioner White, Commissioner Cipperly, Commissioner Waller, Commissioner Shaver, Commissioner Hardcastle, Commissioner Connerton, Commissioner Davey.

Not Present: Commissioner Wissing, Commissioner Weimer

Others Present: Asst. City Manager Jenn Ooton, Asst. City Attorney Richard, Asst. Director Community Development Hannah Klausman, Senior Planner Watkins Fulk-Gray.

Chair Shaver called for a motion to seat alternate Commissioner April Davey to fill the vacant seat.

Commissioner White motioned to seat Commissioner Davey. Commissioner Cipperly seconded the motion. **Motion to seat alternate unanimously approved.**

2. Receipt of the May 24, 2022 and April 26, 2022 Minutes

Commissioner Cipperly pointed out a possible omission in the May 24, 2022 minutes. Page 4 of the packet, 3rd paragraph, uses the pronoun She, but should list Commissioner Cipperly by name.

Commissioner Waller motions to accept minutes with edits, Commissioner White seconds. **Minutes unanimously approved.**

3. Comments from citizens appearing for items not on the agenda

4. New Items

A. Planning Item 19-22 Code Amendment Hotel Conversions

Jenn Ooton, Assistant City Manager presented the Code Change Amendment. Mrs. Ooton explained that the reason behind the code changes is the housing crisis and employment crisis. Regional Housing study points to a housing unit gap of 2,000 units, primarily in the lower AMI bands and that has been exacerbated by the pandemic. The action item is consideration of code text amendments to Municipal Code Section 070.010.070 Nonconformities, 070.030 Use Regulations, 070.045.120 Affordable and Workforce Housing and 070.060.050 Development Permits.

Staff recommends approval with suggested findings on page 5 of the staff report

Commissioner questions:

- Clarification and specifics on 90 day sprinkler delay and relation to new fire suppression code that was recently adopted.
- What is the benefit of the 180-day maximum?
- What will be the impact of the loss of lodging taxes for these hotels that no longer have to pay lodging tax for stays under 29 days?
- Should there be a streetscape landscaping improvement at minimum for landscaping requirements? Screening landscape would be beneficial to have.
- How many residents will be allowed in one unit? Would 10 people in a bunk room be allowed?
- Do we feel that this need might change back to a pre-covid housing equilibrium?
- Clarify the parking per unit. Is it per unit or bedroom?
- Could a Bed and Breakfast also convert to an extended stay?
- Was this item brought before the Housing Commission?
- Was there other agencies that were involved in the proposal such as law enforcement that might be involved to mitigate possible negative impacts of this use?
- Should a lighting plan be required as part of the change of use? Should a planner do a site visit to double check lighting safety?
- Is there storage space required similar to multifamily project requirements? Perhaps a shared storage somewhere else on site?
- Concern over the provisions for laundry facilities and only requiring one washer and dryer unit. Perhaps consider a requirement for a minimum number required.

Staff explained the definitions of categories proposed, and interactions with other areas of code including lighting, landscaping, zoning and new building codes.

Chair Shaver opened it up for public comment.

Michael Herms, Director of Facilities and Capital projects for RFTA:

Mr. Herms explained that RFTA is supportive of the code amendments and looking at the concept of purchasing a hotel for employment housing. RFTA is currently short 40 drivers, 8 mechanics, and half a dozen other positions short. RFTA expects that the employees that would utilize these types of units would be more seasonal and new to the area employees and transitioning long term employees into more permanent living situations.

Lee Touchfarber, Renew Roaring Fork Property:

Interested in worker housing and how this could help. Renew Roaring Fork is experiencing employee shortages and retention with the housing market. This could provide a more affordable short term solution.

7:26 PM Chair Shaver closed the public comment period.

Commissioner Waller motioned to approved action item 1 with suggested findings on page 5. Commissioner Hardcastle seconded the motion.

Commissioner Discussion:

Commissioner White wants to include a definition of a kitchenette and that staff have a safety requirement discussion on the extended stay category, and a requirement for a minimum number of washer and dryer units per unit.

Staff asked for clarification on the safety requirements including requiring a sharp-cutoff light at the entrances to units that can be controlled by the units.

At minimum meet the lighting requirements of the hotels.

Commissioner Waller amend his motion to include the discussed suggestions including lighting and safety to be reviewed by staff. Commissioner Hardcastle amended his second.

Motion passes unanimously with a 7-0 vote.

B. Affordable Housing Accomplishment Report

Hannah Klausman, Assistant Director of Community Development, explained that Planning and Zoning Commissioners requested Staff to update the Commission on City efforts around affordable and workforce housing. Staff prepared a brief report to highlight the accomplishments of the last few years with updates on specific programs and projects in the following categories:

1. Voluntary Deed Restriction Program, Adopted 2016.
2. Parking Updates from 2018 Development Code Adoption
3. Vacation Rental Code Update, 2019
4. Accessory Dwelling Unit Code Update, 2020
5. Inclusionary Zoning Program, Adopted in 2021
6. City Owned Property Project
7. Ad Hoc Housing Committee Tax Questions

6. Commissioner Comments

7. Director Comments

8. Adjournment

Meeting adjourned at 8:40PM



Planning and Zoning Commission Report

Date: July 26, 2022
To: Planning and Zoning Commission
From: Watkins Fulk-Gray, Senior Planner
Subject: Planning File #54-21– Minor Site/Architectural Plan
175/185 County Road 135

REQUEST	Consideration of a Minor Site and Architectural Plan for two multifamily buildings with a total of 14 residential units.
APPLICANT	Gabriel Molnar and Keith Teahen
OWNER	Moltea III, LLC
LOCATION	175/185 County Road 135 (PIN 2185-052-00-090, 2185-052-32-002)
ZONE	Mixed-Use M1
SURROUNDING LAND USES	North: Residential South: Residential East: Residential West: Residential
LOT SIZE	185 CR 135: 10,148 square feet; 175 CR 135: 20,038 square feet

ACTION ITEM

Per Section 070.060.050 of the *Glenwood Springs Municipal Code* (Code), the Planning and Zoning Commission (Commission) is the reviewing and deciding body for Minor Site & Architectural Plans. The proposed development includes two buildings with a total of 14 residential units. Application items and related items are attached.

Action 1 – Minor Site Plan & Architectural Plan – approve Minor Site & Architectural Plan for development of a 14-unit multifamily residential building.

Staff recommendation: *Staff recommends **approval** of the Minor Site/Architectural Plan for development of a 14-unit multifamily residential building with recommended findings and conditions on pages 11 and 12 of the staff report.*

BACKGROUND

Project Summary

The application was submitted by Gabriel Molnar and Keith Teahen, who through their corporation Moltea III, LLC, are the owners of 175/185 County Road 135. A version of this development was previously approved in 2017, but construction never commenced and the approval lapsed. The

application proposes development of 14 residential units in two buildings at 175/185 CR 135. These are currently two lots, but the applicants propose to complete a lot consolidation prior to approval of Final Plans Review. This has been included as a condition of approval. The 14 units will be comprised of the following mix:

- 1 bed/1 bath: 1 unit
- 2 bed/1 bath: 1 unit
- 2 bed/1.5 bath: 1 unit
- 2 bed/2 bath: 9 units
- 3 bed/2.5 bath: 2 units.

Location and Background

The proposed location for this development is 175 and 185 County Road 135. This site is zoned Mixed-Use Corridor (M1), and currently includes six dwelling units of various configurations. All immediately adjacent properties are residential with a mix of single and multifamily uses.



Above: Views from CR 135 of the existing homes on the site.

PROJECT ANALYSIS

The application is a Minor Site/Architectural Plan Application for a 14-unit multifamily residential development. The following section provides further details on the compliance of the proposed project with Code standards.

CODE STANDARD		PROPOSED	REQUIREMENT MET
Lot Standards	N/A, no minimum per M1 Zone District	30,186 (after lot consolidation)	N/A
Lot Coverage	N/A	10,580 sf (35%) (existing lot coverage is 19%)	N/A
Open Space	20% of parcel; 6,037 sf	9,100	YES
Landscape	15% of parcel; 4,528 sf	10,970 sf	YES
Parking Area Landscaping			
Surface Area Landscape	20% of total parking area	Applicant to provide the exact area	NO
Interior Landscape	10 sf per parking space not in a garage; 150 sf required	Applicant to provide exact area	NO
Setback			
Front	5' minimum, 25' maximum	20'	YES
Rear	7.5'	7.5'	YES
Side	5'	Greater than 5'	YES
Height	40 ft.	28'2 3/4" for south building; 39'8" north building	YES
Parking	1.5 per unit + 1 guest space per 5 units; 24 required	26	YES
Sidewalk	CR 135 exempted	None	N/A
Bike Parking	3 spaces	4 spaces	YES
Trash Enclosure	Required to be enclosed	Enclosed	YES
Architectural Elements	Four sided, 5 elements	Five elements on each side	YES
Storage	1 cubic ft per 3 square feet floor area per unit (4,700 cubic feet required total)	Applicant to provide the exact volume	NO
Affordable Housing	3 resident-occupied, 1 income-restricted	3 resident-occupied, one of which to be deed-restricted to households earning 100% AMI	YES

Site Layout and Building Design (Section 070.040.080)

Section 070.040.080 Residential Site and Building design provides standards for multi-family developments related to building orientation, architectural elements, heights, and façade articulation. This proposed project meets the requirements such as four-sided design, building

height, colors, material, and orientation.

Building Materials

The primary exterior building materials will be cement board, wood lap siding, and shiplap wood siding. The wood siding is proposed to include various stain colors. These are approved primary materials. Accent materials include corrugated metal siding, cement board, and asphalt shingles. However, Staff believes the amount of corrugated metal siding proposed on two sides of the south building adjacent to the courtyard go beyond what could be considered “accent” materials and actually constitute a primary material. A condition of approval has been included requiring the corrugated metal siding on these two elevations, the north and south elevations of the courtyard, to be changed, or for this material to receive Director approval.

Building Color

Code requires that the predominant exterior colors on a multi-family building be earth tones to minimize visual impact. The proposed materials comply with this requirement.

Building Orientation

Code requires that all units with frontage along the primary street shall have an entrance that faces the street. In the south building, all entrances either front County Road 135 (the primary road) or the interior courtyard. In the north building, only one unit has street frontage (Unit A), and it has an entrance facing the street. The other units in the north building have entrances facing the interior courtyard.

Transitions to Existing Residential

For new residential structures adjacent to existing residential dwellings, several design standards must be met that are contained in section 070.40.080(e)(8). These standards are aimed at minimizing use impacts to the maximum extent feasible from loading and areas of movement, sources of audible noise, windows, and outdoor living spaces. While one outdoor patio is partially adjacent to an existing home, it is placed in the rear and beyond of the existing home. No other similar use impacts are expected, and Staff believes this achieves the goal of minimizing use impacts to the maximum extent feasible.

The code also requires at least three specific methods of mitigating building height transitions to existing residential structures. Staff believes this project meets the required number of mitigation techniques by utilizing variations in building and roof form that make the scale comparable to existing homes along shared property line, utilizing a similar roof pitch to existing structures, and utilizing sloping roofs to accommodate upper stories.

Lot Standards

The M1 Zone District does not have a minimum lot area requirement.

Lot Coverage

This project is not infill residential, as defined in the development code, because the M1 zone district is not considered a residential district (though residential uses are allowed). Therefore, the requirements for maximum lot coverage included in infill development requirements do not apply.



Left: Rendering of south building. Right: Rendering of north building.

Common Open Space

Code requires 20% of the site be common open space. The required amount of common open space is 6,074 square feet. Required buffer and landscape areas can count towards this amount, but interior parking lot landscaping areas cannot. The total amount of common open space is 9,100 square feet, which meets code requirements.

Landscaping

For a property zoned CO Commercial the Code requires that 15% of the entire site be landscaped. The total amount of required landscaped area is 4,556 square feet. The proposed development will have 10,970 square feet of landscaping, which meets the requirement. Requirements for planting by type is found in the table below.

Plant Material	Code Requirement	Required	Provided	Meets Req.
Trees	1 per 400 sf req. landscaped area	12	14	YES
Shrubs	1 per 100 sf req. landscaped area	46	63	YES
Perennials	1 per 50 sf req. landscaped area	92	Not provided	NO (staff has included this as condition of approval)
Street Trees	1 tree per 75 feet of street frontage	4	3	NO (staff has included this as condition of approval)

Based on required landscaped area of 4,556 sf

Planting Strip

Typically, a planting strip providing separation between street and sidewalk is required for new development. The Director may waive this requirement based on existing conditions along the block face, provided that landscape elements are used to define the edge of the property in absence of a planting strip. No planting strip and no sidewalk exist currently County Road 135. The applicant is proposing that proposed landscaping be used to define the edge of the property in absence of a planting strip. A condition of approval has been included requiring definition of the property edge through landscaping.

Tree Removal

There are several existing trees on the property that will be removed. Any existing tree with a caliper greater than 14" requires approval for removal from either Community Development Department Director or Parks & Recreation Director. The proposed landscaping plan includes a sufficient number of new tree plantings to meet requirements. If any of the trees slated for removal are evergreen trees, they will need to be removed in a manner approved for preventing the spread of the Ips beetle. This has been included as a condition of approval.

Parking Lot Landscaping

For parking lots with 20 more spaces, the Code requires that 20% of the total parking area be designated for landscaping, including 10 square feet of interior parking landscaping per parking space. The proposal calls for 15 off-street parking spaces not in garages, therefore requiring 150 square feet of interior parking landscaping. The proposed project does not specifically call out parking area landscaping, but with significantly more overall site landscaping than what is required, the landscaping that is adjacent to the parking areas is likely sufficient to meet code requirements. A condition of approval has been included requiring the applicants to verify that the landscaping requirements are met in the proposed plan.

Off-Street Parking and Loading

Section 070.030.020(e)/Table 030.1 Table of Allowed Uses contains the parking requirements for development. The code requires 1.5 parking spaces per multifamily dwelling unit and one guest space per five multifamily dwellings. This plan proposes 26 parking spaces, which exceeds the required 24 spaces. The code also provides a maximum number of parking spaces allowed, which at 125% of the minimum spaces, means a maximum of 30 spaces.

Section 070.040.060(f)(2) outlines the amount of bicycle parking required. For a development with fewer than 50 vehicle spaces, three bicycle spaces are required. This plan includes four bicycle spaces, but with some confusion about the location of these bicycle parking, as it is labeled both next to the trash enclosure and near the front of the north building. These bicycle parking spaces must be distributed between the north and south building. Staff recommends the courtyard of the south building and a location near the parking spaces and stairs in the north building for bicycle parking. A condition of approval has been included requiring clarification of the bicycle parking location and to distribute the bicycle parking between the two buildings.

Access and Circulation

Access to both the north and south buildings will come from County Road 135. A driveway entrance will service the carports, garages, and surface parking for both the north and south building. No engineering variances are requested.

County Road 135 a street designated by City Council to only have sidewalk on one side, which will be the east side of the street. As such, this project does not include sidewalk as it is on the west side of the street.

Traffic Impact

The applicant has submitted a Traffic Impact Study for the proposal. The study found that the project could increase weekday trips by about six trips per day. The projected traffic volume increase does not require a CDOT access permit.

Drainage and Geotechnical

The applicant has submitted all required reports for drainage and geotechnical reports. The Engineering Department has flagged several questions and minor required changes to the plans. A condition of approval has been included that the applicants address all concerns from the Engineering Department before approval of Final Plans.

Community Housing

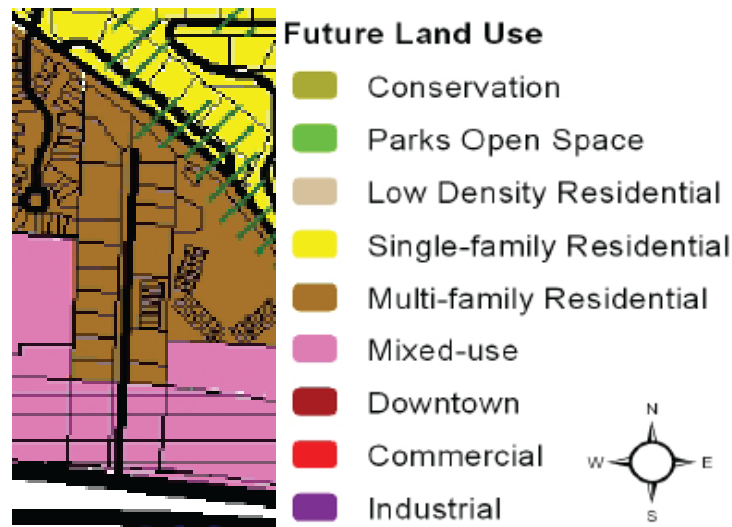
Section 070.045.70 provides for requirements for all residential and mixed-use developments proposing the construction of ten or more new dwelling units or residential lots. These requirements do apply to this development. This development is required to provide three units (20% of the 14 total units) deed-restricted for resident-occupied community housing and one unit (10%) deed-restricted to incomes no higher than 100% AMI, which the project does.

Additionally, the City's Housing Guidelines requires that the mix of bedroom configuration in community housing units closely mirror the mix of bedroom configurations in the market rate units. Using a formula provided in the Housing Guidelines, the required number of bedrooms in community housing units must be at least two. The housing mitigation plan provided by the applicants show the lone community housing unit as a one-bedroom unit, so a condition of approval has been included requiring this to be changed to at least a two-bedroom unit.

COMPREHENSIVE PLAN COMPATIBILITY

Below is staff's analysis of the proposed project and its compatibility with the Comprehensive Plan.

The subject property is shown on the Future Land Use Map in the Comprehensive Plan as Multi-family Residential, which is compatible with the proposed development.



The table below describes how the proposed project supports specific goals from the Comprehensive Plan.

Comprehensive Plan Goal Supported	Objectives and Strategies
Promote long-term, sustainable, diverse, economic development	Direct development into a compact form: infill and redevelopment
Staff Comment: This application supports the goal above because the application proposes redeveloping and adding density to an existing lot. An important component of economic development is attractive and affordable housing for the region's workforce. The proposed development may represent an upgrade to the older housing stock on the lots, but it is not clear if it would be more affordable.	
Address transportation and provide multiple convenient travel choices	• Direct development into a compact form: infill and redevelopment • Encourage reduction of single occupant vehicles and encourage alternate travel modes through land use planning and community design
Staff Comment: The project and project location may facilitate walkability and is an alternative to growth that might consume open space. However, it is also a design with more automobile parking than required and features bicycle parking less prominently than what could be achieved.	
Direct development to locations and building forms that are cost effective to serve	• Direct development into a compact form: infill and redevelopment • Direct growth to areas where utilities and services can be provided efficiently • Direct growth inward
Staff Comment: This project is infill redevelopment and is an area to which the City already provides services.	
Provide housing opportunities for the entire community	• Direct development into a compact form: infill and redevelopment

	• Encourage greater variety in housing variety and affordability throughout the community • Require good design for mixed-use and higher density project
Staff Comment: The proposal is compact redevelopment, provides garages or carports to most residents, and provides three resident-occupancy deed restrictions and one community housing unit.	
Support social diversity	• Direct development into a compact form: infill and redevelopment • Encourage greater variety in housing types and price • Encourage housing variety and affordability throughout the community • Require good design for mixed-use and higher density projects • Direct growth inward
Staff Comment: Social diversity is supported by the presence of a variety of housing types, features, and price points. Infill development can promote community integration. This is an infill project and provides garages or carports, which not all multifamily development in Glenwood recently has done. The proposed density is less than that of other multifamily projects recently approved.	
Preserve natural resources	Direct growth inward
Staff Comment: Directing growth inwards through redevelopment, rather than growth on undeveloped land, helps preserve open space and wildlife habitat.	

SITE/ARCHITECTURAL PLAN REVIEW APPROVAL CRITERIA

A Minor Site/Architectural Plan Review application must adhere to the approval criteria outlined in Section 070.060.050(a)(6) of the code as outlined below. Staff analysis follows each criteria.

- a. The site/architectural plan is consistent with the general purpose and intent of this Code;*

Staff believes the proposed development is consistent with the general purpose and intent of the code.

- b. The site/architectural plan is consistent with the dimensional, design, development, and all other standards of this Code;*

The following items are not consistent with the code as proposed: the community housing unit assignment, the amount of storage, the amount of parking area designated for landscaping, the location and number of street trees, amount of total interior parking area designated for

landscaping, the number of perennial plantings in the landscape plan, and the primary material of two elevations. Staff has recommended conditions of approval that, if adhered to, will result in consistency with the code.

- c. The site/architectural plan is consistent with any previously approved plat, PUD, or any other precedent land use approval;*

A previously-approved plat shows an easement that interferes with the proposed building layout, but Staff has included a condition of approval that, if adhered to, will solve this inconsistency by shifting the easement to the proposed parking area. Staff does not believe this project runs counter to any other previously approved project.

- d. The site/architectural plan is consistent with the Comprehensive Plan and other adopted City policies and plans.*

As discussed above the current proposal is in compliance with both the Future Land Use map contained in the Comprehensive Plan and the goals and objectives of the Comprehensive Plan.

REVIEWING AGENCY COMMENTS

An overview of any comments received from referral agencies is provided below. Comments are also attached with application information.

Engineering Department – The Engineering Department has numerous comments that are included in full as part of this packet. They note that a grading permit will be required. The Engineering Department also has several minor questions and concerns with the plan that can be likely be addressed without significant project redesign. A condition of approval has been included requiring the applicants to address these concerns at the time of Final Plan Review.

Public Works, Water, Wastewater, Electric –Comments submitted by these departments are included in the packet. They include concerns about a proposed drywell, recommendations for minor adjustments of easements, a request to work with the property owner to underground the overhead electric line, and a request to coordinate final layout with the City.

West Glenwood Springs Sanitation Department – Comments submitted indicated that they have capacity to take on the development and that they should plan to abandon the existing sewer taps as part of the project scope.

ACTION ALTERNATIVES AND STAFF RECOMMENDATION:

The Planning and Zoning Commission may approve, approve with conditions, or deny the Minor Site & Architectural Plan and the variance. The Commission may also continue the hearing with a request for specific information necessary to determine compliance with the Municipal Code and city goals and policies.

Action 1 – Minor Site & Architectural Plan –Minor Site & Architectural Plan for development of a 14-unit multifamily residential building.

Staff Recommendation/Suggested Motion

Staff recommends **approval** of the Minor Site & Architectural Plan with the following **findings and conditions**:

Suggested Findings:

1. The site/architectural plan is consistent with general purpose and intent of the Code;
2. The site/architectural plan is consistent with dimensional, design, development, and all other standards of this Code;
3. The site/architectural plan is not in conflict with precedent land use approvals; and
4. The site/architectural plan is consistent with goals and objectives of the Comprehensive Plan

Suggested Conditions

1. All water and wastewater utilities proposed for this project beyond the mainline connections within CR 135 will be considered private and not maintained by the City. The 4" water valves and sewer wye connections will be considered the private/public delineation points for GWS Water and most likely WGSSD.
2. All sanitary sewer lines, sewer laterals, water mains and water services shall have a tracer wire installed per State regulations.
3. The water and electric details need to follow City standards details at the City of Glenwood Springs Engineering Department website, Engineering Standards.
4. The onsite fire hydrant will require a 15' easement centered on the hydrant so the City can access that hydrant location. The City owns and maintains all fire hydrants, leads, and valves. The lead on this site will be the 6" line from the hydrant valve to the hydrant; the remaining 6" to 4" line, tees, bends, and valves will be considered the private service.
5. All services that are to be used for combined fire sprinkler/domestic water must be designed and constructed to NFPA24 requirements, testing requirements and will be considered private. Designs need to show in detail thrust blocks and calculations, restrains, etc.
6. Prior to issuance of building permit, the applicants shall submit a detail for the fire riser room that shows fire/domestic services, meter and backflow installation.
7. Verify that the West Glenwood Springs Sanitation District approves the proposed sewer service plan.
8. Domestic water service will require a backflow. The backflow cannot be located below grade and must have proper drainage.
9. The City would like to work with the developer to potentially underground a portion of the overhead electric along the west boundary. At a minimum, the applicants shall run one 6" and one 2" electrical conduit out of the transformer vault to the south property line and to the north property line and land them in pull boxes.
10. For Final Plans Review, the utility plan shall be updated to show the existing overhead electric lines and a note about how the poles will be stabilized during construction if the foundation digs or grading plans affect their stability.

11. Applicants shall be responsible for cost associated with line extensions and/or relocations through the right-of-way or property and all infrastructure for the new development. The City of Glenwood Springs Electric Department Costing Proposal shall be paid in full prior to any work commencing. Any additions to the proposal will be due at time of completion of work or any saving will be funded at time of completion of work.
12. The applicants are recommended to install a 2" conduit from the transformer location to the buildings for a City CBN fiber to be brought to the buildings if another source of data and phone service is desired for this facility beyond the T&C lines shown on the plans.
13. Developer to supply a Load Calculation form to the City of Glenwood Springs Electric Department for each set of buildings at Final Plan Review.
14. The Applicant shall coordinate with the City to determine the final service layout, transformer locations and site planning.
15. The Applicant shall be responsible for all trenching, including the line extension trenches to new transformer locations, electric primary and secondary conduit installation, electric pull vaults and transformer vaults.
16. The applicants shall work with the Engineering Department on stormwater, asphalt removal and replacement, and other design criteria.
17. Applicants shall provide details as part of Final Plans Review for the storm drain lines and how they interact with the curb line. Storm lines that exit through curb or a scupper will be considered a portion of the private storm sewer system and will be maintained by the owner. Curb replacement shall also be the responsibility of the owner.
18. The applicants shall provide detail for the 6" storm pipe on the south end of the property at Final Plans Review.
19. The applicants and their team shall work with the City to verify appropriate and safe design of the drainage system.
20. As part of Final Plans Review, revise landscaping plan to meet code requirements in the following ways:
 - a. Include the required number of perennial plantings
 - b. Denote the total amount of parking area landscaping in an amount equal or greater to code requirements
 - c. Denote the total amount of interior parking area landscaping in an amount equal or greater to code requirements
 - d. Include street trees meeting the quantity and location requirements in the development code
 - e. Provide detail about ground cover in between plantings
 - f. Include a planting strip in the area shown in the plans as between the front property line and the proposed curb and gutter.
21. The required community housing unit shall be a unit with at least two bedrooms.
22. The south building's elevation profiles for the south and north courtyard shall be modified to reduce the amount of corrugated metal so as to be an accent material and not a primary material of these two elevation profiles.
23. The plans shall be revised to show storage calculations for each unit in amounts meeting code requirements.
24. The location of the bicycle parking shall be clarified in the Final Plans Review application and shall distribute bicycle parking between the two buildings.
25. The Applicants shall pay the fee-in-lieu or dedicate land as required to the Roaring Fork

School District.

26. The Applicants shall receive an approval and record a final plat consolidating the two lots prior to issuance of a building permit. This plat shall also shift all utility easements so that no permanent structure is constructed on an easement and so that the easement gives access to the transformer near the west property boundary.
27. For Final Plan Review, applicant shall provide all information and all changes requested in project comments dated June 23, 2022.
28. Prior to submitting a building and/or grading permit, the owner shall request and receive approval to remove all trees with caliper greater than 14.”
29. The owner shall comply with recommendations identified in the technical reports submitted as part of the application, including but not limited to the drainage report and subsoil study.
30. If any trees slated for removal are evergreen trees, they will be removed in a manner approved by the Parks and Recreation Department in order to prevent the spread of the Ips beetle.
31. The Final Plan Review application shall address all questions and concerns raised by the Engineering Department as communicated through attached letter dated June 23, 2022.
32. The development shall comply with the requirements of the Code. Any future physical changes or improvements to the property or buildings are subject to the review and approval of the Community Development Director for compliance with applicable requirements of the Glenwood Springs Municipal Code.
33. The owner shall comply with all verbal representations made in the public hearings, as outlined in all application materials, and/or as revised per conditions herein and approved by the Community Development Director
34. At the time of Final Plan Review the owner shall submit all required civil and architectural plans and related reports that demonstrate compliance with Code requirements and the Engineering Standards, including applicable comments provided by staff.
35. Prior to issuance of the building permit, the owner shall:
 - a. Submit and record a deed restriction agreement for all units satisfying Section 070.045.070, Community Housing Standards, for all Resident Occupied and deed-restricted units to the satisfaction of the City or its designee.
 - b. Pay all required system improvement fees including but not limited to water, sewer, parkland, school land, and Fire/EMS.

ALTERNATIVE MOTION

***A member of City Council has requested that land use applications include suggested motions for both approval and denial. In most instances, staff has worked diligently with the applicant to address requirements outlined in the *Glenwood Springs Municipal Code* (Code) applicable to any given proposal. Therefore, we are usually in support of an application by the time it reaches the Planning and Zoning Commission and/or City Council. However, if the Planning and Zoning Commission does not believe the application meets the Code’s minimum standards, your denial motion should be based on one or more of the same approval criteria applicable to the application. You should support your findings with information outlining the shortcomings of the request as shown in the example below:

MOTION TO DENY

Action 1:

Consideration of a Minor Site/Architectural Plan review for the construction of a 14-unit multifamily building in the Mixed-Use Corridor M1 District. I move to **DENY** finding that -

1. The site/architectural plan is not consistent with general purpose and intent of the Code because **[insert reasoning]**;
2. The site/architectural plan is not consistent with dimensional, design, development, and other standards of this Code **[insert where you find inconsistencies with Code requirements]**; and
3. The site/architectural plan is not in conformance with **[insert applicable Comprehensive Plan or other City plan or policy sections here]** of the Comprehensive Plan and other City plans and policies.



LAND USE APPLICATION

City of Glenwood Springs
Economic and Community Development Dept.
101 West 8th Street
Glenwood Springs, CO 81601
970-384-6411

Ordinance Amendments		Development Permits	
☐	Rezoning	☐	Site/Architectural Plan Review
☐	Rezoning to Planned Unit Development (PUD)	☐	Administrative
☐	Annexation	☒	Minor
☐	Condominiumization	☐	Major
☐	Annexation	☐	Master Plan
☐	Street Vacation	☐	Construction Plans
☐		☐	Location & Extent
Subdivisions		☐	Right of Way Encroachment License
☐	Minor Subdivision	☐	Floodplain Development Permit
☐	Preliminary Plat	☐	Special Use Permit
☐	Final Plat	Flexibility and Relief Procedures	
☐	Vacation of Right-of-Way	☐	Variance
☐		☐	Administrative Adjustment
Other Land Use Applications		☐	Appeal
☐	Outdoor Seating	☐	

Applicant/Property Owner Information:			
Gabriel Molnar and Keith Teahen		Moltea III, LLC	
Applicant		Owner	
Owner/Builder			
Relationship to Owner		Owner	
375 Oak Run Road, Carbondale CO 81623		375 Oak Run Road, Carbondale CO 81623	
Applicant Address		Owner Address	
970-366-0379	molteallc@gmail.com	970-366-0379	molteallc@gmail.com
Phone	Email Address	Phone	Email Address

Property Information:	
175 & 185 County Road 135, Glenwood Springs, CO 81601	2185-052-00-090, 2185-052-32-002
Address	Parcel Number
Section: 5 Township: 6 Range: 89 A TR IN LOT 4 / FELL JANKOVSKY MINOR SUB	4 / 2
Subdivision	Lot and Block Number
Mixed-Use (M1)	Multifamily
Zone District	Existing Land Use

General Project Description:
Redevelopment of existing multifamily (from 6 to 14 units) with lot boundary adjustment. Project previously approved in 2017. Current project reflects improved facades and floorplans, plus provision of 3 onsite community housing units.

Signatures:		
The owner or applicant must be present at the hearing. All public hearings must be properly noticed according to G.S.M.C. Section 070.010.030. Signatures of all owners of the property must appear before the application is accepted. Partnerships or corporations may have the authorized general partner or corporate officer sign the	GABRIEL MOLNAR	9/21/2021
	Applicant	Date
	GABRIEL MOLNAR	9/21/2021
	Owner	Date

application. (Attach additional incorporation documents if necessary.) I declare under the penalty of perjury that the above information is true and correct to the best of my knowledge.		
	Owner	Date

Project Location

Parcel #'s 2185-052-00-090 & 2185-052-32-002

Lot 2, Fell Jankovsky Minor Subdivision & Lot 4, Section 5, Township 6, Range 89

175 & 185 County Road 135

Glenwood Springs, CO 81601

Owner/Representative

Moltea III, LLC

Gabriel Molnar, Principal

375 Oak Run Road

Carbondale, CO 81623

970-366-0379 / molteallc@gmail.com

Architect

Ramsey Fulton AIA, LEED AP BD+C

Principal – Bldg Seed Architects

417 Main Street, Suite B

Carbondale, CO 81623

970-340-8211 / ramsey@bldgseed.com

www.bldgseed.com

Civil Engineer

Deric J. Walter, PE

Boundaries Unlimited Inc.

923 Cooper Ave., Ste. 201, Glenwood Springs, CO 81601

(970) 945-5252 Ext 01 / deric@bu-inc.com

Contractor

Moltea III, LLC

Keith Teahen, Principal

719-588-2175 / molteallc@gmail.com

Description

WestLink comprises two parcels situated on the west side of County Road 135 near the end of the street. The parcels comprise a total of 30,369 square feet or .69 acres. The topography of the site varies between 6.13% (east property line/street frontage) and 8.5% (west property line), downward from North to South. The property has 6 existing older residences which are modular (4) and traditionally built (2). There are currently several trees on the parcels which will be replaced through development of the site planning and landscape plans. The lot is zoned M1 which allows for multifamily development as a permitted use.

Proposal:

WestLink is an updated redevelopment project which received full approval in 2017. The updates include refreshed facades with added natural light, energy efficiency considerations, 1bd changed to 2bd units, and provision of 3 community housing units.

The six existing substandard housing units on the site will be replaced with fourteen energy efficient townhome units constructed by a high-quality local builder. The units are designed with families in mind: ample square footage and bed/bath counts; all but two of the units have attached 1-car garages/carport spaces; all units have private outdoor space. The proposed unit mix is as follows:

- 1bd/1ba: 1
- 2bd/1ba: 1
- 2bd/1.5ba: 1
- 2bd/2ba: 9
- 3bd/2.5ba: 2

Three units (21% of total) will be deed restricted as R/O community housing, of which one unit will also be deed restricted to households earning no more than 100% of AMI. The current intention is for-lease units, but construction will attain the required standards to allow for condominiumization.

Living area totals approximately 14,100 NSF, with an additional 3,585 NSF of garage/storage (this includes carport area and storage). The structures have building footprints covering 10,580 sf (35%) of site area.

Including the six attached one-car garages and six carport spaces, the project will provide 26 total off-street parking spaces (with requisite handicapped and guest spaces); exceeding the required 23 spaces within the M1 zone district (1.5 per d/u + 1 guest per 5 du's).

The current updated design reflects focused attention to the new required standards, and in particular the following:

- ✓ Architectural Variety (0.70.40.080(e)(4))
- ✓ Minimum of Five (5) different architectural features (0.70.40.80(e)(5))
- ✓ Building Materials and Building Colors (0.70.40.80(e)(6)(7))
- ✓ Transitions to Existing Residential including required Height Transitions (0.70.40.80(e)(8)b.)

The project was granted several minor variances in 2017 primarily attributable to the inherent design challenges presented by the slope and narrow site shape. The site engineering and architecture have been

overhauled and modernized to meet or exceed the updated development standards as fully as possible, now resulting in only one requested engineering variance as part of the current application.

The Municipal Code in section 070.040.070 Access and Circulation allows for an exemption from the requirement that sidewalks to be installed on both sides of all arterials, collector streets, and local streets, on a limited list of local streets maintained in the Engineering Standards where the City has determined that one (1) or no sidewalk shall be installed. Per Resolution 2020-25, Appendix B, the subject's (County) Road 135 is listed an exempted street – 'Sidewalk on one side'. All of the properties on the east side of CR 135 have buildings with deep setbacks from the street front allowing for parking which is situated an ample distance from the ROW. Conversely, on the subject's west side, five of the six of the properties from 75 CR 135 at the bottom of the hill up to 143 CR 135 have homes much closer to the street, and thus front parking which immediately abuts the ROW. As such, installing sidewalks on the west side of the street would have minimal to no impact to each property owner's parking, whereas installation of a sidewalk on the east side would virtually remove each owner's ability to park on their property.

Summary:

Since 2016, we have worked closely with the City's various departments to address their concerns and recommendations. This collaboration led to the full approval for the project in 2017. The current updated application enhances and improves on the prior design with direction provided the newer municipal code. Notably, the architectural elements have been modernized to complement the existing streetscape with a townhome design, along with now providing a much-needed affordable housing unit.

WestLink will replace existing substandard housing with much needed high-quality housing targeted to families. As valley residents, the owner/builder team and architect respect the quiet residential setting and are proposing an updated architectural and energy conscious project. The proposal has primarily larger townhome units with garages, which adapts to the existing streetscape/neighborhood and provides a new product type which is severely lacking in our community.

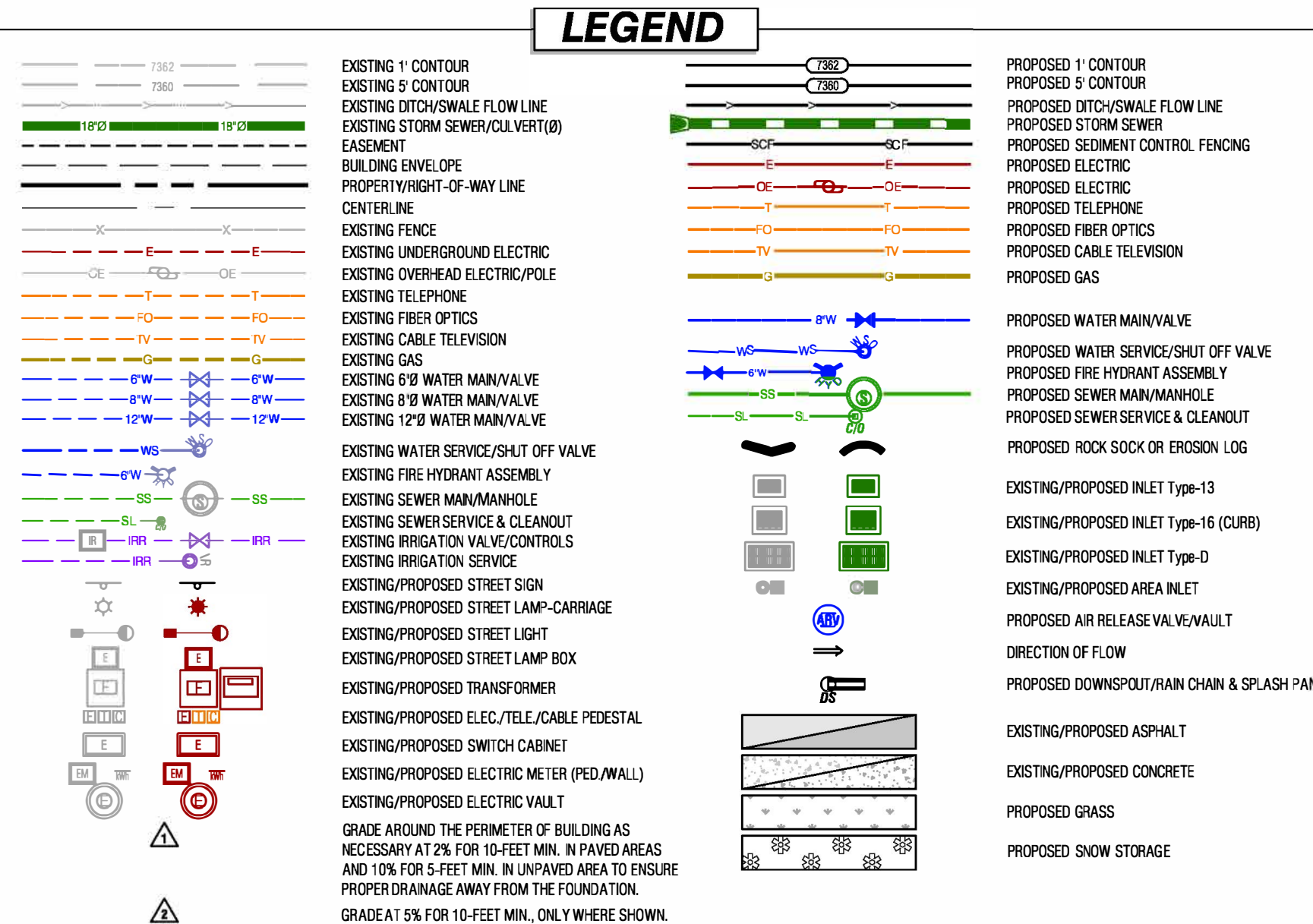
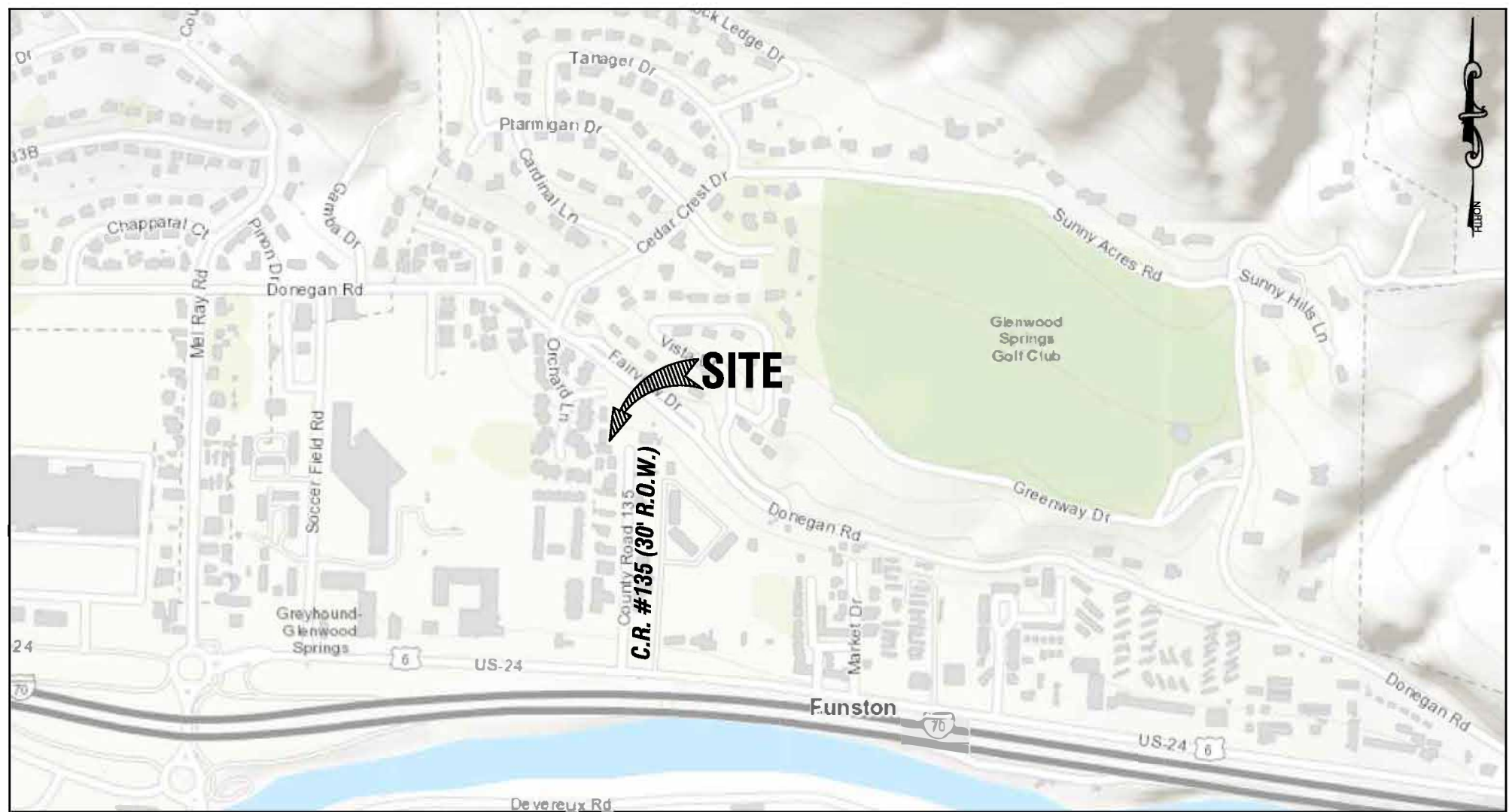
Fees

Based on the existing residences and associated meters, as part of the 2017 approval process, city planning staff provided confirmation of credit towards the required water fees. As of 2017, based on the parkland fee in lieu dedication formula the existing units provided a credit of 19 residents, resulting in a fee of \$22,274. As of 2017, based on the fire assessment fee in lieu dedication formula the existing units provide a credit of eight, resulting in a fee of \$2,967. As of 2017, based on the school land fee in lieu dedication formula the existing units provide a credit of 2.6 students, resulting in a fee of \$10,222. The current application requests an updated calculation of the noted fee credits.

PRELIMINARY PLAN FOR THE WESTLINK GLENWOOD SPRINGS, COLORADO

Lot Size Information	Project Description		Existing (Sf %)	Proposed (Sf %)
	Acres	SF		
Limits of Disturbance	0.697	30,370	5,605/19%	10,580/35%
30,370/100%		28,900/95%		
Off-Street Parking Spaces	#	Proposed	#	Proposed
	13	26	0	4
Residential Units	#	Proposed	Type	Gross Floor Area (SF)
	6	14	N/A	N/A
Open Space	Existing (Sf %)	Proposed (Sf %)	Total Landscaped Area	Proposed (Sf %)
	8,900/29%	9,100/30%	16,601/54%	10,970/36%
Building Height	Existing (Ft)	Proposed (Ft)	Total Impervious Area	Proposed (Sf %)
	30	39'-8" Max	13,769/46%	19,400/64%
Snow Storage	Existing (Ft)	Proposed (Ft)	Other	
	1,700	480		

Sheet #	Sheet Title
C.1	Cover Sheet
C.2	Underground Piping Plan
C.3	Grading & Drainage Plan
C.4	Civil Details - Site Water & Sewer
C.5	Civil Details - Site Electric
C.6	Civil Details - Site
V.1	Topographic Survey Map



NOTES:

THIS PLAN SET IS INTENDED TO BE PLOTTED IN COLOR. FAILURE TO DO SO MAY RESULT IN MISSING DATA & INFORMATION CRITICAL TO THE PROJECT.

GENERAL NOTES

1. BASIS OF BEARING AND BENCHMARKS: SEE THE TOPOGRAPHIC SURVEY MAP PREPARED BY TUTTLE SURVEY SERVICES (5/16/2016).
2. BASED SOLELY UPON THE FLOOD INSURANCE RATE MAP (COMMUNITY PANEL NO. 0802051A38, DATED JANUARY 3, 1986, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, THE SUBJECT PROPERTY IS DESIGNATED AS BEING SITUATED IN ZONE C, "AREA OF MINIMAL FLOODING (NO SHADING)".
3. GEOLOGIC HAZARD DISCLOSURE: THIS PROPERTY IS SUBJECT TO GEOLOGIC HAZARDS PER THE ADOPTED MAPPING BY THE CITY OF GLENWOOD SPRINGS AND OPEN SPACE REPORT 78-10, GEOLOGIC HAZARDS FOR THE GLENWOOD SPRINGS METROPOLITAN AREA - GARFIELD COUNTY, COLORADO, PREPARED BY LINCOLN - DEVORE ENGINEERS AND GEOLOGISTS, FOR THE COLORADO GEOLOGICAL SURVEY DEPARTMENT OF NATURAL RESOURCES, STATE OF COLORADO, DENVER, COLORADO, 1978. A SITE SPECIFIC GEOLOGIC HAZARD REPORT SHOULD BE PREPARED BY A PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER PRIOR TO BUILDING PERMIT APPLICATION.
4. THE WARRANTY PERIOD SHALL BE TWO (2) YEARS FROM THE DATE OF ACCEPTANCE.
5. CONSTRUCTION WORK, ANY NOISE CREATED BY OPERATING OR CAUSING TO BE OPERATED ANY EQUIPMENT (MECHANICAL OR NON-MECHANICAL, SELF-PROPELLED OR MANUALLY MANIPULATED) USED IN CONSTRUCTION, REPAIR, ALTERATION OR DEMOLITION WORK ON BUILDINGS, STRUCTURES, STREETS, ALLEYS OR APPURTENANCES SHALL OCCUR WITHIN THE HOURS DEFINED BY THE CITY MUNICIPAL CODE.
6. IN ORDER OF PRECEDENCE, ALL CONSTRUCTION SHALL MEET OR EXCEED THE PROJECT PLANS AND TECHNICAL SPECIFICATIONS, STANDARDS ESTABLISHED IN THE LATEST EDITIONS OF THE CITY PUBLIC WORKS MANUAL AND/OR ENGINEERING STANDARDS, AND CDDT SPECIFICATIONS, AS REFERENCED HEREIN, AND BE SUBJECT TO OBSERVATION BY THE PROJECT ENGINEER, TOWN/CITY AND CDDT, AS APPLICABLE.
7. IN CASE OF A CONFLICT BETWEEN VARYING SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.
8. THE CONTRACTOR SHALL OBTAIN A COPY OF THE LATEST STANDARD SPECIFICATIONS AND DETAILS SHALL BE MAINTAINED ON THE JOBSITE AT ALL TIMES.
9. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES TWO (2) SIGNED COPIES OF THE LATEST PLANS, STANDARDS, AND SPECIFICATIONS AS APPROVED BY THE APPROPRIATE GOVERNING AGENCY AND PROJECT ENGINEER. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THESE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER, PROJECT ENGINEER, AND GOVERNING AGENCY.
10. THE CONTRACTOR SHALL AT ALL TIMES KEEP TWO (2) FULL SETS OF PROJECT DRAWINGS MARKED UP TO INDICATE THE AS-BUILT LOCATION OF SUBSURFACE UTILITIES INSTALLED AND ENCOUNTERED. ALL INSTALLED AND ENCOUNTERED UTILITIES SHALL BE TOPOGRAPHICALLY SURVEYED BY A PROFESSIONAL LAND SURVEYOR AND ASBUILT DRAWINGS SHALL BE PROVIDED IN ELECTRONIC DWG AND PDF FORM TO THE TOWN/CITY AND THE PROJECT ENGINEER UPON COMPLETION OF THE WORK. ALL SURVEY DATA SHALL BE ON TOWN/CITY COORDINATES AND DATUM.
11. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE, AND FEDERAL APPLICABLE LAWS AND REGULATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SITE SAFETY ON THE PROJECT. THIS SHALL INCLUDE THE SAFETY OF HIS OWN PERSONNEL, SUBCONTRACTORS, ALL VISITORS TO THE SITE, AND THE PUBLIC. ALL JOB SITE SAFETY SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL, REGULATIONS AND CODES, AND ENSURE COMPLIANCE INCLUDING, BUT NOT LIMITED TO, THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
13. THE CONTRACTOR SHALL CONTACT ONE CALL OF COLORADO AT #811 (1-800-922-9887) FOR THE MARKING OF MEMBER UNDERGROUND UTILITIES (www.onecall.org) A MINIMUM OF SEVEN (7) DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) IN ADVANCE OF ANY EXCAVATION.
14. EXISTING TOPOGRAPHY, STRUCTURES AND SUBSURFACE UTILITY ENGINEERING (SUE) MAPPING SHOWN ON THESE PLANS WERE PROVIDED BY OTHERS AND WERE NOT VERIFIED BY BOUNDARIES UNLIMITED INC. THEREFORE, BOUNDARIES UNLIMITED, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING TOPOGRAPHY, STRUCTURES OR UTILITIES.
15. ALL MATERIALS SHALL BE NEW UNLESS OTHERWISE INDICATED IN THE PLANS, AND SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER, PROJECT ENGINEER, TOWN/CITY AND CDDT, AS APPLICABLE.
16. LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS TO BE REMOVED (OR AVOIDED) BY THE PROPOSED WORK SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE PROJECT ENGINEER ANY DISCREPANCIES BETWEEN HIS MEASUREMENTS AND THESE PLANS.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES SHOWN IN THE PLANS AND/OR DISCREPANCIES. THE CONTRACTOR SHALL NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES. ANY MISSING DIMENSIONS OR DISCREPANCIES IN PLANS, FIELD STAKING, OR PHYSICAL FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER. IF THE CONTRACTOR PROCEEDS WITH THE WORK WITHOUT NOTIFYING THE PROJECT ENGINEER, HE DOES SO AT HIS OWN RISK.
18. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL QUANTITIES, AND SHALL PROVIDE ALL WORK AND MATERIALS NECESSARY TO CONSTRUCT THE PROJECT IN ITS ENTIRETY.
19. THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT DESIGNED FOR REMOVAL AND THOSE IMPROVEMENTS THAT ARE OUTSIDE THE LIMITS OF THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE THERE TO AND SHALL PROVIDE TEMPORARY FENCING, BARRICADES, SUPPORTS, RESTRAINTS, AND/OR BRACING WHERE REQUIRED TO PROTECT EXISTING IMPROVEMENTS. DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPAIRED AND/OR REPLACED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
20. ALL GRADING AND CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO THE OWNERS' PROPERTY, PUBLIC RIGHT-OF-WAY, PERMANENT EASEMENTS, AND TEMPORARY CONSTRUCTION EASEMENTS. THE CONTRACTOR SHALL NOT OPERATE OUTSIDE THIS AREA WITHOUT THE PRIOR CONSENT OF THE PROPERTY OWNER INVOLVED. ANY DAMAGE TO PRIVATE PROPERTY BY THE CONTRACTOR OUTSIDE THESE LIMITS WITHOUT THE PERMISSION OF THE PRIVATE PROPERTY OWNER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT OBTAINABLE BY THE OWNER OR OWNER REPRESENTATIVES, AND PAY ALL FEES REQUIRED BY THE CONSTRUCTION COVERED IN THESE PLANS.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS NECESSARY FOR STREET CLOSURES, OBSTRUCTIONS TO TRAFFIC, AND UTILITY SHUT-OFFS.
23. THE CONTRACTOR IS RESPONSIBLE FOR ALL SITE SECURITY AND SHALL PROPERLY PROTECT AND BARRICADE THE CONSTRUCTION SITE UNTIL CONSTRUCTION IS COMPLETE. STORAGE, LOSS DUE TO THEFT, OR VANDALISM OF MATERIALS AND EQUIPMENT (SECURED OR UNSECURED) WILL BE SOLELY AT THE CONTRACTOR'S EXPENSE.
24. PRIOR TO BEGINNING THE WORK, THE CONTRACTOR SHALL OBTAIN ANY WRITTEN AGREEMENTS FOR INGRESS AND EGRESS TO THE WORK FROM ADJACENT PRIVATE PROPERTY OWNERS. ACCESS TO ANY ADJACENT PRIVATE PROPERTY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD, DURING ALL HOURS OF OPERATION FOR THE BUSINESS LOCATION ON THOSE PARCELS.
25. FOR ANY CHANGES OR DEVIATIONS FROM THESE PLANS PROPOSED BY THE CONTRACTOR, SHOP DRAWINGS AND MATERIAL SPECIFICATIONS SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF MATERIAL.
26. THE CONTRACTOR MUST COORDINATE ALL CONSTRUCTION WITH THE OWNERS DEDICATED CONSTRUCTION PROJECT MANAGER OR THE ENGINEER.
27. CONTRACTOR SHALL PROTECT AND PRESERVE ALL SURVEY CONTROL AND PROPERTY MONUMENTATION. ANY DAMAGED MONUMENTS SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE PROJECTS STATE AT THE CONTRACTOR'S EXPENSE.
28. PRIOR TO MOVING OFF THE JOB SITE THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE OWNERS CONSTRUCTION PROJECT MANAGER TO PERFORM THE FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.
29. TEMPORARY POWER, TELEPHONE, WATER, SANITARY AND WASTE DISPOSAL SERVICE FOR THE SITE IS THE CONTRACTOR'S RESPONSIBILITY UNLESS OTHERWISE SPECIFIED.
30. CONTRACTOR SHALL REFER TO OTHER DRAWINGS ISSUED BY ARCHITECT, STRUCTURAL, ELECTRICAL, AND MECHANICAL ENGINEERS, ENSURE COORDINATION OF EXISTING LOCATION AND DIMENSIONS OF BUILDINGS, EXITS, RAMPS, UTILITY ENTRANCE LOCATIONS AND GRASSES AROUND THE BUILDING. IMMEDIATELY NOTIFY THE PROJECT ENGINEER IF THERE ARE ANY DISCREPANCIES.
31. NO BELOW GRADE WORK SHALL BE BACKFILLED INCLUDING BEDDING MATERIAL ABOVE THE SPRING LINE OF THE PIPE) UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE APPROPRIATE GOVERNING AGENCY PROJECT ENGINEER AND/OR OWNERS CONSTRUCTION PROJECT MANAGER. INSPECTIONS SHALL BE SCHEDULED AT LEAST FORTY EIGHT (48) HOURS PRIOR.

32. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL NECESSARY TO COMPLETE THE WORK. ALL TRAFFIC CONTROL DEVICES AND METHODS OF CONTROLLING TRAFFIC THROUGH CONSTRUCTION ZONES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND ALL REVISIONS THERETO INCLUDING LOCAL AND STATE SUPPLEMENTS. ADDITIONAL WORK IN THE RIGHT-OF-WAY OR TRAFFIC CONTROL PERMITS MAY BE NECESSARY AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
33. FOR ANY CONSTRUCTION ACTIVITY WITHIN A RIGHT-OF-WAY, CONTRACTOR SHALL PROVIDE ALL WARNING LIGHTS, SIGNS, BARRICADES, FLAG MEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSTRUCTION ZONE TRAFFIC CONTROL. A CONSTRUCTION TRAFFIC CONTROL PLAN MUST BE SUBMITTED FOR REVIEW AND APPROVAL TO THE TOWN/CITY AND PROJECT ENGINEER, 5 BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION WITHIN A PUBLIC RIGHT-OF-WAY.
34. CONTRACTOR SHALL DESIGNATE A CERTIFIED TRAFFIC CONTROL SUPERVISOR (TCS) TO MANAGE CONSTRUCTION SIGNAGE AND SAFETY OF OPERATIONS DURING ACTIVITIES WITHIN THE RIGHT-OF-WAY. A TRAFFIC CONTROL SUPERVISOR SHALL BE AVAILABLE WHENEVER WORK IS IN PROGRESS.
35. IF UNANTICIPATED HAZARDOUS MATERIALS OF ANY KIND ARE ENCOUNTERED IN THE WORK, THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL CONSTRUCTION OPERATIONS AND NOTIFY THE PROJECT ENGINEER AND/OR OWNERS CONSTRUCTION PROJECT MANAGER FOR FURTHER DIRECTION.
36. ALL DEBRIS RESULTING FROM CONSTRUCTION AND DEMOLITION SHALL BE HAULED OFF SITE AND DISPOSED OF PROPERLY AND LEGALLY AND SHALL BE CONSIDERED PART OF THE WORK.
37. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES IN ALL DIRECTIONS. DRAINAGE FACILITIES MAY NEED TO BE CONSTRUCTED & MAINTAINED AS NECESSARY TO PROTECT PUBLIC & PRIVATE PROPERTY.
38. ALL CONSTRUCTION SHALL BE SUBJECT TO OBSERVATION AND REVIEW BY THE TOWN/CITY AND THE PROJECT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF OBSERVATIONS AND REVIEW OF ALL INSTALLATIONS, OBSERVATIONS AND REVIEW OF CONSTRUCTION WORK IN PROGRESS ARE NOT TO BE CONSIDERED AS A GUARANTEE OR WARRANTY BY THE OBSERVER OF THE COMPLETED WORK. ALL GUARANTEES OR WARRANTIES REMAIN WITH THE CONTRACTOR.
39. ALL DISTURBED AREAS MUST BE RECLAIMED WITH VEGETATION AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT OR OWNERS CONSTRUCTION PROJECT MANAGER.
40. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO SIGNIFICANTLY REDUCE POTENTIAL POLLUTION FROM CONSTRUCTION ACTIVITIES, INCLUDING VEHICLE FUELING & MAINTENANCE, AND STORAGE AND USE OF CHEMICALS & FERTILIZERS. THE CONTRACTOR SHALL IDENTIFY BEST MANAGEMENT PROCEDURES FOR HANDLING POTENTIAL POLLUTANTS AND SUBMIT SPILL PREVENTION AND RESPONSE PROCEDURES TO THE TOWN/CITY AND PROJECT ENGINEER PRIOR TO ANY ACTIVITY AT THE PROJECT SITE.
41. THE CONTRACTOR SHALL VERIFY EXISTING PIPE OR MANHOLE INVERTS/DEPTHS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
42. ALL PRODUCT INFORMATION SHOWN IS AS PROVIDED BY THE MANUFACTURER. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND COMPLYING WITH THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS FOR THE INSTALLATION OF ALL MATERIALS WITH SPECIAL ATTENTION TO PROPER SEALING OF MATING SURFACES. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER IF ANY DISCREPANCIES ARE FOUND BETWEEN THE DELIVERED PRODUCTS AND THOSE SHOWN ON THIS PLAN.
43. ALL SIGNS REMOVED FROM THE RIGHT-OF-WAY WILL BE RETURNED TO THE CITY OR STORED ON-SITE. CONTRACTOR TO RECORD PHOTOS OF THE AREA AND REINSTALL SIGNS THAT ARE REMOVED DURING CONSTRUCTION.
44. ANY MUD OR OTHER MATERIAL TRACKED OR OTHERWISE DEPOSITED ON THE ROADWAY SHALL BE REMOVED DAILY OR AS ORDERED BY THE DEPARTMENT INSPECTOR.
45. THE CONTRACTOR SHALL PROVIDE ON-SITE SANITARY FACILITIES.
46. THE CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS TO AFFECTED PROPERTY OWNERS AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST.
47. ADDITIONAL NOTES ARE LOCATED THROUGHOUT THE CONSTRUCTION DOCUMENTS.

DEMOLITION NOTES

1. PRIOR TO BEGINNING, CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA AND ANTICIPATED DEMOLITION REQUIREMENTS.
2. CONTRACTOR TO PROTECT ALL UTILITY, PAVING, BUILDINGS, ETC. OUTSIDE OF LIMITS OF PROPOSED CONSTRUCTION DURING DEMOLITION OPERATIONS.
3. ALL EXISTING PAVEMENT AND CONCRETE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.
4. ALL EXISTING HERBACEOUS VEGETATION AND TOPSOIL SHALL BE STRIPPED TO A MINIMUM DEPTH OF 12" AND REMOVED FROM SITE OR STOCKPILED FOR LATER USE IN LANDSCAPED AREAS. TREES DESIGNATED FOR REMOVAL SHALL BE COMPLETELY REMOVED, INCLUDING STUMPS AND ROOT SYSTEMS.
5. CONTRACTOR SHALL REFER TO DEMOLITION PLANS PLANS FOR DETAILS OF LIMITS OF DEMOLITION AND THE SITE AND/OR GRADING PLANS FOR PERMITTER EROSION CONTROLS.
6. PRIOR TO DEMOLITION WORK, EROSION CONTROL DEVICES ARE TO BE INSTALLED. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS DEMOLITION AND CONSTRUCTION PROGRESS DICTATED BY THE PROJECT ENGINEER OR OWNERS REPRESENTATIVE.
7. ALL DEMOLITION WORK ON THE CONSTRUCTION SITE SHALL BE IN CONFORMANCE WITH LOCAL STANDARDS AND GUIDELINES.
8. THE DEMOLITION PLAN DEPICTS THE ANTICIPATED REMOVALS NECESSARY FOR CONSTRUCTION OF THE PROJECT. MISCELLANEOUS AND MINOR REMOVALS MAY NOT BE SHOWN IN DETAIL, BUT ARE CONSIDERED OBLIGATORY TO THE PROJECT. ADDITIONAL REMOVALS MAY BE NECESSARY AND THE CONTRACTOR WILL BE REQUIRED TO REMOVE ALL EXISTING IMPROVEMENTS THAT ARE IN CONFLICT WITH THE PROPOSED CONSTRUCTION AND AS REQUIRED BY THE PROJECT ENGINEER OR OWNERS REPRESENTATIVE.
9. CONTRACTOR SHALL COORDINATE DEMOLITION AND/OR RELOCATION OF EXISTING UTILITIES WITH THE APPROPRIATE UTILITY OWNER AND IN ACCORDANCE WITH THE UTILITY OWNERS REQUIREMENTS. INTERRUPTIONS IN SERVICE SHALL BE COORDINATED WITH THE UTILITY OWNER AND PROPERTY OWNERS. IMPACTED, CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANY FOR PORTIONS OF THE WORK TO BE PERFORMED BY UTILITY COMPANY'S FORCES, AND PROVIDE ADEQUATE NOTICE FOR SCHEDULING. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES, UNLESS OTHERWISE PAID BY THE OWNER PRIOR TO CONSTRUCTION. UTILITY REMOVAL/TRENCHES SHALL BE BACKFILLED WITH APPROVED MATERIAL AND MEET COMPACTION REQUIREMENTS PER THE GEOTECHNICAL REPORT.
10. THE SITE MAY CONTAIN EXISTING FOOTINGS OR OTHER UNDERGROUND STRUCTURES THAT ARE NOT DEPICTED ON THIS PLAN. CONTRACTOR SHALL TAKE CARE TO REMOVE ALL NECESSARY STRUCTURES AND BACKFILL IN CONFORMANCE WITH THE GEOTECHNICAL REPORT. BOTTOM OF EXCAVATION SURFACES SHALL BE INSPECTED BY THE GEOTECHNICAL TESTING ENGINEER AND APPROVED PRIOR TO ANY BACKFILL.
11. ALL EXISTING PAVEMENT, UTILITIES, BURIED DEBRIS, RUBBLE, AND/OR STRUCTURES/FOUNDATIONS ENCOUNTERED WITHIN AREAS OF DISTURBANCE SHALL BE COMPLETELY REMOVED PRIOR TO OR DURING EARTHWORK OPERATIONS. WASTED MATERIAL SHALL NOT BE BURIED ON-SITE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER OR OWNERS REPRESENTATIVE.
12. ALL EXISTING UNUSED SERVICE LINES FOR WATER AND WASTEWATER SHALL BE REMOVED PER UTILITY COMPANY STANDARDS. ALL EXISTING UNUSED GAS, TELEPHONE, FIBER OR ELECTRIC LINE/SERVICE SHALL BE COORDINATED FOR REMOVAL WITH THE UTILITY PROVIDER.
13. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL, AND DISPOSING IN A MANNER APPROVED BY ALL GOVERNING AUTHORITIES FOR ALL STRUCTURES, PILES, WALLS, PANS, FOUNDATIONS, PAVEMENT, UTILITIES, ETC. TO BE DEMOLISHED, SUCH THAT THE IMPROVEMENTS SHOWN ON THE PLANS CAN BE COMPLETED. DEMOLITION AND DISPOSAL PERMITS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO APPROVED GRADE AND BROUGHT UP TO PROPOSED GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE GEOTECHNICAL REPORT.
14. DURING DEMOLITION OPERATIONS, THE CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES USING MEANS OF THEIR CHOICE.
15. CONTRACTOR SHALL PRESERVE ALL LANDSCAPING NOT TO BE REMOVED FOR CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED BY CONSTRUCTION.
16. SAWCUT ALL ASPHALT AND CONCRETE TO BE REMOVED. SAWCUTS SHALL BE TO FULL DEPTH OF EXISTING PAVEMENT. CONCRETE PAVEMENT SHALL BE REMOVED TO THE NEAREST EXISTING JOINT WHEN LESS THAN 5' FROM A PROPOSED SAWCUT.

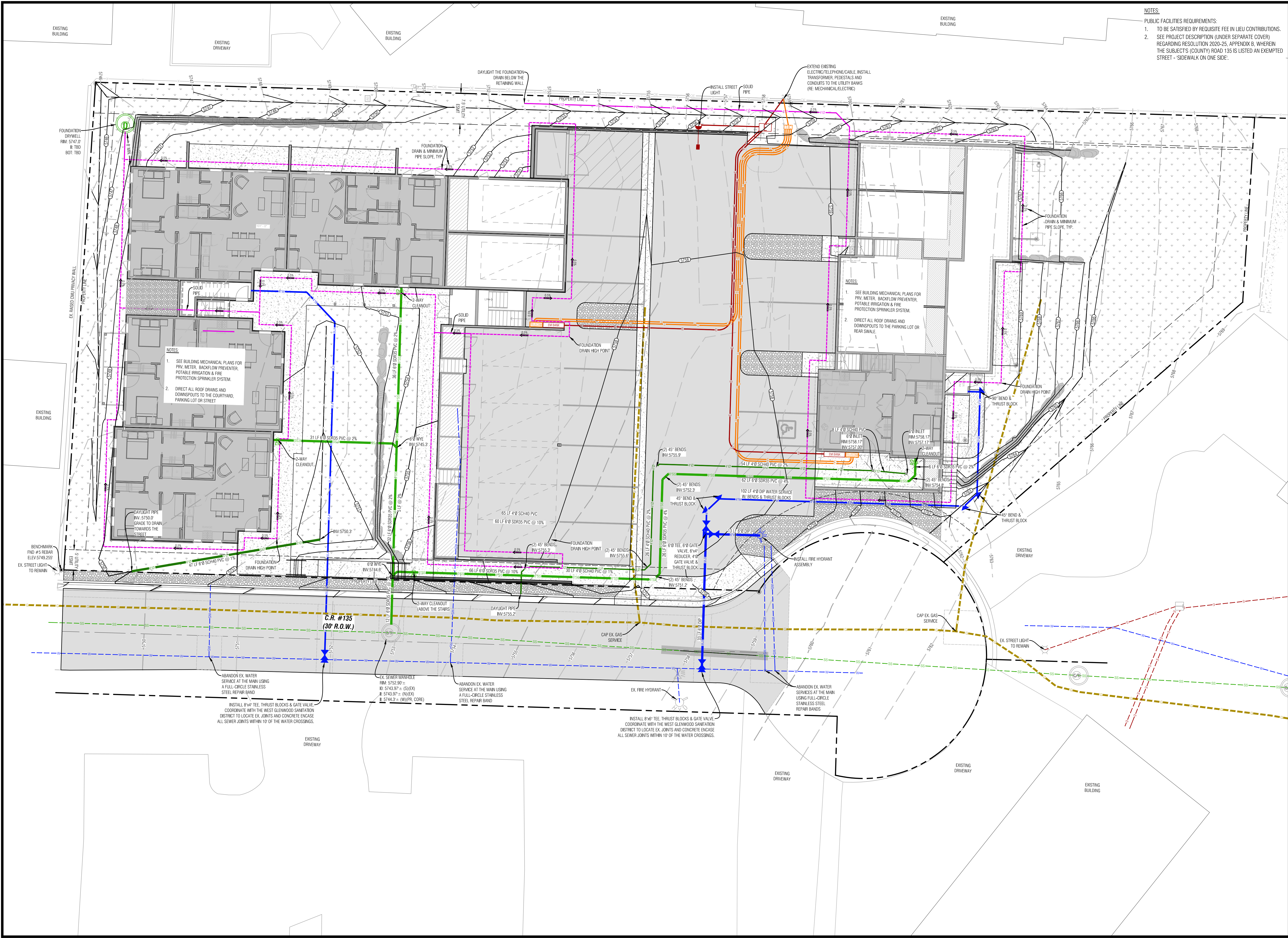
A GRADING PERMIT IS REQUIRED FOR THIS PROJECT.

STORMWATER MANAGEMENT NOTES

1. SET THE EROSION CONTROL PLANS.
 2. ROOF GUTTERS ARE REQUIRED ON ALL BUILDINGS AND DOWNSPOUTS ARE TO BE PIPED INTO THE STORMSEWER SYSTEM. ROOF RUNOFF IS NOT PERMITTED TO DISCHARGE ONTO THE GROUND SURFACE.
 3. STORM SEWER PIPE MATERIALS SHALL BE WATER TIGHT HOPE DOUBLE-WALL, SMOOTH INTERIOR PIPE (ADS N-12-W) OR ENGINEER APPROVED EQUAL. 3" SPORADIC, 4" SDR26 PVC, 6" SDR26 PVC OR 8" SDR26 PVC UNLESS OTHERWISE SPECIFIED IN THE PLANS.
 4. STORM SEWER STRUCTURES SHALL BE COMPLY WITH COLORADO DEPARTMENT OF TRANSPORTATION (CDDT) STANDARD PLANS (M STANDARD) AND/OR MILE HIGH FLOOD DISTRICT (MIFD) STANDARDS, LATEST EDITION.
 5. SOIL EROSION CONTROL FABRIC SHALL BE NORTH AMERICAN GREEN VMX P500 (PERMANENT) IN FLOW CHANNELS/SWALES AND C125 (3-LYR) ON DISTURBED SLOPES STEEPER THAN 3:1, OR ENGINEER APPROVED EQUAL.
- ### SITE PLAN NOTES
1. DIMENSIONS SHOWN ON THE SITE PLAN ARE TO FACE OF CURB LINE (FLOWING) IN CURBED AREAS, EDGE OF ASPHALT, AND EXTERIOR FACE OF BUILDING, UNLESS OTHERWISE SPECIFIED.
 2. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
- ### GRADING PLAN NOTES
1. PRIOR TO ANY GRADING OPERATIONS, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE ADEQUATELY IN PLACE. REFER TO THE EROSION AND SEDIMENT CONTROL PLAN IF PROVIDED, FOR REQUIREMENTS.
 2. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE FOR SURFACE OF PAVEMENT, TOP OF SIDEWALKS AND CURBS, TOP OF FLOOR SLABS, ETC. REFER TO TYPICAL SECTIONS FOR MULLA, SDO, PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT FOR SUBGRADE ELEVATIONS.
 3. IF APPLICABLE, ALL TOP OF CURB AND SIDEWALK ELEVATIONS SHALL BE 0.5' ABOVE GUTTER ELEVATIONS UNLESS OTHERWISE NOTED. IN AREAS WITH SIDEWALKS, CUTTING BACK OF CURB, TOP OF CURB ELEVATIONS SHALL BE EQUAL TO SIDEWALK ELEVATIONS.
 4. THE CONTRACTOR SHALL CONSTRUCT THESE GRADE SLOPES NO STEEPER THAN AS SHOWN ON THESE PLANS.
 5. SITE, UTILITY AND ROAD PREPARATION, GRADING AND EXCAVATION PROCEDURES SHALL CONFORM TO THE RECOMMENDATIONS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT PREPARED BY HEWORTH-PAWALK GEOTECHNICAL, INC. (AKA KUMAR & ASSOCIATES) DATED JUNE 8, 2016, PROJECT NO. 116-183A.
 6. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND SIDEWALKS IN CONFORMANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS OF THE PROJECT GEOTECHNICAL REPORT.
 7. IN CASE OF ANY DISCREPANCIES REGARDING EARTHWORK BETWEEN THE UTILITY REPORT AND THE SPECIFICATIONS SHOWN IN THESE PLANS, NOTIFY THE PROJECT ENGINEER AND OWNERS CONSTRUCTION PROJECT MANAGER IMMEDIATELY.
 8. THE UPPER 24" OF ALL UTILITY TRENCHES IN UNPAVED AREAS SHALL BE BACKFILLED WITH COMPACTED COHESIVE SOILS. SEE GEOTECHNICAL REPORT FOR COMPACTION AND MOISTURE REQUIREMENTS.
 9. FINAL PAVEMENT SUBGRADES SHALL BE PROOF-ROLLED WITH TWENTY FOUR (24) HOURS PRIOR TO THE PLACEMENT OF THE PAVEMENT TO DETECT LOCALIZED AREAS OF FIRMNESS AND COMPROMISES. THE CONTRACTOR SHALL BE TOUCHED UP ON-SITE WITH A MANUFACTURER APPROVED SPRAY COATING DESIGNED FOR UNDERGROUND INSTALLATIONS.
 10. ALL UTILITIES SHALL BE INSULATED AND TESTED PER CITY OF GLENWOOD SPRINGS CODES/STANDARDS.
 11. INSTALLATION, RELOCATION OR REMOVAL OF UTILITIES SHALL BE COORDINATED WITH THE CITY AND UTILITY AGENCIES AFFECTED.
 12. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AT PROPOSED POSITIONS OF HORIZONTAL AND VERTICAL CONNECTION AND CONFIRM EXACT LOCATIONS/SIZES OF ALL UTILITY SERVICE LINES PRIOR TO UTILITIES CONSTRUCTION.
 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING ON-SITE MEETINGS WITH THE TOWN/CITY, GOVERNING AGENCIES, AND UTILITY OWNERS PRIOR TO THE START OF ANY CONSTRUCTION OR INSTALLATION OF UTILITIES.
 14. THE CONTRACTOR SHALL CONSTRUCT ALL POTABLE WATER, SANITARY SEWER, ELECTRIC, GAS, TELECOMMUNICATIONS/MANAGEMENT LINES/CONNECTIONS IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE TOWN/CITY AND/OR UTILITY PROVIDER. ALL WORK AND MATERIALS WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY, PROJECT ENGINEER OR UTILITY PRIOR TO BACKFILL.
 15. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY SERVICE CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANY/OWNER, AND TO OBTAIN ALL PERMITS AND PAY ALL FEES AS REQUIRED FOR SERVICE CONNECTIONS TO UTILITY MAINS.
 16. UTILITY TRENCHES AND STRUCTURE EXCAVATIONS ARE TO BE SLOPED OR BRACED AND SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND THE PROTECTION OF OTHER UTILITIES IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL PROVIDE TRENCHING FOR ALL UTILITY SERVICE LINES.
 17. CONTRACTOR TO SET AND ADJUST ALL PROPOSED UTILITY STRUCTURES, CLEANOUTS, VALVES, METER PITS, ETC. TO FINISH GRADE OR 1/4" BELOW ASPHALT OR CONCRETE IN PAVED AREAS. EXISTING ITEMS AFFECTED BY THE WORK SHALL BE ADJUSTED AS REQUIRED TO MATCH FINISH GRADE OR 1/4" BELOW ASPHALT OR CONCRETE IN PAVED AREAS.
 18. THE CONTRACTOR SHALL VERIFY EXISTING PIPE OR MANHOLE INVERTS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
 19. SANITARY SEWER SERVICES MUST INTERCONNECT INTO SEWER MAINS, NOT AT MANHOLES.
 20. THE CONTRACTOR SHALL TEMPORARILY PILE OR COVER SEWER INVERTS AS NECESSARY TO PREVENT DEBRIS FROM ENTERING THE SEWER MAIN DURING CONSTRUCTION OF EACH INDIVIDUAL SEWER MAIN.
 21. THE CONTRACTOR SHALL BE PREPARED TO INSTALL COUPLINGS AND FITTINGS AS NECESSARY TO MAKE CONNECTIONS BETWEEN VARIOUS TYPES OF PIPE, INCLUDING BUT NOT LIMITED TO PVC, TRANSCITE, CLAY, ORANGEBURG AND DUCTILE IRON. ALL CONNECTIONS TO BE APPROVED BY GLENWOOD SPRINGS WATER DEPARTMENT.
 22. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPARTMENT TO ENSURE ADEQUATE FIRE PROTECTION IS MAINTAINED AROUND THE SITE AND ADJACENT PROPERTIES. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT-OFFS WITH THE TOWN/CITY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS EXPENSE.
 23. POTABLE WATER AND SEWER LINES AND SERVICES SHALL HAVE A MINIMUM OF 5.5 FEET COVER, MINIMUM.
 24. PROVIDE 10 FEET MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY/STORM SEWER MAINS AND SERVICES WHERE POSSIBLE. WHERE THIS SEPARATION CANNOT BE MAINTAINED ENCASE PER COLORADO DEPARTMENT OF HEALTH REQUIREMENTS, ALL PIPE JOINTS LOCATED WITHIN 10 FEET OF A WATER AND SANITARY/STORM CROSSING SHALL BE ENCASED IF THE WATER MAIN OR SERVICE EXISTING BELOW OR IS LESS THAN 18 INCHES ABOVE THE CROSSING SANITARY SEWER/STORM MAIN OR SERVICE.
 25. ALL TEES, (8" & 9" BENDS, PLUGS, HYDRANTS, ETC. MUST BE PROVIDED WITH CONCRETE REACTION BLOCKING AND JOINT RESTRAINTS. EXISTING VALVE & VALVE BOXES THAT ARE TO BE REMOVED ARE TO BE RETURNED TO THE TOWN/CITY.
 26. CONTRACTOR TO NOTIFY UTILITY USERS AT LEAST 72 HOURS IN ADVANCE OF ANY WATER OR SEWER SHUT DOWN. MORE NOTICE MAY BE REQUIRED FOR MAJOR CONSTRUCTION.
 27. WATER LINE BEND ANGLES ARE SHOWN AS A GUIDELINE; ADDITIONAL HORIZONTAL AND VERTICAL BENDS MAY BE REQUIRED TO MAINTAIN ALIGNMENT AND MINIMUM COVER.
 28. ALL CONDUIITS SHALL BE ELECTRIC GRADE 30" B.PVC. CONDUIITS FOR PRIMARY ELECTRIC SHALL BE INSTALLED AT LOCATIONS SHOWN WITH 48" MINIMUM COVER. CONDUIITS FOR SECONDARY ELECTRIC AND TELECOMMUNICATIONS SHALL BE INSTALLED AT LOCATIONS SHOWN WITH 24" MINIMUM COVER UNDER SIDEWALKS AND 36" MINIMUM COVER UNDER ROADWAYS. INSTALL DETECTABLE WARNING TAPE 12" ABOVE ALL CONDUIITS.
 29. THE CONTRACTOR SHALL USE CAUTION IN VICINITY OF WATER MAINS, UNDERGROUND SERVICES, SEWER MAINS, SEWER SERVICES, IRRIGATION MAINS, IRRIGATION SERVICES, GAS LINES, FIBER OPTICS, OVERHEAD OR UNDERGROUND ELECTRIC/TELEPHONE/CONDUIITS AND BUILDING STRUCTURES.

STORM SEWER NOTES

1. STORM SEWER PIPE MATERIALS SHALL BE WATER TIGHT HOPE DOUBLE-WALL, SMOOTH INTERIOR PIPE (ADS N-12-W) OR ENGINEER APPROVED EQUAL OR SDR26 PVC WITH RING-JOINT JOINTS UNLESS OTHERWISE SPECIFIED IN THE PLANS.
 2. STORM SEWER PIPE SHALL BE BEDDED, INSTALLED, AND BACKFILLED IN ACCORDANCE WITH THE DETAILS INCLUDED IN THE PLANS. MANUFACTURER'S INSTALLATION REQUIREMENTS, AND/OR STANDARD DETAILS IS INCLUDED BY REFERENCE.
 3. ALL CAST-IN-PLACE CONCRETE DRAINAGE STRUCTURES SHALL HAVE A MINIMUM 8" CM COMPRESSIVE STRENGTH OF 4,000 PSI, TYPE II CEMENT (UNLESS OTHERWISE SPECIFIED) WITH AN ENTRAINING ADMIXTURE AND SHALL CONFORM TO THE LOCAL TOWN/CITY'S SPECIFICATIONS.
 4. ALL STORM SEWER PIPE BEDDING SHALL BE WRAPPED WITH A 20 MIL PVC POND LINER AND THE SEAMS SEALED.
- ### UTILITY NOTES
1. ALL POTABLE WATER MAINS/MATERIALS AND ALL SANITARY SEWER MAINS/SERVICES SHALL BE RESTRAINED JOINT (RJ) PIPE AS FOLLOWS:
 - 1.a. POTABLE WATER (PVC C900, DR14):
 - 1.a.1. PIPE TO PIPE: INTERNAL LOCKING GASKET (M CABLE LOCK 900, OR ENGINEER APPROVED EQUAL) OR LOCKING SPLINE (CERTANTIED CERT-LOK COUPLERS OR ENGINEER APPROVED EQUAL).
 - 1.a.2. PIPE TO FITTING: MECHANICAL JOINT (MJ) RESTRAINT (EBSA RION, INC., STAR PIPE PRODUCTS, OR ENGINEER APPROVED EQUAL).
 - 1.b. SANITARY SEWER (PVC, PRESSURE CLASS 100 PSI, MINIMUM):
 - 1.b.1. PIPE TO PIPE: INTERNAL LOCKING GASKET (M CABLE LOCK 900 GREEN, OR ENGINEER APPROVED EQUAL) OR LOCKING SPLINE (CERTANTIED CERT-LOK GREEN LINE OR ENGINEER APPROVED EQUAL).
 - 1.b.2. PIPE TO FITTING: MECHANICAL JOINT (MJ) RESTRAINT (EBSA RION, INC., STAR PIPE PRODUCTS, OR ENGINEER APPROVED EQUAL).
 2. TRACER WIRE (1/2 GAUGE MIN) SHALL BE INSTALLED ATOP ALL NEW POTABLE WATER, RAW WATER, SANITARY SEWER, STORM SEWER, FOUNDATION DRAIN PIPES, LATERALS AND SERVICES.
 3. ALL INSTALLED AND ENCOUNTERED UTILITIES MUST BE TOPOGRAPHICALLY SURVEYED BY A PROFESSIONAL LAND SURVEYOR AND ASBUILT DRAWINGS PREPARED IN COMPLIANCE WITH STATE BELL, 18-87. DRAWINGS SHALL BE PROVIDED IN ELECTRONIC DWG AND PDF FORM TO THE CITY AND THE PROJECT ENGINEER UPON COMPLETION OF THE WORK. ALL SURVEY DATA SHALL BE ON CITY COORDINATES AND DATUM.
 4. THE SURVEYOR WILL NEED TO BE ADEQUATE TO LOCATE TO ALL OF ALL INSTALLED UTILITY PIPES AT CONNECTION POINTS. HORIZONTAL VERTICAL DEFLECTION POINTS AND EVERY 50' MINIMUM ALONG THE UTILITY ALIGNMENTS. TO ENABLE THE CONTRACTOR TO BACKFILL HIS CONSTRUCTION, THE CONTRACTOR WILL NEED TO INSTALL TEMPORARY REMOVABLE STEEL RODS OR WOOD PESTS (GUT) (SPECIFIC LENGTHS) IMMEDIATELY ADJACENT TO (NOT ATOP) THE INSTALLED UTILITY FOR THE SURVEYOR TO LOCATE WHEN MOBILIZED FOR STAKING OR ON A WEEKLY BASIS. THE CONTRACTOR WILL BE REQUIRED TO PROTECT THESE MARKINGS UNTIL THE SURVEYOR AND THEN REMOVE THEM AND FILL IN ANY Voids IN THE BACKFILL. MARKINGS DAMAGED PRIOR TO DATA COLLECTION WILL REQUIRE THE CONTRACTOR TO RE-EXPOSE THE UTILITY AND REINSTALL THE BACKFILL AT HIS OWN EXPENSE.
 5. ALL UTILITIES, BOTH UNDERGROUND OR OVERHEAD, SHALL BE MAINTAINED IN CONTINUOUS SERVICE THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD, EXCEPT AS APPROVED BY THE APPLICABLE UTILITY AND WITH APPROPRIATE NOTIFICATION. THE CONTRACTOR SHALL BE RESPONSIBLE OR LIABLE FOR ANY DAMAGES TO, OR INTERRUPTION OF, SERVICES CAUSED BY CONSTRUCTION.
 6. ALL SCARRED/MARKED CONDUITS ON MAIN FITTINGS AND COMPROMISES SHALL BE TOUCHED UP ON-SITE WITH A MANUFACTURER APPROVED SPRAY COATING DESIGNED FOR UNDERGROUND INSTALLATIONS.
 7. ALL UTILITIES SHALL BE INSULATED AND TESTED PER CITY OF GLENWOOD SPRINGS CODES/STANDARDS.
 8. INSTALLATION, RELOCATION OR REMOVAL OF UTILITIES SHALL BE COORDINATED WITH THE CITY AND UTILITY AGENCIES AFFECTED.
 9. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AT PROPOSED POSITIONS OF HORIZONTAL AND VERTICAL CONNECTION AND CONFIRM EXACT LOCATIONS/SIZES OF ALL UTILITY SERVICE LINES PRIOR TO UTILITIES CONSTRUCTION.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING ON-SITE MEETINGS WITH THE TOWN/CITY, GOVERNING AGENCIES, AND UTILITY OWNERS PRIOR TO THE START OF ANY CONSTRUCTION OR INSTALLATION OF UTILITIES.
 11. THE CONTRACTOR SHALL CONSTRUCT ALL POTABLE WATER, SANITARY SEWER, ELECTRIC, GAS, TELECOMMUNICATIONS/MANAGEMENT LINES/CONNECTIONS IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE TOWN/CITY AND/OR UTILITY PROVIDER. ALL WORK AND MATERIALS WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY, PROJECT ENGINEER OR UTILITY PRIOR TO BACKFILL.
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 13. UTILITY TRENCHES AND STRUCTURE EXCAVATIONS ARE TO BE SLOPED OR BRACED AND SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND THE PROTECTION OF OTHER UTILITIES IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL PROVIDE TRENCHING FOR ALL UTILITY SERVICE LINES.
 14. CONTRACTOR TO SET AND ADJUST ALL PROPOSED UTILITY STRUCTURES, CLEANOUTS, VALVES, METER PITS, ETC. TO FINISH GRADE OR 1/4" BELOW ASPHALT OR CONCRETE IN PAVED AREAS. EXISTING ITEMS AFFECTED BY THE WORK SHALL BE ADJUSTED AS REQUIRED TO MATCH FINISH GRADE OR 1/4" BELOW ASPHALT OR CONCRETE IN PAVED AREAS.
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 18. THE CONTRACTOR SHALL BE PREPARED TO INSTALL COUPLINGS AND FITTINGS AS NECESSARY TO MAKE CONNECTIONS BETWEEN VARIOUS TYPES OF PIPE, INCLUDING BUT NOT LIMITED TO PVC, TRANSCITE, CLAY, ORANGEBURG AND DUCTILE IRON. ALL CONNECTIONS TO BE APPROVED BY GLENWOOD SPRINGS WATER DEPARTMENT.
 19. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPARTMENT TO ENSURE ADEQUATE FIRE PROTECTION IS MAINTAINED AROUND THE SITE AND ADJACENT PROPERTIES. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT-OFFS WITH THE TOWN/CITY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS EXPENSE.
 20. POTABLE WATER AND SEWER LINES AND SERVICES SHALL HAVE A MINIMUM OF 5.5 FEET COVER, MINIMUM.
 21. PROVIDE 10 FEET MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY/STORM SEWER MAINS AND SERVICES WHERE POSSIBLE. WHERE THIS SEPARATION CANNOT BE MAINTAINED ENCASE PER COLORADO DEPARTMENT OF HEALTH REQUIREMENTS, ALL PIPE JOINTS LOCATED WITHIN 10 FEET OF A WATER AND SANITARY/STORM CROSSING SHALL BE ENCASED IF THE WATER MAIN OR SERVICE EXISTING BELOW OR IS LESS THAN 18 INCHES ABOVE THE CROSSING SANITARY SEWER/STORM MAIN OR SERVICE.
 22. ALL TEES, (8" & 9" BENDS, PLUGS, HYDRANTS, ETC. MUST BE PROVIDED WITH CONCRETE REACTION BLOCKING AND JOINT RESTRAINTS. EXISTING VALVE & VALVE BOXES THAT ARE TO BE REMOVED ARE TO BE RETURNED TO THE TOWN/CITY.
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 25. ALL CONDUIITS SHALL BE ELECTRIC GRADE 30" B.PVC. CONDUIITS FOR PRIMARY ELECTRIC SHALL BE INSTALLED AT LOCATIONS SHOWN WITH 48" MINIMUM COVER. CONDUIITS FOR SECONDARY ELECTRIC AND TELECOMMUNICATIONS SHALL BE INSTALLED AT LOCATIONS SHOWN WITH 24" MINIMUM COVER UNDER SIDEWALKS AND 36" MINIMUM COVER UNDER ROADWAYS. INSTALL DETECTABLE WARNING TAPE 12" ABOVE ALL CONDUIITS.
 26. THE CONTRACTOR SHALL USE CAUTION IN VICINITY OF WATER MAINS, UNDERGROUND SERVICES, SEWER MAINS, SEWER SERVICES, IRRIGATION MAINS



- NOTES:
1. PUBLIC FACILITIES REQUIREMENTS:
 2. TO BE SATISFIED BY REQUISITE FEE IN LIEU CONTRIBUTIONS.
 3. SEE PROJECT DESCRIPTION (UNDER SEPARATE COVER) REGARDING RESOLUTION 2020-25, APPENDIX B, WHEREIN THE SUBJECT'S (COUNTY) ROAD 135 IS LISTED AN EXEMPTED STREET - SIDEWALK ON ONE SIDE.

Civil Engineering
Surveying
& Beyond

Boundaries Unlimited Inc.

923 Cooper Ave., Ste. 201
Glenwood Springs, CO 81601
(771) 970.945.5252
www.bu-inc.com

Subsurface Utility Engineering (SUE)
Required Project: **No**
If "Yes", SUE Certification by:
Firm: **N/A**
Job #: **N/A**
Date: **N/A**

Engineer or Surveyor Seal

NOT FOR
Review Set
CONSTRUCTION

Client Information:
GABE MOLNAR
375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

NORTH

0 10' 20'

Scale: 1" = 10'

811

Know what's below.
Call before you dig.

GLENWOOD SPRINGS, COLORADO

Westlink

Underground Piping Plan

Preliminary Plan Set - Not For Construction

By

Revision

Date

No.

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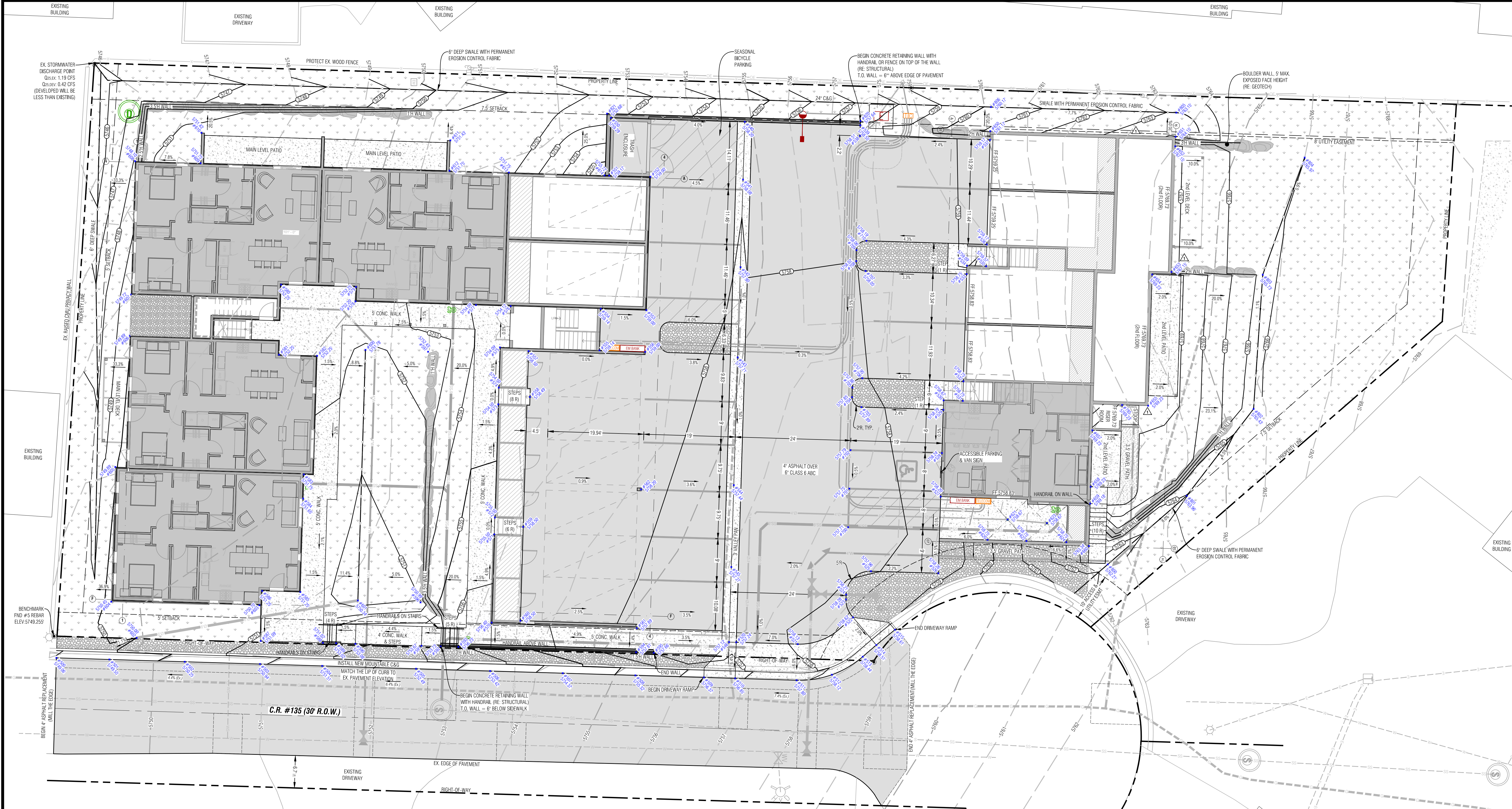
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PROJECT NO.
16034-02
Designer:
DJW
Checker:
BU
Date:
5/27/22

Sheet
C.2

File Name: 16034-v-1-topo-2022.dwg



Point Table				
Point #	Raw Description	Elevation	Northing	Easting
500	EP/Lip	5749.06	10652.91	10022.57
501	EP/Lip	5749.55	10663.93	10022.91
502	EP/Lip	5750.25	10679.56	10023.38
503	EP/Lip	5750.94	10695.18	10023.85
504	EP/Lip	5751.51	10708.09	10024.24
505	EP/Lip	5752.49	10727.59	10024.83
506	EP/Lip	5753.42	10742.97	10025.30
507	EP/Lip	5754.37	10758.05	10025.75
508	EP/Lip	5755.32	10773.13	10026.21
509	EP/Lip	5756.37	10787.35	10026.64
510	EP/Lip	5756.85	10793.85	10026.84
511	EP/Lip	5757.80	10806.60	10027.22
512	EP/Lip	5758.12	10813.93	10026.07
513	EP/Lip	5758.44	10820.33	10022.33
514	EP/Lip	5758.51	10823.15	10019.91
515	EP/Lip	5758.61	10827.02	10016.73
520	EP/Ramp	5757.24	10794.07	10019.34
521	EP/Ramp	5758.13	10806.83	10019.73

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
522	EP/Ramp	5758.62	10818.33	10014.17
523	EP	5758.28	10816.85	10010.44
524	EP	5758.21	10816.88	10009.43
525	EP	5757.96	10822.03	10004.59
526	EP	5758.26	10836.03	10005.01
527	EP	5758.20	10836.51	9999.10
528	EP	5758.24	10836.78	9980.06
529	EP	5758.29	10837.05	9971.07
530	FG	5758.67	10837.11	9969.11
531	FG	5758.75	10841.11	9969.23
532	EP	5758.75	10841.23	9965.15
533	EP	5758.75	10841.91	9942.89
534	FG	5759.09	10841.96	9941.16
535	FG	5759.57	10845.96	9941.28
536	EP	5759.17	10846.10	9936.74
537	EP	5759.17	10846.75	9915.02
538	EP	5758.51	10819.77	9914.20
539	EP	5758.55	10819.83	9912.01

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
540	FL-VPan	5758.20	10795.84	9911.28
541	FL-VPan	5758.08	10795.48	9923.27
542	FL-VPan	5757.90	10794.96	9941.47
543	FL-VPan	5757.71	10794.36	9960.20
544	FL-VPan	5757.44	10793.56	9986.72
545	FL-VPan	5757.27	10793.05	10003.71
546	FL-VPan	5757.12	10792.57	10019.30
550	EP	5759.29	10768.04	9910.44
551	EP	5759.17	10767.68	9922.43
552	EP	5759.00	10776.24	9922.69
553	EP	5759.00	10775.40	9950.39
554	EP	5759.14	10765.93	9950.10
555	EP	5759.14	10765.67	9958.74
556	EP	5759.00	10775.16	9959.03
557	EP	5758.50	10750.94	9958.88
558	FG	5758.49	10751.24	9968.39
559	FG	5758.50	10749.84	9995.36
560	EP	5758.50	10749.25	10014.86

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
561	EP	5757.89	10773.42	10016.42
562	EP	5758.20	10774.32	9987.60
570	FG	5756.40	10743.28	10015.26
571	FG	5755.50	10743.83	9996.93
572	FG	5755.50	10743.94	9993.44
573	FG	5754.50	10744.65	9969.95
574	FG	5754.50	10744.75	9966.45
575	FG	5754.09	10745.01	9958.12
576	FG	5754.12	10747.23	9949.54
577	FG	5754.09	10740.02	9949.32
578	FG	5752.20	10715.01	9948.56
579	FG	5752.25	10715.10	9945.56
580	FG	5752.25	10699.57	9945.09
581	FG	5752.25	10699.13	9959.63
582	FG	5752.25	10707.04	9958.87
583	FG	5751.75	10704.29	9984.50
584	FG	5751.65	10704.14	9988.50
585	FG	5751.25	10703.56	10008.91

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
586	FG	5751.25	10695.64	10008.67
587	FG	5751.09	10695.33	10019.06
588	FG-Step	5751.02	10708.24	10019.45
589	FG-Step	5753.02	10710.99	10019.53
590	FG	5753.08	10714.99	10019.65
591	FG	5753.67	10728.71	10020.07
592	FG-Step	5753.73	10732.71	10020.19
593	FG-Step	5756.23	10736.37	10020.30
594	FG	5757.81	10773.27	10021.42
595	FG	5757.66	10776.94	10021.53
596	FG/Wall	5750.99	10728.50	10011.06
597	FG/Wall	5752.43	10730.08	9999.02
600	FG	5751.78	10717.08	9958.63
601	FG-HV	5750.34	10715.51	10010.67
602	FG-HV	5750.00	10669.57	10018.42
603	FG	5750.70	10695.05	10011.66
604	FG	5750.45	10664.29	10010.91
605	FG	5749.89	10665.14	9982.94

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
606	FG	5749.89	10668.15	9955.69
607	FG	5749.72	10668.41	9947.15
608	FG	5748.10	10669.25	9919.45
609	FG	5751.75	10682.84	9919.87
610	FG	5751.43	10683.03	9913.56
611	FG	5751.43	10734.72	9915.13
612	FG	5751.75	10734.52	9921.43
613	FG	5751.75	10746.86	9921.80
614	FG	5755.72	10766.71	9922.40
620	FG	5758.75	10846.24	9998.06
621	6"Ø Area Inlet	5758.67	10850.41	9993.86
622	FG	5758.75	10854.32	9998.31
623	6"Ø Area Inlet	5758.67	10858.58	9994.60
624	FG	5758.75	10862.61	9998.56
650	FG/Wall	5761.17	10846.81	9913.21
651	FG/Wall	5764.15	10859.29	9914.37
652	FG/Wall	5767.15	10885.23	9916.37
653	FG/Wall	5767.15	10884.44	9942.44

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
654	FG	5769.23	10880.42	9942.99
655	FG	5769.23	10879.60	9970.23
657	FG	5769.23	10868.02	9975.34
658	FG	5769.23	10867.67	9987.04
659	FG-Step	5769.18	10867.56	9990.54
660	FG-Step	5763.34	10867.29	9999.37
700	FG	5757.71	10817.31	9995.44
701	FG	5757.75	10817.55	9987.44
702	FG	5757.79	10817.79	9979.45
703	EP	5757.89	10820.06	9970.51
704	EP	5757.89	10818.12	9968.45
705	EP	5757.86	10818.18	9966.45
706	EP	5757.95	10820.24	9964.51
707	EP	5758.05	10820.92	9942.25
708	EP	5758.02	10818.98	9940.19
709	EP	5758.06	10819.05	9937.92
710	EP	5758.19	10821.11	9935.98
785	FG	5769.23	10874.18	9970.06

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
800	Swale/FL	5762.21	10871.19	10003.18
801	Swale/FL	5763.96	10887.60	9988.91
802	Swale/FL	5765.43	10901.49	9970.89
803	Swale/FL	5765.73	10903.39	9943.02
804	Swale/FL	5765.97	10912.09	9918.71
805	Swale/FL	5763.15	10885.44	9909.38
806	Swale/FL-Wall	5760.17	10846.96	9908.21
820	FG	5757.64	10819.86	9911.11
821	Top Wall	5752.68	10767.24	9909.58

N:\PROJECTS\2016\16034-Moltra Apartments.dwg 16034-V-Topo-2022.dwg 5/27/2022 3:32 PM

Civil Engineering
Surveying
& Beyond

923 Cooper Ave., Ste. 201
Glenwood Springs, CO 81601
(773) 970.945.5252
www.bu-inc.com

Subsurface Utility Engineering (SUE)
Required Project: **No**
If "Yes": SUE Certification by:
Firm: **N/A**
Job #: **N/A**
Date: **N/A**

Engineer or Surveyor Seal

NOT FOR
Review Set
CONSTRUCTION

Client Information:
GABE MOLNAR
375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

NORTH

0 10' 20'

Scale: 1" = 10'

811

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GLENWOOD SPRINGS, COLORADO

Westlink

Site & Grading Plan

Preliminary Plan Set - Not For Construction

By

Revision

Date

No.

1

2

3

4

5

6

7

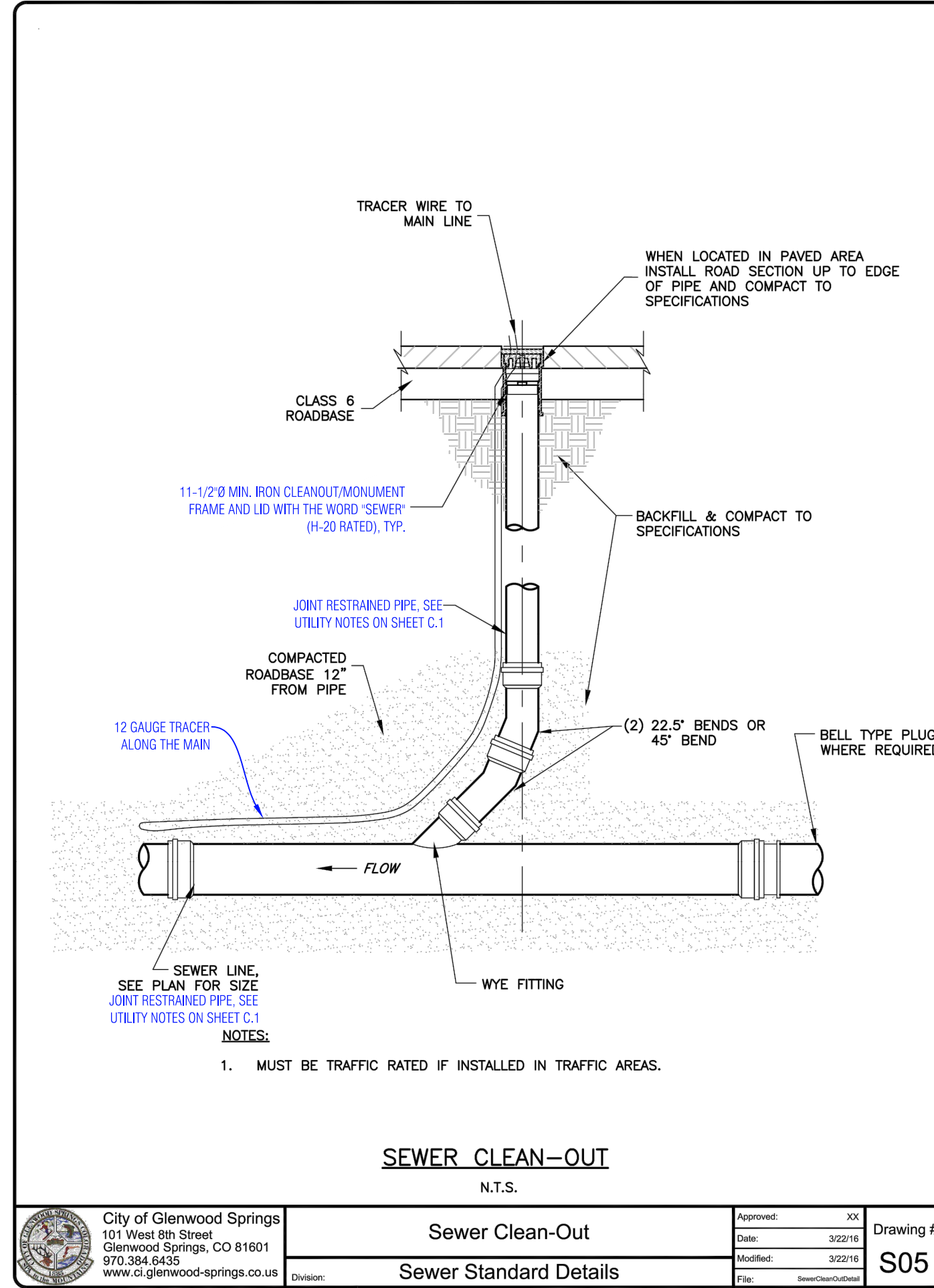
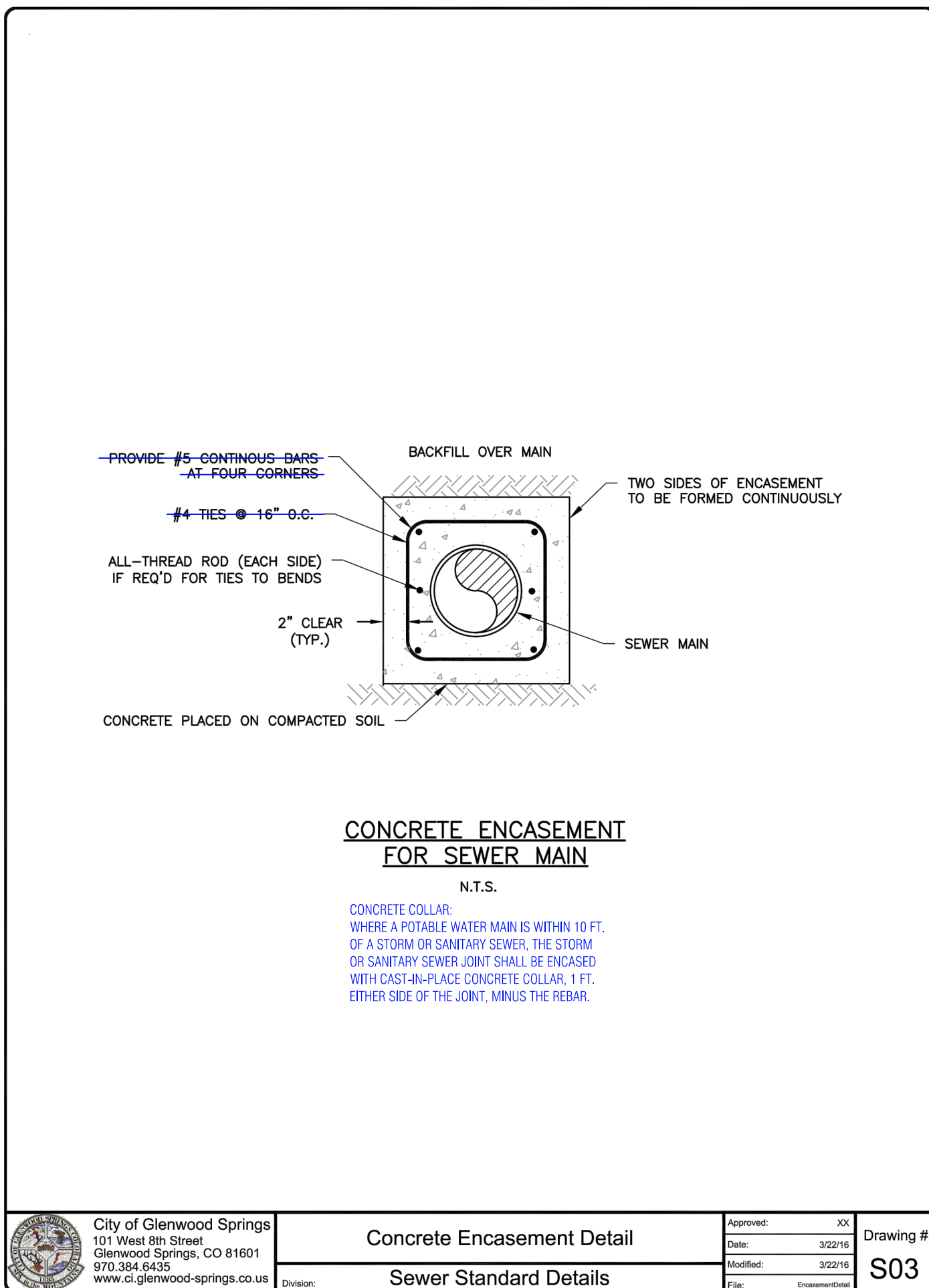
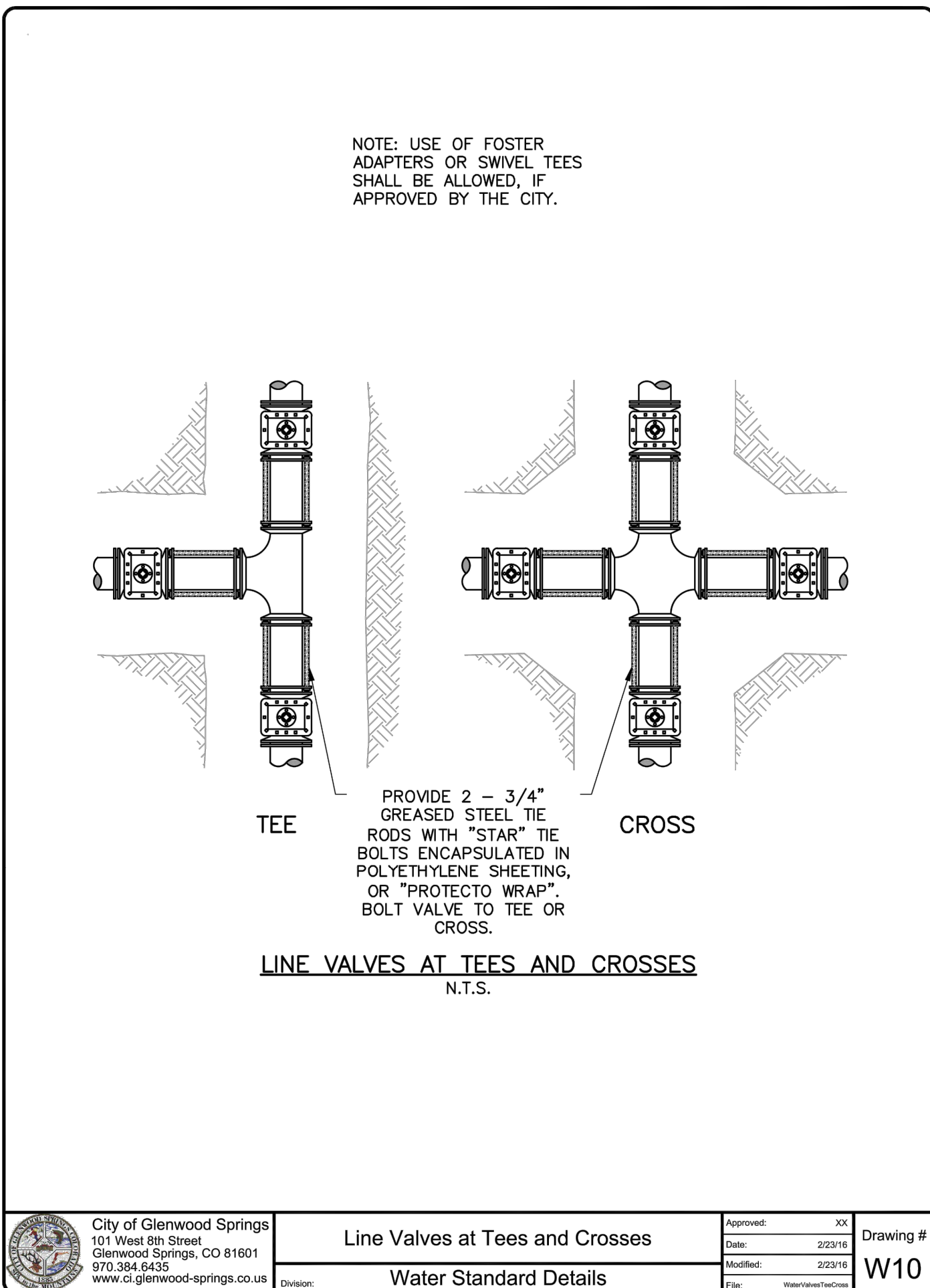
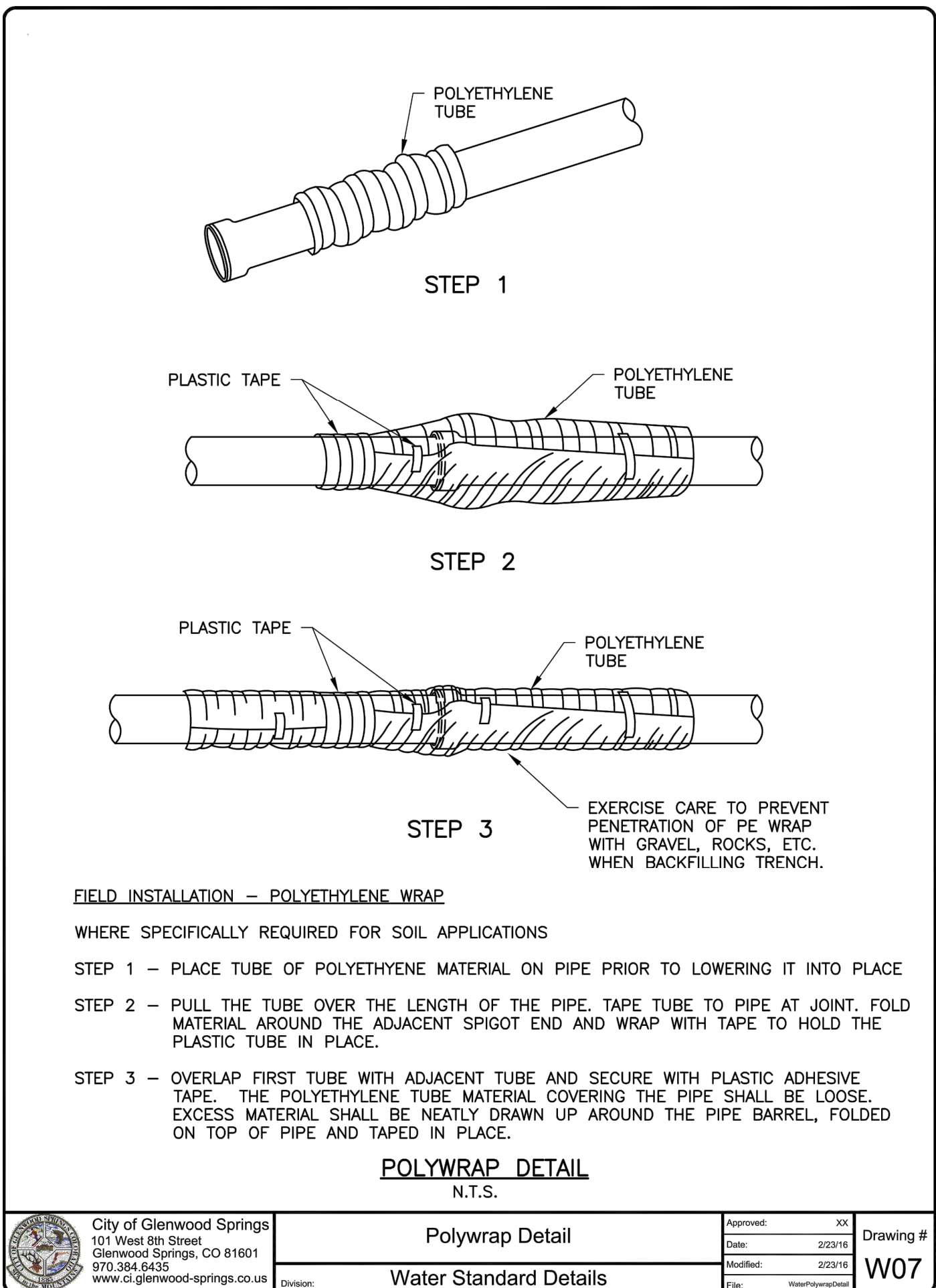
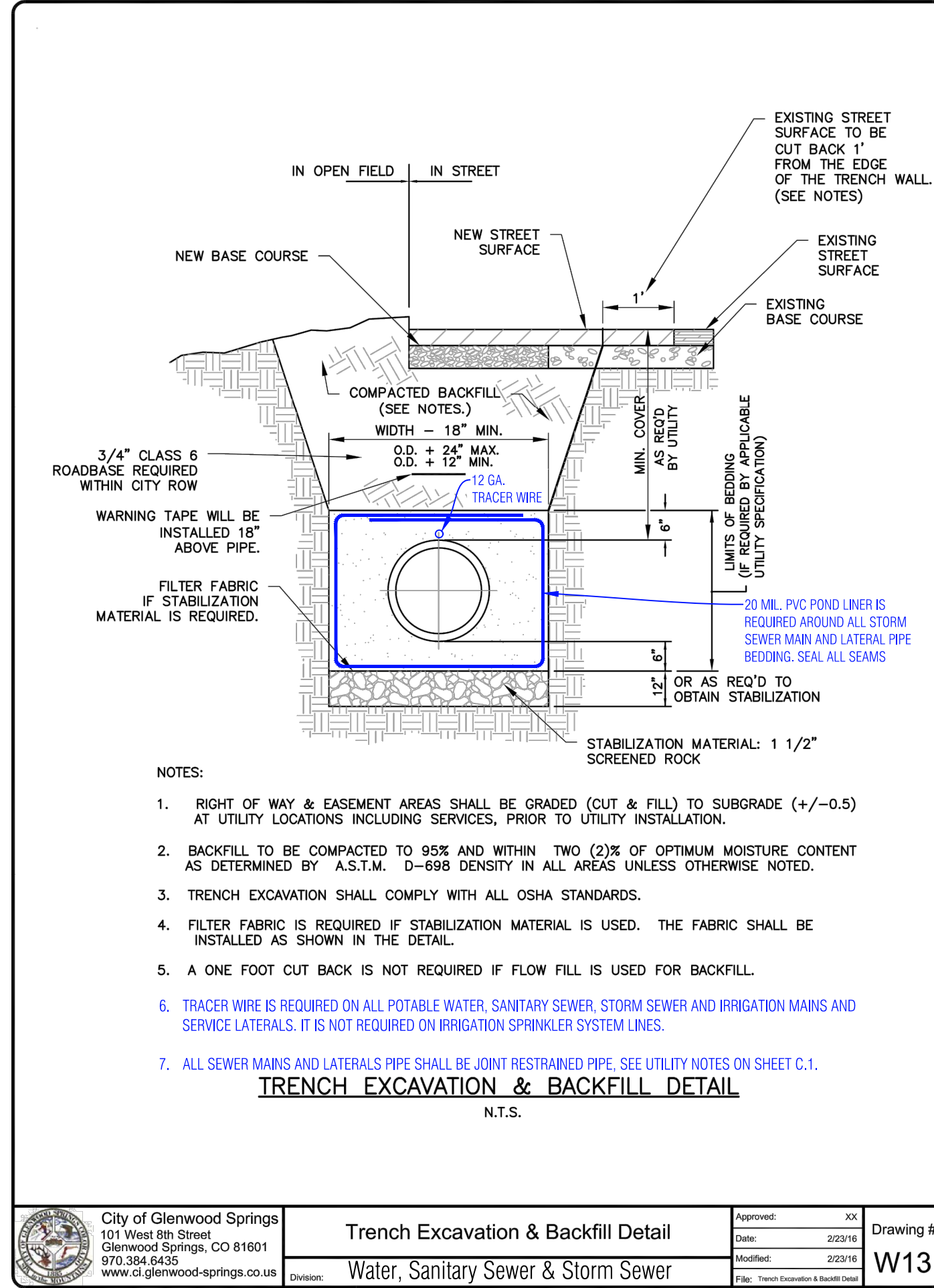
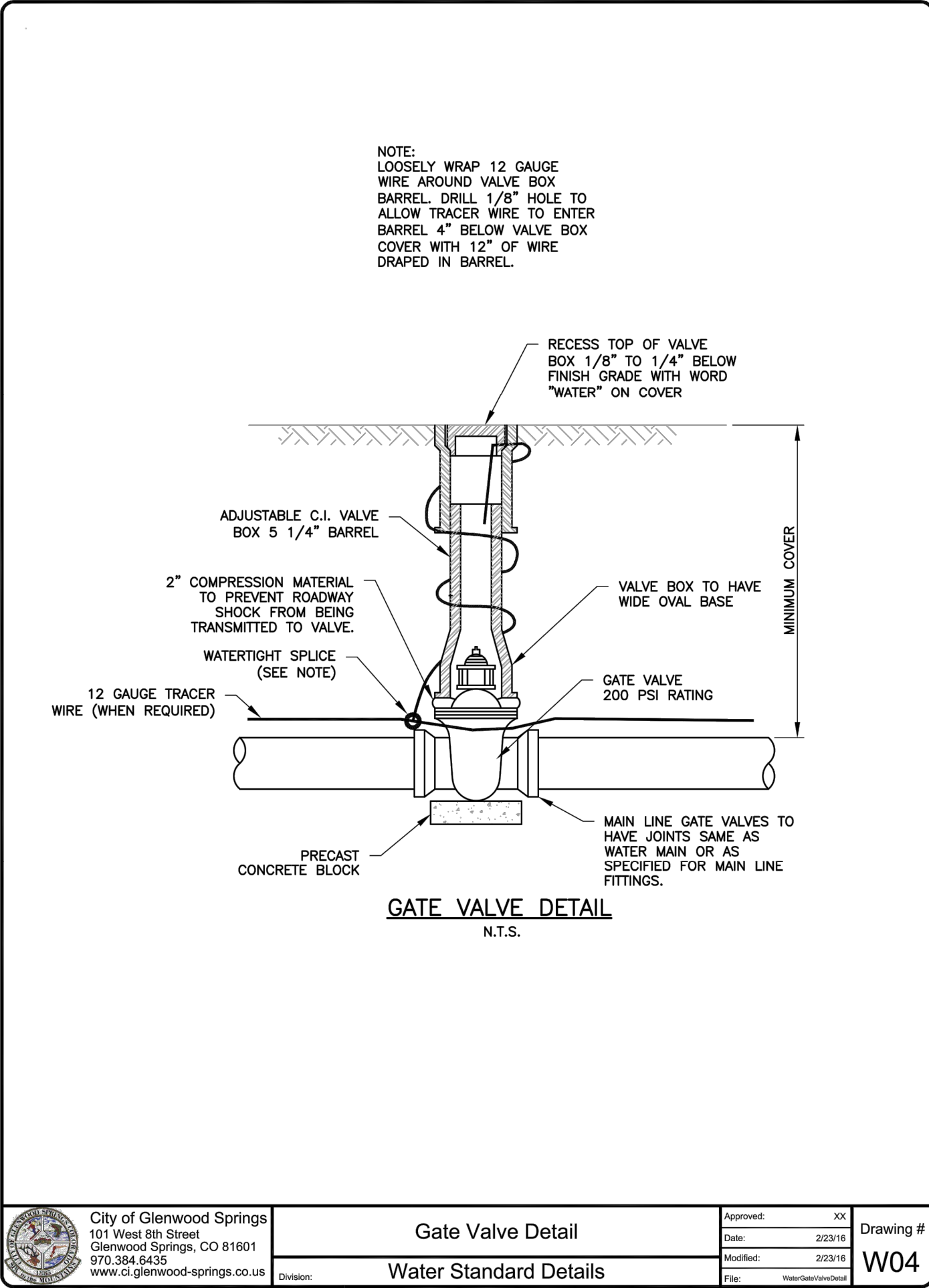
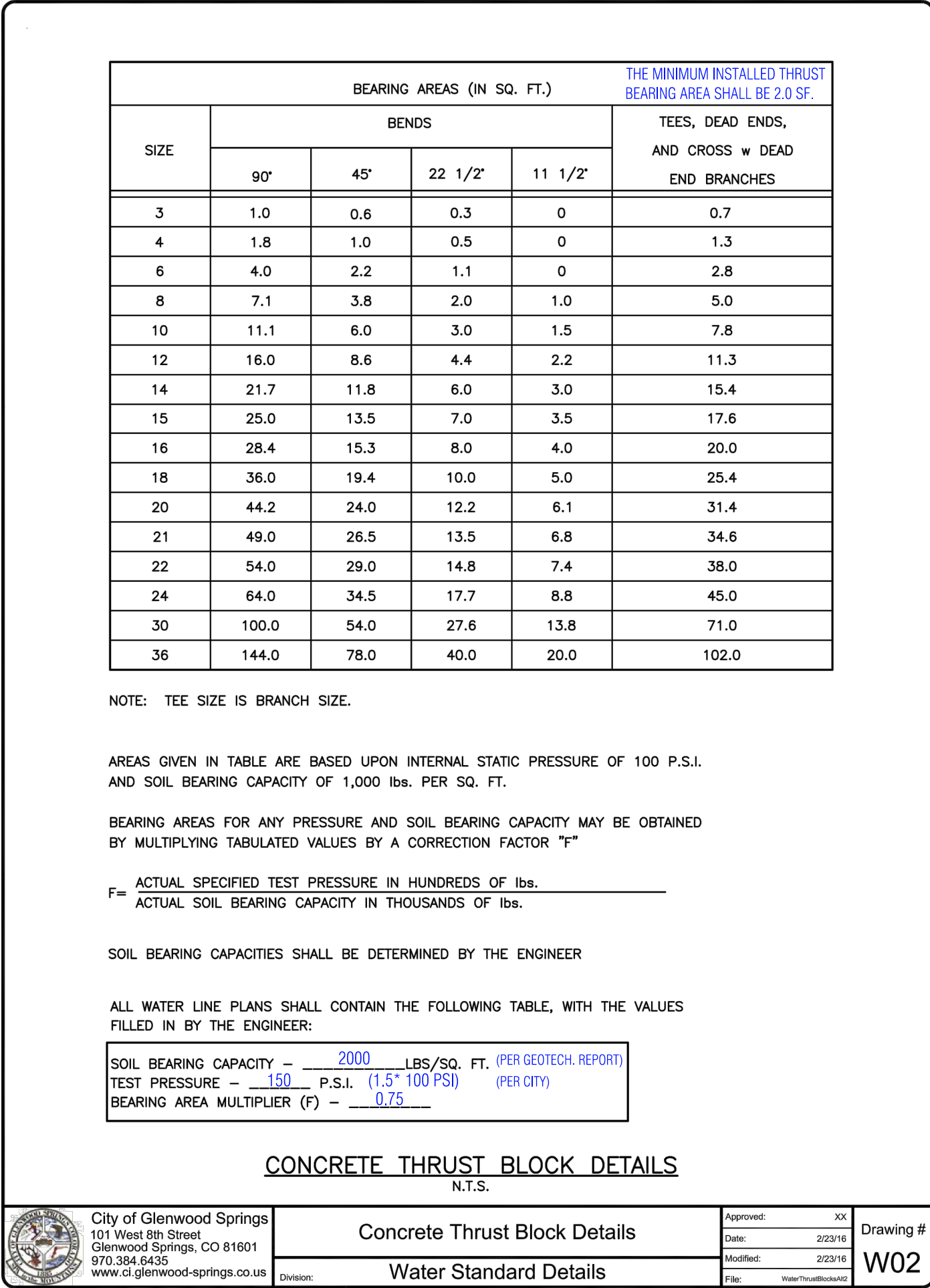
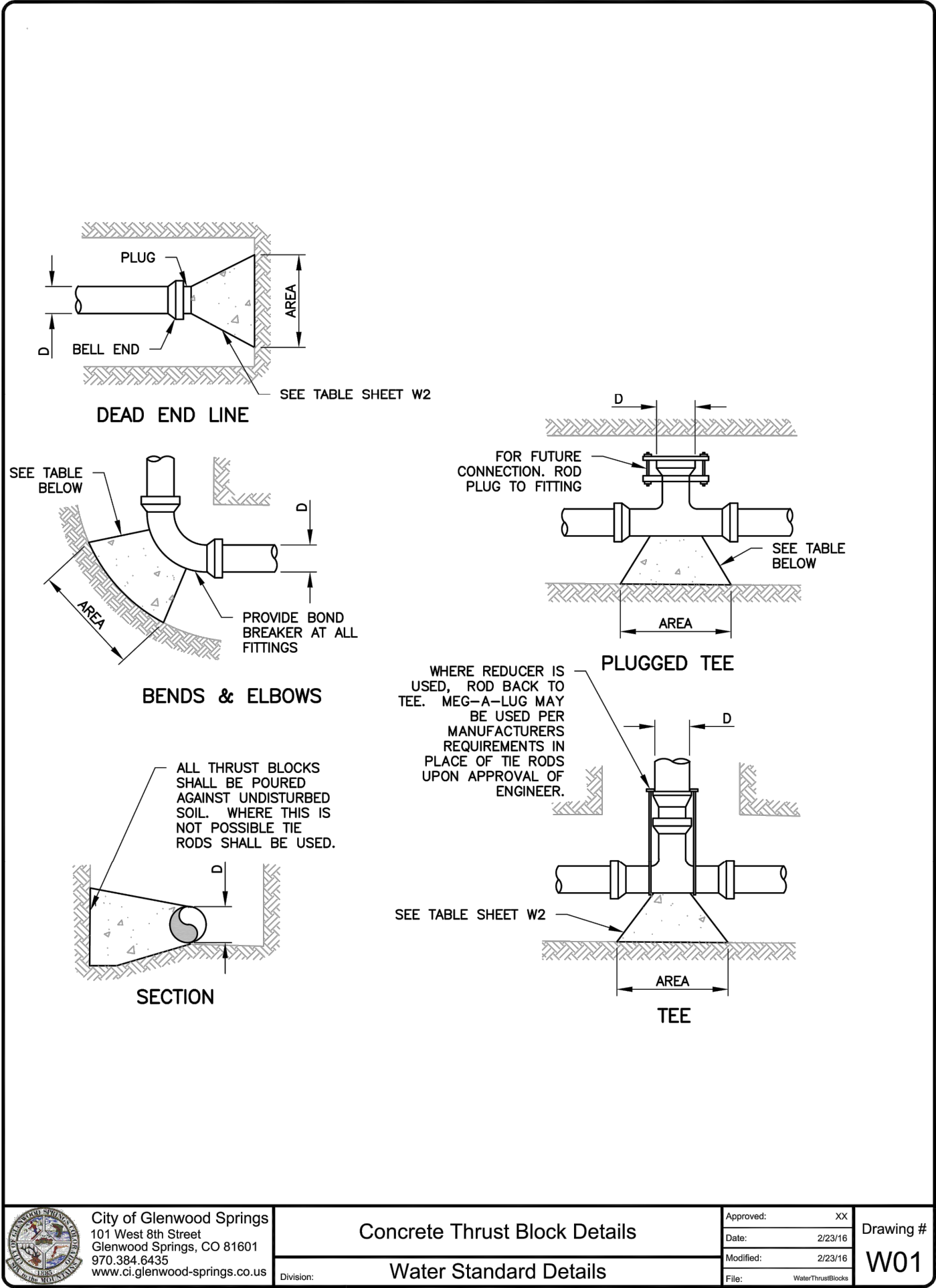
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PROJECT NO.
16034-02
Designer:
DWJ
Checker:
BUN
Date:
5/27/22

Sheet
C.3

File Name: 16034-V-Topo-2022.dwg



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Glenwood Springs, CO 81601
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Subsurface Utility Engineering (SUE)
Required Project: ##
If "Yes", SUE Certification by:
Firm: ###
Job #: ###
Date: ###

Engineer or Surveyor Seal

NOT FOR CONSTRUCTION

Client Information:
GABE MOLNAR
375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

NORTH

811

Know what's below.
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GLENWOOD SPRINGS, COLORADO

Westlink

Civil Details-Site Water & Sewer
Preliminary Plan Set - Not For Construction

By: _____
Revision: _____
Date: _____

PROJECT NO. 16034-02
Designer: DJW
Checker: DJW
Date: 8/27/22

Sheet C.4

File Name: 16034-v-1topo-2022.dwg

 City of Glenwood Springs 101 West 8th Street Glenwood Springs, CO 81601 970.384.6435 www.ci.glenwood-springs.co.us	Street Light Foundation Detail		Approved: ☒ JK	Drawing # E02
	Date: 03/26/2016 Modified: 03/26/2016 File: StreetLightFoundations	Electrical Standard Details		

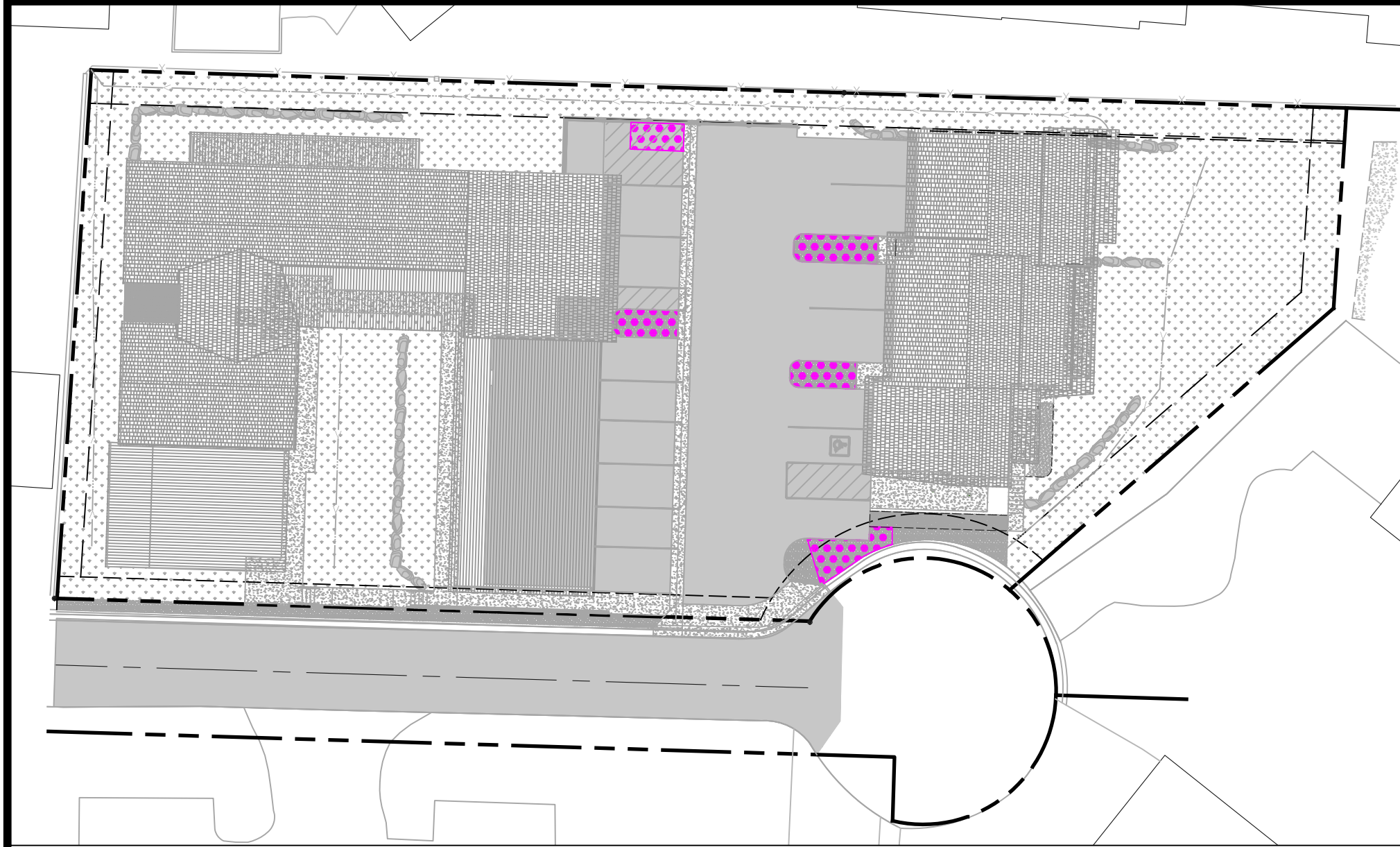
 City of Glenwood Springs 101 West 8th Street Glenwood Springs, CO 81601 970.384.6435 www.ci.glenwood-springs.co.us	Round Splice Vault Detail	Approved: ☒ XX Date: 03/26/2016	Drawing # E06
	Division: Electrical Standard Details	Modified: 03/26/2016 File: RoundSpliceVault	

 City of Glenwood Springs 101 West 8th Street Glenwood Springs, CO 81601 970.384.6435 www.ci.glenwood-springs.co.us	Transformer and Equipment Clearance		Approved: ☒	Drawing # E07
	Divisor: Electrical Standard Details	Date: 03/28/2016 Modified: 03/28/2016 File: TransEquipClearance		

 City of Glenwood Springs 101 West 8th Street Glenwood Springs, CO 81601 970.384.6435 www.ci.glenwood-springs.co.us	3 Phase Transformer Vault Detail (Large)		Approved: XX Date: 03/26/2016 Modified: 03/26/2016 File: 3PhaseTransformerVault_Large	Drawing # E09
	Division:	Electrical Standard Details		

 City of Glenwood Springs 101 West 8th Street Glenwood Springs, CO 81601 970.384.6435 www.ci.glenwood-springs.co.us	Multi Metering Service Detail		Approved: JCK	Drawing # E12
	Date: 03/28/2018 Modified: 03/28/2018 Draw: 03/28/2018/03/28/2018	Electrical Standard Details		

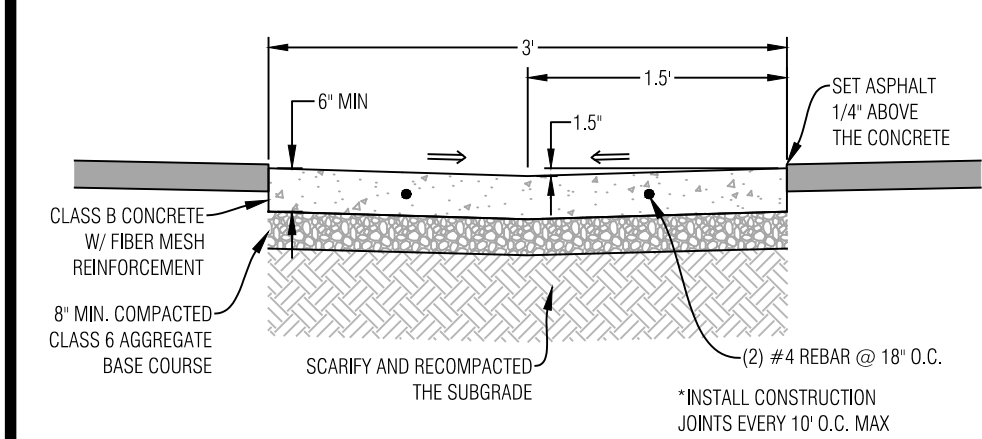
CITY OF GLENWOOD SPRINGS STANDARD DRAWINGS	ELECTRIC CONSTRUCTION	APPROVED:	DRAWING # EOHS-17
		DATE:	
		DRAWN BY: RRM	



SNOW STORAGE PROVIDED:
480 SF (TOTAL)

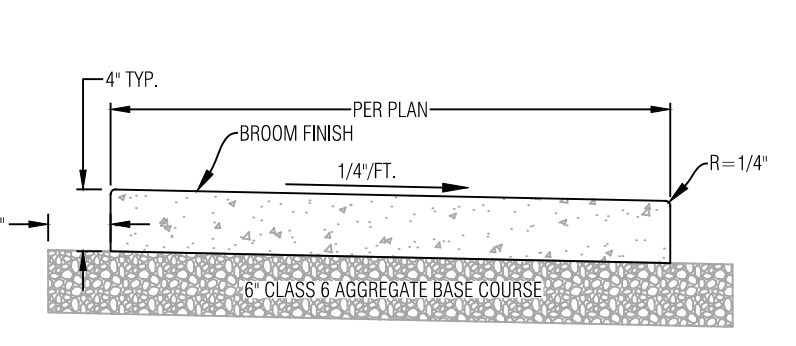
Snow Storage Areas

Scale: 1"=30'



Valley Pan

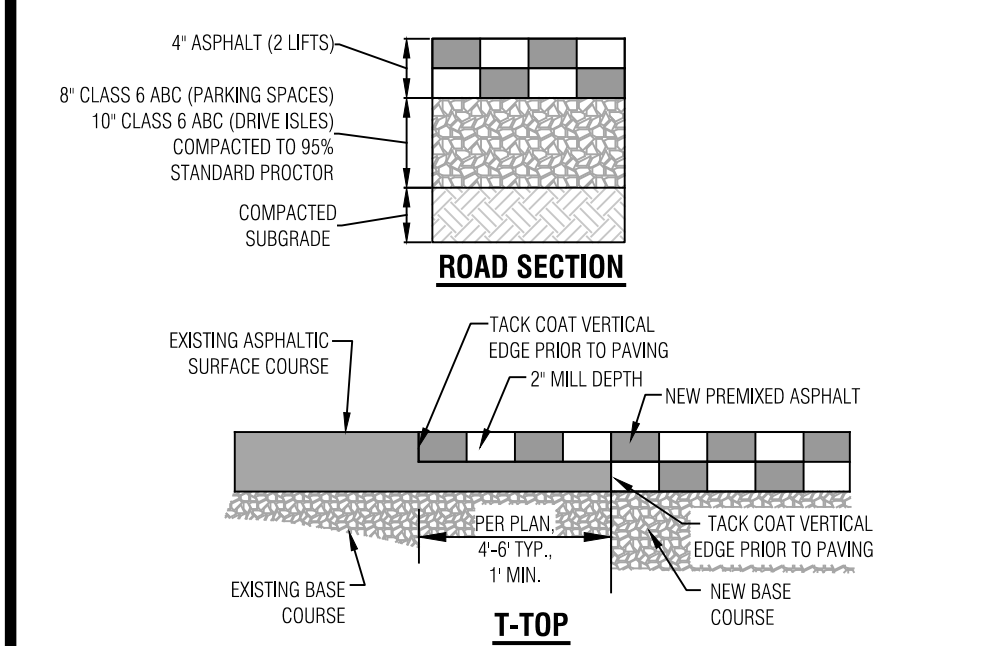
Scale: N.T.S.



Sidewalk

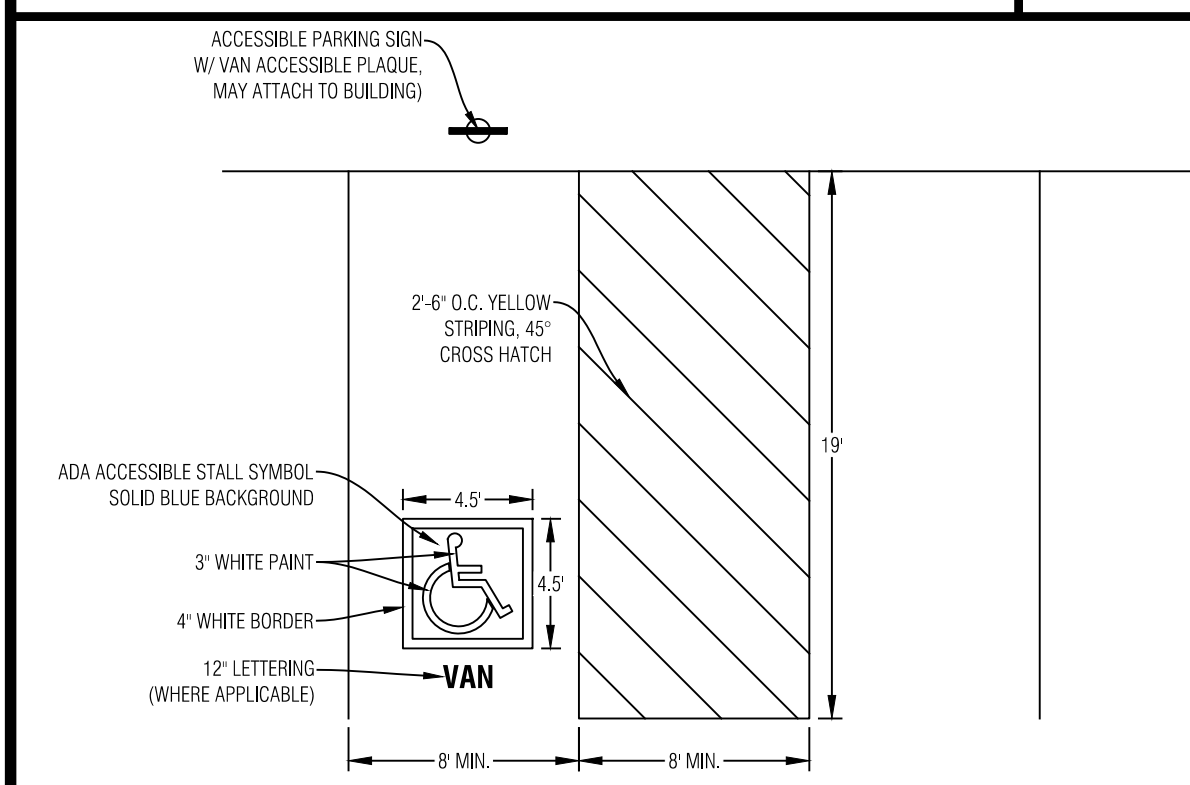
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- ASPHALT NOTES:**
- ASPHALT SHALL BE HMA 50/70 PG 50-20 OR AS APPROVED BY A GEOTECHNICAL ENGINEER. PAVEMENT THICKNESS TO BE CONFIRMED BY A GEOTECHNICAL ENGINEER.
 - WHERE THE EXISTING PAVEMENT IS A MACHINE PLACED HOT MIXED ASPHALTIC PAVEMENT A PREHEATED HOT MIXED ASPHALTIC CONCRETE WILL BE USED.
 - ALL REPLACEMENT MATERIAL SHALL BE COMPACTED TO A DENSITY OF 95% OPTIMUM DENSITY.
 - TEMPORARY REPAIR TO BE PLACED THE SAME DAY AS COMPLETION OF BACKFILL. CONTRACTOR WILL MAINTAIN THE TEMPORARY REPAIR UNTIL THE PERMANENT REPAIR HAS BEEN COMPLETED.
 - AT THE LOCATIONS WHERE NEW ASPHALT IS TO BE PLACED, THE CONTRACTOR SHALL MAINTAIN THE EXISTING PAVEMENT 1 FOOT BACK FROM THE EXISTING EDGE AND REMOVE PAVEMENT. FROM THE SAW CUT LINE, MILL EXISTING PAVEMENT BACK 1 FOOT TO A DEPTH OF 2 INCHES. TACK EXPOSED VERTICAL ASPHALT EDGE PRIOR TO PAVING. THE SAW CUTTING WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE REMOVAL OF THE ASPHALT ITEM.



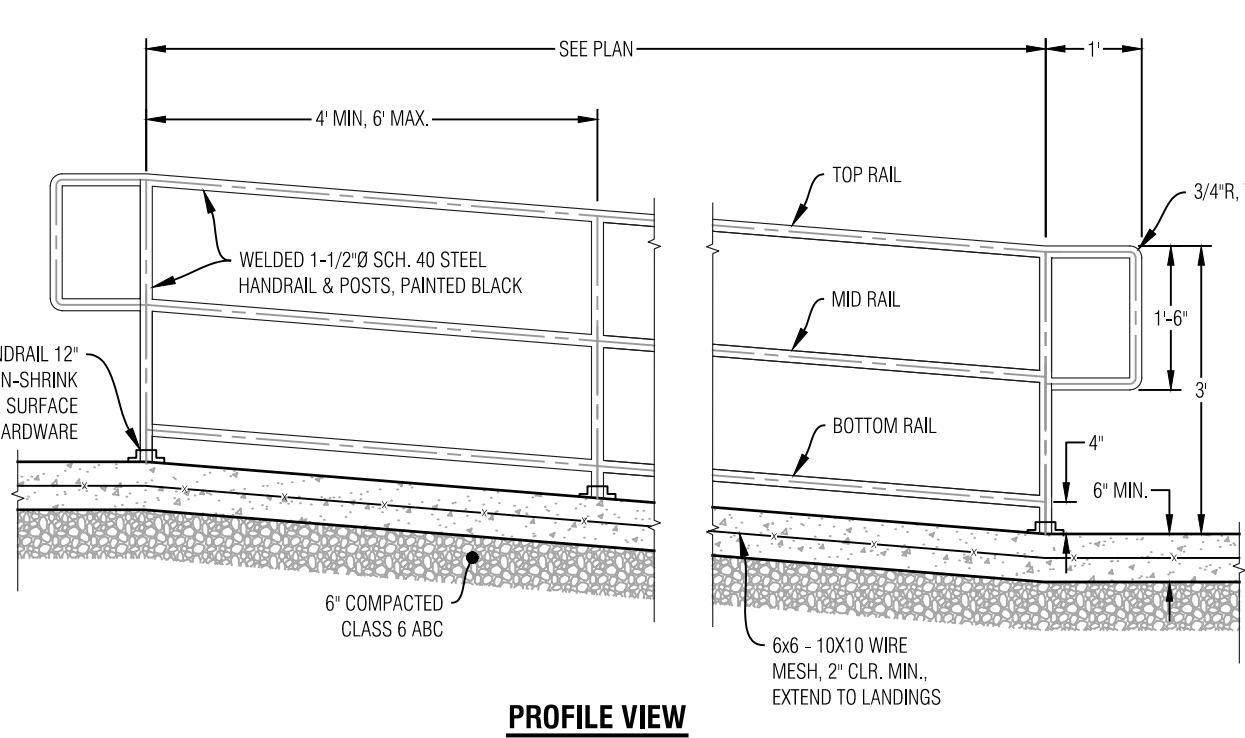
Asphalt Pavement

Scale: N.T.S.



Accessible Parking Stall Detail

Scale: N.T.S.



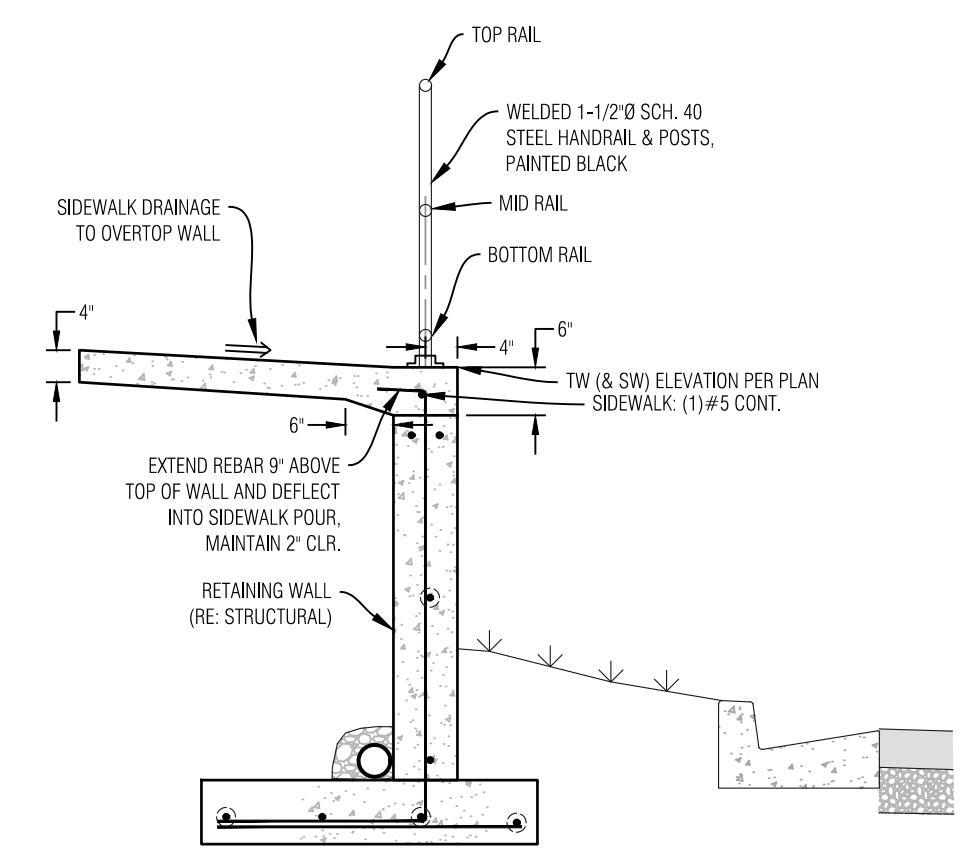
PROFILE VIEW

Handrails on Sidewalks or Above Walls

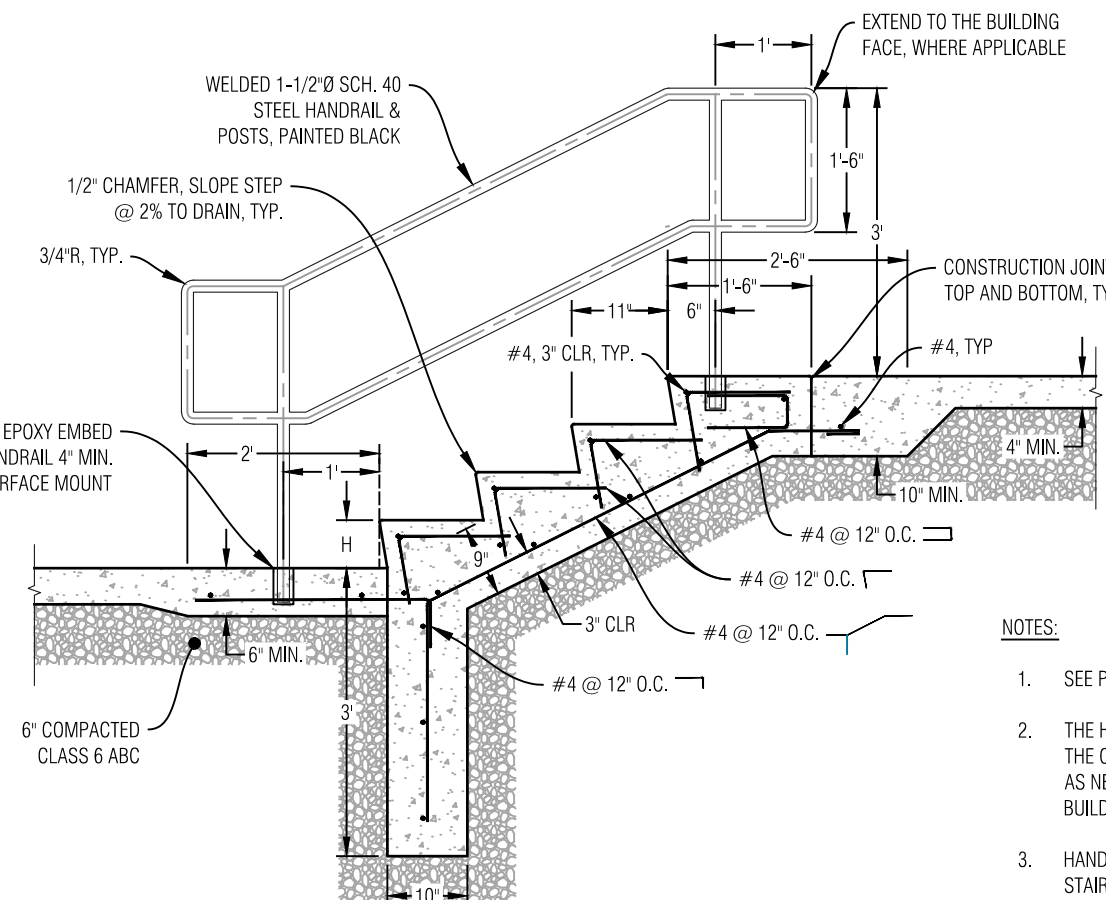
Scale: N.T.S.

NOTES:

- CONCRETE RAMP AND LANDING SURFACES SHALL BE TEXTURED WITH A NON-SLIP COARSE HORIZONTAL BROOMED SURFACE AND SHALL HAVE 3/8" TROVELED SCORE LINES (AKA GROOVES) TOoled PERPENDICULAR TO THE RAMP AT 6" O.C.
- REBAR REINFORCEMENT SHALL BE INSTALLED WITH 2" MIN. CLEARANCE FROM OUTER SURFACES.
- THE HANDRAILS SHOWN ARE FOR GUIDANCE ONLY. THE CONTRACTOR SHALL CONSTRUCT THE HANDRAILS AS NECESSARY TO SUIT THE ARCHITECTURE AND MEET BUILDING CODE REQUIREMENTS.
- ALL HORIZONTAL PEDESTRIAN RAIL COMPONENTS SHALL BE PARALLEL WITH THE SLOPE OF THE CORRESPONDING TOP OF WALL. ALL VERTICAL PEDESTRIAN RAIL COMPONENTS SHALL BE PLUMB.
- ATTAINING ACCURATE GEOMETRY IS THE RESPONSIBILITY OF THE FABRICATOR. INCORPORATE ADJUSTMENTS FOR GRADE CHANGES. SEE THE GRADING PLANS FOR TOP OF WALL.
- THE SPAN BETWEEN POSTS SHALL VARY BETWEEN 4 FEET AND 6 FEET AS NECESSARY TO CREATE SYMMETRY BETWEEN THE MAIN POSTS.



SECTION VIEW



Staircase & Handrail

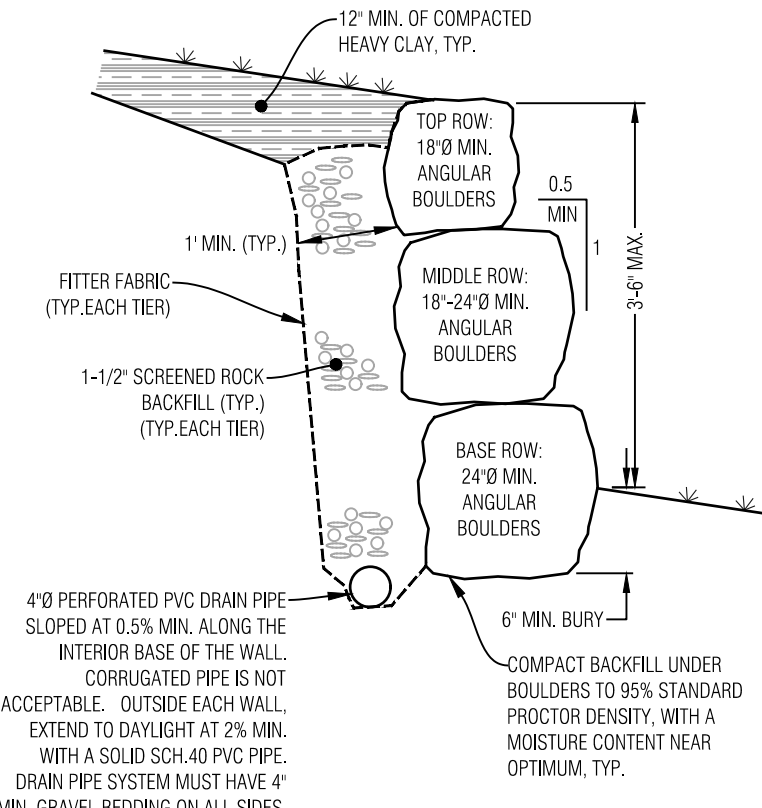
Scale: N.T.S.

NOTES:

- SEE PLAN FOR TREAD NUMBER AND STEP HEIGHT, (H).
- THE HANDRAILS SHOWN ARE FOR GUIDANCE ONLY. THE CONTRACTOR SHALL CONSTRUCT THE HANDRAILS AS NECESSARY TO SUIT THE ARCHITECTURE AND MEET BUILDING CODE REQUIREMENTS.
- HANDRAILS ARE REQUIRED ON BOTH SIDES OF THE STAIRCASE.

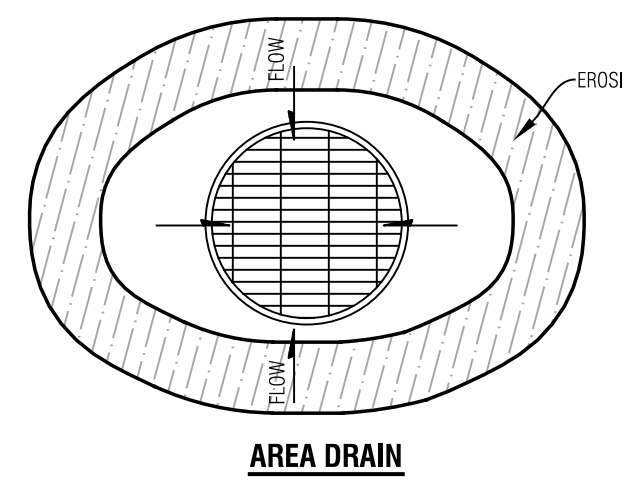
BOULDER WALL NOTES:

- THESE DETAILS ARE TO BE USED ONLY FOR RETAINING AREAS WITH A MAXIMUM WALL HEIGHTS AS INDICATED. ANY WALL CONSTRUCTED HIGHER THAN SPECIFIED IN THESE DETAILS WILL NOT BE ACCEPTED BY THE PROJECT ENGINEER.
- FREE DRAINING WALL BACKFILL SHOULD BE CARPED WITH AT LEAST 12 INCHES OF COMPACTED HEAVY CLAYS TO REDUCE SURFACE WATER INFILTRATION.
- BOULDERS SHALL BE ANGULAR AND SQUARE RECTANGULAR IN SHAPE. ROUND RIVER BOULDERS ARE NOT ACCEPTABLE. BOULDERS SHALL BE PURPOSEFULLY SELECTED FOR PLACEMENT IN A MANNER WHICH PERMITS AT LEAST 30% CONTACT SURFACE WITH THE ADJACENT BOULDERS. THE FILLING OF VOID AREAS BETWEEN BOULDERS WITH SMALLER ROCKS WILL NOT COUNT TOWARD MEETING THIS MINIMUM CONTACT SURFACE REQUIREMENT.
- INSTALL MIRAFI 140N FILTER FABRIC BETWEEN THE NATIVE EXCAVATION AND THE SCREENED ROCK BACKFILL.
- SET BASE ROWS ON BENCHES WHERE THE TOPSOIL HAS BEEN REMOVED AND THE SUBBASE HAS BEEN SCARIFIED TO 9" MINIMUM DEPTH & RECOMPACTED TO 95% STANDARD PROCTOR.
- CARE SHOULD BE TAKEN NOT TO OVER COMPACT THE BACKFILL OR USE LARGE EQUIPMENT NEAR THE WALL.
- PLACE LARGER BOULDERS AT BOTTOM AND TRANSITION TO SMALLER BOULDERS AT TOP OF WALL. UNDER NO CIRCUMSTANCES SHOULD ANY BOULDER BE PLACED ON TOP OF ANOTHER BOULDER WHICH IS SMALLER THAN ITSELF.

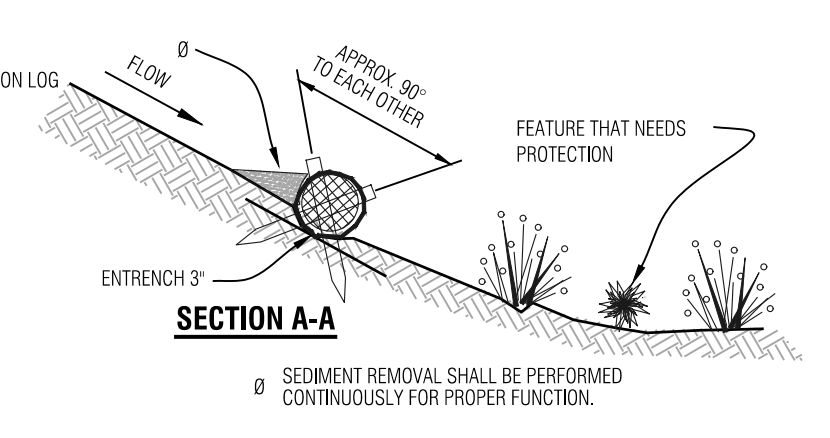


Landscape Boulder Wall

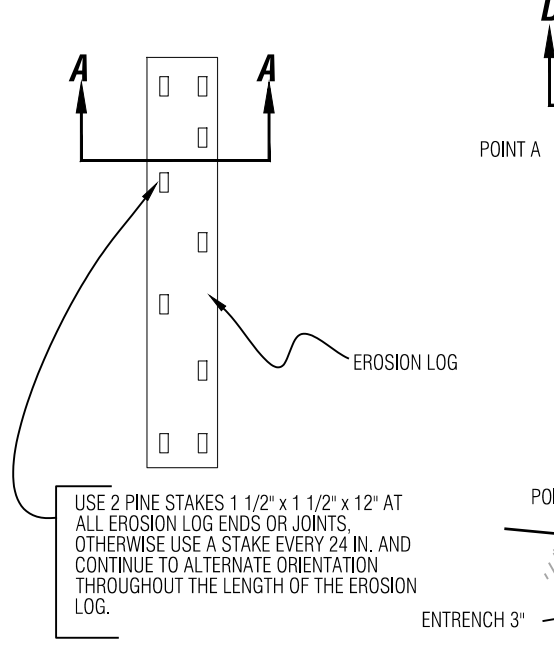
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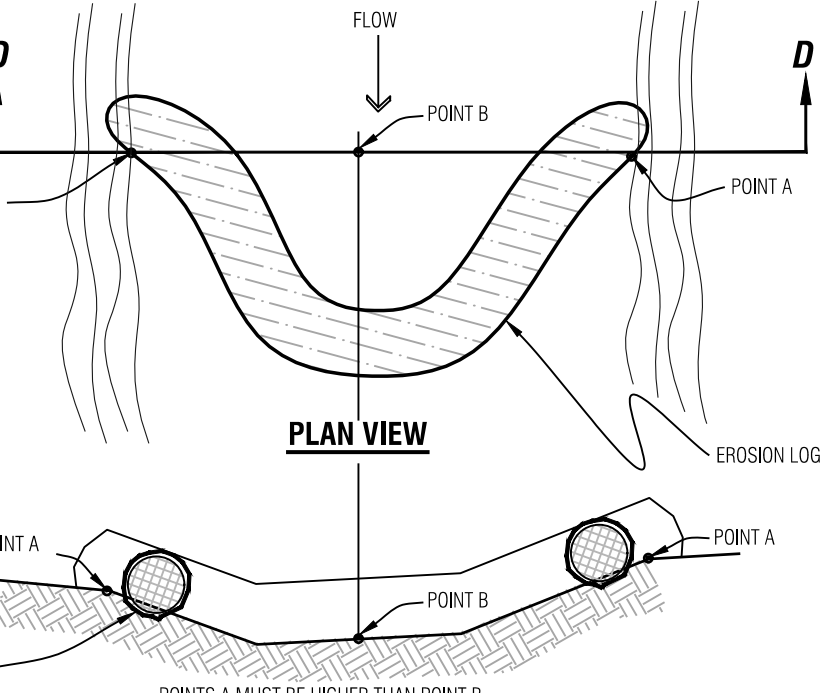
AREA DRAIN



SECTION A-A



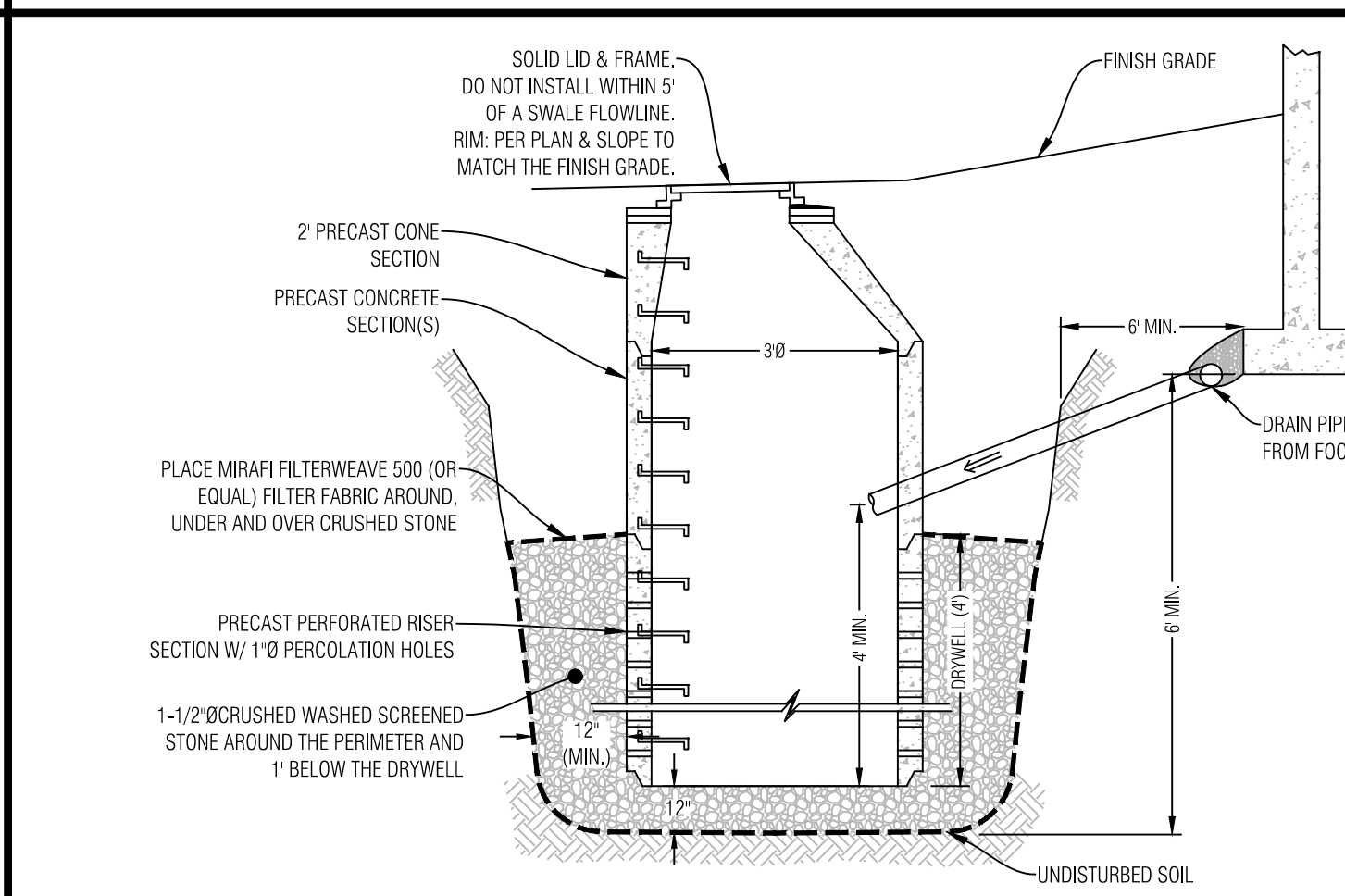
PLAN VIEW



SECTION D-D

Erosion Control Logs

Scale: N.T.S.

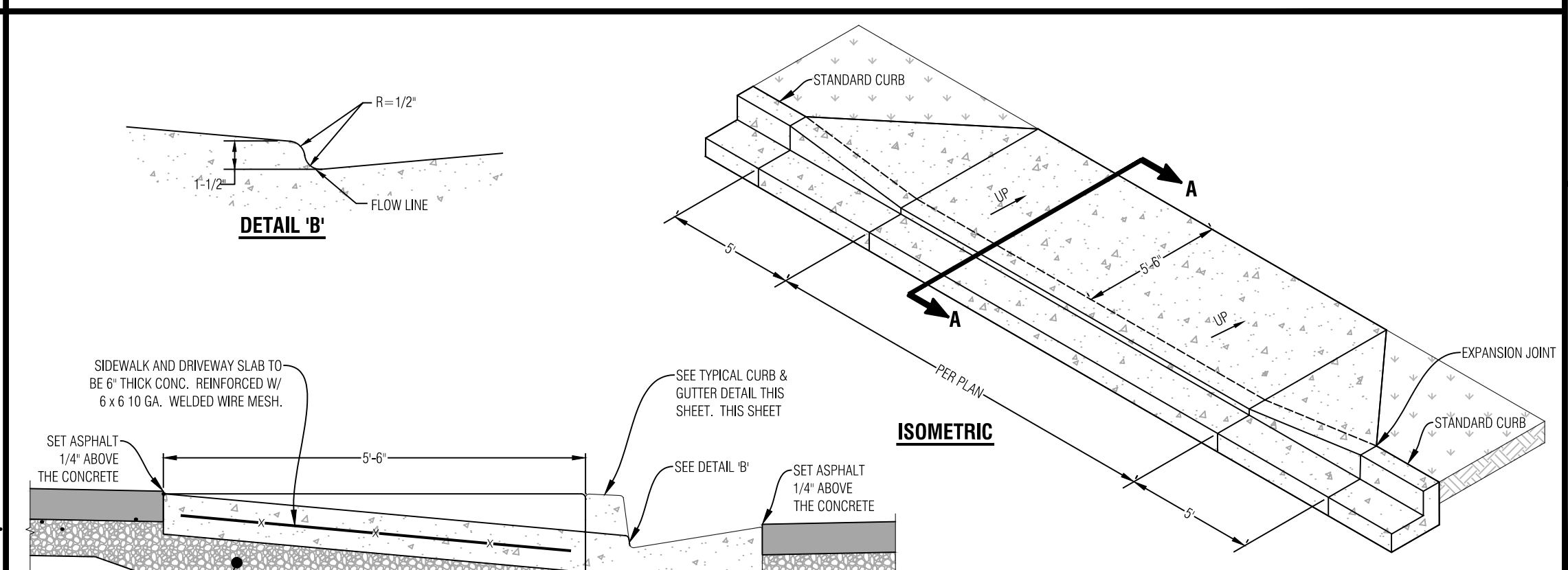


Foundation Drywell

Scale: N.T.S.

NOTES:

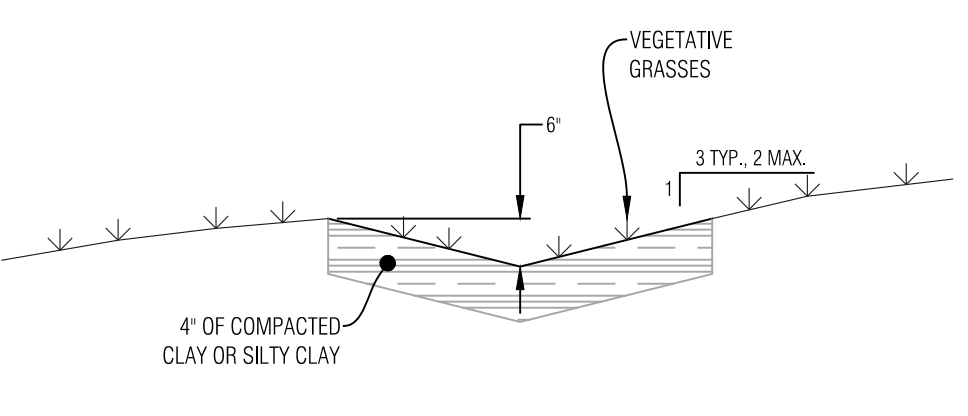
- PRECAST MANHOLE SECTIONS SHALL MEET ASTM C-478 AND BE H-20 LOAD RATED.
- THE DRYWELL SHALL BE INSTALLED LOWER THAN THE DEEPEST BLDG FOOTER. THE EDGE OF THE DRYWELL SHALL BE INSTALLED AT LEAST 6- FEET AWAY FROM ANY FOOTER OR AT A DISTANCE EQUAL TO THE HEIGHT FROM THE BOTTOM OF THE DRYWELL TO THE BOTTOM OF THE FOOTER, WHICHEVER IS GREATER.
- BACKFILL EXCAVATION AROUND STRUCTURE WITH COMPACTED 3/4" CRUSHED WASHED SCREENED STONE TO THE TOP OF THE DRYWELL AND WITH STRUCTURAL CLASS 2 ABC TO 12" BELOW FINISH GRADE. COMPACT BACKFILL TO 95% STANDARD PROCTOR.
- PERFORATED SECTION TO BE INSTALLED 4 FT. MINIMUM INTO PERVIOUS ALLUVIUM. ENGINEER TO BE CONTACTED IMMEDIATELY IF GROUNDWATER OR BEDROCK IS ENCOUNTERED.
- INLET AND OUTLET PIPES SHOULD ENTER DRYWELL AWAY FROM THE DRYWELL STEPS.



ISOMETRIC

Driveway Ramp

Scale: N.T.S.



Typical Swale

Scale: N.T.S.

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Subsurface Utility Engineering (SUE)
Required Project: **No**
Firm: **N/A**
Job #: **N/A**
Date: **N/A**

Engineer or Surveyor Seal

NOT FOR
CONSTRUCTION
Review Set

Client Information:
GABE MOLNAR
375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

NORTH

Scale: 1" = 1'

811
Know what's below.
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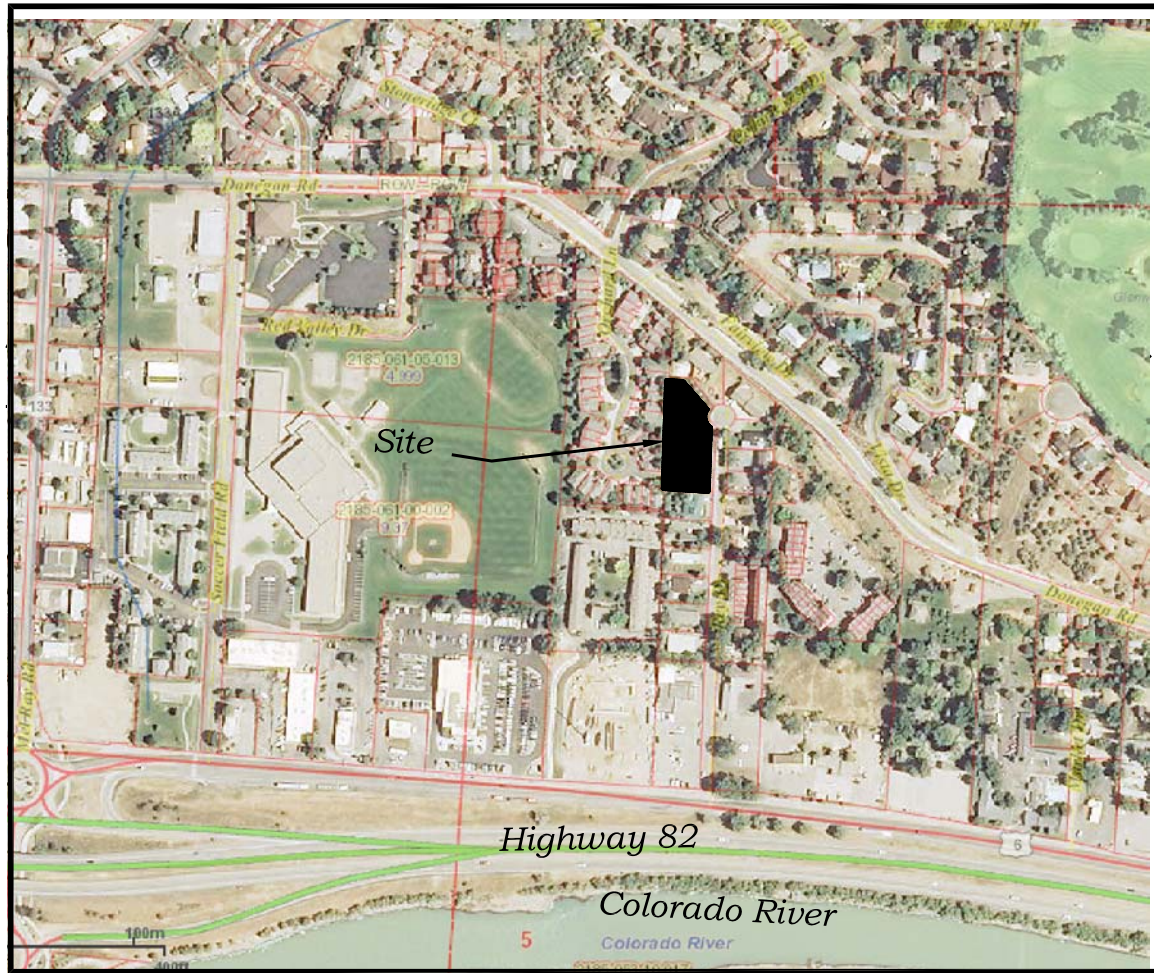
Westlink
Civil Details-Site
Preliminary Plan Set - Not For Construction

By	Revision	Date
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PROJECT NO.
16034-02
Designer:
DJW
Checker:
BU
Date:
5/27/22

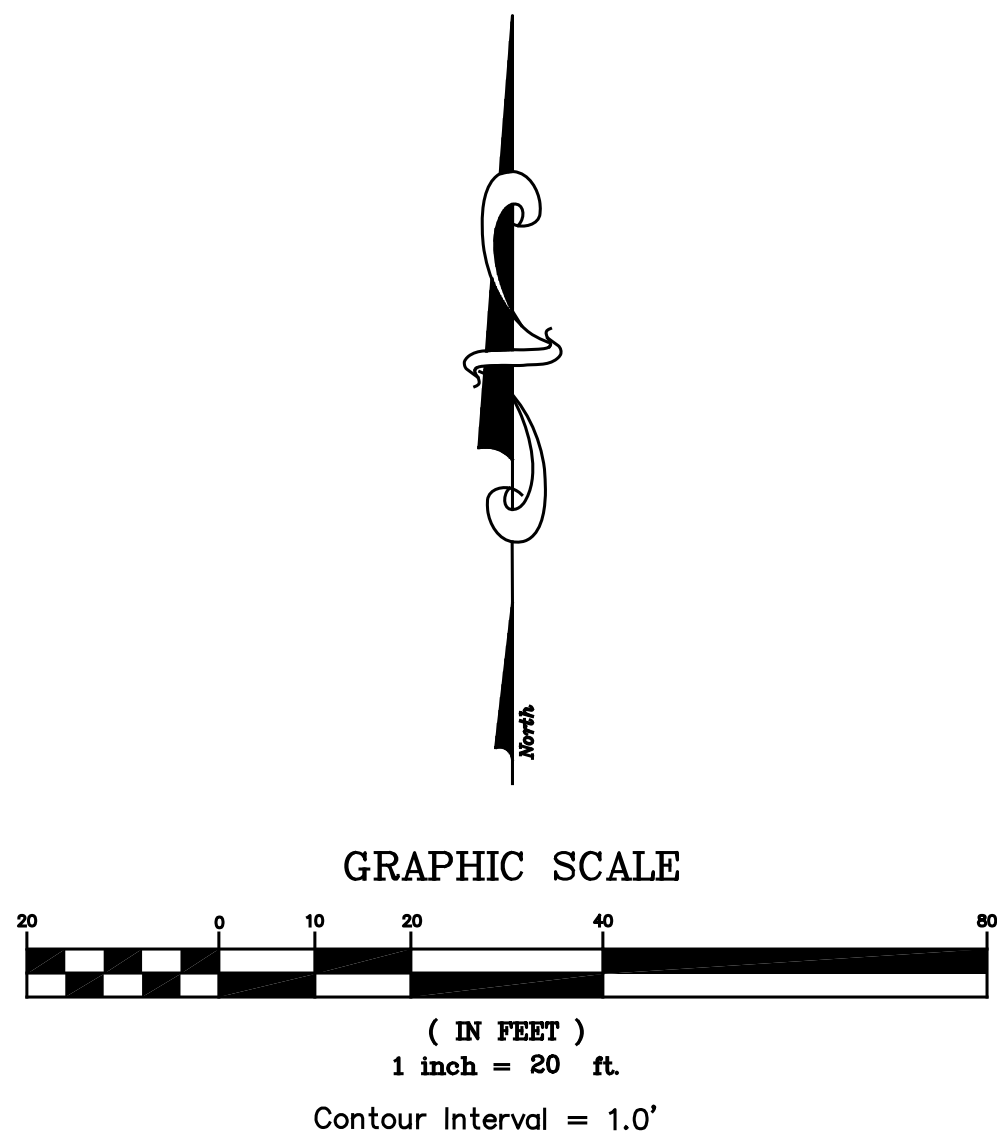
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VICINITY MAP
SCALE: 1" = 500'

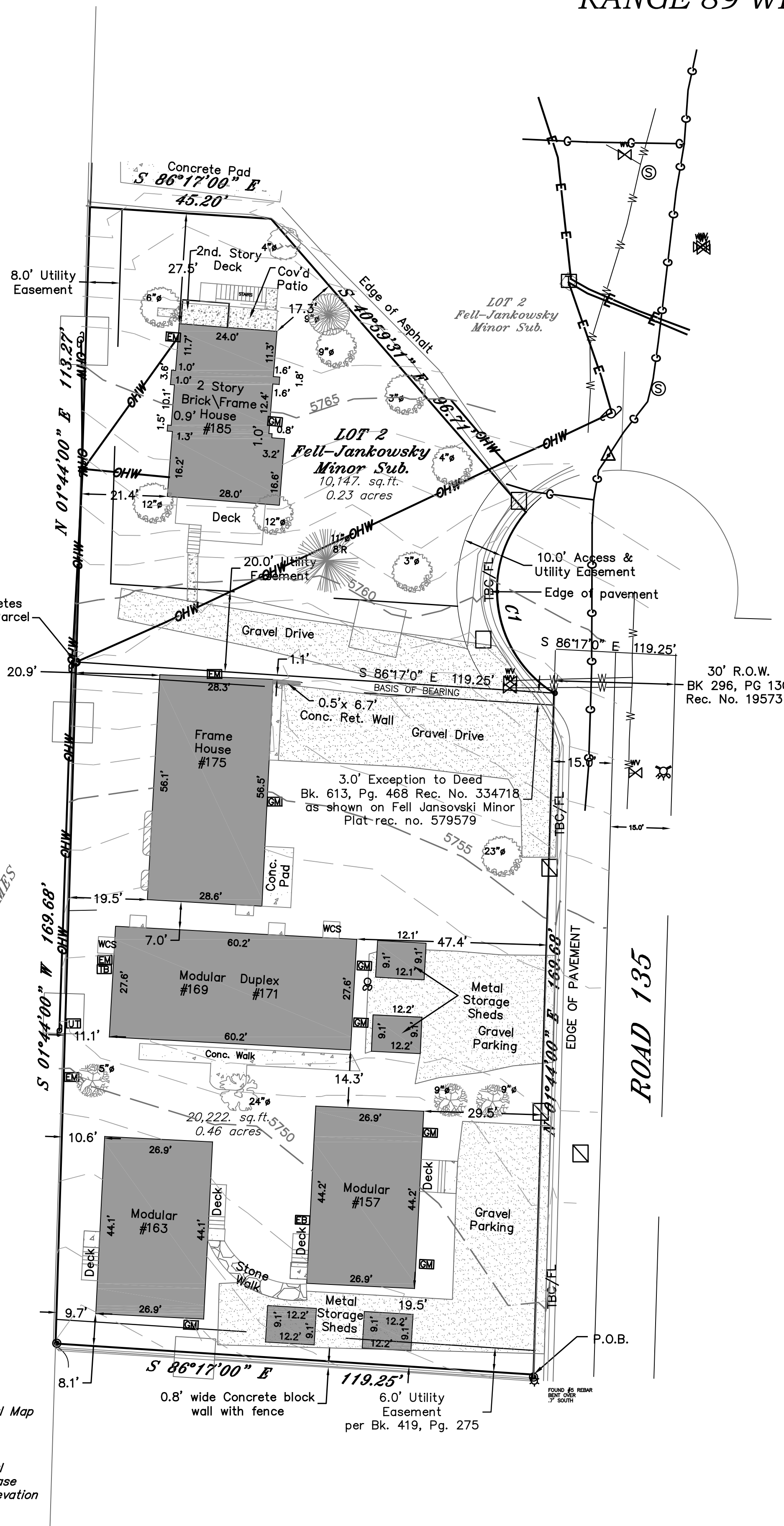
CURVE TABLE					
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING
C1	51.74'	30.00'	35.01'	45.56'	S 8°51'22" E
					98°49'15"



- Legend**
- Hydrant
 - Cleanout
 - Transformer
 - Water Valve
 - Light Pole
 - Gas Meter
 - Electric Meter
 - Electric Breaker
 - Utility Pedestal
 - Mail Box
 - Telephone Control Box
 - Utility Pole
 - Overhead Utility Line
 - Gas line
 - Water line
 - Electric line
 - Gas Marker
 - WCS = Wooden Crawl Space Entry
 - Window Well
 - Aspen
 - Deciduous
 - Fruit Tree
 - Maple Tree
 - Lilac Tree
 - Spruce Tree
 - Wooden Fence
 - Sewer Manhole

Note: This topography map complies with National Map Accuracy Standards for topographic maps. Where checked 90% of points should be within 1/2 the contour interval and well defined points should be plotted within 1/50" of their true position. Critical design should be based upon spot elevations, please contact Tuttle Surveying Services for this spot elevation information.

ORCHARD TOWN HOMES



Topographical Survey Map

A PARCEL OF LAND SITUATED IN LOT 4, SECTION 5, TOWNSHIP 6 SOUTH, RANGE 89 WEST OF THE 6TH P.M. GARFIELD COUNTY, COLORADO

THE LAND REFERRED TO IN THIS COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC COMMITMENT DATED FEBRUARY 24, 2015 IS LOCATED IN THE COUNTY OF GARFIELD, STATE OF COLORADO, AND IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:
LOT 2, FELL JANKOVSKY MINOR SUBDIVISION, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 19, 2001 AS RECEPTION NO. 579579 ,
COUNTY OF GARFIELD
STATE OF COLORADO

THIS PROPERTY IS SUBJECT TO THE FOLLOWING EXCEPTIONS PER SAID TITLE COMMITMENT NO. 1502095

9. RIGHT OF THE PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM, SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES HEREBY GRANTED AND A RIGHT OF WAY FOR DITCHES OR CANALS AS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES, AS RESERVED IN UNITED STATES PATENT RECORDED FEBRUARY 26, 1894 IN BOOK 12 AT PAGE 298. (Nothing to show)
10. EASEMENTS, RIGHTS OF WAY AND ALL MATTERS DISCLOSED ON THE FINAL PLAT OF FELL JANKOVSKY MINOR SUBDIVISION RECORDED APRIL 19, 2001 AS RECEPTION NO. 579579. (As shown hereon)

THE LAND REFERRED TO IN THIS COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC COMMITMENT DATED FEBRUARY 16, 2015 IS LOCATED IN THE COUNTY OF GARFIELD, STATE OF COLORADO, AND IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PARCEL OF LAND SITUATE IN LOT 4, SECTION 5, TOWNSHIP 6 SOUTH, RANGE 89 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT WHEN THE SOUTHWEST CORNER OF SECTION 5 BEARS SOUTH 11°24'22" WEST 3303.51 FEET; THENCE SOUTH 01°44' WEST 257.59 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 01°44' WEST 169.68 FEET; THENCE SOUTH 86°17' EAST 119.25 FEET; THENCE NORTH 01°44' EAST 169.68 FEET; THENCE NORTH 86°17' WEST 119.25 FEET TO THE POINT OF BEGINNING. COUNTY OF GARFIELD, STATE OF COLORADO

THIS PROPERTY IS SUBJECT TO THE FOLLOWING EXCEPTIONS PER SAID TITLE COMMITMENT NO. 1502012-1 ANTIC

9. RIGHT OF THE PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM, SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES HEREBY GRANTED, AND A RIGHT OF WAY FOR DITCHES OR CANALS AS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES, AS RESERVED IN UNITED STATES PATENT RECORDED FEBRUARY 26, 1894 IN BOOK 12 AT PAGE 298. (Nothing to show)
10. EASEMENT AND RIGHT OF WAY FOR ROAD PURPOSES AS DEDICATED TO THE PUBLIC IN INSTRUMENT RECORDED NOVEMBER 1, 1956 IN BOOK 296 AT PAGE 130. (As shown hereon)
11. EASEMENT AND RIGHT OF WAY FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A PIPELINE AS CONVEYED TO WEST GLENWOOD SPRINGS WATER DISTRICT IN DEED RECORDED MAY 24, 1971 IN BOOK 419 AT PAGE 275. (As shown hereon)
12. ENCROACHMENT OF RETAINING WALL AND FENCE ONTO ADJOINING PROPERTY AND ALL MATTERS SHOWN ON IMPROVEMENT LOCATION CERTIFICATE PREPARED BY DEMING LAND SURVEYING, LLC DATED OCTOBER 4, 2013, PROJECT 13056

LEGEND AND NOTES:

- INDICATES FOUND #5 REBAR WITH RED PLASTIC CAP ON #5 REBAR L.S. 36056
- INDICATES FOUND #5 REBAR WITH RED PLASTIC CAP ON #5 REBAR L.S. 27613
- INDICATES FOUND #5 REBAR WITH YELLOW PLASTIC CAP (ILLEGIBLE)
- BASIS OF BEARING: FOUND #5 REBAR WITH RED PLASTIC CAP ON #5 REBAR L.S. 27613 ON SOUTH WEST CORNER AND FOUND #5 REBAR WITH YELLOW PLASTIC CAP (ILLEGIBLE) ON THE SOUTHEAST CORNER OF SAID LOT 2 OF SUBJECT PARCEL, USING A BEARING OF S 86°17'0" E BETWEEN THE TWO DESCRIBED MONUMENTS AS SHOWN HEREON.
- BENCH MARK LOCATED ON A BRASS CAP HORIZONTAL CONTROL MARKER GLENWOOD 1994 ELEVATION NAVD 88 5714.00.
- THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY THIS SURVEYOR TO DETERMINE OWNERSHIP OR TO DISCOVER EASEMENTS OR OTHER ENCUMBRANCES OF RECORD. ALL INFORMATION PERTAINING TO OWNERSHIP, EASEMENTS OR OTHER ENCUMBRANCES OF RECORD HAS BEEN TAKEN FROM TITLE COMMITMENT ISSUED BY COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC DATED FEBRUARY 24, 2015 AS ORDER NO. 1502095 AND TITLE COMMITMENT ISSUED BY COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC DATED FEBRUARY 16, 2015 AS ORDER NO. 1502012-1 ANTIC
- UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD OBSERVATIONS OF MARKINGS MADE BY UTILITY LOCATORS. UNDERGROUND UTILITY LINES SHOULD BE VARIFIED PRIOR TO CONSTRUCTION
- THIS PROPERTY IS SUBJECT TO EASEMENTS, RIGHTS OF WAY AND/ OR REQUIREMENTS AS NOTED OR SHOWN ON THE ABOVE-MENTIONED FINAL PLAT IN THE RECORDS CLERK AND RECORDER OF THE GARFIELD COUNTY

SURVEYOR'S CERTIFICATE:

I, JEFFREY ALLEN TUTTLE, BEING A REGISTERED LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS MAP OF EXISTING CONDITIONS WAS PREPARED BY ME AND UNDER MY SUPERVISION FROM A SURVEY MADE BY ME AND UNDER MY SUPERVISION ON MAY 18, 2016 AND THAT BOTH THE SURVEY AND MAP ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JEFFREY ALLEN TUTTLE, L.S.33638

DATE

Notice:

According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any legal action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

TUTTLE SURVEYING SERVICES
727 Blake Avenue
Glenwood Springs, Colorado 81601
(970) 928-9708 (FAX 947-9007)
Email- jeff@tss-us.com

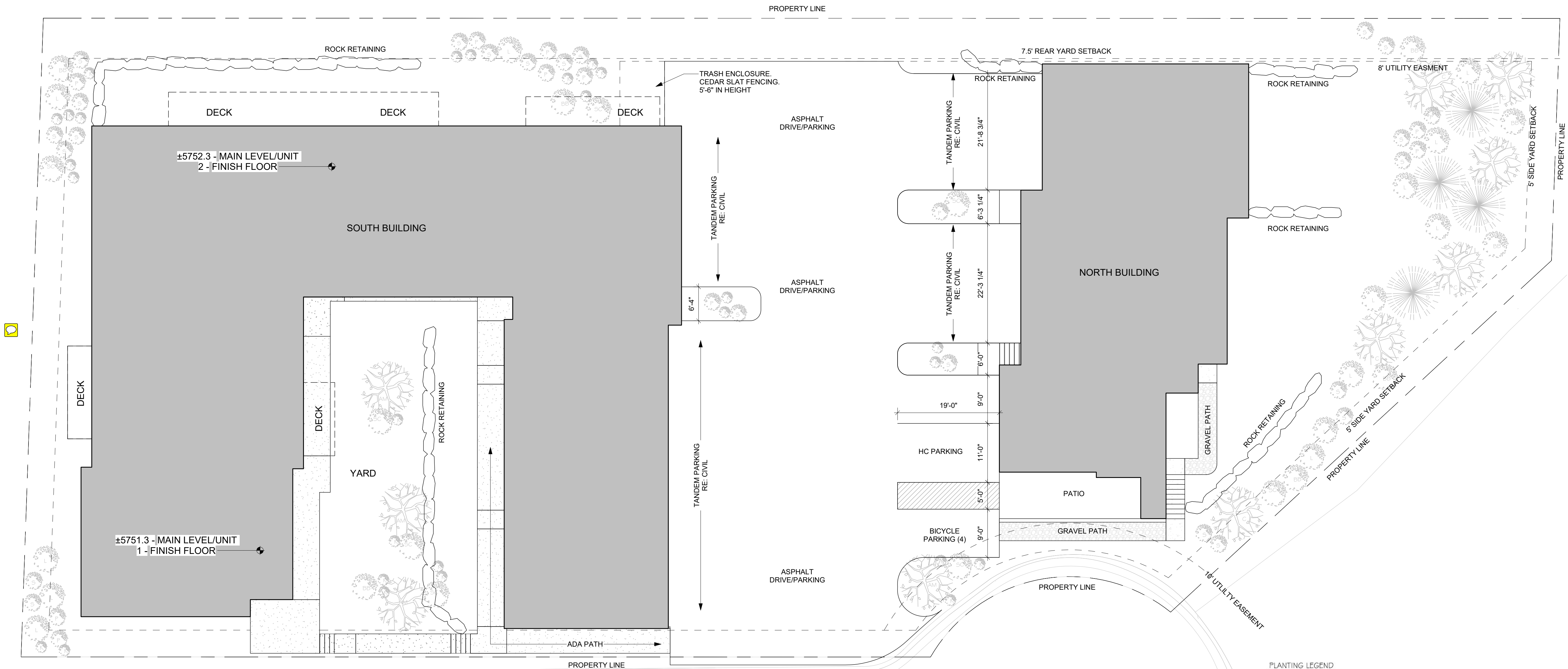


Topographical Survey Map

185 CO RD 135
Glenwood Sprgs, Colorado. 81601

Drawn by: DMC
Date: 04/18/2017
Z: 2016\FELL
JANKOVSKY LOT2\LOT2.DWG

1
OF 1



STAMP

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CONCEPTUAL PLANS

ISSUE DATE
CITY PLAN 2022-05-31
REVIEW

PLANTING LEGEND

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QTY.
TREES:				
	COLORADO BLUE SPRUCE	PICEA PUNGENS GLAUCA	8'	4
	AUTUMN BLAZE MAPLE	ACER 'JEFFERSRED'	3" C (L)	4
	CANADIAN CHOKECHERRY	PRUNUS VIRGINIANA 'SHUBERT'	2' C	6
SHRUBS:				
	SPIREA	SPIRAEA VARIETIES	#5 POT	22
	POTENTILLA/CINQUEFOIL	POTENTILLA FRUTICOSA	#5 POT	12
	BURNING BUSH	EUONYMUS ALATUS	B # B (L)	8
	SAND CHERRY		#5 POT	8
	LILAC	SYRINGA MEYERI	#5 POT	13
GRASSES:				
	'KARL FOERSTER' FEATHER REED	CALAMAGROSTIS ACUTIFLORA	#5 POT	27

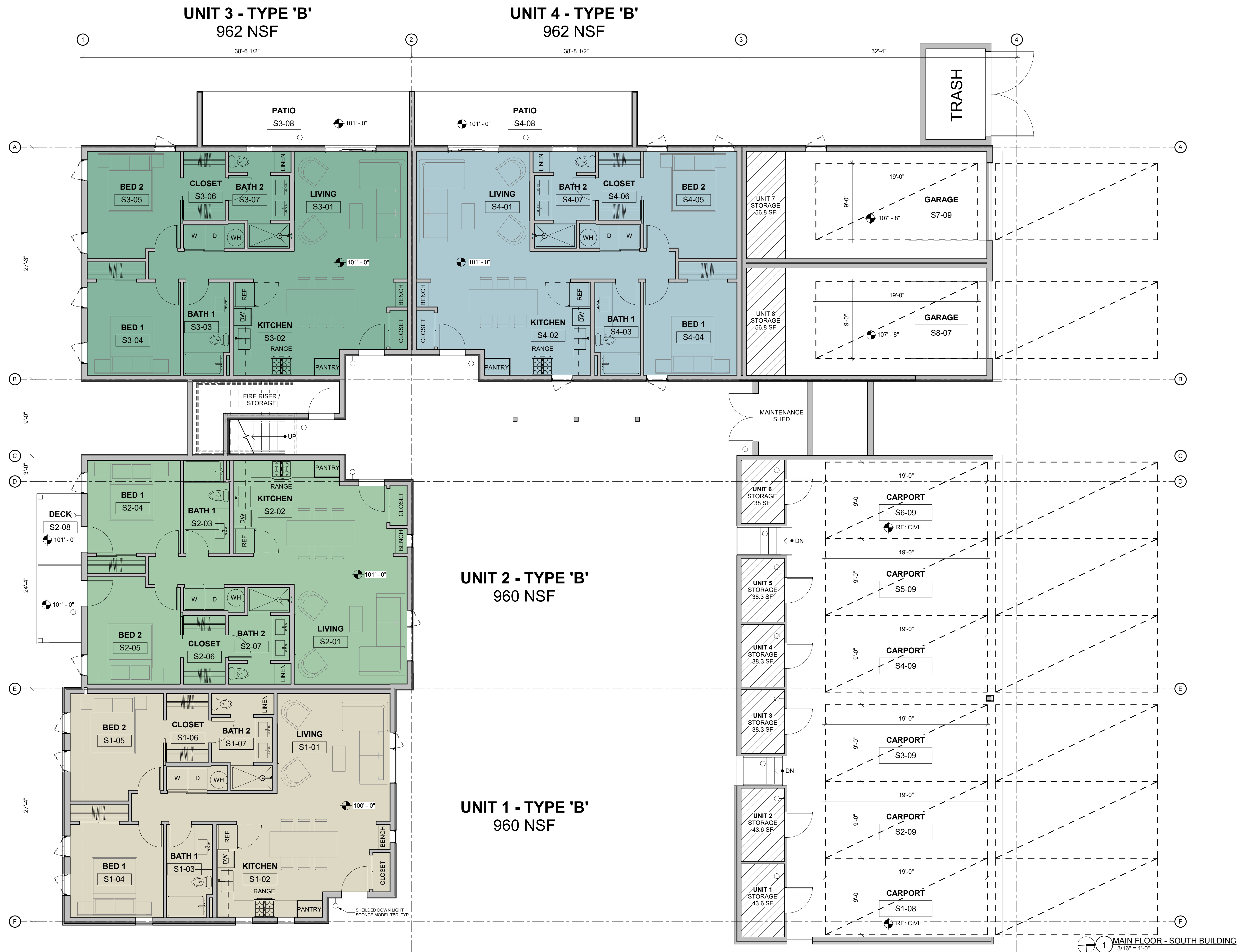
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PROPOSED
LANDSCAPE PLAN

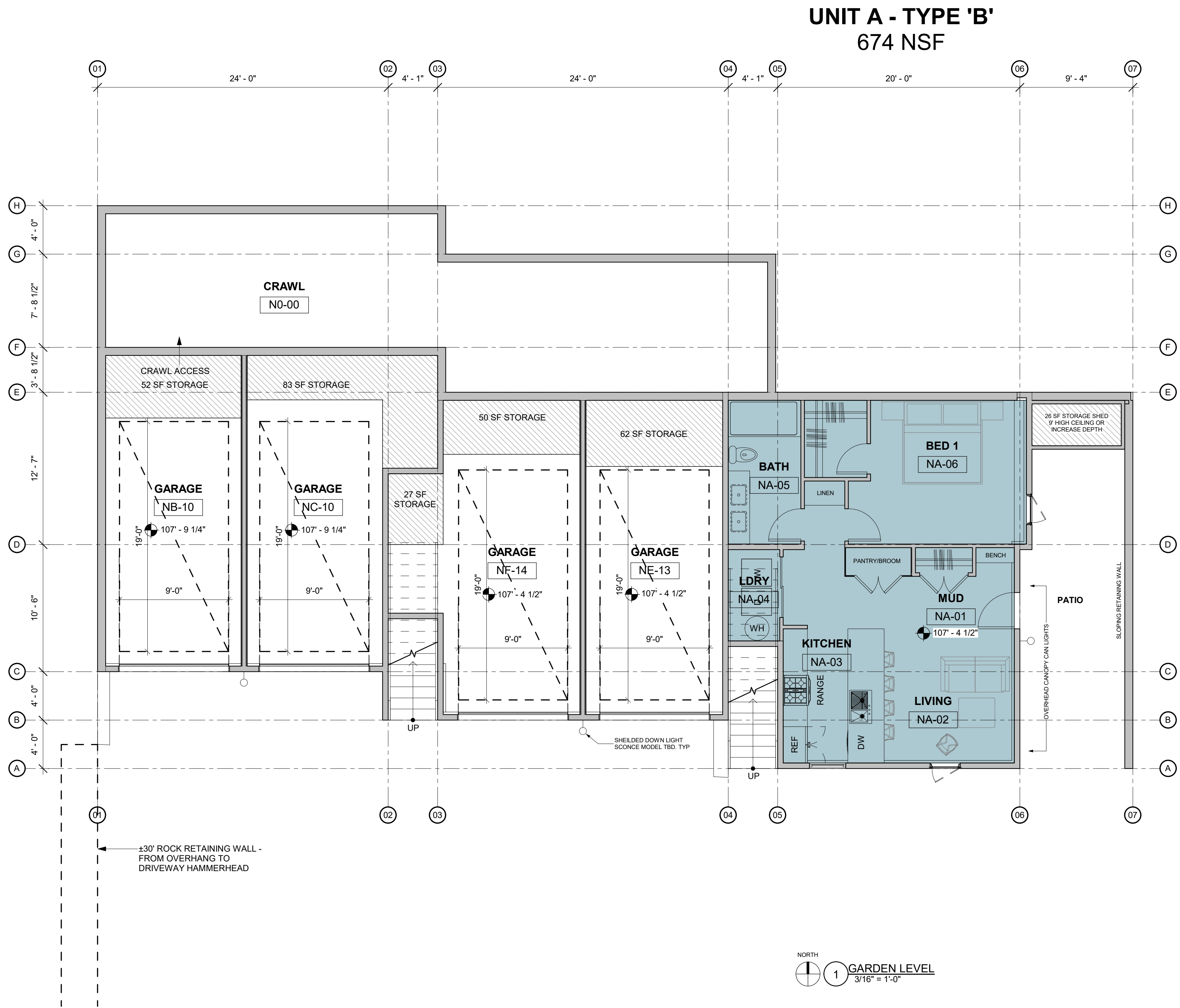
NORTH
1
PROPOSED LANDSCAPE PLAN
1" = 10'-0"

BENCHMARK 5751.3' = ARCH 100'-0"

L1.01







STAMP

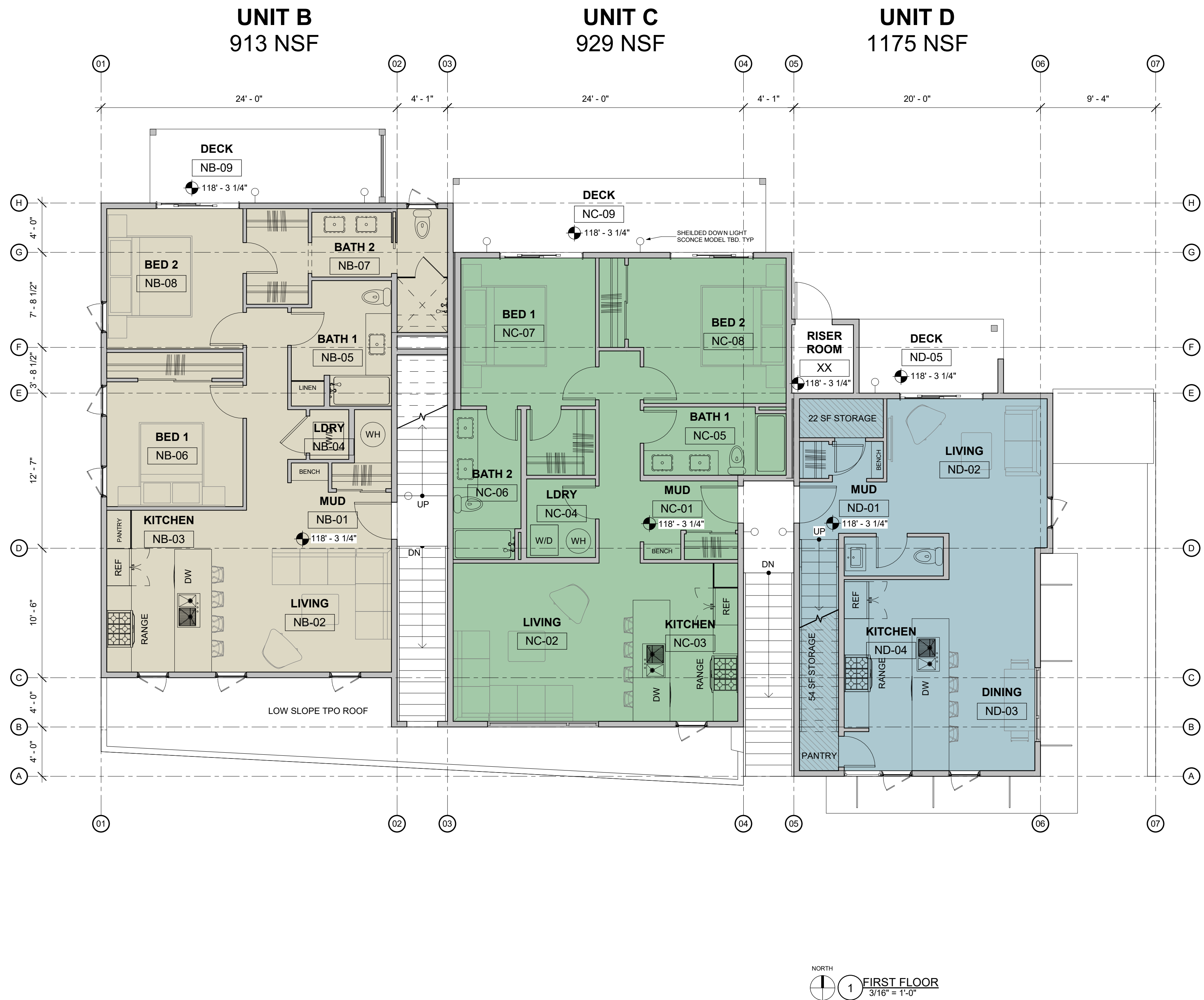
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PROPOSED
GARDEN LEVEL
FLOOR PLAN -
NORTH BUILDING



STAMP

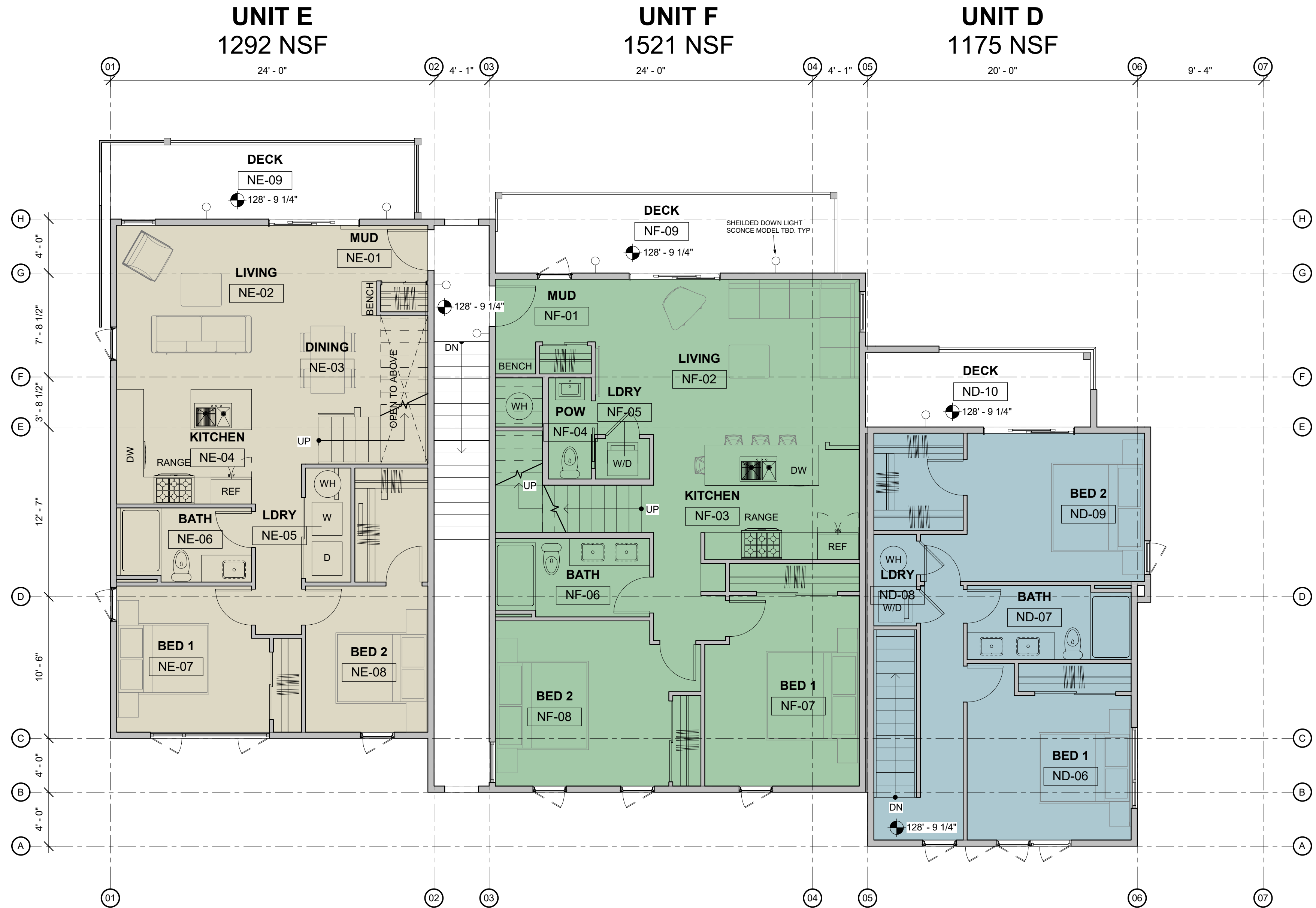
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PROPOSED FIRST
FLOOR PLAN -
NORTH BUILDING



NORTH
1 SECOND FLOOR
3/16" = 1'-0"

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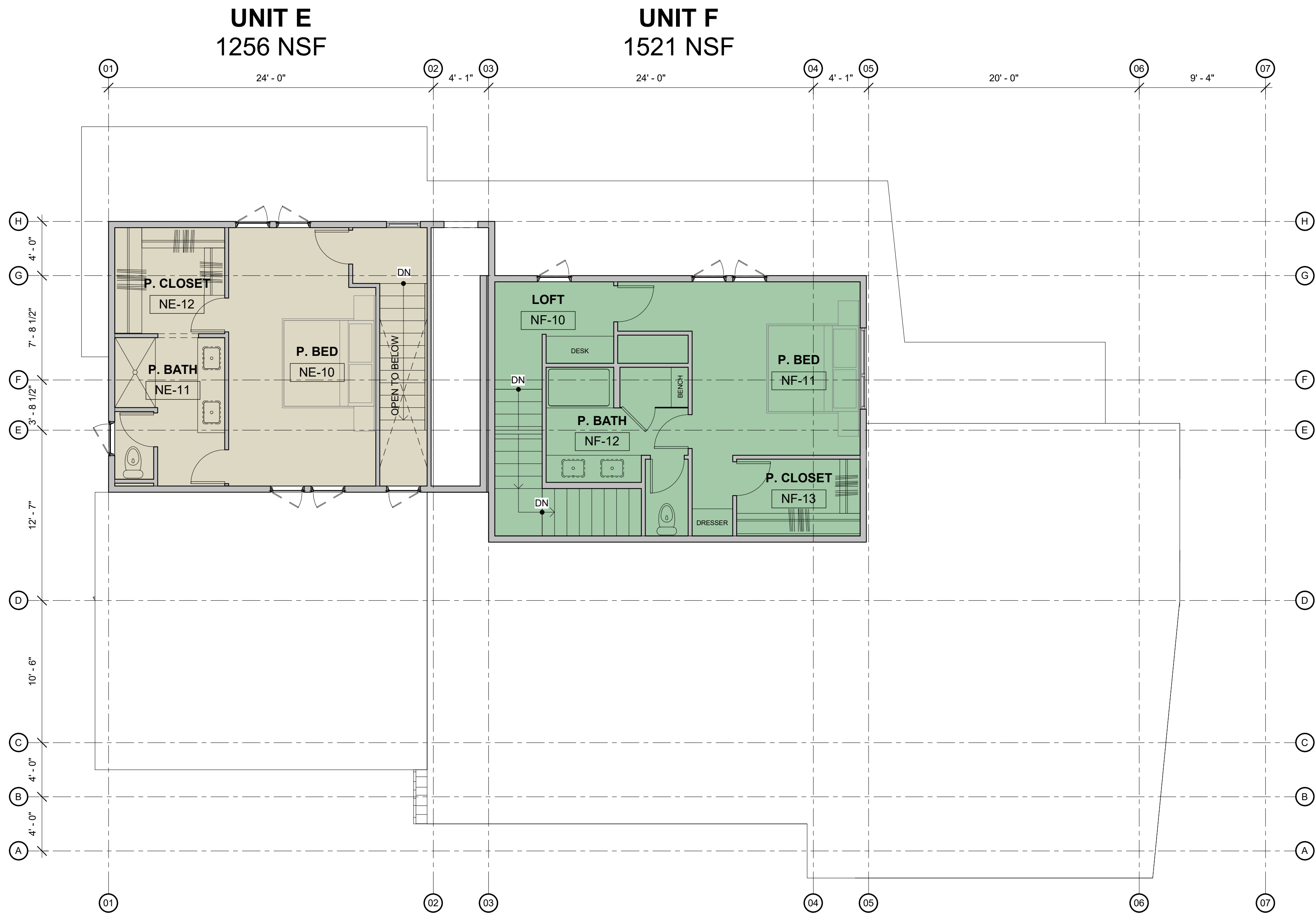
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PROPOSED
SECOND FLOOR
PLAN - NORTH
BUILDING

A3.05



NORTH
1 THIRD FLOOR
3/16" = 1'-0"

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PROPOSED
THIRD FLOOR
PLAN - NORTH
BUILDING

EXTERIOR ELEVATION LEGEND

- 1 VERTICAL CORRUGATED METAL SIDING - BERRIDGE CHAMPAGNE OR SIM.
- 2 CEMENT BOARD, 1" X 3", 2'-0" O.C. BOARD AND BATTEN SIDING - PEARL GRAY HARDIE SOLID COLOR OR SIM
- 3 4" WOOD LAP SIDING - BLONDE/GRAY STAIN
- 4 1" X 8" HORIZONTAL SHIPLAP WOOD SIDING - LIGHT BROWN STAIN
- 5 1" X 4" VERTICAL SHIPLAP WOOD SIDING - LIGHT BROWN STAIN
- 6 1" X 4" CEDAR WOOD PLAN, 6" O.C. - DARK BROWN STAIN
- 7 ASPHLAT SHINGLES - OWENS CORNING TRUE DEFINITION COLOR TBD
- 8 TPO ROOF MEMBRANE - GREY OR SIM.
- 9 STANDING SEAM METAL ROOFING - BERRIDGE OR SIM. COLOR TBD
- 10 CONCRETE FOUNDATION

*NOTE - THESE ELEVATIONS ARE CONCEPTUAL IN NATURE. INDIVIDUAL BUILDING ELEVATIONS MAY VARY BUT WILL BE EVALUATED FOR COMPLIANCE WITH DESIGN STANDARDS CONTAINED WITHIN TITLE 070 IF THE GLENWOOD SPRINGS MUNICIPAL CODE AT THE TIME OF SUBMITTING A BUILDING PERMIT APPLICATION

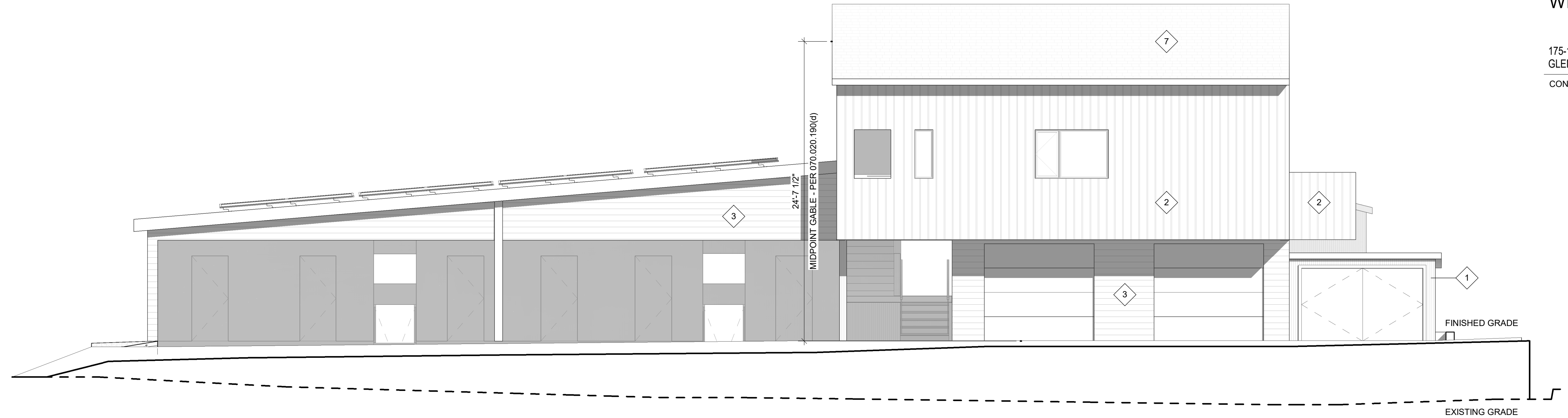
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SURFACE AREA

GROSS OF WALL
NET WOOD/COMPOSITE/METAL SIDING
NET GLAZING

1306 SF
1276 SF
30 SF

98%
2%

1 SOUTH BUILDING - NORTH ELEVATION
3/16" = 1'-0"

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SURFACE AREA

GROSS OF WALL
NET WOOD/COMPOSITE/METAL SIDING
NET CONCRETE
NET GLAZING

2049 SF
1830 SF
40 SF
179 SF

89%
2%
9%

2 SOUTH BUILDING - SOUTH ELEVATION
3/16" = 1'-0"

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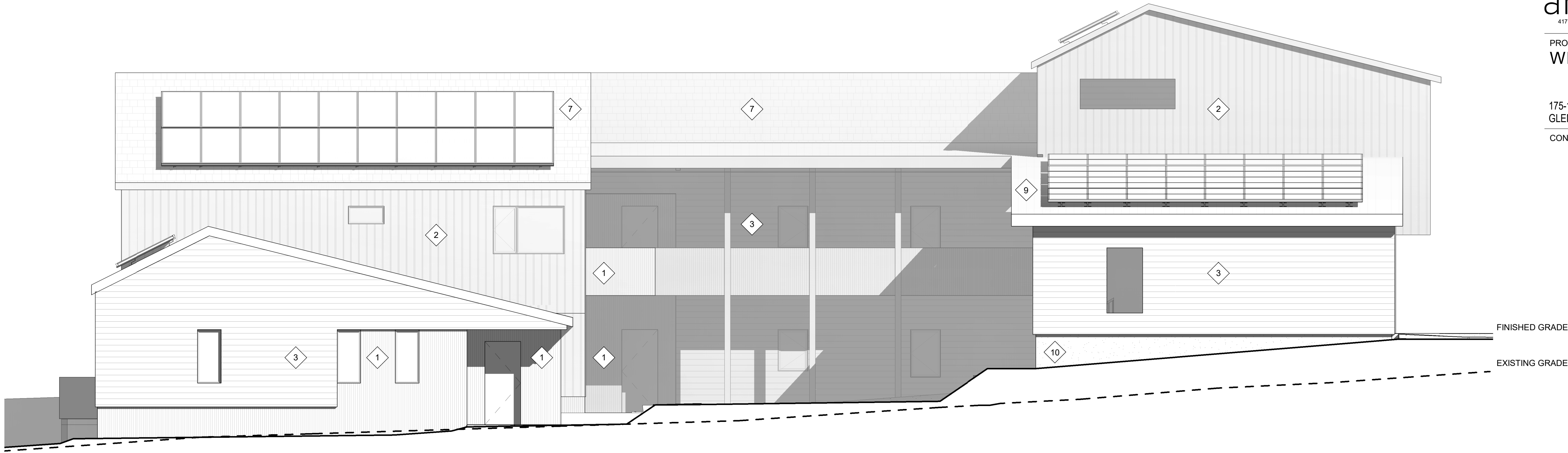
EXTERIOR
ELEVATIONS -
SOUTH BUILDING

A5.01

EXTERIOR ELEVATION LEGEND

- 1 VERTICAL CORRUGATED METAL SIDING - BERRIDGE CHAMPAGNE OR SIM.
- 2 CEMENT BOARD, 1" X 3", 2'-0" O.C. BOARD AND BATTEN SIDING - PEARL GRAY HARDIE SOLID COLOR OR SIM
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SURFACE AREA

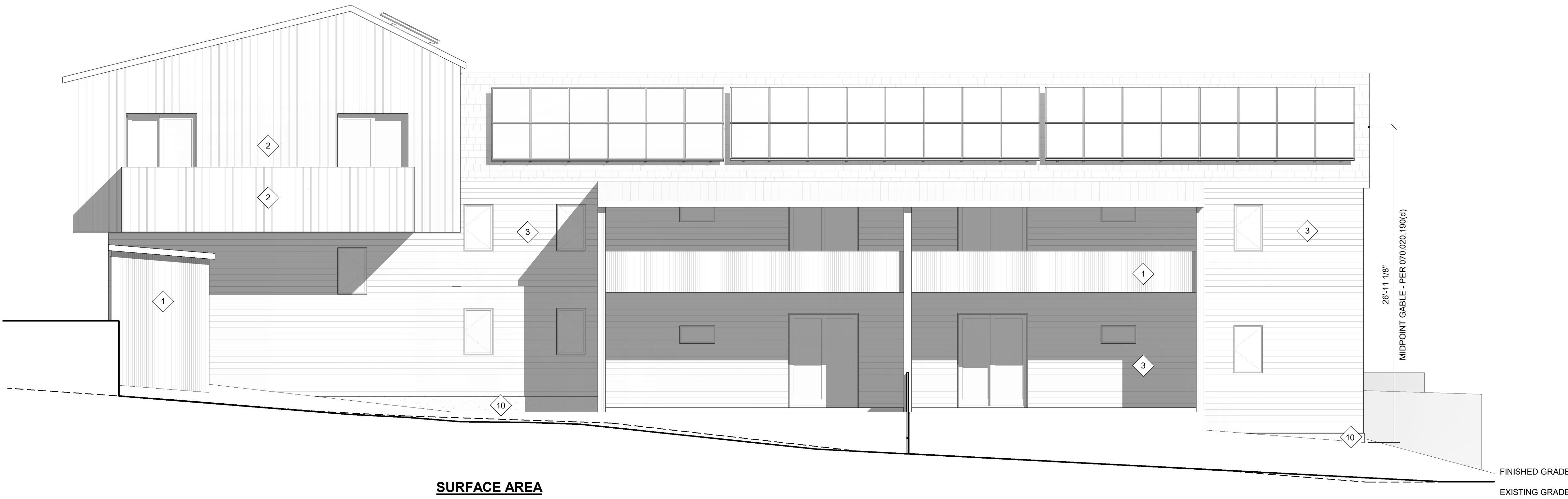
GROSS OF WALL	2161 SF	
NET WOOD/COMPOSITE/METAL SIDING	2020 SF	94%
NET CONCRETE	49 SF	2%
NET GLAZING	92 SF	4%

2 SOUTH BUILDING - EAST ELEVATION
3/16" = 1'-0"

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SURFACE AREA

GROSS OF WALL	2339 SF	
NET WOOD/COMPOSITE/METAL SIDING	1935 SF	83%
NET CONCRETE	28 SF	1%
NET GLAZING	376 SF	16%

1 SOUTH BUILDING - WEST ELEVATION
3/16" = 1'-0"

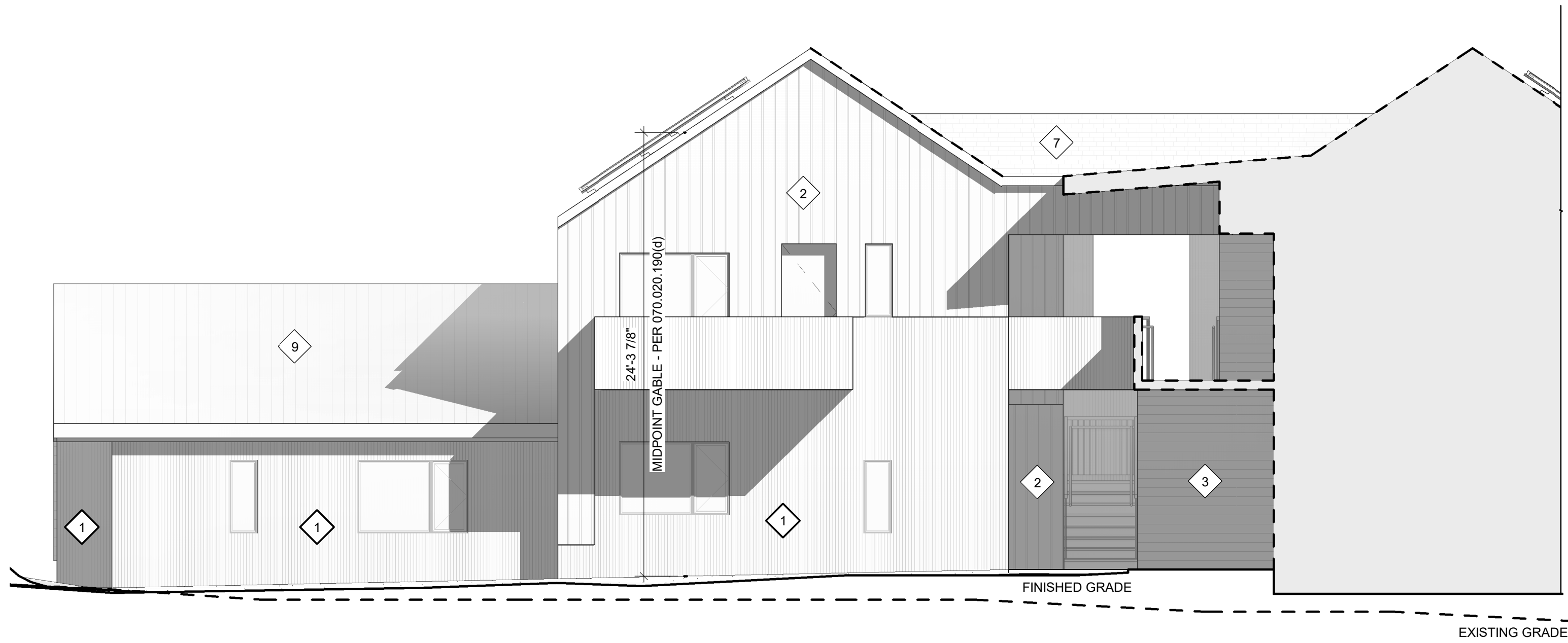
EXTERIOR
ELEVATIONS -
SOUTH BUILDING

A5.02

EXTERIOR ELEVATION LEGEND

- 1 VERTICAL CORRIGATED METAL SIDING - BERRIDGE CHAMPAGNE OR SIM.
- 2 CEMENT BOARD, 1" X 3", 2'-0" O.C. BOARD AND BATTEN SIDING - PEARL GRAY HARDIE SOLID COLOR OR SIM
- 3 4" WOOD LAP SIDING - BLONDE/GRAY STAIN
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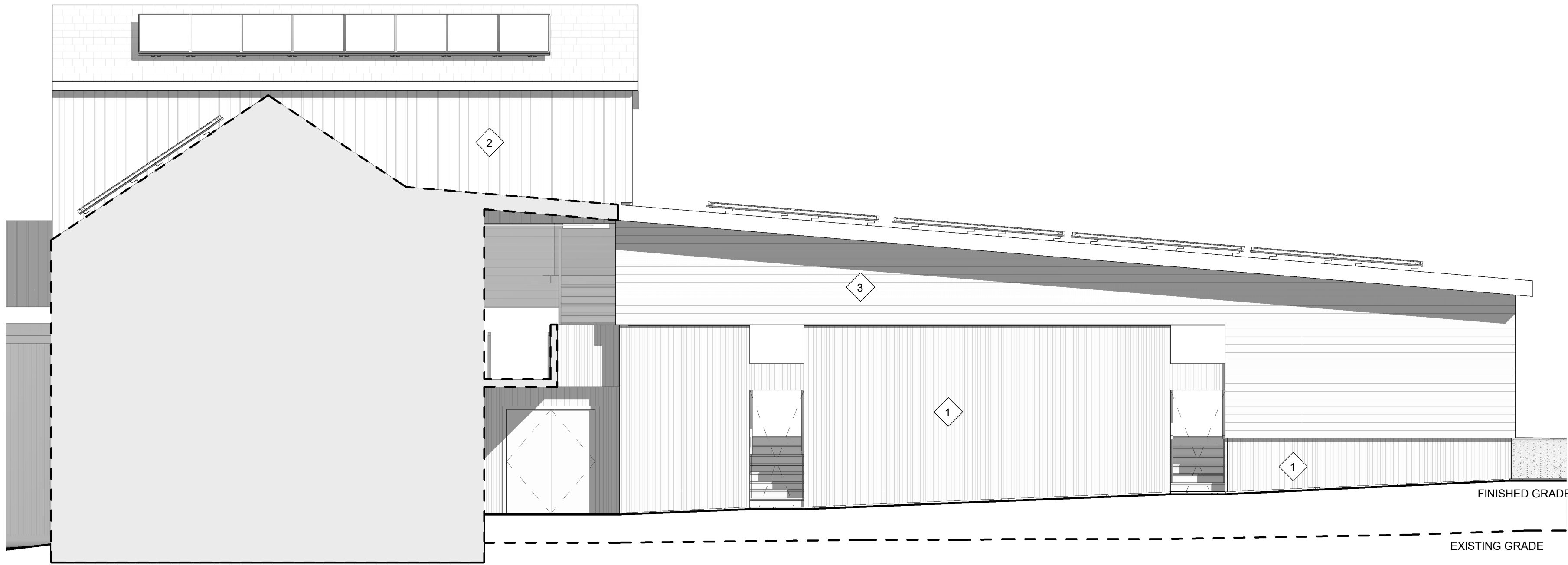
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SURFACE AREA

GROSS OF WALL	1068 SF	
NET WOOD/COMPOSITE/METAL SIDING	956 SF	89%
NET GLAZING	112 SF	11%

1 SOUTH BUILDING - NORTH ELEVATION COURTYARD
3/16" = 1'-0"



SURFACE AREA

GROSS OF WALL	1147 SF	
NET WOOD/COMPOSITE/METAL SIDING	1147 SF	89%
NET GLAZING	0 SF	0%

2 SOUTH BUILDING - SOUTH ELEVATION COURTYARD
3/16" = 1'-0"

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EXTERIOR
ELEVATIONS -
SOUTH BUILDING

A5.03

EXTERIOR ELEVATION LEGEND

- 1 VERTICAL CORRIGATED METAL SIDING - BERRIDGE CHAMPAGNE OR SIM.
- 2 CEMENT BOARD, 1" X 3". 2'-0" O.C. BOARD AND BATTEN SIDING - PEARL GRAY HARDIE SOLID COLOR OR SIM
- 3 4" WOOD LAP SIDING - BLONDE/GRAY STAIN
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- 10 CONCRETE FOUNDATION

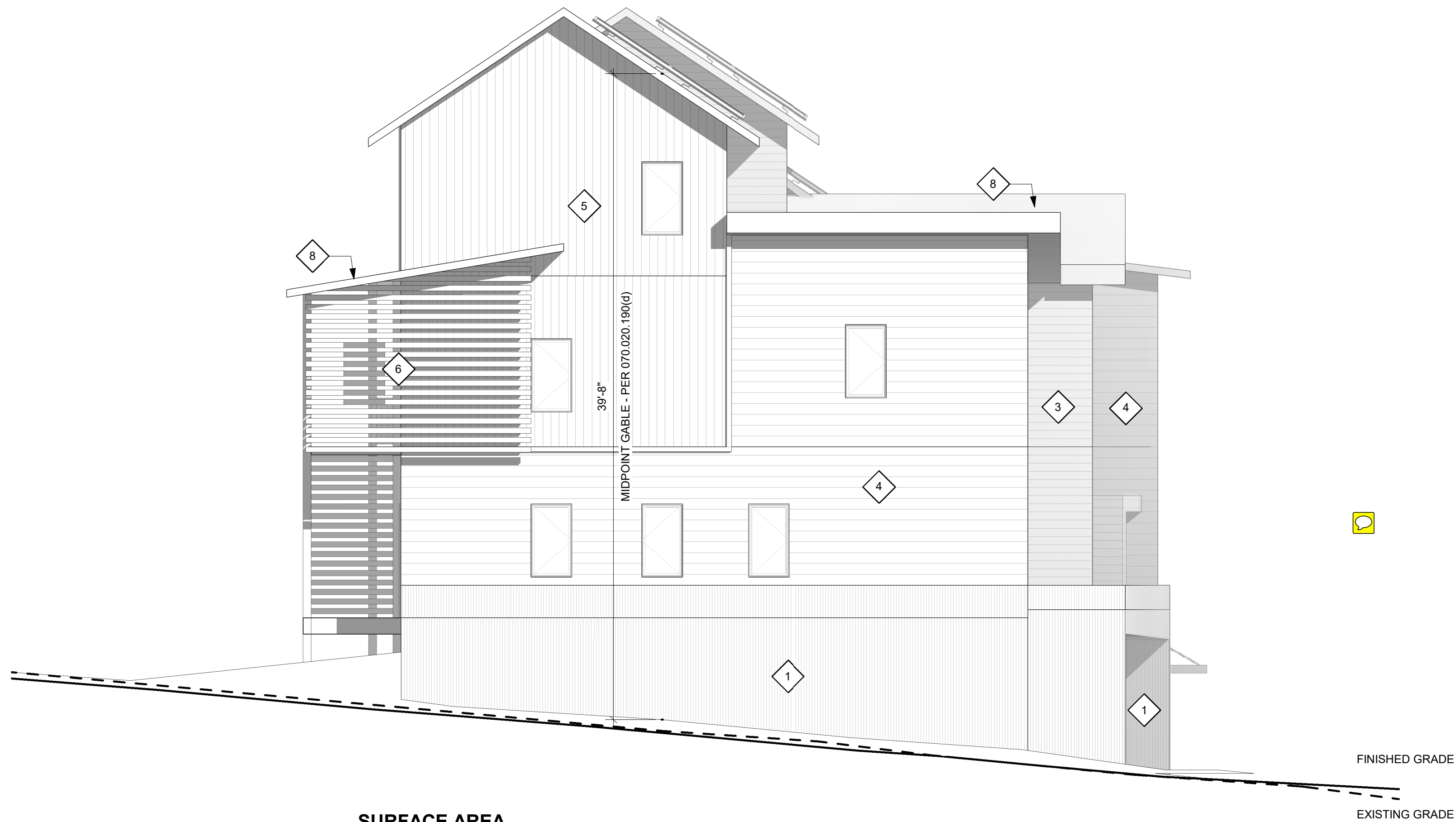
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SURFACE AREA

GROSS OF WALL	1705 SF	
NET WOOD/COMPOSITE/METAL SIDING	1575 SF	92%
NET GLAZING	130 SF	8%

1 NORTH BUILDING - EAST ELEVATION
3/16" = 1'-0"



SURFACE AREA

GROSS OF WALL	1625 SF	
NET WOOD/COMPOSITE/METAL SIDING	1557 SF	96%
NET GLAZING	68 SF	4%

2 NORTH BUILDING - WEST ELEVATION
3/16" = 1'-0"

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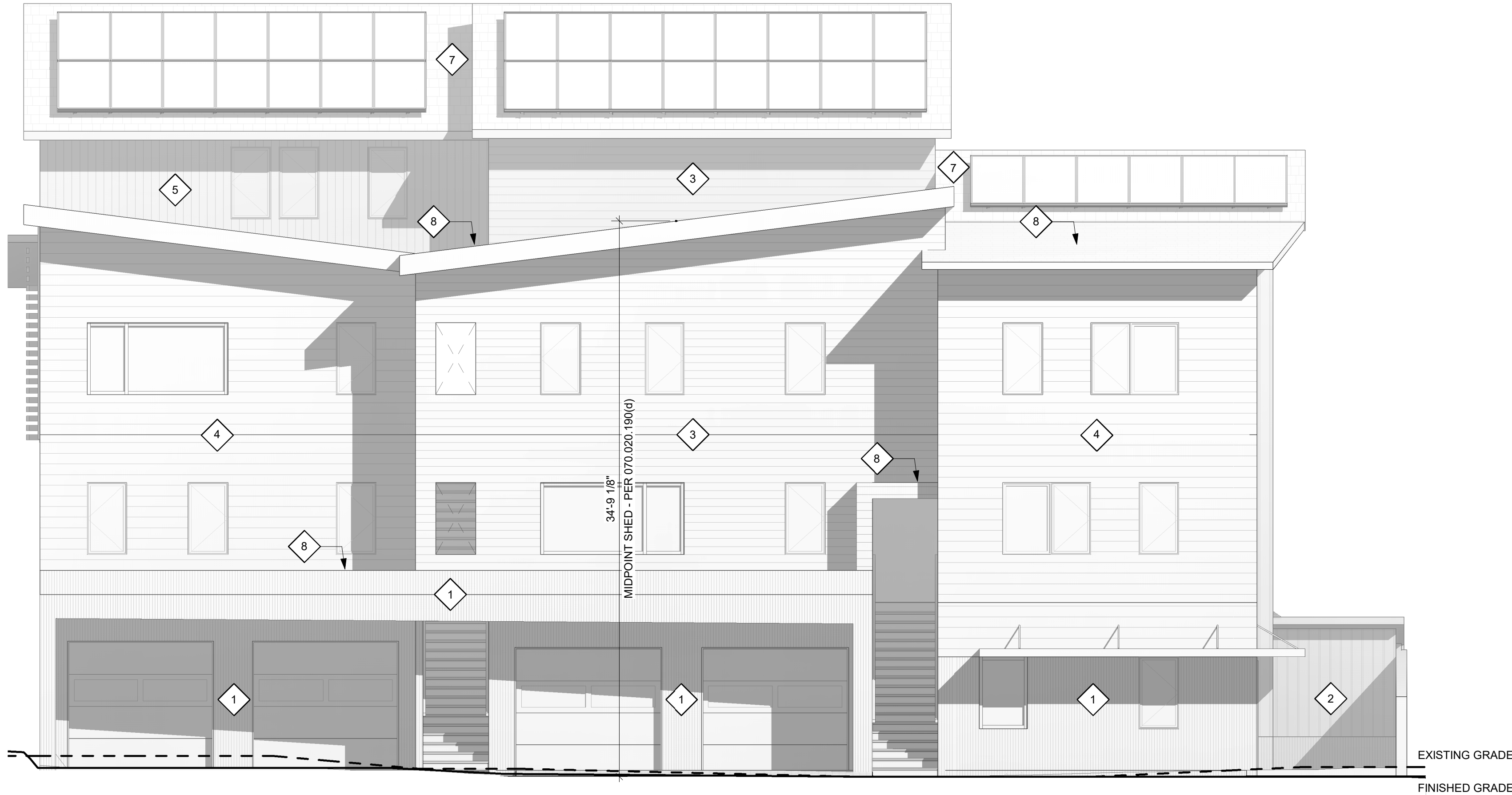
EXTERIOR
ELEVATIONS -
NORTH BUILDING

A5.05

EXTERIOR ELEVATION LEGEND

- 1 VERTICAL CORRUGATED METAL SIDING - BERRIDGE CHAMPAGNE OR SIM.
- 2 CEMENT BOARD, 1" X 3", 2'-0" O.C. BOARD AND BATTEN SIDING - PEARL GRAY HARDIE SOLID COLOR OR SIM
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SURFACE AREA

GROSS OF WALL	2892 SF	
NET WOOD/COMPOSITE/METAL SIDING	2528 SF	87%
NET GLAZING	364 SF	13%

1 NORTH BUILDING - SOUTH ELEVATION
3/16" = 1'-0"



SURFACE AREA

GROSS OF WALL	2134 SF	
NET WOOD/COMPOSITE/METAL SIDING	1680 SF	79%
NET GLAZING	454 SF	21%

2 NORTH BUILDING - NORTH ELEVATION
3/16" = 1'-0"

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EXTERIOR
ELEVATIONS -
NORTH BUILDING

A5.06



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PROPOSED
PERSPECTIVE
VIEWS - SOUTH
BUILDING

A8.01



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WESTLINK

2044

175-185 COUNTY ROAD 135,
GLENWOOD SPRINGS, CO. 81601

CONSULTANTS

STAMP

NOT FOR CONSTRUCTION - PRELIM.
CONCEPTUAL PLANS

ISSUE	DATE
CITY PLAN	2022-05-31
REVIEW	

5/31/2022 1:07:26 PM
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PROPOSED
PERSPECTIVE
VIEWS - NORTH
BUILDING

A8.02

Memo

To: Terri Partch/Jessica Bowser – City of Glenwood Springs Engineering
From: Deric Walter, PE
Date: December 16, 2021
Re: Subsurface Utility Engineering – Westlink

Civil Engineering
Surveying
& Beyond

Boundaries Unlimited Inc.

The purpose of this memo is to provide evidence that the proposed Westlink multifamily development is not a Subsurface Utility Engineering (SUE) required project.

As you are aware, Section 6.7 of Senate Bill SB 18-167 defines four (4) criteria which must all be met by a SUE required project. These are:

- 1) The project involves a construction contract with a public entity, as that term is defined in Section C.R.S. 24-91-102;
- 2) the project involves primarily horizontal construction and does not involve primarily the construction of buildings;
- 3) The project:
 - a. has an anticipated excavation footprint that exceeds two feet in depth and that is a contiguous one thousand square feet; or
 - b. involves utility boring.
for purposes of this subsection, the term "two feet in depth" does not include rotomilling, and the contiguous one thousand square feet does not include fencing and signing projects.
- 4) The project requires the design services of a licensed professional engineer.

This project is privately funded (no construction contract with a public entity) and primarily involves the vertical construction of buildings. Therefore, based on these reasonings, Westlink should not be classified as a Subsurface Utility Engineering required project.

If you have any question, please feel free to call me at 970.945.5252 x 01.



January 12, 2022

Westlink
Attn: Gabe Molnar
375 Oak Run
Carbondale, CO 81623



Re: Basic Traffic Analysis for Westlink, Glenwood Springs, Colorado

Dear Mr. Molnar:

The purpose of this letter is to provide a basic engineered analysis for the additional traffic generated from the redevelopment of 175/185 CR #135 in Glenwood Springs, Colorado. The 0.70± acre property is owned by Moltea III, LLC and was previously developed with a combination of rental single-family and low-rise apartment style housing based on descriptions provided in the Institute of Traffic Engineers (ITE) *Trip Generation Manual*. The property is currently accessed from Highway 6 & 24 via CR#135 and then off CR#135 at multiple locations. The proposed redevelopment will replace the existing residences with one (1) 1-bedroom apartment, twelve (12) 2-bedroom apartments and two (2) 3-bedroom apartments. The following Exhibit-1 provides an aerial view of these roadways and intersections.



Exhibit 1 (Site & Existing Roadways)

Based on surveying information provided by Tuttle Survey Services, the public right of way is approximately 30-feet and the roadway has been paved with two 12-foot lanes. Adjacent to the site, the west side of the roadway contains curb and gutter while the east side has a 12"-24" gravel shoulder. South of the site, the roadway contains curb and gutter on both sides. The posted speed limit is 15 mph and there are no existing sidewalks. Per the City of Glenwood Springs *Street Standards, Traffic Committee Report to Glenwood Springs City Council* (July 7, 2005), the nearest street classification appears to be "Local Neighborhood Road with No Parking".

While the property use will remain residential, the traffic classifications will be revised from *Single Family Homes* and *Multifamily Housing (Low Rise)* to only *Multifamily Housing (Low Rise)* and the total number of residential units will be increased by eight (8).

Existing and Proposed traffic trip generation has been estimated as follows:

Existing Condition							
Description/ITE Code	*ITE Vehicle Trip Generation Rates			# Units	Total Generated Trips		
	Weekday	AM Peak Hour	PM Peak Hour		Weekday	AM Peak Hour	PM Peak Hour
Single Family Homes, per Dwelling Unit (210)	9.44	0.74	0.99	2	18.88	1.48	1.98
Multifamily Housing (Low Rise)(220)	7.32	0.46	0.56	4	29.28	1.84	2.24
<i>Totals</i>					<i>48.16</i>	<i>3.32</i>	<i>4.22</i>
Proposed Condition							
Description/ITE Code	*ITE Vehicle Trip Generation Rates			# Units	Total Generated Trips		
	Weekday	AM Peak Hour	PM Peak Hour		Weekday	AM Peak Hour	PM Peak Hour
Multifamily Housing (Low Rise)(220)	7.32	0.46	0.56	14	102.48	6.44	7.84
<i>Trip Increase</i>					54.32	3.12	3.62
*Institute of Traffic Engineers (ITE) Trip Generation Manual, 10th ed.							

Table 1, Trip Generation Estimates

A previous study for this property was prepared in 2017 by Boundaries Unlimited Inc. (BUI) for the Moltea Apartments which was later referenced by SGM, Inc. in 2019 for the 13-Unit Multi-Family Housing project at 62 CR#135 near the intersection of Highway 6 & 24 and CR#135. The two studies included an additional 3 trips in the AM Peak and 4 trips in the PM Peak from this property (Moltea Apartments) and the SGM, Inc. study concluded that the combination of projects did not require a CDOT access permit and that the total traffic volumes at the intersection of Highway 6 & 24 did not require auxiliary turn lanes (pages 5 and 6). For reference, the SGM, Inc. study utilized the 10th edition of the Institute of Traffic Engineers (ITE) Trip Generation Manual which is also being used for these Westlink traffic projections in Table 1.

Given that the Westlink projections provided maintain the same additional 3 trips in the AM Peak and 4 trips in the PM Peak of the preceding Moltea Apartments, it can be concluded that the assessments contained in the SGM, Inc. study remain valid and that Westlink does not require either a CDOT access permit or auxiliary turn lanes.

If you have any questions or need additional information, please feel free to contact me at 970.945.5252.

Sincerely,
BOUNDARIES UNLIMITED INC.

Deric J. Walter, PE

Enc.



An Employee Owned Company

Office Locations: Denver (HQ), Parker, Colorado Springs, Fort Collins, Glenwood Springs, and Summit County, Colorado

December 9, 2021

Moltea LLC
Attn: Keith Teahen
375 Oak Run
Carbondale, Colorado 81623
teahenkeith@gmail.com

Project No. 17-7-289.01

Subject: Update of Subsoil Study Report for Proposed Apartment Buildings,
175-185 County Road 135, Glenwood Springs, Colorado

Gentlemen:

As requested, we are providing an update to the previous subsoil study conducted for the proposed development at the subject site. Hepworth-Pawlak Geotechnical (now Kumar & Associates) previously conducted a subsoil study for design of foundations at the site and presented the findings in a report dated June 9, 2016, Job No. 116 183A. The current review was performed in accordance with our agreement for professional services with Moltea LLC date December 9, 2021.

Proposed Development: The current proposed development plan is essentially the same as described in the previous subsoil study report except the units will be for rent rather than for sale. The two buildings will be 2 to 3-story structures with total of 14 apartments located as shown on Figure 1. The site conditions are essentially the same as previously described and includes five residential dwellings which will be removed for the proposed development. Two small detention ponds are proposed, one at each of the southeast and southwest corners of the property.

Conclusions and Recommendations: The current building development plan is consistent with that expected in the previous subsoil study report and the previous recommendations can be used for the site development plan and building foundation design. Other recommendations presented in the previous report which are applicable should also be observed. Additionally, the natural soil encountered at shallow depth in the previous exploratory borings were mainly moist stiff clay with low percolation rate and minor hydro-compression potential. We expect the detention pond water from storm runoff will mostly discharge through the controlled outlet rather than percolate into the ground and potential subsurface wetting should not significantly impact adjacent properties.

The findings and recommendations submitted in this letter are based on our review of the current proposed development plan, or cursory review of the current site conditions and the previous subsurface exploration at the site. Variations in the subsurface conditions could be encountered

during excavation and change the recommendations contained in this letter. Our services do not include determining the presence, prevention or possibility of mold or other biological contaminants (MOBC) developing in the future. If the client is concerned about MOBC, then a professional in this special field of practice should be consulted.

If you have any questions or need further assistance, please call our office.

Respectfully Submitted,

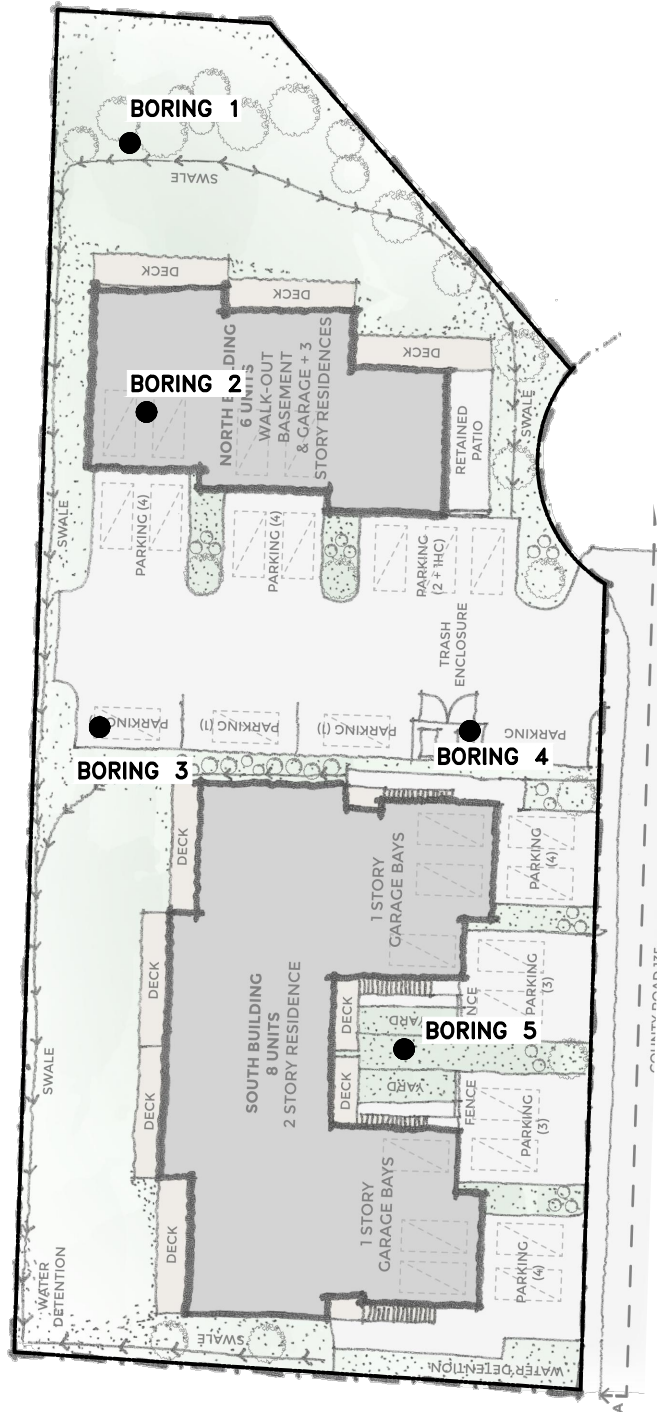
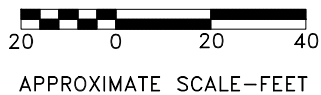
Kumar & Associates, Inc.

Steven L. Pawlak, P.E.

SLP/kac

Attachment: Figure 1 Location of Exploratory Borings





**SUBSOIL STUDY
FOR FOUNDATION DESIGN
PROPOSED TOWNHOME DEVELOPMENT
175 COUNTY ROAD 135
GLENWOOD SPRINGS, COLORADO**

JOB NO. 116 183A

JUNE 9, 2016

PREPARED FOR:

**JORDAN ARCHITECTURE
ATTN: BRAD JORDAN
P.O. BOX 1031
GLENWOOD SPRINGS, COLORADO 81602
bradjordanarchitect@gmail.com**

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PURPOSE AND SCOPE OF STUDY

This report presents the results of a subsoil study for the proposed townhome development at 175 County Road 135, Glenwood Springs, Colorado. The project site is shown on Figure 1. The purpose of the study was to develop recommendations for the foundation design. The study was conducted in general accordance with our proposal for geotechnical engineering services to Teahen Construction dated November 24, 2015.

A field exploration program consisting of exploratory borings was conducted to obtain information on the subsurface conditions. Samples of the subsoils obtained during the field exploration were tested in the laboratory to determine their classification, compressibility or expansion potential and other engineering characteristics. The results of the field exploration and laboratory testing were analyzed to develop recommendations for building foundation design including types, depths and allowable pressures. This report summarizes the data obtained during this study and presents our conclusions, recommendations and other geotechnical engineering considerations based on the proposed construction and the subsurface conditions encountered.

PROPOSED CONSTRUCTION

The proposed development consists of two townhome buildings, both two story structures with a total of 13 units. We assume ground floors will be slab on grade and close to existing grade. Garages will be attached and also slab on grade. Grading for the structures is assumed to be relatively minor with cut depths between about 3 and 10 feet. We assume relatively light foundation loadings typical for the townhomes.

If building locations, grading or loading information change significantly, we should be notified to re-evaluate the recommendations presented in this report.

SITE AND GEOLOGIC CONDITIONS

The site is currently developed with several single story, modular buildings and a two story wood frame building located approximately as shown on Figure 1. The ground surface slopes gently to moderately generally down to the south and has been modified by relatively shallow cut and fill grading for the existing development. Elevation difference between each building area is on the order of 8 to 10 feet. The existing drives and parking areas are gravel. Vegetation consists mainly of grass, bushes and trees throughout the property. The property lies in the lower part of an alluvial fan. There are no potential geologic hazards that could make development of the property infeasible.

FIELD EXPLORATION

The field exploration for the project was conducted between May 23 and 25, 2016. Five exploratory borings were drilled at the locations shown on Figure 1 to evaluate the subsurface conditions. The borings were drilled with 4-inch diameter continuous flight augers powered by a truck-mounted CME-45B drill rig. The borings were logged by a representative of Hepworth-Pawlak Geotechnical, Inc.

Samples of the subsoils were taken with 1½ inch and 2 inch I.D. spoon samplers. The samplers were driven into the subsurface materials at various depths with blows from a 140 pound hammer falling 30 inches. This test is similar to the standard penetration test described by ASTM Method D-1586. The penetration resistance values are an indication of the relative density or consistency of the subsoils. Depths at which the samples were taken and the penetration resistance values are shown on the Logs of Exploratory Borings, Figures 2 and 3. The samples were returned to our laboratory for review by the project engineer and testing.

SUBSURFACE CONDITIONS

Graphic logs of the subsurface conditions encountered in the borings at the site are shown on Figures 2 and 3. The subsoils encountered, below a variable depth of topsoil and fill

soils, consisted of up to 9 feet of medium dense, moist, brown, slightly to very clayey sand and gravel overlying 10 to 19 feet of medium stiff to stiff, moist, brown, silty, sandy to very sandy clay (alluvial fan deposits). Below depths of about 15 to 28 feet, loose to medium dense, moist to very moist, light brown, slightly clayey, silty, travertine sand was encountered. At Boring 2, dense, slightly moist, silty clayey sand and gravel was encountered at 31 to 36 feet. The fill typically consisted of sandy clay with gravel, cobbles and some organics and should be expected to vary in type, depth and condition across the site. Drilling in the coarse granular soils was generally difficult due to the cobbles.

Laboratory testing performed on samples obtained from the borings included natural moisture content and density, gradation analyses, unconfined compressive strength, and liquid and plastic limits. The results of swell-consolidation testing performed on four samples of the clay soils, shown on Figures 5 and 6, indicate low to moderate compressibility under conditions of loading and wetting. Results of gradation analyses performed on a small diameter drive sample (minus 1½ inch fraction) of the upper granular soils are shown on Figure 7. The laboratory testing is summarized in Table 1.

No free water was encountered in the borings at the time of drilling. The soils were typically moist to very moist with depth.

FOUNDATION BEARING CONDITIONS

The relatively dense, natural granular soils and stiff clay soils are suitable for support of the townhome buildings. Spread footings placed on these materials should have low to moderate bearing capacity for the clay and granular soils, respectively, with expected relatively low settlement potential. Fill material and debris from the existing development should be completely removed from beneath the proposed building areas. Structural fill can be used to reestablish design bearing levels. The structural fill can consist of the on-site soils provided they are processed to a relatively consistent gradation and devoid of organics, construction debris and rock larger than about 5 inches.

DESIGN RECOMMENDATIONS

FOUNDATIONS

Considering the subsurface conditions encountered in the exploratory borings and the nature of the proposed construction, we recommend the buildings be founded with spread footings bearing on the natural granular soils, clay soils or compacted structural fill.

The design and construction criteria presented below should be observed for a spread footing foundation system.

- 1) Footings placed on the undisturbed natural soils should be designed for an allowable bearing pressure of 1,500 psf. Based on experience, we expect settlement of footings designed and constructed as discussed in this section will be about 1 to 1½ inches.
- 2) The footings should have a minimum width of 18 inches for continuous walls and 2 feet for isolated pads.
- 3) Exterior footings and footings beneath unheated areas should be provided with adequate soil cover above their bearing elevation for frost protection. Placement of foundations at least 36 inches below exterior grade is typically used in this area.
- 4) Continuous foundation walls should be reinforced top and bottom to span local anomalies such as by assuming an unsupported length of at least 12 feet. Foundation walls acting as retaining structures should also be designed to resist lateral earth pressures as discussed in the "Foundation and Retaining Walls" section of this report.
- 5) The existing fill, topsoil, debris and any loose or disturbed soils should be removed to expose the natural granular soils or clay soils. The exposed soils should then be moisture adjusted to near optimum and compacted. Structural fill can be used to support footings. The structural fill should consist of a relatively consistent graded material limited to a depth of about 6 feet below footing bearing level and compacted to at least 98% of

standard Proctor density (ASTM –D 698) at near optimum moisture content. The areas stripped of the existing fill soils should be observed prior to placing structural fill and the structural fill evaluated during placement for compaction by a representative of the geotechnical engineer.

- 6) A representative of the geotechnical engineer should observe all footing excavations prior to concrete placement to evaluate bearing conditions.

FOUNDATION AND RETAINING WALLS

Foundation walls and retaining structures which are laterally supported and can be expected to undergo only a slight amount of deflection should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of at least 55 pcf for backfill consisting of the on-site soils. Cantilevered retaining structures which are separate from the buildings and can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of at least 45 pcf for backfill consisting of the on-site soils. Backfill should not contain organics, debris and rock larger than about 5 inches.

All foundation and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent footings, traffic, construction materials and equipment. The pressures recommended above assume drained conditions behind the walls and a horizontal backfill surface. The buildup of water behind a wall or an upward sloping backfill surface will increase the lateral pressure imposed on a foundation wall or retaining structure. An underdrain should be provided to prevent hydrostatic pressure buildup behind walls.

Backfill should be placed in uniform lifts and compacted to at least 95% of the maximum standard Proctor (ASTM-D698) density at a moisture content near optimum. Care should be taken not to overcompact the backfill or use large equipment near the wall, since this could cause excessive lateral pressure on the wall. Some settlement of deep foundation wall backfill should be expected, even if the material is placed correctly, and could result in distress to facilities constructed on the backfill. Use of a select granular wall backfill

compacted to at least 98% of standard Proctor density will help reduce the settlement potential.

The lateral resistance of foundation or retaining wall footings will be a combination of the sliding resistance of the footing on the foundation materials and passive earth pressure against the side of the footing. Resistance to sliding at the bottoms of the footings can be calculated based on a coefficient of friction of 0.35. Passive pressure of compacted backfill against the sides of the footings can be calculated using an equivalent fluid unit weight of 325 pcf. The coefficient of friction and passive pressure values recommended above assume ultimate soil strength. Suitable factors of safety should be included in the design to limit the strain which will occur at the ultimate strength, particularly in the case of passive resistance. Fill placed against the sides of the footings to resist lateral loads should be compacted to at least 95% of the maximum standard Proctor density at a moisture content near optimum.

FLOOR SLABS

The natural soils and properly constructed structural fill are suitable to support lightly loaded slab-on-grade construction. To reduce the effects of some differential movement, non-structural floor slabs should be separated from all bearing walls and columns with expansion joints which allow unrestrained vertical movement. Floor slab control joints should be used to reduce damage due to shrinkage cracking. The requirements for joint spacing and slab reinforcement should be established by the designer based on experience and the intended slab use. A minimum 4 inch layer of free-draining gravel should be placed beneath below grade slabs (if any) to facilitate drainage. This material should consist of minus 2 inch aggregate with at least 50% retained on the No. 4 sieve and less than 2% passing the No. 200 sieve.

Fill materials placed for support of floor slabs above footing bearing level should be compacted to at least 95% of maximum standard Proctor (ASTM- D 698) density at a moisture content near optimum. Required fill can consist of the on-site soils devoid of vegetation, topsoil, debris and oversized rock.

UNDERDRAIN SYSTEM

Although groundwater was not encountered during our exploration, it has been our experience in the area and where clay soil is present that local perched groundwater can develop during times of heavy precipitation or seasonal runoff. Frozen ground during spring runoff can also create a perched condition. We recommend below-grade construction, such as retaining walls and basement areas, be protected from wetting and hydrostatic pressure buildup by an underdrain system. Building floor slabs constructed at to above finish exterior grade and shallow crawlspace should not need a perimeter subdrain.

The drains should consist of drainpipe placed in the bottom of the wall backfill surrounded above the invert level with free-draining granular material. The drain should be placed at each level of excavation and at least 1 foot below lowest adjacent finish grade and sloped at a minimum 1% to a suitable gravity outlet or non-perforated sump. Free-draining granular material used in the underdrain system should contain less than 2% passing the No. 200 sieve, less than 50% passing the No. 4 sieve and have a maximum size of 2 inches.

SITE GRADING

The risk of construction-induced slope instability at the site appears low provided cut and fill depths are limited. We assume cut and fill depths throughout the project will be about 10 feet or less. Embankment fill slopes should be compacted to at least 95% of the maximum standard Proctor (ASTM-D698) density near optimum moisture content. Prior to fill placement, the subgrade should be carefully prepared by removing all vegetation, topsoil, debris and existing fill, and compacting to at least 95% of the maximum standard Proctor density. The fill should be benched into slopes that exceed 20% grade. Permanent unretained cut and fill slopes should be graded at 2 horizontal to 1 vertical or flatter and protected against erosion by revegetation or other means.

SURFACE DRAINAGE

Proper surface grading and drainage will be important to the satisfactory performance of the constructed facilities. Potential surface runoff from uphill of the project should be considered in the grading and drainage plan. The following drainage precautions should be observed during construction and maintained at all times after the buildings have been completed:

- 1) Inundation of the foundation excavations and underslab areas should be avoided during construction.
- 2) Exterior backfill should be adjusted to near optimum moisture and compacted to at least 95% of the maximum standard Proctor (ASTM-D 698) density in pavement and slab areas and to at least 90% of the maximum standard Proctor density in landscape areas.
- 3) The ground surface surrounding the exterior of the buildings should be sloped to drain away from the foundation in all directions. We recommend a minimum slope of 12 inches in the first 10 feet in unpaved areas and a minimum slope of 2½ inches in the first 10 feet in paved areas. Free-draining wall backfill (if any) should be capped with at least 2 feet of the on-site finer graded soils to reduce surface water infiltration.
- 4) Roof downspouts and drains should discharge well beyond the limits of all backfill.
- 5) Landscaping which requires regular heavy irrigation should be located at least 10 feet from foundation walls. Consideration should be given to use of xeriscape to reduce the potential for wetting of soils below the building caused by irrigation.

LIMITATIONS

This study has been conducted in accordance with generally accepted geotechnical engineering principles and practices in this area at this time. We make no warranty either express or implied. The conclusions and recommendations submitted in this report are based upon the data obtained from the exploratory borings drilled at the locations

indicated on Figure 1, the proposed type of construction and our experience in the area. Our services do not include determining the presence, prevention or possibility of mold or other biological contaminants (MOBC) developing in the future. If the client is concerned about MOBC, then a professional in this special field of practice should be consulted. Our findings include interpolation and extrapolation of the subsurface conditions identified at the exploratory borings and variations in the subsurface conditions may not become evident until excavation is performed. If conditions encountered during construction appear different from those described in this report, we should be notified so that re-evaluation of the recommendations may be made.

This report has been prepared for the exclusive use by our client for design purposes. We are not responsible for technical interpretations by others of our information. As the project evolves, we should conduct additional subsurface exploration and provide continued consultation and field services during construction to review and monitor the implementation of our recommendations, and to verify that the recommendations have been appropriately interpreted. Significant design changes may require additional analysis or modifications to the recommendations presented herein. We recommend on-site observation of excavations and foundation bearing strata and testing of structural fill by a representative of the geotechnical engineer.

Respectfully Submitted,

HEPWORTH - PAWLAK GEOTECHNICAL, INC.

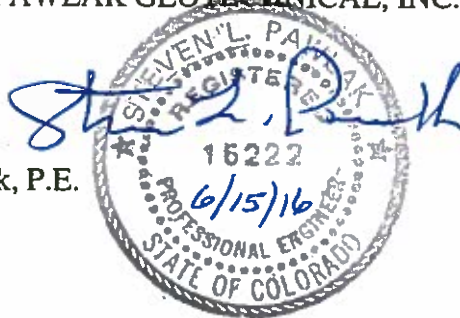
Steven L. Pawlak, P.E.

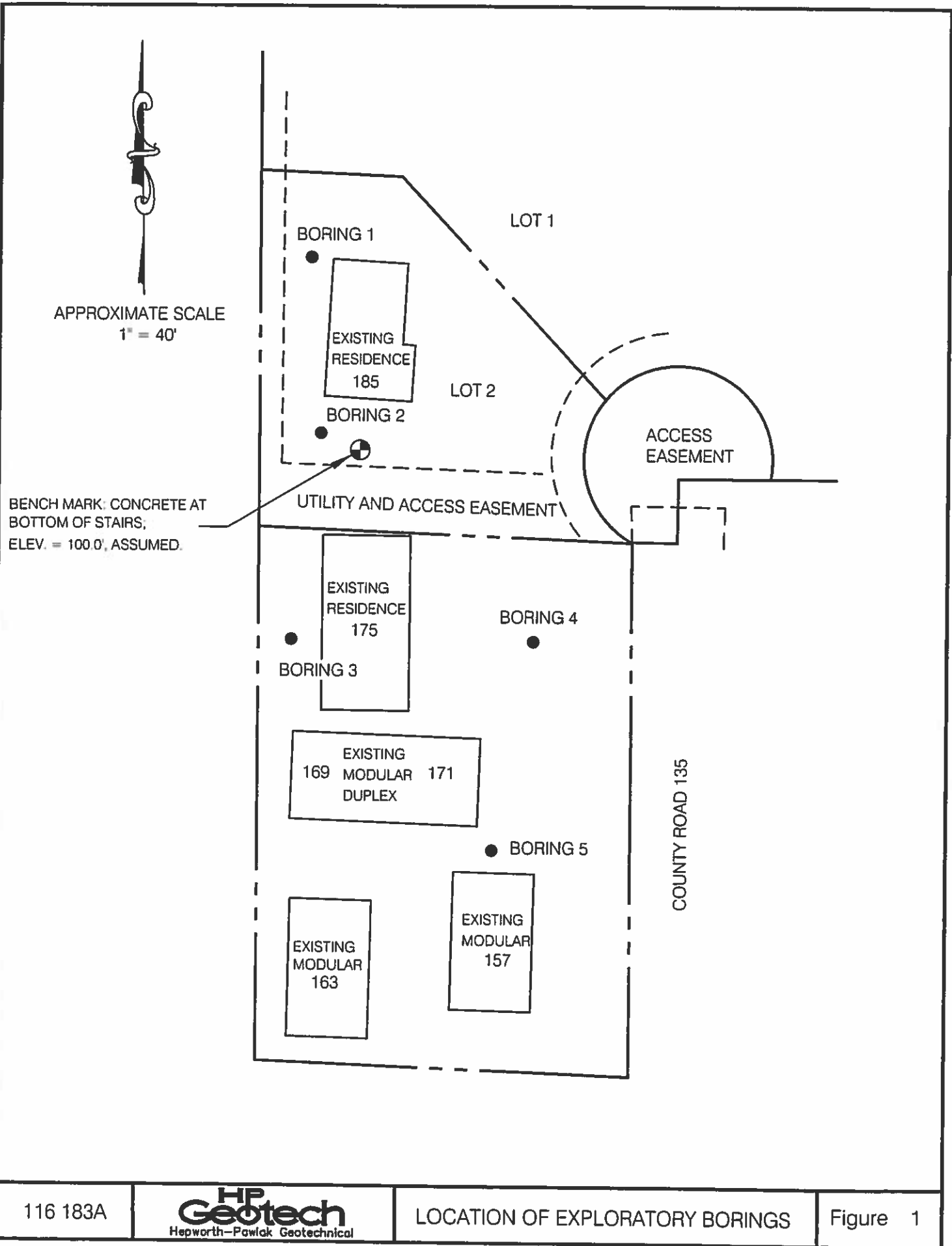
Reviewed by:



Daniel E. Hardin, P.E.

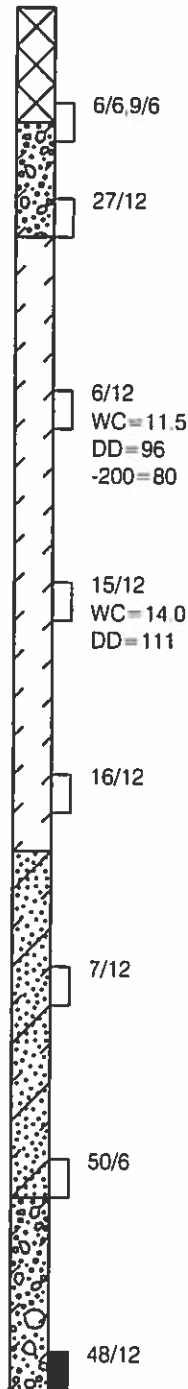
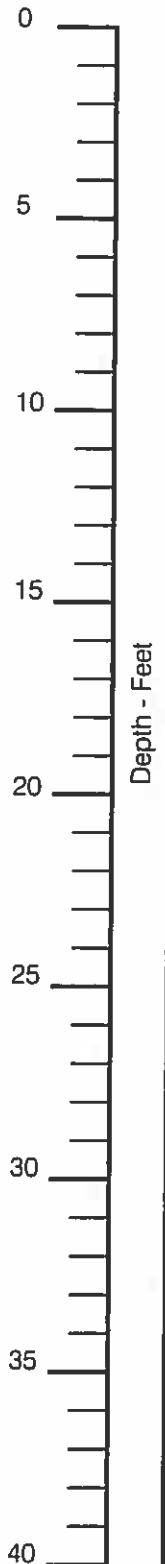
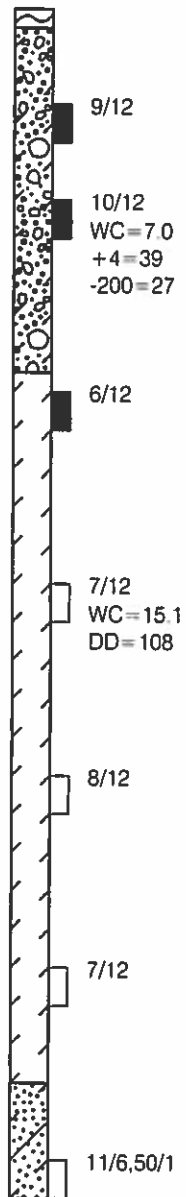
SLP/ksw





BORING 1
ELEV. = 108.9'

BORING 2
ELEV. = 102'



Note: Explanation of symbols is shown on Figure 4.

116 183A

HP Geotech
Hepworth-Pawlak Geotechnical

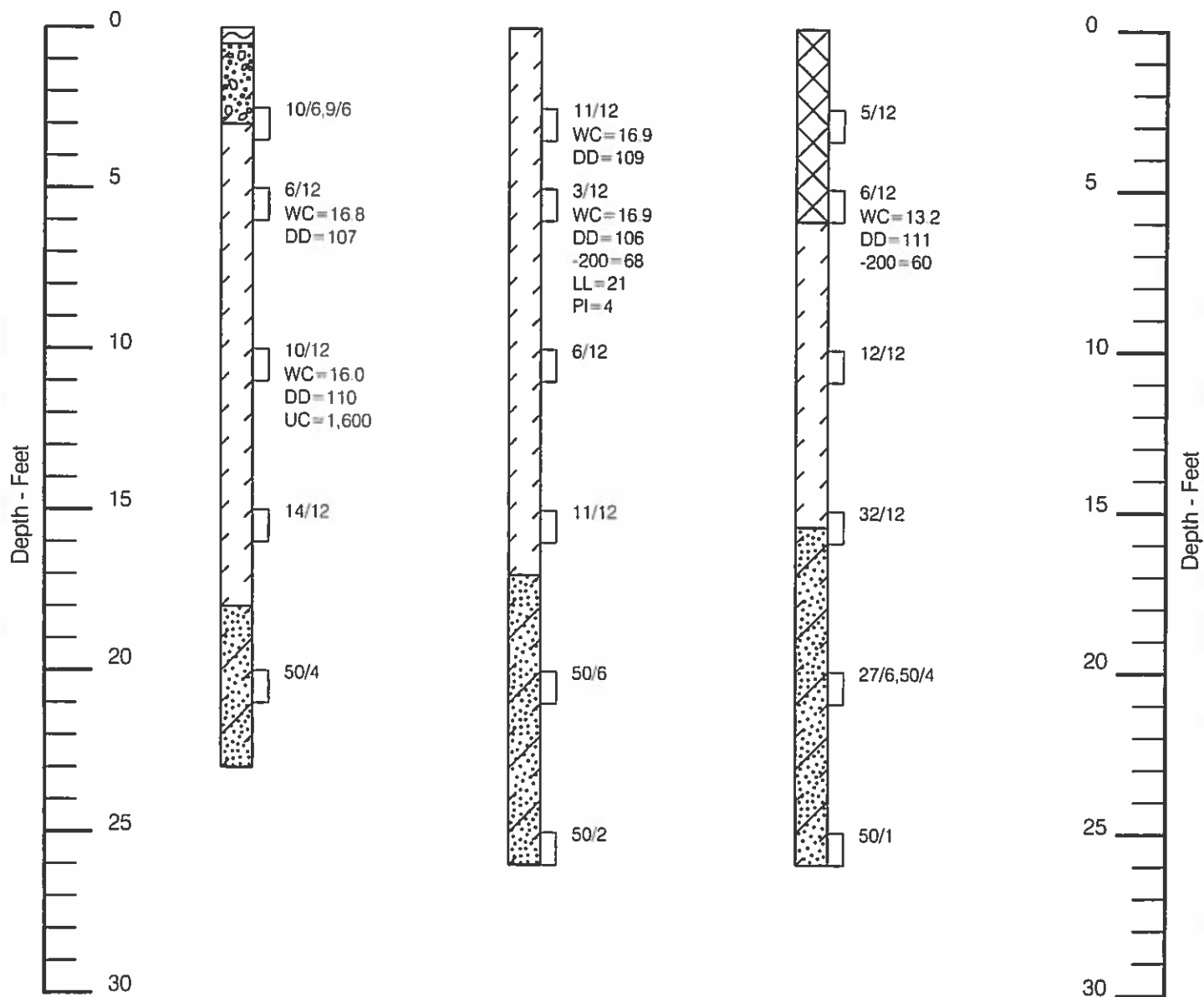
LOGS OF EXPLORATORY BORINGS

Figure 2

BORING 3
ELEV. = 97.2'

BORING 4
ELEV. = 97.5'

BORING 5
ELEV. = 92.5'



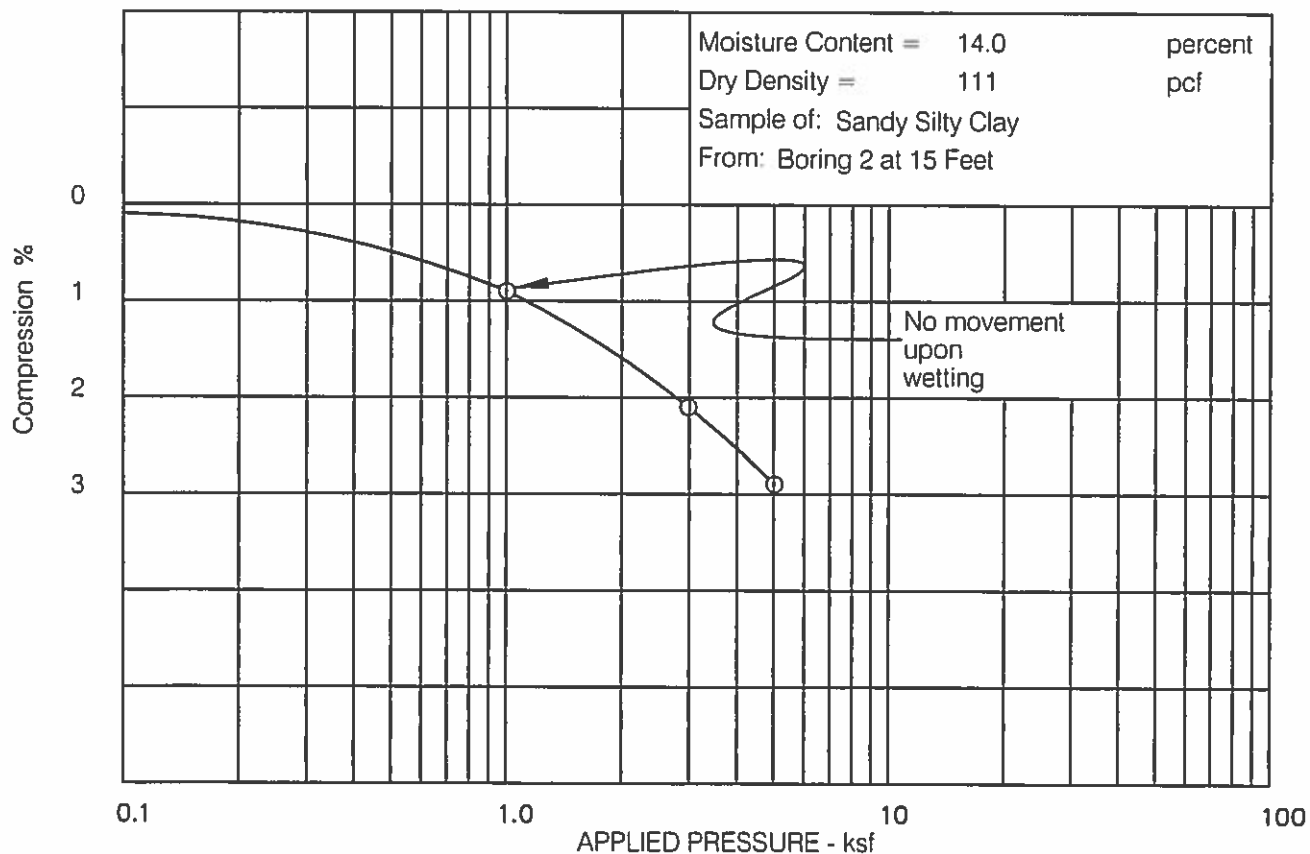
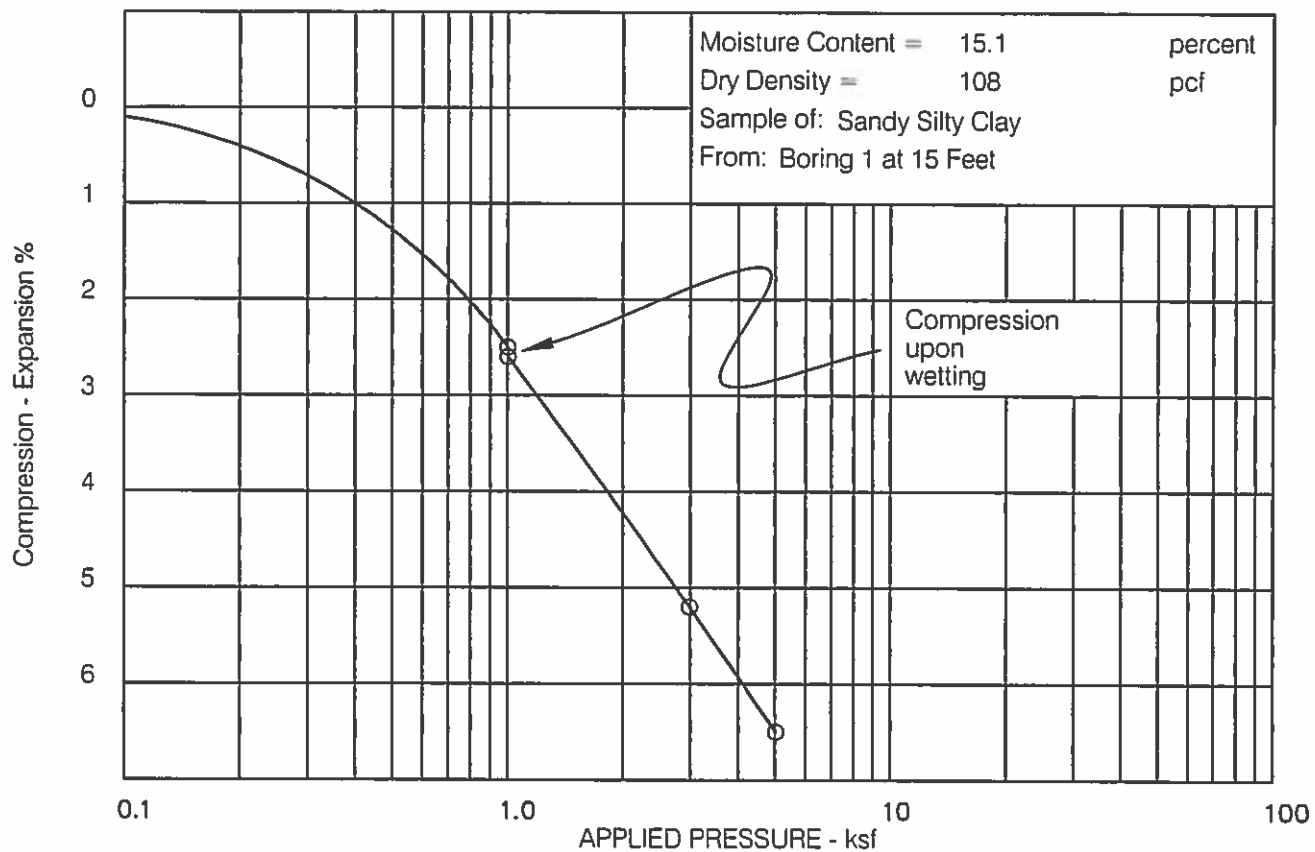
Note: Explanation of symbols is shown on Figure 4.

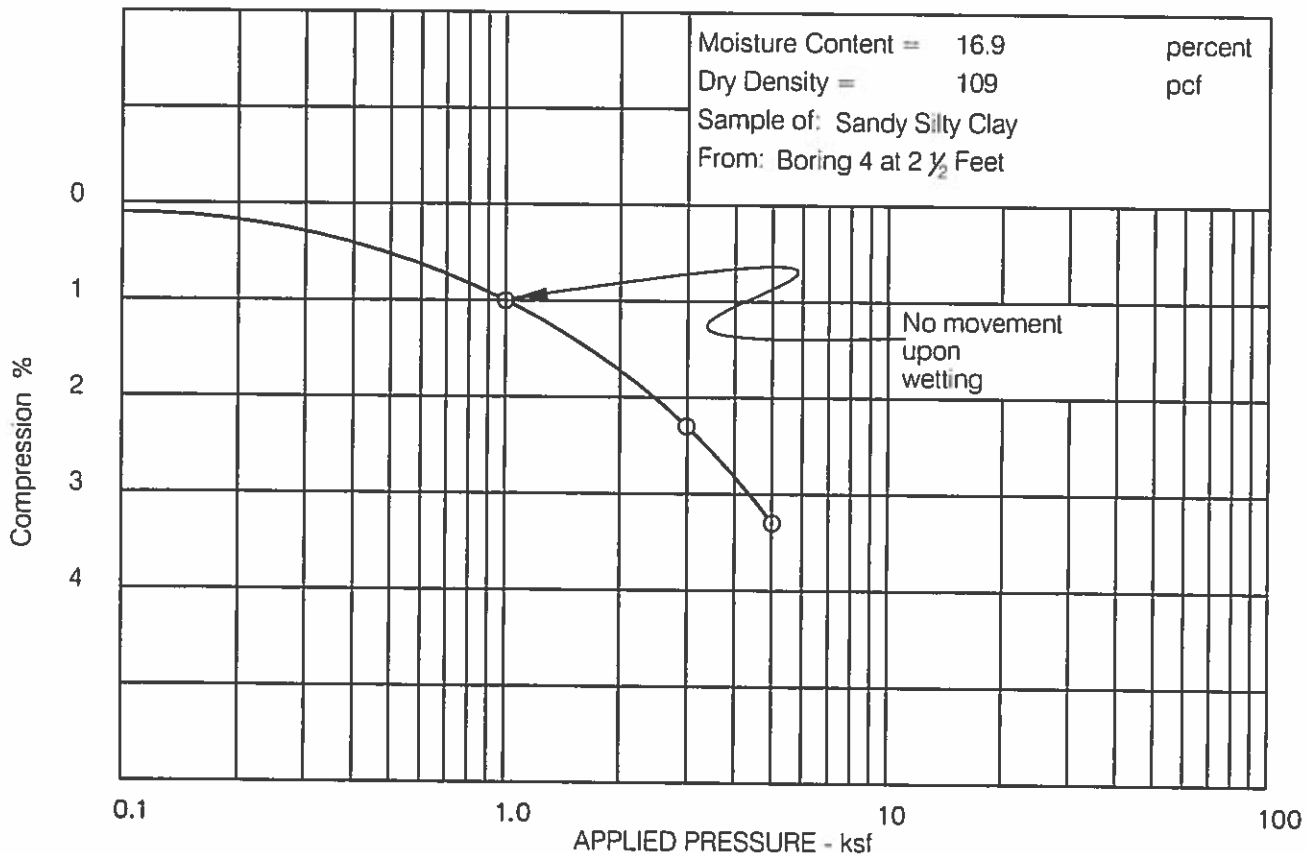
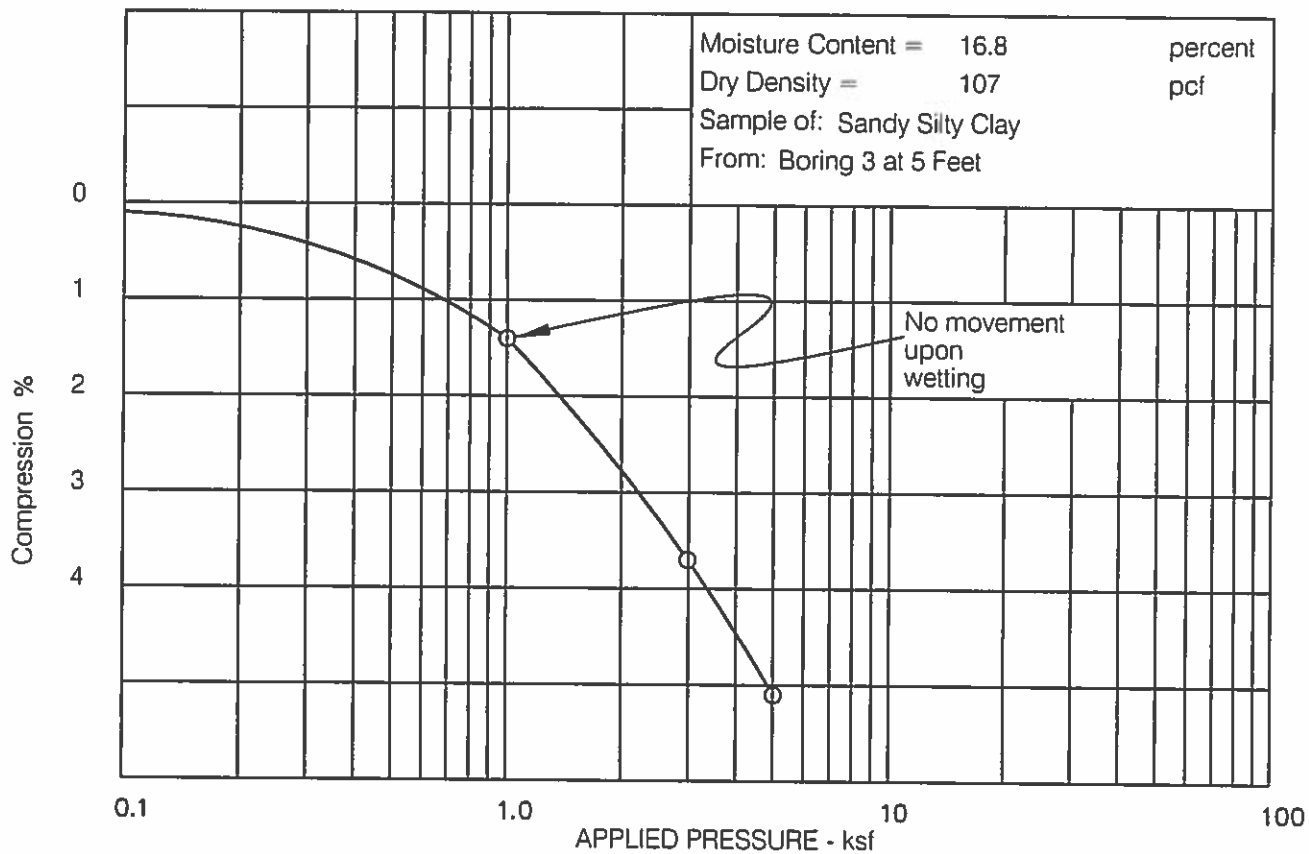
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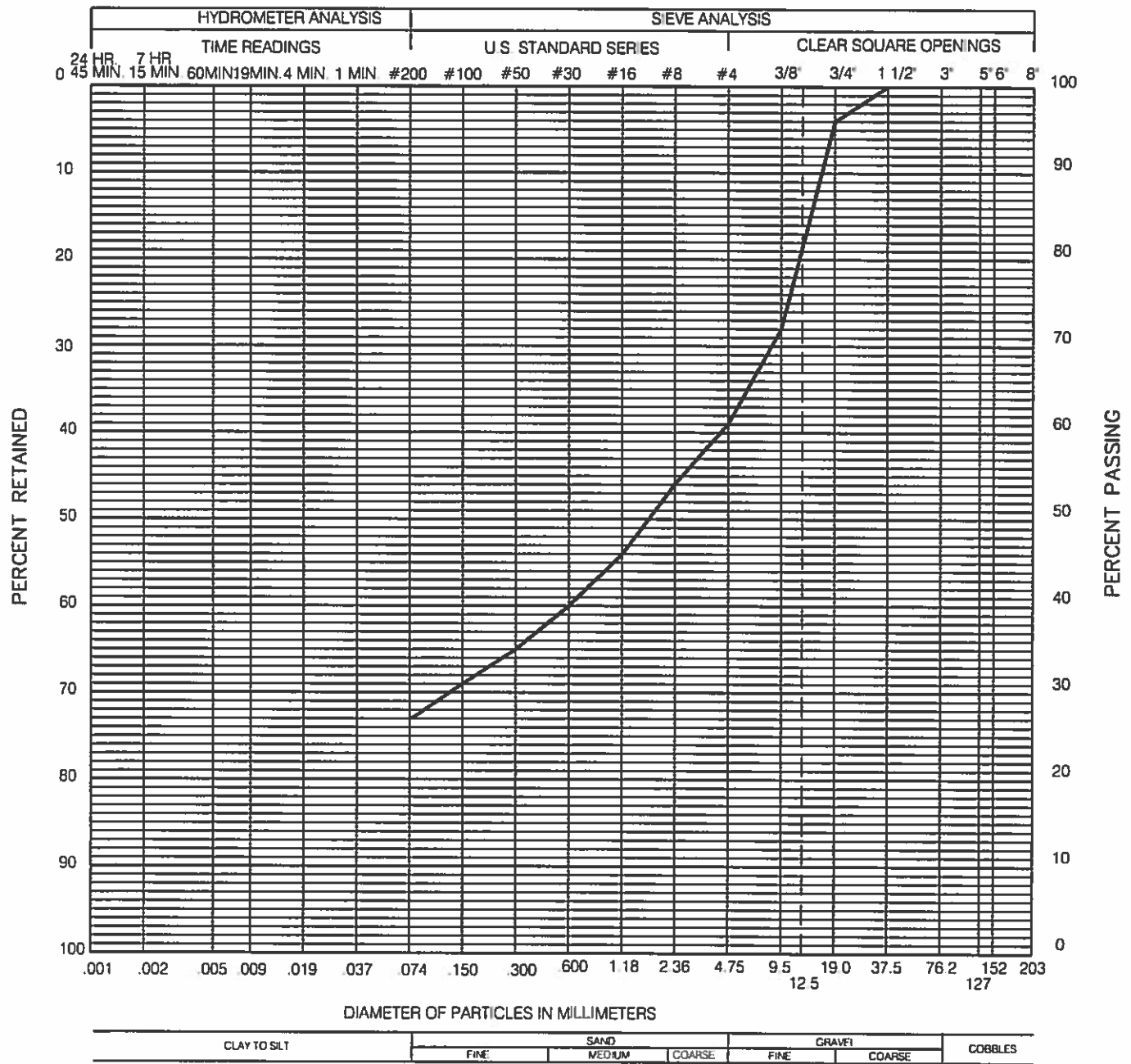
-  FILL; mixed silty clayey sand with gravel and organics, loose, moist, mixed brown and dark brown.
-  TOPSOIL; organic sandy silt and clay, dark brown.
-  CLAY (CL); silty to very silty, sandy, scattered gravel, medium stiff to stiff, moist, brown, low plasticity.
-  SAND (SM); silty to slightly clayey, scattered gravel, loose to medium dense, moist to very moist, light brown, highly calcareous, Travertine deposit.
-  SAND AND GRAVEL (SM-GM); silty, clayey, cobbles, dense, moist, brown.
-  Relatively undisturbed drive sample; 2-inch I.D. California liner sample.
-  Drive sample; standard penetration test (SPT), 1 3/8 inch I.D. split spoon sample, ASTM D-1586.
- 7/12 Drive sample blow count; indicates that 7 blows of a 140 pound hammer falling 30 inches were required to drive the California or SPT sampler 12 inches.

NOTES:

1. Exploratory borings were drilled on May 23 and 25, 2016 with 4-inch diameter continuous flight power auger.
2. Locations of exploratory borings were measured approximately by pacing from features shown on the site plan provided.
3. Elevations of exploratory borings were measured by instrument level and refer to the Bench Mark shown on Figure 1.
4. The exploratory boring locations and elevations should be considered accurate only to the degree implied by the method used.
5. The lines between materials shown on the exploratory boring logs represent the approximate boundaries between material types and transitions may be gradual.
6. No free water was encountered in the borings at the time of drilling. Fluctuation in water level may occur with time.
7. Laboratory Testing Results:
 - WC = Water Content (%)
 - DD = Dry Density (pcf)
 - +4 = Percent retained on the No. 4 sieve
 - 200 = Percent passing No. 200 sieve
 - LL = Liquid Limit (%)
 - PI = Plasticity Index (%)
 - UC = Unconfined Compressive Strength (psf)







GRAVEL 39 %

SAND 34 %

SILT AND CLAY 27 %

SAMPLE OF: Silty Clayey Sand and Gravel

FROM: Boring 1 at 5 feet

116 183A

HP Geotech
HEPWORTH-PAWLAK GEOTECHNICAL

GRADATION TEST RESULTS

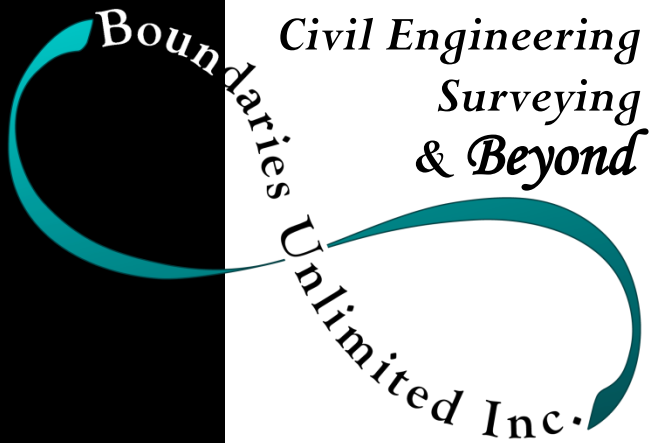
Figure 7

HEPWORTH-PAWLAK GEOTECHNICAL, INC.

Job No. 116 183A

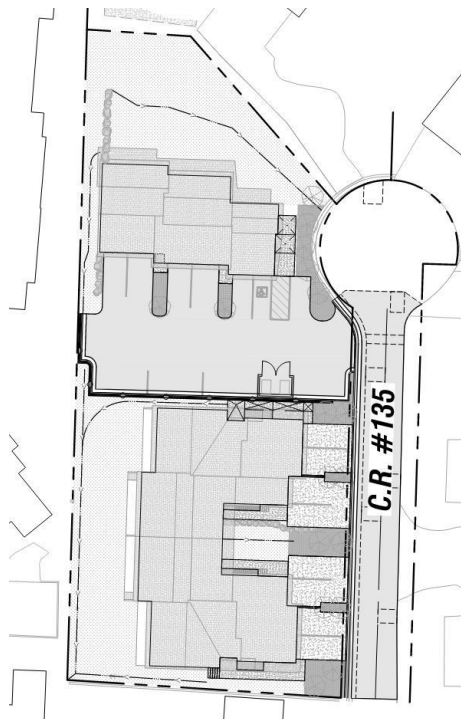
TABLE 1
SUMMARY OF LABORATORY TEST RESULTS

SAMPLE LOCATION		NATURAL MOISTURE CONTENT (%)	NATURAL DRY DENSITY (pcf)	GRADATION		PERCENT PASSING NO. 200 SIEVE	ATTERBERG LIMITS		UNCONFINED COMPRESSIVE STRENGTH (PSF)	SOIL OR BEDROCK TYPE
BORING	DEPTH (ft)			GRAVEL (%)	SAND (%)		LIQUID LIMIT (%)	PLASTIC INDEX (%)		
1	5	7.0		39	34	27				Silty Clayey Sand and Gravel
	15	15.1	108							Sandy Silty Clay
2	10	11.5	96			80				Sandy Silty Clay
	15	14.0	111							Sandy Silty Clay
3	5	16.8	107							Sandy Silty Clay
	10	16.0	110						1,600	Sandy Silty Clay
4	2½	16.9	109							Sandy Silty Clay
	5	16.9	106			68	21	4		Sandy Silt and Clay
5	5	13.2	111			60				Sandy Silty Clay



Major Drainage Report -Westlink- Glenwood Springs, CO Project No. 16034

January 11, 2022



"I hereby affirm that this report and the accompanying plans for Westlink was prepared by me (or under my supervision) for the owners thereof in accordance with the provisions of the City of Glenwood Springs Stormwater, Drainage, Water Quality and Erosion Control Chapter and approved variances and exceptions listed thereto. I understand that it is the policy of the City of Glenwood Springs that the City of Glenwood Springs does not and will not assume liability for drainage facilities designed by others."

License No. 37110
Licensed Professional Engineer, State of Colorado



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- Drainage Basin Summary Spreadsheet
- Autodesk Storm and Sanitary Sewer Analysis (SSA) datasheets
- Bureau of Public Roadways Culvert Chart (Donegan Rd. Storm Sewer)
- Hydraflow Channel Analysis (CR#135)
- NRCS Web Soil Survey
- NOAA Atlas 14 Precipitation
- Stormwater Best Management Practices Operations and Maintenance Agreement (with City)
- Civil Engineering Plans (Drainage & Erosion Controls) (24"x36")

A. Introduction

The purpose of this report is to provide an outline and basis of design for the stormwater improvements proposed for Westlink in Glenwood Springs, Colorado. The proposed redevelopment is located off CR #135 in West Glenwood Springs (situated in the northwest one-quarter of Section 5, Township 6 South, Range 89 West of the 6th P.M., Garfield County, State of Colorado). The site is currently occupied by a mix of multifamily and single-family residential homes.

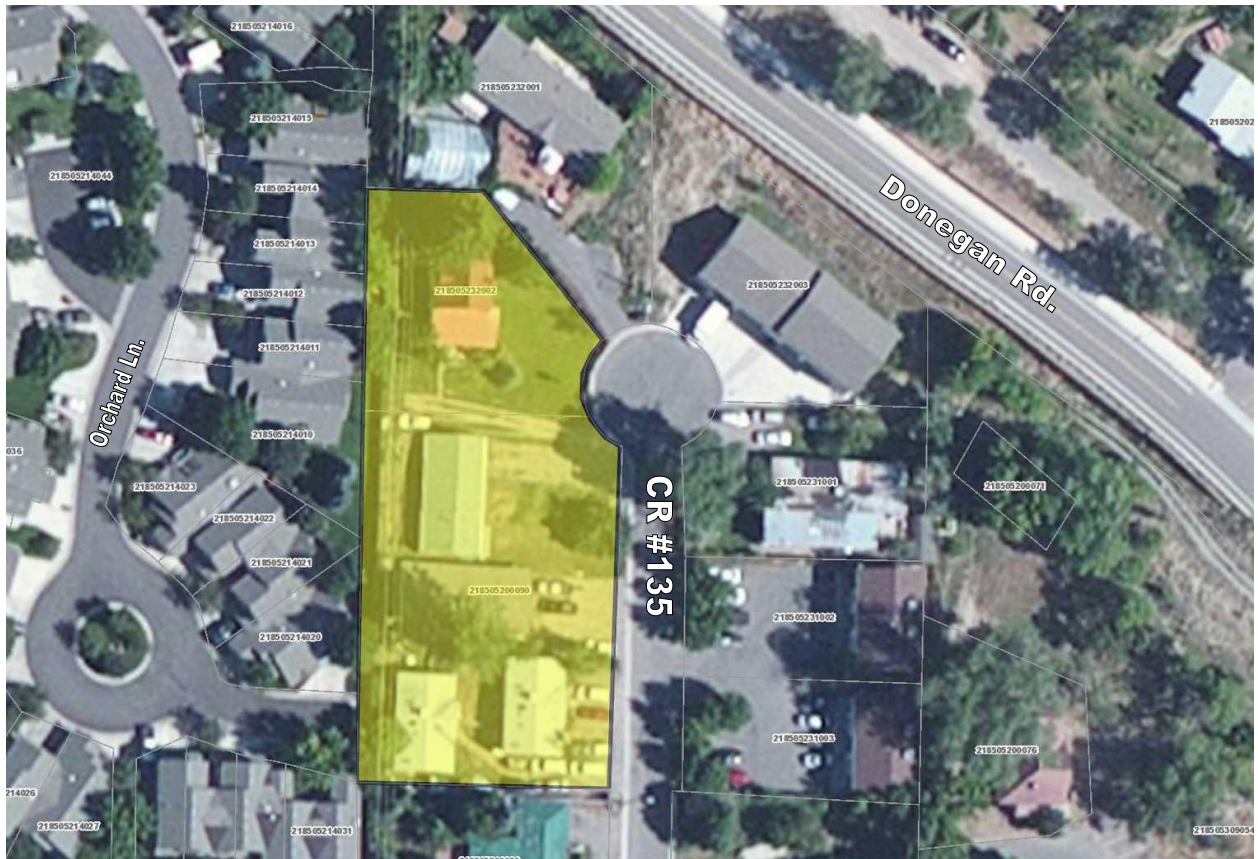


Figure 1: Site Location (Garfield County, Colorado GIS)

B. Hydrologic Criteria & Structures

The site is protected from offsite runoff by uphill structures and a storm sewer system located in Donegan Road that discharges into CR#135 just east of the site. The City Engineering Department provided guidance for this design to avoid detaining stormwater runoff on this site and to utilize the available conveyance capacity of CR#135. This has been accomplished by 1) estimating the drainage basin peak runoff rate entering CR#135 under the 25-year 1-hour storm event, 2) estimating the discharge potential of the Donegan Road storm sewer, 3) combining these peak flows and 4) modeling the combined flow within the roadway channel in the flattest section of roadway (at the south end). Rainfall intensities are based on rainfall data obtained from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates for the Glenwood Springs, Colorado area. Runoff rates for the 25-year and 100-year 1-hour events were estimated using the Rational Method and the Autodesk Storm and Sanitary Analysis v2021 stormwater modeling software. Copies of this information have been included in the Appendix.

C. CR#135 Channel Capacity

CR#135 is a 24'± paved roadway that flows from north to south. The north (upper) section adjacent the site only has curb on the west side of the street, but this changes just south of the site to curb on both sides. The curb head height depresses at several parking/drive locations, but the front of the parking/drives slopes towards the roadway to maintain the overall channel. The hydrologic analysis of the CR#135 basin (including the majoring of the Westlink development) determined a peak runoff rate just under 6.0 cfs (5.83 cfs, see Appendix). The hydraulic estimate of the Donegan Road storm sewer peak capacity using a Bureau of Public Roads culvert chart determined a peak flow rate of 13.0 cfs (see Appendix). A hydraulic modeling of the south end of CR#135 (where the drainage basin is largest and the longitudinal grade flattest) determined that the depth of flow should be approximately 0.32' (4") above the curb flowline under a combined peak flow rate of 19.0 cfs. Therefore, it appears that the roadway has sufficient capacity to convey the majority of the site runoff as directed by the City Engineering Dept.



Figure 2: CR#135 Street Section

D. Existing Conditions

The 0.70-acre site was previously developed, but does not appear to contain any stormwater management structures. As indicated in Figure 3, stormwater currently sheet flows and shallow flows south to the southern property line where it intersects with an existing raised CMU wall/fence and is redirected to the southwest corner of site. From there, stormwater discharges freely onto the adjacent properties to the west/southwest. Existing vegetation consists of lawn grasses and ornamental trees/shrubs. Impervious areas include roofs, decks, patios, drives, parking spaces, and walks with a weighted runoff coefficient of 0.65. The property is bordered by CR #135 to the east. And adjacent properties are a mix of single family and multifamily. According to the Natural Resources Conservation Service Web Soil Survey, soils are Hydrologic Group B which typically have: *a moderate infiltration rate when thoroughly wet; consists chiefly of moderately deep or deep, moderately well drained or well drained soils that have a moderately fine texture to moderately coarse texture; and have a moderate rate of water transmission* (Web Soil Survey, n.d.). A copy of the Web Soil Survey has been included in the Appendix. The Time of Concentration has been estimated at 18.4-minutes and the existing 25-year 1-hour stormwater runoff rate estimated at 1.19 cfs.



Figure 3: Existing Conditions & Runoff Patterns



Figure 4: Existing Conditions (Google Earth)

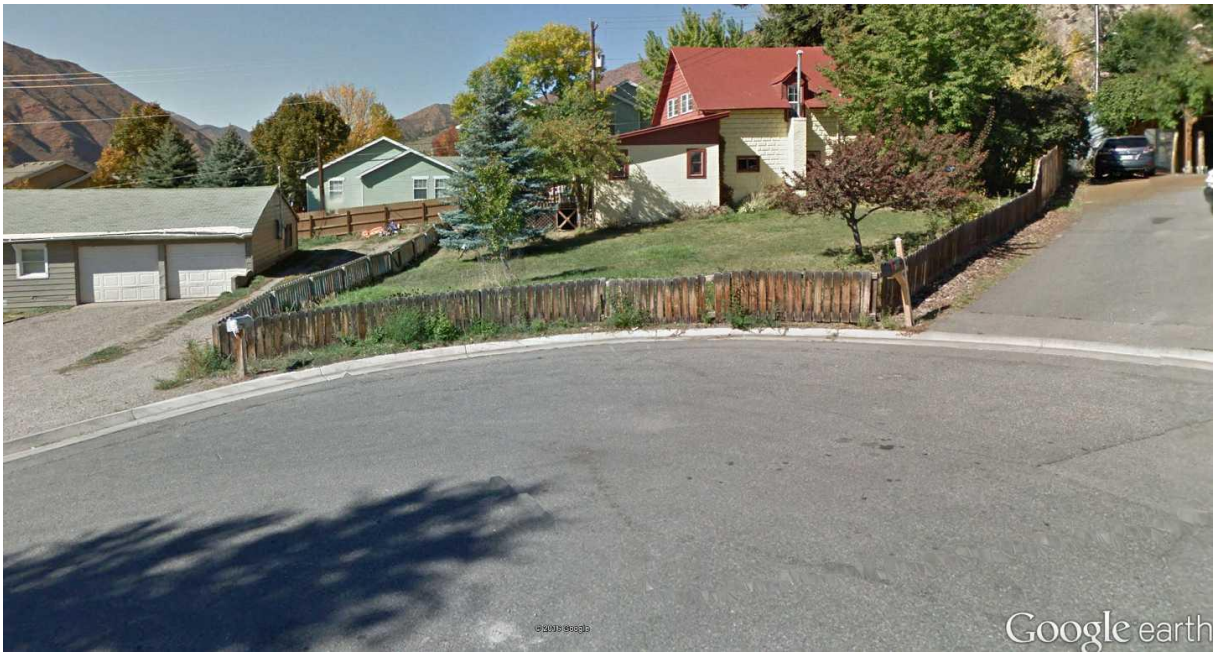


Figure 5: Existing Conditions (Google Earth)



Figure 6: Existing Conditions (Google Earth)

E. Proposed Conditions

As mentioned, the land use will remain residential with a modification from single-family and multifamily to low-rise apartment style multifamily. Stormwater runoff from the north half and east half of the site will gravity flow to CR#135 while the minor remaining runoff from the southwest portion of the site will continue to flow to the southwest corner of the site. The redevelopment will effectively reduce the peak discharge at the southwest corner of the site from the existing 1.19 cfs down to 0.42 cfs, providing a net benefit for downstream properties.

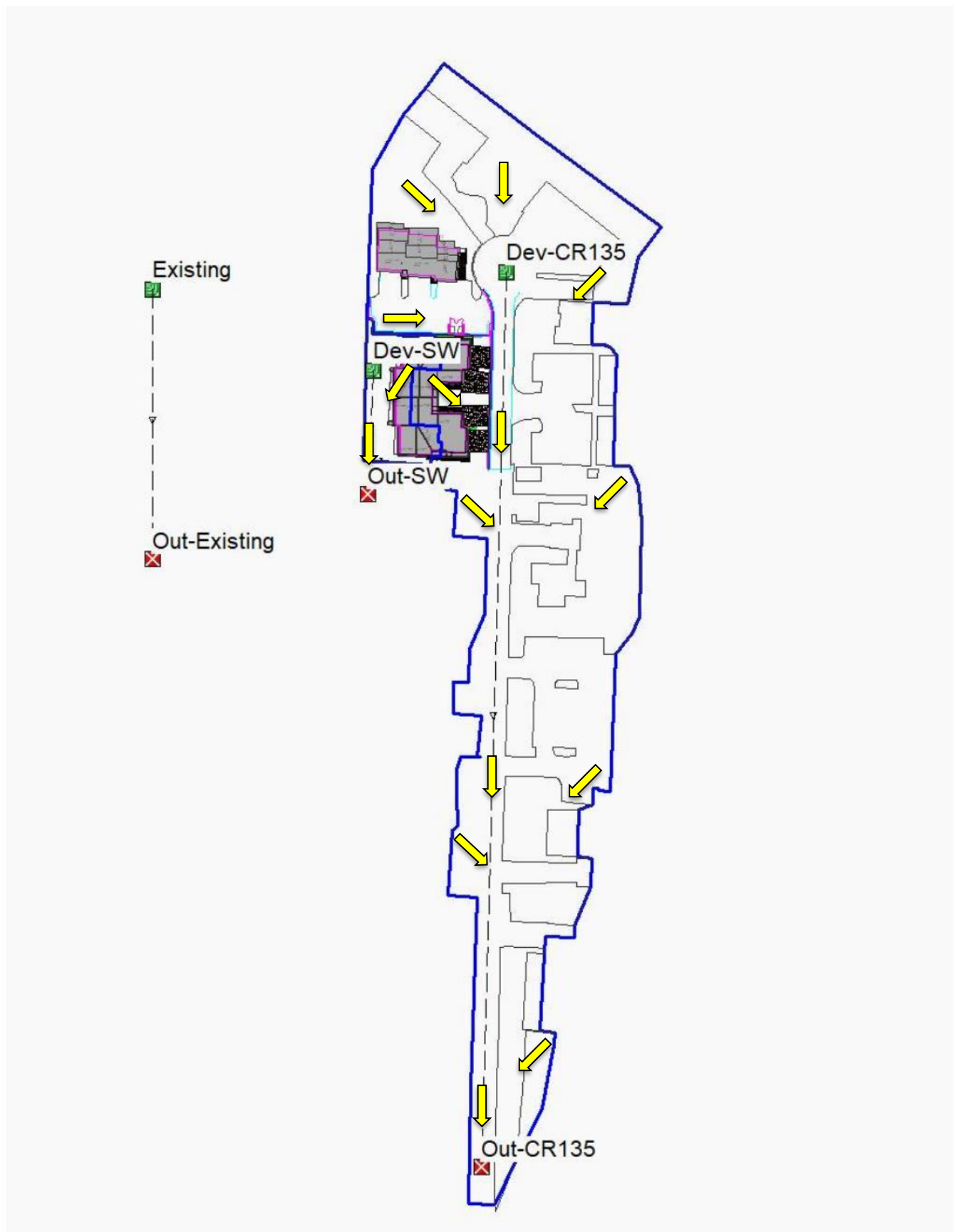


Figure 7: Developed Drainage Basins and Runoff Patterns

i. Basin Dev-CR135

Basin Dev-CR135 consists of the CR#135 roadway and various buildings, decks, patios, drives, parking, walkways and landscaping flowing into the roadway (approximately 3.570 acres). Onsite landscaped areas will be largely xeriscape and vegetated with drip irrigated shrubs and trees. Areas away from the building foundations may be landscaped with irrigated grasses. Impervious areas include roofs, decks, patios, drives, parking spaces, and walks with a weighted runoff coefficient of 0.69. In general, runoff will sheet flow in upper reaches of the basin and shallow flow thereafter to CR#135. The Time of Concentration has been estimated at 21.3-minutes. The estimated 25-year 1-hour peak runoff rate for this basin is 5.83 cfs

Onsite roofs will need to be equipped with roof gutters and downspouts which discharge at least 5-feet away from the building foundations. Heat tape must be installed in the roof gutters, downspouts and storm pipes.

ii. Basin Dev-SW

Basin Dev-SW consists of portions of the site's south building, decks, patios, walkways and landscaping at the southwest corner of the site (approximately 0.176 acres). Landscaped areas will be lawn and drip irrigated xeriscape shrubs and trees. Impervious areas will include roofs, decks, patios, and walks with a weighted runoff coefficient of 0.67. In general, runoff will sheet flow in upper reaches of the basin and shallow flow thereafter to the southwest corner of the property. The Time of Concentration has been estimated at 9.0-minutes. The estimated 25-year 1-hour peak runoff rate for this basin is 0.42 cfs.

Onsite roofs will need to be equipped with roof gutters and downspouts which discharge at least 5-feet away from the building foundations. Heat tape must be installed in the roof gutters, downspouts and storm pipes.

As mentioned, the redevelopment will effectively reduce the peak discharge at the southwest corner of the site from the existing 1.19 cfs down to 0.42 cfs, providing a net benefit for downstream properties.

F. Low Impact Site Design

The landscaping strategy is to reduce impervious areas where possible, stabilize slopes with vegetation and utilize low water demanding plants and grasses. Low Impact Site Design (LID) principals have been considered for implementation as follows:

Principle 1: Consider stormwater quality needs early in the design process

The design was revised after receiving guidance from the City Engineering Dept. to avoid detaining stormwater runoff on this site and to utilize the available conveyance capacity of CR#135.

Principle 2: Use the entire site when planning for stormwater quality treatment

The design was prepared with the intent of screening pollutants from the building roofs through grass lined swales, where feasible. Otherwise, the majority of the site discharges into CR#135 as directed by the City Engineering Dept.

Principle 3: Avoid unnecessary impervious area

Impervious walkways and parking have been reworked to minimize their extents.

Principle 4: Reduce runoff rates and volumes to more closely match natural conditions

The design was revised after receiving guidance from the City Engineering Dept. to avoid detaining stormwater runoff on this site and to utilize the available conveyance capacity of

CR#135. This will effectively reduce the peak discharge at the southwest corner of the site from the existing conditions and provide a net benefit for downstream properties.

Principle 5: Integrate stormwater quality management and flood control

Again, the design was revised after receiving guidance from the City Engineering Dept. to avoid detaining stormwater runoff on this site and to utilize the available conveyance capacity of CR#135.

Principle 6: Develop stormwater quality facilities that enhance the site, the community and the environment

The proposed grass lined swales will enhance the site and environment. Reducing the peak flow rate at the southwest corner of the site will enhance the community.

Principle 7: Use a treatment train approach

A train approach is used by discharging some of the roof runoff into grass lined swales and by placing landscape islands between the parking spaces so that runoff is prescreened before it reaches CR#135.

Principle 8: Design sustainable facilities that can be safely maintained

The swales will be 6" deep providing for safe access and easy maintenance.

Principle 9: Design and maintain facilities with public safety in mind

As mentioned, the swales will be kept shallow at 6" deep which will not pose a threat to the public beyond what typically exists within an urban setting.

G. Operation and Maintenance

Erosion control measures and Best Management Practices (BMPs) should be followed during construction to ensure that the subject site, adjacent sites and roadways are not impacted from sedimentation. This plan utilizes a combination of erosion control logs and sediment control fencing to improve water quality.

During construction activities and until vegetation can be established, sediment control fencing should be installed along the lower limits of all excavations. Certified weed free hay bales, check dams, silt dikes or erosion control logs should be installed across swales/ditches and around inlets in accordance with Colorado Department of Transportation M-Standards. Rock socks or erosion control logs should be installed in the street curb. During construction, the Contractor shall be responsible for removing debris from the grates, repairing any damaged erosion controls, and removing accumulated sediment from behind hay bales, check dams, silt dikes, erosion control logs, rock socks and sediment control fences after each storm event. After construction, the property manager shall be responsible for removing debris and sediment after each storm event and dredging sediment on an as-needed basis.

The grass lined swales and area drains must be inspected and maintained routinely to remove debris and ensure that the systems are operating effectively. The Mile High Flood District provides the following recommends for each of the proposed BMPs:

i) Grass Buffers Swales:

Grass buffers and swales require maintenance of the turf cover and repair of rill or gully development. Healthy vegetation can often be maintained without using fertilizers because runoff from lawns and other areas contains the needed nutrients. Periodically inspecting the vegetation over the first few years will help to identify emerging problems and help to plan for long-term restorative maintenance needs. This section presents a summary of specific

maintenance requirements and a suggested frequency of action.

Inspection

Inspect vegetation at least twice annually for uniform cover and traffic impacts. Check for sediment accumulation and rill and gully development.

Debris and Litter Removal

Remove litter and debris to prevent rill and gully development from preferential flow paths around accumulated debris, enhance aesthetics, and prevent floatables from being washed offsite. This should be done as needed based on inspection, but no less than two times per year.

Aeration

Aerating manicured grass will supply the soil and roots with air. It reduces soil compaction and helps control thatch while helping water move into the root zone. Aeration is done by punching holes in the ground using an aerator with hollow punches that pull the soil cores or "plugs" from the ground. Holes should be at least 2-inches deep and no more than 4-inches apart. Aeration should be performed at least once per year when the ground is not frozen. Water the turf thoroughly prior to aeration. Mark sprinkler heads and shallow utilities such as irrigation lines and cable TV lines to ensure those lines will not be damaged. Avoid aerating in extremely hot and dry conditions. Heavy traffic areas may require aeration more frequently.

Mowing

When starting from seed, mow native/drought-tolerant grasses only when required to deter weeds during the first three years. Following this period, mowing of native/drought tolerant grass may stop or be reduced to maintain a length of no less than six inches. Mowing of manicured grasses may vary from as frequently as weekly during the summer, to no mowing during the winter. See the inset for additional recommendations from the CSU Extension.

Irrigation Scheduling and Maintenance

Adjust irrigation schedules throughout the growing season to provide the proper irrigation application rate to maintain healthy vegetation. Less irrigation is typically needed in early summer and fall, with more irrigation needed during July and August. Native grass should not require irrigation after establishment, except during prolonged dry periods when supplemental, temporary irrigation may aid in maintaining healthy vegetation cover. Check for broken sprinkler heads and repair them, as needed. Do not overwater. Signs of overwatering and/or broken sprinkler heads may include soggy areas and unevenly distributed areas of lush growth. Completely drain and blowout the irrigation system before the first winter freeze each year. Upon reactivation of the irrigation system in the spring, inspect all components and replace damaged parts, as needed.

Fertilizer, Herbicide, and Pesticide Application

Use the minimum amount of biodegradable nontoxic fertilizers and herbicides needed to establish and maintain dense vegetation cover that is reasonably free of weeds. Fertilizer application may be significantly reduced or eliminated by the use of mulch-mowers, as opposed to bagging and removing clippings. To keep clippings out of receiving waters, maintain a 25-foot buffer adjacent to open water areas where clippings are bagged. Hand-pull the weeds in areas with limited weed problems. Frequency of fertilizer, herbicide, and pesticide application should be on an as-needed basis only and should decrease following establishment of vegetation. See BMP Fact Sheet S-8 in Chapter 5 (Volume 3, MHFD) for additional information. For additional information on managing vegetation in a manner that

conserves water and protects water quality, see the 2008 GreenCO Best Management Practices Manual (www.greenco.org) for a series of Colorado-based BMP fact sheets on topics such as irrigation, plant care, and soil amendments.

ii) Roof Gutters and Downspouts:

Roof gutters and downspouts collect storm runoff and snow melt water from the roofs and convey it to the stormwater collection system. Roof gutters and downspouts should be equipped with heat tape through the entire length to prevent freezing during cold weather.

Roof gutters and downspouts should be cleaned at least once during the Fall to remove leaves and debris. Additional cleanings may become necessary if excessive leaf accumulation is observed any time after the previous cleaning. Removed leaves and debris should be disposed of in the weekly trash receptacle. Roof gutters and downspouts should also be observed to be free of snow and ice in the winter months. If ice is observed, then the heat tape must be repaired or replaced.

iii) Area Inlets:

Area inlet grates should be inspected after each storm event and cleaned of leaves and debris on an as needed basis to ensure proper drainage through the grate. Removed leaves, debris and sediment should be disposed of in the weekly trash receptacle. More frequent inspections may be required during the Fall when leaf accumulation could be more intense. If at any time the water does not drain from a cleaned grate, then a licensed contractor should be contacted immediately for an emergency repair.

The design plans more specifically locate many of the BMPs and erosion control features. These plans are a good representation of the site requirements, but may not be all inclusive. The Contractor shall be responsible for complying with all local and state guidelines and permitting issues.

Sediment and mud should be prevented from leaving the construction site by immediate placement of a stabilized construction entrance at the construction entrance. The Contractor should be responsible for cleaning and general upkeep of the site and adjacent roadways. As an effective dust control measure, water may be utilized to minimize uprising of dust.

Good housekeeping BMPs should be followed throughout the entire life of the project. These include but are not limited to:

- refuse receptacles should be regularly emptied and equipped with lids;
- keeping machinery in good operating condition to prevent leakage;
- apply appropriate (not excessive) amounts of fertilizer to the landscaping;
- scheduled maintenance cleaning of any downstream curb and gutter, inlets, culverts, swales, ditches and outflow control structures;
- general site cleanliness and proper training of employees; and
- grading must be performed (but not in excess) to ensure that drainage is directed away from all structures in all directions.

Once construction activities are completed, final stabilization of the disturbed areas should begin. Within one growing season of the project completion, uniform vegetative site coverage should be equal to or greater than 70% of the pre-disturbance levels, or equivalent permanent, physical erosion reduction methods should be employed. When the site is determined to have reached the final stabilization stage, erosion control structures can be removed.

H. Summary

This Drainage Study for the Westlink in Glenwood Springs, Colorado considers the estimated impacts of development for compliance with direction received from the City of Glenwood Springs Engineering Dept. Erosion controls and BMPs should be more particularly designed by the Contractor to accurately address the construction process.

I. Works Cited

City of Glenwood Springs. (2018, July). The Glenwood Springs Engineering Design Standards. Glenwood Springs, Colorado.

Mile High Flood District. (Aug. 2018). Urban Storm Drianage Criterial Manual, Vol. 1-3. Denver, CO.

National Oceanic and Atmospheric Administration. (n.d.). *Hydrometeorological Design Studies Center*. Retrieved 2016, from Precipitation Frequency Data Server: <http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>

Web Soil Survey. (n.d.). Retrieved 2016, from United States Department of Agriculture, Natural Resources Conservation Service: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Appendix

- *Drainage Basin Summary Spreadsheet*
- *Autodesk Storm and Sanitary Sewer Analysis (SSA) datasheets*
- *Bureau of Public Roadways Culvert Chart (Donegan Rd. Storm Sewer)*
- *Hydraflow Channel Analysis (CR#135)*
- *NRCS Web Soil Survey*
- *NOAA Atlas 14 Precipitation*
- *Stormwater Best Management Practices Operations and Maintenance Agreement (with City)*
- *Civil Engineering Plans (Drainage & Erosion Controls) (24"x36")*

Drainage Basin Summary Westlink											
Basin	Area (Ac)	Area (sf)	Impervious		Soil Type B				Runoff C	Tc (min.)	Q ₂₅ (cfs)
					Open Space/LS		Natural Vegetation				
			Area (sf)	%	Area (sf)	%	Area (sf)	%			
Existing	0.697	30371	13769	45.3%	16602	54.7%	-	-	0.65	18.4	1.19
Dev-West	0.176	7653	3823	50.0%	3830	50.0%	-	-	0.67	9.0	0.42
Dev-CR135	3.570	155500	93300	60.0%	62200	40.0%	-	-	0.69	21.3	5.83

Project Description

File Name 16034-SSA-Rev-25yr.SPF

Project Options

Flow Units CFS
Elevation Type Elevation
Hydrology Method Rational
Time of Concentration (TOC) Method SCS TR-55
Link Routing Method Hydrodynamic
Enable Overflow Ponding at Nodes NO
Skip Steady State Analysis Time Periods YES

Rainfall Details

Return Period..... 25 year(s)

Storm Event

Subbasin Summary

SN	Subbasin ID	Area	Weighted Runoff Coefficient	Total Rainfall	Total Runoff	Total Runoff Volume	Peak Runoff	Time of Concentration
		(ac)		(in)	(in)	(ft³)	(cfs)	(days hh:mm:ss)
1	Dev-CR135	48	0.690	0.84	0.58	7528.8	5.83	0 00:21:17
2	Dev-SW	48	0.620	0.58	0.36	230.9	0.42	0 00:08:55
3	Existing	48	0.650	0.80	0.52	1316.1	1.19	0 00:18:22

Peak Runoff Rates

The redeveloped runoff at the SW corner of the site will be less than the Existing.

**25-year 1-hour
Storm Event**

BUI#16034

Node Summary

SN Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Time of Freeboard Peak Attained Flooding Occurrence (ft) (days hh:mm)	Total Flooded Volume (ft³)	Total Time Flooded (min)
1 Out-CR135	Outfall	5712.00					0.000	0.00				
2 Out-Existing	Outfall	5745.50					0.000	0.00				
3 Out-SW	Outfall	5745.50					0.000	0.00				

Subbasin : Dev-CR135**Input Data**

Area (ft²) 155500.01
 Weighted Runoff Coefficient 0.69

Runoff Coefficient

Soil/Surface Description	Area (ft ²)	Soil Group	Runoff Coeff.
Roofs/Parking, 25 years or greater	93299.99	B (6%+)	0.97
Open Space, 25 years or greater	62200.02	B (6%+)	0.26
Composite Area & Weighted Runoff Coeff.	155500.01		0.69

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where :

T_c = Time of Concentration (hr)
 n = Manning's roughness
 L_f = Flow Length (ft)
 P = 2 yr, 24 hr Rainfall (inches)
 S_f = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (S_f^{0.5}) (unpaved surface)
 V = 20.3282 * (S_f^{0.5}) (paved surface)
 V = 15.0 * (S_f^{0.5}) (grassed waterway surface)
 V = 10.0 * (S_f^{0.5}) (nearly bare & untilled surface)
 V = 9.0 * (S_f^{0.5}) (cultivated straight rows surface)
 V = 7.0 * (S_f^{0.5}) (short grass pasture surface)
 V = 5.0 * (S_f^{0.5}) (woodland surface)
 V = 2.5 * (S_f^{0.5}) (forest w/heavy litter surface)
 T_c = (L_f / V) / (3600 sec/hr)

Where:

T_c = Time of Concentration (hr)
 L_f = Flow Length (ft)
 V = Velocity (ft/sec)
 S_f = Slope (ft/ft)

Channel Flow Equation :

V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n
 R = A_q / W_p
 T_c = (L_f / V) / (3600 sec/hr)

Where :

T_c = Time of Concentration (hr)
 L_f = Flow Length (ft)
 R = Hydraulic Radius (ft)
 A_q = Flow Area (ft²)
 W_p = Wetted Perimeter (ft)
 V = Velocity (ft/sec)
 S_f = Slope (ft/ft)
 n = Manning's roughness

=====

25-year 1-hour

=====

BUI#16034**Storm Event**

	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.35	0	0
Flow Length (ft) :	100	0	0
Slope (%) :	9	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.1	0	0
Computed Flow Time (min) :	17.27	0	0
	Subarea A	Subarea B	Subarea C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	100	400	550
Slope (%) :	6	5.75	4.2
Surface Type :	Grassed waterway	Paved	Paved
Velocity (ft/sec) :	3.67	4.87	4.17
Computed Flow Time (min) :	0.45	1.37	2.2
Total TOC (min)	21.29		

Subbasin Runoff Results

Total Rainfall (in)	0.84
Total Runoff (in)	0.58
Peak Runoff (cfs)	5.83
Rainfall Intensity	2.367
Weighted Runoff Coefficient	0.69
Time of Concentration (days hh:mm:ss)	0 00:21:17

Subbasin : Dev-SW

Storm Event

Input Data

Area (ft²) 7653.01
 Weighted Runoff Coefficient 0.62

Runoff Coefficient

Soil/Surface Description	Area (ft ²)	Soil Group	Runoff Coeff.
Open Space, 25 years or greater	3823	B (6%+)	0.26
Roofs/Parking, 25 years or greater	3830.01	B (6%+)	0.97
Composite Area & Weighted Runoff Coeff.	7653.01		0.62

Time of Concentration

	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.35	0	0
Flow Length (ft) :	40	0	0
Slope (%) :	8	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.08	0	0
Computed Flow Time (min) :	8.7	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	60	0	0
Slope (%) :	8	0	0
Surface Type :	Grassed waterway	Paved	Grassed waterway
Velocity (ft/sec) :	4.24	0	0
Computed Flow Time (min) :	0.24	0	0
Total TOC (min)	8.93		

Subbasin Runoff Results

Total Rainfall (in) 0.58
 Total Runoff (in) 0.36
 Peak Runoff (cfs) 0.42
 Rainfall Intensity 3.893
 Weighted Runoff Coefficient 0.62
 Time of Concentration (days hh:mm:ss) 0 00:08:56

Subbasin : Existing

Storm Event

Input Data

Area (ft²) 30370.99
 Weighted Runoff Coefficient 0.65

Runoff Coefficient

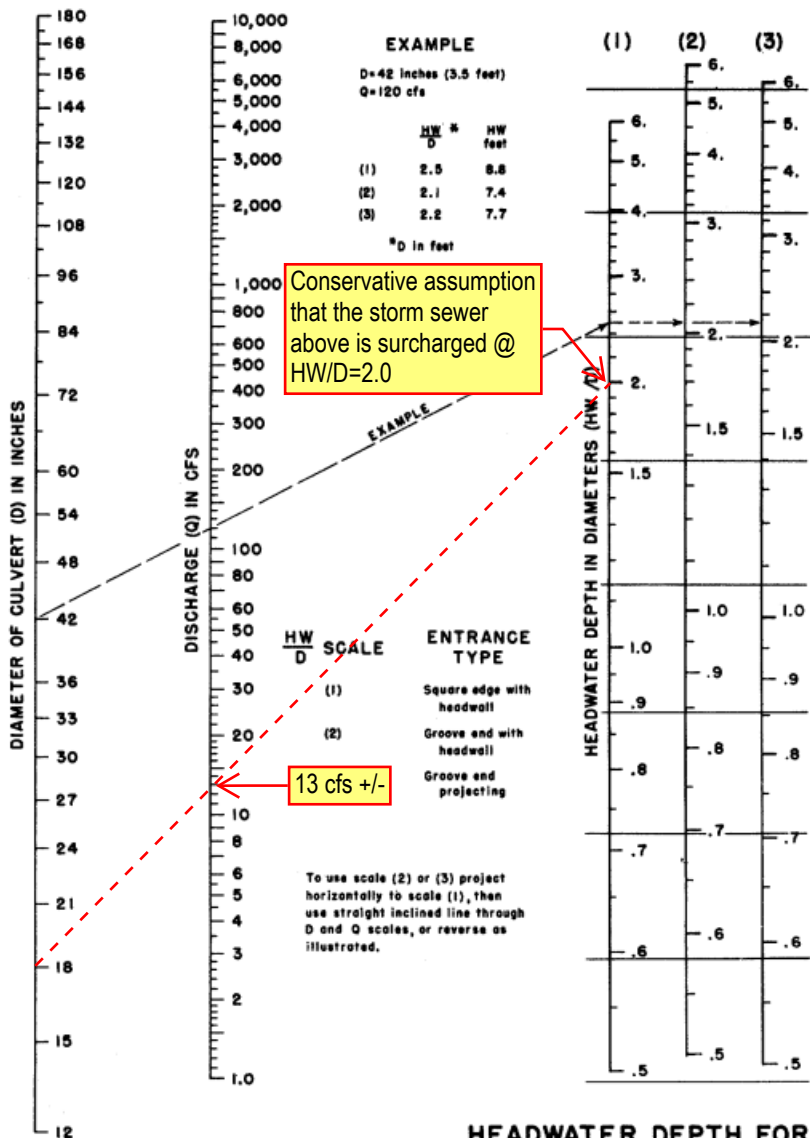
Soil/Surface Description	Area (ft ²)	Soil Group	Runoff Coeff.
Open Space, 25 years or greater	13769.01	B (6%+)	0.26
Roofs/Parking, 25 years or greater	16601.98	B (6%+)	0.97
Composite Area & Weighted Runoff Coeff.	30370.99		0.65

Time of Concentration

	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.35	0	0
Flow Length (ft) :	100	0	0
Slope (%) :	9	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.1	0	0
Computed Flow Time (min) :	17.27	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	185	0	0
Slope (%) :	7.8	0	0
Surface Type :	Bare & untilled	Unpaved	Unpaved
Velocity (ft/sec) :	2.79	0	0
Computed Flow Time (min) :	1.11	0	0
Total TOC (min)	18.37		

Subbasin Runoff Results

Total Rainfall (in) 0.8
 Total Runoff (in) 0.52
 Peak Runoff (cfs) 1.19
 Rainfall Intensity 2.619
 Weighted Runoff Coefficient 0.65
 Time of Concentration (days hh:mm:ss) 0 00:18:22



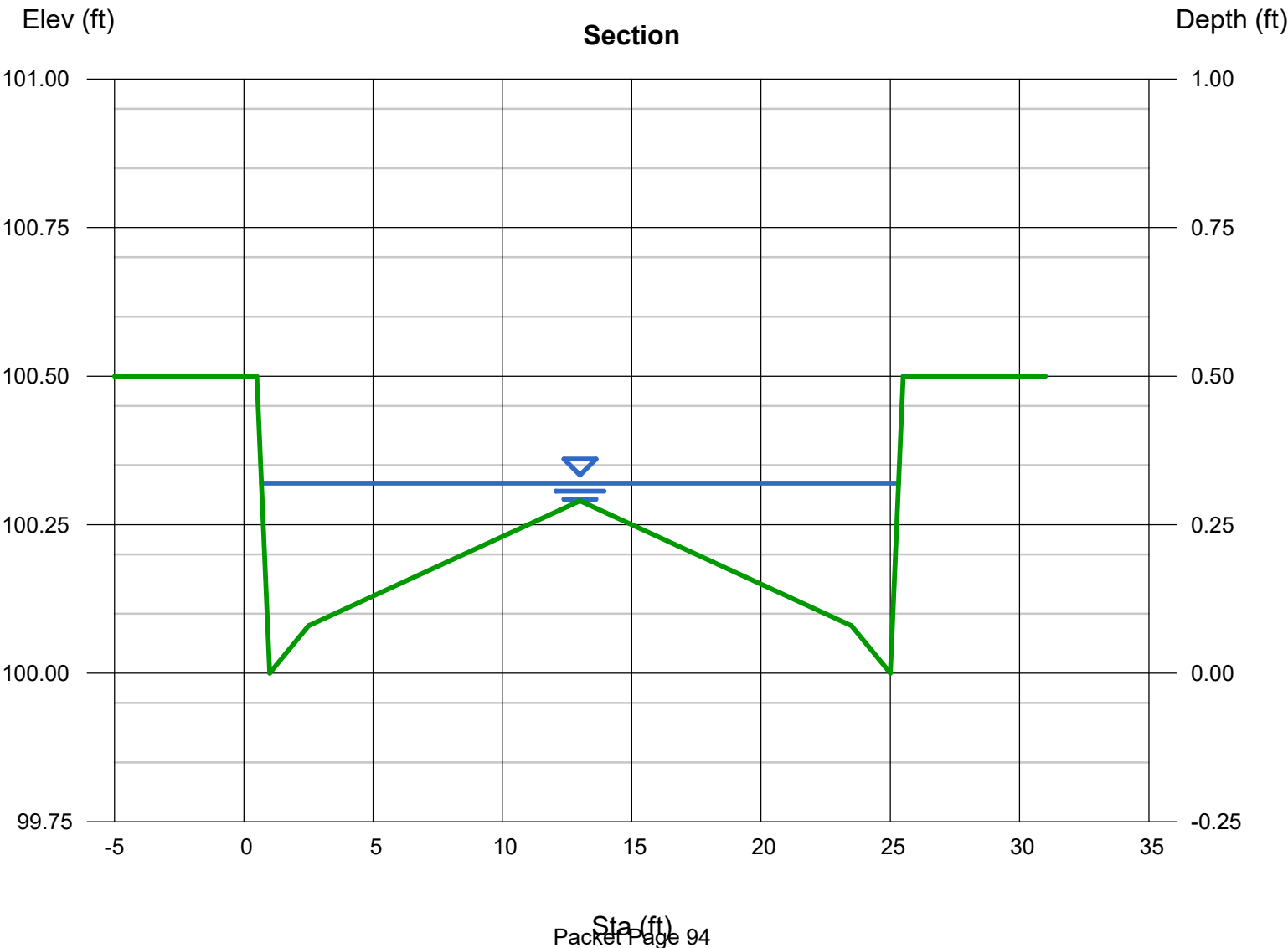
Channel Report

Depth of Flow in CR#135 (25-Yr Storm)

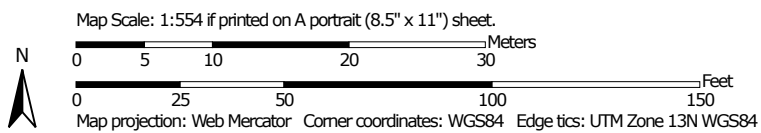
User-defined		Highlighted	
Invert Elev (ft)	= 100.00	Depth (ft)	= 0.32
Slope (%)	= 4.00	Q (cfs)	= 19.00
N-Value	= 0.016	Area (sqft)	= 3.78
Calculations		Velocity (ft/s)	= 5.03
Compute by:	Known Q	Wetted Perim (ft)	= 24.91
Known Q (cfs)	= 19.00	Crit Depth, Yc (ft)	= 0.44
		Top Width (ft)	= 24.64
		EGL (ft)	= 0.71

(Sta, El, n)-(Sta, El, n)...
(0.00, 100.50)-(0.50, 100.50, 0.013)-(1.00, 100.00, 0.013)-(2.50, 100.08, 0.013)-(13.00, 100.29, 0.016)-(23.50, 100.08, 0.016)-(25.00, 100.00, 0.013)
-(25.50, 100.50, 0.013)-(26.00, 100.50, 0.013)

6 CFS from Basin, 13 cfs from Donegan Storm Sewer



Hydrologic Soil Group—Rifle Area, Colorado, Parts of Garfield and Mesa Counties
(16034-Moltea Apartments)



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: <http://websoilsurvey.nrcs.usda.gov>
 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: Rifle Area, Colorado, Parts of Garfield and Mesa Counties

Survey Area Data: Version 9, Sep 22, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 7, 2011—Sep 3, 2011

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

Hydrologic Soil Group— Summary by Map Unit — Rifle Area, Colorado, Parts of Garfield and Mesa Counties (CO683)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
8	Atencio-Azeltine complex, 1 to 3 percent slopes	B	1.1	100.0%
Totals for Area of Interest			1.1	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



NOAA Atlas 14, Volume 8, Version 2
Location name: Glenwood Springs, Colorado,
USA*

Latitude: 39.546°, Longitude: -107.3237°

Elevation: 5795.68 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.45 (0.840-1.38)	2.12 (1.68-2.75)	3.17 (2.48-4.12)	3.98 (3.12-5.21)	5.05 (3.76-6.78)	5.83 (4.25-7.97)	6.56 (4.62-9.23)	7.26 (4.88-10.5)	8.12 (5.24-12.2)	8.71 (5.52-13.4)
10-min	1.07 (0.840-1.38)	1.55 (1.22-2.01)	2.32 (1.82-3.01)	2.92 (2.28-3.81)	3.70 (2.75-4.96)	4.27 (3.11-5.83)	4.81 (3.38-6.76)	5.32 (3.58-7.71)	5.95 (3.84-8.91)	6.38 (4.04-9.82)
15-min	0.868 (0.684-1.12)	1.26 (0.996-1.64)	1.88 (1.48-2.45)	2.37 (1.86-3.10)	3.01 (2.24-4.03)	3.47 (2.53-4.74)	3.91 (2.75-5.49)	4.32 (2.91-6.27)	4.83 (3.12-7.24)	5.19 (3.28-7.98)
30-min	0.582 (0.460-0.752)	0.824 (0.650-1.07)	1.20 (0.944-1.56)	1.50 (1.17-1.95)	1.87 (1.39-2.50)	2.14 (1.56-2.92)	2.39 (1.68-3.36)	2.63 (1.77-3.81)	2.91 (1.88-4.36)	3.10 (1.96-4.77)
60-min	0.387 (0.305-0.500)	0.512 (0.404-0.663)	0.707 (0.556-0.918)	0.860 (0.672-1.12)	1.06 (0.786-1.41)	1.20 (0.873-1.63)	1.33 (0.935-1.87)	1.45 (0.978-2.11)	1.60 (1.04-2.40)	1.71 (1.08-2.62)
2-hr	0.241 (0.193-0.308)	0.306 (0.244-0.390)	0.406 (0.324-0.520)	0.486 (0.384-0.625)	0.588 (0.444-0.776)	0.662 (0.488-0.890)	0.731 (0.520-1.01)	0.796 (0.542-1.14)	0.876 (0.572-1.29)	0.930 (0.595-1.41)
3-hr	0.188 (0.152-0.238)	0.227 (0.183-0.288)	0.290 (0.232-0.368)	0.339 (0.270-0.433)	0.404 (0.308-0.530)	0.451 (0.336-0.603)	0.497 (0.357-0.683)	0.540 (0.371-0.767)	0.595 (0.392-0.872)	0.634 (0.408-0.952)
6-hr	0.123 (0.101-0.154)	0.140 (0.114-0.175)	0.168 (0.137-0.211)	0.192 (0.155-0.241)	0.225 (0.175-0.293)	0.251 (0.190-0.332)	0.277 (0.202-0.378)	0.304 (0.212-0.428)	0.340 (0.227-0.494)	0.367 (0.239-0.544)
12-hr	0.076 (0.063-0.093)	0.087 (0.072-0.107)	0.105 (0.086-0.129)	0.120 (0.098-0.149)	0.142 (0.112-0.183)	0.159 (0.122-0.208)	0.177 (0.131-0.238)	0.195 (0.138-0.271)	0.220 (0.149-0.316)	0.240 (0.157-0.349)
24-hr	0.046 (0.039-0.056)	0.053 (0.044-0.065)	0.065 (0.054-0.079)	0.075 (0.062-0.092)	0.089 (0.071-0.114)	0.101 (0.078-0.130)	0.113 (0.084-0.150)	0.125 (0.089-0.171)	0.142 (0.097-0.201)	0.156 (0.103-0.223)
2-day	0.028 (0.024-0.033)	0.032 (0.027-0.038)	0.039 (0.033-0.046)	0.045 (0.037-0.054)	0.053 (0.043-0.067)	0.060 (0.047-0.076)	0.067 (0.051-0.088)	0.075 (0.054-0.101)	0.086 (0.059-0.119)	0.094 (0.063-0.133)
3-day	0.021 (0.018-0.025)	0.024 (0.020-0.028)	0.029 (0.025-0.034)	0.033 (0.028-0.040)	0.040 (0.032-0.049)	0.045 (0.035-0.056)	0.050 (0.038-0.065)	0.055 (0.040-0.074)	0.063 (0.044-0.087)	0.069 (0.047-0.097)
4-day	0.017 (0.015-0.020)	0.019 (0.017-0.023)	0.024 (0.020-0.028)	0.027 (0.023-0.032)	0.032 (0.026-0.039)	0.036 (0.029-0.045)	0.040 (0.031-0.052)	0.044 (0.032-0.059)	0.050 (0.035-0.069)	0.055 (0.037-0.076)
7-day	0.012 (0.010-0.014)	0.013 (0.012-0.015)	0.016 (0.014-0.018)	0.018 (0.015-0.021)	0.021 (0.017-0.025)	0.023 (0.019-0.029)	0.026 (0.020-0.033)	0.028 (0.021-0.037)	0.032 (0.022-0.043)	0.034 (0.024-0.047)
10-day	0.009 (0.008-0.011)	0.011 (0.009-0.012)	0.012 (0.011-0.014)	0.014 (0.012-0.016)	0.016 (0.013-0.019)	0.018 (0.015-0.022)	0.020 (0.015-0.025)	0.022 (0.016-0.028)	0.024 (0.017-0.032)	0.026 (0.018-0.035)
20-day	0.006 (0.006-0.007)	0.007 (0.006-0.008)	0.008 (0.007-0.009)	0.009 (0.008-0.011)	0.011 (0.009-0.012)	0.012 (0.010-0.014)	0.013 (0.010-0.016)	0.014 (0.010-0.017)	0.015 (0.011-0.020)	0.016 (0.011-0.022)
30-day	0.005 (0.005-0.006)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.008 (0.007-0.009)	0.009 (0.007-0.010)	0.009 (0.008-0.011)	0.010 (0.008-0.012)	0.011 (0.008-0.014)	0.012 (0.009-0.016)	0.013 (0.009-0.017)
45-day	0.004 (0.004-0.005)	0.005 (0.004-0.005)	0.006 (0.005-0.006)	0.006 (0.006-0.007)	0.007 (0.006-0.008)	0.008 (0.006-0.009)	0.008 (0.007-0.010)	0.009 (0.007-0.011)	0.010 (0.007-0.012)	0.010 (0.007-0.013)
60-day	0.004 (0.003-0.004)	0.004 (0.004-0.005)	0.005 (0.004-0.006)	0.006 (0.005-0.006)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.007 (0.006-0.009)	0.008 (0.006-0.010)	0.008 (0.006-0.011)	0.009 (0.006-0.011)

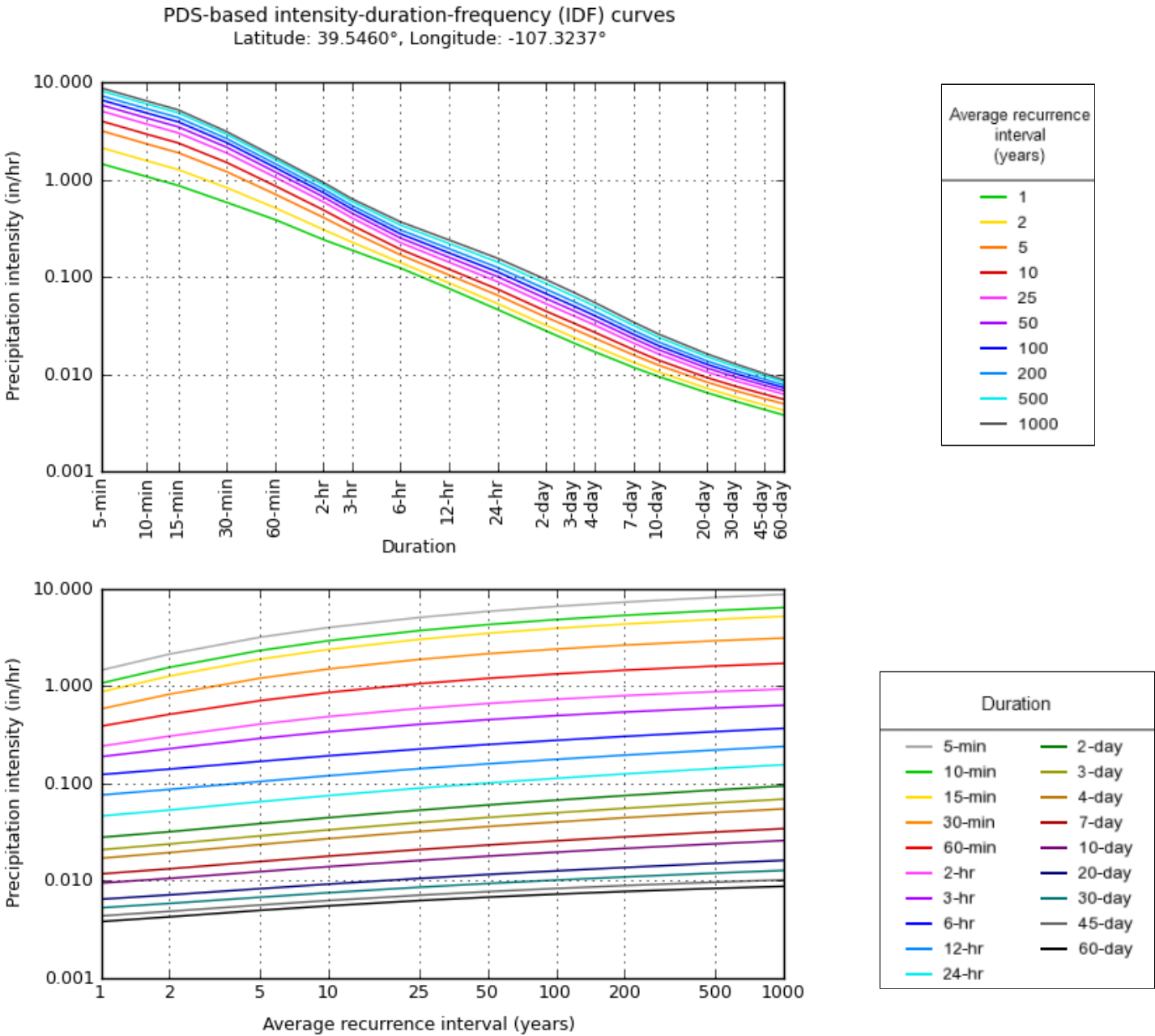
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical



NOAA Atlas 14, Volume 8, Version 2

Created (GMT): Wed Nov 17 00:08:44 2021

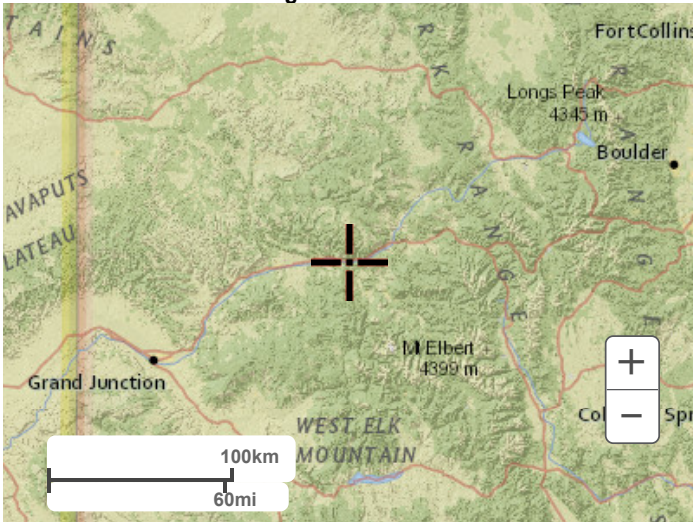
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Maps & aerials

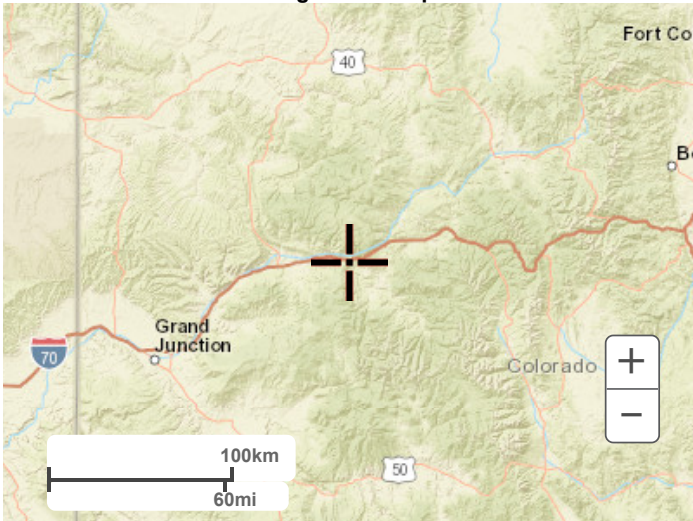
Small scale terrain



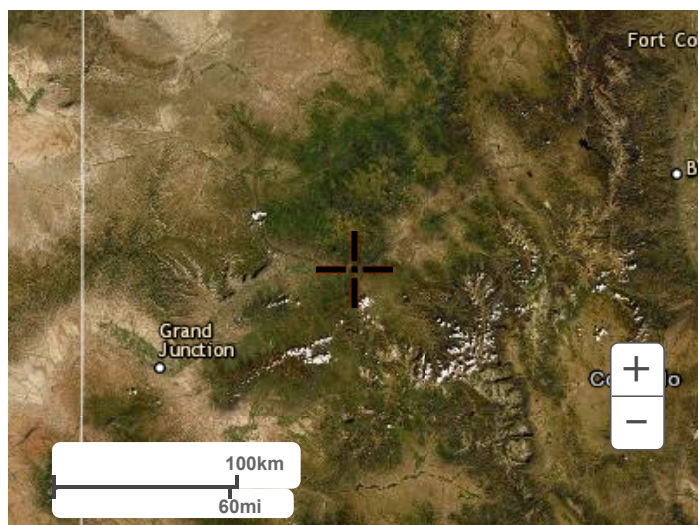
Large scale terrain



Large scale map



Large scale aerial



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[National Weather Service](#)
[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov
[Disclaimer](#)

STORMWATER BEST MANAGEMENT PRACTICES OPERATIONS AND MAINTENANCE AGREEMENT

City of Glenwood Springs, Colorado

This STORMWATER BEST MANAGEMENT PRACTICES OPERATIONS AND MAINTENANCE AGREEMENT (this “Agreement”) is made and entered into this _____ day of _____, 20____ by and between the CITY OF GLENWOOD SPRINGS, a Colorado home-rule municipality (the “City”), and _____ (together with its successors and assigns, “LANDOWNER”).

RECITALS

WHEREAS, LANDOWNER is the owner(s) of certain real property in the City of Glenwood Springs located at _____, Glenwood Springs, Colorado (the “Property”);

WHEREAS, LANDOWNER has installed certain improvements on the Property, as depicted on **Exhibit A Stormwater Management BMP Operation and Maintenance Manual** attached and incorporated herein by this reference, including a stormwater management system consisting of roof gutters, downspouts, area inlets, storm sewers and stormwater detention facilities (the “Improvements”); and

WHEREAS, because of the potential impact the Improvements could have to surrounding properties if improperly maintained, the City requires assurances that LANDOWNER will maintain the Improvements; and

WHEREAS, the City desires to ensure that it will be able to exercise all rights under the law to ensure the proper maintenance of the Improvements, including the right to assess the cost of any maintenance performed by the City against the Property and to collect the same as taxes.

NOW, THEREFORE, in consideration of the mutual representations, covenants, and promises herein contained, the Parties agree as follows:

TERMS & CONDITIONS

1. Recitals. The foregoing recitals are incorporated herein as material terms of this Agreement as if set forth in full.
2. Improvements. LANDOWNER acknowledges that, if improperly maintained, the Improvements have the potential to negatively impact surrounding public and private property and create a nuisance thereon.
3. Maintenance. LANDOWNER, as owner of the subject Property and the Improvements, agrees to maintain the Improvements and surrounding area as outlined in **Exhibit A**, to

ensure the reasonable functioning of the Improvements and the protection of the public and private property in the area.

4. Abatement. The City shall have the legal authority, but not obligation, to maintain the Improvements, to assess the cost of such maintenance against the Property, and to collect the same through any available administrative or legal means, including pursuant to C.R.S. § 31-20-105 and Section 100.010.050 of the Glenwood Springs Municipal Code. The City shall, prior to maintenance of the Improvements, provide seven days' written notice to LANDOWNER, during which time LANDOWNER shall have the right to abate the condition of the Improvements. The condition of the Improvements shall constitute a nuisance if not abated within said seven-day period.
5. Indemnification. LANDOWNER covenants and agrees to indemnify, hold harmless, and defend the City, its officers, agents, servants, employees, and elected officials from and against any and all claims or suits for property damage or loss and/or personal injury, including death, to any and all persons, arising out of or in connection with the maintenance and use of the Improvements. No term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions of the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101, et seq.
6. Binding Effect. This Agreement shall constitute a covenant running with the land and be binding upon all successors and assigns of LANDOWNER.
7. Entire Agreement. This Agreement, along with any addendums and attachments hereto, constitutes the entire agreement between the Parties. The provisions of this Agreement may be amended only by written instrument signed by both Parties.
8. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Colorado, and venue shall be in the County of Garfield, State of Colorado.
9. Attorneys' Fees. Should this Agreement become the subject of litigation between the City and LANDOWNER, the prevailing party shall be entitled to recovery of all actual costs in connection therewith, including but not limited to attorneys' fees and expert witness fees. All rights concerning remedies and/or attorneys' fees shall survive any termination of this Agreement.
10. Recording. Upon execution by the Parties, this Agreement shall be duly recorded with the Garfield County Clerk and Recorder.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

[Remainder of page intentionally left blank]

CITY OF GLENWOOD SPRINGS

By: _____
Mayor

ATTEST:

City Clerk

LANDOWNER:

By: _____
Name:
Owner of _____, Glenwood Springs, CO

STATE OF COLORADO }
 } ss.
COUNTY OF GARFIELD }

The foregoing STORMWATER BEST MANAGEMENT PRACTICES OPERATIONS AND MAINTENANCE AGREEMENT was acknowledged before me this ____ day of _____, 2021 by _____.

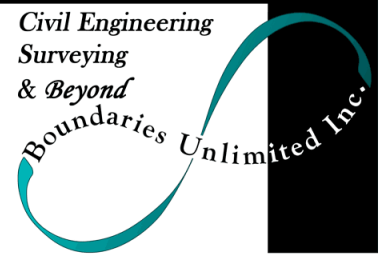
Witness my hand and official seal.

My commission expires: _____.

Notary Public

Memo

To: Terri Partch/Jessica Bowser – City of Glenwood Springs Engineering
From: Deric Walter, PE
Date: December 16, 2021
Re: Subsurface Utility Engineering – Westlink



The purpose of this memo is to provide evidence that the proposed Westlink multifamily development is not a Subsurface Utility Engineering (SUE) required project.

As you are aware, Section 6.7 of Senate Bill SB 18-167 defines four (4) criteria which must all be met by a SUE required project. These are:

- 1) The project involves a construction contract with a public entity, as that term is defined in Section C.R.S. 24-91-102;
- 2) the project involves primarily horizontal construction and does not involve primarily the construction of buildings;
- 3) The project:
 - a. has an anticipated excavation footprint that exceeds two feet in depth and that is a contiguous one thousand square feet; or
 - b. involves utility boring.
for purposes of this subsection, the term "two feet in depth" does not include rotomilling, and the contiguous one thousand square feet does not include fencing and signing projects.
- 4) The project requires the design services of a licensed professional engineer.

This project is privately funded (no construction contract with a public entity) and primarily involves the vertical construction of buildings. Therefore, based on these reasonings, Westlink should not be classified as a Subsurface Utility Engineering required project.

If you have any question, please feel free to call me at 970.945.5252 x 01.



This is the Housing Mitigation Plan (HMP) for WestLink, to demonstrate compliance with the Glenwood Springs Community Housing Guidelines, which apply to Article 070.045 – Community Housing Standards and Guidelines in the Glenwood Springs Municipal Code. The current intention is for-lease units.

1. Total number of residential units or lots and designation of units/lots as either market rate or community housing units/lots; designation as attached or detached units; a description of the type of unit, i.e. townhome, condominium, etc.; bedroom configuration and net square footage of each unit,

- Consistent with the ordinance: Three units (21% of the 14 total units) will be deed restricted as Resident Occupied Community Housing (RO), of which One unit will also be deed restricted as a Community Housing Unit (CH).
- The current intention is for-lease units. Therefore, the maximum gross rental price, including utility allowance and non-optional fees, of the One deed-restricted unit shall not, at the time of leasing, exceed the maximum rents established according to Colorado Housing and Finance Authority, Colorado County Income and Rent Table, for one hundred percent (100%) of the Garfield County Area Median Income.
- Additional details for each of the units can be found in the table below:

	Unit	Designation	Attached/Detached	Type	Beds	Baths	Net Sq/Ft	# of Units
South Building								
	1	Market	Attached	Condo style	2	1.75	960	1
	2	Market	Attached	Condo style	2	1.75	960	1
	3	Market	Attached	Condo style	2	1.75	962	1
	4	Market	Attached	Condo style	2	1.75	962	1
	5	Market	Attached	Condo style	2	1.75	960	1
	6	Market	Attached	Condo style	2	1.75	962	1
	7	Market	Attached	Condo style	2	1.75	962	1
	8	RO	Attached	Condo style	2	1.00	868	1
							7,596	8
North Building								
	A	RO + CH	Attached	Condo style	1	1.00	674	1
	B	Market	Attached	Condo style	2	1.75	913	1
	C	Market	Attached	Condo style	2	1.75	929	1
	D	Market	Attached	Townhome style	2	1.50	1,175	1
	E	RO	Attached	Townhome style	3	2.00	1,292	1
	F	Market	Attached	Townhome style	3	2.50	1,521	1
							6,504	6
Total							14,100	14

2. If a subdivision of land into individual lots is part of the application, the size of each lot within the development, which includes the average size of the market rate lots and average size of community housing lots shall be provided.

- N/A - Property shall consist of a multi-unit development not a subdivision.

3. Targeted income category for each proposed community housing unit, as specified in Part II Section C. Initial Sales Prices in these Guidelines, to ensure sales and rental prices for all community housing units or lots within a development average to 100% of AMI, as specified in the ordinance.

- The development will have one for-rent Community Housing unit, 'Unit A', which shall have maximum rent equal to one hundred percent (100%) of the Garfield County Area Median Income.

4. A separate calculation of average size of finished net square footage both for market rate units and community housing units, excluding garages and unfinished basements;

- See previous table in #1.

5. Location of community housing units and/or lots within the development, by unit type and size;

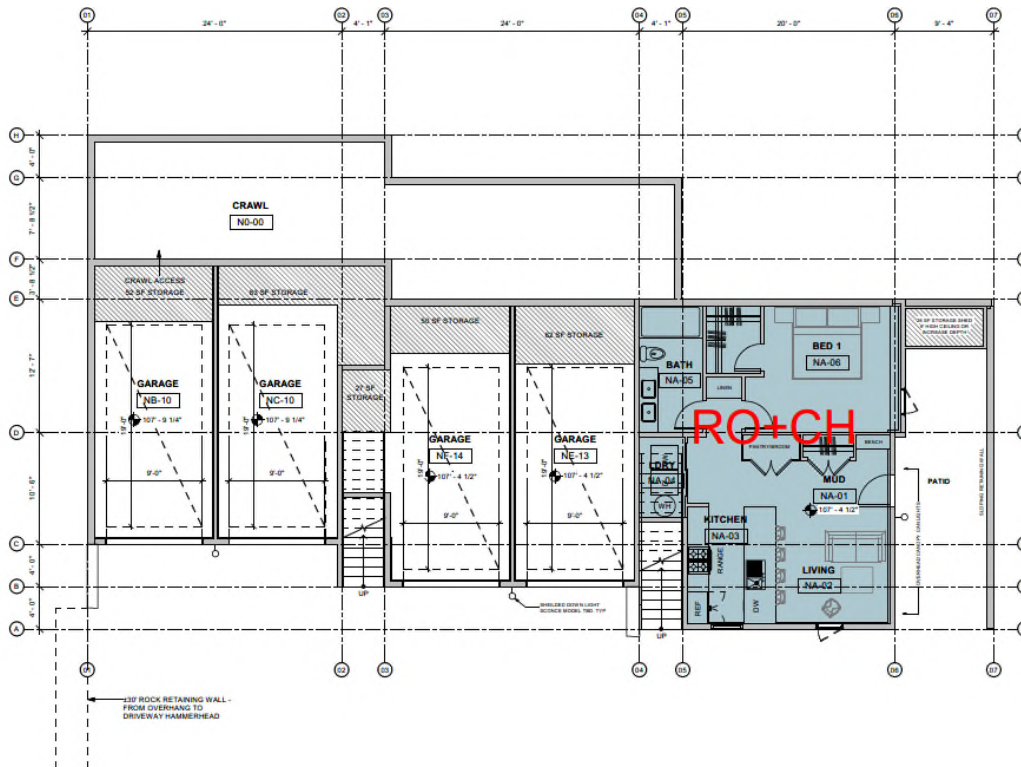
- See attached plans.

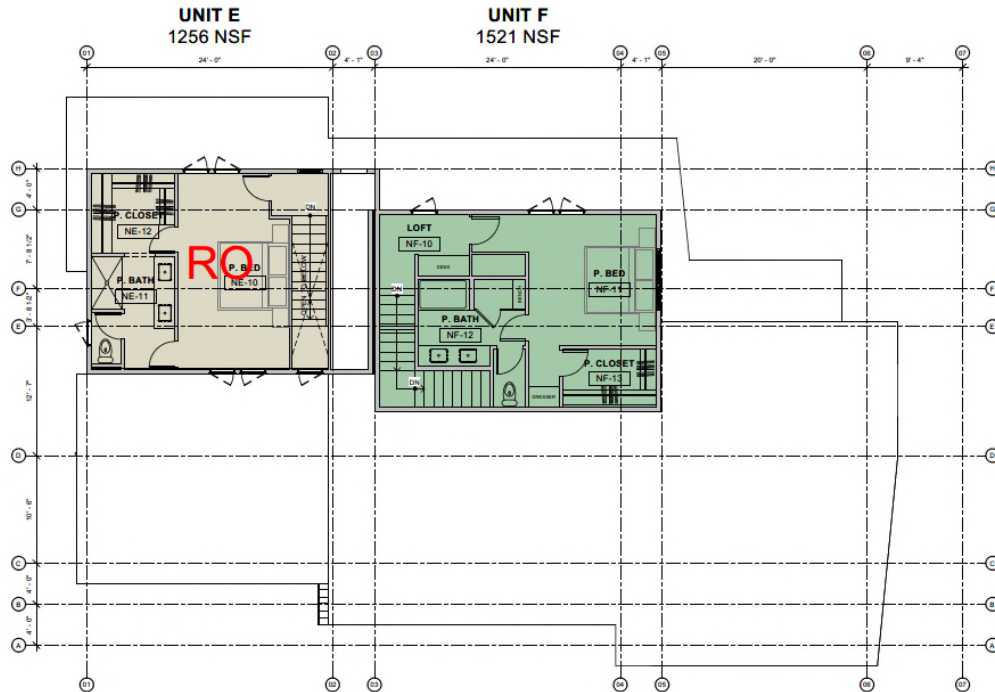
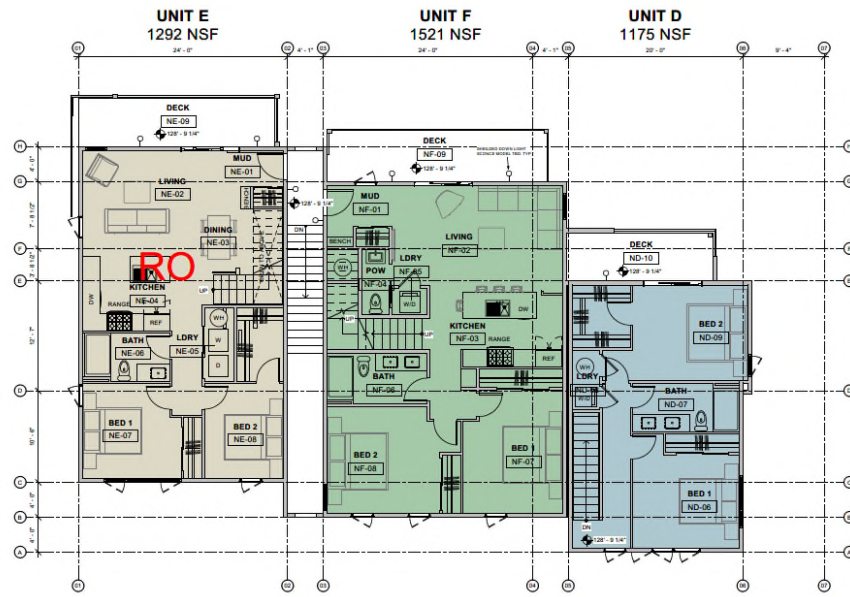
6. A phasing/construction plan schedule for both market and community housing units and/or lots within the development or subdivision.

- The development, including all market rate and community housing units, will be constructed in a single-phase estimated to take approximately 9 to 10 months.

7. An estimate of homeowners association assessments for both market rate units/lots and community housing units/lots, to ensure compliance with Part II Section I. Home Owners Associations in these Guidelines.

- Development will be a for-rent development and there will not be an HOA.





This is the Public Art Cash in Lieu calculation for WestLink, to demonstrate compliance with the Glenwood Springs Municipal Code requirements specifically:

“070.040.030 (g)(6) Public Art New developments subject to the Common Open Space requirements within Section 070.040.040 shall provide public art through On-Site Artwork, Cash in Lieu or a combination as set forth in Section 090.080.040 (c.) However, square footages for housing units that are deed restricted to be affordable to households earning no more than one hundred (100) percent AMI shall be exempted from this requirement.”

- The development has a total gross floor area of 17,514 GSF, and Unit A which is 730 GSF, will be deed restricted to be affordable to household earning no more than 100% AMI. The formula to determine the cash in lieu fee is (gross floor area x \$0.10 x 80%). Therefore, the cash in lieu contribution from the developer shall be:

$$17,514 - 730 \times \$0.10 \times 80\% = \underline{\underline{\$1,342.72}}$$

Engineering
Department
Ryan Johnson,
Asst. City Engineer

Date: June 23, 2022

To: Community Development

Re: 175/185 CR 135 (Westlink Apartments) Re-submittal

Please see the following engineering comments for the 175/185 CR 135 Development Application. These comments are not inclusive of comments from other departments, including Public Works, Building, etc. City of Glenwood Springs Engineering reserves the right to make additional comments throughout the application process, especially if significant modifications are made. It is in the applicant's best interest to address all comments holistically to reduce the number of reviews necessary for approvals.

Engineering will not review a revised submittal until the applicant provides a written response to these comments.

Engineering Variance Request Comments:

1. A variance request for 5.2.10J Table 5-13 15' minimum radii, is not required. The turning movement for the easternmost parking stall is challenging for a passenger vehicle to make the 180 degree turn, but with the proximity to the existing cul-de sac and a low volume road this will likely not be a significant issue. Reviewing the engineering standards section 5.2.10G would indicate that the curb radii is not required here, and no variance is required for curb radii in this case.

Engineering Reports Comments:

2. **SUE Memo:** Revise SUE Memo.
 - a. The City considers the required ROW permit a contract with a public entity.
 - b. The City considers the work in the right of way horizontal. Review the best practices of Underground Damage Prevention Safety Commission for determining primarily horizontal and vertical.
 - c. The project does not appear to meet the 1000 SF contiguous and 2' depth requirement so a SUE is not required.
3. **Traffic Report** should be signed and sealed.
4. **Geotechnical Report**
 - a. Report should address paving sections.

- b. Verify that the site does not intersect with the Qdf(2) Moderate Debris flow hazard. If the site is within this area then a geohazard report will be required that addresses the code section 070.040.020(c) and should be submitted prior to development permit or if the developer is okay with risk at final plans submittal.

5. Drainage Report

- a. Report should be signed and sealed.
- b. Include an existing and proposed drainage map (24x36) with the report for the site and include basin delineations and design points and runoff coefficients.
- c. The time of concentration calculations appear excessive for a developed small site. The resulting velocity is 0.1 ft per second, which seems slow is that calculation correct? Reviewing the sheet flow (initial overland flow) calculations in the Urban Drainage Manual the time is closer to 5 minutes. Is the TR-55 method of calculation of sheet flow compatible with the rational method used for the flow calculation?
- d. Does 100-year flow tributary to CR 135 cause flooding of downstream properties or is it held within the roadway channel capacity?
- e. On page 5 the diagram should be updated for the current site plan.
- f. In the proposed conditions basin description indicate the existing and proposed 100-year flows.
- g. In the summary state the anticipated impacts to downstream properties.

Civil Plan Comments:

6. Underground Piping Plan C.2: refer to the attached plan for context on the comments below.

- a. Seems like the berm should be continued to the end of wall to minimize water flowing directly behind the neighbors wall.
- b. The specified routing may be a challenge based upon roof lines depicted, verify this is possible with the proposed roof lines.
- c. Where are the sanitary sewer abandonments in the road or site?
- d. Consider an additional cleanout at bends.
- e. Work with W/WW to determine limits of private VS public delineation and call out on plan.
- f. Verify existing and proposed utility easement locations and widths.

7. Site and Grading Plan C.3: refer to the attached plan for context on the comments below.

- a. Finished floor elevations should be shown on both buildings.
- b. How will trash trucks access the dumpster?

- c. Is the seasonal bike parking compatible with the adjacent trash enclosure usage.
- d. Walls will be required to be designed for loading by trash trucks.
- e. Is the swale grading compatible with the transformer location?
- f. Is guard rail needed for this wall. vehicles that run into the handrail will break it off and go over the wall, or is the top of wall elevation different than the pavement grade?
- g. Structural will be required to detail wall, and footing should not encroach into the ROW

8. Civil Details- Site C.6: refer to the attached plan for context on the comments below.

- a. Road section should be confirmed prior to final plans
- b. Move note 1 on the catch curb detail for legibility.
- c. Where is the mountable curb and gutter detail?

9. Topographical Survey Map

- a. Show the 20' easement and all other existing easements on the site plan verify the conflicts.

10. Landscaping Plan:

- a. Tree conflicts with proposed hydrant location.
- b. Landscaping plan should be coordinated with the proposed utility plan, grading plan, and geotechnical

Additional miscellaneous comments, *for information only*:

- 11. This project requires a grading permit will be required if site improvements and utilities are to begin prior to building permit issuance.
- 12. Any work taking place within an adjacent property requires an easement (temporary or permanent), *if applicable*.
- 13. Any permanent facilities within the City of Glenwood Springs Right of Way requires a **License to Encroach**. See Community Development for further information.

Comments to be addressed prior to Grading Permit Approval:

- 14. A [Grading Permit](#) shall be submitted along with the following documentation:
 - a. Final Stamped Reports (Geotechnical, Drainage, Traffic Geologic Hazards, etc).
 - b. Final Stamped Construction Documents.

- c. The Stormwater Management Plan, along with any applicable approved state permits, including a [Construction Stormwater Discharges Permit](#) or [Dewatering Permit](#).
15. Any additional permitting necessary for the project should be submitted, including Building and/or Right of Way Permits.

Comments to be addressed prior to Certificate of Occupancy:

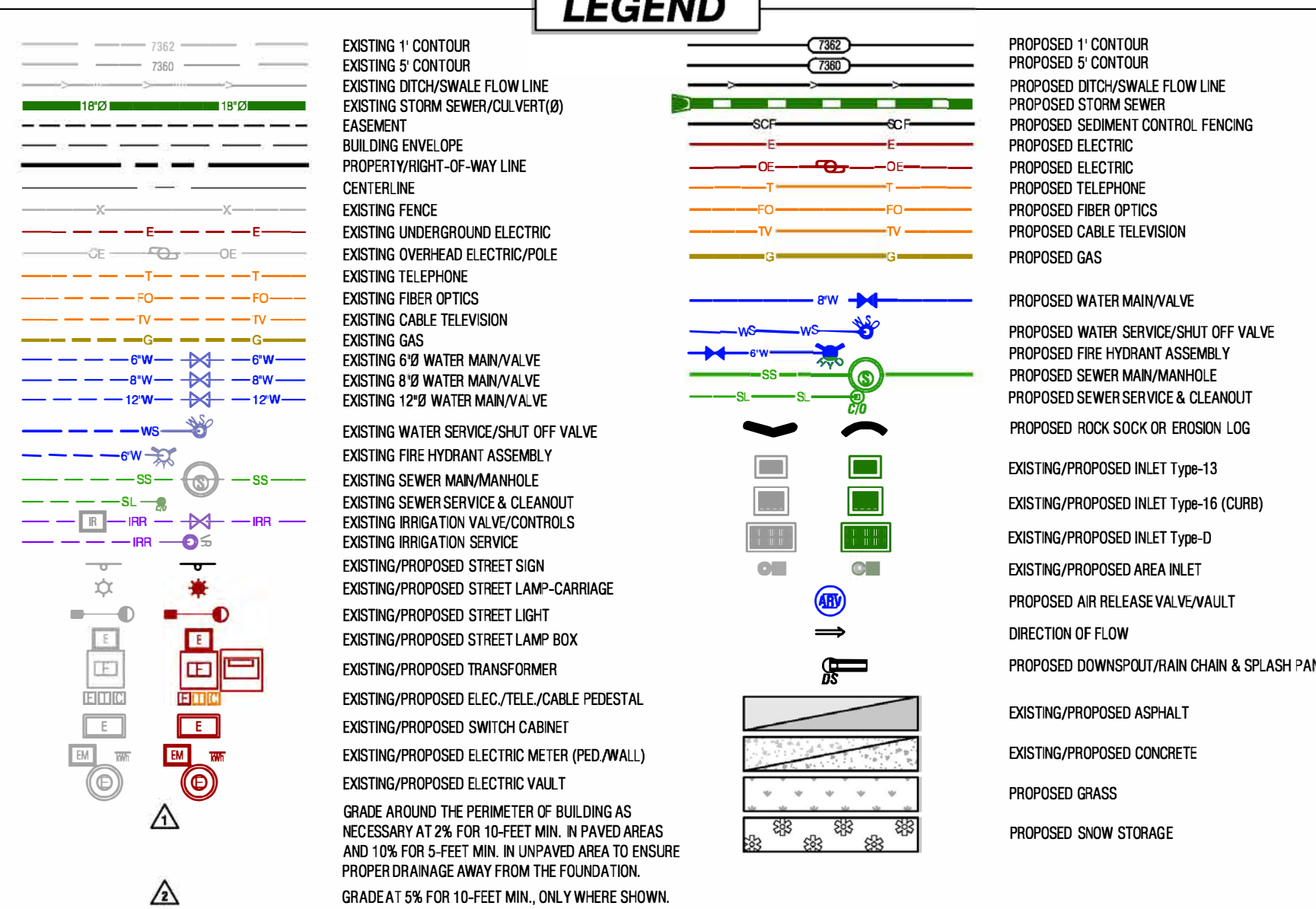
16. The city will require a **maintenance plan and agreement** with the development for the detention and debris system/s. If the system/s are not being maintained properly and having a negative effect on downstream facilities, the City will need access to perform the maintenance and back charge the facility owner. See Community Development for further information.
17. All drainage, retaining walls, and/or other site improvements require a **stamped/signed certification letter** from the engineer of record that verifies that all improvements were constructed per plan.
- a. If not constructed per plan, an explanation for the changes and any calculations/certifications should be submitted to verify that it meets the plan requirements.
18. **Record drawings (As-Built)/Improvement Survey Plat (ISP)** will be required to be submitted to the city along with electronic drawings (CAD) as described in the Engineering Standards. An Improvement Location Certificate (ILC) is **not** sufficient.
- b. Critical improvements should be identified including, but not limited to:
 - i. Utility improvements, identify:
 - 1. Structures
 - 2. Pipes
 - 3. Inverts
 - 4. Service locations
 - 5. Ownership demarcation points
 - 6. As-built plan and profile for any utility mains (private or public)
 - ii. Stormwater improvements, include
 - 1. Verified detention capacity and/or verified infiltration rates
 - iii. Retaining walls, identify:
 - 1. Locations
 - 2. Height, i.e. top of wall (TOW) and bottom of wall (BOW)

- c. Any approved **Licenses to Encroach** may require amending if the as-built conditions vary from the approved licensing locations, *if applicable*.
- d. **Utility Easements** shall be recorded for any City of Glenwood Springs main lines, hydrants, or transformers not in the City right of way, *if applicable*.

PRELIMINARY PLAN FOR THE
WESTLINK
GLENWOOD SPRINGS, COLORADO

Lot Size Information	Project Description		Existing (%)	Proposed (%)
	Acres	SF		
Limits of Disturbance	0.697	30,370	5,605/19%	10,580/35%
30,370/100%	28,900/95%		8	8
Off-Street Parking Spaces	# Existing	# Proposed	# Existing	# Proposed
	13	26	0	4
Residential Units	# Existing	# Proposed	Type	Gross Floor Area (SF)
	6	14	N/A	N/A
Open Space	Existing (SF%)	Proposed (SF%)	Total Landscaped Area	Proposed (SF%)
	8,900/29%	9,100/30%	16,601/54%	10,970/36%
Building Height	Existing (Ft)	Proposed (Ft)	Total Impervious Area	Proposed (SF%)
	30	39'-8" Max	13,769/46%	19,400/64%
Snow Storage	Existing (Ft)	Proposed (Ft)	Other	
	1,700	480		

Sheet #	Sheet Title
C.1	Cover Sheet
C.2	Underground Piping Plan
C.3	Grading & Drainage Plan
C.4	Civil Details - Site Water & Sewer
C.5	Civil Details - Site Electric
C.6	Civil Details - Site
V.1	Topographic Survey Map



NOTES:
THIS PLAN SET IS INTENDED TO BE PLOTTED IN COLOR. FAILURE TO DO SO MAY RESULT IN MISSING DATA & INFORMATION CRITICAL TO THE PROJECT.

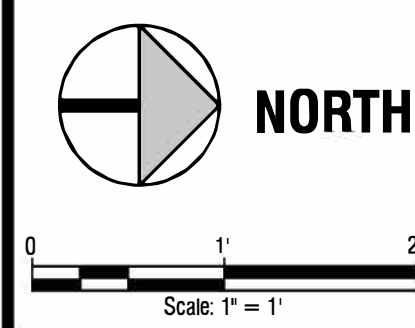
Bonnie Civil Engineering Surveying & Beyond
Calculated Inc.
923 Cooper Ave., Ste. 201
Glenwood Springs, CO 81601
(770) 945.5252
www.bu-inc.com

Subsurface Utility Engineering (SUE)
Required Project: **No**
SUE Certification by:
Firm: **N/A**
Job #: **N/A**
Date: **N/A**

Engineer or Surveyor Seal



Client Information:
Gabe Molnar
375 Oak Run Road
Carbondale, CO 81623
970.386.0379

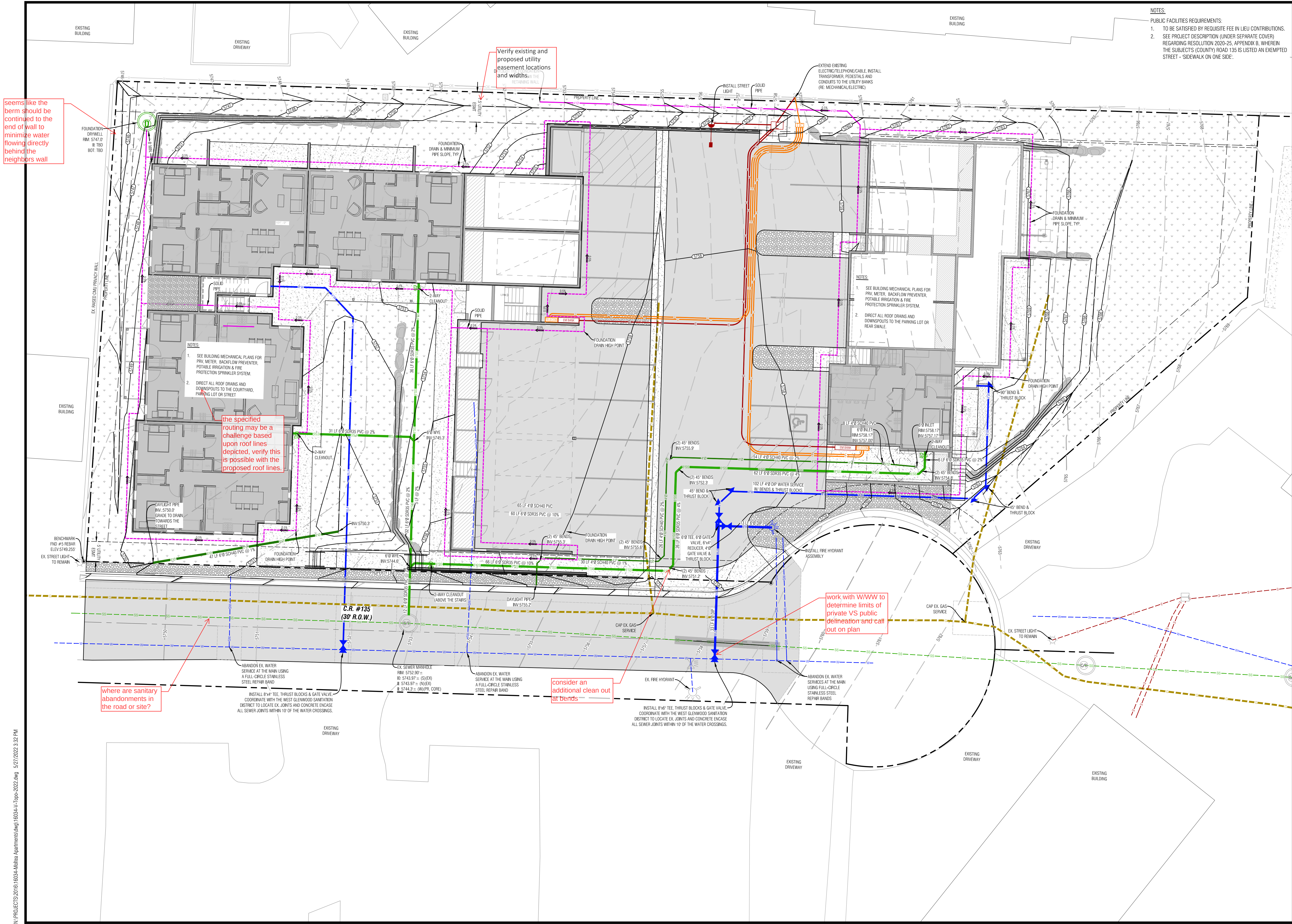


Call before you dig.

Westlink
Cover Sheet
Preliminary Plan Set - Not For Construction

By	Revision	Date	Notes
	1	10/24/22	10/24/22
	2	10/24/22	10/24/22
	3	10/24/22	10/24/22
	4	10/24/22	10/24/22
	5	10/24/22	10/24/22
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	100	10/24/22	10/24/22

- GENERAL NOTES**
1. BASIS OF BEARING AND BENCHMARKS: SEE THE TOPOGRAPHIC SURVEY MAP PREPARED BY TUTTLE SURVEY SERVICES (5/16/2016).
 2. BASED SOLELY UPON THE FLOOD INSURANCE RATE MAP (COMMUNITY PANEL NO. 6802051A36, DATED JANUARY 3, 1986, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, THE SUBJECT PROPERTY IS DESIGNATED AS BEING SITUATED IN ZONE C, "AREA OF MINIMAL FLOODING (NO SHADING)".
 3. GEOLOGIC HAZARD DISCLOSURE: THIS PROPERTY IS SUBJECT TO GEOLOGIC HAZARDS PER THE ADOPTED MAPPING BY THE CITY OF GLENWOOD SPRINGS AND OPEN FILE NO. 10, GEOLOGIC HAZARDS FOR THE GLENWOOD SPRINGS METROPOLITAN AREA - GARFIELD COUNTY, COLORADO, PREPARED BY LINCOLN - DEVORE ENGINEERS AND GEOLOGISTS, FOR THE COLORADO GEOLOGICAL SURVEY DEPARTMENT OF NATURAL RESOURCES, STATE OF COLORADO, DENVER, COLORADO, 1978. A SITE SPECIFIC GEOLOGIC HAZARD REPORT SHOULD BE PREPARED BY A PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER PRIOR TO BUILDING PERMIT APPLICATION. THE WARRANTY PERIOD SHALL BE TWO (2) YEARS FROM THE DATE OF ACCEPTANCE.
 4. CONSTRUCTION WORK, ANY NOISE CREATED BY OPERATING OR CAUSING TO BE OPERATED ANY EQUIPMENT (MECHANICAL OR NON-MECHANICAL, SELF-PROPELLED OR MANUALLY MANIPULATED) USED IN CONSTRUCTION, REPAIR, ALTERATION OR DEMOLITION WORK ON BUILDINGS, STRUCTURES, STREETS, ALLEYS OR APPURTENANCES SHALL OCCUR WITHIN THE HOURS DEFINED BY THE CITY MUNICIPAL CODE.
 5. IN ORDER OF PRECEDENCE, ALL CONSTRUCTION SHALL MEET OR EXCEED THE PROJECT PLANS AND TECHNICAL SPECIFICATIONS, STANDARDS ESTABLISHED IN THE LATEST EDITIONS OF THE CITY PUBLIC WORKS MANUAL AND/OR ENGINEERING STANDARDS, AND CDDT SPECIFICATIONS, AS REFERENCED HEREIN, AND BE SUBJECT TO OBSERVATION BY THE PROJECT ENGINEER, TOWN/CITY AND CDDT, AS APPLICABLE.
 6. IN CASE OF A CONFLICT BETWEEN VARYING SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.
 7. THE CONTRACTOR SHALL OBTAIN A COPY OF THE LATEST STANDARD SPECIFICATIONS AND DETAILS SHALL BE MAINTAINED ON THE JOBSITE AT ALL TIMES.
 8. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES TWO (2) SIGNED COPIES OF THE LATEST PLANS, STANDARDS, AND SPECIFICATIONS AS APPROVED BY THE APPROPRIATE GOVERNING AGENCY AND PROJECT ENGINEER. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THESE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER, PROJECT ENGINEER, AND GOVERNING AGENCY.
 9. THE CONTRACTOR SHALL AT ALL TIMES KEEP TWO (2) FULL SETS OF PROJECT DRAWINGS MARKED UP TO INDICATE THE AS-BUILT LOCATION OF SUBSURFACE UTILITIES INSTALLED AND ENCOUNTERED. ALL INSTALLED AND ENCOUNTERED UTILITIES SHALL BE TOPOGRAPHICALLY SURVEYED BY A PROFESSIONAL LAND SURVEYOR AND ASBUILT DRAWINGS SHALL BE PROVIDED IN ELECTRONIC DWG AND PDF FORM TO THE TOWN/CITY AND THE PROJECT ENGINEER UPON COMPLETION OF THE WORK. ALL SURVEY DATA SHALL BE ON TOWN/CITY COORDINATES AND DATUM.
 10. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE, AND FEDERAL APPLICABLE LAWS AND REGULATIONS.
 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SITE AND THE PROJECT. THIS SHALL INCLUDE THE SAFETY OF HIS OWN PERSONNEL, SUBCONTRACTORS, ALL VISITORS TO THE SITE, AND THE SAFETY OF THE PUBLIC. ALL JOB SITE SAFETY SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL, REGULATIONS AND CODES, AND ENSURE COMPLIANCE INCLUDING, BUT NOT LIMITED TO, THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
 12. THE CONTRACTOR SHALL CONTACT ONE CALL OF COLORADO AT #811 (1-800-922-9887) FOR THE MARKING OF MEMBER UNDERGROUND UTILITIES (www.onecall.org) A MINIMUM OF SEVEN (7) DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) IN ADVANCE OF ANY EXCAVATION.
 13. EXISTING TOPOGRAPHY, STRUCTURES AND SUBSURFACE UTILITY ENGINEERING (SUE) MAPPING SHOWN ON THESE PLANS WERE PROVIDED BY OTHERS AND WERE NOT VERIFIED BY BOUNDARIES UNLIMITED INC. THEREFORE, BOUNDARIES UNLIMITED, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING TOPOGRAPHY, STRUCTURES OR UTILITIES.
 14. ALL MATERIALS SHALL BE NEW UNLESS OTHERWISE INDICATED IN THE PLANS, AND SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER, PROJECT ENGINEER, TOWN/CITY AND CDDT, AS APPLICABLE.
 15. LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS TO BE REMOVED (OR AVOIDED) BY THE PROPOSED WORK SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE PROJECT ENGINEER ANY DISCREPANCIES BETWEEN HIS MEASUREMENTS AND THESE PLANS.
 16. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES SHOWN IN THE PLANS AND/OR DISCREPANCIES. THE CONTRACTOR SHALL NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES. ANY MISSING DIMENSIONS OR DISCREPANCIES IN PLANS, FIELD STAKING, OR PHYSICAL FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER. IF THE CONTRACTOR PROCEEDS WITH THE WORK WITHOUT NOTIFYING THE PROJECT ENGINEER, HE DOES SO AT HIS OWN RISK.
 17. ALL ESTIMATES OR QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL QUANTITIES, AND SHALL PROVIDE ALL WORK AND MATERIALS NECESSARY TO CONSTRUCT THE PROJECT IN ITS ENTIRETY.
 18. THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT DESIGNED FOR REMOVAL AND THOSE IMPROVEMENTS THAT ARE OUTSIDE THE LIMITS OF THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE THERE TO AND SHALL PROVIDE TEMPORARY FENCING, BARRICADES, SUPPORTS, RESTRAINTS, AND/OR BRACING WHERE REQUIRED TO PROTECT EXISTING IMPROVEMENTS. DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPAIRED AND/OR REPLACED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
 19. ALL GRADING AND CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO THE OWNERS' PROPERTY, PUBLIC RIGHT-OF-WAY, PERMANENT EASEMENTS, AND TEMPORARY EASEMENTS. THE CONTRACTOR SHALL NOT OPERATE OUTSIDE THIS AREA WITHOUT THE PRIOR CONSENT OF THE PROPERTY OWNER INVOLVED. ANY DAMAGE TO PRIVATE PROPERTY BY THE CONTRACTOR OUTSIDE THESE LIMITS WITHOUT THE PERMISSION OF THE PRIVATE PROPERTY OWNER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT OBTAINED BY THE OWNER OR OWNER REPRESENTATIVES, AND PAY ALL FEES REQUIRED BY THE CONSTRUCTION COVERED IN THESE PLANS.
 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS NECESSARY FOR STREET CLOSURES, OBSTRUCTIONS TO TRAFFIC, AND UTILITY SHUT-OFFS.
 22. THE CONTRACTOR IS RESPONSIBLE FOR ALL SITE SECURITY AND SHALL PROPERLY PROTECT AND BARRICADE THE CONSTRUCTION SITE UNTIL CONSTRUCTION IS COMPLETE, STORAGE, LOSS DUE TO THEFT, OR VANDALISM OF MATERIALS AND EQUIPMENT (SECURED OR UNSECURED) WILL BE SOLELY AT THE CONTRACTOR'S EXPENSE.
 23. THE CONTRACTOR SHALL OBTAIN ANY WRITTEN AGREEMENTS FOR INGRESS AND EGRESS TO THE WORK FROM ADJACENT PRIVATE PROPERTY OWNERS. ACCESS TO ANY ADJACENT PRIVATE PROPERTY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD, DURING ALL HOURS OF OPERATION FOR THE BUSINESS LOCATIONS ON THOSE PARCELS.
 24. FOR ANY CHANGES OR DEVIATIONS FROM THESE PLANS PROPOSED BY THE CONTRACTOR, SHOP DRAWINGS AND MATERIAL SPECIFICATIONS SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF MATERIAL. THE CONTRACTOR MUST COORDINATE ALL CONSTRUCTION WITH THE OWNERS DEDICATED CONSTRUCTION PROJECT MANAGER OR THE ENGINEER.
 25. CONTRACTOR SHALL PROTECT AND PRESERVE ALL SURVEY CONTROL AND PROPERTY MONUMENTATION. ANY DAMAGED MONUMENTS SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE AT THE CONTRACTOR'S EXPENSE.
 26. PRIOR TO MOVING OFF THE JOB SITE THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE OWNERS CONSTRUCTION PROJECT MANAGER TO PERFORM THE FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.
 27. TEMPORARY POWER, TELEPHONE, WATER, SANITARY AND WASTE DISPOSAL SERVICE FOR THE SITE IS THE CONTRACTORS RESPONSIBILITY UNLESS OTHERWISE SPECIFIED.
 28. CONTRACTOR SHALL REFER TO OTHER DRAWINGS ISSUED BY ARCHITECT, STRUCTURAL, ELECTRICAL, AND MECHANICAL ENGINEERS, ENSURE COORDINATION OF EXACT LOCATION AND DIMENSIONS OF BUILDINGS, DITS, RAMPS, UTILITY ENTRANCE LOCATIONS AND GRASSES AROUND THE BUILDING. IMMEDIATELY NOTIFY THE PROJECT ENGINEER IF THERE ARE ANY DISCREPANCIES.
 29. NO BELOW GRADE WORK SHALL BE BACKFILLED INCLUDING BEDDING MATERIAL ABOVE THE SPRING LINE OF THE PIPE (UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE APPROPRIATE GOVERNING AGENCY) PROJECT ENGINEER AND/OR OWNERS CONSTRUCTION PROJECT MANAGER. INSPECTIONS SHALL BE SCHEDULED AT LEAST FORTY EIGHT (48) HOURS PRIOR.
 30. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL NECESSARY TO COMPLETE THE WORK. ALL TRAFFIC CONTROL DEVICES AND METHODS OF CONTROLLING TRAFFIC THROUGH CONSTRUCTION ZONES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND ALL REVISIONS THERETO INCLUDING LOCAL AND STATE SUPPLEMENTS. ADDITIONAL WORK IN THE RIGHT-OF-WAY OR TRAFFIC CONTROL PERMITS MAY BE NECESSARY AND SHALL BE THE CONTRACTORS RESPONSIBILITY.
 31. FOR ANY CONSTRUCTION ACTIVITY WITHIN A RIGHT-OF-WAY, CONTRACTOR SHALL PROVIDE ALL WARNING LIGHTS, SIGNS, BARRICADES, FLAG MEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSTRUCTION ZONE TRAFFIC CONTROL. A CONSTRUCTION TRAFFIC CONTROL PLAN MUST BE SUBMITTED FOR REVIEW AND APPROVAL TO THE TOWN/CITY AND PROJECT ENGINEER, 5 BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION WITHIN A PUBLIC RIGHT-OF-WAY.
 32. CONTRACTOR SHALL DESIGNATE A CERTIFIED TRAFFIC CONTROL SUPERVISOR (TCS) TO MANAGE CONSTRUCTION SIGNAGE AND SAFETY OF UNOCCUPIED ACTIVITIES WITHIN THE RIGHT OF WAY. A TRAFFIC CONTROL SUPERVISOR SHALL BE AVAILABLE WHENEVER WORK IS IN PROGRESS.
 33. IF UNANTICIPATED HAZARDOUS MATERIALS OF ANY KIND ARE ENCOUNTERED IN THE WORK, THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL CONSTRUCTION OPERATIONS AND NOTIFY THE PROJECT ENGINEER AND/OR OWNERS CONSTRUCTION PROJECT MANAGER FOR FURTHER DIRECTION.
 34. ALL DEBRIS RESULTING FROM CONSTRUCTION AND DEMOLITION SHALL BE HAULED OFF SITE AND DISPOSED OF PROPERLY AND LEGALLY AND SHALL BE CONSIDERED PART OF THE WORK.
 35. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES IN ALL DIRECTIONS. DRAINAGE FACILITIES MAY NEED TO BE CONSTRUCTED & MAINTAINED AS NECESSARY TO PROTECT PUBLIC & PRIVATE PROPERTY.
 36. ALL CONSTRUCTION SHALL BE SUBJECT TO OBSERVATION AND REVIEW BY THE TOWN/CITY AND THE PROJECT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF OBSERVATIONS AND REVIEW OF ALL INSTALLATIONS, OBSERVATIONS AND REVIEW OF CONSTRUCTION WORK IN PROGRESS ARE NOT TO BE CONSIDERED AS A GUARANTEE OR WARRANTY BY THE OBSERVER OF THE COMPLETED WORK. ALL GUARANTEES OR WARRANTIES REMAIN WITH THE CONTRACTOR.
 37. ALL DISTURBED AREAS MUST BE RECLAIMED WITH VEGETATION AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT OR OWNERS CONSTRUCTION PROJECT MANAGER.
 38. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO SIGNIFICANTLY REDUCE POTENTIAL POLLUTION FROM CONSTRUCTION ACTIVITIES, INCLUDING VEHICLE FUELING & MAINTENANCE, AND STORAGE AND USE OF CHEMICALS & FERTILIZERS. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PROCEDURES FOR HANDLING POTENTIAL POLLUTANTS AND SUBMIT SPILL PREVENTION AND RESPONSE PROCEDURES TO THE TOWN/CITY AND PROJECT ENGINEER PRIOR TO ANY ACTIVITY AT THE PROJECT SITE.
 39. THE CONTRACTOR SHALL VERIFY EXISTING PIPE OR MANHOLE INVERTS/DEPTHS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
 40. ALL PRODUCT INFORMATION SHOWN IS AS PROVIDED BY THE MANUFACTURER. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND COMPLYING WITH THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS FOR THE INSTALLATION OF ALL MATERIALS WITH SPECIAL ATTENTION TO PROPER SEALING OF MATING SURFACES. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER IF ANY DISCREPANCIES ARE FOUND BETWEEN THE DELIVERED PRODUCTS AND THOSE SHOWN ON THESE PLANS.
 41. ALL SIGNS REMOVED FROM THE RIGHT-OF-WAY WILL BE RETURNED TO THE CITY OR STORED ON-SITE. CONTRACTOR TO RECORD PHOTOS OF THE AREA AND REINSTALL SIGNS THAT ARE REMOVED DURING CONSTRUCTION.
 42. ANY MUD OR OTHER MATERIAL TRACKED OR OTHERWISE DEPOSITED ON THE ROADWAY SHALL BE REMOVED DAILY OR AS ORDERED BY THE DEPARTMENT INSPECTOR.
 43. THE CONTRACTOR SHALL PROVIDE ON-SITE SANITARY FACILITIES.
 44. THE CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS TO AFFECTED PROPERTY OWNERS AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST.
 45. ADDITIONAL NOTES ARE LOCATED THROUGHOUT THE CONSTRUCTION DOCUMENTS.
- STORMWATER MANAGEMENT NOTES**
1. SET THE EROSION CONTROL PLANS.
 2. ROOF GUTTERS ARE REQUIRED ON ALL BUILDINGS AND DOWNSPOUTS ARE TO BE PIPED INTO THE STORMSEWER SYSTEM. ROOF RUNOFF IS NOT PERMITTED TO DISCHARGE ONTO THE GROUND SURFACE.
 3. STORM SEWER PIPE MATERIALS SHALL BE WATER TIGHT HOPE DOUBLE-WALL, SMOOTH INTERIOR PIPE (ADS N-12-W) OR ENGINEER APPROVED EQUAL. 3" SPRAY PVC, 8" OR 12" PVC OR 6" OR 8" CPVC UNLESS OTHERWISE SPECIFIED IN THE PLANS.
 4. STORM SEWER STRUCTURES SHALL BE COMPLY WITH COLORADO DEPARTMENT OF TRANSPORTATION (CDDT) STANDARD PLANS (M STANDARDS) AND/OR MILE HIGH FLOOD DISTRICT (MHFD) STANDARDS, LATEST EDITION.
 5. SOIL EROSION CONTROL FABRIC SHALL BE NORTH AMERICAN GREEN VMX P500 (PERMANENT) IN FLOW CHANNELS/SWALES AND C125 (3-YR) ON DISTURBED SLOPES (SLEEPER THAN 3:1), OR ENGINEER APPROVED EQUAL.
- SITE PLAN NOTES**
1. DIMENSIONS SHOWN ON THE SITE PLAN ARE TO FACE OF CURB LINE (FLOWING) IN CURBED AREAS, EDGE OF ASPHALT, AND EXTERIOR FACE OF BUILDING, UNLESS OTHERWISE SPECIFIED.
 2. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
- GRADING PLANS NOTES**
1. PRIOR TO ANY GRADING OPERATIONS, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE ADEQUATELY IN PLACE. REFER TO THE EROSION AND SEDIMENT CONTROL PLAN IF PROVIDED FOR REPAIRS/REVISIONS.
 2. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE FOR SURFACE OF PAVEMENT, TOP OF SIDEWALKS AND CURBS, TOP OF FLOOR SLABS, ETC. REFER TO TYPICAL SECTIONS FOR MULL, SLO, PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT FOR SUBGRADE ELEVATIONS.
 3. IF APPLICABLE, ALL TOP OF CURB AND SIDEWALK ELEVATIONS SHALL BE 0.5' ABOVE GUTTER ELEVATIONS UNLESS OTHERWISE NOTED. IN AREAS WITH SIDEWALKS CUTTING BACK OF CURB, TOP OF CURB ELEVATIONS SHALL BE EQUAL TO SIDEWALK ELEVATIONS.
 4. THE CONTRACTOR SHALL CONSTRUCT THESE GRADE SLOPES NO STEEPER THAN AS SHOWN ON THESE PLANS.
 5. SITE, UTILITY AND ROAD PREPARATION, GRADING AND EXCAVATION PROCEDURES SHALL CONFORM TO THE RECOMMENDATIONS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT PREPARED BY HEWORTH-PAWALK GEOTECHNICAL, INC. (AKA KUMAR & ASSOCIATES) DATED JUNE 8, 2016, PROJECT NO. 116-93A.
 6. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND SIDEWALKS IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT.
 7. IN CASE OF ANY DISCREPANCIES REGARDING EARTHWORK BETWEEN THE GEOTECHNICAL REPORT AND THE SPECIFICATIONS SHOWN IN THESE PLANS, NOTIFY THE PROJECT ENGINEER AND OWNERS CONSTRUCTION PROJECT MANAGER IMMEDIATELY.
 8. THE UPPER 24" OF ALL UTILITY TRENCHES IN UNPAVED AREAS SHALL BE BACKFILLED WITH COMPACTED COHESIVE SOILS. SEE GEOTECHNICAL REPORT FOR COMPACTION AND MOISTURE REQUIREMENTS.
 9. FINAL PAVEMENT SUBGRADES SHALL BE PROOF-ROLLED WITHIN TWENTY FOUR (24) HOURS PRIOR TO THE PLACEMENT OF THE PAVEMENT TO DETECT LOCALIZED AREAS OF FIRMNESS AND COMPROMISES. THE CONTRACTOR SHALL BE TOUCHED UP ON-SITE WITH A MANUFACTURER APPROVED SPRAY COATING DESIGNED FOR UNDERGROUND INSTALLATIONS.
 10. ALL UTILITIES SHALL BE INSULATED AND TESTED PER CITY OF GLENWOOD SPRINGS CODES/STANDARDS.
 11. INSTALLATION, RELOCATION OR REMOVAL OF UTILITIES SHALL BE COORDINATED WITH THE CITY AND UTILITY AGENCIES AFFECTED.
 12. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AT PROPOSED POSITIONS OF HORIZONTAL AND VERTICAL CONNECTION AND CONFIRM EXACT LOCATIONS/SIZES OF ALL UTILITY SERVICE LINES PRIOR TO UTILITIES CONSTRUCTION.
 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING ON-SITE MEETINGS WITH THE TOWN/CITY, GOVERNING AGENCIES, AND UTILITY OWNERS PRIOR TO THE START OF ANY CONSTRUCTION OR INSTALLATION OF UTILITIES.
 14. THE CONTRACTOR SHALL CONSTRUCT ALL POTABLE WATER, SANITARY SEWER, ELECTRIC, GAS, TELECOMMUNICATIONS/MAN/SEWER LINES/CONNECTIONS IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE TOWN/CITY AND/OR UTILITY PROVIDER. ALL WORK AND MATERIALS WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY, PROJECT ENGINEER OR UTILITY PRIOR TO BACKFILL.
 15. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY SERVICE CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANY/OWNER, AND TO OBTAIN ALL PERMITS AND PAY ALL FEES AS REQUIRED FOR SERVICE CONNECTIONS TO UTILITY MAINS.
 16. UTILITY TRENCHES AND STRUCTURE EXCAVATIONS ARE TO BE SLOPED OR BRACED AND SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND THE PROTECTION OF OTHER UTILITIES IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL PROVIDE TRENCHING FOR ALL UTILITY SERVICE LINES.
 17. THE CONTRACTOR SHALL HAVE TO EXCAVATE AND REPAIR ANY EXISTING UTILITIES AFFECTED BY THE CONSTRUCTION.
 18. CONTRACTOR SHALL BE PREPARED TO INSTALL COUPLINGS AND FITTINGS AS NECESSARY TO MAKE CONNECTIONS BETWEEN VARIOUS TYPES OF PIPE, INCLUDING BUT NOT LIMITED TO PVC, TRANSGUITE, CLAY, ORANGEBURG AND DUCTILE IRON. ALL CONNECTIONS TO BE APPROVED BY GLENWOOD SPRINGS WATER DEPARTMENT.
 19. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPARTMENT TO ENSURE ADEQUATE FIRE PROTECTION IS MAINTAINED AROUND THE SITE AND ADJACENT PROPERTIES. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH THE TOWN/CITY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS EXPENSE.
 20. POTABLE WATER AND SEWER LINES AND SERVICES SHALL HAVE A MINIMUM OF 5.5 FEET COVER, MINIMUM.
 21. PROVIDE 10 FEET MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY/STORM SEWER MAINS AND SERVICES WHERE POSSIBLE. WHERE THIS SEPARATION CANNOT BE MAINTAINED ENCASE PER COLORADO DEPARTMENT OF HEALTH REQUIREMENTS, ALL PIPE JOINTS LOCATED WITHIN 10 FEET OF A WATER AND SANITARY/STORM CROSSING SHALL BE CASCADED IF THE WATER MAIN OR SERVICE EXISTING BELOW OR IS LESS THAN 18 INCHES ABOVE THE CROSSING SANITARY SEWER/STORM MAIN OR SERVICE.
 22. ALL TEES, (8" & 9") BENDS, PLUGS, HYDRANTS, ETC. MUST BE PROVIDED WITH CONCRETE REACTION BLOCKING AND JOINT RESTRAINTS. EXISTING VALVE & BEND BOXES THAT ARE 10' OR MORE TO BE RETURNED TO THE TOWN/CITY.
 23. CONTRACTOR TO NOTIFY UTILITY USERS AT LEAST 72 HOURS IN ADVANCE OF ANY WATER OR SEWER SHUT DOWN. MORE NOTICE MAY BE REQUIRED FOR MAJOR CONSTRUCTION.
 24. WATER LINE BEND ANGLES ARE SHOWN AS A GUIDELINE, ADDITIONAL HORIZONTAL AND VERTICAL BENDS MAY BE REQUIRED TO MAINTAIN ALIGNMENT AND MINIMUM COVER.
 25. ALL CONDUITS SHALL BE ELECTRIC GRADE 300 B-PVC. CONDUITS FOR PRIMARY ELECTRIC SHALL BE INSTALLED AT LOCATIONS SHOWN WITH 48" MINIMUM COVER. CONDUITS FOR SECONDARY ELECTRIC AND TELECOMMUNICATIONS SHALL BE INSTALLED AT LOCATIONS SHOWN WITH 24" MINIMUM COVER UNDER SIDEWALKS AND 36" MINIMUM COVER UNDER ROADWAYS. INSTALL DETECTABLE WARNING TAPE 12" ABOVE ALL CONDUITS.
 26. THE CONTRACTOR SHALL



- NOTES:
- PUBLIC FACILITIES REQUIREMENTS:
1. TO BE SATISFIED BY REQUISITE FEE IN LIEU CONTRIBUTIONS.
 2. SEE PROJECT DESCRIPTION (UNDER SEPARATE COVER) REGARDING RESOLUTION 2020-25, APPENDIX B, WHEREIN THE SUBJECT'S (COUNTY) ROAD 135 IS LISTED AN EXEMPTED STREET - SIDEWALK ON ONE SIDE.

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Subsurface Utility Engineering (SUE)
Required Project: **No**
If "Yes", SUE Certification by:
Firm: **N/A**
Job #: **N/A**
Date: **N/A**

Engineer or Surveyor Seal

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CONSTRUCTION**

Client Information:
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375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

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Underground Piping Plan
Preliminary Plan Set - Not For Construction

GLENWOOD SPRINGS, COLORADO

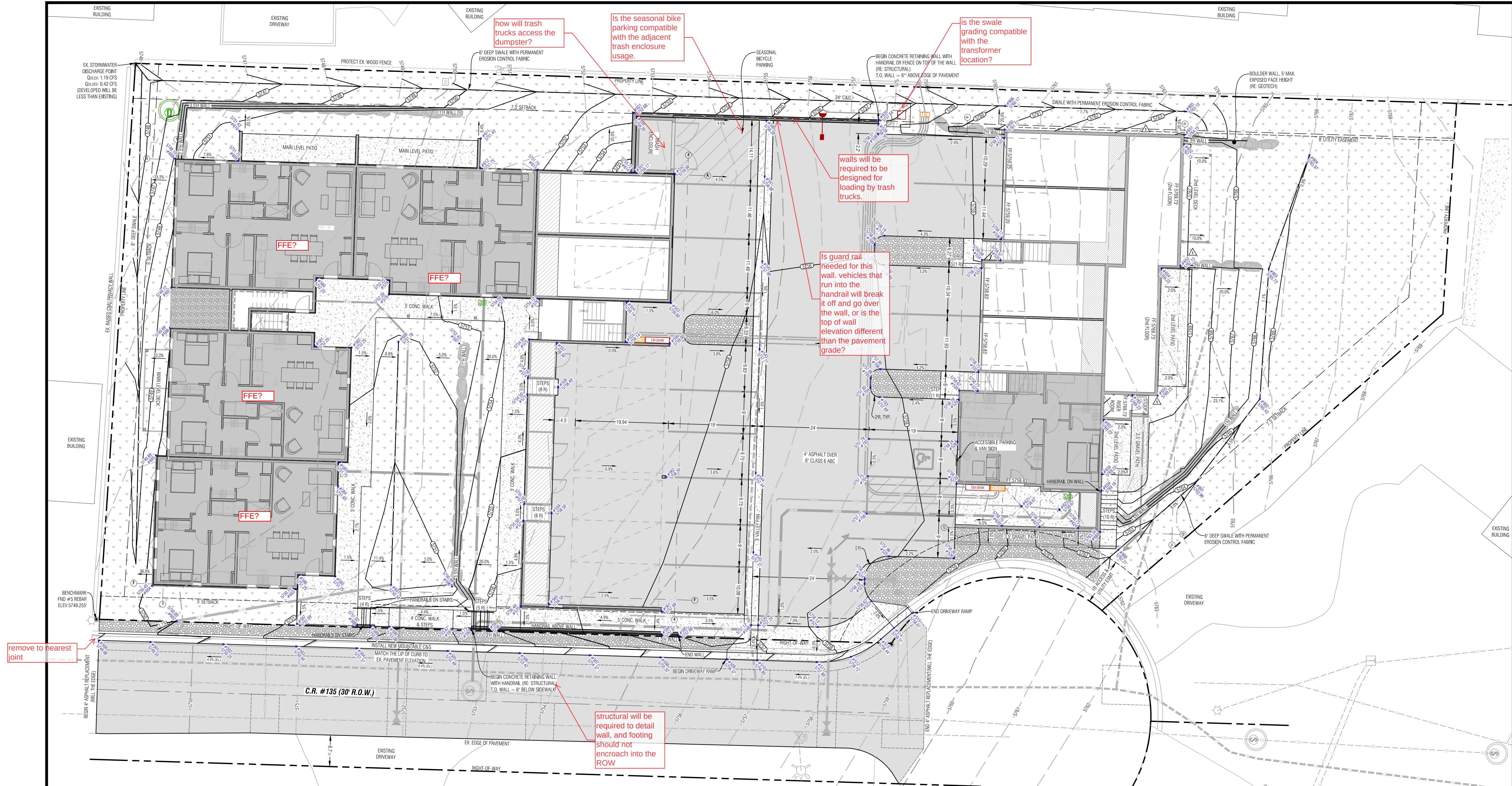
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PROJECT NO.
16034-02
Designer:
DJW
Checker:
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Date:
6/27/22

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File Name: 16034-v-1-topo-2022.dwg

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Point Table				
Point #	Raw Description	Elevation	Northing	Easting
500	EP/Lip	5749.06	10652.91	10022.57
501	EP/Lip	5749.55	10663.93	10022.91
502	EP/Lip	5750.25	10679.56	10023.38
503	EP/Lip	5750.94	10695.18	10023.85
504	EP/Lip	5751.51	10708.09	10024.24
505	EP/Lip	5752.49	10727.59	10024.83
506	EP/Lip	5753.42	10742.97	10025.30
507	EP/Lip	5754.37	10758.05	10025.75
508	EP/Lip	5755.32	10773.13	10026.21
509	EP/Lip	5756.37	10787.35	10026.64
510	EP/Lip	5756.85	10793.85	10026.84
511	EP/Lip	5757.80	10806.60	10027.22
512	EP/Lip	5758.12	10813.93	10026.07
513	EP/Lip	5758.44	10820.33	10022.33
514	EP/Lip	5758.51	10823.15	10019.91
515	EP/Lip	5758.61	10827.02	10016.73
520	EP/Ramp	5757.24	10794.07	10019.34
521	EP/Ramp	5758.13	10806.83	10019.73

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
522	EP/Ramp	5758.62	10818.33	10014.17
523	EP	5758.28	10816.85	10010.44
524	EP	5758.21	10816.88	10009.43
525	EP	5757.96	10822.03	10004.59
526	EP	5758.26	10836.03	10005.01
527	EP	5758.20	10836.51	9999.10
528	EP	5758.24	10836.78	9980.06
529	EP	5758.29	10837.05	9971.07
530	FG	5758.67	10837.11	9969.11
531	FG	5758.75	10841.11	9969.23
532	EP	5758.75	10841.23	9965.15
533	EP	5758.75	10841.91	9942.89
534	FG	5759.09	10841.96	9941.16
535	FG	5759.57	10845.96	9941.28
536	EP	5759.17	10846.10	9936.74
537	EP	5759.17	10846.75	9915.02
538	EP	5758.51	10819.77	9914.20
539	EP	5758.55	10819.83	9912.01

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
540	FL-VPan	5758.20	10795.84	9911.28
541	FL-VPan	5758.08	10795.48	9923.27
542	FL-VPan	5757.90	10794.96	9941.47
543	FL-VPan	5757.71	10794.36	9960.20
544	FL-VPan	5757.44	10793.56	9986.72
545	FL-VPan	5757.27	10793.05	10003.71
546	FL-VPan	5757.12	10792.57	10019.30
550	EP	5759.29	10768.04	9910.44
551	EP	5759.17	10767.68	9922.43
552	EP	5759.00	10776.24	9922.69
553	EP	5759.00	10775.40	9950.39
554	EP	5759.14	10765.93	9950.10
555	EP	5759.14	10765.67	9958.74
556	EP	5759.00	10775.16	9959.03
557	EP	5758.50	10750.94	9958.88
558	FG	5758.49	10751.24	9968.39
559	FG	5758.50	10749.84	9995.36
560	EP	5758.50	10749.25	10014.86

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
561	EP	5757.89	10773.42	10016.42
562	EP	5758.20	10774.32	9987.60
570	FG	5756.40	10743.28	10015.26
571	FG	5755.50	10743.83	9996.93
572	FG	5755.50	10743.94	9993.44
573	FG	5754.50	10744.65	9969.95
574	FG	5754.50	10744.75	9966.45
575	FG	5754.09	10745.01	9958.12
576	FG	5754.12	10747.23	9949.54
577	FG	5754.09	10740.02	9949.32
578	FG	5752.20	10715.01	9948.56
579	FG	5752.25	10715.10	9945.56
580	FG	5752.25	10699.57	9945.09
581	FG	5752.25	10699.13	9959.63
582	FG	5752.25	10707.04	9959.87
583	FG	5751.75	10704.29	9984.50
584	FG	5751.65	10704.14	9989.50
585	FG	5751.25	10703.56	10008.91

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
586	FG	5751.25	10695.64	10008.67
587	FG	5751.09	10695.33	10019.06
588	FG-Step	5751.02	10708.24	10019.45
589	FG-Step	5753.02	10710.99	10019.53
590	FG	5753.08	10714.99	10019.65
591	FG	5753.67	10728.71	10020.07
592	FG-Step	5753.73	10732.71	10020.19
593	FG-Step	5756.23	10736.37	10020.30
594	FG	5757.81	10773.27	10021.42
595	FG	5757.66	10776.94	10021.53
596	FG/Wall	5750.99	10728.50	10011.06
597	FG/Wall	5752.43	10730.08	9995.02
600	FG	5751.78	10717.08	9958.63
601	FG-HV	5750.34	10715.51	10010.67
602	FG-HV	5750.00	10699.57	10018.42
603	FG	5750.70	10695.05	10011.66
604	FG	5750.45	10664.29	10010.91
605	FG	5749.89	10665.14	9982.94

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
606	FG	5749.89	10665.15	9955.69
607	FG	5749.72	10668.41	9947.15
608	FG	5748.10	10669.25	9919.45
609	FG	5751.75	10746.86	9921.80
610	FG	5751.43	10683.03	9913.56
611	FG	5751.43	10734.72	9915.13
612	FG	5751.75	10734.52	9921.43
613	FG	5751.75	10746.86	9921.80
614	FG	5755.72	10766.71	9922.40
620	FG	5758.75	10846.24	9998.06
621	6"Ø Area Inlet	5758.67	10850.41	9993.86
622	FG	5758.75	10854.32	9998.31
623	6"Ø Area Inlet	5758.67	10858.58	9994.60
624	FG	5758.75	10862.61	9998.56
650	FG/Wall	5761.17	10846.81	9913.21
651	FG/Wall	5764.15	10855.29	9914.37
652	FG/Wall	5767.15	10885.23	9916.37
653	FG/Wall	5767.15	10884.44	9942.44

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
654	FG	5769.23	10880.42	9942.99
655	FG	5769.23	10879.60	9970.23
657	FG	5769.23	10868.02	9975.34
658	FG	5769.23	10867.67	9987.04
659	FG-Step	5769.18	10867.56	9990.54
660	FG-Step	5763.34	10867.29	9999.37
700	FG	5757.71	10817.31	9995.44
701	FG	5757.75	10817.55	9987.44
702	FG	5757.79	10817.79	9979.45
703	EP	5757.89	10820.06	9970.51
704	EP	5757.89	10818.12	9968.45
705	EP	5757.86	10818.18	9966.45
706	EP	5757.95	10820.24	9964.51
707	EP	5758.05	10820.92	9942.25
708	EP	5758.02	10818.98	9940.19
709	EP	5758.06	10819.05	9937.92
710	EP	5758.19	10821.11	9935.98
785	FG	5769.23	10874.18	9970.06

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
800	Swale/FL	5762.21	10871.19	10003.18
801	Swale/FL	5763.96	10887.60	9988.91
802	Swale/FL	5765.43	10901.49	9970.89
803	Swale/FL	5765.73	10903.39	9943.02
804	Swale/FL	5765.97	10912.09	9918.71
805	Swale/FL	5763.15	10885.44	9909.38
806	Swale/FL-Wall	5760.17	10846.96	9908.21
820	FG	5757.64	10819.86	9911.11
821	Top Wall	5752.68	10767.24	9909.58

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Required Project: **No**
If "Yes", SUE Certification by:
Firm: **N/A**
Job #: **N/A**
Date: **N/A**

Engineer or Surveyor Seal

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Client Information:
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970.366.0379

NORTH

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Scale: 1" = 10'

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Site & Grading Plan

Preliminary Plan Set - Not For Construction

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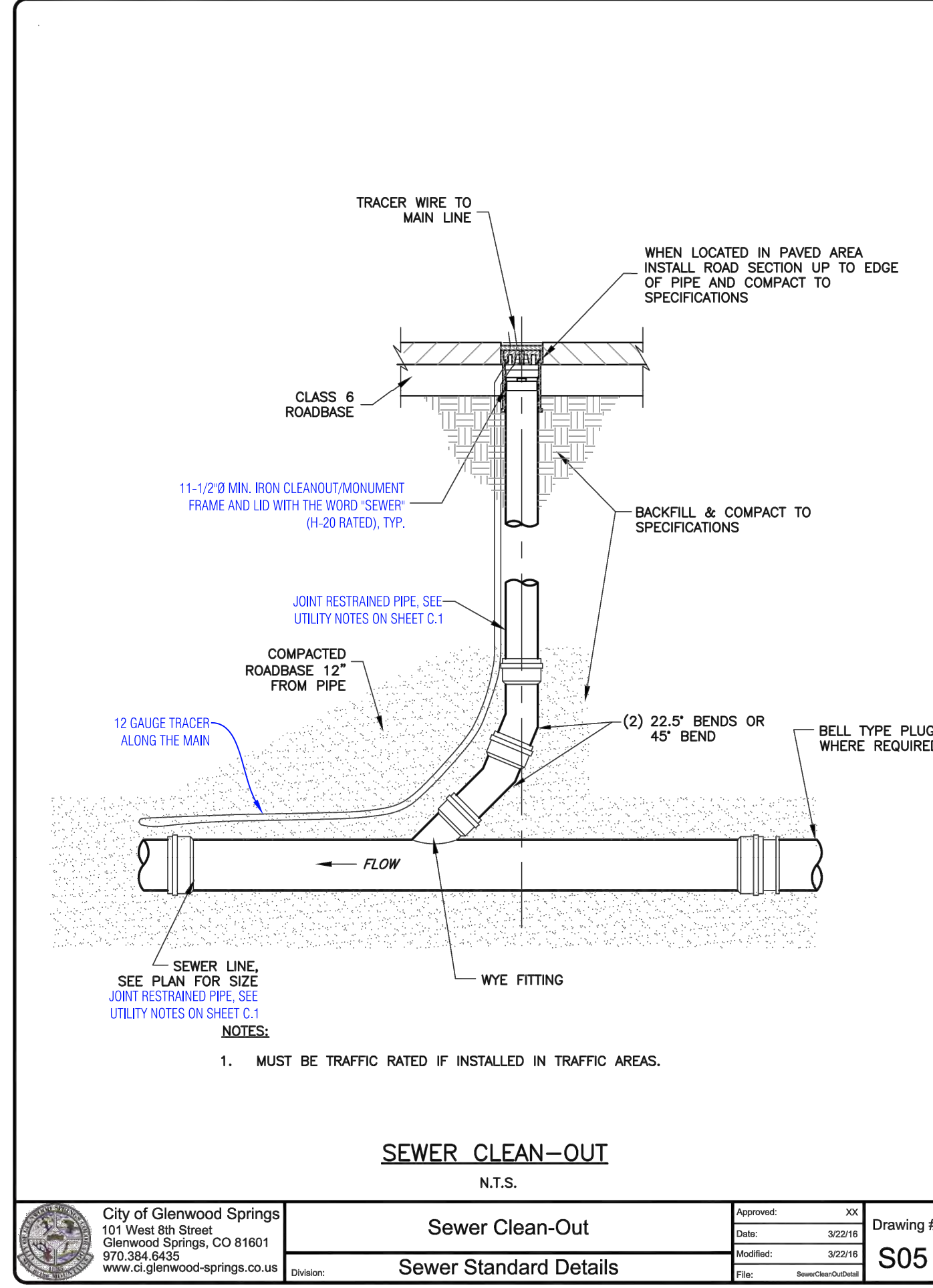
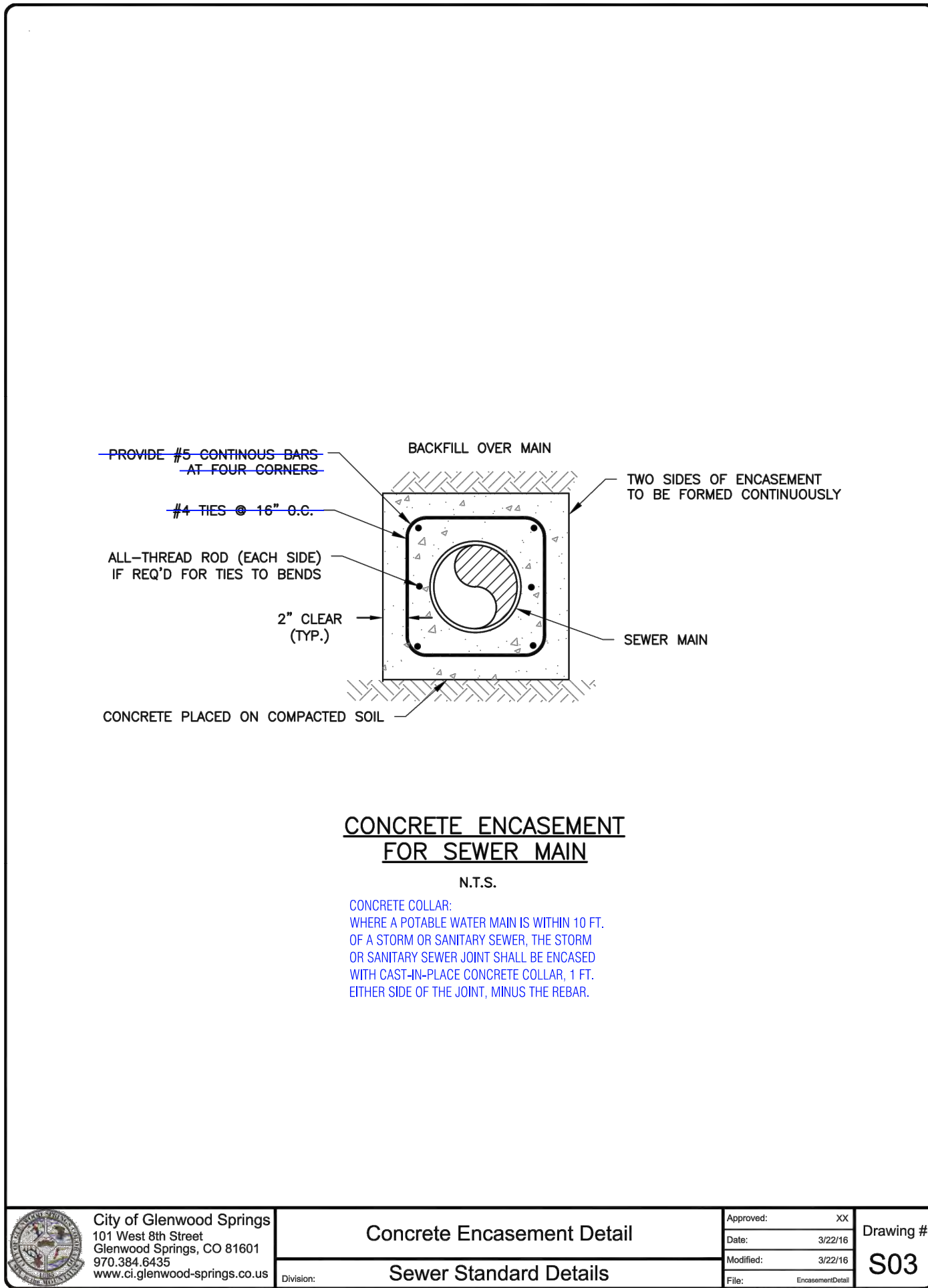
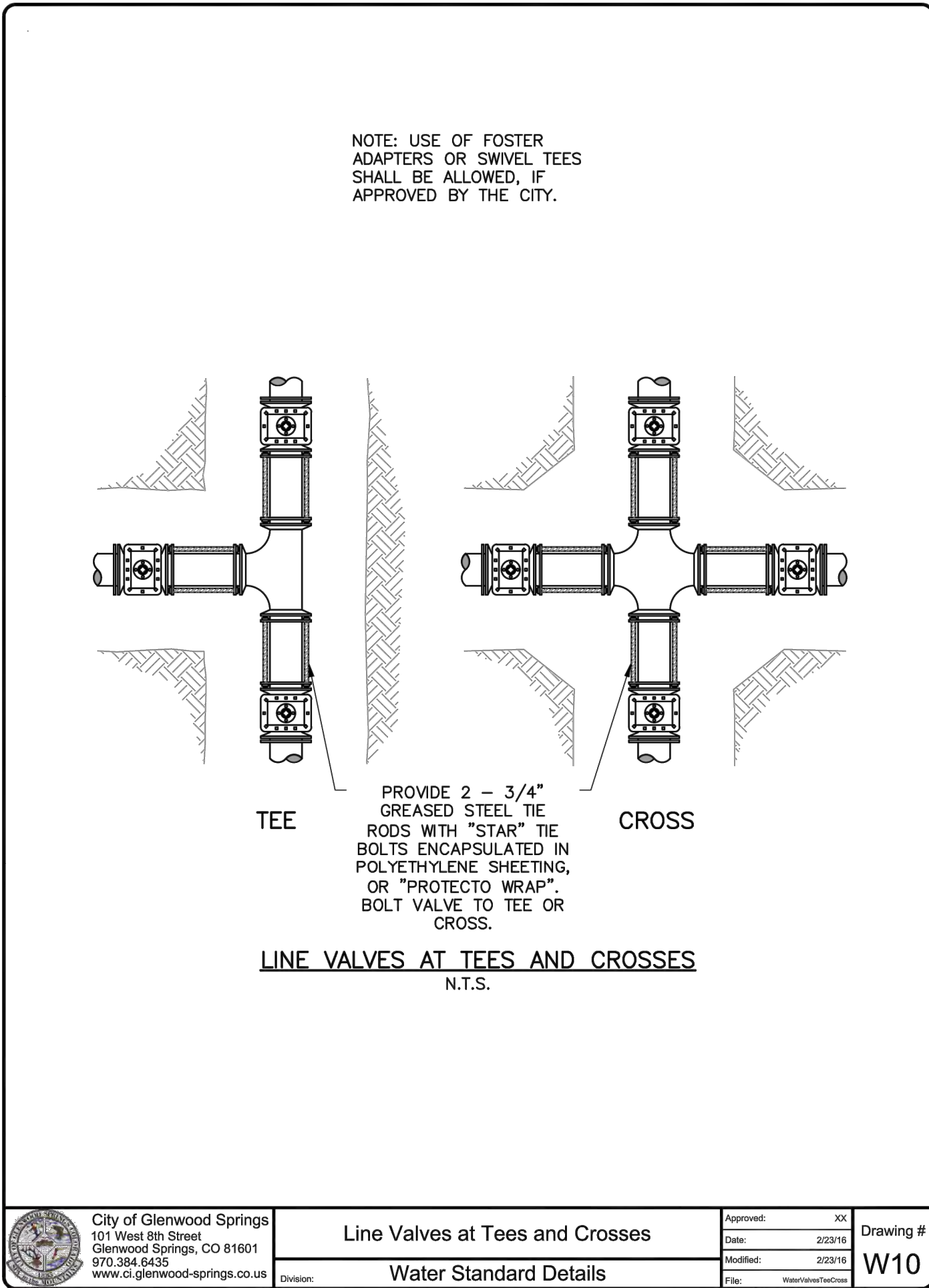
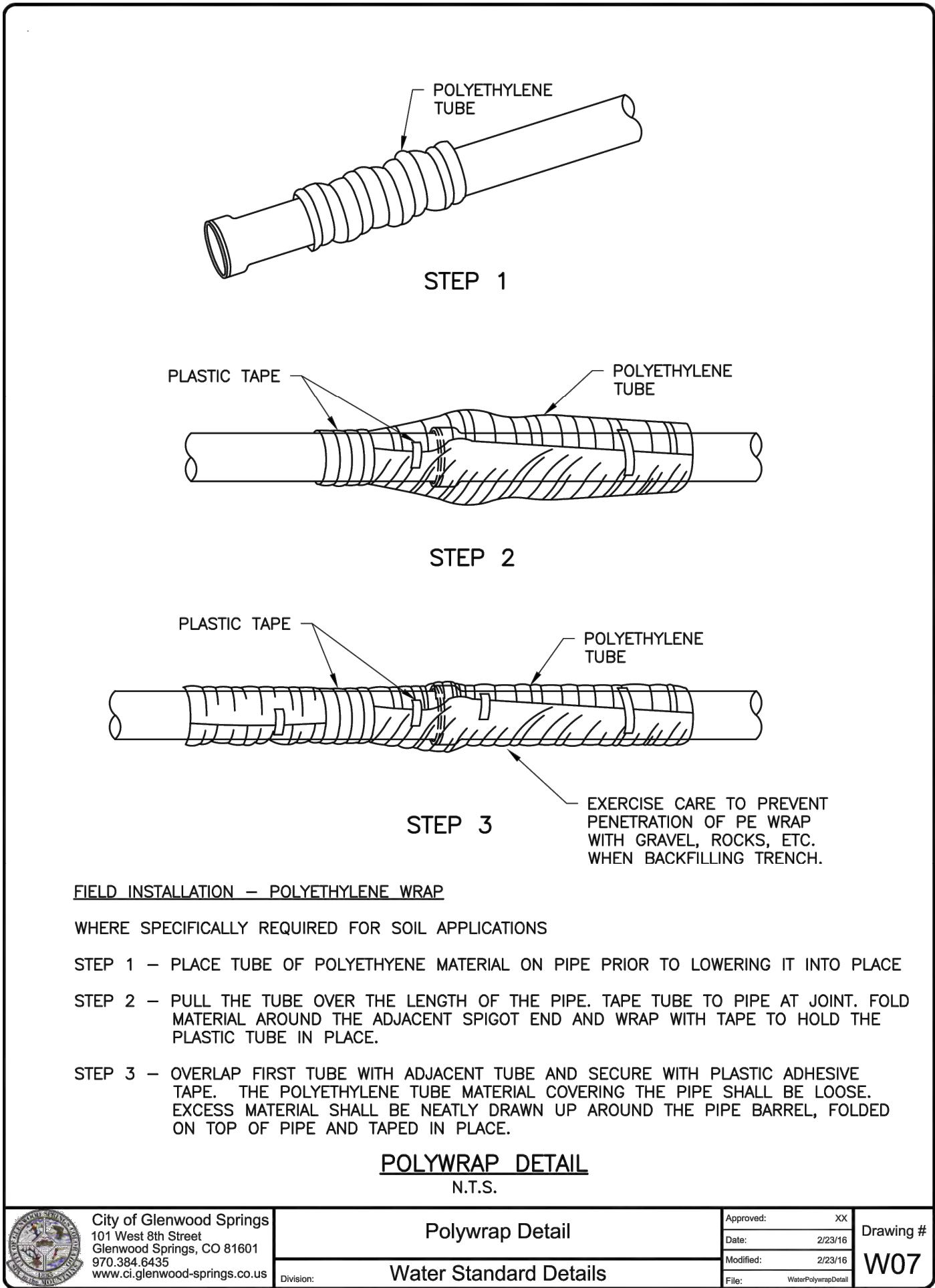
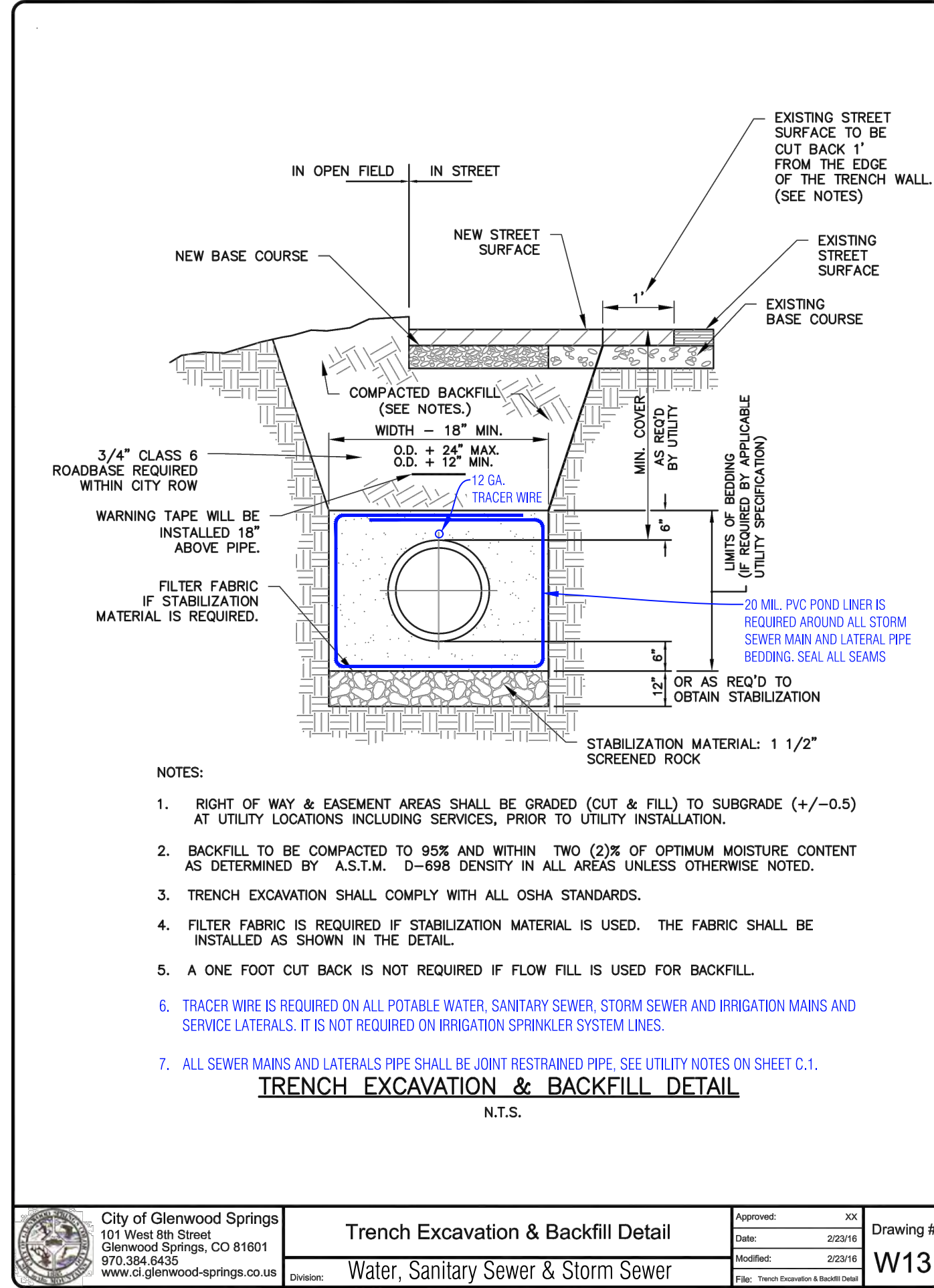
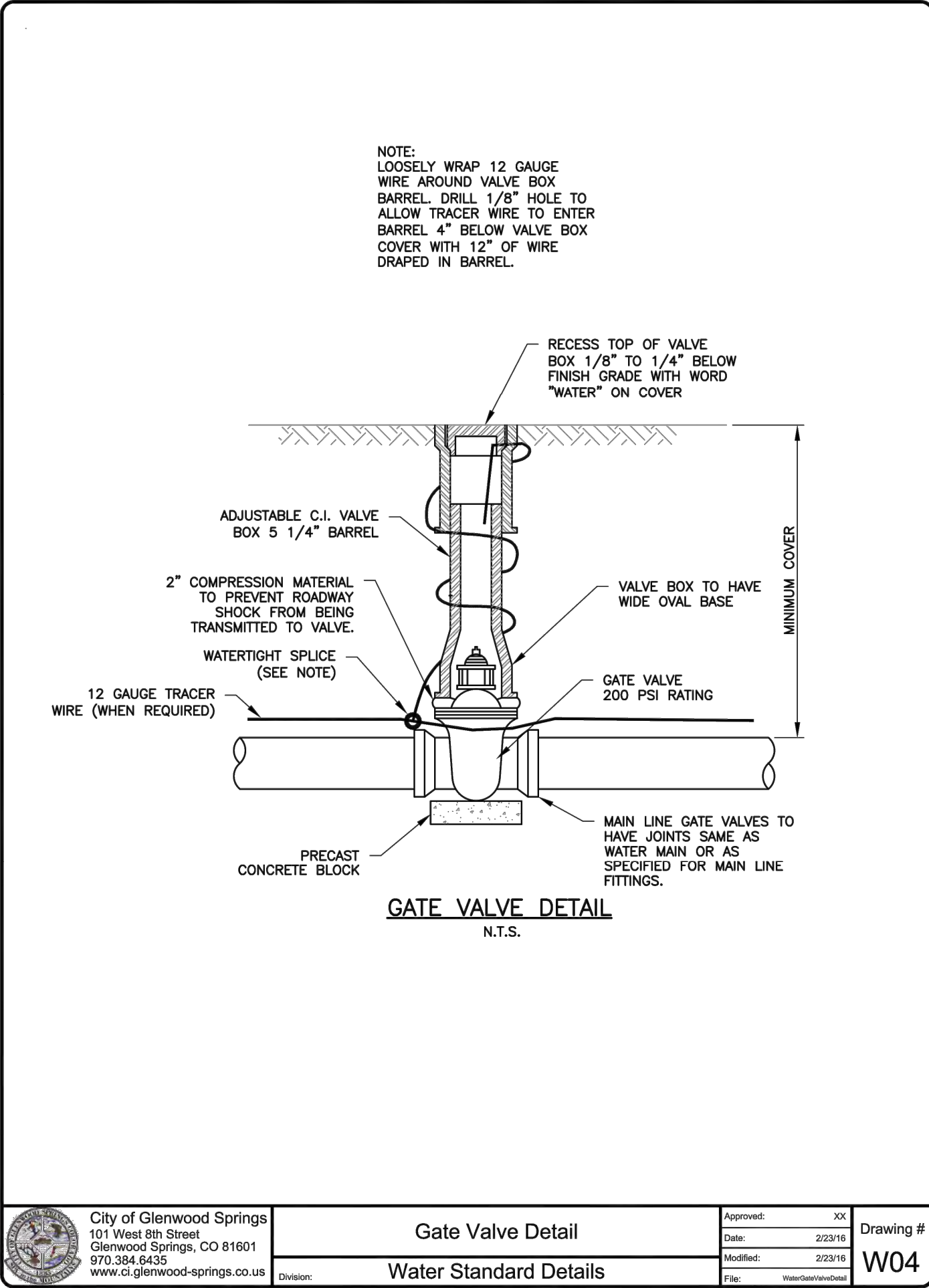
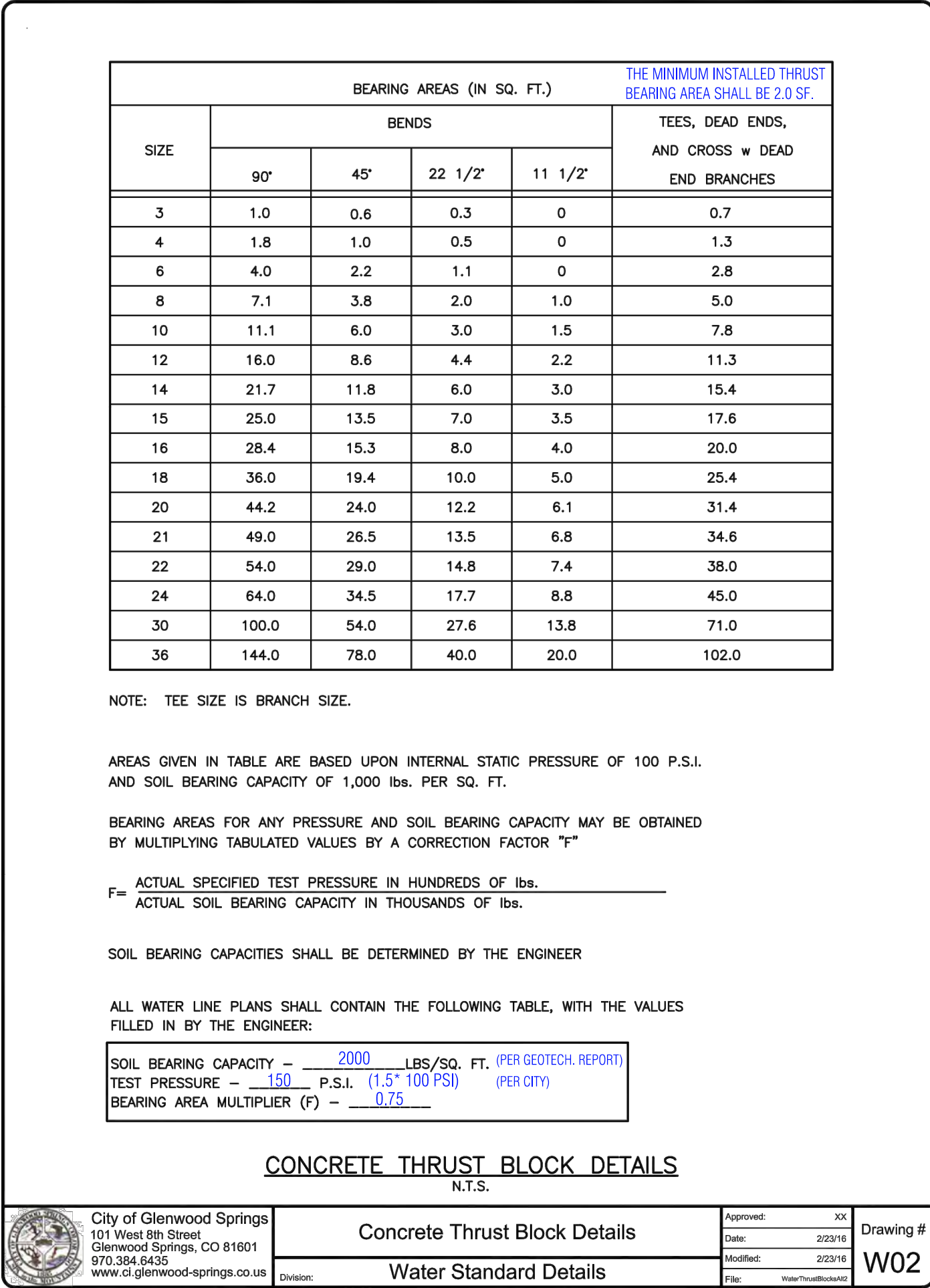
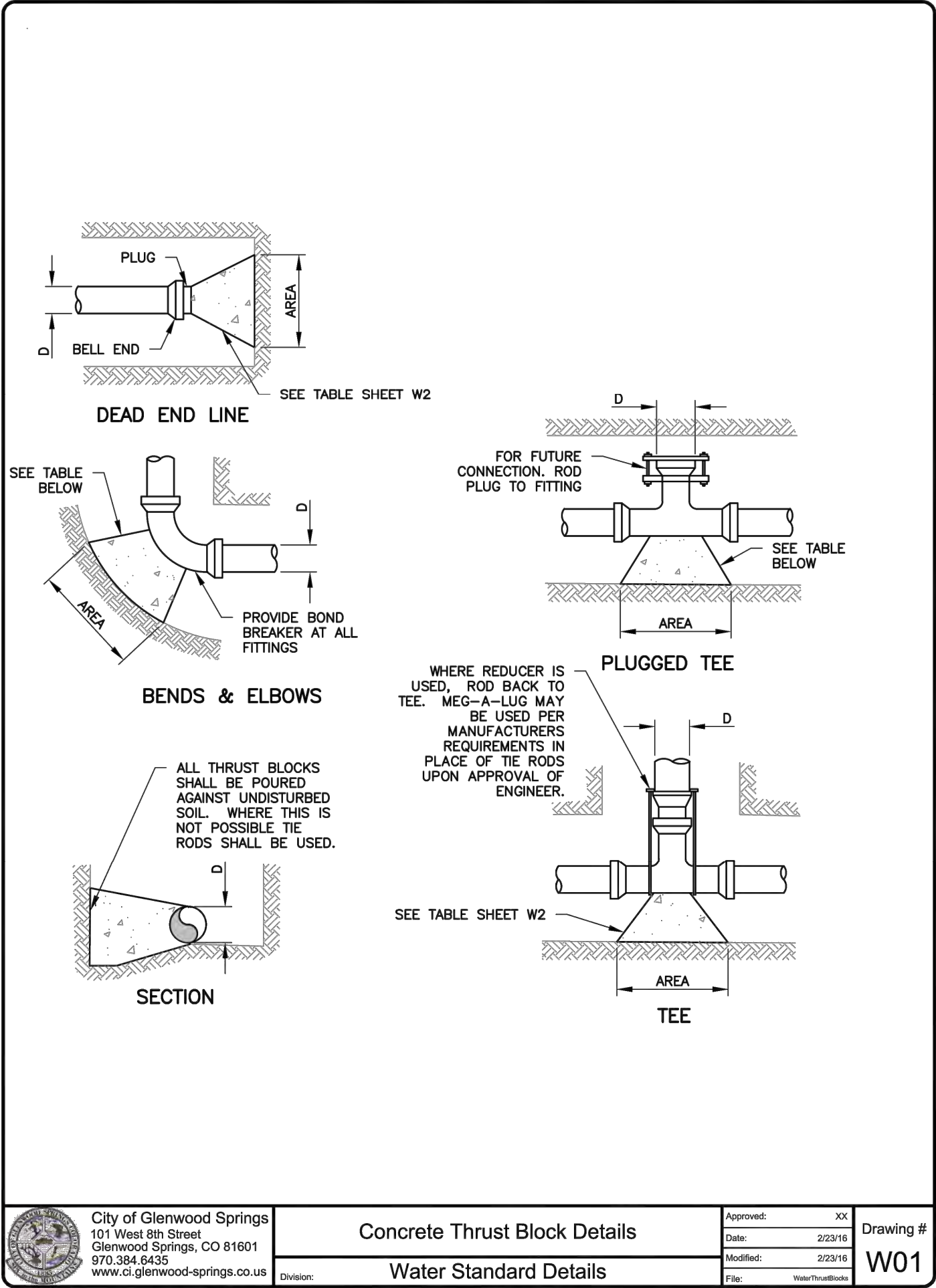
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16034-02
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Date:
5/27/22

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Packet Page 119



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Subsurface Utility Engineering (SUE)
Required Project: ##
If "Yes", SUE Certification by:
Firm: ###
Job #: ###
Date: ###

Engineer or Surveyor Seal

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Client Information:
GABE MOLNAR
375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

NORTH

Scale: 1" = 1'

811

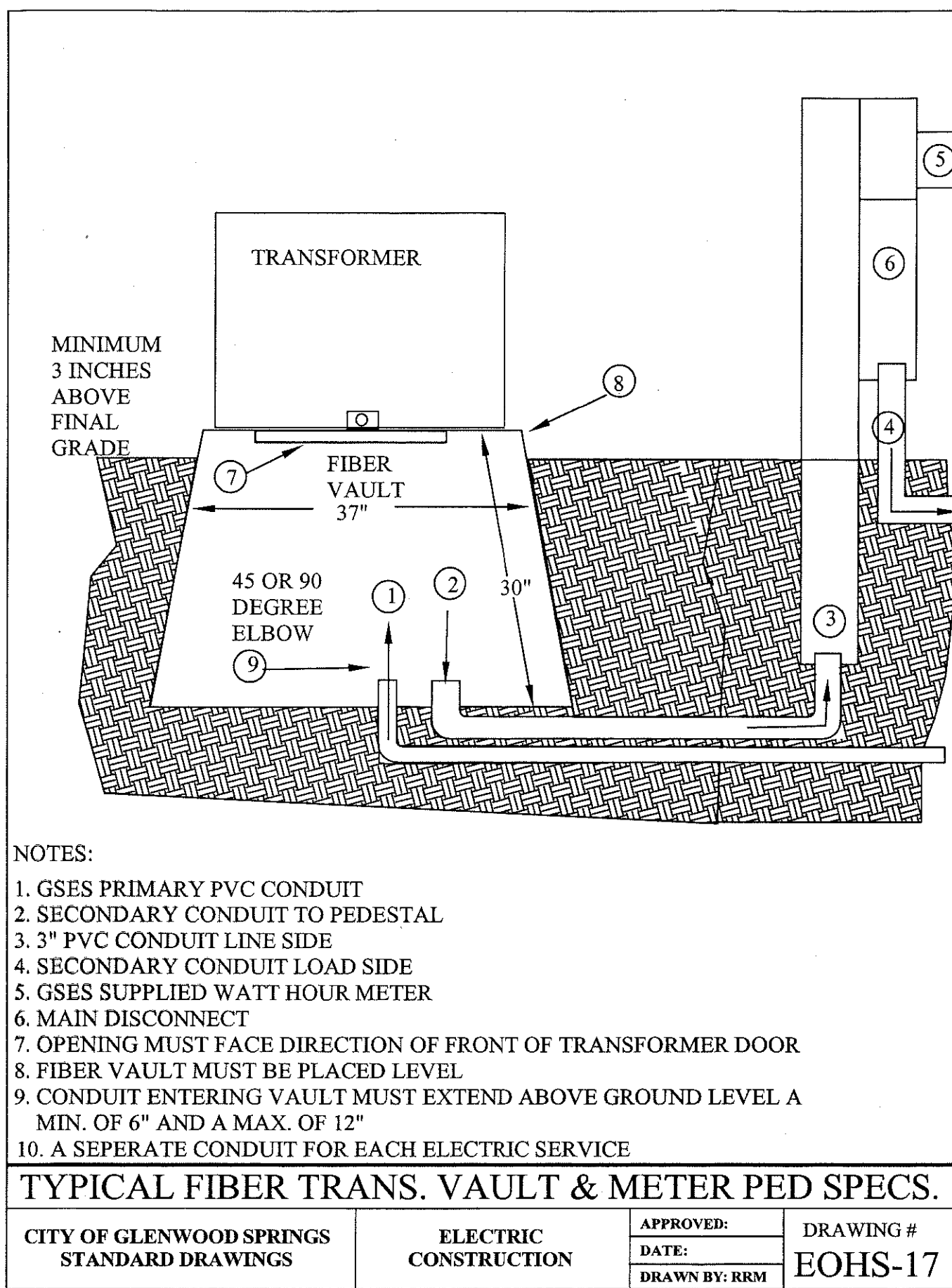
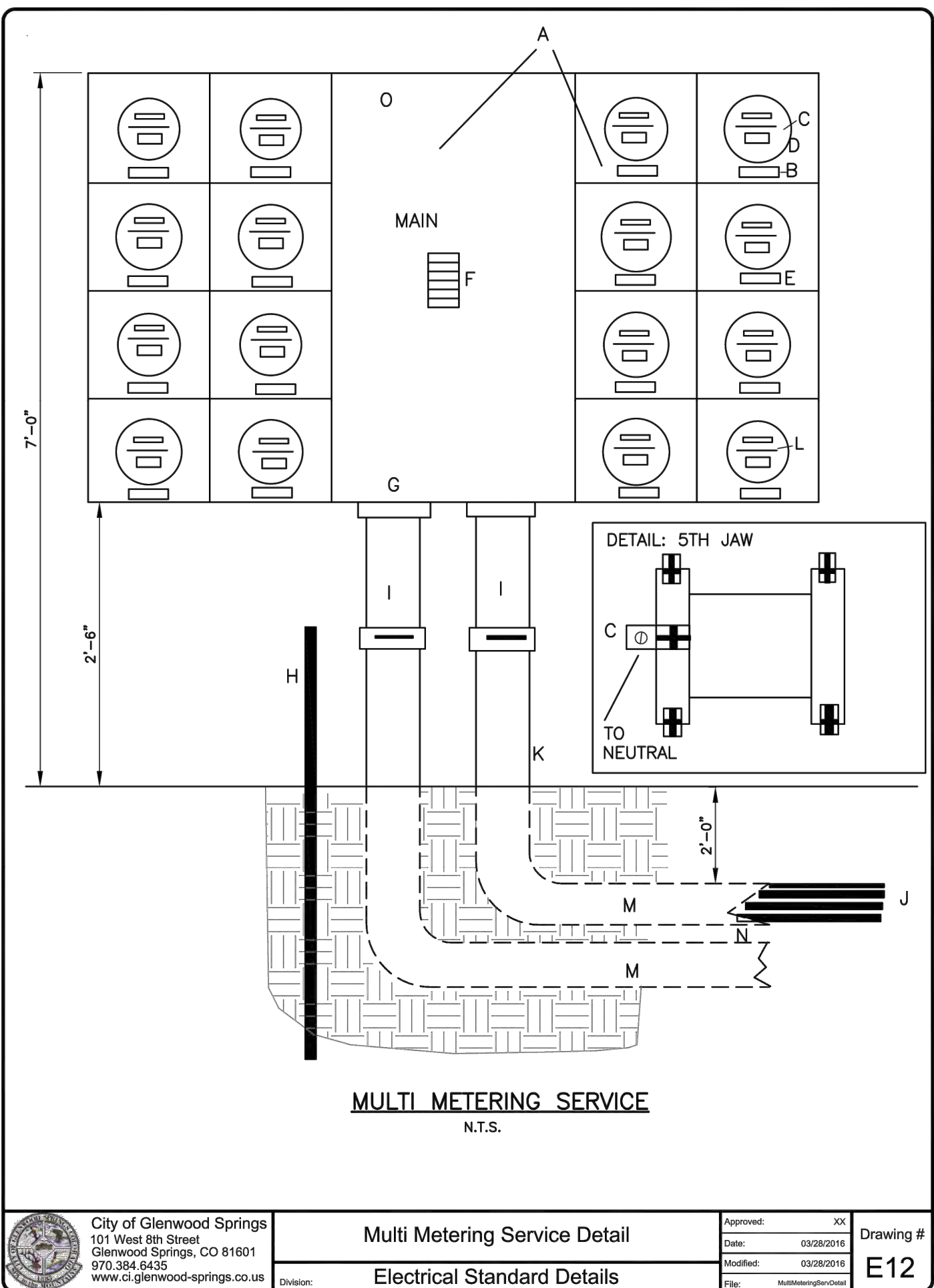
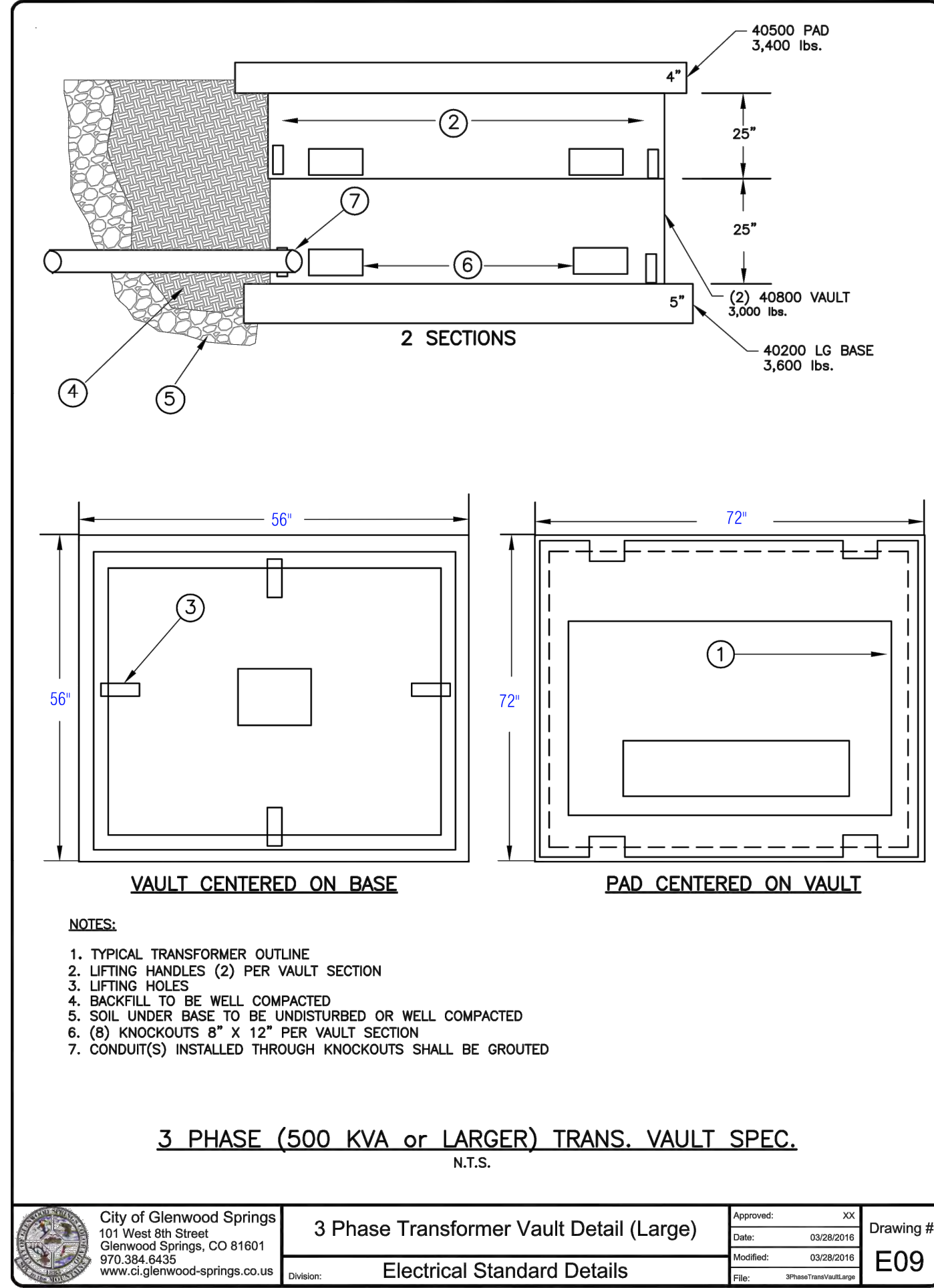
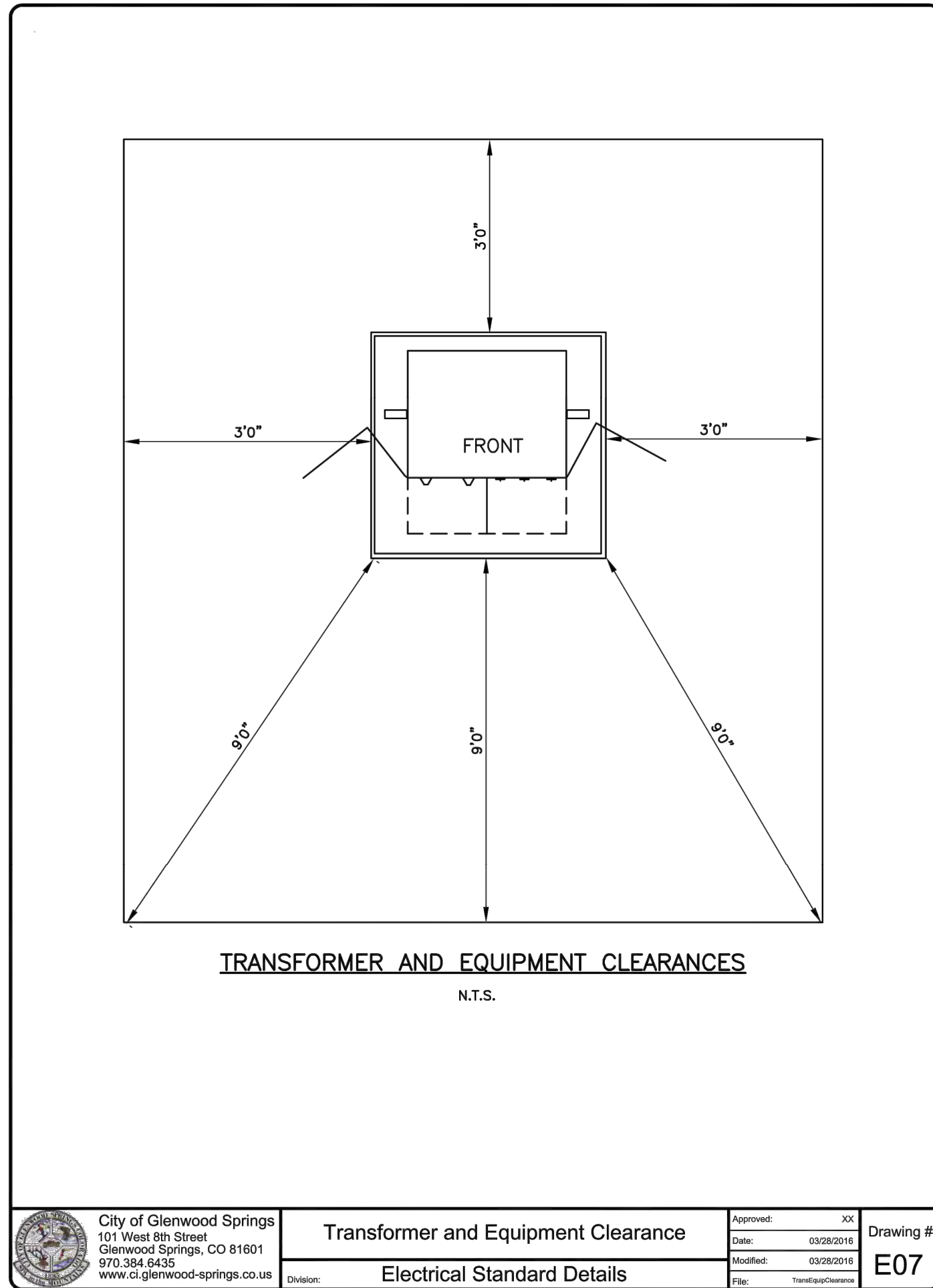
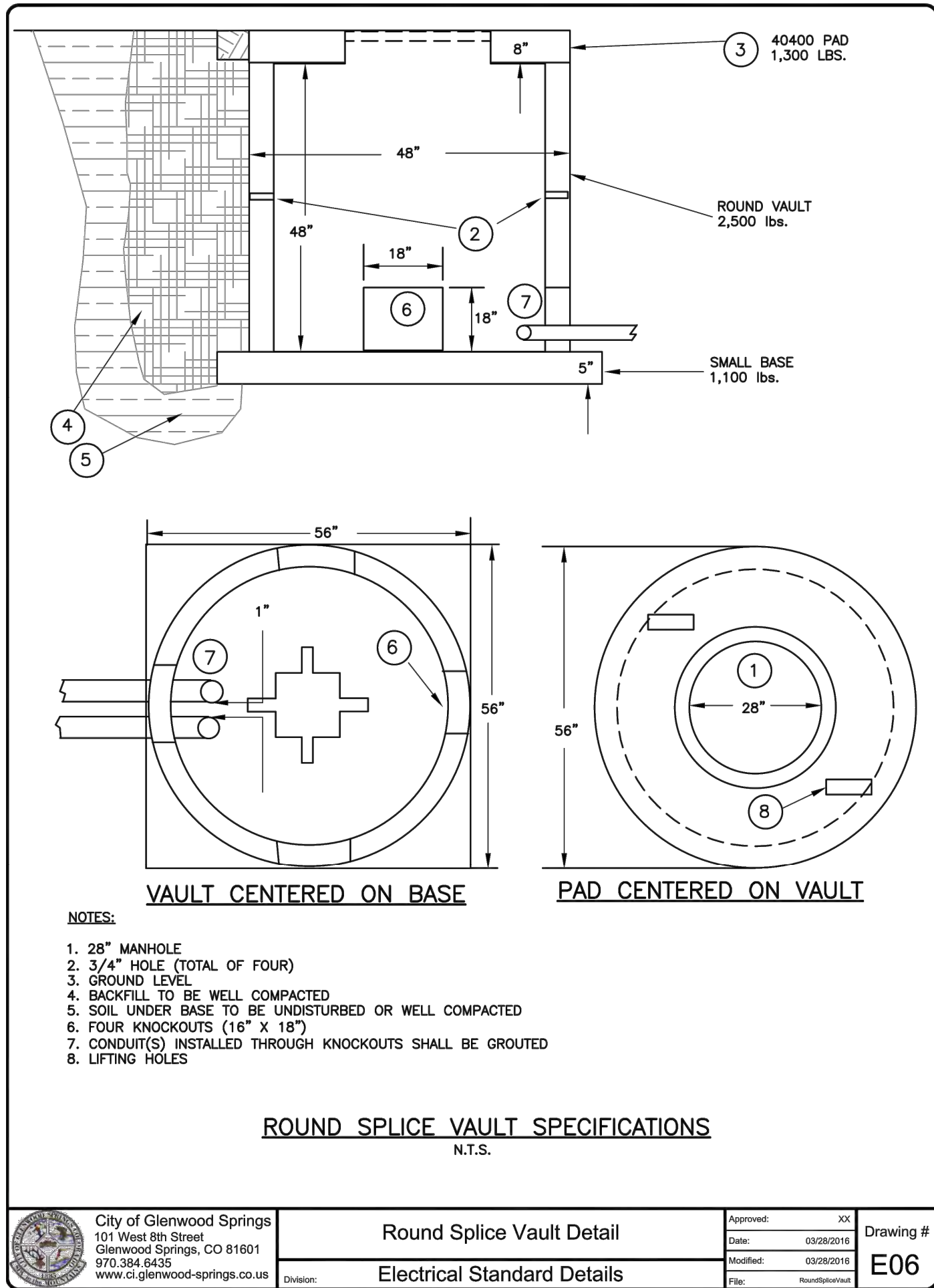
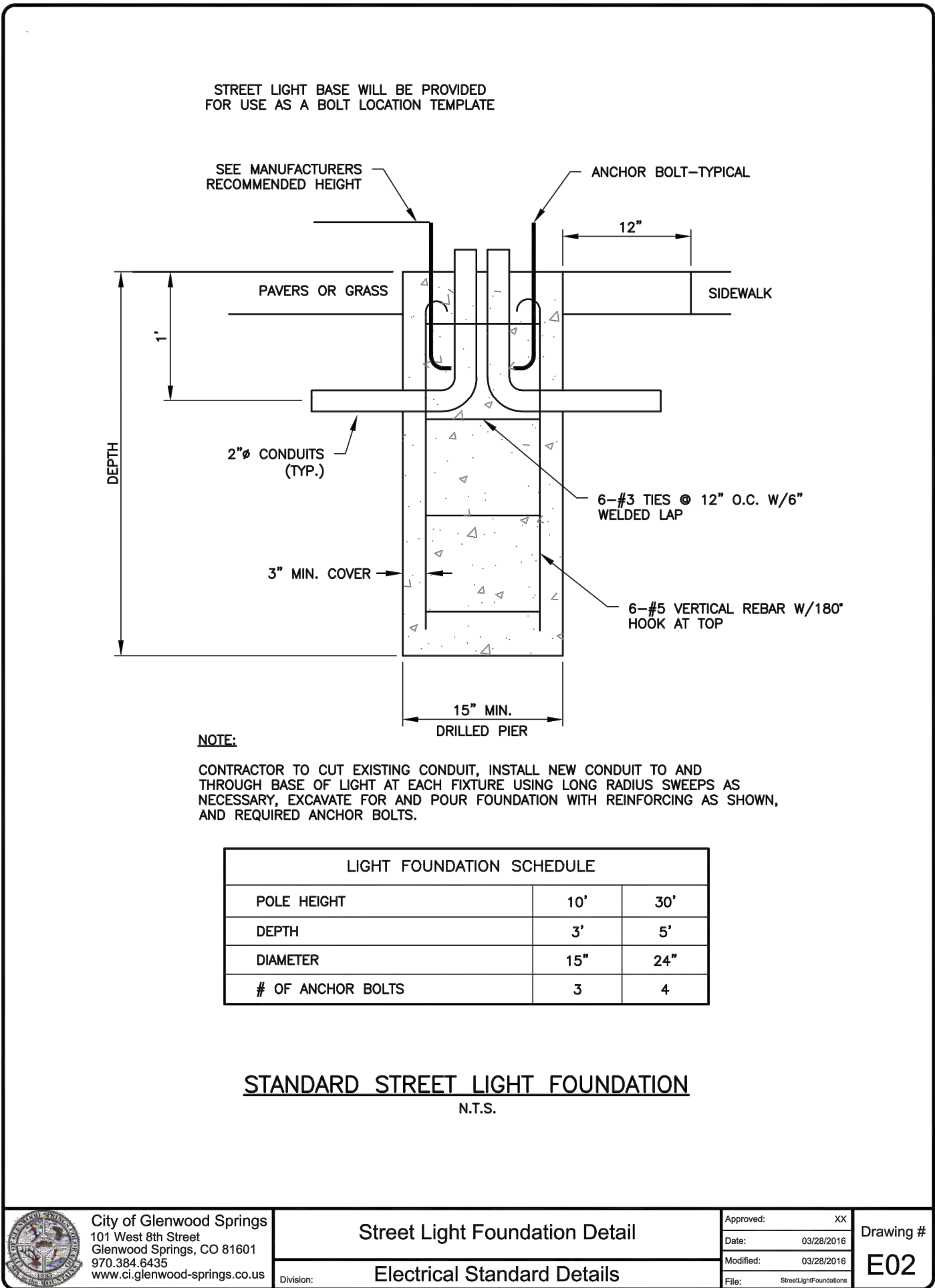
Know what's below.
Call before you dig.

PROJECT NO. 16034-02
Designer: DJW
Checker: BUN
Date: 8/27/22

Sheet C.4

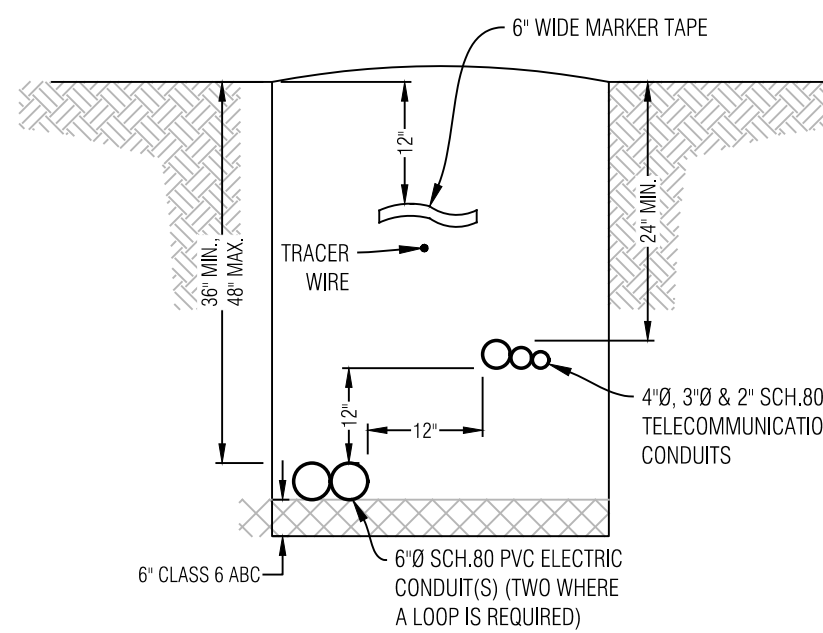
File Name: 16034-v-1topo-2022.dwg

N:\PROJECTS\2016\16034-Moltra Apartments.dwg (16034-L-Topo-2022.dwg 5/27/2022 3:32 PM)



NOTES:

1. ELECTRIC & TELEPHONE SHALL BE INSTALLED WITH AT LEAST 4" OF SEPARATION BETWEEN OTHER UTILITIES.
2. BACKFILL THE TRENCH WITH CLASS 5 ABC, OR ON-SITE STRUCTURAL MATERIAL (AS DIRECTED BY THE GEOTECHNICAL ENGINEER) COMPACTED TO 95% STANDARD PROCTOR
3. NUMBER OF, AND SIZES OF CONDUITS TO BE DETERMINED BY EACH UTILITY. INSTALL PER UTILITY REGULATIONS.



Civil Engineering
Surveying
& Beyond

Boundaries Unlimited Inc.

923 Cooper Ave., Ste. 201
Glenwood Springs, CO 81601
(T) 970.945.5252
www.bu-inc.com

Subsurface Utility Engineering (SUE)
Required Project: ##
If "Yes", SUE Certification by:
Firm: ###
Job #: ###
Date: ###

Engineer or Surveyor Seal

NOT FOR
Review Set
CONSTRUCTION

Client Information:
GABE MOLNAR
375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

NORTH

0 1' 2'

Scale: 1" = 1'

811

Know what's below.
Call before you dig.

GLENWOOD SPRINGS, COLORADO

Westlink

Civil Details-Site Electric

Preliminary Plan Set - Not For Construction

No.	1	2	3	4	5	6	7	8	9
By									
Revision									
Date									

PROJECT NO.
16034-02

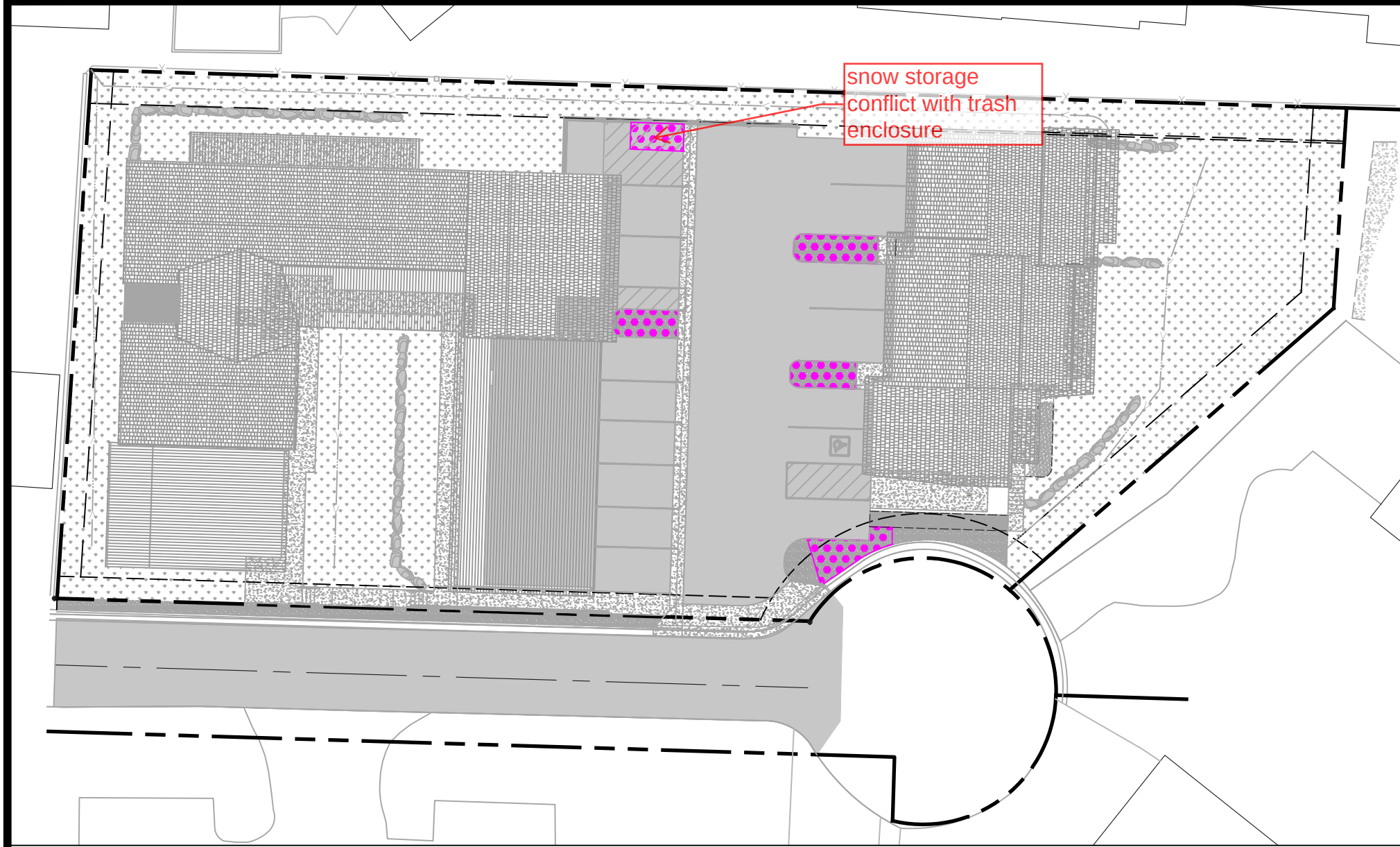
DESIGNER:
DJW

DRAWN BY:
REM

DATE:
5/27/22

Sheet
C.5

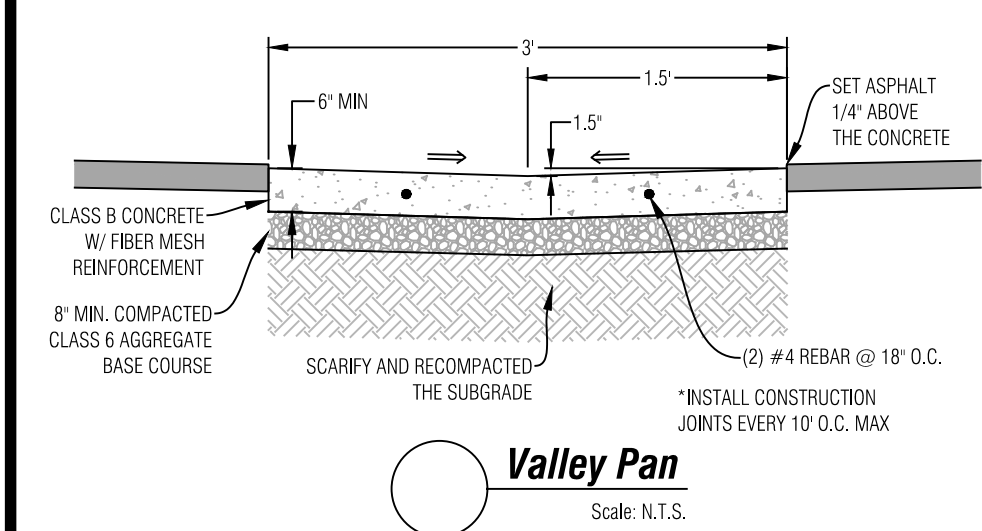
File Name: 16034-L-Topo-2022.dwg



SNOW STORAGE PROVIDED:
480 SF (TOTAL)

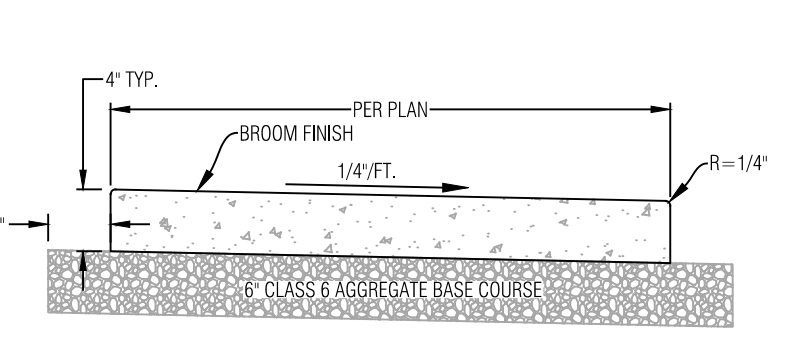
Snow Storage Areas

Scale: 1"=30'



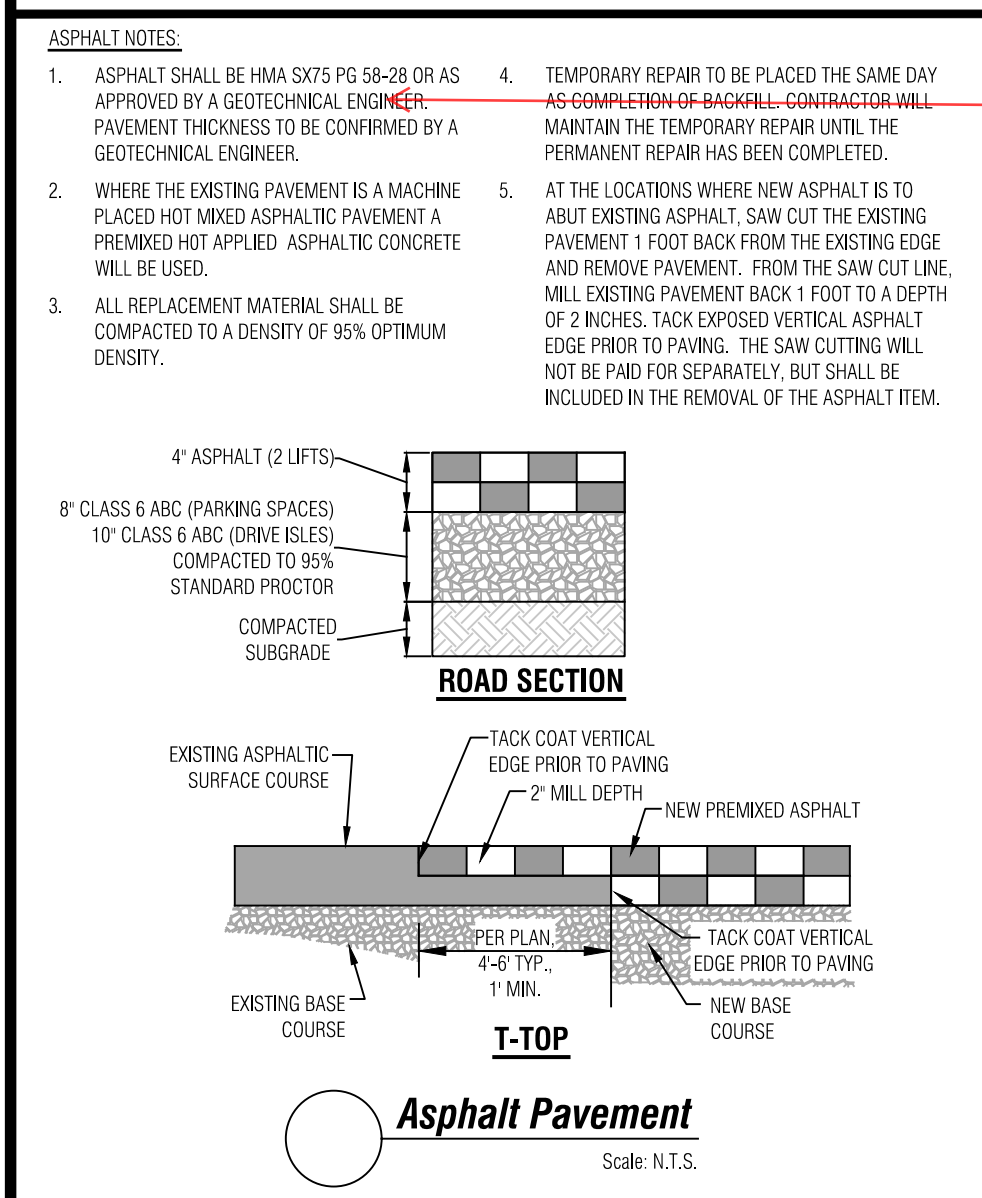
Valley Pan

Scale: N.T.S.



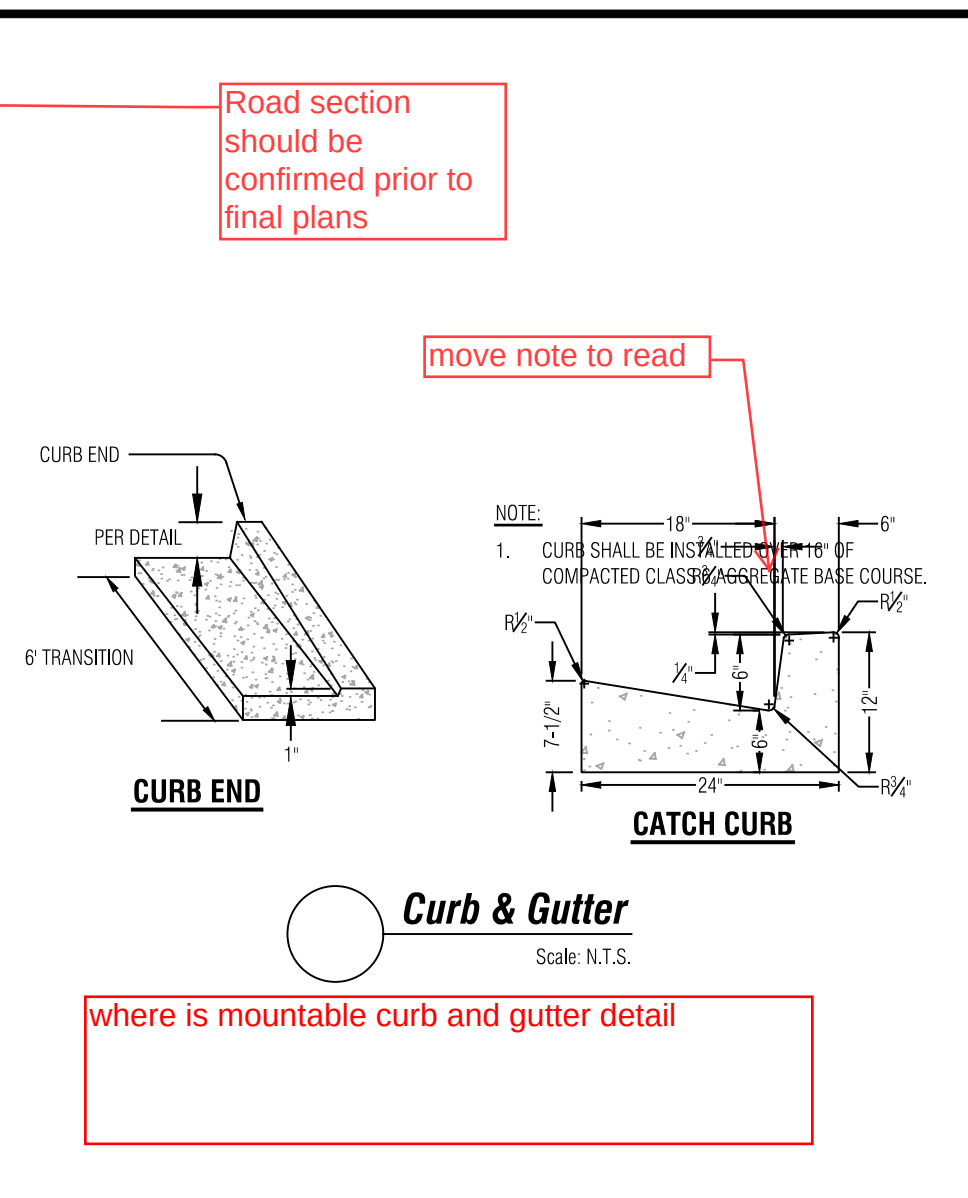
Sidewalk

Scale: N.T.S.



Asphalt Pavement

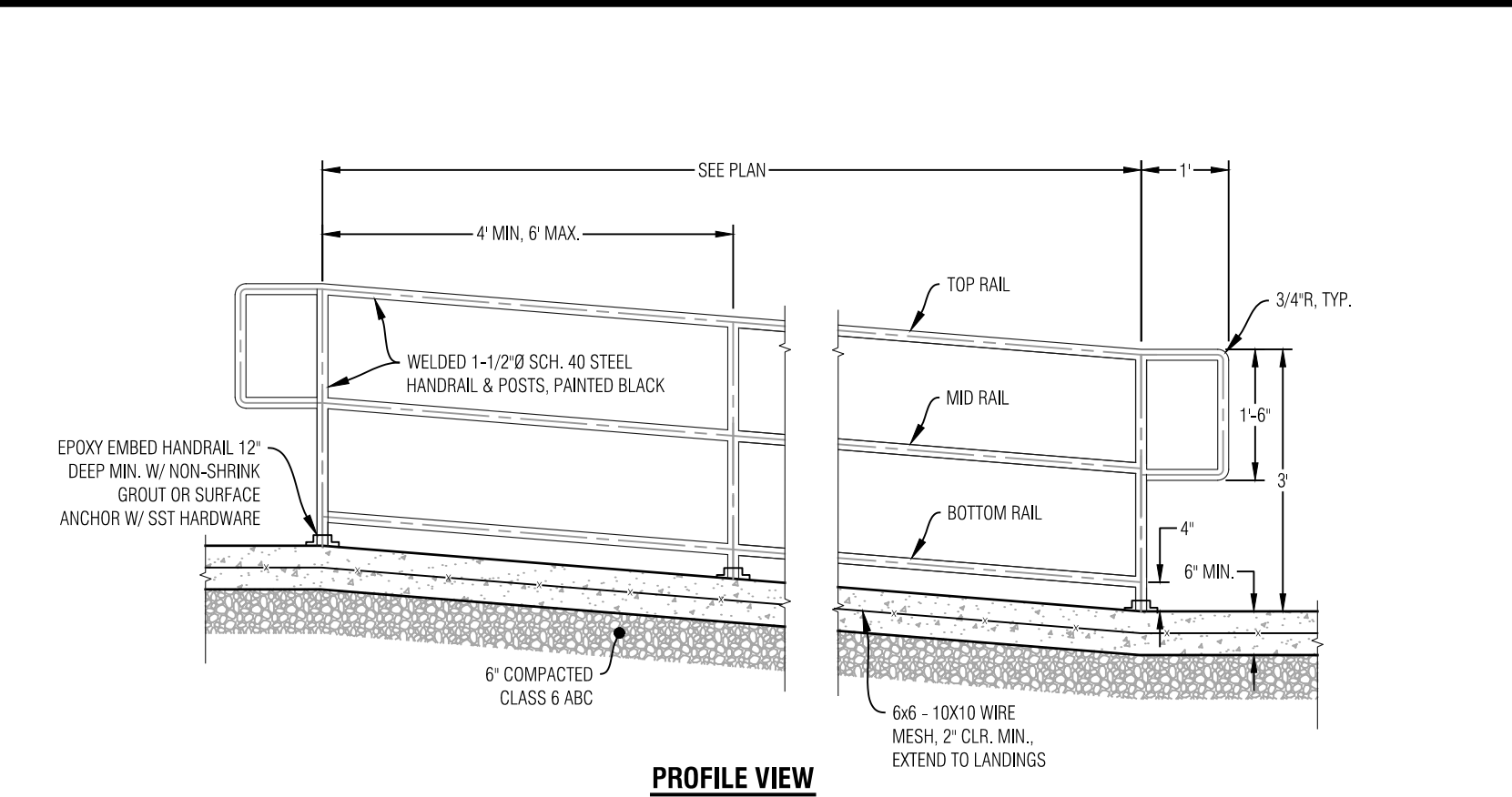
Scale: N.T.S.



Curb & Gutter

Scale: N.T.S.

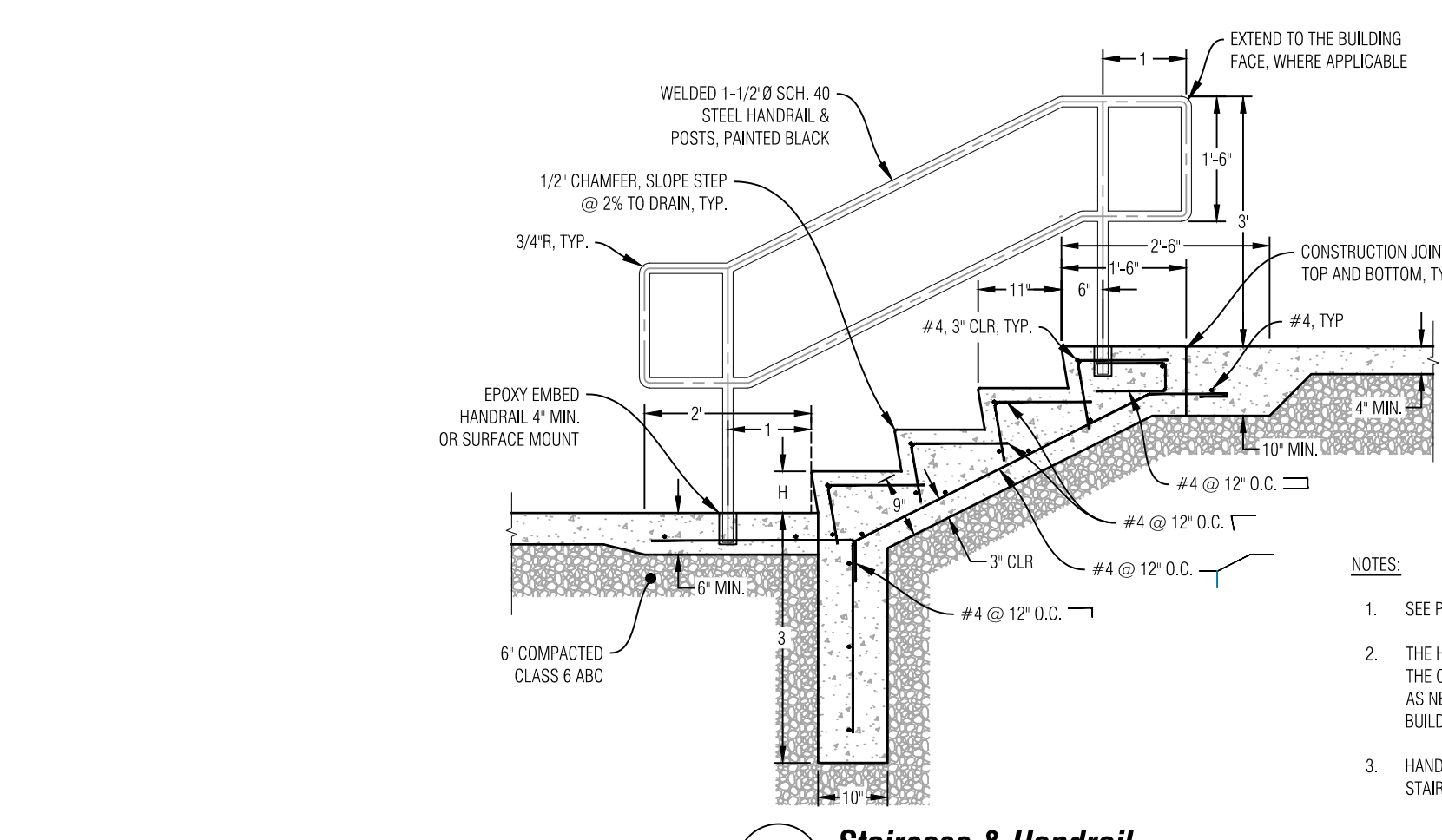
where is mountable curb and gutter detail



PROFILE VIEW

Handrails on Sidewalks or Above Walls

Scale: N.T.S.

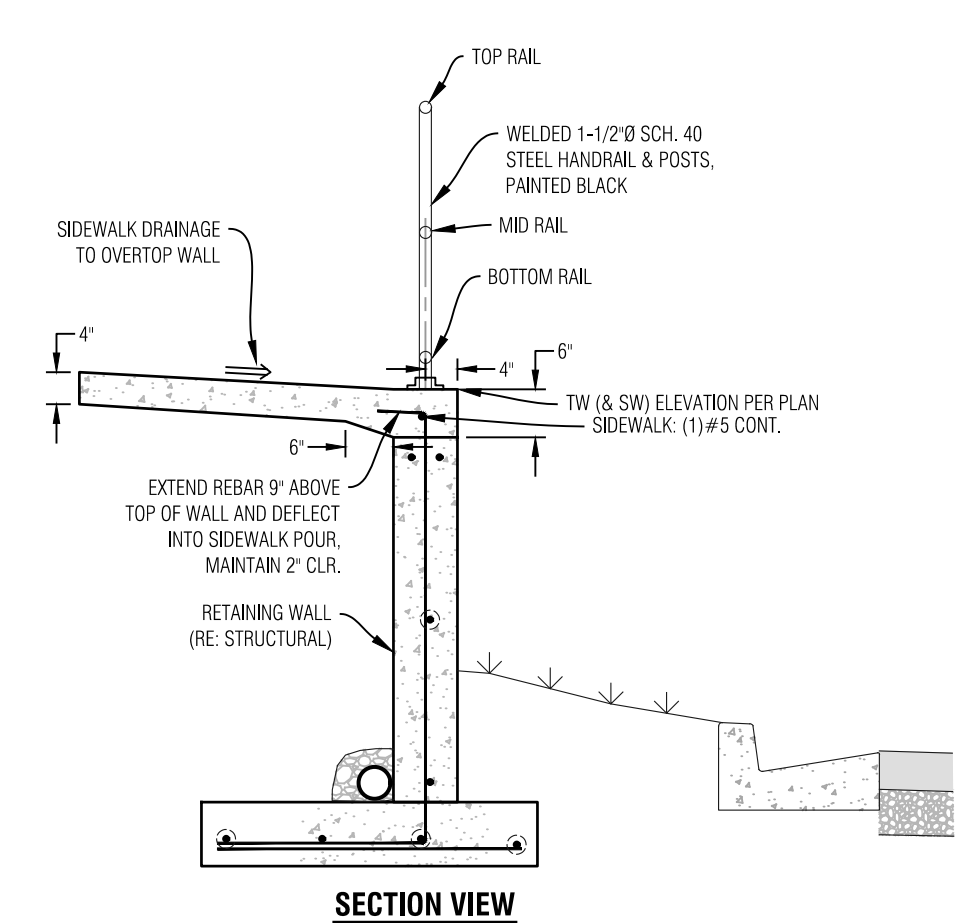


Staircase & Handrail

Scale: N.T.S.

NOTES:

1. CONCRETE RAMP AND LANDING SURFACES SHALL BE TEXTURED WITH A NON-SLIP COARSE HORIZONTAL BROOMED SURFACE AND SHALL HAVE 3/8" TROVELED SCORE LINES (AKA GROOVES) TOoled PERPENDICULAR TO THE RAMP AT 6" O.C.
2. REBAR REINFORCEMENT SHALL BE INSTALLED WITH 2" MIN. CLEARANCE FROM OUTER SURFACES.
3. THE HANDRAILS SHOWN ARE FOR GUIDANCE ONLY. THE CONTRACTOR SHALL CONSTRUCT THE HANDRAILS AS NECESSARY TO SUIT THE ARCHITECTURE AND MEET BUILDING CODE REQUIREMENTS.
4. ALL HORIZONTAL PEDESTRIAN RAIL COMPONENTS SHALL BE PARALLEL WITH THE SLOPE OF THE CORRESPONDING TOP OF WALL. ALL VERTICAL PEDESTRIAN RAIL COMPONENTS SHALL BE PLUMB.
5. ATTAINING ACCURATE GEOMETRY IS THE RESPONSIBILITY OF THE FABRICATOR. INCORPORATE ADJUSTMENTS FOR GRADE CHANGES. SEE THE GRADING PLANS FOR TOP OF WALL.
6. THE SPAN BETWEEN POSTS SHALL VARY BETWEEN 4 FEET AND 6 FEET AS NECESSARY TO CREATE SYMMETRY BETWEEN THE MINN POSTS.

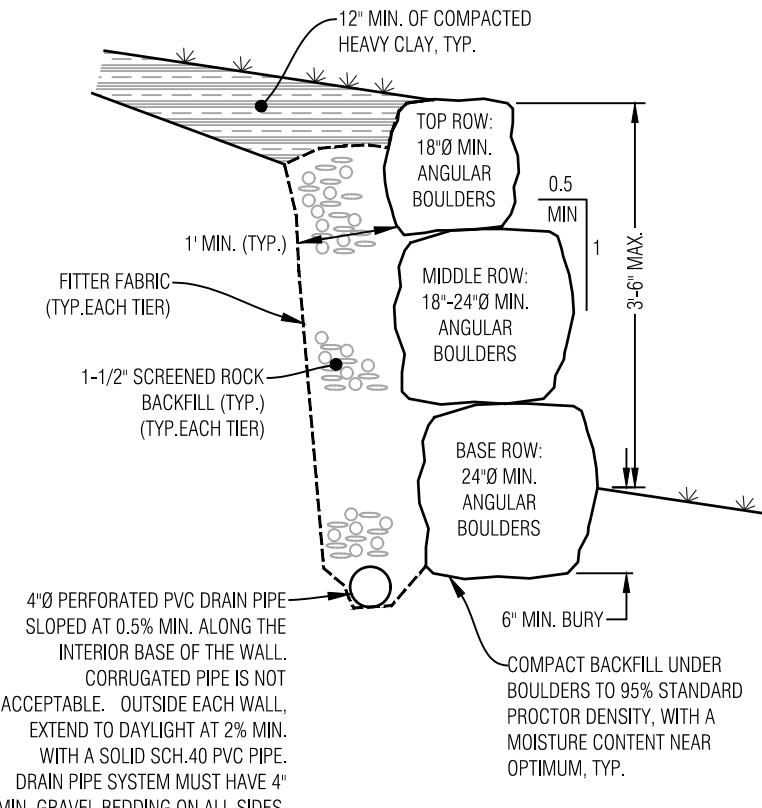


SECTION VIEW

Scale: N.T.S.

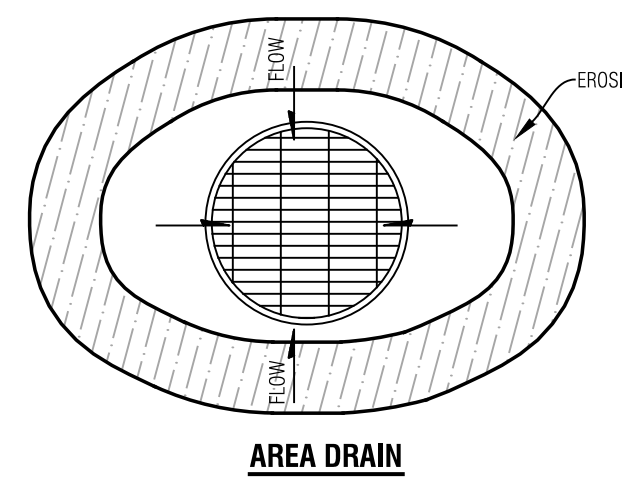
BOULDER WALL NOTES:

1. THESE DETAILS ARE TO BE USED ONLY FOR RETAINING AREAS WITH A MAXIMUM WALL HEIGHTS AS INDICATED. ANY WALL CONSTRUCTED HIGHER THAN SPECIFIED IN THESE DETAILS WILL NOT BE ACCEPTED BY THE PROJECT ENGINEER.
2. FREE DRAINING WALL BACKFILL SHOULD BE CARPED WITH AT LEAST 12 INCHES OF COMPACTED HEAVY CLAYS TO REDUCE SURFACE WATER INFILTRATION.
3. BOULDERS SHALL BE ANGULAR AND SQUARE RECTANGULAR IN SHAPE. ROUND RIVER BOULDERS ARE NOT ACCEPTABLE. BOULDERS SHALL BE PURPOSEFULLY SELECTED FOR PLACEMENT IN A MANNER WHICH PERMITS AT LEAST 30% CONTACT SURFACE WITH THE ADJACENT BOULDERS. THE FILLING OF VOID AREAS BETWEEN BOULDERS WITH SMALLER ROCKS WILL NOT COUNT TOWARD MEETING THIS MINIMUM CONTACT SURFACE REQUIREMENT.
4. INSTALL MIRAFI 140N FILTER FABRIC BETWEEN THE NATIVE EXCAVATION AND THE SCREENED ROCK BACKFILL.
5. SET BASE ROWS ON BENCHES WHERE THE TOPSOIL HAS BEEN REMOVED AND THE SUBBASE HAS BEEN SCARIFIED TO 9" MINIMUM DEPTH & RECOMPACTED TO 95% STANDARD PROCTOR.
6. CARE SHOULD BE TAKEN NOT TO OVER COMPACT THE BACKFILL OR USE LARGE EQUIPMENT NEAR THE WALL.
7. PLACE LARGER BOULDERS AT BOTTOM AND TRANSITION TO SMALLER BOULDERS AT TOP OF WALL. UNDER NO CIRCUMSTANCES SHOULD ANY BOULDER BE PLACED ON TOP OF ANOTHER BOULDER WHICH IS SMALLER THAN ITSELF.

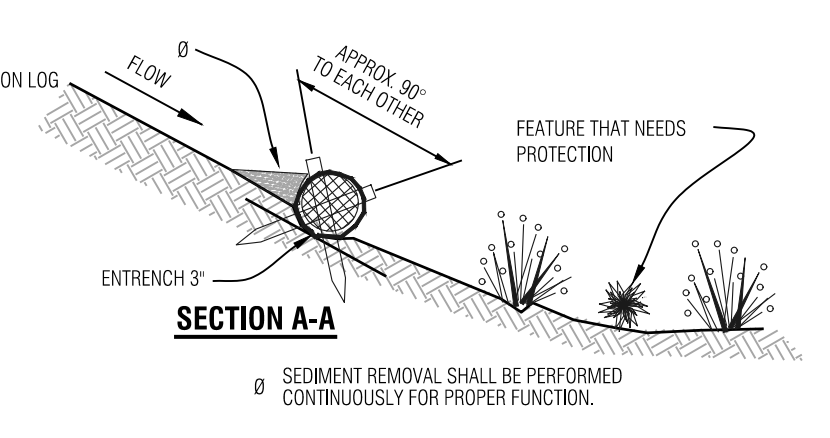


Landscape Boulder Wall

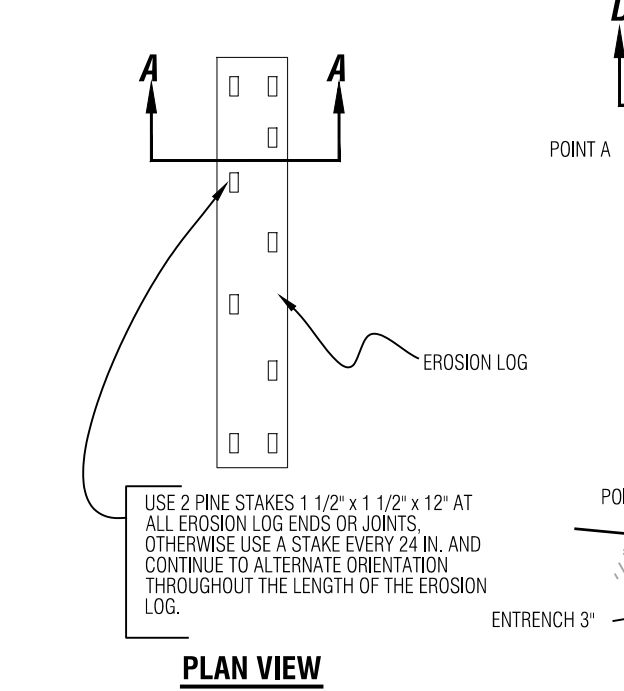
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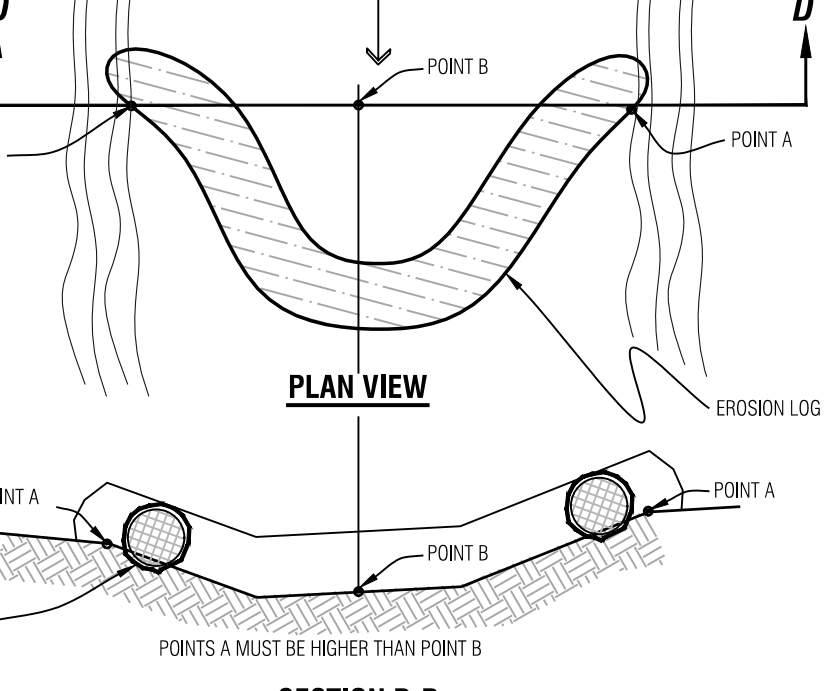
AREA DRAIN



SECTION A-A



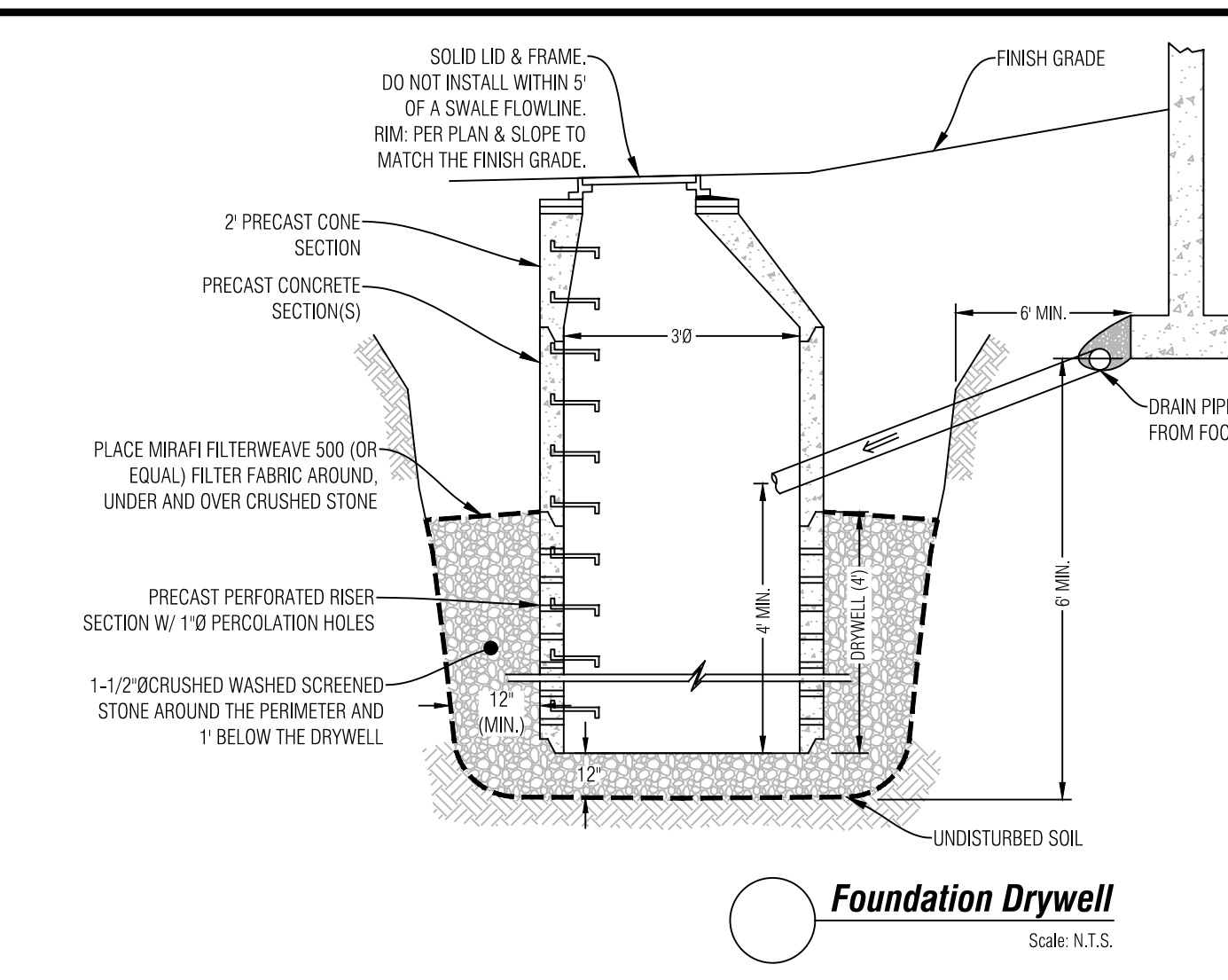
PLAN VIEW



SECTION D-D

Erosion Control Logs

Scale: N.T.S.

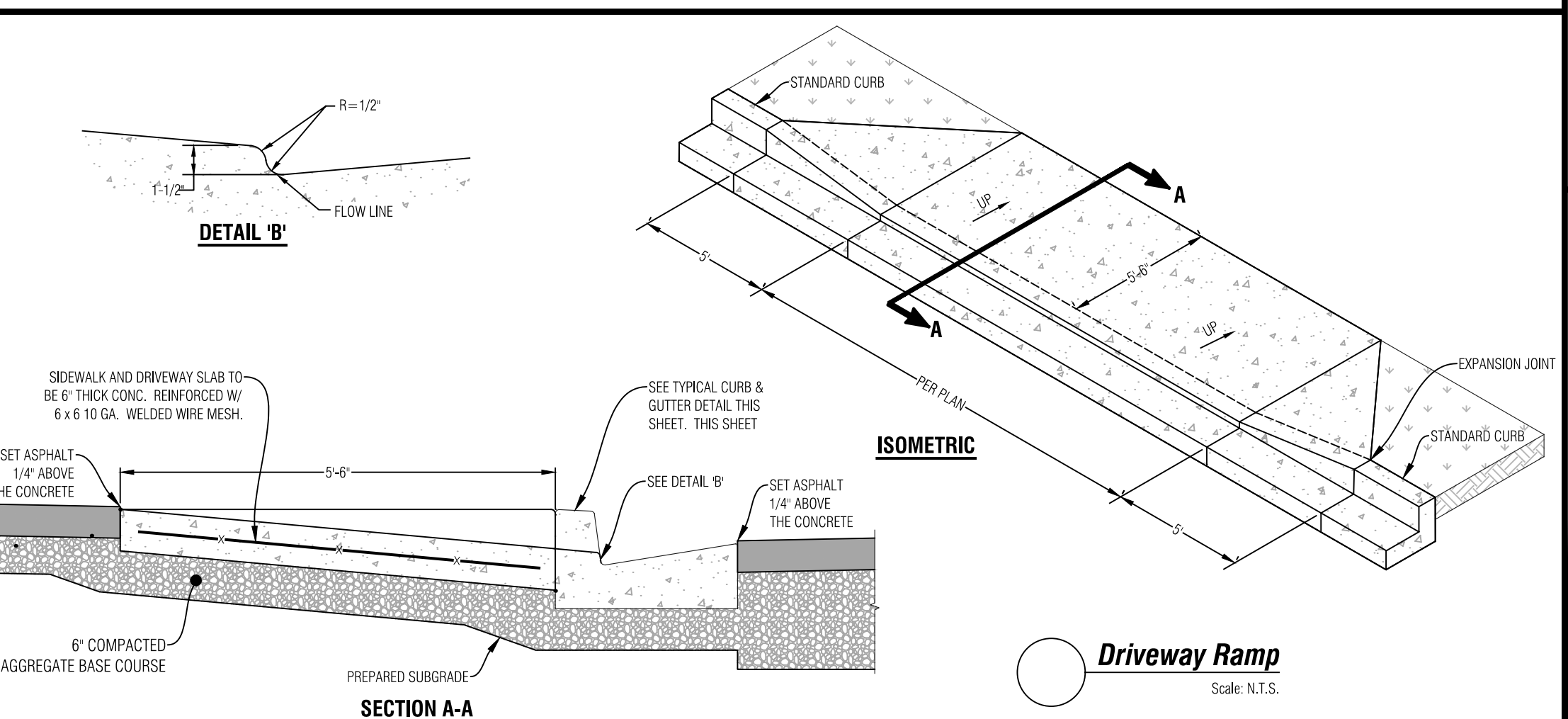


Foundation Drywell

Scale: N.T.S.

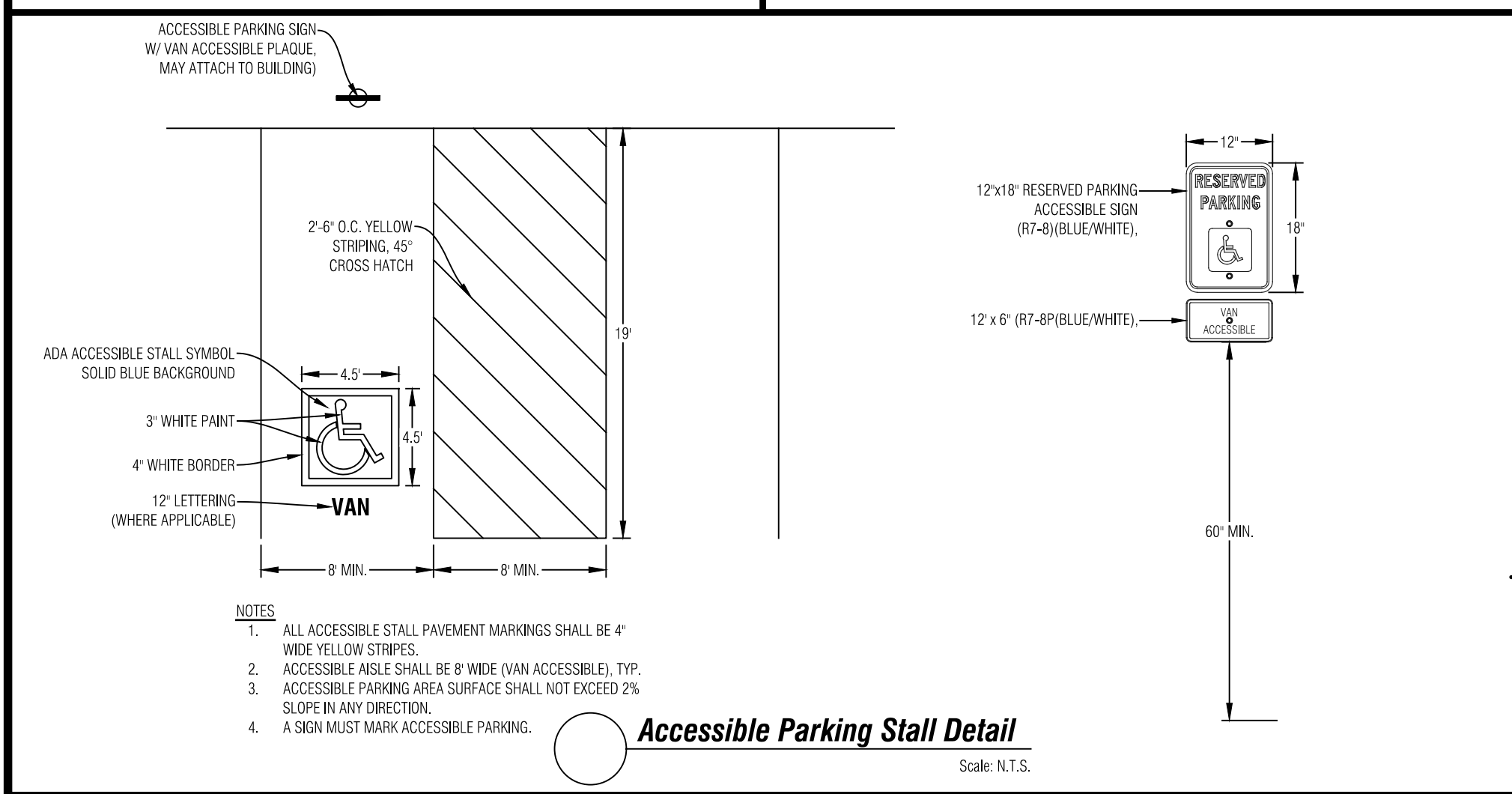
NOTES:

1. PRECAST MANHOLE SECTIONS SHALL MEET ASTM C-478 AND BE H-20 LOAD RATED.
2. THE DRYWELL SHALL BE INSTALLED LOWER THAN THE DEEPEST BLDG FOOTER. THE EDGE OF THE DRYWELL SHALL BE INSTALLED AT LEAST 6- FEET AWAY FROM ANY FOOTER OR AT A DISTANCE EQUAL TO THE HEIGHT FROM THE BOTTOM OF THE DRYWELL TO THE BOTTOM OF THE FOOTER, WHICHEVER IS GREATER.
3. BACKFILL EXCAVATION AROUND STRUCTURE WITH COMPACTED 3/4" CRUSHED WASHED SCREENED STONE TO THE TOP OF THE DRYWELL AND WITH STRUCTURAL CLASS 2 ABC TO 12" BELOW FINISH GRADE. COMPACT BACKFILL TO 95% STANDARD PROCTOR.
4. PERFORATED SECTION TO BE INSTALLED 4 FT. MINIMUM INTO PERVIOUS ALLUVIUM. ENGINEER TO BE CONTACTED IMMEDIATELY IF GROUNDWATER OR BEDROCK IS ENCOUNTERED.
5. INLET AND OUTLET PIPES SHOULD ENTER DRYWELL AWAY FROM THE DRYWELL STEPS.



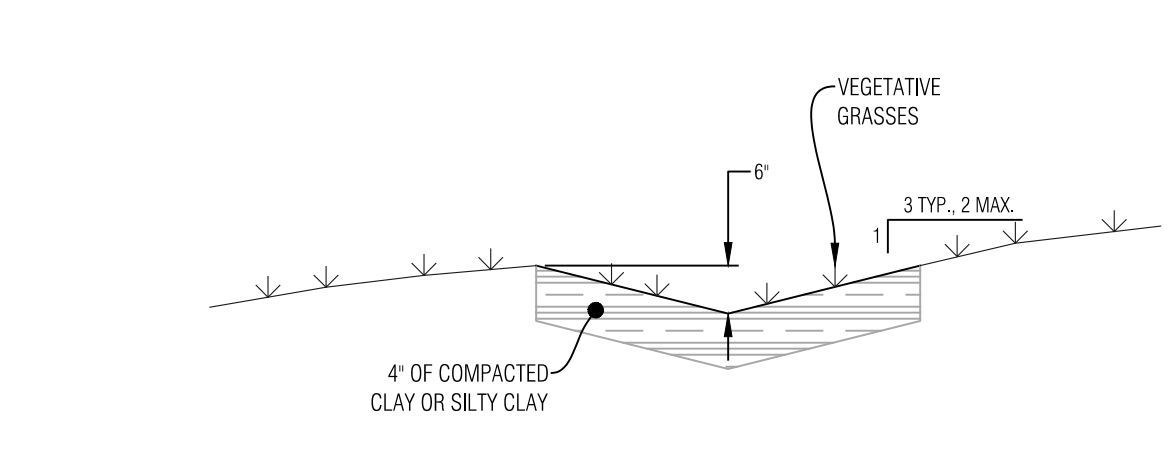
Driveway Ramp

Scale: N.T.S.



Accessible Parking Stall Detail

Scale: N.T.S.



Typical Swale

Scale: N.T.S.

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Civil Engineering
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Boundaries Unlimited Inc.

923 Cooper Ave., Ste. 201
Glenwood Springs, CO 81601
(770) 970.945.5252
www.bu-inc.com

Subsurface Utility Engineering (SUE)
Required Project: **No**
If "Yes": SUE Certification by:
Firm: **N/A**
Job #: **N/A**
Date: **N/A**

Engineer or Surveyor Seal

NOT FOR
CONSTRUCTION

Review Set

Client Information:
GABE MOLNAR
375 OAK RUN ROAD
CARBONDALE, CO 81623
970.366.0379

NORTH

0 1 2
Scale: 1" = 1'

811

Know what's below.
Call before you dig.

GLENWOOD SPRINGS, COLORADO

Westlink

Civil Details-Site

Preliminary Plan Set - Not For Construction

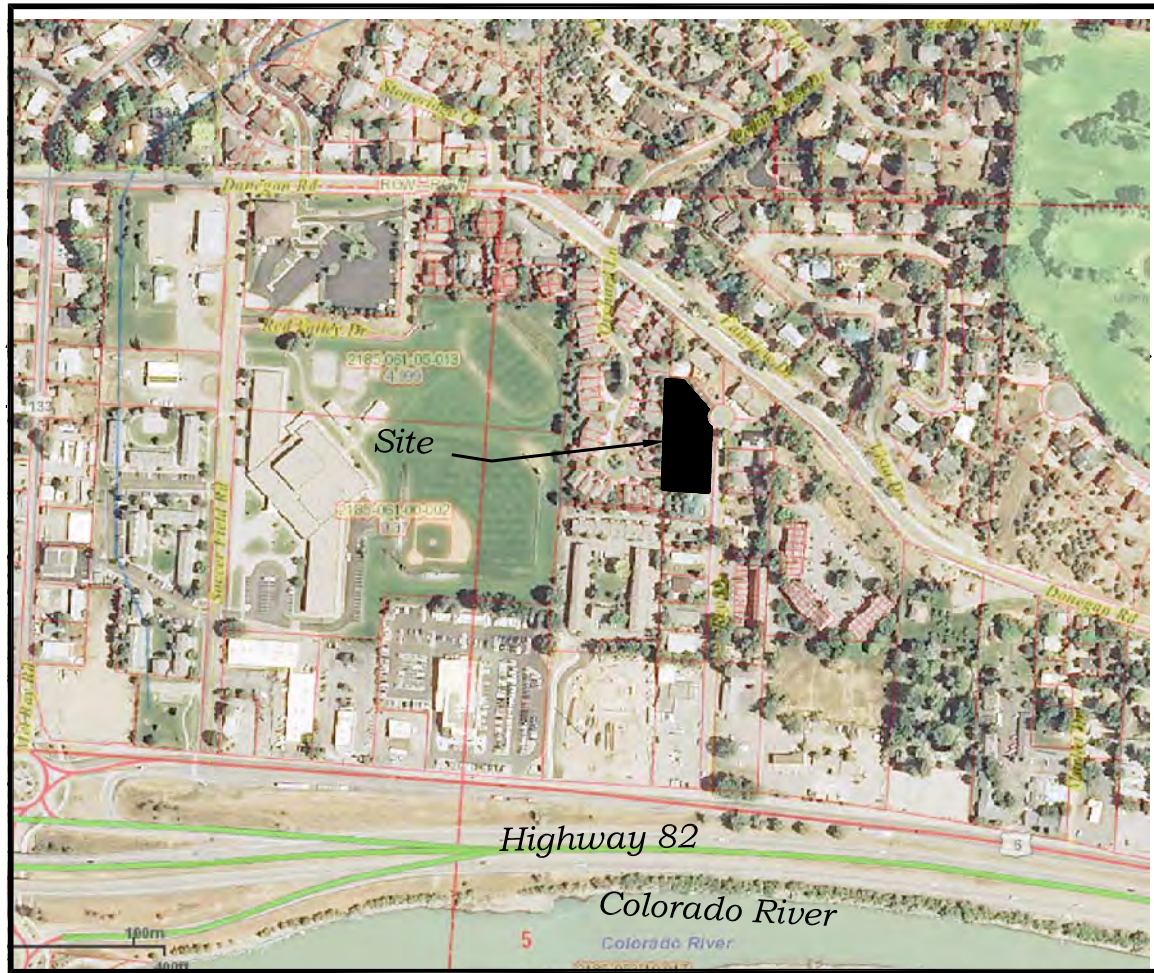
By	Revision	Date	No.
	1	2	3
	4	5	6
	7	8	9

PROJECT NO.
16034-02
Designer:
DJW
Checker:
BU
Date:
5/27/22

Sheet
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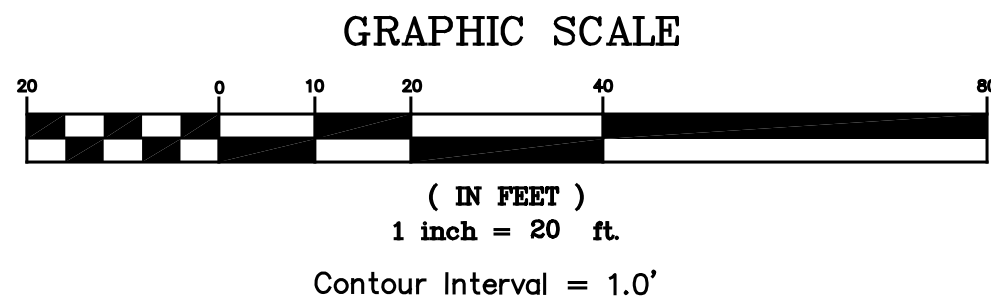
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Packet Page 122



VICINITY MAP
SCALE: 1" = 500'

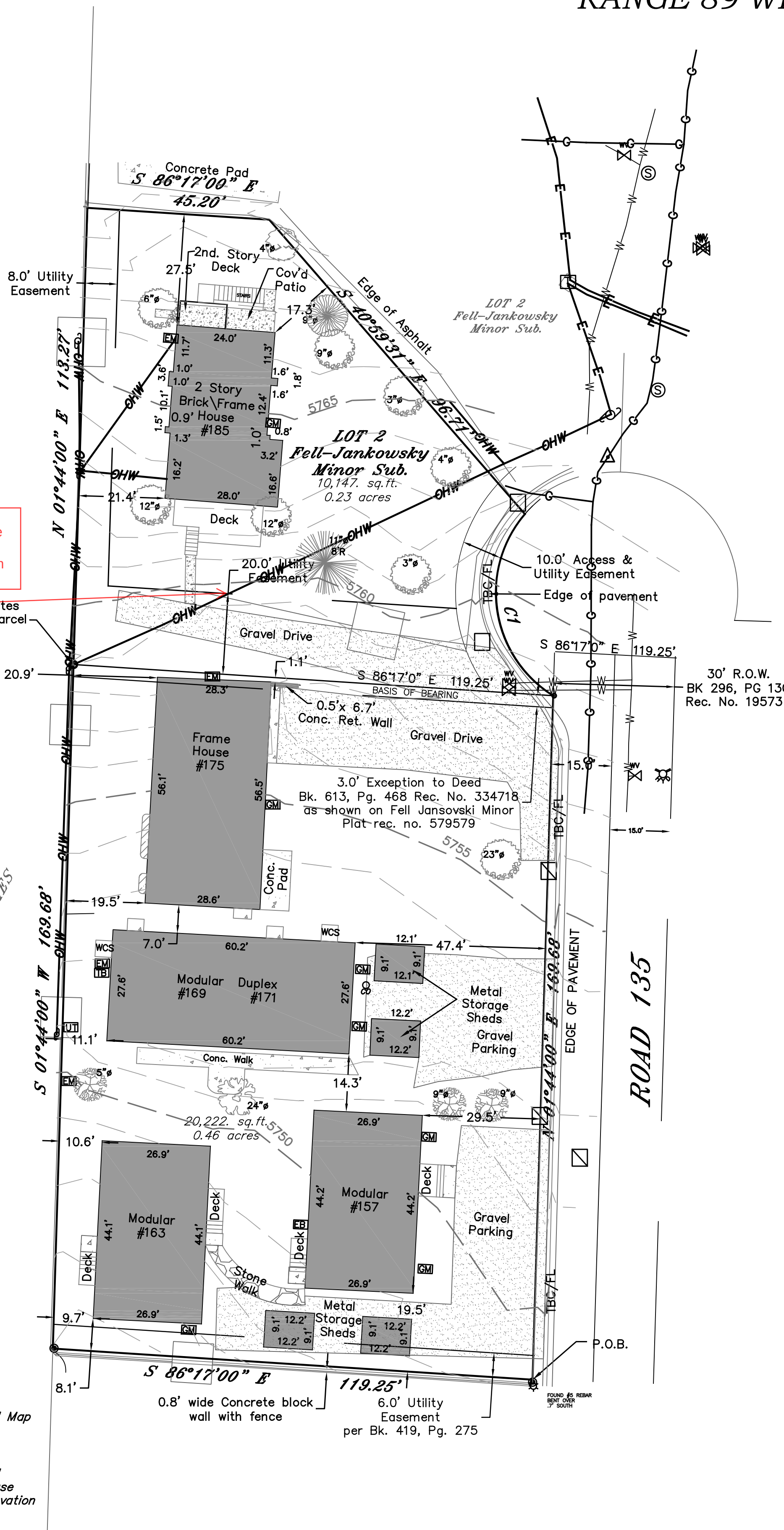
CURVE TABLE					
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING
C1	51.74'	30.00'	35.01'	45.56'	S 8°51'22" E
					98°49'15"



- Legend**
- Hydrant
 - Cleanout
 - Transformer
 - Water Valve
 - Light Pole
 - Gas Meter
 - Electric Meter
 - Electric Breaker
 - Utility Pedestal
 - Mail Box
 - Telephone Control Box
 - Utility Pole
 - Overhead Utility Line
 - Gas line
 - Water line
 - Electric line
 - Gas Marker
 - WCS = Wooden Crawl Space Entry
 - Window Well
 - Aspen
 - Deciduous
 - Fruit Tree
 - Maple Tree
 - Lilac Tree
 - Spruce Tree
 - Wooden Fence
 - Sewer Manhole

Note: This topography map complies with National Map Accuracy Standards for topographic maps. Where checked 90% of points should be within 1/2 the contour interval and well defined points should be plotted within 1/50" of their true position. Critical design should be based upon spot elevations, please contact Tuttle Surveying Services for this spot elevation information.

ORCHARD TOWN HOMES



THE LAND REFERRED TO IN THIS COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC COMMITMENT DATED FEBRUARY 24, 2015 IS LOCATED IN THE COUNTY OF GARFIELD, STATE OF COLORADO, AND IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:
LOT 2, FELL JANKOVSKY MINOR SUBDIVISION, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 19, 2001 AS RECEPTION NO. 579579 ,
COUNTY OF GARFIELD
STATE OF COLORADO

THIS PROPERTY IS SUBJECT TO THE FOLLOWING EXCEPTIONS PER SAID TITLE COMMITMENT NO. 1502095

9. RIGHT OF THE PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM, SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES HEREBY GRANTED AND A RIGHT OF WAY FOR DITCHES OR CANALS AS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES, AS RESERVED IN UNITED STATES PATENT RECORDED FEBRUARY 26, 1894 IN BOOK 12 AT PAGE 298. (Nothing to show)
10. EASEMENTS, RIGHTS OF WAY AND ALL MATTERS DISCLOSED ON THE FINAL PLAT OF FELL JANKOVSKY MINOR SUBDIVISION RECORDED APRIL 19, 2001 AS RECEPTION NO. 579579. (As shown hereon)

THE LAND REFERRED TO IN THIS COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC COMMITMENT DATED FEBRUARY 16, 2015 IS LOCATED IN THE COUNTY OF GARFIELD, STATE OF COLORADO, AND IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PARCEL OF LAND SITUATE IN LOT 4, SECTION 5, TOWNSHIP 6 SOUTH, RANGE 89 WEST OF THE 6TH P.M., DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT WHEN THE SOUTHWEST CORNER OF SECTION 5 BEARS SOUTH 11°24'22" WEST 3303.51 FEET; THENCE SOUTH 01°44' WEST 257.59 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 01°44' WEST 169.68 FEET; THENCE SOUTH 86°17' EAST 119.25 FEET; THENCE NORTH 01°44' EAST 169.68 FEET; THENCE NORTH 86°17' WEST 119.25 FEET TO THE POINT OF BEGINNING. COUNTY OF GARFIELD, STATE OF COLORADO

THIS PROPERTY IS SUBJECT TO THE FOLLOWING EXCEPTIONS PER SAID TITLE COMMITMENT NO. 1502012-1 ANTIC

9. RIGHT OF THE PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM, SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES HEREBY GRANTED, AND A RIGHT OF WAY FOR DITCHES OR CANALS AS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES, AS RESERVED IN UNITED STATES PATENT RECORDED FEBRUARY 26, 1894 IN BOOK 12 AT PAGE 298. (Nothing to show)
10. EASEMENT AND RIGHT OF WAY FOR ROAD PURPOSES AS DEDICATED TO THE PUBLIC IN INSTRUMENT RECORDED NOVEMBER 1, 1956 IN BOOK 296 AT PAGE 130. (As shown hereon)
11. EASEMENT AND RIGHT OF WAY FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A PIPELINE AS CONVEYED TO WEST GLENWOOD SPRINGS WATER DISTRICT IN DEED RECORDED MAY 24, 1971 IN BOOK 419 AT PAGE 275. (As shown hereon)
12. ENCROACHMENT OF RETAINING WALL AND FENCE ONTO ADJOINING PROPERTY AND ALL MATTERS SHOWN ON IMPROVEMENT LOCATION CERTIFICATE PREPARED BY DEMING LAND SURVEYING, LLC DATED OCTOBER 4, 2013, PROJECT 13056

LEGEND AND NOTES:

- INDICATES FOUND #5 REBAR WITH RED PLASTIC CAP ON #5 REBAR L.S. 36056
- INDICATES FOUND #5 REBAR WITH RED PLASTIC CAP ON #5 REBAR L.S. 27613
- INDICATES FOUND #5 REBAR WITH YELLOW PLASTIC CAP (ILLEGIBLE)
- BASIS OF BEARING: FOUND #5 REBAR WITH RED PLASTIC CAP ON #5 REBAR L.S. 27613 ON SOUTH WEST CORNER AND FOUND #5 REBAR WITH YELLOW PLASTIC CAP (ILLEGIBLE) ON THE SOUTHEAST CORNER OF SAID LOT 2 OF SUBJECT PARCEL, USING A BEARING OF S 86°17'0" E BETWEEN THE TWO DESCRIBED MONUMENTS AS SHOWN HEREON.
- BENCH MARK LOCATED ON A BRASS CAP HORIZONTAL CONTROL MARKER GLENWOOD 1994 ELEVATION NAVD 88 5714.00.
- THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY THIS SURVEYOR TO DETERMINE OWNERSHIP OR TO DISCOVER EASEMENTS OR OTHER ENCUMBRANCES OF RECORD. ALL INFORMATION PERTAINING TO OWNERSHIP, EASEMENTS OR OTHER ENCUMBRANCES OF RECORD HAS BEEN TAKEN FROM TITLE COMMITMENT ISSUED BY COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC DATED FEBRUARY 24, 2015 AS ORDER NO. 1502095 AND TITLE COMMITMENT ISSUED BY COMMONWEALTH TITLE COMPANY OF GARFIELD COUNTY, INC DATED FEBRUARY 16, 2015 AS ORDER NO. 1502012-1 ANTIC
- UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD OBSERVATIONS OF MARKINGS MADE BY UTILITY LOCATORS. UNDERGROUND UTILITY LINES SHOULD BE VARIFIED PRIOR TO CONSTRUCTION
- THIS PROPERTY IS SUBJECT TO EASEMENTS, RIGHTS OF WAY AND/ OR REQUIREMENTS AS NOTED OR SHOWN ON THE ABOVE-MENTIONED FINAL PLAT IN THE RECORDS CLERK AND RECORDER OF THE GARFIELD COUNTY

SURVEYOR'S CERTIFICATE:

I, JEFFREY ALLEN TUTTLE, BEING A REGISTERED LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS MAP OF EXISTING CONDITIONS WAS PREPARED BY ME AND UNDER MY SUPERVISION FROM A SURVEY MADE BY ME AND UNDER MY SUPERVISION ON MAY 18, 2016 AND THAT BOTH THE SURVEY AND MAP ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JEFFREY ALLEN TUTTLE, L.S.33638

DATE

Notice:

According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any legal action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

TUTTLE SURVEYING SERVICES
727 Blake Avenue
Glenwood Springs, Colorado 81601
(970) 928-9708 (FAX 947-9007)
Email- jeff@tss-us.com

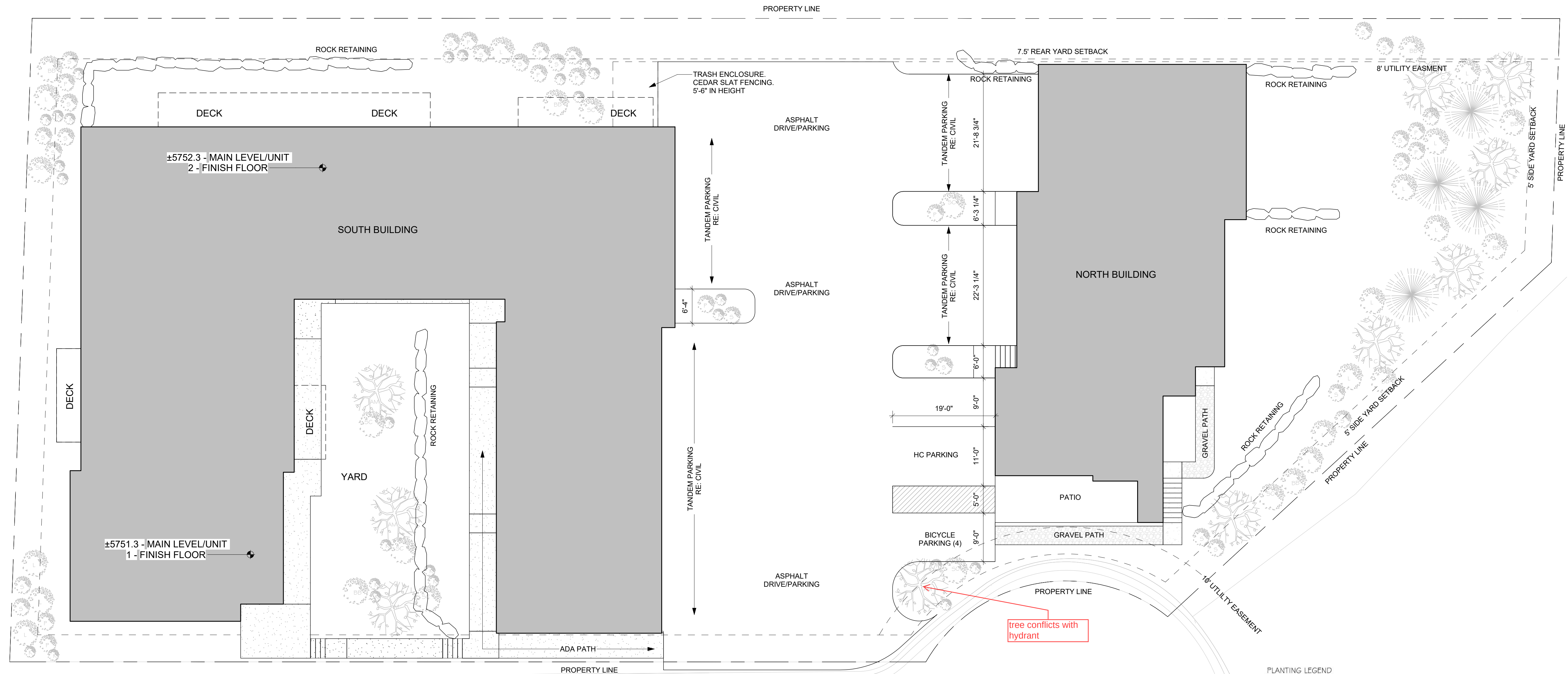


Topographical Survey Map

185 CO RD 135
Glenwood Sprgs, Colorado. 81601

Drawn by: DMC
Date: 04/18/2017
Z: 2016\FELL
JANKOVSKY LOT2\LOT2.DWG

1
OF 1



STAMP

NOT FOR CONSTRUCTION - PRELIM.
CONCEPTUAL PLANS

ISSUE DATE
CITY PLAN 2022-05-31
REVIEW

PLANTING LEGEND

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QTY.
TREES:				
	COLORADO BLUE SPRUCE	PICEA PUNGENS GLAUCA	8'	4
	AUTUMN BLAZE MAPLE	ACER 'JEFFERSRED'	3" C (L)	4
	CANADIAN CHOKECHERRY	PRUNUS VIRGINIANA 'SHUBERT'	2' C	6
SHRUBS:				
	SPIREA	SPIRAEA VARIETIES	#5 POT	22
	POTENTILLA/CINQUEFOIL	POTENTILLA FRUTICOSA	#5 POT	12
	BURNING BUSH	EUONYMUS ALATUS	B # B (L)	8
	SAND CHERRY		#5 POT	8
	LILAC	SYRINGA MEYERI	#5 POT	13
GRASSES:				
	'KARL FOERSTER' FEATHER REED	CALAMAGROSTIS ACUTIFLORA	#5 POT	27

5/31/2022 1:07:27 PM
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WORK OF BLDG SEED ARCHITECTS AND MAY NOT
BE DUPLICATED, USED OR DISCLOSED WITHOUT THE
WRITTEN CONSENT OF BLDG SEED ARCHITECTS.

PROPOSED
LANDSCAPE PLAN

Planning Item: 54-21
Applicant: Moltea, LLC
Owner: Moltea, LLC
Location: 175-185 CR 135, Glenwood Springs
Parcel: 2185-052-00-090 and 2185-052-32-002
Date of Comments: 7-19-2022 Updates, Original Comments on 12-28-2021

The following are Public Works Department comments are based on the Complete Plan Set drawings dated 05-31-2022.

W/WW Department Comments

- All water and wastewater utilities proposed for this project beyond the mainline connections within CR 135 will be considered private and not maintained by the City. The 4" water valves and sewer wye connections will be considered the private/public delineation points for GWS Water and most likely WGSD.
- All sanitary sewer lines, sewer laterals, water mains and water services shall have a tracer wire installed per State regulations.
- The water and electric details need to follow city standards details at the City of Glenwood Springs Engineering Department website, Engineering Standards.
- Sewer is owned by West Glenwood Sanitation District. Please contact them for all required information.
- It is recommended to use hot taps for this project so that the water line does not need to be shut off two times for the 4" and 6" water service connections.
- The onsite fire hydrant will require a 15' easement centered on the hydrant so the city can access that hydrant location. The city owns and maintains all fire hydrants, leads and valves. The lead on this site will be the 6" line from the hydrant valve to the hydrant, the remaining 6" to 4" line, tees, bends and valves will be considered the private service.
- All services that are to be used for combined fire sprinkler/domestic water must be designed and constructed to NFPA24 requirements, testing requirements and will be considered private. Designs need to show in detail thrust blocks and calculations, restrains, etc.
- Will need to see a detail for the fire riser room that shows fire/domestic services, meter and backflow installation once that level of plans are available.
- Will each unit be individual metered or a single water meter for the complex? This does not look like it has been determined yet. The city does not prefer meter vaults outside of the buildings.
- It appears that all sewer plumbing will be combined into one 6" sewer service outlet, is this the proposed case? Please verify with WGSD that they approve this and the direct outlet of that system into their manhole.

- Domestic water service will require a backflow. The backflow cannot be located below grade and must have proper drainage.

W/WW Department Contact Information:

- Mike Hoffman – 384-6343 (W/WW Information)
- Utility Billing – 384-6400 (Account setup; Water/Electric Meter Purchase)
- Community Development Department – 384-6411 (Improvements Fees)

The following are Electric Department comments:

Electric Department Comments

- The Electric Department would like to discuss with the developer potentially underground a portion of the overhead electric along the west boundary of the property. This could eliminate any overhead wire to overhang/building structure issues and eliminate any pole location issues on the property.
- At a minimum the Electric department will request one 6" and one 2" electrical conduit be run out of the transformer vault to the south property line and to the north property line and they be landed in pull boxes. This will allow for any future undergrounding of the overhead lines without disturbance to the property if that work cannot happen with this project.
- Does the owner wish to install a streetlight on the west lot line? This may cause light intrusion on the adjoining neighbors. Streetlight will be privately owned. Building safety lighting may be more appropriate for this layout.
- The utility plan does not appear to show the existing overhead electric lines, please add this to the plan and note how the poles will be stabilized during construction if the foundation digs or grading plans affects their stability.
- Owner will be responsible for cost associated with line extensions and or relocations through the ROW/property and all infrastructure for the new development. The City of Glenwood Springs Electric Department Costing Proposal will be paid in full prior to any work commencing. Any additions to the proposal will be due at time of completion of work or any saving will be refunded at time of completion of work.
- Contractor is recommended to install a 2" conduit from the transformer location to the buildings for a City CBN fiber to be brought to the buildings if another source of data and phone service is desired for this facility beyond the T&C lines shown on the plans.
- Developer to supply a Load Calculation form to the City of Glenwood Springs Electric Department for each set of buildings for transformer sizing.
- City would request an easement around and too the transformer location within the property for access and maintenance. It appears that the parking lot will be a shared lot, will the developer being adding a blanket access easement to this area that the city could utilize to access the transformer?
- The building units should have individually metered units.

- Final service layout, transformer locations and site planning will need to be coordinated with the City of Glenwood Springs Electric Department.
- Owners GC/excavation company will be responsible for all trenching, including the line extension trenches to new transformer locations, electric primary and secondary conduit installation, electric pull vaults and transformer vaults.

Electric Department Contact Information:

- Doug Hazzard – 384-6353 (Electric Information)
 - Utility Billing – 384-6400 (Account setup; Water/Electric Meter Purchase)
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The following are Public Works Department comments:

PW Department Comments

- Design team to work with Engineering Department on stormwater, asphalt removal and replacement and other design criteria.
- The city is not in favor of storm drain lines exiting through a curb back as show in the plans. Please provide a detail for how this will work or provide a scupper detail crossing the sidewalk and how that will interact with the curb line. Storm lines that exit through curb or a scupper will be considered a portion of the private storm sewer system and will be maintained by the owner or owners of the property. Including curb replacement as needed.
- The 6" storm pipe on the south end of the property looks be draining across the sidewalk. This will not be allowed as it may cause an icing issue in the winter and will degrade the sidewalk structure. Please provide a detail or plan that does not require this outfall location.
- The update letter from the geotechnical engineer still calls out a detention pond situation for storm water, this proposal appears to have a foundation drain drywell within 6'-7' of the building foundation. Does the geotech approve this new design? Will the water within the drywell percolate into the soils? The current and updated report appear to note that the soils are clay and do not percolate well, thus how long will stormwater sit in such a designed well? Should the well be sump pumped to remove water?
- Will the drywell be accessible for cleaning and maintenance in its currently location?
- The 20' utility easement shown on the Topographic Map can be adjusted to fall within the new parking lot location as long as it touches the property line on the east and west or another utility easement.
- The 8' utility easement along the west property line of Lot 2 could be reduced to 7.5' to match the setback requirement, but this easement should extend the whole of the west property line from the south boundary to the north on the entirety of the two properties. It would also be recommended to use this same setback method to add

utility easements around the outside of the property if an existing easement does not currently exist.

Public Works Contact Information:

- Matthew Langhorst – 384-6438 (PW Director)