



TOWN OF JACKSON PLANNING & BUILDING DEPARTMENT TRANSMITTAL MEMO

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- ☒ Building
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- ☒ Town Attorney
- ☒ Police

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- ☐ Assessor
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- ☐ Qwest
- ☐ Lower Valley Energy
- ☐ Bresnan Communications

Special Districts

- ☒ START
- ☒ Jackson Hole Fire/EMS
- ☐ Irrigation Company

<p>Date: March 30, 2022</p> <p>Item #: P22-071</p> <hr/> <p>Planner: Tyler Valentine</p> <p>Phone: 733-0440 ext. 1305</p> <p>Fax: 734-3563</p> <p>Email: tvalentine@jacksonwy.gov</p> <hr/> <p>Owner: CCC's Ranch Inn, LLC PO Box 844 Jackson, WY 83001</p> <p>Applicant: Northworks Architects PO Box 4027 Jackson, WY 83001</p>	<p style="text-align: center;">REQUESTS:</p> <p>The applicant is submitting a request for a Development Plan for the properties located at 50 S. Cache (PIDN: 22-41-16-34-2-05-006), 45 E. Pearl Avenue (PIDN: 22-41-16-34-2-05-007), and 75 E. Pearl Avenue (PIDN: 22-41-16-34-2-05-008), legally known as N 1/2 LOT 14-16, BLK. 1, CACHE-1 , LOT 12-13, S 1/2 LOTS 14-16 BLK. 1, CACHE-1 and LOT 10-11, BLK. 1, CACHE-1 respectively.</p> <p>For questions, please call Tyler Valentine at 733-0440, x1305 or email to the address shown below. Thank you.</p>
<p>Please respond by: April 13, 2022 (Sufficiency) April 20, 2022 (with Comments)</p>	

RESPONSE: For Departments not using Trak-it, please send responses via email to:
 alangley@jacksonwy.gov

CONDOS AT CACHE + PEARL

DEVELOPMENT PLAN SUBMITTAL

MARCH 29, 2022



NORTHWORKS



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COVER LETTER

Crystal Creek Capital Real Estate Advisors, LLC

P.O. Box 844 | 25 S. Willow Street, Ste 200 | Jackson, Wyoming 83001 | Telephone 307-733-4733

Paul Anthony
Planning Director
Town of Jackson
P.O. Box 1687
Jackson, WY 83001

March 29, 2022

Re: Development Plan: 50 S. Cache Street; 45 E. Pearl Avenue; 75 E Pearl Avenue

Dear Mr. Anthony,

Please accept this Development Plan application for the redevelopment of the properties located at 50 S. Cache Street; 45 E. Pearl Avenue and 75 E Pearl Avenue. Included in this application are the following items:

1. Application
2. Project Narrative
3. Responses to the Sketch Plan Conditions for Approval
4. Updated responses to findings for approval
5. Updated responses to the Town of Jackson Planning Department pre-application conference
6. LDR compliance
7. Drawings
8. Housing mitigation plan
9. Parking Calculations
10. Engineering Report
11. Construction Management Plan
12. Geotechnical Report

The proposed project implements the goals noted in the Jackson/Teton County Comprehensive Plan. It fully conforms with the Town of Jackson land development regulations and design guidelines.

The project is a mixed-use building totaling approximately 68,000 square feet that includes commercial space at the street level and two additional levels of residential units. Upon completion, the project will add vibrancy to the southern edge of the downtown core.

No variances or administrative adjustments are proposed in this submittal.

Please notify me with any questions you may have. We look forward to working with you on this project.

Sincerely,



James D. Walter,
Founder & President

APPLICATION



PLANNING PERMIT APPLICATION
Planning & Building Department

150 E Pearl Ave. | ph: (307) 733-0440
P.O. Box 1687 | www.townofjackson.com
Jackson, WY 83001

For Office Use Only

Fees Paid _____ Date & Time Received _____
Application #s _____

Please note: Applications received after 3 PM will be processed the next business day.

PROJECT.

Name/Description: Cache / Pearl Redevelopment
Physical Address: 50. S Cache; 45 E. Pearl; 75 E. Pearl
Lot, Subdivision: 10-16 Block 1 Cache 1 PIDN: _____

PROPERTY OWNER.

Name: CCC's Ranch Inn, LLC Phone: 307-733-4733
Mailing Address: P.O. Box 844 Jackson, WY ZIP: 83001
E-mail: jim@crystalcreekcapital.com; jeanne@crystalcreekcapital.com

APPLICANT/AGENT.

Name: Northworks Architects and Planners Phone: 307-201-5324
Mailing Address: P.O. Box 4027 ZIP: 83001
E-mail: adepree@nwks.com

DESIGNATED PRIMARY CONTACT.

☒ Property Owner ☐ Applicant/Agent

TYPE OF APPLICATION. Please check all that apply; review the type of application at www.townofjackson/200/Planning

Use Permit	Physical Development	Interpretations
<input type="checkbox"/> Basic Use	<input type="checkbox"/> Sketch Plan	<input type="checkbox"/> Formal Interpretation
<input type="checkbox"/> Conditional Use	<input checked="" type="checkbox"/> Development Plan	<input type="checkbox"/> Zoning Compliance Verification
<input type="checkbox"/> Special Use	<input type="checkbox"/> Design Review	Amendments to the LDRs
Relief from the LDRs	Subdivision/Development Option	<input type="checkbox"/> LDR Text Amendment
<input type="checkbox"/> Administrative Adjustment	<input type="checkbox"/> Subdivision Plat	<input type="checkbox"/> Map Amendment
<input type="checkbox"/> Variance	<input type="checkbox"/> Boundary Adjustment (replat)	Miscellaneous
<input type="checkbox"/> Beneficial Use Determination	<input type="checkbox"/> Boundary Adjustment (no plat)	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Appeal of an Admin. Decision	<input type="checkbox"/> Development Option Plan	<input type="checkbox"/> Environmental Analysis

PRE-SUBMITTAL STEPS. To see if pre-submittal steps apply to you, go to www.townofjackson.com/200/Planning and select the relevant application type for requirements. Please submit all required pre-submittal steps with application.

Pre-application Conference #: P21-062 Environmental Analysis #: _____
Original Permit #: _____ Date of Neighborhood Meeting: _____

SUBMITTAL REQUIREMENTS. Please ensure all submittal requirements are included. The Planning Department will not hold or process incomplete applications. Partial or incomplete applications will be returned to the applicant. Go to www.townofjackson.com/200/Planning and select the relevant application type for submittal requirements.

Have you attached the following?

- ☒ **Application Fee.** Fees are cumulative. Go to www.townofjackson.com/200/Planning and select the relevant application type for the fees.
- ☒ **Notarized Letter of Authorization.** A notarized letter of consent from the landowner is required if the applicant is not the owner, or if an agent is applying on behalf of the landowner. Please see the Letter of Authorization template at <http://www.townofjackson.com/DocumentCenter/View/845/LetterOfAuthorization-PDF>.
- ☒ **Response to Submittal Requirements.** The submittal requirements can be found on the TOJ website for the specific application. If a pre-application conference is required, the submittal requirements will be provided to applicant at the conference. The submittal requirements are at www.townofjackson.com/200/Planning under the relevant application type.

Note: Information provided by the applicant or other review agencies during the planning process may identify other requirements that were not evident at the time of application submittal or a Pre-Application Conference, if held. Staff may request additional materials during review as needed to determine compliance with the LDRs.

Under penalty of perjury, I hereby certify that I have read this application and associated checklists and state that, to the best of my knowledge, all information submitted in this request is true and correct. I agree to comply with all county and state laws relating to the subject matter of this application, and hereby authorize representatives of Teton County to enter upon the above-mentioned property during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering.

Signature of Property Owner or Authorized Applicant/Agent

James D. Walter

Name Printed

March 28th, 2022
Date

President

Title

PROJECT NARRATIVE

PROJECT NARRATIVE

Overview:

The proposed project will re-develop a 1.29-acre seven lot parcel within the DC-2 zoning district located in the Town of Jackson. The site is bordered on the west by Cache Street, on the south by Pearl Avenue, on the east by a previously developed 0.17-acre DC-2 zoned site, and on the north by an alley which connects Cache Street and King Street.

Existing Site:

Currently, there are three major structures that exist on the site. These include the Ranch Inn, the Ranch Square Building and the Under the Willow Building. All above grade structures will be demolished. The new development will utilize approximately 68,000 total square feet (approximately 65,000 SF FAR area) of the total 71,219 square feet allowable within the 1.29-acre site. Some of the existing basements will remain in order to minimize earth work and shoring.

Background:

Since the proposed development exceeds 39,000 square feet, a development permit is required. The proposed development received unanimous approval from the Design Review Committee on 10/13/2021, as well as Sketch Plan approval from the Planning Commission on 12/01/2021 and from the Town Council on 01/18/2022. To address a "condition for approval" created during the Sketch Plan approval from the Town Council, the applicant changed the project design significantly. The applicant created two separate design options, both of which met the criteria to address "Condition 7" and submitted these two options to the Design Review Committee ("DRC") for their review, comment, and ultimate recommendations for approval. Both options, "Options A & B" were well-received by DRC members although "Option B" was approved by a vote of 5-1. The single DRC member who voted "no" was generally supportive of the proposed design changes that were presented, but preferred Option A which is what prompted their dissenting vote. As a result, this application contains the "Option B" design as a result of DRC's recommendation for approval. It also incorporates the recommendations from DRC to change the railings on the eastern building to be consistent with the remainder of the project as well as slight modifications to the chimneys. The Development Plan Review will be followed by a Grading Permit Pre-Application, and ultimately a Building Permit Application.

The Program:

The 68,000 square foot redevelopment will include commercial space at the street level, and 18 two, three, and four-bedroom condominium units on the second and third levels. 58 parking spaces are located in a covered garage located at grade level directly behind (north of) the redevelopment, and 11 outdoor covered spaces are located north of the parking garage and accessed from the alley bordering the property. To access the garage, one will drive through a curb cut located on Pearl Avenue. To note, we are eliminating one large existing curb cut on Pearl Avenue and relocating the smaller existing curb cut that is currently located within the fire lane approximately 40 feet west to serve as the access point for the proposed parking garage. The proposed curb cut has been closely coordinated with Teton County Fire/EMS to ensure that the access and use of the fire station across Pearl Avenue is not impeded whatsoever.

Conclusion:

This Development Plan application complies with the Land Development Regulations, the Design Guidelines, the Comprehensive Plan and is being recommended for approval by Planning staff and the DRC. As noted above, the Development Plan submittal contains a number of design revisions that were informed by the Sketch Plan Conditions for Approval, as well as past commentary from Town staff, the Design Review Committee, the Planning Commission, and Town Council.

RESPONSES TO SKETCH
PLAN CONDITIONS FOR
APPROVAL

SKETCH PLAN CONDITIONS FOR APPROVAL

1. As part of the Development Plan submittal, the applicant shall identify the location of the trash enclosure, 3 ADA parking spaces, and bike parking consistent with the LDRs.

Trash enclosures, ADA parking spaces, and bike parking (both sidewalk bike racks, and interior bike storage) are all indicated on the submitted plans.

2. Prior to Development Plan submittal, the applicant shall work with Jackson Teton County Fire/EMS to ensure the minimum amount of red curb is provided for Station #1 street parking.

The proposed plans, including red curb extents, have been reviewed and approved by Kathy Clay and Jackson Teton County Fire/EMS. The overall extents of the existing red curb will not be impacted by the proposed development. The only difference between the existing red curb and the proposed red curb will be the location of the curb cut located within the red curb. The centerline of the proposed curb cut for parking garage access is to be located approximately 40' West of the centerline of the existing curb cut which is to be removed.

3. As part of the Development Plan submittal, the applicant shall provide details on the final location and operation of the garage door along Pearl Avenue.

The proposed plan has been revised so that the garage door is set back approximately 49' from the sidewalk. This design change will provide enhanced pedestrian safety and increased driveway length for vehicle queuing below the building above. Vehicular access to the parking garage will be granted via the use of remote transponders so no stacking/queuing within the driveway is anticipated. Additionally, the façade of the retail space immediately adjacent to the driveway has been recessed from the sidewalk as well which will further increase pedestrian safety.

4. As part of the Development Plan submittal, the applicant shall provide a landscape plan prepared by a Wyoming Landscape Architect for the street trees and private landscaped courtyard.

Please refer to the submitted plans. All landscape plans are prepared by Design Workshop who is licensed as a Landscape Architect in the State of Wyoming.

5. The applicant shall work with the Engineering Department prior to Development Plan submittal to determine the appropriate amount of alley improvements, if any, potentially including patching areas of disturbance or paving the portions of the alley adjacent to the development.

The proposed development's design and engineering team met with the Engineering Department to ensure that all applicable comments from the Sketch Plan review are being incorporated in the Development Plan. Among the revisions made since Sketch Plan, the design and engineering team has revised the plans to accommodate all utility service clearances along the alley wholly within the subject property.

6. As part of the Development Plan submittal, the applicant shall allocate parking credits to the commercial spaces and provide a plan for parking allocation and shared parking between the commercial and residential uses.

As noted in the Planning Department Staff report from the previously approved Sketch Plan, the subject property has 33.38 parking credits available. These parking credits shall be allocated to each retail space based on the exact amount of parking currently required for each space based on its

SKETCH PLAN CONDITIONS FOR APPROVAL (CONTINUED)

current proposed use and square footage, as dictated by the LDRs and as shown in the submitted parking calculations. Parking spaces as well as excess credits will be assigned to individual units (commercial and residential) upon sale.

As indicated in the submitted parking calculations, we are required to provide 24 parking spaces (before applying any credits) for the retail spaces. 11 of those required spaces will be provided by the on-street availability. Additionally, 11 covered outdoor parking spaces are proposed on the North side of the building and accessed from the alley. These spaces are intended to be used by retail employees and their customers. Finally, one ADA space dedicated exclusively for retail use will be provided. All remaining parking within the garage, including 3 additional ADA spaces, are intended for residential use. Total spaces required for the development: 27 (after applying credits to retail spaces) Total Spaces provided: 69

7. As part of the Development Plan submittal, the applicant shall make design revisions to address the perceived scale of the building. The project should appear to be two separate buildings or phases, although it may remain connected as a single building. Examples of changes could include 1) extension outward or recess of the building front and 2) adjustments at the street level building envelope and pedestrian zone to provide for more variation of experience.

Significant modifications were made to the building design to address Condition #7. These extensive design modifications are as follows:

1. The window panes on level three were reduced in size and recessed to reduce the perceived scale of the building.
2. The width of the solid pier at the corner of Cache and Pearl has been reduced by over 50%. This change allowed us to increase the width of the adjacent commercial storefront glazing. The result provides more variation in the pedestrian experience and a decreased scale of the building.
3. All siding previously shown as cut gray stone have been changed to Montana Moss Rock stone with a randomized, dry-stack installation (or similar). This material is commonly used to enhance the western character of buildings in Jackson. In addition, the varied texture of stone creates a less monolithic appearing building and therefore reduces the perceived scale of the building.
4. All siding previously shown as clay tile shingles have been changed to a premium large-format wood siding. This change creates a more sympathetic transition to adjacent, historic wood buildings, and reduces the perceived scale of the building.
5. The glass railings have been changed to metal. This change is a more traditional and “western” application for a railing system. It also reduces the perceived scale of the building.
6. Recessing the third-floor windows resulted in an opportunity to articulate the third-floor windows by adding trellis structures and coping details in front of each window. This change reduced the perceived scale of the building.
7. A curb bulb-out at the corner of Cache & Pearl has been added to the project. This adjustment at the street level and pedestrian zone provides for more variation of experience. It also reduces the perceived scale of the building.

SKETCH PLAN CONDITIONS FOR APPROVAL (CONTINUED)

8. On Pearl Avenue, directly west of the pitched roof building, the façade is now recessed at the second level below the amenity deck by approximately 4.5'. The siding was changed to matte metal panel cladding. The massing and material revisions clearly distinguish this area as a connector or link between the adjacent buildings and their perceived "phases" of development.
9. On Pearl Avenue, a portion of the first level is now recessed between 10' and 50' or approximately 1,800 square feet. This adjustment significantly enhances the pedestrian experience by providing more variation at the street level.
10. A ground floor residential unit was eliminated on the eastern corner of the pitched roof building and replaced with a commercial space. This change to the street level further activates and enhances the pedestrian experience.
11. The easternmost building on Pearl Street, east of the metal clad "Connector" now has a pitched roof over the level three units. This change relates to the adjacent "Sweetwater cabins" and creates a context where the project appears to be two separate buildings or phases yet connected to one single building. It also reduces the overall perceived scale of the building.
12. On the pitched roof building, we introduced dormers at the level three windows to provide a more residential appearance and varied roofline form. This change reduces the perceived scale of the building and supports the effort to create two separate buildings or phases yet connected to one single building.
13. Changed the façade material on the pitched roof building from stone to reclaimed wood. This change relates to the adjacent context of the Sweetwater building and further differentiates the pitched roof building from the overall project.
14. Provided additional punched windows at Level Two along easternmost length of building frontage to reduce the perceived scale of the building.
15. Increased the east building setback from just under 12" to 3' minimum to provide more space between the proposed building and the neighboring building.
16. We clad the elevator overrun walls at the pitched roof building in stone and included traditional cap detailing to accentuate the east and west wings of the building as separate and distinct from the project.

UPDATED RESPONSES TO FINDINGS FOR APPROVAL

FINDINGS FOR APPROVAL

1. "Consistent with the desired future character described for the site in the Jackson/Teton County Comprehensive Plan"

The proposed project is in Character District 2, Subarea 2.3, as defined in the Comprehensive Plan. This proposed redevelopment implements the desired future character for this Transitional area in multiple ways. The Comprehensive Plan calls for a vibrant mix of land uses, an engaging pedestrian experience, an attractive streetscape and a more consistent building form that replaces the existing mix of inconsistent forms.

The proposed redevelopment accomplishes all elements of the desired future character of the subarea. Specifically, the proposal includes a mix of ground level commercial uses with residential uses on the second and third levels. The pedestrian experience, particularly on Pearl Avenue, will be greatly improved with an attractive and engaging streetscape that includes a new curb-bulb out at the intersection of Cache & Pearl, new sidewalks, street trees, and street furnishings. The proposed building also replaces an existing collection of inconsistent building forms and sizes with a more consistent building form across the site, with a new development that complies with the Land Development Regulations, Design Guidelines, and Comprehensive Plan.

2. Is not subject to the finding of "Achieve the standards and objective of the Natural Resource Overlay (NRO) and Scenic Resources Overlay (SRO), if applicable."

N/A. This site is not in either the NRO or SRO.

3. "Does not have significant impact on public facilities and services, including transportation, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities."

The proposed redevelopment replaces an existing 57 room motel with 18 condominium units. The new project is providing far more parking spaces than required (69 provided vs. 27 required). As a result of the significant reduction in impact, this redevelopment of the Ranch Inn generates in excess of 3 housing credits. Curb cuts are being eliminated and reduced from two (including one very wide existing curb cut) to one on Pearl Avenue. Traffic will be significantly decreased (in summer of 2021, there were 24,240 customers using the Ranch Inn). 18 residential units will result in a significant reduction of traffic and use. Lastly, the applicant's team has worked closely with town engineers, public works department and the fire department to fully satisfy all infrastructure needs.

4. "Complies with all relevant standards of these LDRs and other Town Ordinances as can be determined by the level of detail of a Sketch Plan."

This final plan complies.

5. "Is in substantial conformance with all standards or conditions of any prior applicable permits or approvals."

The Final Plan responds to the Sketch Plan conditions of approval. Please see the attached *Response to Conditions for Approval* for a detailed description of the responses.

UPDATED RESPONSES TO THE TOWN OF JACKSON PLANNING DEPARTMENT PRE-APPLICATION CONFERENCE (30 JUNE 2021)

Note: Following this pre-application conference, the design and program of the project was changed to address the comments made by staff. All text indicated with italic font within this section are updated responses, where applicable, for the current Development Plan Submission

RESPONSES TO THE TOWN OF JACKSON PLANNING DEPARTMENT PRE-APPLICATION CONFERENCE (30 JUNE 2021)

Note: Following this pre-application conference, the design and program of the project was changed to address the comments made by staff. All text indicated with italic font within this section are updated responses, where applicable, for the current Development Plan Submission

1. Massing: The general subtractive/additive massing looks very good. On the Cache frontage, staff recommends stepping the building down from 3 stories to 2 stories so that it transitions well with the property to the north (10 E Broadway) which is in the TS-1 zone allowing a max of 2 stories. If project extends all the way to Sweetwater block, staff strongly recommends that the building step down to 2 stories if possible here too.

Since the comment was made, the applicant has refined the building design, setbacks, and overall massing. The design contained within this sketch plan submittal was unanimously approved by the Design Review Committee (“DRC”) on October 13, 2021. The proposed building design includes a setback at the third level across 100% of the Cache Street and Pearl Avenue frontages. The setbacks range from 3 feet to 20 feet which exceed the land development regulations requirements.

Development Plan Update: In response to the Conditions for Approval from Sketch Plan, additional significant refinements have been made to the building design to reduce the perceived scale of the building and enhance the relationship between the proposed building design the surrounding local and regional context. In particular, please see the written responses to Condition for Approval #7 as a summary of the extensive changes made to address these points and other feedback received from Town staff, Planning Commission, and Town Council.

2. Single project massing: In addition to the subtractive/additive massing, the project will need to address its massing using horizontal and/or vertical techniques (see Sec. 1.16/1.22) to meet the Design Guidelines (both regular and DDO – see below). This is because the project is being proposed as a very large, unified project (approx. 350’ of frontage on Pearl if carried to the Sweetwater property), which means that perhaps the key issue for this project will be finding creative ways to break up the massing into much smaller modules (see Sec. 1.13.a, b & c). For example, a monolithic building designed like the Marriott on Simpson Avenue will not be acceptable in this location in the DDO.

Since the comment was made, the applicant has refined the building design and overall massing. The design contained within this sketch plan submittal was unanimously approved by the Design Review Committee (“DRC”) on October 13, 2021. Smaller modules and variability in the materiality of the exterior are included as part of the design strategy to address the design guidelines. The proposed building design includes projected and recessed modules of different materials which breaks the scale of the building into smaller sections. These modules have also been organized to provide a hierarchy and order between the retail and residential entrances.

Development Plan Update: See updated response to Item 1 above.

3. Downtown Design Overlay (“DDO”): There are a number of elements of the DDO and Area 2 that will need to be incorporated into the design.

Since the comment was made, the applicant has refined the building design and has incorporated the Downtown Design Overlay/Area 2 standards. The submittal was unanimously approved by the DRC on

RESPONSES TO THE TOWN OF JACKSON PLANNING DEPARTMENT PRE-APPLICATION CONFERENCE (30 JUNE 2021)

October 13, 2021.

Development Plan Update: See updated response to Item 1 above.

4. First story windows/transparency: The amount of glazing should be similar to traditional Jackson buildings (see Sec. 1.21). Concept drawings show street level floor to ceiling windows which is too much, might try a kick plate or some other techniques to reduce glazing. The second story windows also show more transparency than traditional structures.

Since the comment was made, the applicant has significantly reduced glazing at both street level and upper stories using a variety of techniques that more closely align with traditional structures. The proposed building design was unanimously approved by the DRC on October 13, 2021, and features kick plates below the street level storefront glazing, and a variety of punched window types on the second floor.

5. Materials: The variable brick is very good per Sec. 1.23/1/24/1.27, however, using only one type of brick for a building this size may not meet all the DDO guidelines, especially the goals of breaking the building into modules. Perhaps consider the use of different colors/textures of bricks in clean logical manner.

Since the comment was made, the applicant has refined the building design to incorporate additional materials to the exterior facades that align with the DDO guidelines. The submittal was unanimously approved by the DRC on October 13, 2021. The proposed building design has eliminated brick as a building material and now features a material palette of stone and clay tile shingles at Levels 1-2, black cedar siding at Level 3, stained cedar plank exterior ceilings and canopies, black aluminum windows, and black metal and wood detailing at the canopy structures and cornices, respectively. These material changes are a direct response to the comments received and further support the project's compliance with the Design Guidelines.

Development Plan Update: See updated response to Item 1 above. Additionally, the exterior material palette has been revised as follows:

- *All areas previously shown as cut gray stone are changed to Montana moss rock stone with a randomized, dry-stack installation (or similar), which is familiar to the local area. Additionally, the more varied texture and stone create a less monolithic appearance that reduces the perceived scale of the building.*
- *All areas previously shown as clay tile shingles are revised to a premium large-format wood siding to create a more sympathetic transition to adjacent, historic wood buildings, and to reduce the perceived scale of the building.*
- *A limited portion of façade along Pearl Avenue has been revised in concert with massing revisions to address Condition for Approval #7. The introduction of matte metal panel in this limited area is appropriate to distinguish this part of the building as a "connector" between what is to be perceived as two phases. Further, the use of metal panel in limited areas (18% of Pearl frontage as proposed in this location) is specifically referenced in the Design Guidelines as an acceptable material compatible with maintaining Western Character*
- *The easternmost section of the building has been revised in accordance with Condition for Approval #7 to include a pitched roof and other architectural changes to reduce the overall perceived scale of the development and relate to the architectural context of the neighboring property.*

RESPONSES TO THE TOWN OF JACKSON PLANNING DEPARTMENT PRE-APPLICATION CONFERENCE (30 JUNE 2021)

6. Pedestrian frontage: The direction from staff is that the Cache Frontage should be covered boardwalk (with continuous canopy with no gaps) and the Pearl frontage should be Trees in Grates (concrete sidewalk with pavers and trees). This appears to be what is generally shown in concept drawings. Depending on the location of the curb in relation to the property lines, the required 13.5 pedestrian frontage may not fit entirely within the public ROW. Pedestrian frontages sometimes overlap onto private property, but the Town tries to limit unreasonable encroachments when necessary. In such cases, an Administrative Adjustment may be used but in no case will the pedestrian frontage be reduced below 11' in width and preferably not below 12". On some streets, the existing curb can be moved away from the property line to provide additional pedestrian width.

Final site plan, pedestrian frontages, and required public right of way improvements will be developed prior to submitting for the Development Plan. No unnecessary encroachment agreements are anticipated.

Development Plan Update: A curb bulb-out at the corner of Cache & Pearl has been added to provide additional pedestrian space in front of the corner retail.

7. Should consider cutting building corner on first floor for entrance and additional pedestrian space. However, if curb extensions are included then cutting the corner may not be necessary.

Since the comment was made, the applicant has adjusted the plan so that corner "module" is recessed from the adjacent modules to help break down the scale of the facades and provide additional pedestrian space at the corner. This design was unanimously approved by the DRC on October 13, 2021.

Development Plan Update: A curb bulb-out at the corner of Cache & Pearl has been added to provide additional pedestrian space in front of the corner retail.

Additionally, the width and material of the outside building corner pier at the intersection of Cache & Pearl has been revised to create additional pedestrian space. The width of the solid pier has been reduced by over 50%. The increased visibility and transparency of the commercial space promotes a more vibrant pedestrian experience. Materially, the solid pier has been revised from the previously-shown clay tile shingles to now show a painted black metal pier that presents itself as a part of the adjacent storefront. The intended architectural effect is to create the appearance of the commercial storefront wrapping around the corner, further promoting a more inviting pedestrian experience at the primary corner of the proposed development.

8. Uses: Is the intent to have on 8,000 sf retail space on the Cache frontage? If so, would be nice to break this into at least two smaller spaces. More variety at ground level better activates the street. If project ends including the entire Pearl frontage, the goal would be to include a number of individual commercial spaces along the street and to avoid first level condos. Outdoor dining and public amenity space should be considered in overall program if possible.

Since the comment was made, the applicant has revised the ground level plans to have multiple, individual, smaller commercial spaces.

RESPONSES TO THE TOWN OF JACKSON PLANNING DEPARTMENT PRE-APPLICATION CONFERENCE (30 JUNE 2021)

9. Sec. 1.7; 1.8; 1.9;1.12;1.13 (1.13.b & c smaller modules);

Since the comment was made, the applicant has significantly revised the building design to better address and comply with previous review comments and the Design Guidelines. This design was unanimously approved by the DRC on October 13, 2021.

Development Plan Update: See updated responses above.

10. The construction management plan will go before the Town Council. Considerations on staging should be considered as soon as possible to get ahead of potential issues.

The applicant will submit a construction management plan to the Town Council along with the Development Plan application.

Development Plan Update: A construction management plan is included in the Development Plan submission.

11. Provide turning movements for the underground parking.

Underground parking is not being considered at this time.

12. Pathways will be recommending a bulb-out or curb extension at Cache and Pearl.

If required by Pathways, bulb-out or curb extensions will be implemented.

Development Plan Update: A curb bulb-out at the corner of Cache & Pearl has been added to provide additional pedestrian space in front of the corner retail.

13. If the plan is to only develop the western 3 lots: The western 3 lots total 2,500 sf and allow a 1.3 FAR of 29,250 sf. The plans show an above-ground floor area of 51,144 sf which far exceeds the allowed FAR. Staff is assuming the use of the 2:1 bonus, but the housing calculator says otherwise and describes all unit's short-term rental. FAR can be transferred from the other 4 eastern lots, but the total FAR for all 7 lots is 68,250 sf. Essentially this would be a 17,106 sf transfer from the eastern 4 lots. Please explain how this will work with the existing Ranch Inn Hotel.

The proposed development will demolish all above ground structures. According to the Alta Survey provided by Nelson Engineering, the Gross Surface Area of the seven lots is 1.29 Acres (54,784 square feet). Using a 1.3 FAR ratio, the resulting available square footage permissible to build (assuming existing structures will be demolished) is 71,219.2 square feet.

14. Please describe the phasing plan, if any.

Phasing is not being proposed at this time, however, if a phased plan is implemented, the applicant will work with Staff to clarify the timelines.

RESPONSES TO THE TOWN OF JACKSON PLANNING DEPARTMENT PRE-APPLICATION CONFERENCE (30 JUNE 2021)

15. The Fire Department may add, keep, or reduce the amount of re-curb along Pearl Ave as a result of the new Fire Station. This may impact the amount of on-street parking credits for this development. At this time the Fire Department has not yet indicated a change to the red curb but may do so as part of the Sketch Plan and/or Development Plan.

The applicant will be in close contact with Jackson Hole Fire/EMS and will coordinate the design of the proposed development with the needs of the fire station. The viability of on street parking will be finalized prior to submitting the Development Plan.

Development Plan Update: The proposed plans, including red curb extents, have been reviewed and approved by Kathy Clay and Jackson Teton County Fire/EMS. The overall extents of the existing red curb will not be impacted by the proposed development. The only difference between the existing red curb and the proposed red curb will be the location of the curb cut located within the red curb. The centerline of the proposed curb cut for parking garage access is to be located approximately 40' West of the centerline of the existing curb cut which is to be removed.

16. Staff needs a detailed breakdown of how housing credits and parking credits will be applied to all ownership spaces, specifically the ground-level commercial. In the future if uses change, how will parking be designated since there appears to be a surplus of parking.

Housing and parking credits will be finalized prior to the submittal of the Development plan dependent upon the final use allocation of the ground-level commercial spaces.

Development Plan Update: See response to Sketch Plan Condition for Approval #6 included in the Development Plan submission.

17. Updates needed on the parking sheet and housing calculator:

- **16 units are shown in the parking chart, yet the floor plans indicate 18 units. Please update the parking chart to reflect the correct amount of parking per unit.**

17 units are currently being proposed. The parking chart is updated to reflect this quantity.

Development Plan Update: 18 residential units are currently being proposed. The Parking and Housing calculations have been updated accordingly and included in the Development Plan submission.

- **the housing calculator shows 3 units as conventional lodging, please confirm these are the efficiency units shown on the floor plans? Also, there are 2 other efficiency units shown on the floor plans, are these also conventional lodging?**

The housing calculator has been updated to reflect current and proposed uses.

LDR COMPLIANCE

LDR COMPLIANCE

PROJECT INFORMATION

N 1/2 LOT 14-16, BLK. 1, CACHE-1
 50 S Cache Street
 Jackson, WY 83001
 PIDN: 22-41-16-34-2-05-006
 Lot Size: 0.344 Acres (13,557 sf)

LOT 12-13, S 1/2 LOTS 14-16 BLK. 1, CACHE-1
 45 East Pearl Avenue
 Jackson, WY 83001
 PIDN: 22-41-16-34-2-05-007
 Lot Size: 0.602 Acres (26,238 sf)

LOT 10-11, BLK. 1, CACHE-1
 75 East Pearl Avenue
 Jackson, WY 83001
 PIDN: 22-41-16-34-2-05-008
 Lot Size: 0.344 Acres (14,989 sf)

2.2.15. DC-2: Downtown Core -2

Town of Jackson Applicable LDRs

1. Lot Standards				
Building Setbacks (Sec 9.4.8.)				
General	Source	Notes	Proposed	Complies
Primary street setback range (min.-max)	ToJ LDR Section 2.2.15.B.1	0' – 5'	0' – 5'	Yes
Secondary street setback range (min.-max)	ToJ LDR Section 2.2.15.B.1	0' – 5'	0' – 5'	Yes
Side interior (min.)	ToJ LDR Section 2.2.15.B.1	0' or 5'	0'	Yes
Rear (min.)	ToJ LDR Section 2.2.15.B.1	0' or 5'	0'	Yes
Abutting protected zone	ToJ LDR Section 2.2.15.B.1	10'		n/a
Landscaping (Div. 5.5.)				
Landscape surface ratio (min.)	ToJ LDR Section 2.2.15.B.1	n/a		Yes
Plan units (min.)	ToJ LDR Section 2.2.15.B.1	n/a		Yes
Fencing				
Height in any street or side yard (max)	ToJ LDR Section 2.2.15.B.1	4'		n/a

Height in rear yard (max)	ToJ LDR Section 2.2.15.B.1	6'		n/a
Setback from pedestrian frontage	ToJ LDR Section 2.2.15.B.1	1'		n/a
Setback from side or rear lot line (min.)	ToJ LDR Section 2.2.15.B.1	0'	0'	Yes
Parking Setbacks (Sec. 9.4.8.)				
Primary street, above ground (min.)	ToJ LDR Section 2.2.15.B.1	30'		n/a
Secondary street, surface parking (min.)	ToJ LDR Section 2.2.15.B.1	30'		n/a
Secondary street, tuck under, enclosed, or structured parking screened by building (min.)	ToJ LDR Section 2.2.15.B.1	0'	40'	Yes
Access				
Curb cut width (mx)	ToJ LDR Section 2.2.15.B.1	24'	24'	Yes
2. Bulk Standards				
Street Façade (Sec. 9.4.11.)				
Width of ground and 2 nd story in primary street setback range	ToJ LDR Section 2.2.15.B.2			
% of lot width (min.)	ToJ LDR Section 2.2.15.B.2	80%		Yes
Length from street corner (min.)	ToJ LDR Section 2.2.15.B.2	30'		Yes
Width of ground and 2 nd story in secondary street setback range	ToJ LDR Section 2.2.15.B.2			
% of lot width (min.)	ToJ LDR Section 2.2.15.B.2	80%		Yes
Length from street corner (min.)	ToJ LDR Section 2.2.15.B.2	30'		Yes
Building Height (Sec. 9.4.9.)				
Height (max) if roof pitch $\geq 5/12$	ToJ LDR Section 2.2.15.B.2	46'	46'	Yes

Height (max) if roof pitch <5/12	ToJ LDR Section 2.2.15.B.2	42'	42'	Yes
Stories (max)	ToJ LDR Section 2.2.15.B.2	3	3	Yes
Height (min.) in any street setback range	ToJ LDR Section 2.2.15.B.2	16'	16'	Yes
Building Stepback (Sec. 9.4.12.)				
Stepback for any 3 rd story street façade or street façade over 30' (min.)	ToJ LDR Section 2.2.15.B.2	20'	20'	Yes
Encroachment in stepback (max % of overall façade width)	ToJ LDR Section 2.2.15.B.2	40%	40%	Yes
A building with only residential use that has at least 4 units is exempt from stepback requirement	ToJ LDR Section 2.2.15.B.2			n/a
Scale of Development				
Floor area ratio (FAR) (max) (E.3.)	ToJ LDR Section 2.2.15.B.2	1.3	GSA (1.29 Acres) 54,784 * 1.3 = 71,219.2 sf	Yes
Deed restricted housing exemption (Sec. 7.8.3.)	ToJ LDR Section 2.2.15.B.2			n/a
Workforce housing floor area bonus (Sec. 7.8.4.)	ToJ LDR Section 2.2.15.B.2			n/a
3. Form Standards				
Pedestrian Frontage				
Covered walkway	ToJ LDR Section 2.2.15.B.3	See Sec 2.2.1.C.1	Cache Street	Yes
Trees in grates	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.C.2	Pearl Ave.	Yes
Building Frontage Options				
Shopfront	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.D.2	Shopfront	Yes
Residential	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.D.4.		n/a
Lodging	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.D.5.		n/a

Parking Type Options				
On-street parking	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.E.1	Yes	Yes
Surface parking	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.E.2.		n/a
Tuck-under parking	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.E.4		n/a
Enclosed parking	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.E.3.		n/a
Structured parking	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.E.5.	Yes	Yes
Underground parking	ToJ LDR Section 2.2.15.B.3	See sec. 2.2.1.E.6.		n/a
4. Environmental Standards				
Natural Resource Setback (min) (Sec 5.1.1.)				
Cache Creek south of Cache Creek Dr.	ToJ LDR Section 2.2.15.B.4	20'		n/a
Flat Creek north of Hansen	ToJ LDR Section 2.2.15.B.4	25'		n/a
Flat Creek south of Hansen	ToJ LDR Section 2.2.15.B.4	50'		n/a
Wetland	ToJ LDR Section 2.2.15.B.4	30'		n/a
Irrigation Ditch Setback (min) (Sec. 7.7.4.D.)				
Irrigation Ditch	ToJ LDR Section 2.2.15.B.4	15'		n/a
Natural Resource Overlay (NRO)(Sec. 5.2.1.)				
5. Scenic Standards				
Exterior Lighting (Sec 5.3.1.)				
Light trespass is prohibited	ToJ LDR Section 2.2.15.B.5			Yes
All lights over 600 lumen shall be fully shielded.	ToJ LDR Section 2.2.15.B.5			Yes
Max lumens per sf of site development	ToJ LDR Section 2.2.15.B.5	3	TBD	Yes
Lumens per site (max)	ToJ LDR Section 2.2.15.B.5			Yes
All fixtures		100,000		Yes

Unshielded fixtures		5,500		Yes
Light color	ToJ LDR Section 2.2.15.B.5	<3000 Kelvin		Yes
Scenic Resource Overlay (SRO)(Sec. 5.3.2.)				
6. Natural Hazards to Avoid				
Steep Slopes (Sec 5.4.1.)				
Development prohibited	ToJ LDR Section 2.2.15.B.6	Slopes>25%		n/a
Hillside CUP required	ToJ LDR Section 2.2.15.B.6	Parcel with average cross-slope > 10%		n/a
Areas of Unstable Soils (sec. 5.4.2.)				
Fault Area (sec. 5.4.3.)				
Floodplains (sec 5.4.4.)				
Wildland Urban Interface (sec. 5.4.5.)				
7. Signs (nonresidential) (Div. 5.6.)				
Number of signs (max)	ToJ LDR Section 2.2.15.B.7	3 per business year	TBD	TBD
Background color	ToJ LDR Section 2.2.15.B.7	No white or yellow	TBD	Yes
Sign Area				
Total sign area (max)	ToJ LDR Section 2.2.15.B.7	3 sf per linear ft of street façade width up to 150 sf	TBD	Yes
Penalty	ToJ LDR Section 2.2.15.B.7	10% per projecting and freestanding sign		
Sign Type Standards				
Canopy Sign	ToJ LDR Section 2.2.15.B.7			TBD
Clearance (min)	ToJ LDR Section 2.2.15.B.7	7'6" from average grade		
Setback (min)	ToJ LDR Section 2.2.15.B.7	18" from back of curb		
Freestanding sign	ToJ LDR Section 2.2.15.B.7			TBD
Height (max)	ToJ LDR Section 2.2.15.B.7	6'		

Setback (min)	ToJ LDR Section 2.2.15.B.7	5'		
Projecting sign	ToJ LDR Section 2.2.15.B.7			TBD
Height (max)	ToJ LDR Section 2.2.15.B.7	24' above grade		
Clearance (min)	ToJ LDR Section 2.2.15.B.7	7'6" from average grade		
Setback (min)	ToJ LDR Section 2.2.15.B.7	18" from back of curb		
Window Sign	ToJ LDR Section 2.2.15.B.7			
Window surface coverage (max)	ToJ LDR Section 2.2.15.B.7	25% up to 16 sf		
Temporary signs	ToJ LDR Section 2.2.15.B.7	(sec 5.6.1.)		
8. Grading, Erosion Control, Stormwater				
Grading (sec 5.7.2.)				
Erosion Control (sec 5.7.3.)				
Erosion shall be controlled at all times	ToJ LDR Section 2.2.15.B.8			Yes
Stormwater Management (sec.5.7.4.)				
No increase in peak flow rate or velocity across property lines	ToJ LDR Section 2.2.15.B.8			Yes

9. Physical Development Permits Required							
Physical Development	Sketch Plan (Sec. 8.3.1.)	Development Plan (Sec. 8.3.2.)	Building Permit (Sec. 8.3.3.)	DRC Review (Sec. 8.2.6.)	Sign Permit (Sec. 8.3.5.)	Grading Permit (Sec. 8.3.4.)	Floodplain Permit
>39,000 sf	X	X	X	X		Sec.5.7.2.	n/a
Sign					X		

1. Allowed Uses				2. Use Requirements	
Use	Permit	Individual Use (max)	Density (max)	Parking (min.) (Div. 6.2.) (E.1.)	Affordable Workforce Housing Units (min) (Div.6.3.)

Lodging					
Short-term rental Unit (6.1.5.c.)	B(LO)	n/a	n/a	1/DU if <2 bedrooms and <5090 sf; otherwise 1.5/DU	0.204*bedrooms
Commercial Uses					
Office (6.1.6.B.)	B	n/a	n/a	1.65/1,000 sf	0.000493*sf
Retail (6.1.6.C.)	B(LO)	12,500 sf excluding basement storage	n/a	2.25/1,000 sf	0.000431*sf
Service (6.1.6.D.)	B(LO)		n/a	1.5/1,000 sf	0.000431*sf
Restaurant/Bar (6.1.6.E.)	B(LO)		n/a	1/110 sf dining area + 1/60 sf bar area	0.001197*sf

DRAWINGS

ARCHITECTURAL DRAWINGS



- ① REDUCED LEVEL THREE WINDOW PANE SIZE AND RECESSED WINDOWS **TO REDUCE PERCEIVED SCALE OF THE BUILDING**

- ② THE WIDTH OF THE SOLID PIER AT THE CORNER HAS BEEN REDUCED BY OVER 50% ON BOTH FRONTAGES TO INCREASE THE WIDTH OF THE ADJACENT COMMERCIAL STOREFRONT GLAZING **TO PROVIDE MORE VARIATION OF PEDESTRIAN EXPERIENCE.**

- ③ ALL AREAS PREVIOUSLY SHOWN AS CUT GRAY STONE ARE REVISED TO BE A MONTANA MOSS ROCK STONE WITH A RANDOMIZED, DRY-STACK INSTALLATION (OR SIMILAR) THAT IS VERY FAMILIAR TO THE AREA. ADDITIONALLY, THE MORE VARIED TEXTURE AND TONE CREATES A LESS MONOLITHIC APPEARANCE AND HELPS **TO REDUCE PERCEIVED SCALE OF THE BUILDING**

- ④ ALL AREAS PREVIOUSLY SHOWN AS CLAY TILE SHINGLES ARE REVISED TO A PREMIUM LARGE FORMAT WOOD SIDING TO CREATE A MORE SYMPATHETIC TRANSITION TO ADJACENT, HISTORIC WOOD BUILDINGS, AS WELL AS **TO REDUCE PERCEIVED SCALE OF THE BUILDING**

- ⑤ GLASS RAILINGS CHANGES TO METAL TO ACHIEVE BETTER CONNECTION TO **WESTERN CHARACTER** AND SCALE

- ⑥ ADDED ARTICULATION INCLUDING TRELLIS STRUCTURES AND COPING DETAILS



CACHE ELEVATION - PROPOSED



CACHE ELEVATION - PREVIOUS



① PUSH BACK FAÇADE AT LEVEL 2 BELOW AMENITY DECK APPROXIMATELY 4.5' AND INTRODUCE MATTE METAL PANEL CLADDING. THE MASSING AND MATERIAL REVISIONS SERVE TO CLEARLY DISTINGUISH THIS AREA AS **A CONNECTOR OR LINK BETWEEN THE ADJACENT PERCEIVED "PHASES" TO THE EAST AND WEST.**

② PUSH BACK LEVEL 1 BETWEEN 10' AND 50', OR APPROXIMATELY 1800 SF **TO SIGNIFICANTLY ENHANCE THE PEDESTRIAN EXPERIENCE**

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⑩ PROVIDE PITCHED ROOF OVER LEVEL 3 UNITS **TO RELATE TO ADJACENT CONTEXT**

⑪ INTRODUCE DORMERS AT LEVEL 3 WINDOWS TO PROVIDE A MORE RESIDENTIAL APPEARANCE, VARIED ROOFLINE FORM, AND **REDUCE THE PERCEIVED SCALE OF THE BUILDING.**

⑫ CHANGE FACADE MATERIAL AT EASTERNMOST LENGTH OF BUILDING FRONTAGE FROM STONE TO RECLAIMED WOOD **TO RELATE TO ADJACENT CONTEXT**

⑬ PROVIDE PUNCHED WINDOWS AT LEVEL 2 **TO REDUCE THE PERCEIVED SCALE OF THE BUILDING**

⑭ INCREASE EAST BUILDING SETBACK FROM UNDER 12" TO 3' MINIMUM **TO PROVIDE MORE SPACE BETWEEN THE PROPOSED BUILDING AND NEIGHBORING BUILDING.**

⑮ CLAD ELEVATOR OVERRUN WALLS AT EAST WING IN STONE, WITH TRADITIONAL CAP DETAILING **TO ACCENTUATE THE EAST AND WEST WINGS OF THE BUILDING AS SEPARATE AND DISTINCT.**





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PEARL ELEVATION - PROPOSED



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PEARL ELEVATION - PREVIOUS



PROPOSED DESIGN



PROPOSED DESIGN



PREVIOUS DESIGN



PREVIOUS DESIGN

PEARL ELEVATION - PROPOSED



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⑬ PROVIDE PUNCHED WINDOWS AT LEVEL 2 **TO REDUCE THE PERCEIVED SCALE OF THE BUILDING**

⑭ INCREASE EAST BUILDING SETBACK FROM UNDER 12" TO 3' MINIMUM **TO PROVIDE MORE SPACE BETWEEN THE PROPOSED BUILDING AND NEIGHBORING BUILDING.**

⑮ CLAD ELEVATOR OVERRUN WALLS AT EAST WING IN STONE, WITH TRADITIONAL CAP DETAILING **TO ACCENTUATE THE EAST AND WEST WINGS OF THE BUILDING AS SEPARATE AND DISTINCT.**

PEARL ELEVATION - PREVIOUS







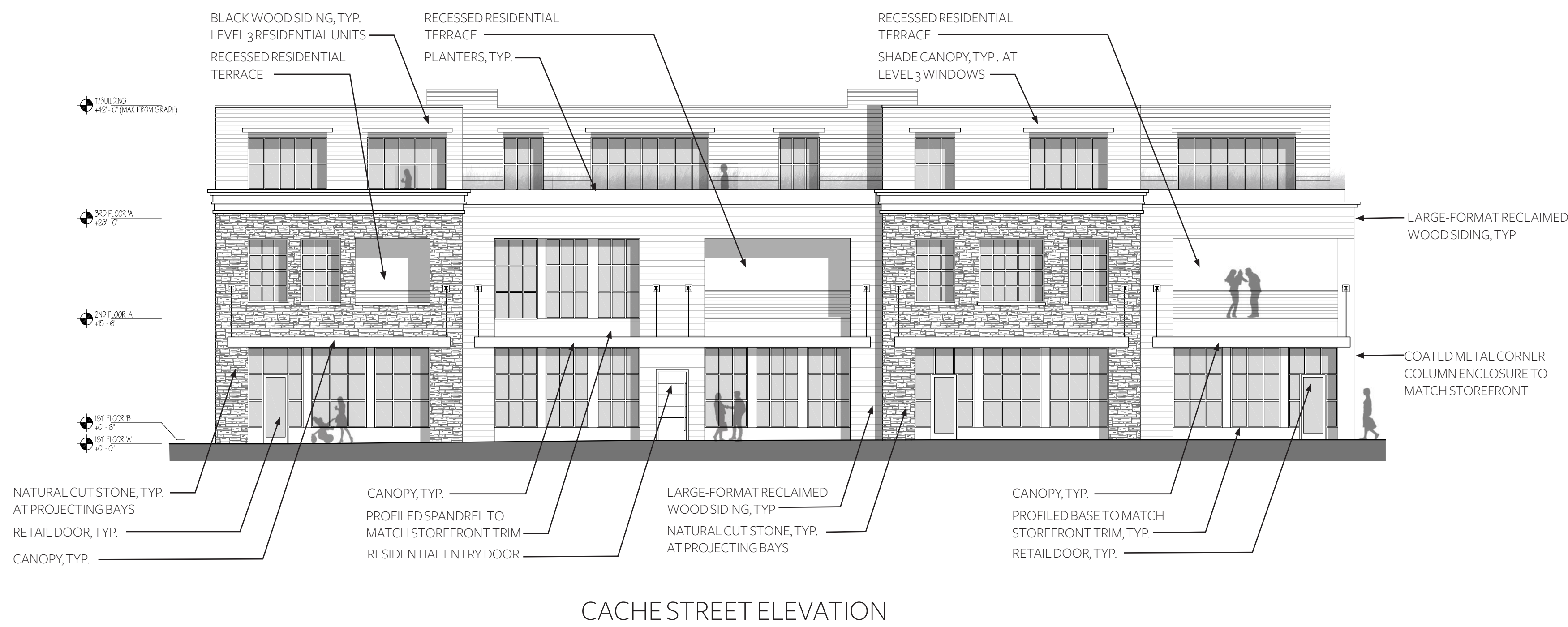
PEARL AVENUE ELEVATION

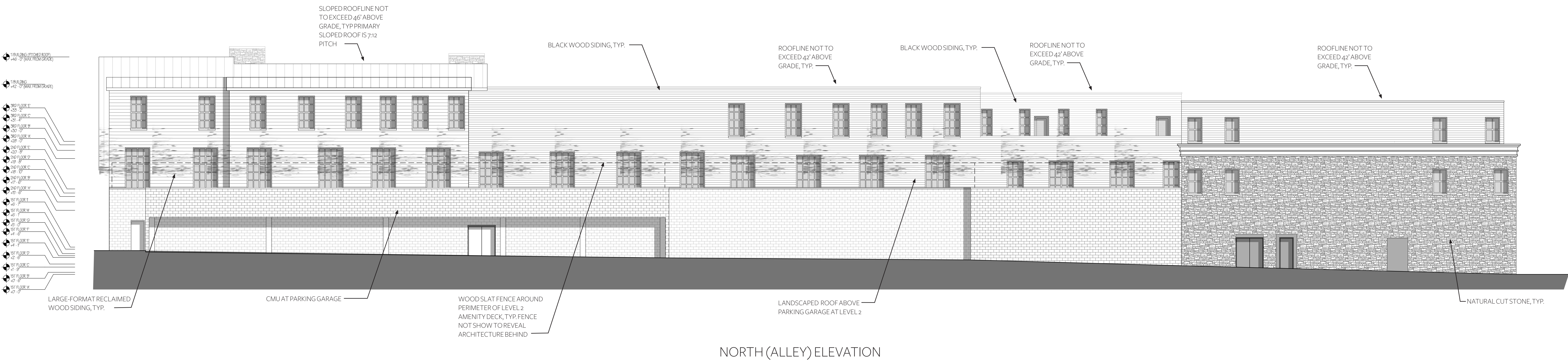


CACHE STREET ELEVATION

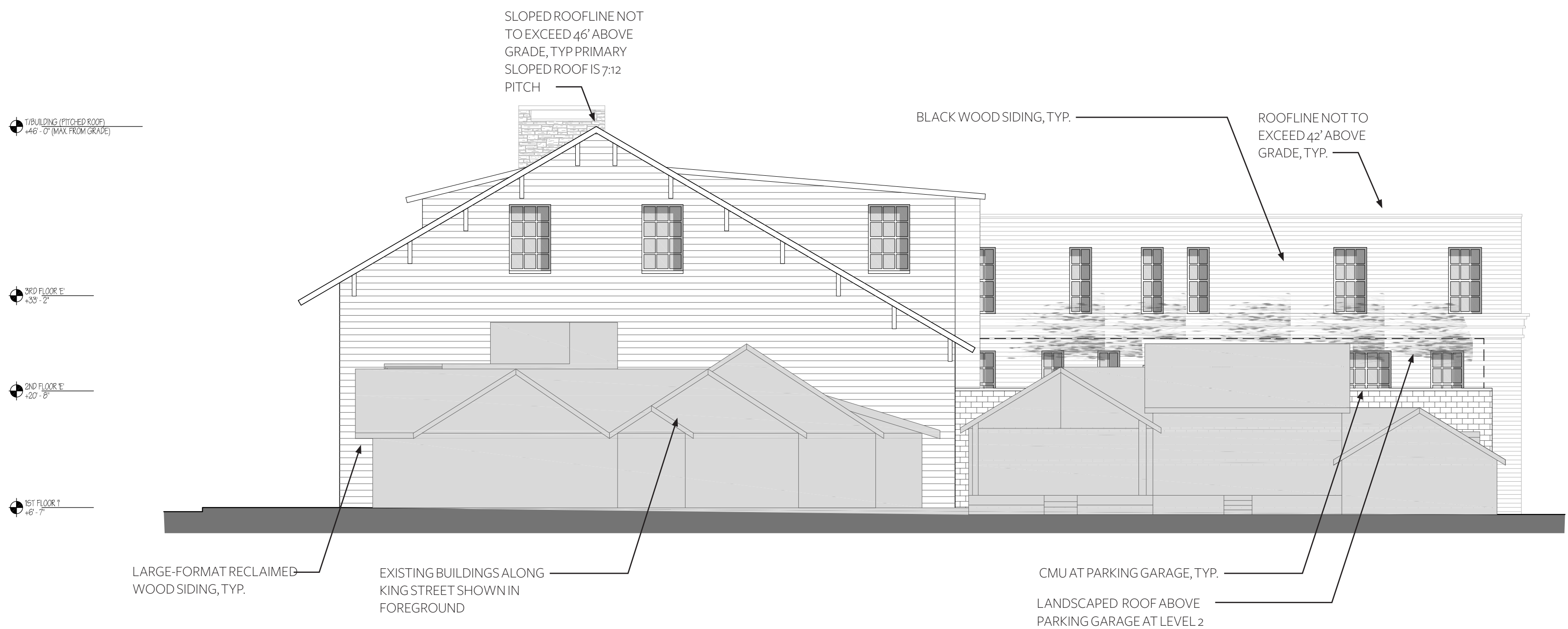


EAST (KING STREET) ELEVATION





NORTH (ALLEY) ELEVATION



EAST (KING STREET) ELEVATION

CEDAR SIDING
BLACK SIDING AT THIRD FLOOR & REAR COURTYARD



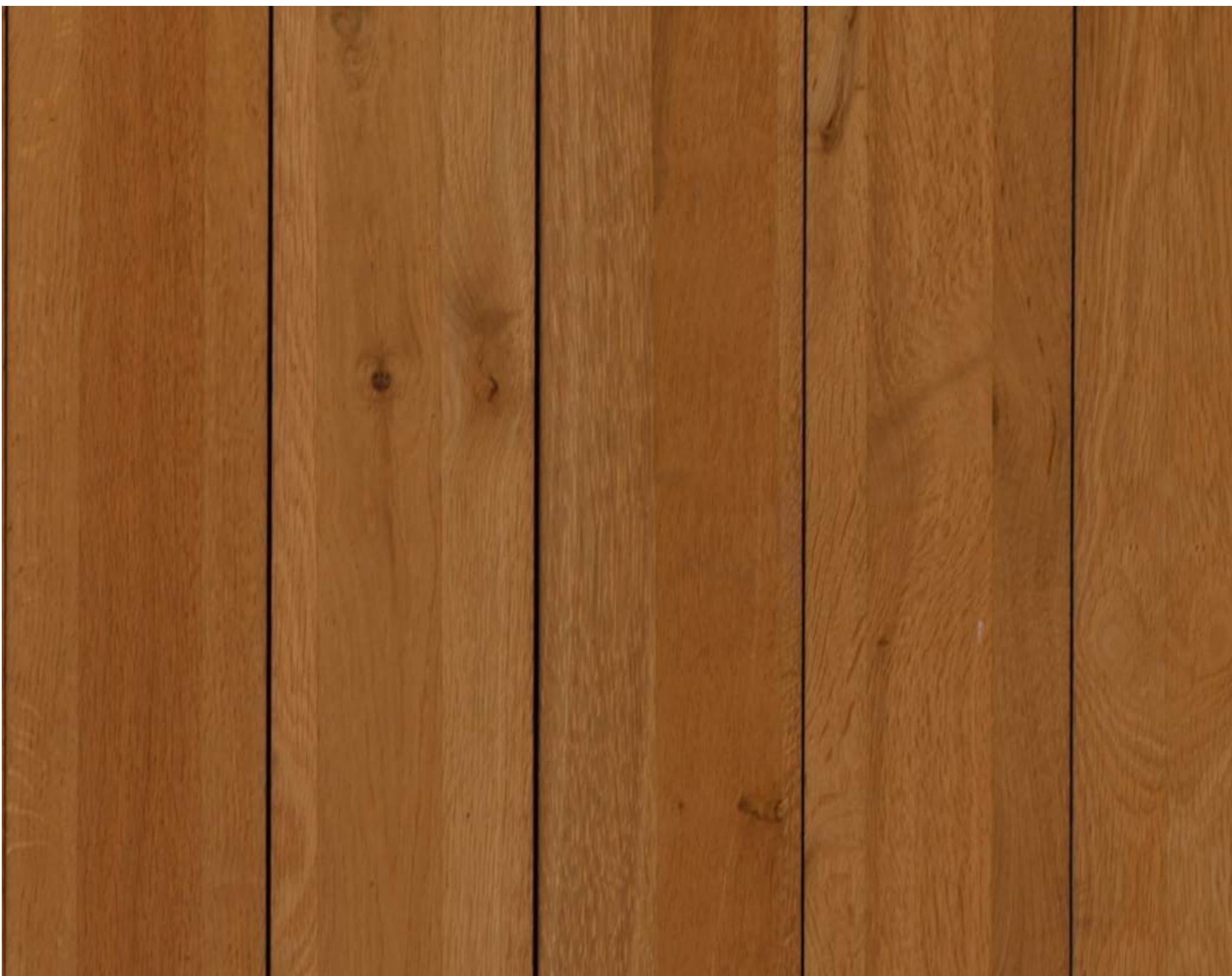
CLAY FACADE TILE
BUILDING WALL CLADDING AT LEVELS 1-2 RECESSED BAYS



STONE (TUXEDO GRAY LIMESTONE - SELECT STONE)
BUILDING WALL CLADDING AT LEVELS 1-2 PROJECTING BAYS



STAINED CEDAR PLANKS
CANOPIES AND SOFFITS



BLACK PAINTED WOOD DETAILING
CORNICES AND TRIM



BLACK ALUMINUM WINDOWS
PUNCHED WINDOWS, STOREFRONT, AND WINDOW WALL



CEDAR SIDING
BLACK SIDING AT THIRD FLOOR & REAR COURTYARD



LARGE FORMAT RECLAIMED SIDING
BUILDING WALL CLADDING AT LEVELS 1-2 RECESSED BAYS



STONE (MONTANA MOSS ROCK - SELECT STONE)
BUILDING WALL CLADDING AT LEVELS 1-2 PROJECTING BAYS



STAINED CEDAR PLANKS
CANOPIES AND SOFFITS



BLACK PAINTED WOOD DETAILING
CORNICES AND TRIM

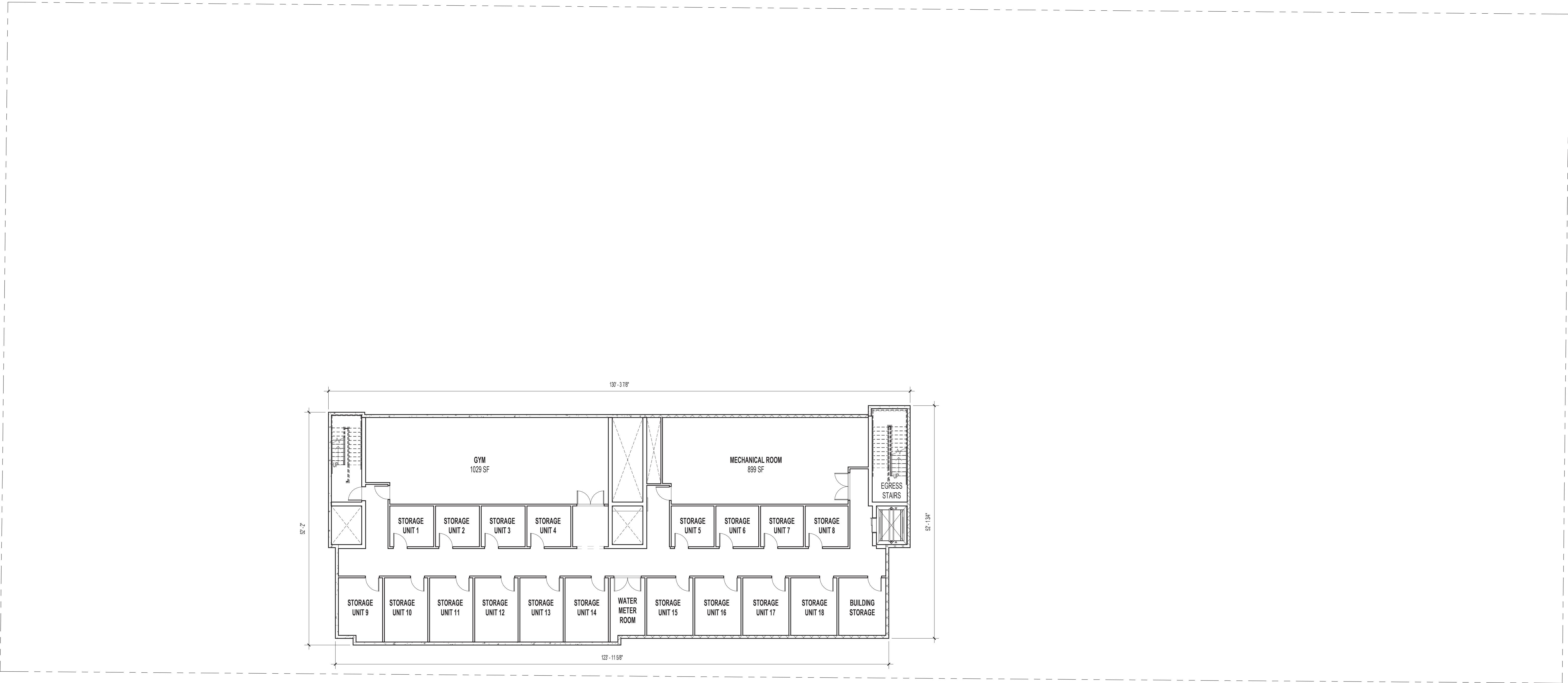


MATTE BLACK METAL PANEL
LEVEL 2 "BRIDGE" BETWEEN EAST AND WEST WINGS



BLACK ALUMINUM WINDOWS
PUNCHED WINDOWS, STOREFRONT, AND WINDOW WALL

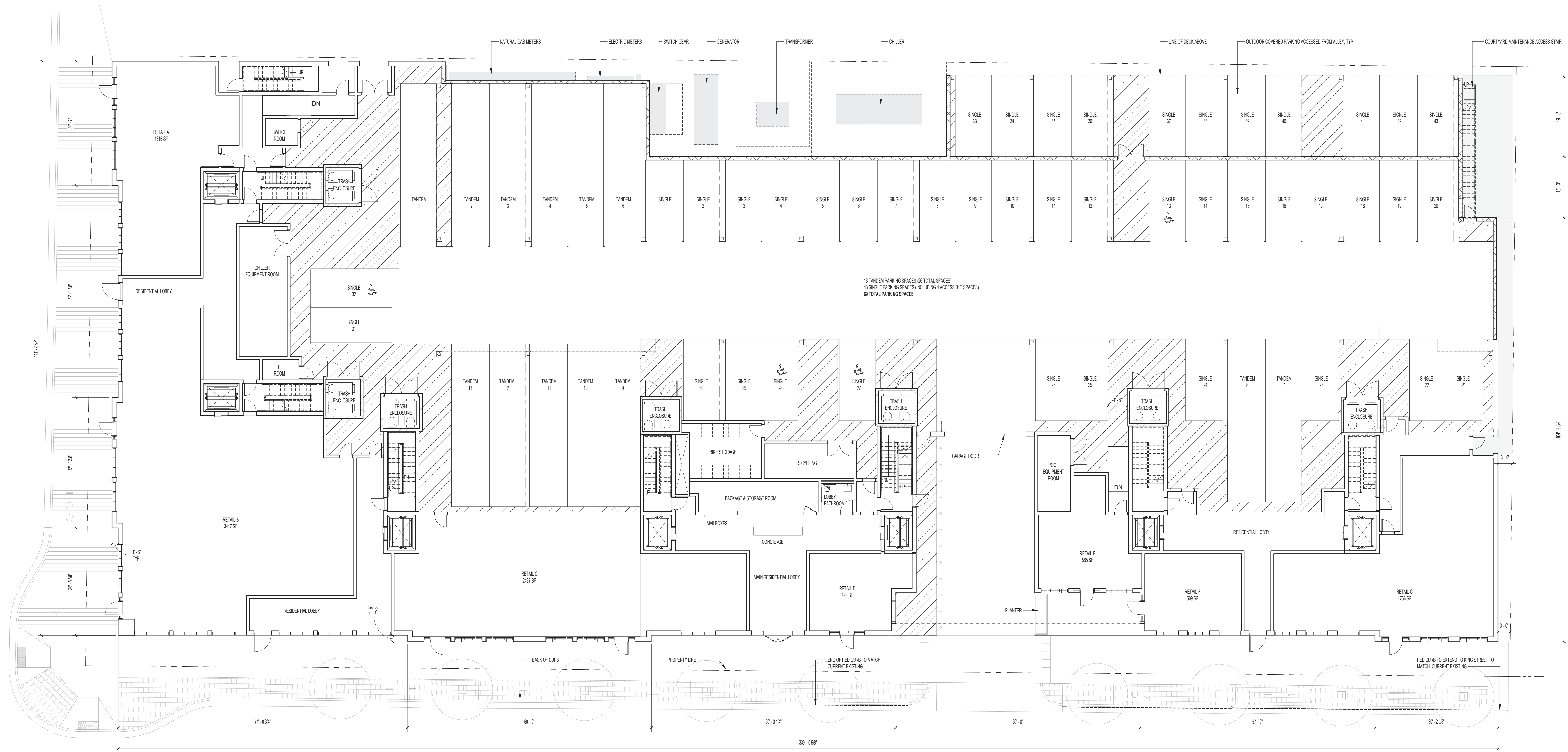




① BASEMENT PLAN
3/32" = 1'-0"

BASEMENT LEVEL
TOTAL SF - 6,518 SF

- (18) STORAGE UNIT FOR EACH RESIDENTIAL UNIT
- (1) ELEVATOR HAS BASEMENT LEVEL ACCESS
- (2) EGRESS STAIRS HAVE BASEMENT LEVEL ACCESS



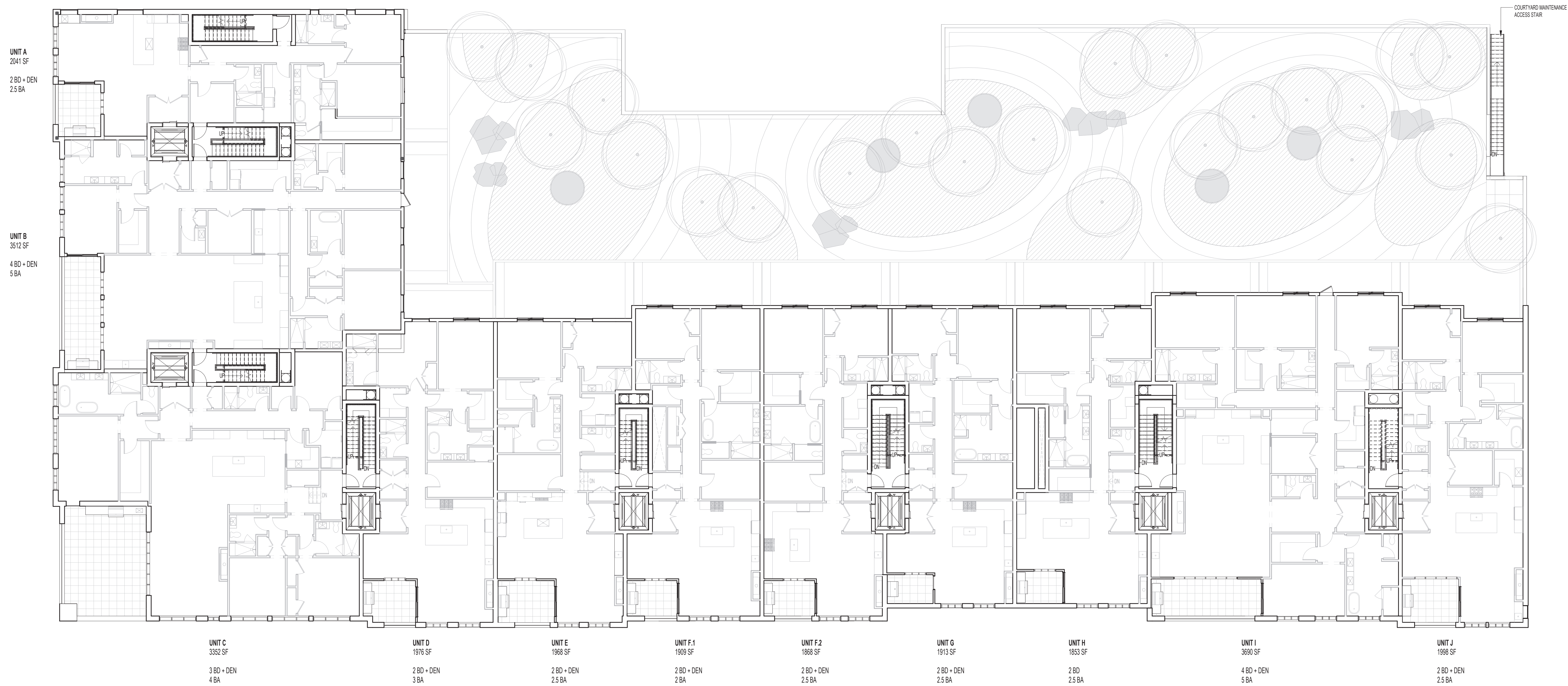
1 1ST FLOOR PLAN
3/32" = 1'-0"

BUILDING TOTALS

GROSS SF - 67,576

LEVEL 1

GROSS SF - 18,078



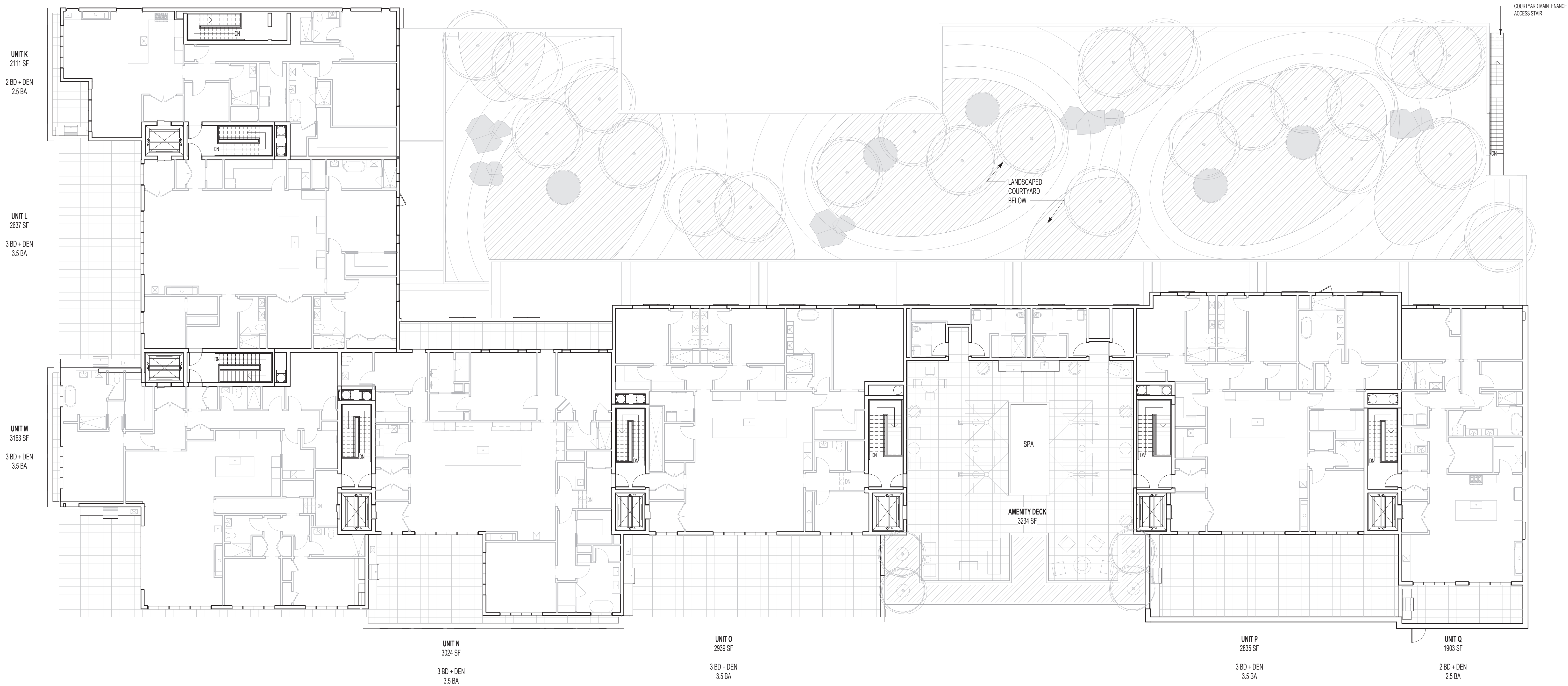
1 2ND FLOOR PLAN
3/32" = 1'-0"

BUILDING TOTALS

GROSS SF - 67,576

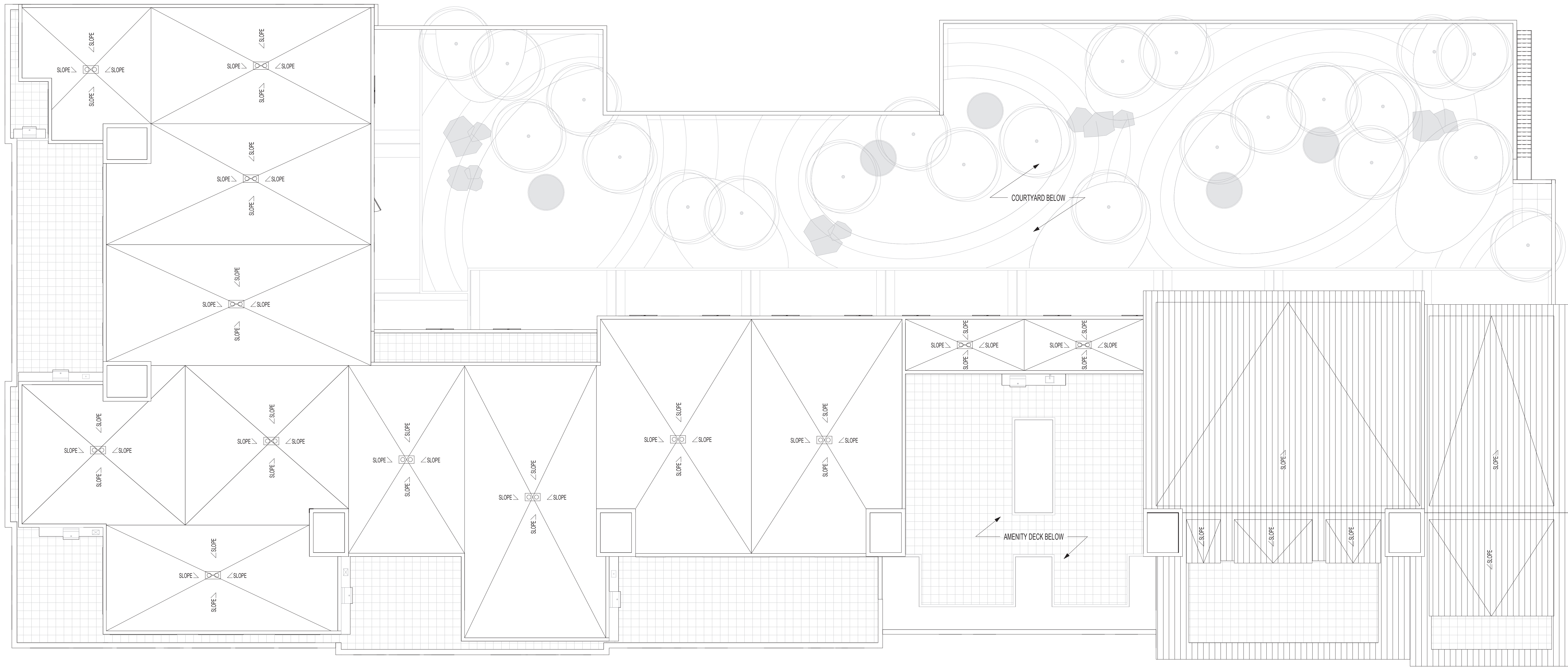
LEVEL 2

GROSS SF - 28,198

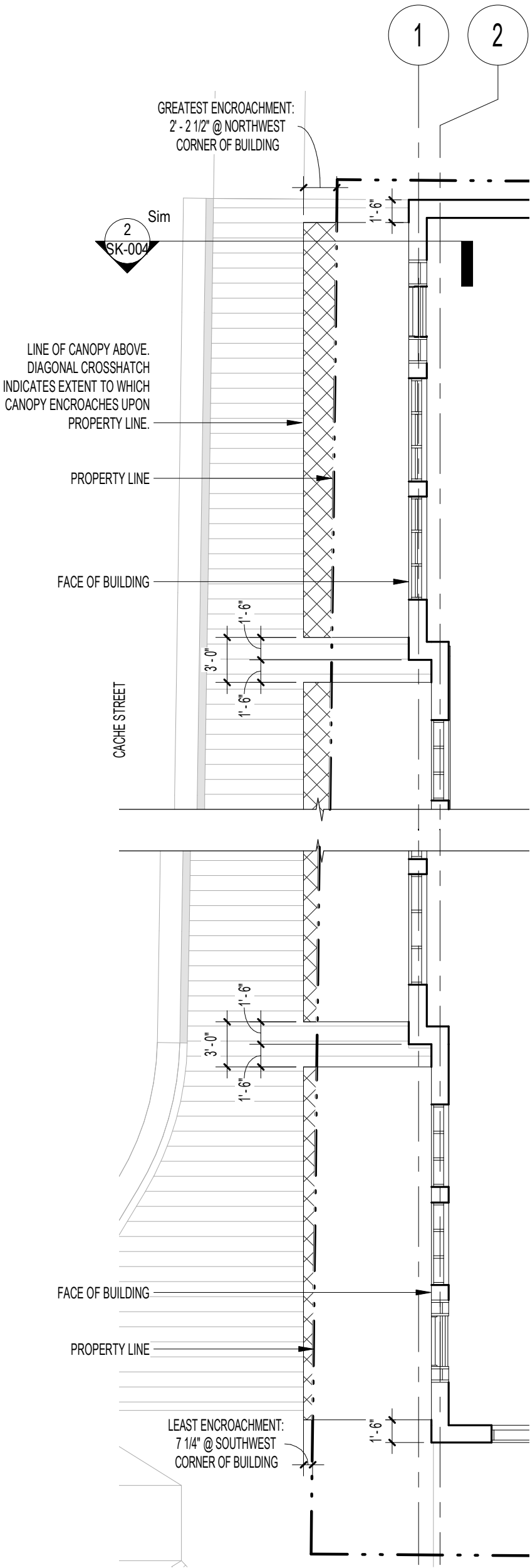


1 3RD FLOOR PLAN
3/32" = 1'-0"

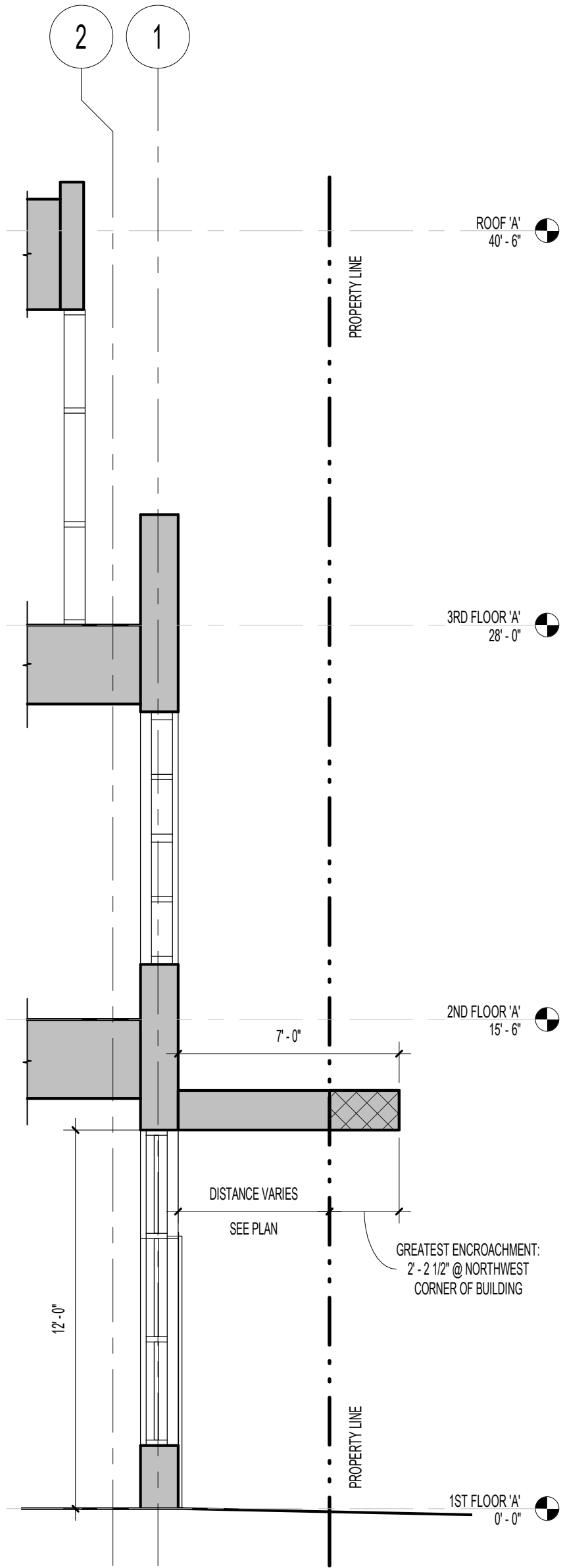
BUILDING TOTALS	LEVEL 3
GROSS SF - 67,576	GROSS SF - 21,300



1 ROOF PLAN
3/32" = 1'-0"



1 EXHIBIT A - PROP. LINE ENCROACHMENT PLAN
1/8" = 1'-0"



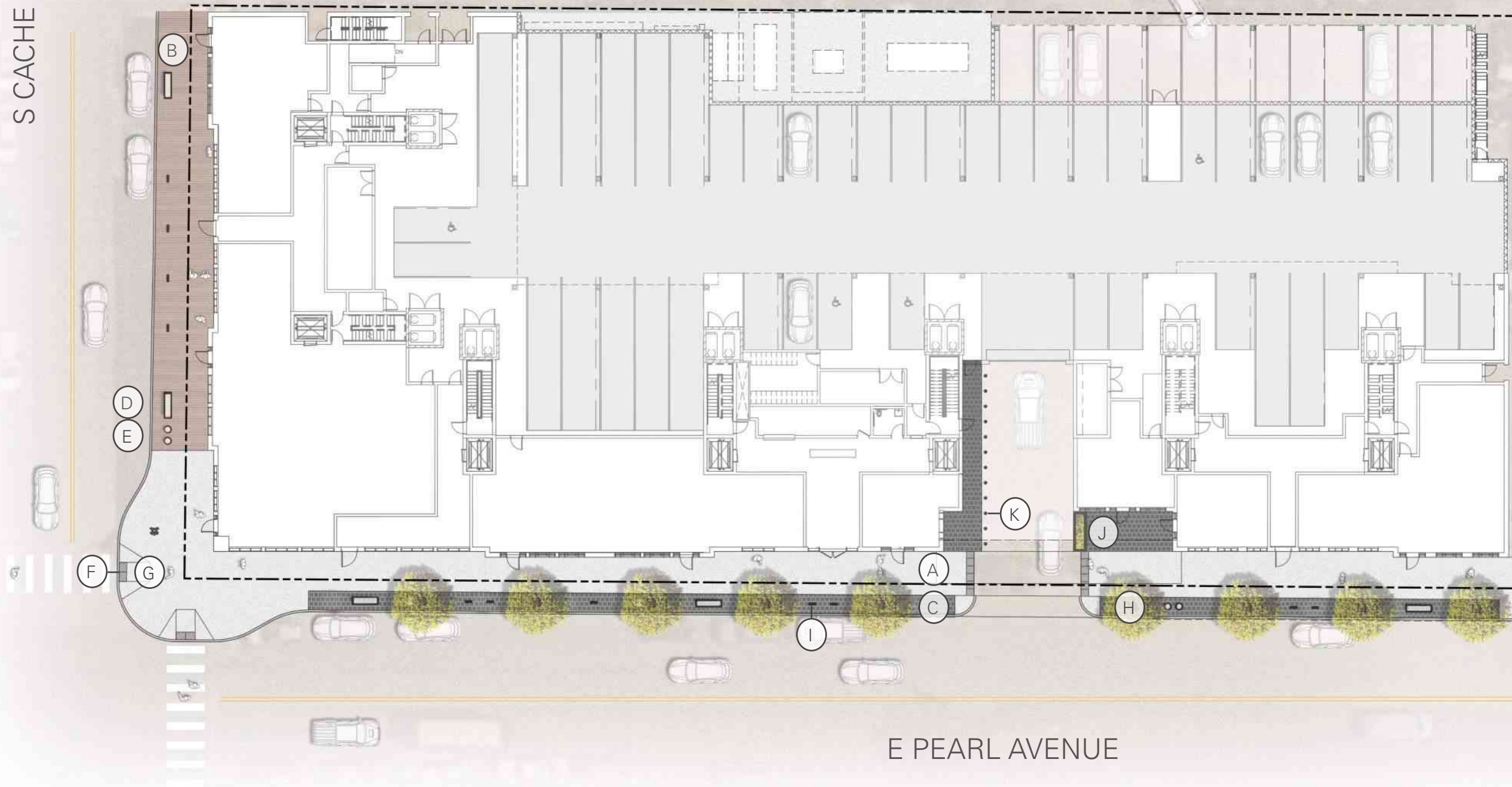
2 EXHIBIT B - PROP. LINE ENCROACHMENT SECTION
1/4" = 1'-0"

LANDSCAPE DRAWINGS

FIRST FLOOR EXTERIOR STREETSCAPE

S CACHE STREET

EXISTING ALLEY



LEGEND

- (A) PEDESTRIAN CONCRETE
- (B) PEDESTRIAN BOARDWALK
- (C) PERMEABLE CONCRETE PAVERS
- (D) BENCH
- (E) LITTER RECEPTACLE
- (F) DETECTABLE WARNING PLATES
- (G) ADA ACCESSIBLE CURB RAMP
- (H) PAVER GRATE WITH TREE
- (I) BIKE RACK
- (J) PLANTER IN SEATING AREA
- (K) BOLLARDS
- (L) SCALE 1:30



Name: Pedestrian Concrete
Dimensions: Varies
Color: Light grey



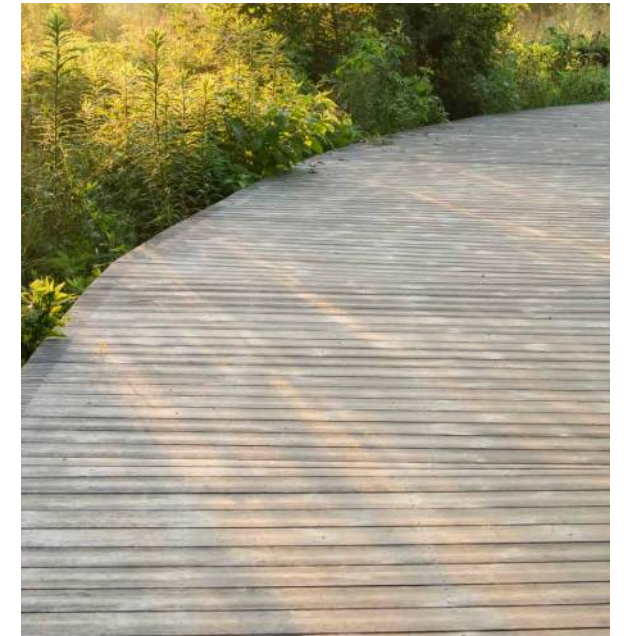
Name: Permeable Concrete Unit Pavers
Material: Concrete
Dimensions: TBD
Color: Dark grey



Name: Detectable Warning Plates
Dimensions: TBD
Color: Grey



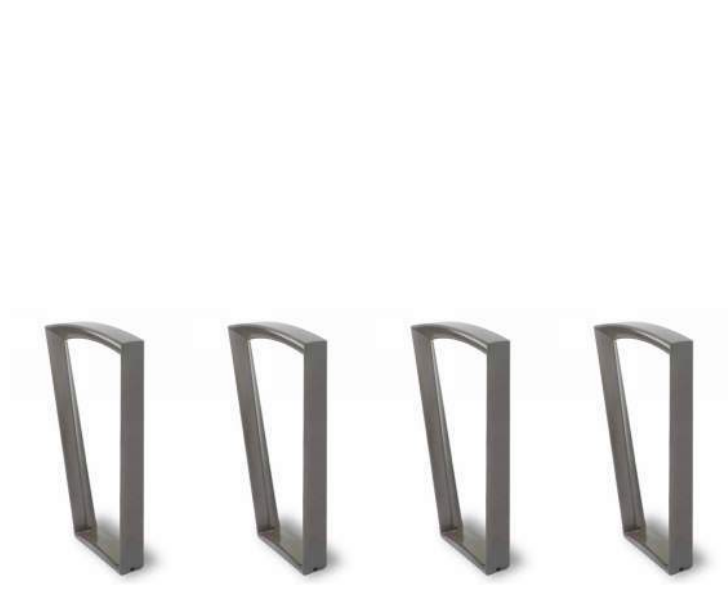
Name: Paver Grate
Material: Metal
Dimensions: TBD



Name: Pedestrian Boardwalk
Material: Wood
Dimensions: Varies



Name: STRATA Beam Bench, backless
Material: Wood, metal, concrete
Dimensions: 80" L x 21" W x 23 H
Quantity: 5



Name: Emerson Bike Rack
Material: Powdercoated metal
Dimensions: 20" L x 30" W x 4" D
Quantity: 11



Name: Petoskey Litter Receptacle (with sign)
Material: Powdercoated metal
Dimensions: 42" L x 20" W x 30 gal.
Color: TBD
Quantity: 4



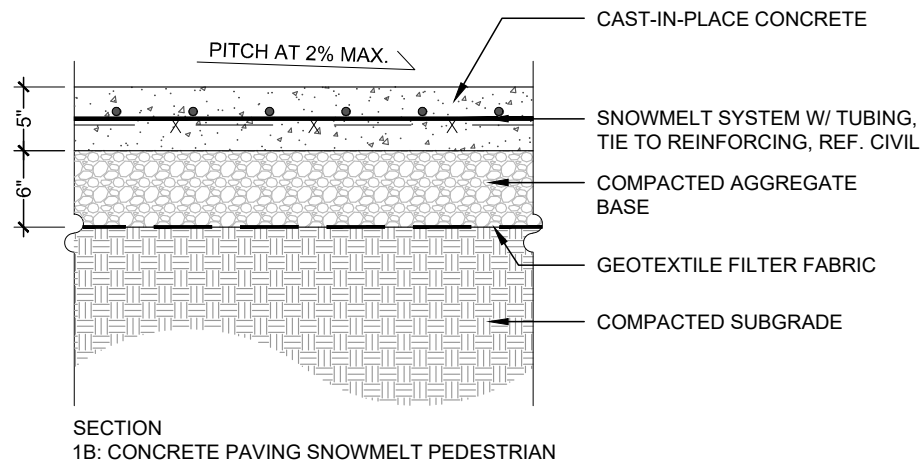
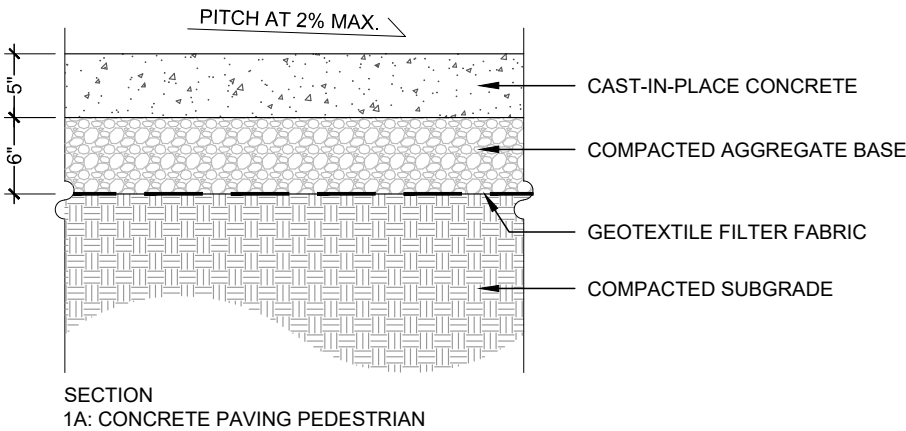
Name: Helio Bollard
Material: Metal with illuminated cap
Dimensions: 40" H x 6" D
Quantity: 12



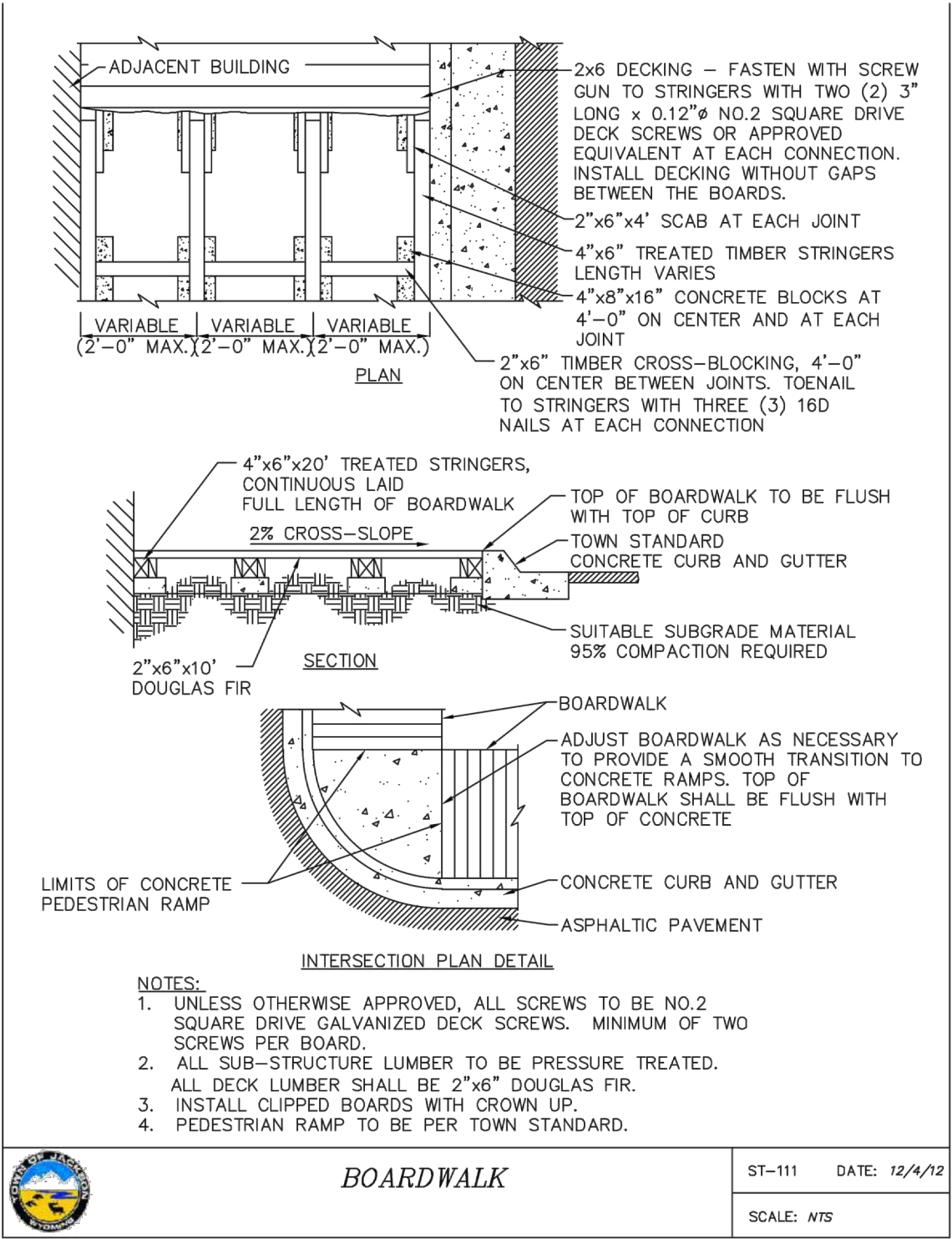
Name: Fence with hanging planters
Material: TBD
Dimensions: TBD
Quantity: 1



Name: Planter
Material: Concrete with metal veneer
Dimensions: TBD
Color: TBD
Quantity: 1



A. PEDESTRIAN CONCRETE



B. PEDESTRIAN BOARDWALK

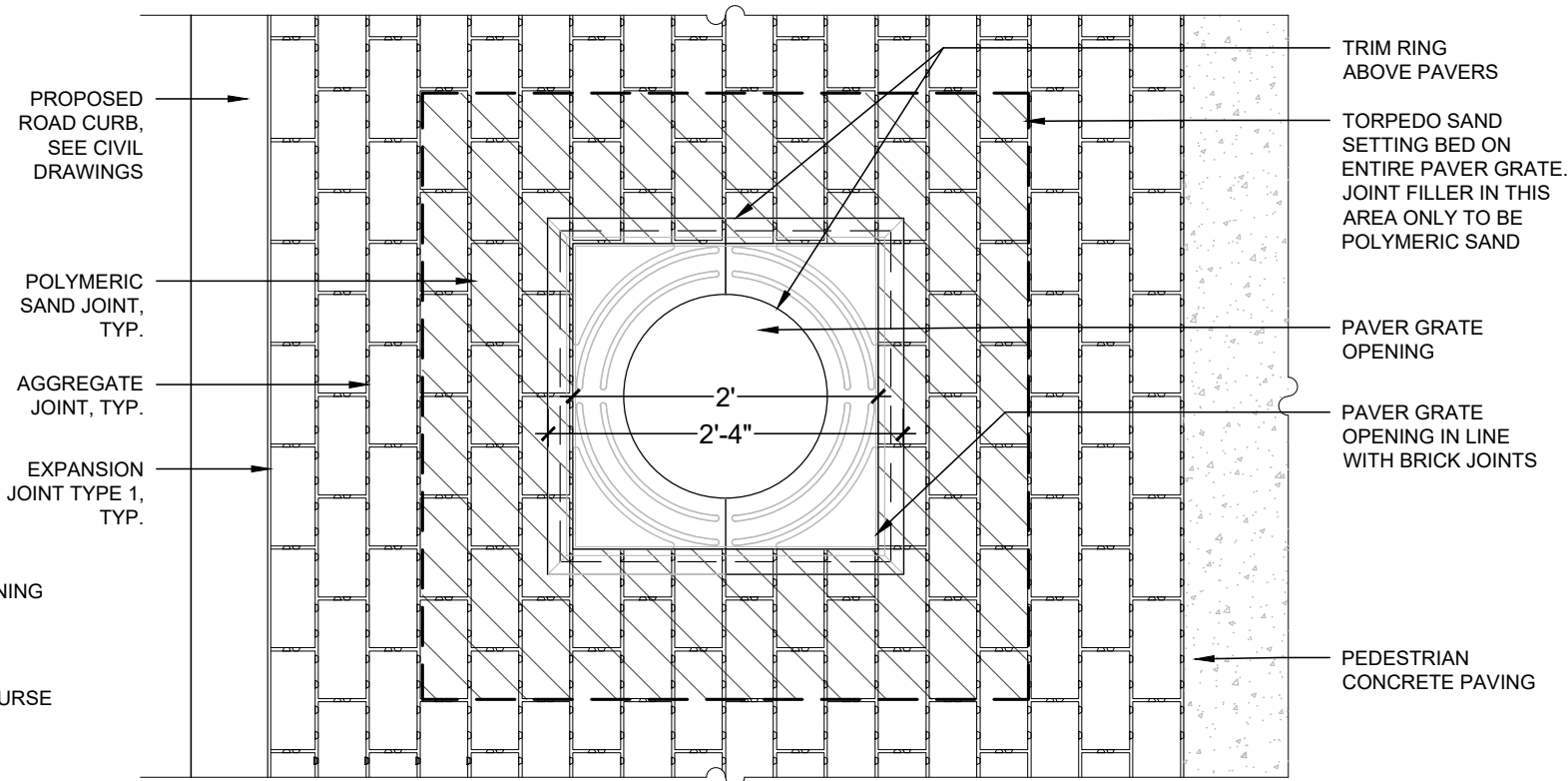
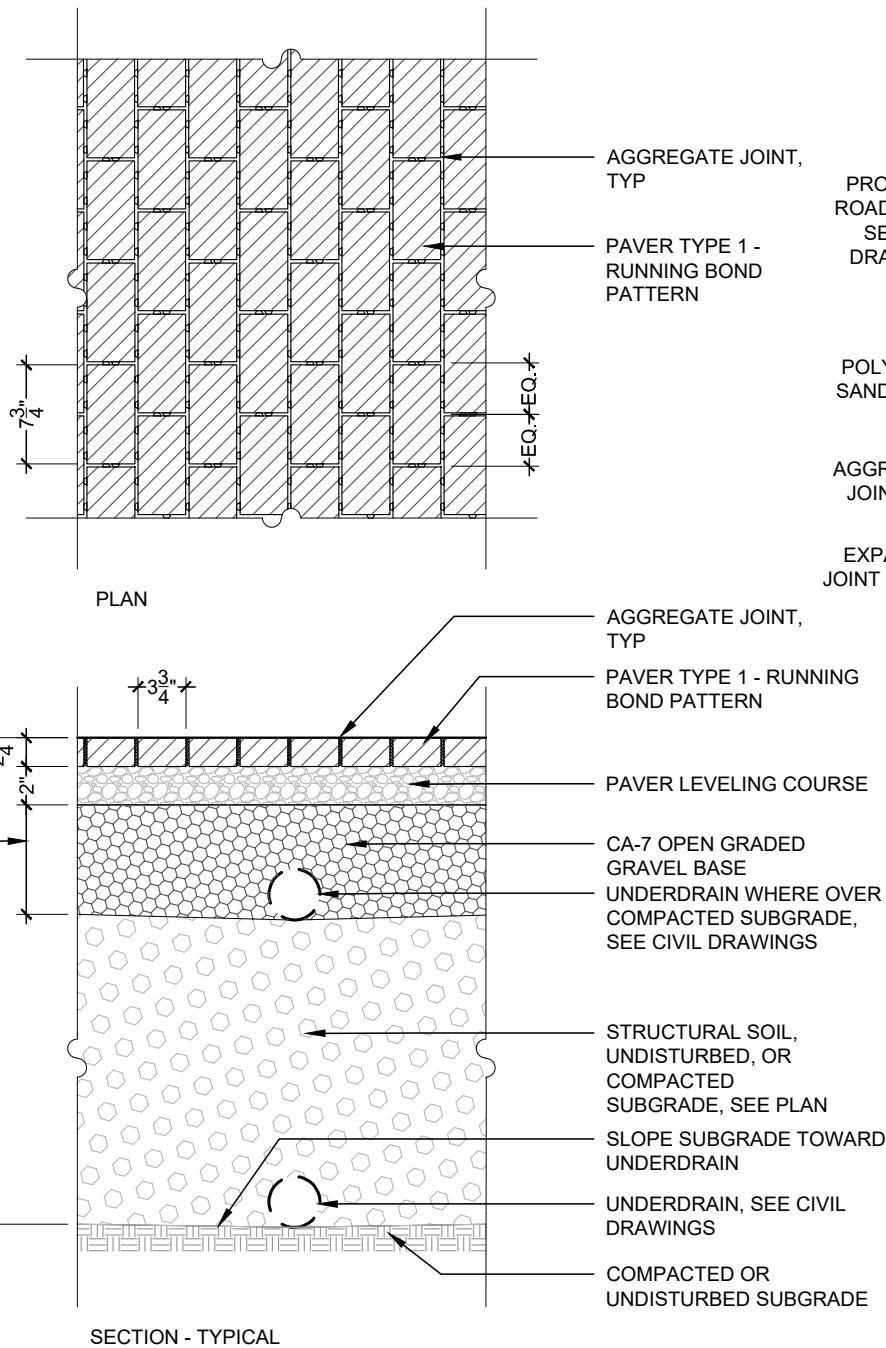
NOTES:

- 1. PERMEABLE PAVER ZONE WILL COMPRISE EITHER 18 OR 15 (SEE PLANS). EACH ROW SHALL BE FULL WIDTH PAVERS, NO CUTTING/RIPPING. ENDS OF PAVER FIELDS SHALL BE COORDINATED WITH ADJACENT IMPROVEMENTS, PROVIDING LENGTH CUTS ONLY AS INDICATED OR DIRECTED BY LANDSCAPE ARCHITECT.
- 2. THE DIMENSION SHALL BE FULLY COORDINATED BETWEEN ACTUAL DIMENSIONS OF PAVERS, TREE GRATES AND SITE CONDITIONS. CONCRETE WALK SHALL BE CONSTRUCTED TO ACCOMMODATE THIS REQUIREMENT.
- 1. WHERE PAVERS RUN PERPENDICULAR TO THE ROADWAY, CUTS ARE ACCEPTABLE WHEN RESULTING IN 1/2 PAVER LENGTH OR MORE.

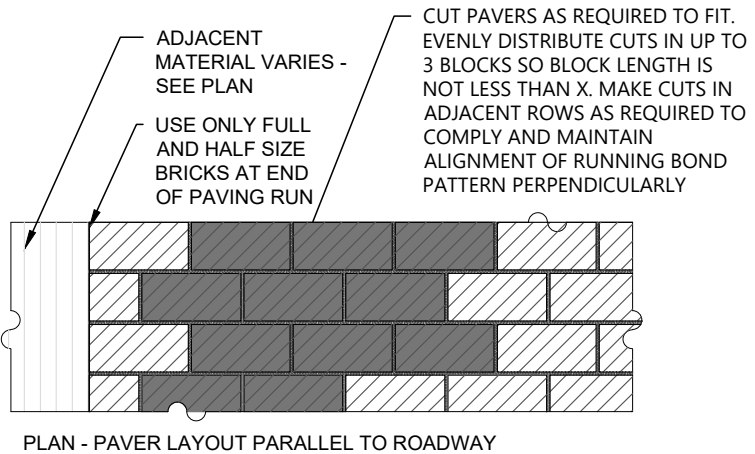
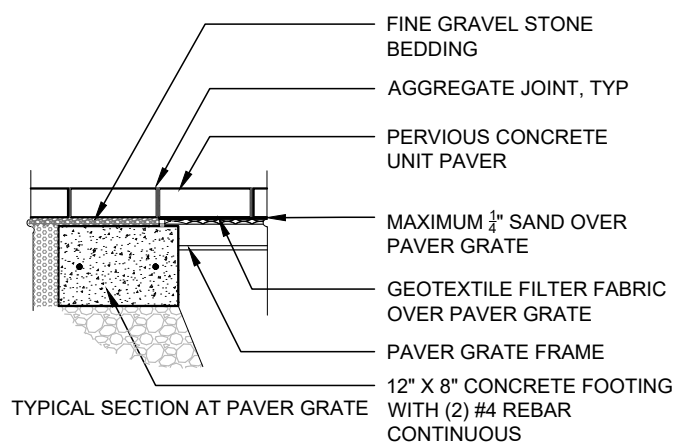
8" IF OVER
STRUCTURAL SOIL.
12" IF OVER
COMPACTED OR
UNDISTURBED
SUBGRADE, SEE
PLAN

+/-3'-6" FROM
FINISHED GRADE FOR
6'-0" WIDE AMENITY
ZONE.

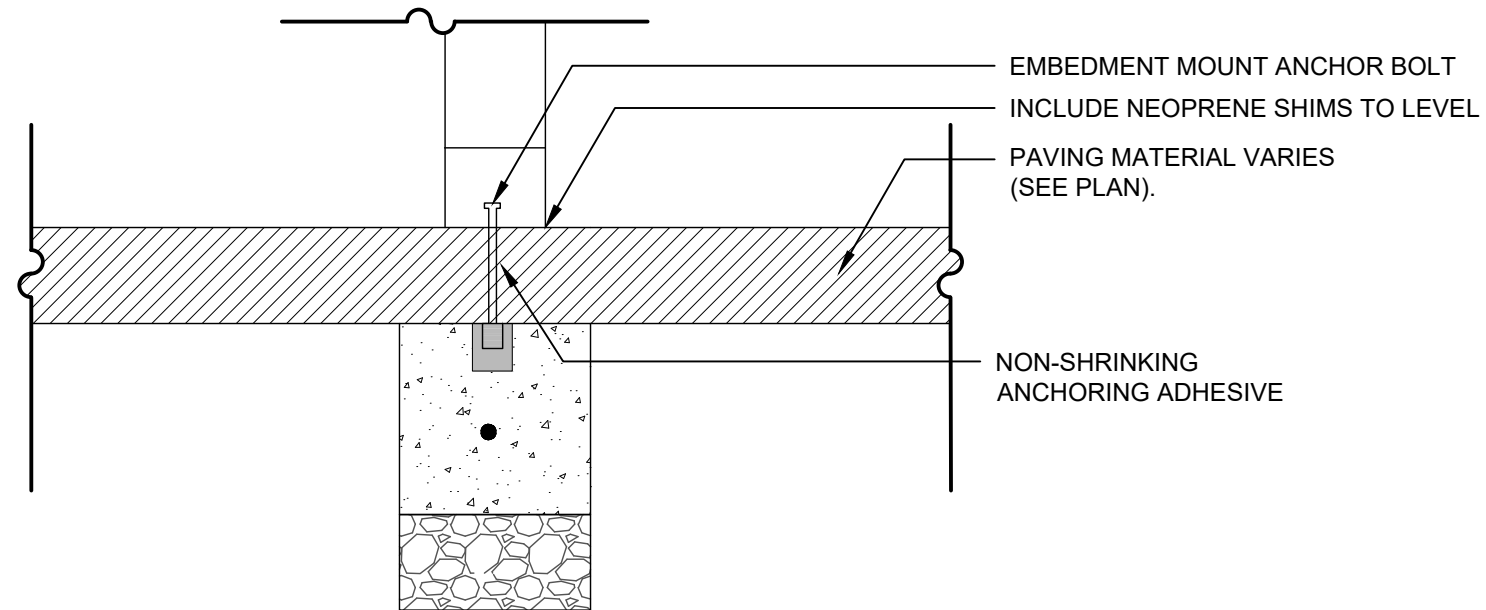
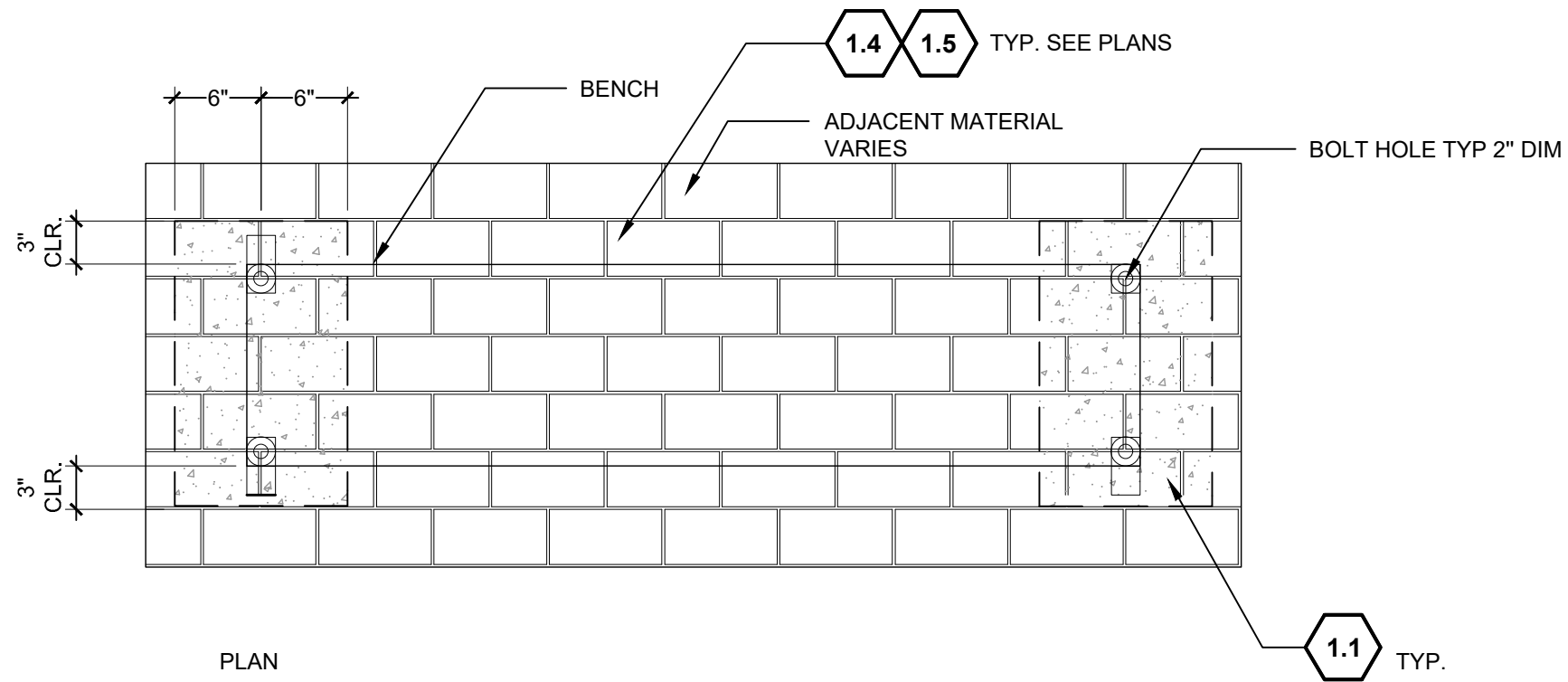
+/- 4'-0" FROM
FINIHSED GRADE FOR
5' WIDE AMENITY
ZONE



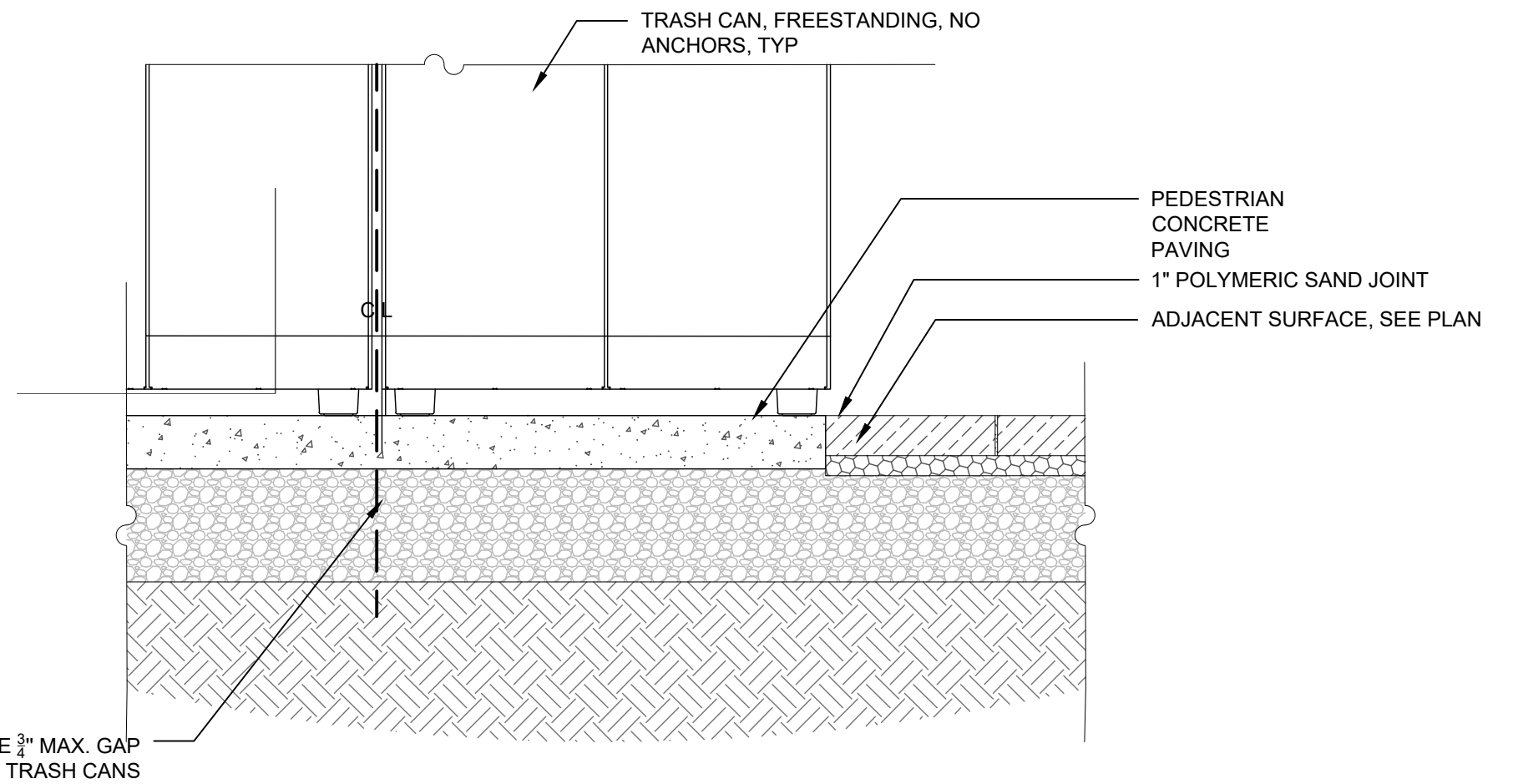
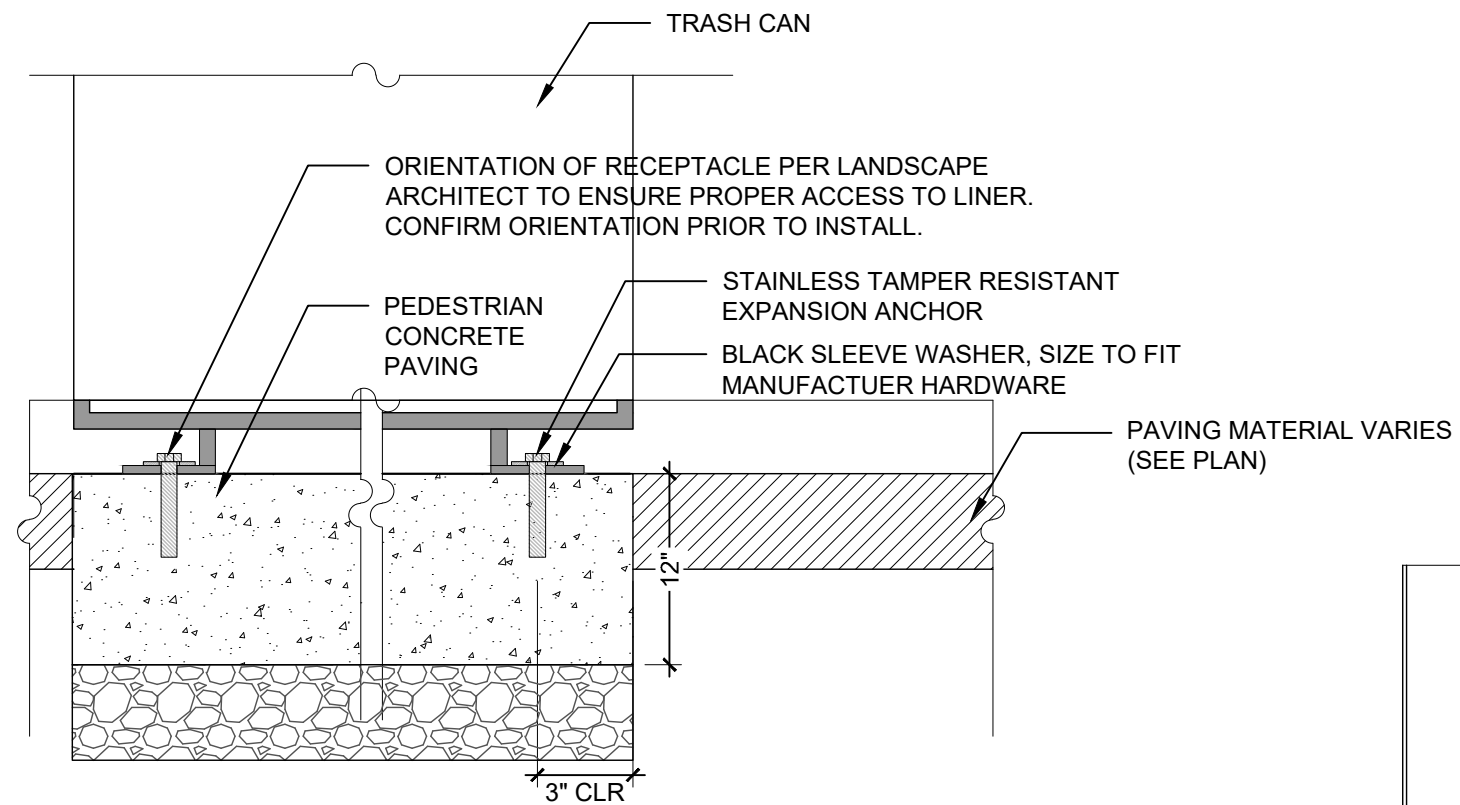
PLAN - PAVER LAYOUT AT PAVER GRATE OPENING



C. PERMEABLE CONCRETE UNIT PAVERS

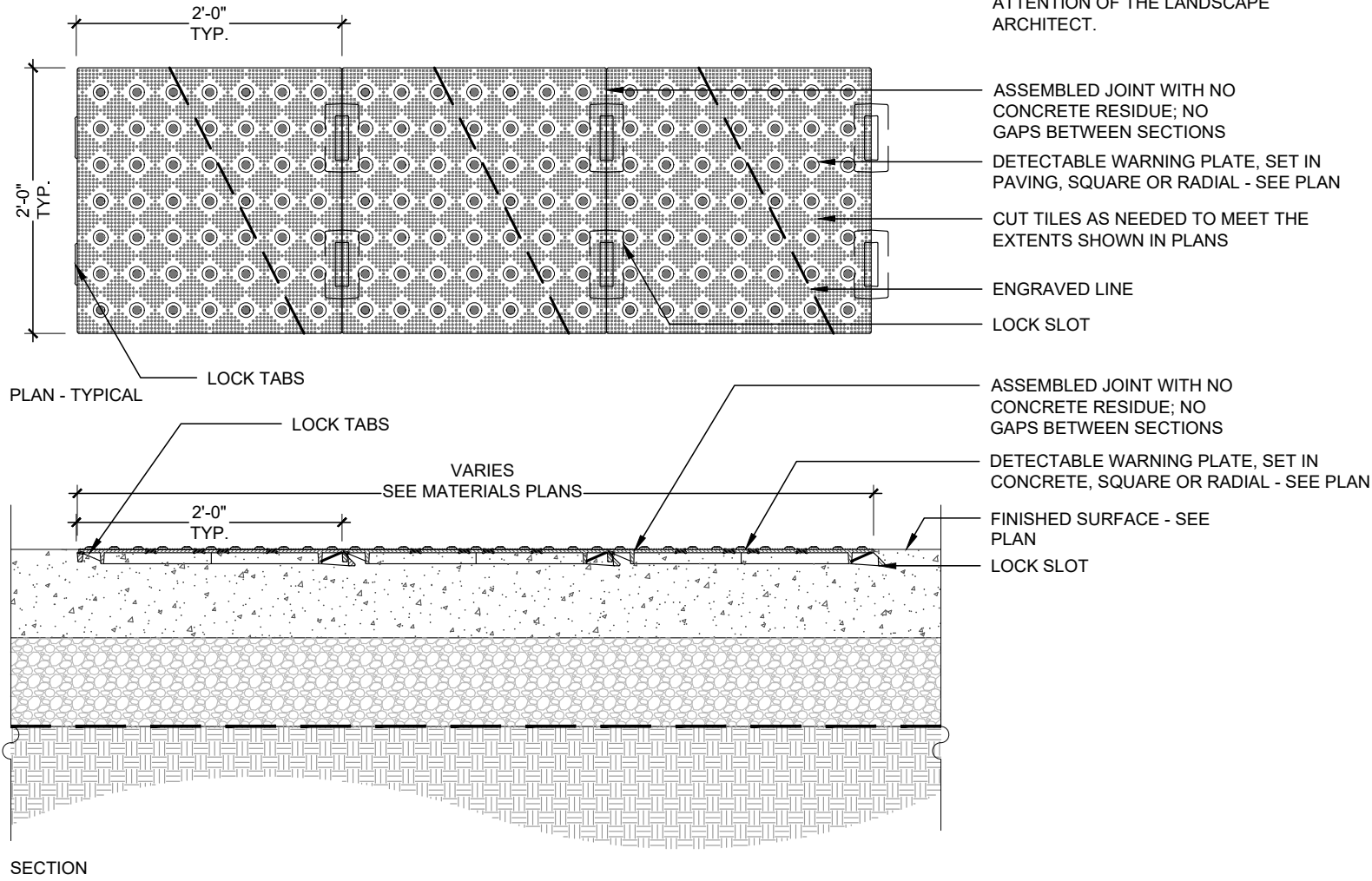


D. BENCH

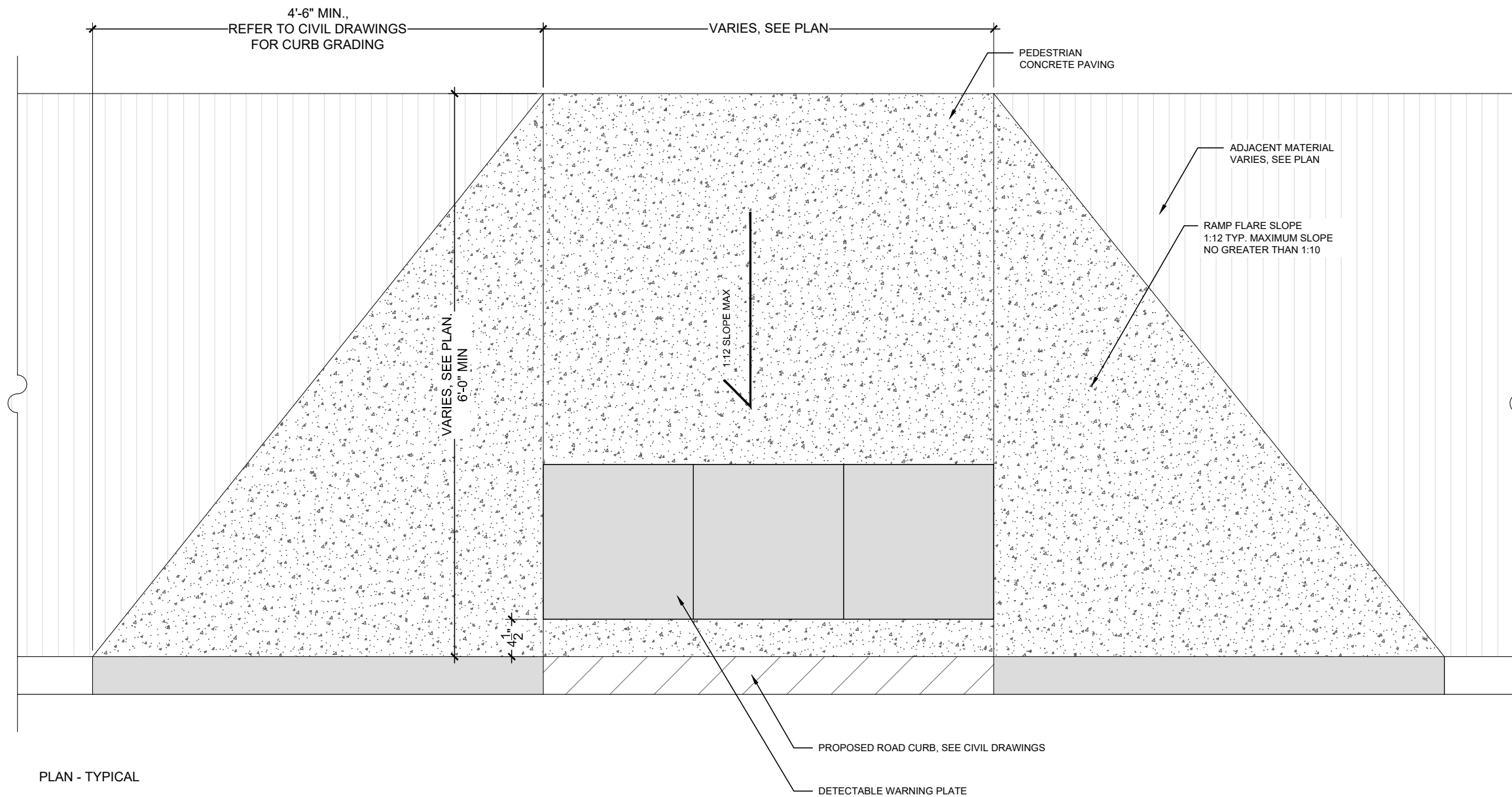


E. LITTER RECEPTACLE

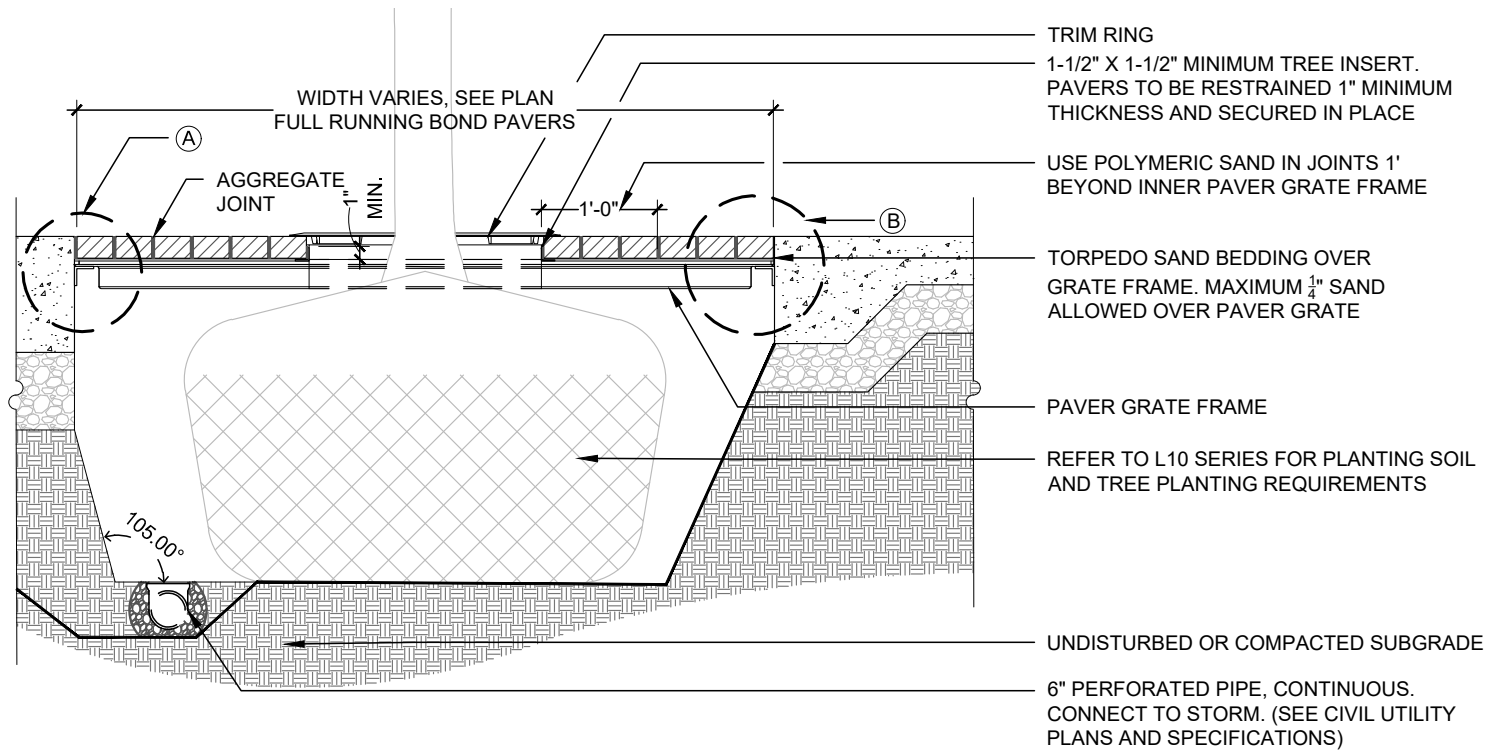
- NOTES:
- 1. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITY OF DETECTABLE WARNING PLATES FOR EACH CURB RAMP.
 - 2. CONTRACTOR SHALL USE MANUFACTURER RECOMMENDED RADII TO MAINTAIN A CONSISTENT 6" OFFSET FROM BACK OF THE PROPOSED CIVIL ROAD CURB
 - 3. WHERE A CURB RAMP IS BOUNDED ON ONE OR BOTH SIDES WITH A BARRIER CURB, THE ADJACENT MATERIAL SHALL NOT BE CONSIDERED PART OF THE PATH OF TRAVEL. CONTRACTOR SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.



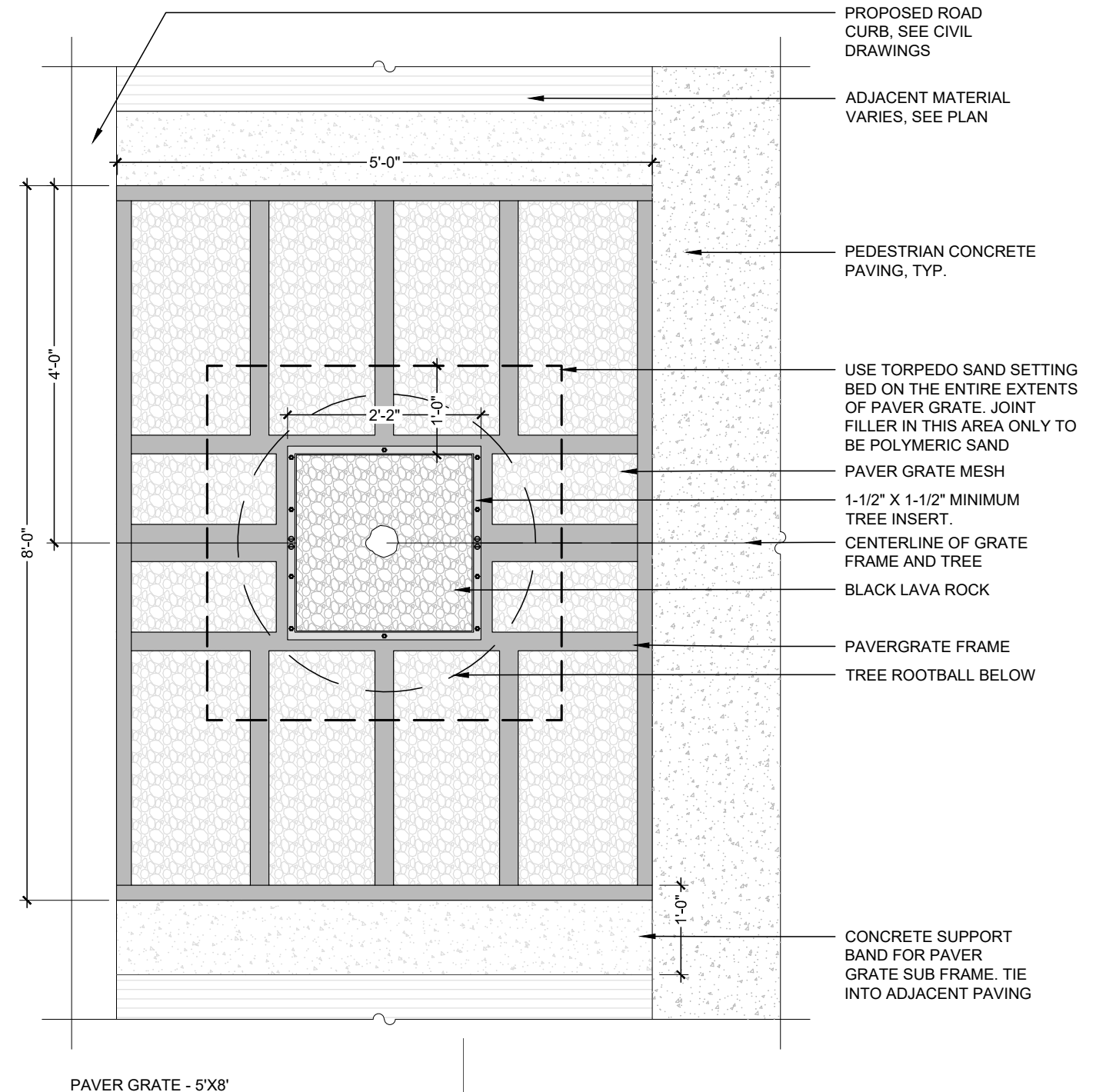
F. DETECTABLE WARNING PLATES



G. ADA ACCESSIBLE CURB RAMP

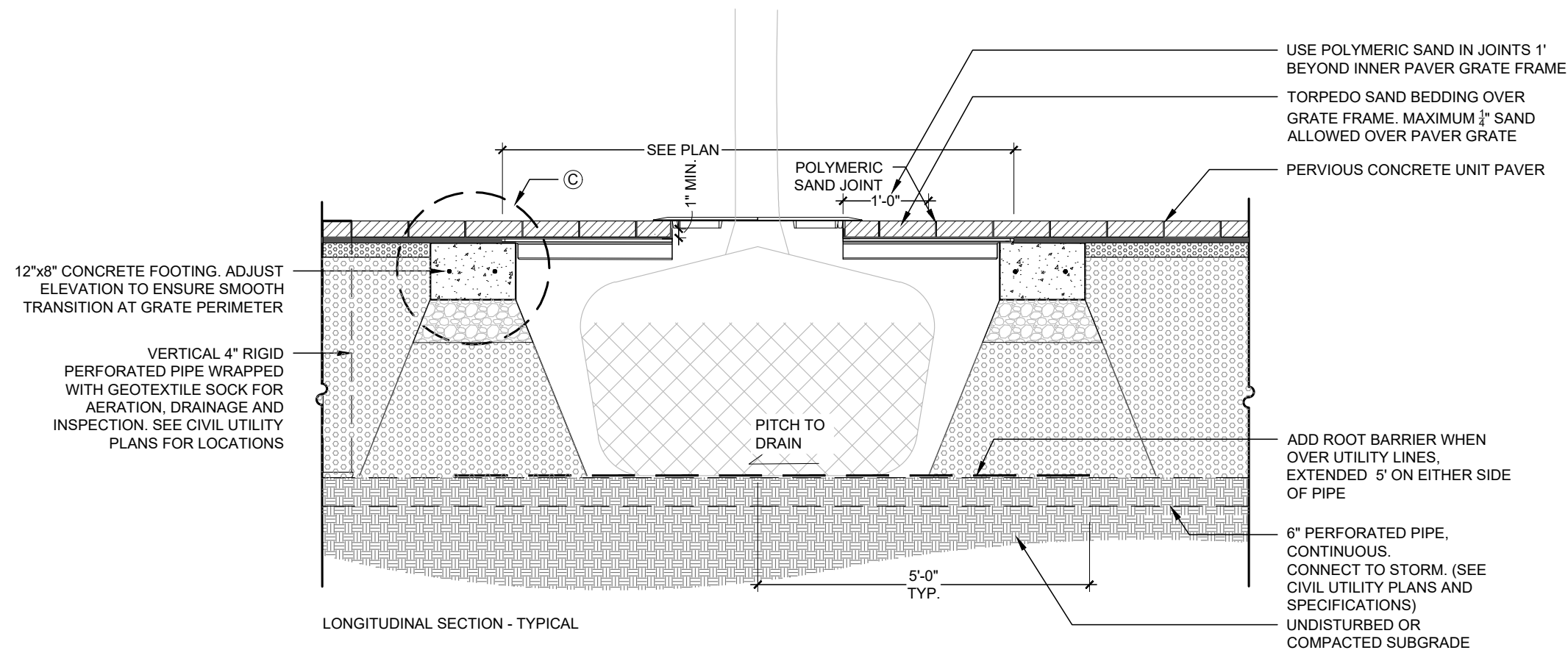
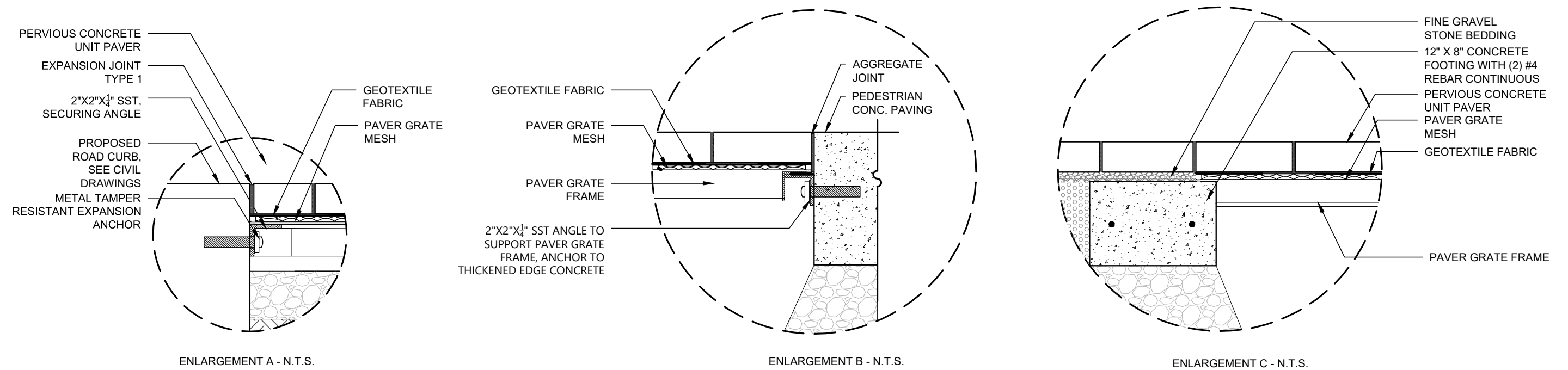


CROSS SECTION - TYPICAL



PAVER GRATE - 5'X8'

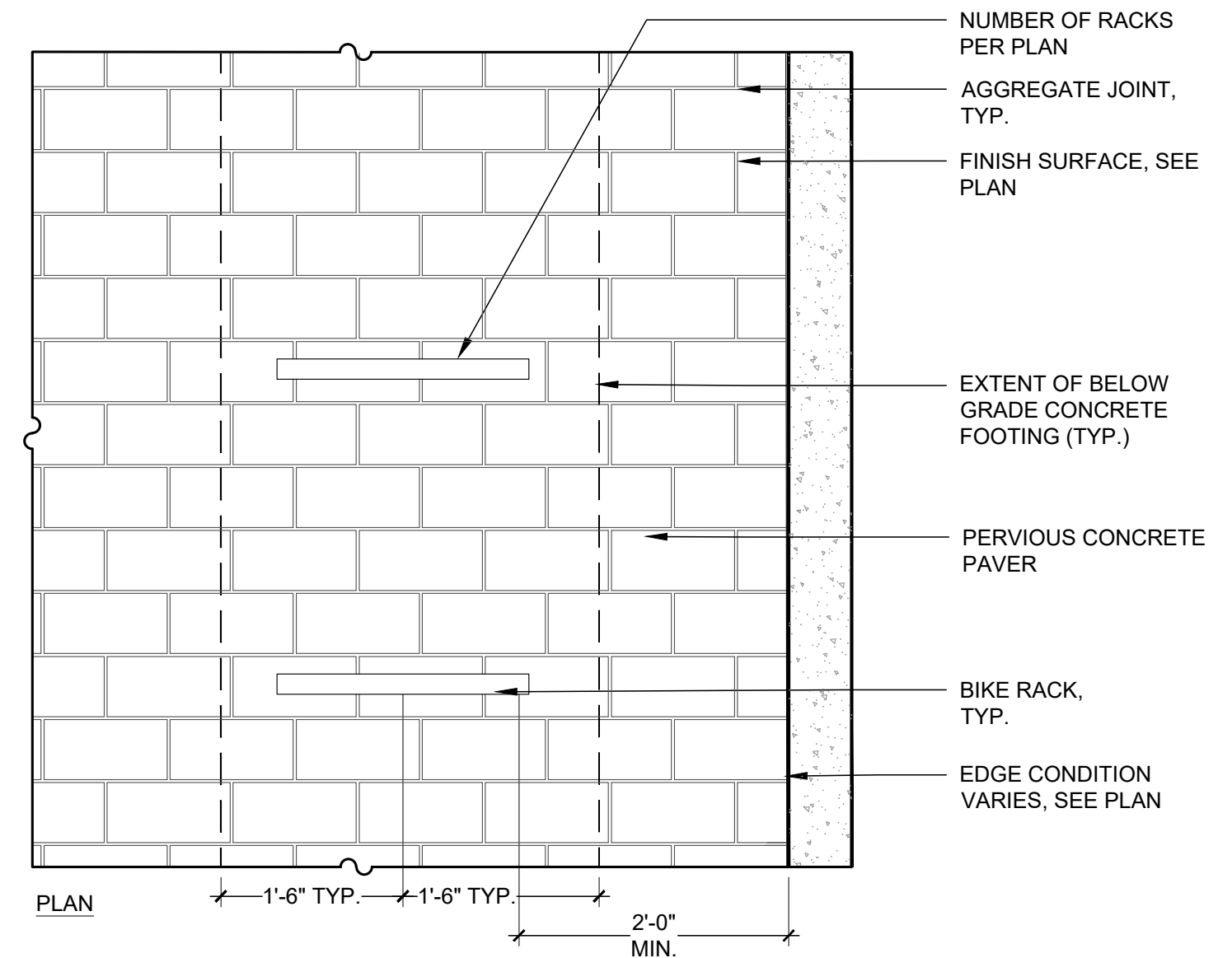
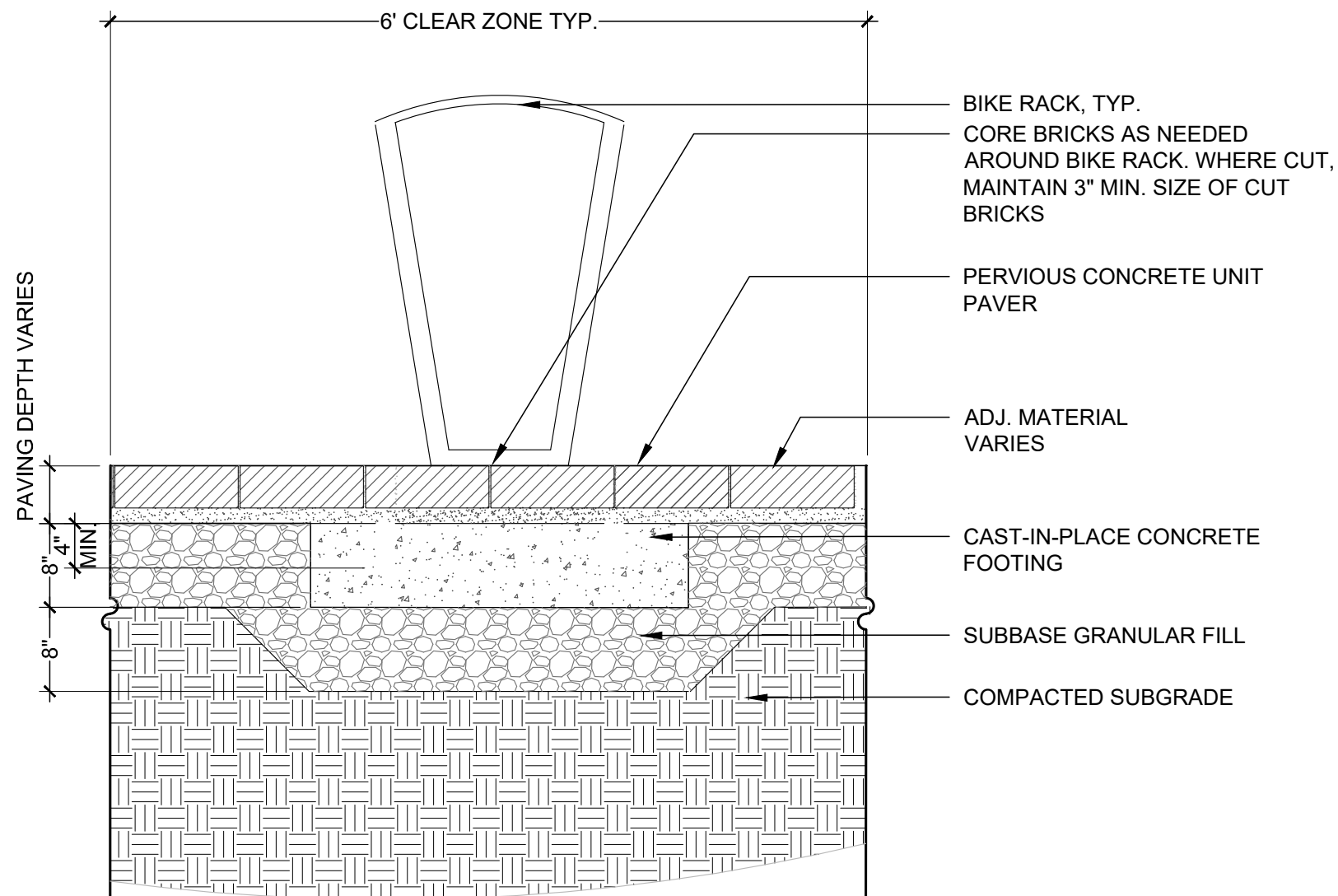
H. PAVER GRATES



NOTES:

1. ORIENT FRAME JOINT 90 DEGREES TO CURB
2. PAVER GRATE SHALL BE INSTALLED AT HEIGHT TO ACCOMMODATE MESH, GEOTEXTILE FABRIC, SETTING BEDS, AND PAVERS WHILE MAINTAINING SMOOTH TRANSITION TO ADJACENT SURFACES. INNER PAVER GRATE FRAME TO EXCEED THE BOTTOM OF THE PAVERS BY 1" MAXIMUM TO PREVENT HORIZONTAL MOVEMENT.
3. ENSURE MESH EXTENDS TO EDGE OF INNER FRAME TO ENSURE EVEN PAVER BEDDING.
4. THE DESIGN INTENT IS THAT THE PERMEABLE PAVER ZONE WILL COMPRISE EITHER 18 OR 15 (SEE PLANS) FULL RUNNING BOND PAVER COURSES WITH NO CUTS. THE DIMENSION SHALL BE FULLY COORDINATED BETWEEN ACTUAL DIMENSIONS OF PAVERS, TREE GRATES AND SITE CONDITIONS. CONCRETE WALK SHALL BE CONSTRUCTED TO ACCOMMODATE THIS REQUIREMENT. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE BETWEEN TRADES AND CONSTRUCT MOCK-UPS AS REQUIRED IN ORDER TO DETERMINE EXACT DIMENSIONS.
5. ENSURE THAT PAVERS ARE RESTRAINED BY 1" MINIMUM THICKNESS BY TREE INSERT AT THE TREE OPENING.
6. CUT UNIT PAVERS TO FIT AROUND TREE OPENING ENSURING A SECURE FIT AGAINST PAVER GRATE SUSPENDED PAVEMENT SYSTEM TREE INSERT.
7. UNIT PAVER BEDDING TO NOT EXCEED $\frac{1}{4}$ " THICKNESS WHEN INSTALLED OVER PAVER GRATE.

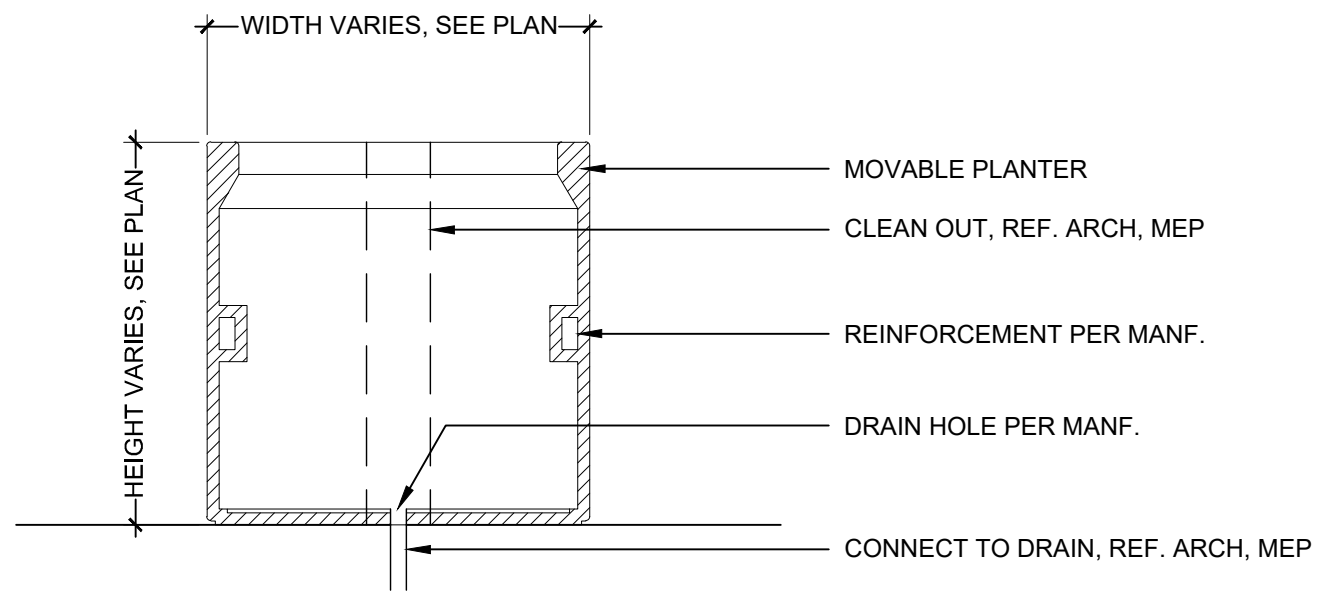
H. PAVER GRATES (CONTINUED)



ELEVATION

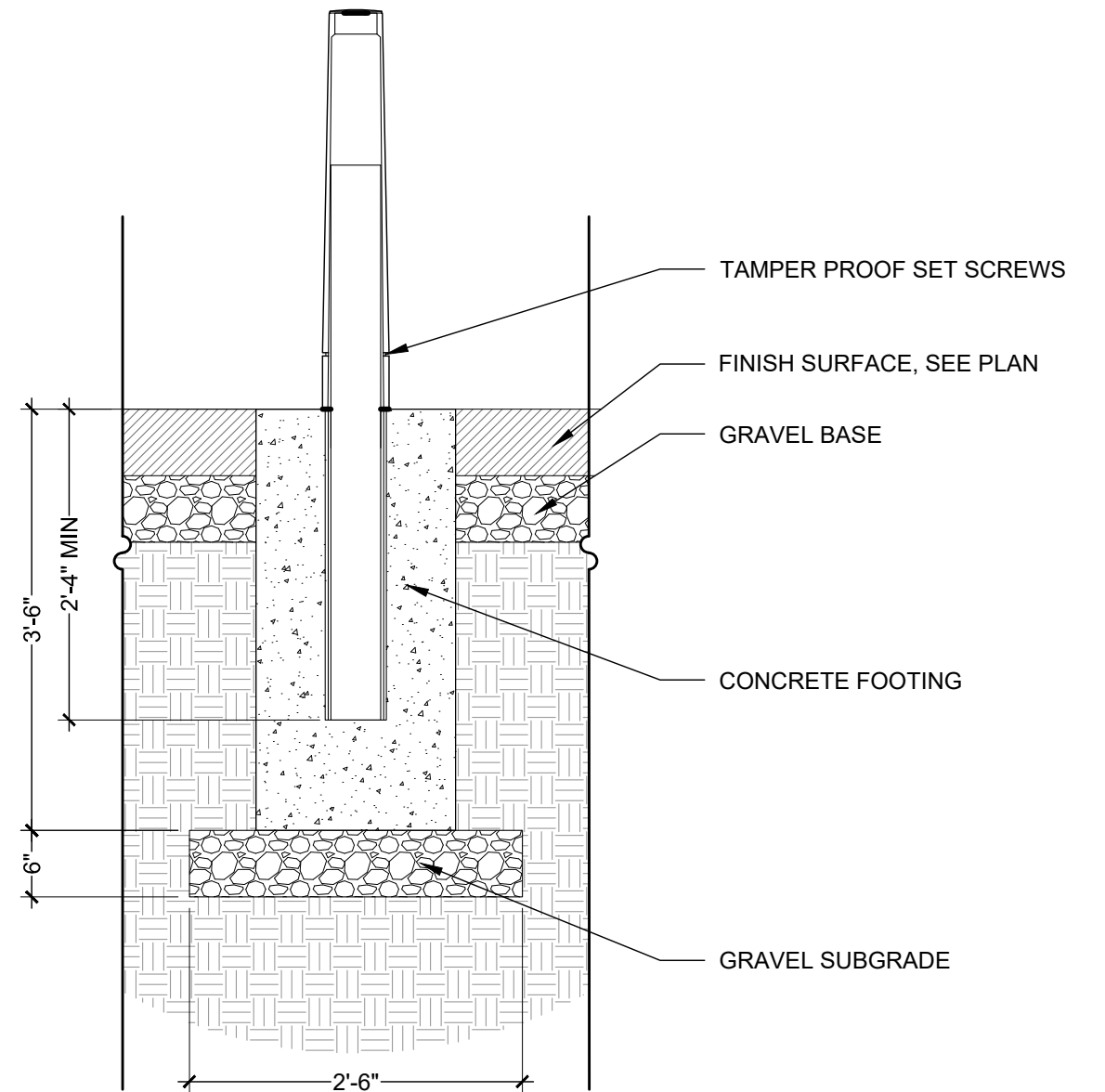
PLAN

I. BIKE RACK



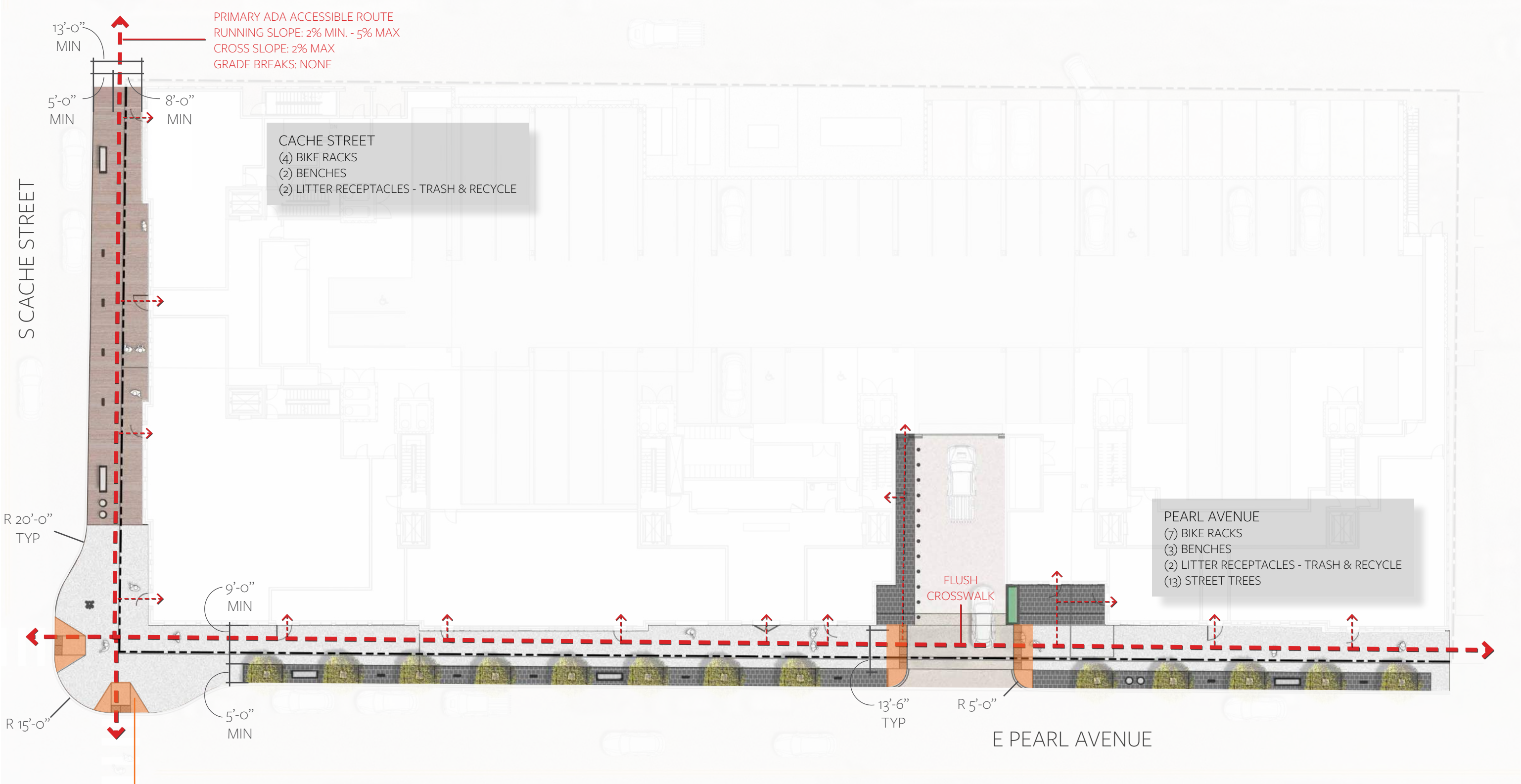
SECTION - TYPICAL

J. PLANTER IN SEATING AREA



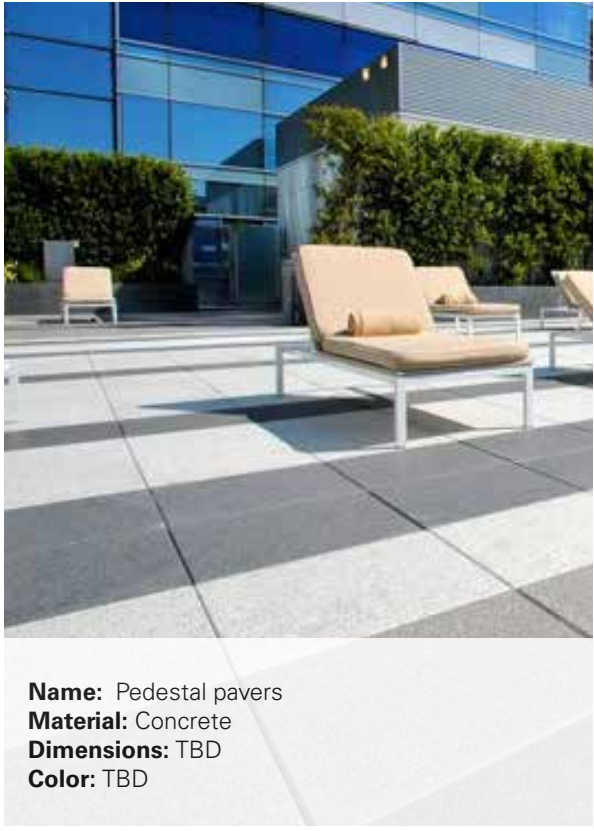
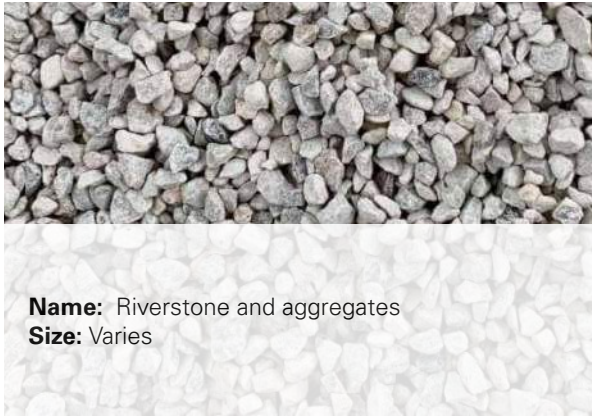
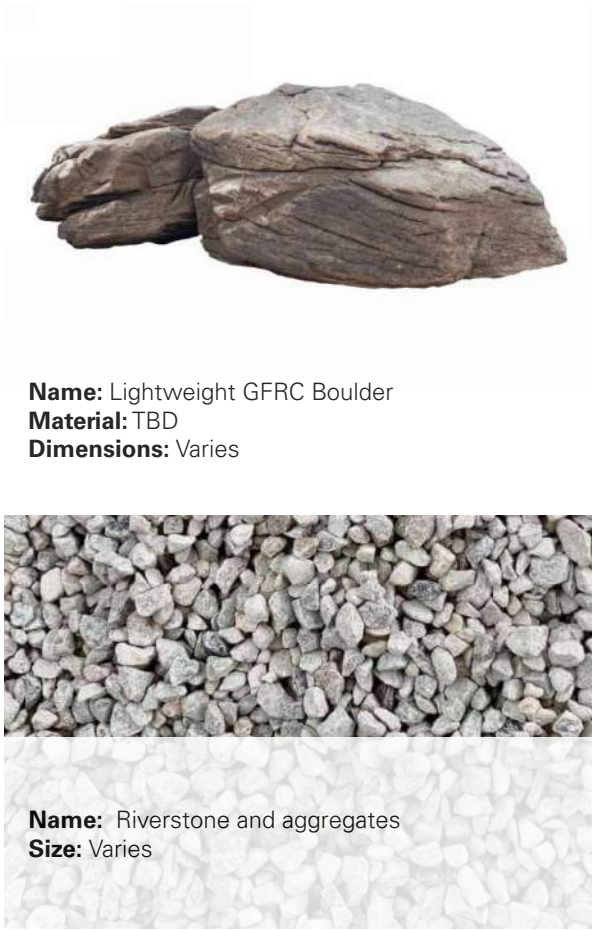
SECTION

K. BOLLARDS



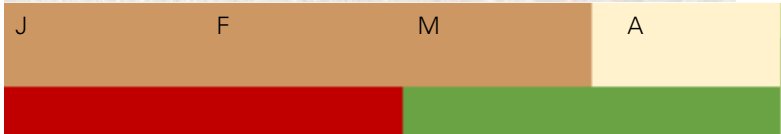
ADA CURB RAMP
RUNNING SLOPE: 8% MAX
CROSS SLOPE: 2% MAX
RAMP FLARE SLOPE: 10% MAX
WIDTH: 5'-0"

SECOND FLOOR EXTERIOR - VISUAL COURTYARD

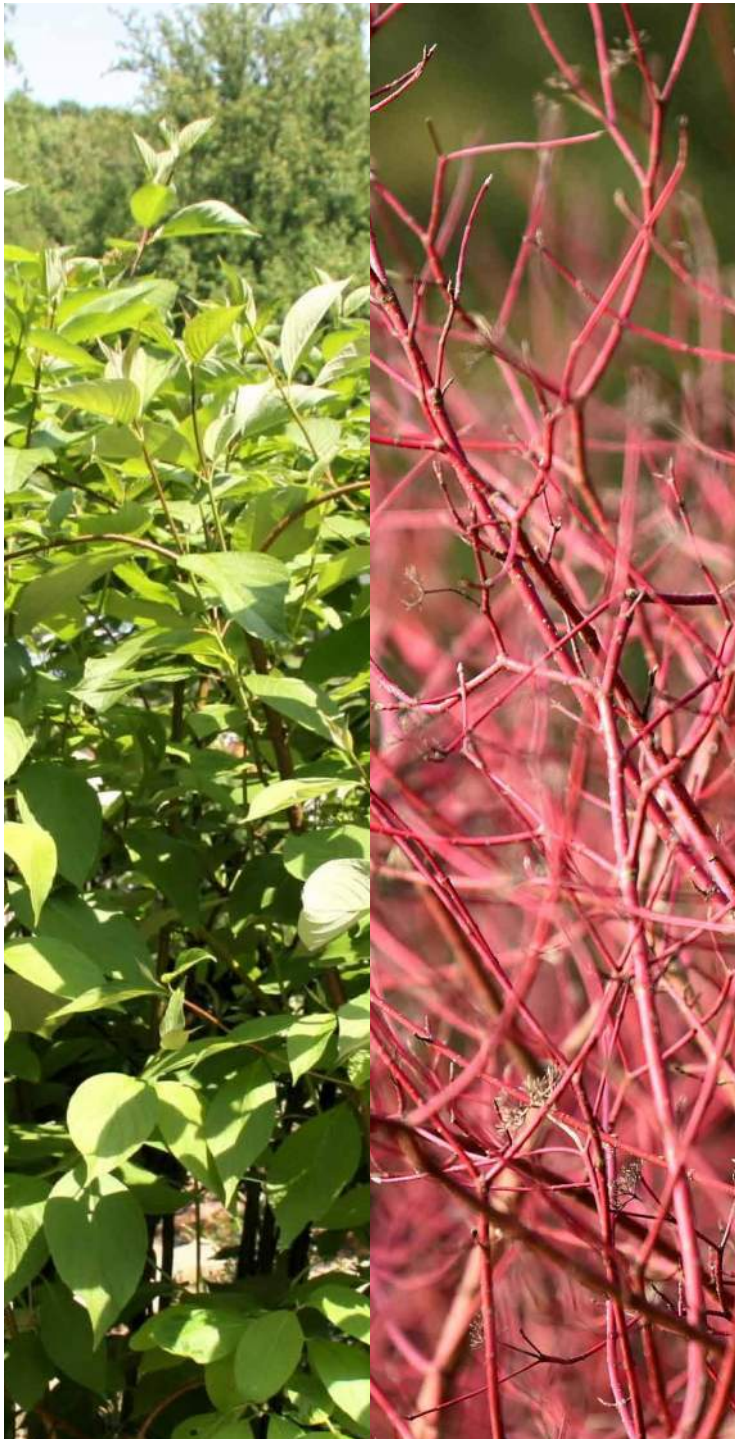




Botanical Name: *Crataegus viridis* 'Winter King'
Common Name: Green Hawthorn
Height: 15-20'
Spread: 15-20'



Botanical Name: *Amelanchier x grandiflora* 'Autumn Brilliance'
Common Name: Serviceberry
Height: 15-25'
Spread: 15-20'



Botanical Name: *Cornus sericea*
Common Name: Redtwig Dogwood
Height: 6-10'
Spread: 6-10'





Botanical Name: *Artemisia cana*
Common Name: Silver Sagebrush
Height: 1-6'
Spread: 2-3'



Botanical Name: *Festuca idahoensis*
Common Name: 'Siskiyou Blue' Idaho Fescue
Height: 15-18"
Spread: 12-15"



Botanical Name: *Bouteloua curtipendula*
Common Name: Sideoats Grama
Height: 8-24"
Spread: 8-12"



Botanical Name: *Juniperus horizontalis*
Common Name: Blue Chip Juniper
Height: 8-12"
Spread: 6-8"






Botanical Name: *Linum lewisii*
Common Name: Wild Blue Flax
Height: 1-2'
Spread: 12-18"



Botanical Name: *Penstemon strictus*
Common Name: Rocky Mountain Penstemon
Height: 18-24"
Spread: 12-18"



Botanical Name: *Campanula rotundiflora*
Common Name: Native Blue Harbell
Height: 6-18"
Spread: 12-18"

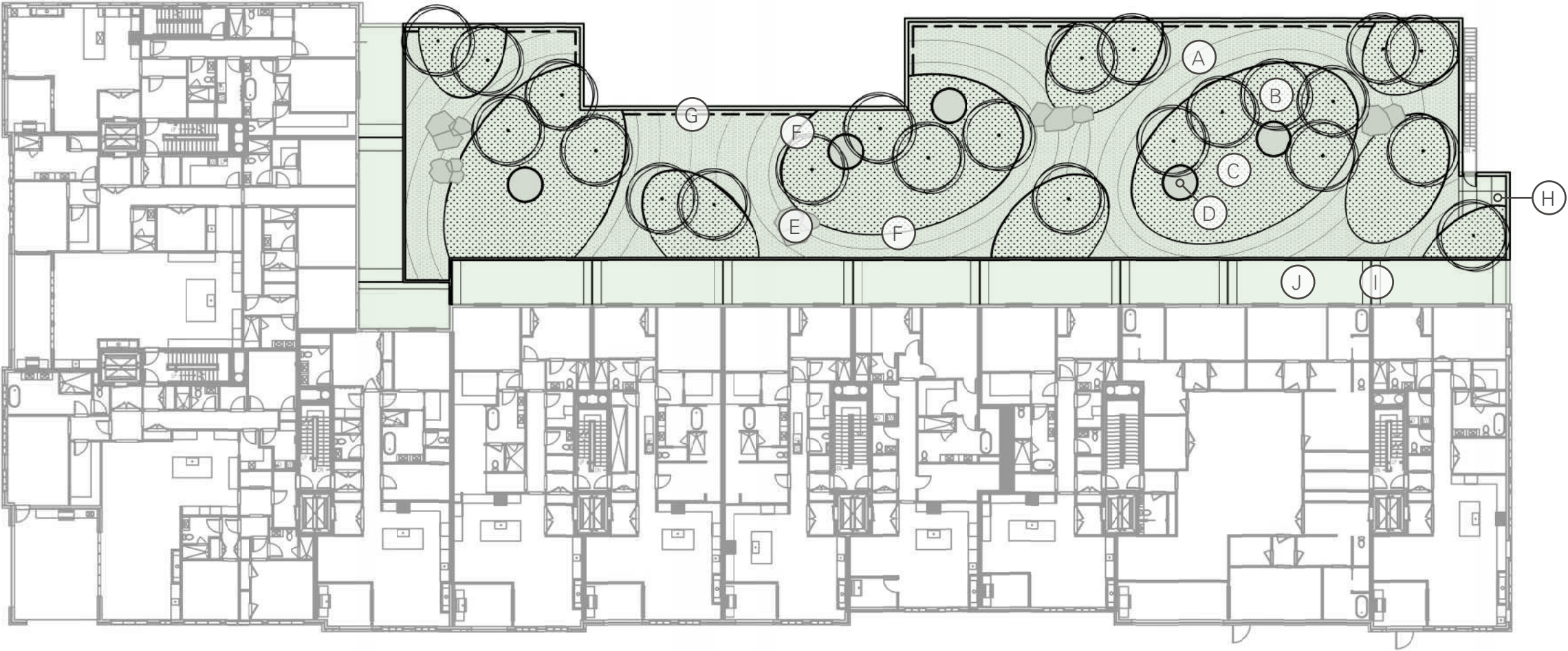


Botanical Name: *Osteospermum barberiae compactum* PURPLE MOUNTAIN®
Common Name: Sun Daisy, PURPLE MOUNTAIN®
Height: 8-10"
Spread: 10-12"



Botanical Name: *Dalea purpurea*
Common Name: Clover, Purple Prairie
Height: 2-3'
Spread: 1-2'





- LEGEND
- (A) ZEN GARDEN RIVERSTONE
 - (B) ORNAMENTAL TREE PLANTINGS
 - (C) PERENNIALS, GRASSES & GROUNDCOVERS
 - (D) LIGHTWELL
 - (E) LIGHTWEIGHT GFRC BOULDER
 - (F) METAL RETAINING WALL & CURB
 - (G) WOOD SCREEN
 - (H) PAVED LANDING
 - (I) SCREEN WALL WITH PLANTER BOXES
 - (J) RESIDENTIAL TERRACES

THIRD FLOOR EXTERIOR - ROOFTOP TERRACE



Name: Pedestal pavers
Material: Concrete
Dimensions: TBD
Color: TBD



Name: Shade Umbrella
Material: TBD
Dimensions: TBD
Color: TBD



Name: Planter
Material: Concrete with metal veneer
Dimensions: TBD
Color: TBD



Name: Fire Feature
Material: TBD
Dimensions: TBD
Color: TBD



Botanical Name: *Picea pungens*
Common Name: Blue Spruce
Height: 30-60'
Spread: 10-20'



Botanical Name: *Juniperus scopulorum*
Common Name: Rocky Mountain Juniper
Height: 20-30'
Spread: 10-15'



Botanical Name: *Prunus besseyi* 'Pawnee Buttes'
Common Name: Sand Cherry
Height: 15-30"
Spread: 4-6'



Botanical Name: *Cornus sericea*
Common Name: Redtwig Dogwood
Height: 6-10'
Spread: 6-10'





Botanical Name: *Artemisia cana*
Common Name: Silver Sagebrush
Height: 1-6'
Spread: 2-3'



Botanical Name: *Festuca idahoensis*
Common Name: 'Siskiyou Blue' Idaho Fescue
Height: 15-18"
Spread: 12-15"



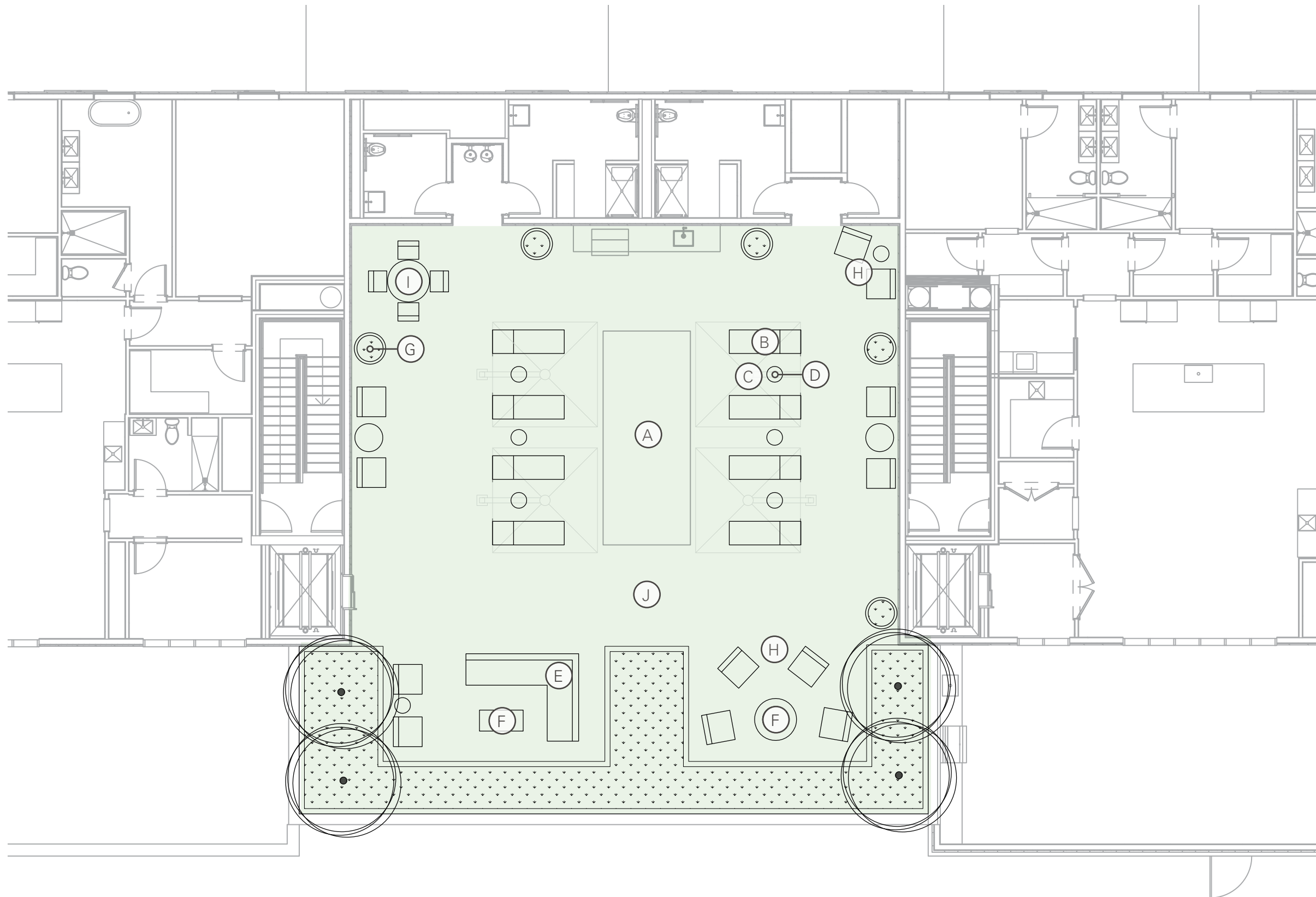
Botanical Name: *Bouteloua curtipendula*
Common Name: Sideoats Grama
Height: 8-24"
Spread: 8-12"



Botanical Name: *Juniperus horizontalis*
Common Name: Blue Chip Juniper
Height: 8-12"
Spread: 6-8"



ROOFTOP TERRACE DIAGRAM PLAN



- LEGEND
- (A) SPA FEATURE
 - (B) LOUNGE CHAIR
 - (C) UMBRELLA
 - (D) SIDE TABLE
 - (E) COUCH
 - (F) FIRE FEATURE
 - (G) MOVEABLE PLANTER
 - (H) ADIRONDACK CHAIR
 - (I) MOVEABLE TABLE & CHAIRS
 - (J) PEDESTAL PAVERS

CONSTRUCTION NOTES

- 1

THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE IRRIGATION WATER TAP AND METER INSTALLED BY OTHERS AT THE APPROXIMATE LOCATION SHOWN. INSTALL BACKFLOW PREVENTION UNIT AND MASTER VALVE ASSEMBLY AS INDICATED, SAME SIZE AS POC. VERIFY EXACT LOCATION OF POC WITH OWNER'S REPRESENTATIVE.
- 2

PEDESTAL / WALL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. COORDINATE ELECTRICAL POWER TO THE CONTROLLER WITH THE OWNER'S REPRESENTATIVE. CARE SHOULD BE TAKEN TO INSTALL THE IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL. FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- 3

IRRIGATION SHOWN OUT OF LANDSCAPED AREA FOR CLARITY ONLY. INSTALL IRRIGATION COMPONENTS WITHIN LANDSCAPED AREA.
- 4

MAINLINE AND LATERAL LINES ARE SHOWN IN SAME SLEEVE FOR CLARITY ONLY. MAINLINE, CONTROL WIRES, AND LATERAL PIPE SHALL BE INSTALLED IN SEPARATE SLEEVES.
- 5

SLEEVES ARE SHOWN BROKEN-UP FOR CLARITY ONLY. MAINLINE, LATERALS, AND WIRES SLEEVES THAT CROSS EACH OTHER SHALL BE INSTALLED AS FULL SLEEVES. LINES SHOWN THROUGH OTHER LANDSCAPE FEATURES (POT LATERAL LINE THROUGH HANGING BASKET) SHALL BE ONE SOLID SLEEVE, NOT BROKEN UP AS SHOWN.

ESTIMATED ANNUAL WATER USE

THE IRRIGATION SYSTEM AS SHOWN ON THIS PLAN HAS AN ESTIMATED ANNUAL WATER USE OF 355,131 GALLONS. TO VERIFY EFFICIENT IRRIGATION SYSTEM OPERATION, THE OWNER SHALL COMPARE THIS ESTIMATED IRRIGATION WATER USE WITH ACTUAL WATER USE, AS RECORDED ON SITE, AFTER ALL PLANT MATERIAL HAS BEEN ESTABLISHED.

THE ESTIMATED ANNUAL IRRIGATION WATER USE OF THIS SYSTEM IS BASED ON 30-YEARS AVERAGE EVAPOTRANSPIRATION RATES (ET) FOR THE LOCAL AREA AND TYPICAL NEW IRRIGATION SYSTEM EQUIPMENT EFFICIENCIES. MAJOR DEVIATIONS FROM THIS ESTIMATE USE SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER AND CURRENT IRRIGATION MAINTENANCE COMPANY AT THE TIME OF THE DEVIATION.

TO VERIFY EFFICIENT IRRIGATION SYSTEM OPERATION AND WATER USE, AN IRRIGATION SYSTEM EVALUATION AND AUDIT SHOULD BE PERFORMED.

CONCEPTUAL IRRIGATION LEGEND

- BED SPRAY (ORNAMENTAL BEDS)
TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
- BED SPRAY (SEDUM BEDS)
TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
- SHRUBS AND PERENNIALS
TO BE IRRIGATED USING INLINE EMITTER DRIP TUBING WITH CHECK VALVES 0.6 GPM EMITTER, AT 12 INCHES ON CENTER TUBING ROWS SPACED 12 INCHES APART
- TREE BUBBLERS
TO BE IRRIGATED WITH TWO (2) TREE BUBBLERS PER TREE

CONCEPTUAL IRRIGATION NOTES

- 1

THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE IRRIGATION WATER TAP AND METER INSTALLED BY THE UTILITY CONTRACTOR AT THE APPROXIMATE LOCATION SHOWN. IRRIGATION CONTRACTOR TO INSTALL BACKFLOW PREVENTION UNIT, SAME SIZE AS POC. VERIFY EXACT LOCATION OF POC WITH OWNER'S REPRESENTATIVE.
- 2

IRRIGATION CONTRACTOR TO WALL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. ELECTRICAL POWER TO THE CONTROLLER TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR, TERMINATED IN A JUNCTION BOX FOR HARD-WIRE CONNECTION TO THE IRRIGATION CONTROLLER. CARE SHOULD BE TAKEN TO INSTALL THE IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL. FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.

IRRIGATION LEGEND

- SLEEVES: CLASS 200 PVC
- POINT-OF-CONNECTION ASSEMBLY
- MAINLINE PIPE: CLASS 200 PVC
X-INCH SIZE UNLESS OTHERWISE INDICATED
- LATERAL PIPE TO SPRINKLERS: CLASS 200 PVC
1-INCH SIZE UNLESS OTHERWISE INDICATED
- UNCONNECTED PIPE CROSSING
- INLINE DRIP TUBING: NETAFIM TLCV26-12 WITH RAINBIRD XQF DRIPLINE HEADER
- REMOTE CONTROL VALVE ASSEMBLY FOR SPRINKLER LATERALS:
RAIN BIRD PEB (SIZED PER PLAN)
- REMOTE CONTROL DRIP VALVE ASSEMBLY: RAIN BIRD XCZ-100-PRB-COM
- QUICK COUPLING VALVE ASSEMBLY: RAIN BIRD 5RC/SNP
- ISOLATION GATE VALVE ASSEMBLY: NIBCO T-136
- FLOW SENSOR ASSEMBLY: RAIN BIRD FSXXXB
- BACKFLOW PREVENTION ASSEMBLY: FEBCO 825YA
- MASTER VALVE ASSEMBLY: RAIN BIRD PESB
- POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/8 SERIES NOZZLE
PRESSURE: 30 PSI RADIUS: 8 FEET
FLOW (GPM): Q-0.24 H-0.47 F-0.97
- POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/10 SERIES NOZZLE
PRESSURE: 30 PSI RADIUS: 10 FEET
FLOW (GPM): Q-0.42 H-0.88 F-1.59
- POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/12 SERIES NOZZLE
PRESSURE: 30 PSI RADIUS: 12 FEET
FLOW (GPM): Q-0.67 H-1.30 F-2.70
- POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15 SERIES NOZZLE
PRESSURE: 30 PSI RADIUS: 15 FEET
FLOW (GPM): Q-0.97 H-1.86 F-3.75
- POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/ ADJUSTABLE NOZZLE
PRESSURE: 30 PSI RADIUS: 5 FEET TO 15 FEET
FLOW (GPM): 08A-0.44 10A-0.50 12A-0.32 15A-0.47
- POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15SS SERIES NOZZLE
PRESSURE: 30 PSI RADIUS: 5 FEET X 15 FEET
FLOW (GPM): ES515-0.65 SS530-1.30
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP1000 NOZZLES
PRESSURE: 40 PSI RADIUS: 8 FEET TO 15 FEET
FLOW (GPM): M-0.42 L-0.63 O-0.84
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP2000 NOZZLES
PRESSURE: 40 PSI RADIUS: 13 FEET TO 21 FEET
FLOW (GPM): K-0.77 G-1.10 R-1.48
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3000 NOZZLES
PRESSURE: 40 PSI RADIUS: 22 FEET TO 30 FEET
FLOW (GPM): B-1.82 Y-2.73 A-3.64
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3500 NOZZLE
PRESSURE: 40 PSI RADIUS: 31 FEET TO 35 FEET
FLOW (GPM): 90°-1.28 180°-2.86 210°-3.29
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MPCORNER NOZZLE
PRESSURE: 40 PSI RADIUS: 8 FEET TO 14 FEET
FLOW (GPM): 45°-0.19 90°-0.39 105°-0.45
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MPSTRIP NOZZLES
PRESSURE: 40 PSI RADIUS: ADJUSTABLE RECTANGULAR SPRAY
FLOW (GPM): SST - 4'X24'-0.34 5'X30'-0.47 LCS/RCS - 4'X12'-0.17 5'X15'-0.23
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP800SR NOZZLES
PRESSURE: 40 PSI RADIUS: 6 FEET TO 12 FEET
FLOW (GPM): 90°-0.23 180°-0.42 210°-0.43 360°-0.78
- POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP815 NOZZLES
PRESSURE: 40 PSI RADIUS: 8 FEET TO 15 FEET
FLOW (GPM): M-0.93 L-1.40 O-1.87
- IRRIGATION CONTROLLER UNIT WITH [EDIT FOR WEATHER SENSOR]
[EDIT FOR COMMUNICATION]
CONTROLLER A: BASELINE 3200
- LATERAL PIPE TO TREE DRIP EMITTERS: UV RADIATION RESISTANT POLYETHYLENE 3/4-INCH SIZE UNLESS OTHERWISE INDICATED, ROUTING IS DIAGRAMMATIC
- TREE BUBBLER ASSEMBLY: XXX (Y) RAIN BIRD 140ZZZ BUBBLERS
PRESSURE: 30 PSI
FLOW (GPM): X.YY PER BUBBLER; X.ZZ PER ASSEMBLY
- GROUNDING AND SURGE ARRESTOR ASSEMBLY: RAIN BIRD LSP-1TURF
- WEATHER SENSOR: CONTACT HINES INC FOR WEATHER SENSOR SPECIFICATION

INSTALLATION GENERAL NOTES

1.

THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF XX PSI (PER CITY ENGINEER), AT A MAXIMUM DISCHARGE OF 10 GPM AT THE 3/4-INCH IRRIGATION POINT-OF-CONNECTION (POC). TAP, METER, BACKFLOW PREVENTER, AND MASTER VALVE SHALL ALL BE THE SAME SIZE. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
2.

READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
3.

COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
4.

DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED, BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
5.

THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:

A.

ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.

B.

TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES.

C.

USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF TEES IN THE BULLNOSE CONFIGURATION, OR USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.
6.

PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:

A.

TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES.

B.

TWO (2) OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
7.

SELECT NOZZLES FOR SPRAY AND ROTARY SPRINKLERS WITH ARCS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
8.

THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. PIPE SLEEVES SHALL BE SIZED TWICE THE NOMINAL SIZE OF THE PIPE PASSING THROUGH.
9.

INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
10.

THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
11.

INSTALL TWO (2) #14 AWG CONTROL WIRES ON STANDARD WIRE SYSTEMS OR ONE (1) #14 AWG TWO-WIRE PAIR ON TWO-WIRE SYSTEMS, FOR USE AS SPARES. INSTALL SPARE WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE. COIL 3 FEET OF WIRE IN VALVE BOX.

IRRIGATION LEGEND

	SLEEVES: CLASS 200 PVC		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/8 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 8 FEET FLOW (GPM): Q-0.24 H-0.47 F-0.97
	POINT-OF-CONNECTION ASSEMBLY		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/10 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 10 FEET FLOW (GPM): Q-0.42 H-0.88 F-1.59
	MAINLINE PIPE: CLASS 200 PVC X-INCH SIZE UNLESS OTHERWISE INDICATED		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/12 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 12 FEET FLOW (GPM): Q-0.67 H-1.30 F-2.70
	LATERAL PIPE TO SPRINKLERS: CLASS 200 PVC 1-INCH SIZE UNLESS OTHERWISE INDICATED		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 15 FEET FLOW (GPM): Q-0.97 H-1.86 F-3.75
	UNCONNECTED PIPE CROSSING		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/ ADJUSTABLE NOZZLE PRESSURE: 30 PSI RADIUS: 5 FEET TO 15 FEET FLOW (GPM): 08A-0.44 10A-0.50 12A-0.32 15A-0.47
	INLINE DRIP TUBING: NETAFIM TLCV26-12 WITH RAINBIRD XQF DRIPLINE HEADER		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15SS SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 5 FEET X 15 FEET FLOW (GPM): ES515-0.65 SS530-1.30
	REMOTE CONTROL VALVE ASSEMBLY FOR SPRINKLER LATERALS: RAIN BIRD PEB (SIZED PER PLAN)		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP1000 NOZZLES PRESSURE: 40 PSI RADIUS: 8 FEET TO 15 FEET FLOW (GPM): M-0.42 L-0.63 O-0.84
	REMOTE CONTROL DRIP VALVE ASSEMBLY: RAIN BIRD XCZ-100-PRB-COM		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP2000 NOZZLES PRESSURE: 40 PSI RADIUS: 13 FEET TO 21 FEET FLOW (GPM): K-0.77 G-1.10 R-1.48
	QUICK COUPLING VALVE ASSEMBLY: RAIN BIRD SRC/SNP		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3000 NOZZLES PRESSURE: 40 PSI RADIUS: 22 FEET TO 30 FEET FLOW (GPM): B-1.82 Y-2.73 A-3.64
	ISOLATION GATE VALVE ASSEMBLY: NIBCO T-136		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3500 NOZZLE PRESSURE: 40 PSI RADIUS: 31 FEET TO 35 FEET FLOW (GPM): 90"-1.28 180"-2.86 210"-3.29
	FLOW SENSOR ASSEMBLY: RAIN BIRD FSXXXB		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MPCORNER NOZZLE PRESSURE: 40 PSI RADIUS: 8 FEET TO 14 FEET FLOW (GPM): 45"-0.19 90"-0.39 105"-0.45
	BACKFLOW PREVENTION ASSEMBLY: FEBCO 825YA		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP800SR NOZZLES PRESSURE: 40 PSI RADIUS: 6 FEET TO 12 FEET FLOW (GPM): 90"-0.23 180"-0.42 210"-0.43 360"-0.78
	MASTER VALVE ASSEMBLY: RAIN BIRD PESB		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP815 NOZZLES PRESSURE: 40 PSI RADIUS: 8 FEET TO 15 FEET FLOW (GPM): M-0.93 L-1.40 O-1.87
	INDICATES CONTROLLER AND STATION NUMBER		
	INDICATES LATERAL DISCHARGE (GPM)		
	INDICATES VALVE SIZE (INCHES)		
	INDICATES LANDSCAPE APPLICATION		
	IRRIGATION CONTROLLER UNIT WITH [EDIT FOR WEATHER SENSOR] [EDIT FOR COMMUNICATION] CONTROLLER A: BASELINE 3200		
	LATERAL PIPE TO TREE DRIP EMITTERS: UV RADIATION RESISTANT POLYETHYLENE 3/4-INCH SIZE UNLESS OTHERWISE INDICATED, ROUTING IS DIAGRAMMATIC		
	TREE BUBBLER ASSEMBLY: XXX (Y) RAIN BIRD 140ZZZ BUBBLERS PRESSURE: 30 PSI FLOW (GPM): X-YY PER BUBBLER; X.ZZ PER ASSEMBLY		
	GROUNDING AND SURGE ARRESTOR ASSEMBLY: RAIN BIRD LSP-1TURF		
	WEATHER SENSOR: CONTACT HINES INC FOR WEATHER SENSOR SPECIFICATION		

INSTALLATION GENERAL NOTES

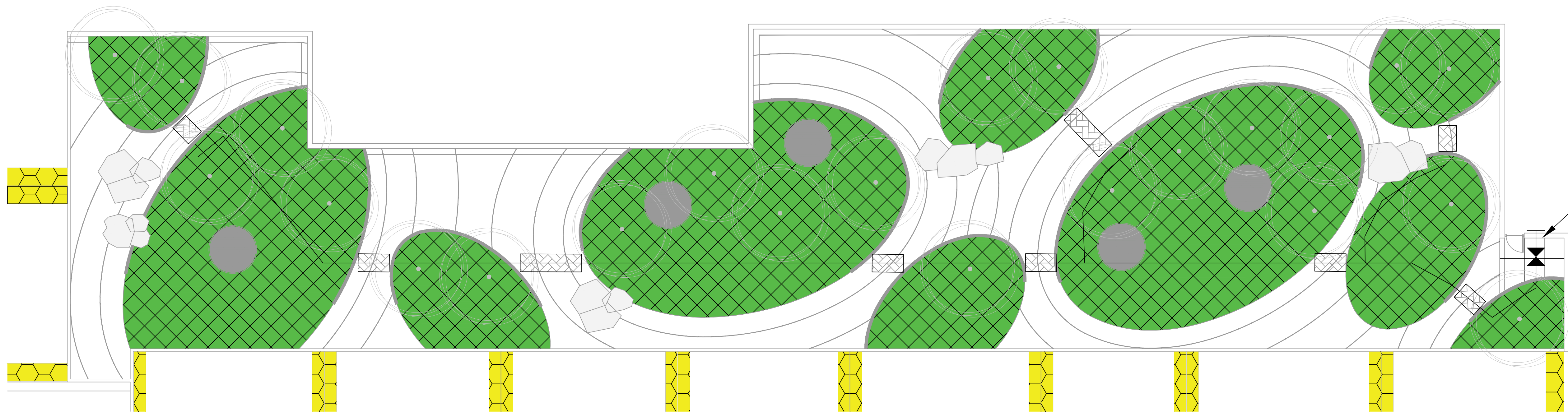
- THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF XX PSI (PER CITY ENGINEER), AT A MAXIMUM DISCHARGE OF 10 GPM AT THE 3/4-INCH IRRIGATION POINT-OF-CONNECTION (POC), TAP, METER, BACKFLOW PREVENTER, AND MASTER VALVE SHALL ALL BE THE SAME SIZE. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
- READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
- COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED, BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
 - ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
 - TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES.
 - USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF TEES IN THE BULLNOSE CONFIGURATION, OR USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.
- PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:
 - TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES.
 - TWO (2) OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
- SELECT NOZZLES FOR SPRAY AND ROTARY SPRINKLERS WITH ARCS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
- THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. PIPE SLEEVES SHALL BE SIZED TWICE THE NOMINAL SIZE OF THE PIPE PASSING THROUGH.
- INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
- THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
- INSTALL TWO (2) #14 AWG CONTROL WIRES ON STANDARD WIRE SYSTEMS OR ONE (1) #14 AWG TWO-WIRE PAIR ON TWO-WIRE SYSTEMS, FOR USE AS SPARES. INSTALL SPARE WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE. COIL 3 FEET OF WIRE IN VALVE BOX.

CONCEPTUAL IRRIGATION LEGEND

	BED SPRAY (ORNAMENTAL BEDS) TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
	BED SPRAY (SEDUM BEDS) TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
	SHRUBS AND PERENNIALS TO BE IRRIGATED USING INLINE EMITTER DRIP TUBING WITH CHECK VALVES 0.6 GPM EMITTER, AT 12 INCHES ON CENTER TUBING ROWS SPACED 12 INCHES APART
	TREE BUBBLERS TO BE IRRIGATED WITH TWO (2) TREE BUBBLERS PER TREE

CONSTRUCTION NOTES

- THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE IRRIGATION WATER TAP AND METER INSTALLED BY OTHERS AT THE APPROXIMATE LOCATION SHOWN. INSTALL BACKFLOW PREVENTION UNIT AND MASTER VALVE ASSEMBLY AS INDICATED, SAME SIZE AS POC. VERIFY EXACT LOCATION OF POC WITH OWNERS REPRESENTATIVE.
- PEDESTAL / WALL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. COORDINATE ELECTRICAL POWER TO THE CONTROLLER WITH THE OWNERS REPRESENTATIVE. CARE SHOULD BE TAKEN TO INSTALL THE IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL. FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- IRRIGATION SHOWN OUT OF LANDSCAPED AREA FOR CLARITY ONLY. INSTALL IRRIGATION COMPONENTS WITHIN LANDSCAPED AREA.
- MAINLINE AND LATERAL LINES ARE SHOWN IN SAME SLEEVE FOR CLARITY ONLY. MAINLINE, CONTROL WIRES, AND LATERAL PIPE SHALL BE INSTALLED IN SEPARATE SLEEVES.
- SLEEVES ARE SHOWN BROKEN-UP FOR CLARITY ONLY. MAINLINE, LATERALS, AND WIRES SLEEVES THAT CROSS EACH OTHER SHALL BE INSTALLED AS FULL SLEEVES. LINES SHOWN THROUGH OTHER LANDSCAPE FEATURES (POT LATERAL LINE THROUGH HANGING BASKET) SHALL BE ONE SOLID SLEEVE, NOT BROKEN UP AS SHOWN.



POC 1
SIZE: 3/4-INCH
FLOW: 10 GPM
PRESSURE: 50 PSI

IRRIGATION LEGEND

	SLEEVES: CLASS 200 PVC		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/8 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 8 FEET FLOW (GPM): Q-0.24 H-0.47 F-0.97
	POINT-OF-CONNECTION ASSEMBLY		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/10 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 10 FEET FLOW (GPM): Q-0.42 H-0.88 F-1.59
	MAINLINE PIPE: CLASS 200 PVC X-INCH SIZE UNLESS OTHERWISE INDICATED		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/12 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 12 FEET FLOW (GPM): Q-0.67 H-1.30 F-2.70
	LATERAL PIPE TO SPRINKLERS: CLASS 200 PVC 1-INCH SIZE UNLESS OTHERWISE INDICATED		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 15 FEET FLOW (GPM): Q-0.97 H-1.86 F-3.75
	UNCONNECTED PIPE CROSSING		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/ ADJUSTABLE NOZZLE PRESSURE: 30 PSI RADIUS: 5 FEET TO 15 FEET FLOW (GPM): 08A-0.44 10A-0.50 12A-0.32 15A-0.47
	INLINE DRIP TUBING: NETAFIM TLCV26-12 WITH RAINBIRD XQF DRIPLINE HEADER		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15SS SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 5 FEET X 15 FEET FLOW (GPM): ES515-0.65 SS530-1.30
	REMOTE CONTROL VALVE ASSEMBLY FOR SPRINKLER LATERALS: RAIN BIRD PEB (SIZED PER PLAN)		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP1000 NOZZLES PRESSURE: 40 PSI RADIUS: 8 FEET TO 15 FEET FLOW (GPM): M-0.42 L-0.63 O-0.84
	REMOTE CONTROL DRIP VALVE ASSEMBLY: RAIN BIRD XCZ-100-PRB-COM		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP2000 NOZZLES PRESSURE: 40 PSI RADIUS: 13 FEET TO 21 FEET FLOW (GPM): K-0.77 G-1.10 R-1.48
	QUICK COUPLING VALVE ASSEMBLY: RAIN BIRD SRC/SNP		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3000 NOZZLES PRESSURE: 40 PSI RADIUS: 22 FEET TO 30 FEET FLOW (GPM): B-1.82 Y-2.73 A-3.64
	ISOLATION GATE VALVE ASSEMBLY: NIBCO T-136		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3500 NOZZLE PRESSURE: 40 PSI RADIUS: 31 FEET TO 35 FEET FLOW (GPM): 90"-1.28 180"-2.86 210"-3.29
	FLOW SENSOR ASSEMBLY: RAIN BIRD FSXXXB		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MPCORNER NOZZLE PRESSURE: 40 PSI RADIUS: 8 FEET TO 14 FEET FLOW (GPM): 45"-0.19 90"-0.39 105"-0.45
	BACKFLOW PREVENTION ASSEMBLY: FEBCO 825YA		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP800SR NOZZLES PRESSURE: 40 PSI RADIUS: 6 FEET TO 12 FEET FLOW (GPM): 90"-0.23 180"-0.42 210"-0.43 360"-0.78
	MASTER VALVE ASSEMBLY: RAIN BIRD PESB		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP815 NOZZLES PRESSURE: 40 PSI RADIUS: 8 FEET TO 15 FEET FLOW (GPM): M-0.93 L-1.40 O-1.87
	INDICATES CONTROLLER AND STATION NUMBER		
	INDICATES LATERAL DISCHARGE (GPM)		
	INDICATES VALVE SIZE (INCHES)		
	INDICATES LANDSCAPE APPLICATION		
	IRRIGATION CONTROLLER UNIT WITH [EDIT FOR WEATHER SENSOR] [EDIT FOR COMMUNICATION] CONTROLLER A: BASELINE 3200		
	LATERAL PIPE TO TREE DRIP EMITTERS: UV RADIATION RESISTANT POLYETHYLENE 3/4-INCH SIZE UNLESS OTHERWISE INDICATED, ROUTING IS DIAGRAMMATIC		
	TREE BUBBLER ASSEMBLY: XXX (Y) RAIN BIRD 140ZZZ BUBBLERS PRESSURE: 30 PSI FLOW (GPM): X-YY PER BUBBLER; X-ZZ PER ASSEMBLY		
	GROUNDING AND SURGE ARRESTOR ASSEMBLY: RAIN BIRD LSP-1TURF		
	WEATHER SENSOR: CONTACT HINES INC FOR WEATHER SENSOR SPECIFICATION		

INSTALLATION GENERAL NOTES

- THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF XX PSI (PER CITY ENGINEER), AT A MAXIMUM DISCHARGE OF 10 GPM AT THE 3/4-INCH IRRIGATION POINT-OF-CONNECTION (POC), TAP, METER, BACKFLOW PREVENTER, AND MASTER VALVE SHALL ALL BE THE SAME SIZE. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
- READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
- COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED, BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
 - ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
 - TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES.
 - USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF TEES IN THE BULLNOSE CONFIGURATION, OR USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.
- PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:
 - TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES.
 - TWO (2) OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
- SELECT NOZZLES FOR SPRAY AND ROTARY SPRINKLERS WITH ARCS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
- THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. PIPE SLEEVES SHALL BE SIZED TWICE THE NOMINAL SIZE OF THE PIPE PASSING THROUGH.
- INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
- THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
- INSTALL TWO (2) #14 AWG CONTROL WIRES ON STANDARD WIRE SYSTEMS OR ONE (1) #14 AWG TWO-WIRE PAIR ON TWO-WIRE SYSTEMS, FOR USE AS SPARES. INSTALL SPARE WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE. COIL 3 FEET OF WIRE IN VALVE BOX.







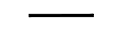


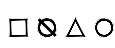









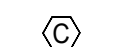




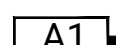
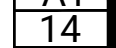
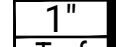




CONCEPTUAL IRRIGATION LEGEND

	BED SPRAY (ORNAMENTAL BEDS) TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
	BED SPRAY (SEDUM BEDS) TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
	SHRUBS AND PERENNIALS TO BE IRRIGATED USING INLINE EMITTER DRIP TUBING WITH CHECK VALVES 0.6 GPM EMITTER, AT 12 INCHES ON CENTER TUBING ROWS SPACED 12 INCHES APART
	TREE BUBBLERS TO BE IRRIGATED WITH TWO (2) TREE BUBBLERS PER TREE

CONSTRUCTION NOTES

- THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE IRRIGATION WATER TAP AND METER INSTALLED BY OTHERS AT THE APPROXIMATE LOCATION SHOWN. INSTALL BACKFLOW PREVENTION UNIT AND MASTER VALVE ASSEMBLY AS INDICATED, SAME SIZE AS POC. VERIFY EXACT LOCATION OF POC WITH OWNERS REPRESENTATIVE.
- PEDESTAL / WALL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. COORDINATE ELECTRICAL POWER TO THE CONTROLLER WITH THE OWNERS REPRESENTATIVE. CARE SHOULD BE TAKEN TO INSTALL THE IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL. FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- IRRIGATION SHOWN OUT OF LANDSCAPED AREA FOR CLARITY ONLY. INSTALL IRRIGATION COMPONENTS WITHIN LANDSCAPED AREA.
- MAINLINE AND LATERAL LINES ARE SHOWN IN SAME SLEEVE FOR CLARITY ONLY. MAINLINE, CONTROL WIRES, AND LATERAL PIPE SHALL BE INSTALLED IN SEPARATE SLEEVES.
- SLEEVES ARE SHOWN BROKEN-UP FOR CLARITY ONLY. MAINLINE, LATERALS, AND WIRES SLEEVES THAT CROSS EACH OTHER SHALL BE INSTALLED AS FULL SLEEVES. LINES SHOWN THROUGH OTHER LANDSCAPE FEATURES (POT LATERAL LINE THROUGH HANGING BASKET) SHALL BE ONE SOLID SLEEVE, NOT BROKEN UP AS SHOWN.

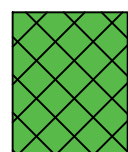
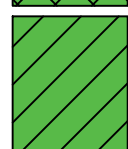
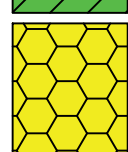
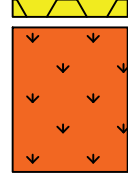
IRRIGATION LEGEND

	SLEEVES: CLASS 200 PVC		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/8 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 8 FEET FLOW (GPM): Q-0.24 H-0.47 F-0.97
	POINT-OF-CONNECTION ASSEMBLY		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/10 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 10 FEET FLOW (GPM): Q-0.42 H-0.88 F-1.59
	MAINLINE PIPE: CLASS 200 PVC X-INCH SIZE UNLESS OTHERWISE INDICATED		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/12 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 12 FEET FLOW (GPM): Q-0.67 H-1.30 F-2.70
	LATERAL PIPE TO SPRINKLERS: CLASS 200 PVC 1-INCH SIZE UNLESS OTHERWISE INDICATED		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 15 FEET FLOW (GPM): Q-0.97 H-1.86 F-3.75
	UNCONNECTED PIPE CROSSING		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/ ADJUSTABLE NOZZLE PRESSURE: 30 PSI RADIUS: 15 FEET FLOW (GPM): 08A-0.44 10A-0.50 12A-0.32 15A-0.47
	INLINE DRIP TUBING: NETAFIM TLCV26-12 WITH RAINBIRD XQF DRIPLINE HEADER		POP-UP SPRAY SPRINKLER: HUNTER PROS-06-PRS30-CV W/15SS SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 5 FEET X 15 FEET FLOW (GPM): ES515-0.65 SS530-1.30
	REMOTE CONTROL VALVE ASSEMBLY FOR SPRINKLER LATERALS: RAIN BIRD PEB (SIZED PER PLAN)		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP1000 NOZZLES PRESSURE: 40 PSI RADIUS: 8 FEET TO 15 FEET FLOW (GPM): M-0.42 L-0.63 O-0.84
	REMOTE CONTROL DRIP VALVE ASSEMBLY: RAIN BIRD XCZ-100-PRB-COM		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP2000 NOZZLES PRESSURE: 40 PSI RADIUS: 13 FEET TO 21 FEET FLOW (GPM): K-0.77 G-1.10 R-1.48
	QUICK COUPLING VALVE ASSEMBLY: RAIN BIRD SRC/SNP		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3000 NOZZLES PRESSURE: 40 PSI RADIUS: 22 FEET TO 30 FEET FLOW (GPM): B-1.82 Y-2.73 A-3.64
	ISOLATION GATE VALVE ASSEMBLY: NIBCO T-136		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP3500 NOZZLE PRESSURE: 40 PSI RADIUS: 31 FEET TO 35 FEET FLOW (GPM): 90"-1.28 180"-2.86 210"-3.29
	FLOW SENSOR ASSEMBLY: RAIN BIRD FSXXXB		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MPCORNER NOZZLE PRESSURE: 40 PSI RADIUS: 8 FEET TO 14 FEET FLOW (GPM): 45"-0.39 90"-0.39 105"-0.45
	BACKFLOW PREVENTION ASSEMBLY: FEBCO 825YA		POP-UP ROTATING SPRAY SPRINKLER: HUNTER PROS-06-PRS40-CV W/MP800SR NOZZLES PRESSURE: 40 PSI RADIUS: 6 FEET TO 12 FEET FLOW (GPM): 90"-0.23 180"-0.42 210"-0.43 360"-0.78
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	INDICATES CONTROLLER AND STATION NUMBER		
	INDICATES LATERAL DISCHARGE (GPM)		
	INDICATES VALVE SIZE (INCHES)		
	INDICATES LANDSCAPE APPLICATION		
	IRRIGATION CONTROLLER UNIT WITH [EDIT FOR WEATHER SENSOR] [EDIT FOR COMMUNICATION] CONTROLLER A: BASELINE 3200		
	LATERAL PIPE TO TREE DRIP EMITTERS: UV RADIATION RESISTANT POLYETHYLENE 3/4-INCH SIZE UNLESS OTHERWISE INDICATED, ROUTING IS DIAGRAMMATIC		
	TREE BUBBLER ASSEMBLY: XXX (Y) RAIN BIRD 140ZZZ BUBBLERS PRESSURE: 30 PSI FLOW (GPM): X-YY PER BUBBLER; X.ZZ PER ASSEMBLY		
	GROUNDING AND SURGE ARRESTOR ASSEMBLY: RAIN BIRD LSP-1TURF		
	WEATHER SENSOR: CONTACT HINES INC FOR WEATHER SENSOR SPECIFICATION		

INSTALLATION GENERAL NOTES

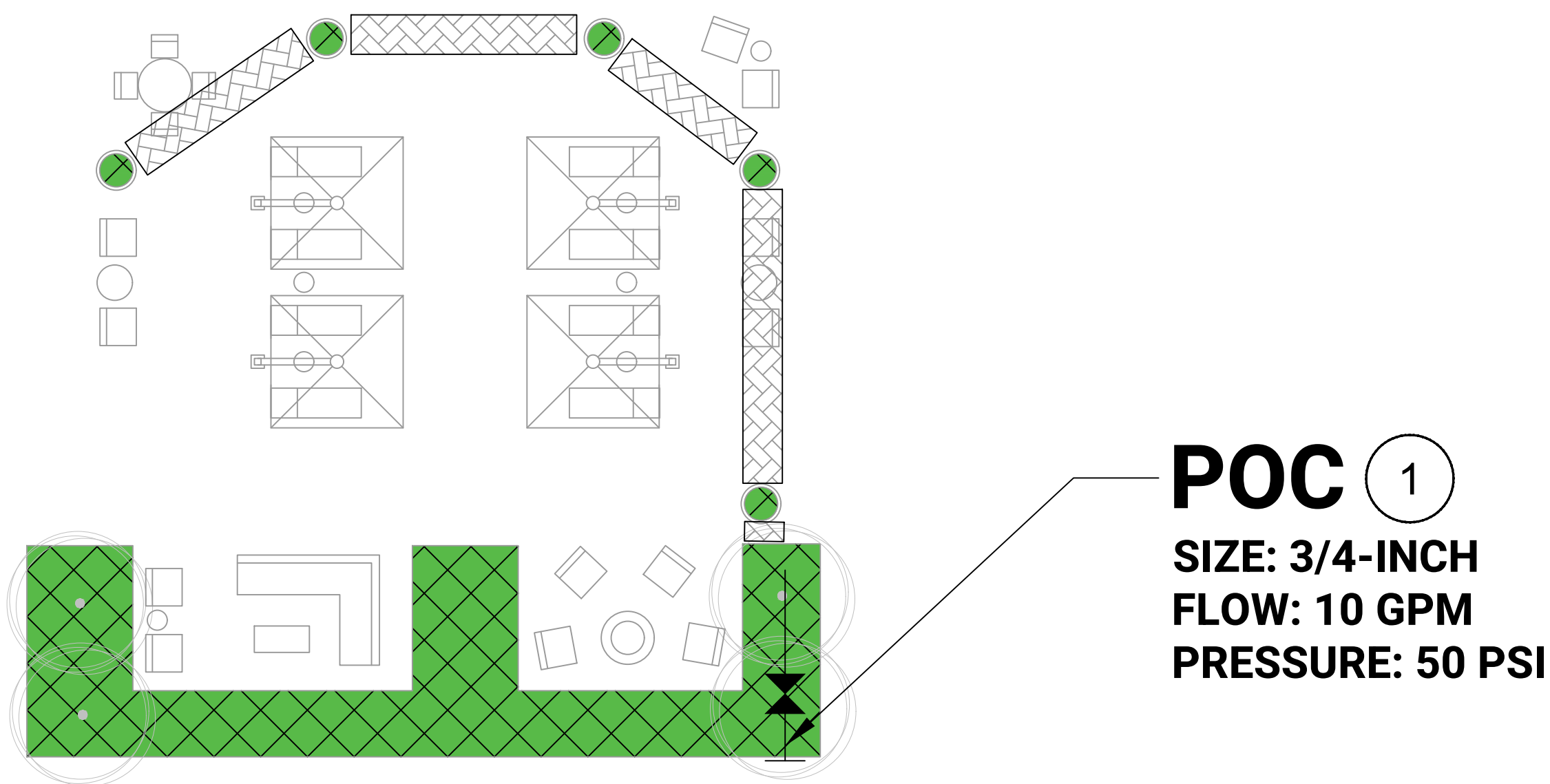
- THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF XX PSI (PER CITY ENGINEER), AT A MAXIMUM DISCHARGE OF 10 GPM AT THE 3/4-INCH IRRIGATION POINT-OF-CONNECTION (POC), TAP, METER, BACKFLOW PREVENTER, AND MASTER VALVE SHALL ALL BE THE SAME SIZE. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
- READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
- COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
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- THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
 - ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
 - TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES.
 - USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF TEES IN THE BULLNOSE CONFIGURATION, OR USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.
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 - TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES.
 - TWO (2) OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
- SELECT NOZZLES FOR SPRAY AND ROTARY SPRINKLERS WITH ARCS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
- THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. PIPE SLEEVES SHALL BE SIZED TWICE THE NOMINAL SIZE OF THE PIPE PASSING THROUGH.
- INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
- THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
- INSTALL TWO (2) #14 AWG CONTROL WIRES ON STANDARD WIRE SYSTEMS OR ONE (1) #14 AWG TWO-WIRE PAIR ON TWO-WIRE SYSTEMS, FOR USE AS SPARES. INSTALL SPARE WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE. COIL 3 FEET OF WIRE IN VALVE BOX.

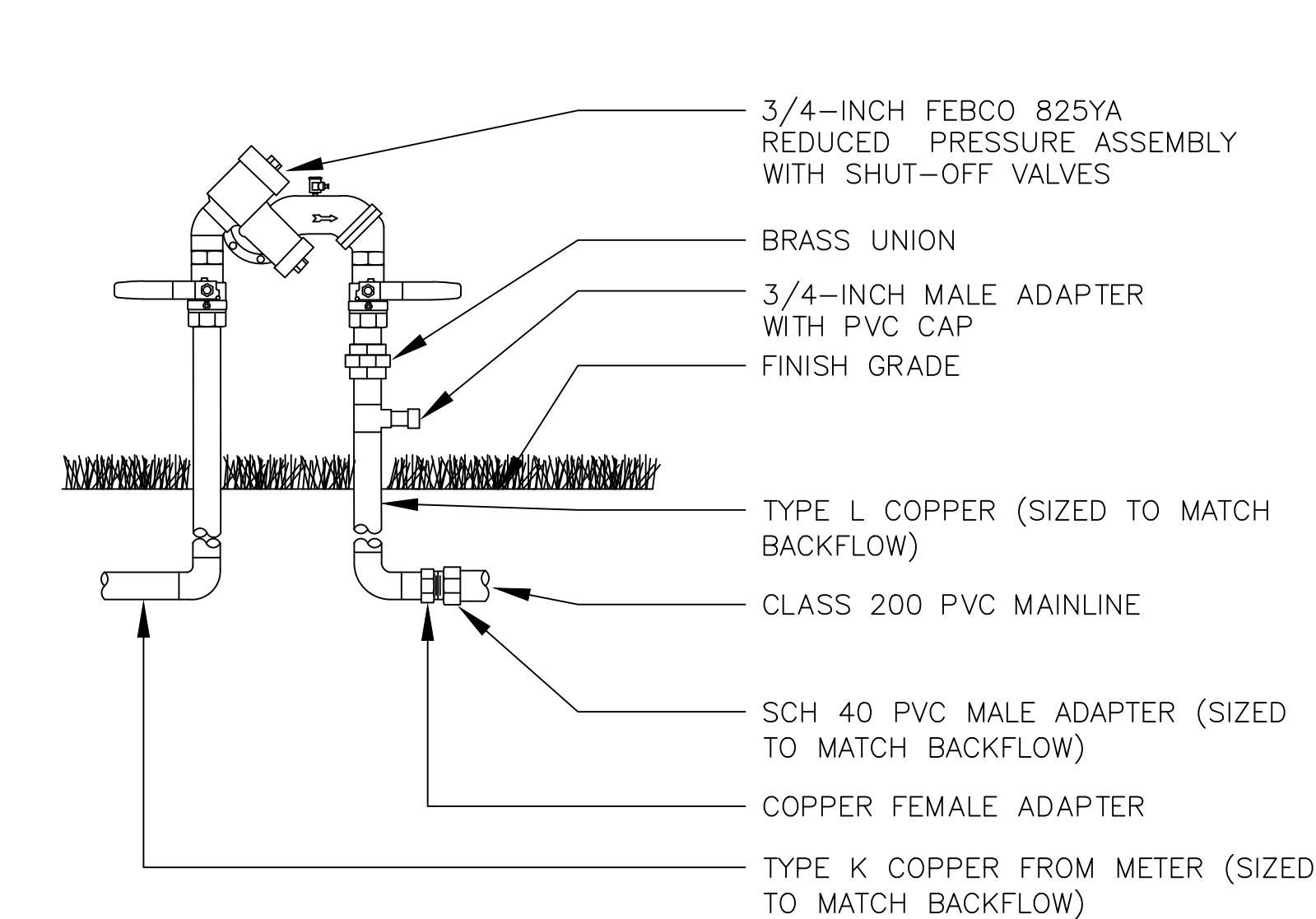
CONCEPTUAL IRRIGATION LEGEND

	BED SPRAY (ORNAMENTAL BEDS) TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
	BED SPRAY (SEDUM BEDS) TO BE IRRIGATED WITH 12-INCH POP-UP SPRINKLERS WITH PRESSURE REGULATION, CHECK VALVES, AND HIGH EFFICIENCY NOZZLES
	SHRUBS AND PERENNIALS TO BE IRRIGATED USING INLINE EMITTER DRIP TUBING WITH CHECK VALVES 0.6 GPM EMITTER, AT 12 INCHES ON CENTER TUBING ROWS SPACED 12 INCHES APART
	TREE BUBBLERS TO BE IRRIGATED WITH TWO (2) TREE BUBBLERS PER TREE

CONSTRUCTION NOTES

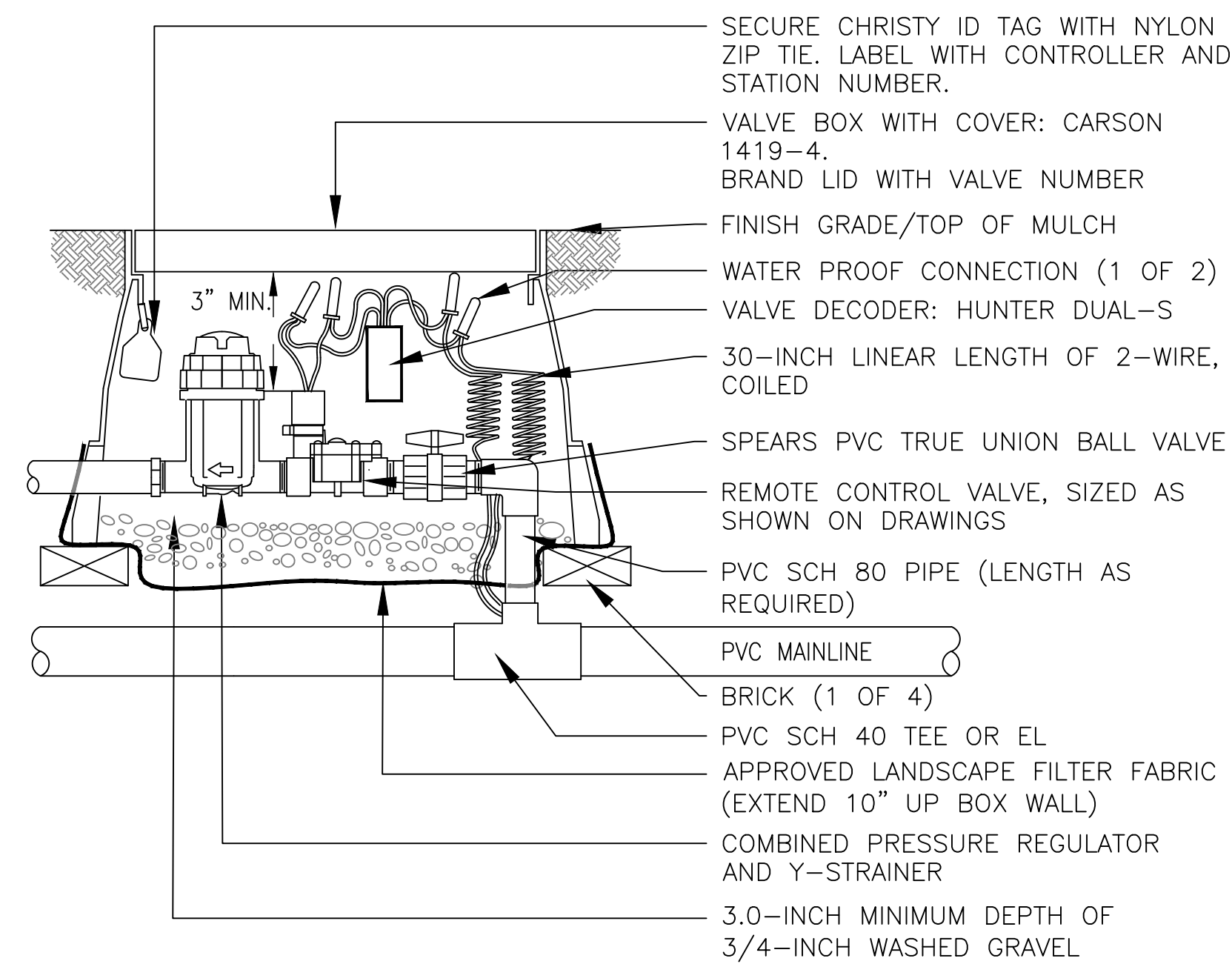
- THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE IRRIGATION WATER TAP AND METER INSTALLED BY OTHERS AT THE APPROXIMATE LOCATION SHOWN. INSTALL BACKFLOW PREVENTION UNIT AND MASTER VALVE ASSEMBLY AS INDICATED, SAME SIZE AS POC. VERIFY EXACT LOCATION OF POC WITH OWNERS REPRESENTATIVE.
- PEDESTAL / WALL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. COORDINATE ELECTRICAL POWER TO THE CONTROLLER WITH THE OWNERS REPRESENTATIVE. CARE SHOULD BE TAKEN TO INSTALL THE IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL. FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- IRRIGATION SHOWN OUT OF LANDSCAPED AREA FOR CLARITY ONLY. INSTALL IRRIGATION COMPONENTS WITHIN LANDSCAPED AREA.
- MAINLINE AND LATERAL LINES ARE SHOWN IN SAME SLEEVE FOR CLARITY ONLY. MAINLINE, CONTROL WIRES, AND LATERAL PIPE SHALL BE INSTALLED IN SEPARATE SLEEVES.
- SLEEVES ARE SHOWN BROKEN-UP FOR CLARITY ONLY. MAINLINE, LATERALS, AND WIRES SLEEVES THAT CROSS EACH OTHER SHALL BE INSTALLED AS FULL SLEEVES. LINES SHOWN THROUGH OTHER LANDSCAPE FEATURES (POT LATERAL LINE THROUGH HANGING BASKET) SHALL BE ONE SOLID SLEEVE, NOT BROKEN UP AS SHOWN.





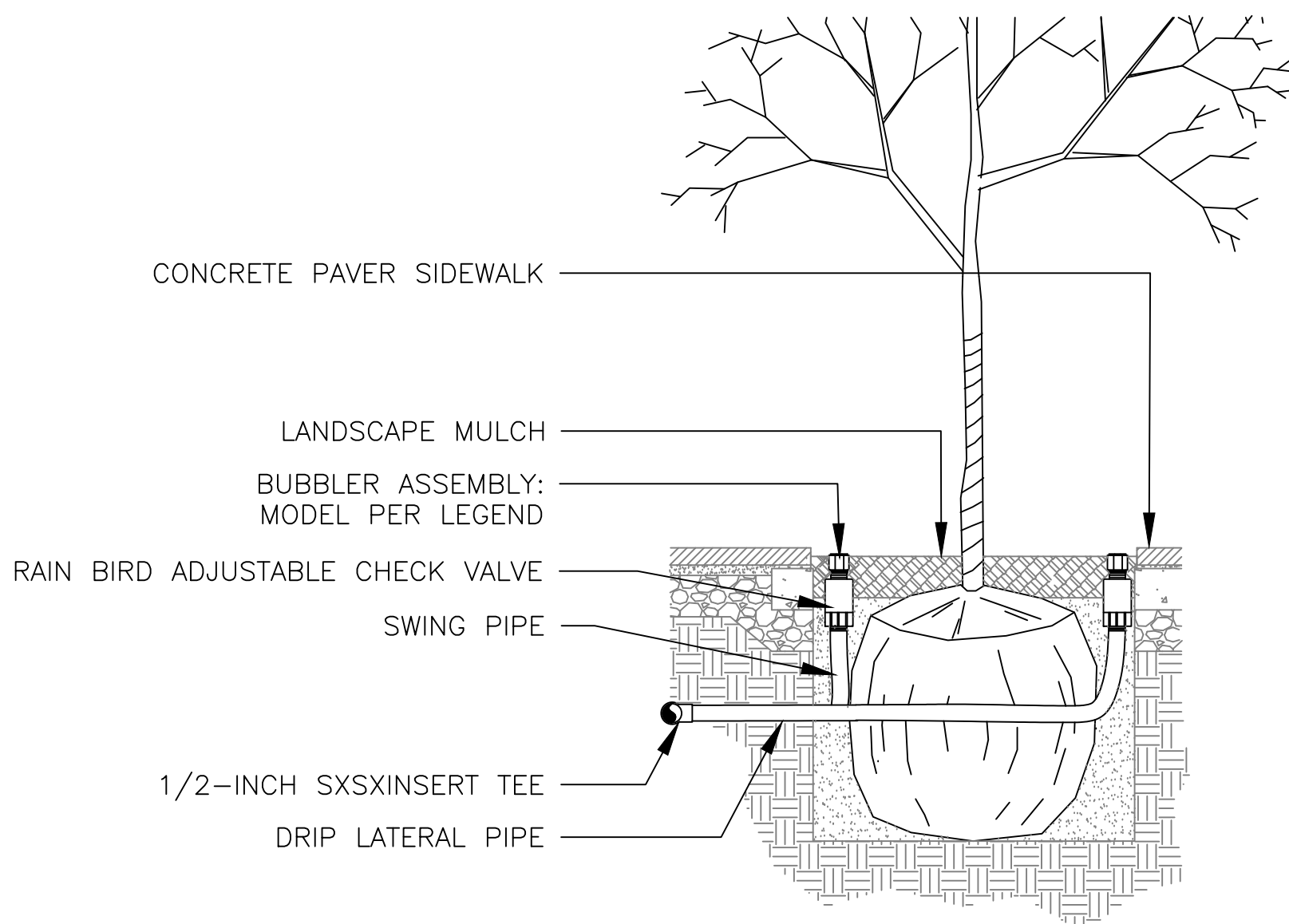
NOTES:
1. INSTALL BACKFLOW DEVICE IN ACCORDANCE WITH ALL STATE AND LOCAL CODE REQUIREMENTS.

1 BACKFLOW PREVENTION UNIT ASSEMBLY



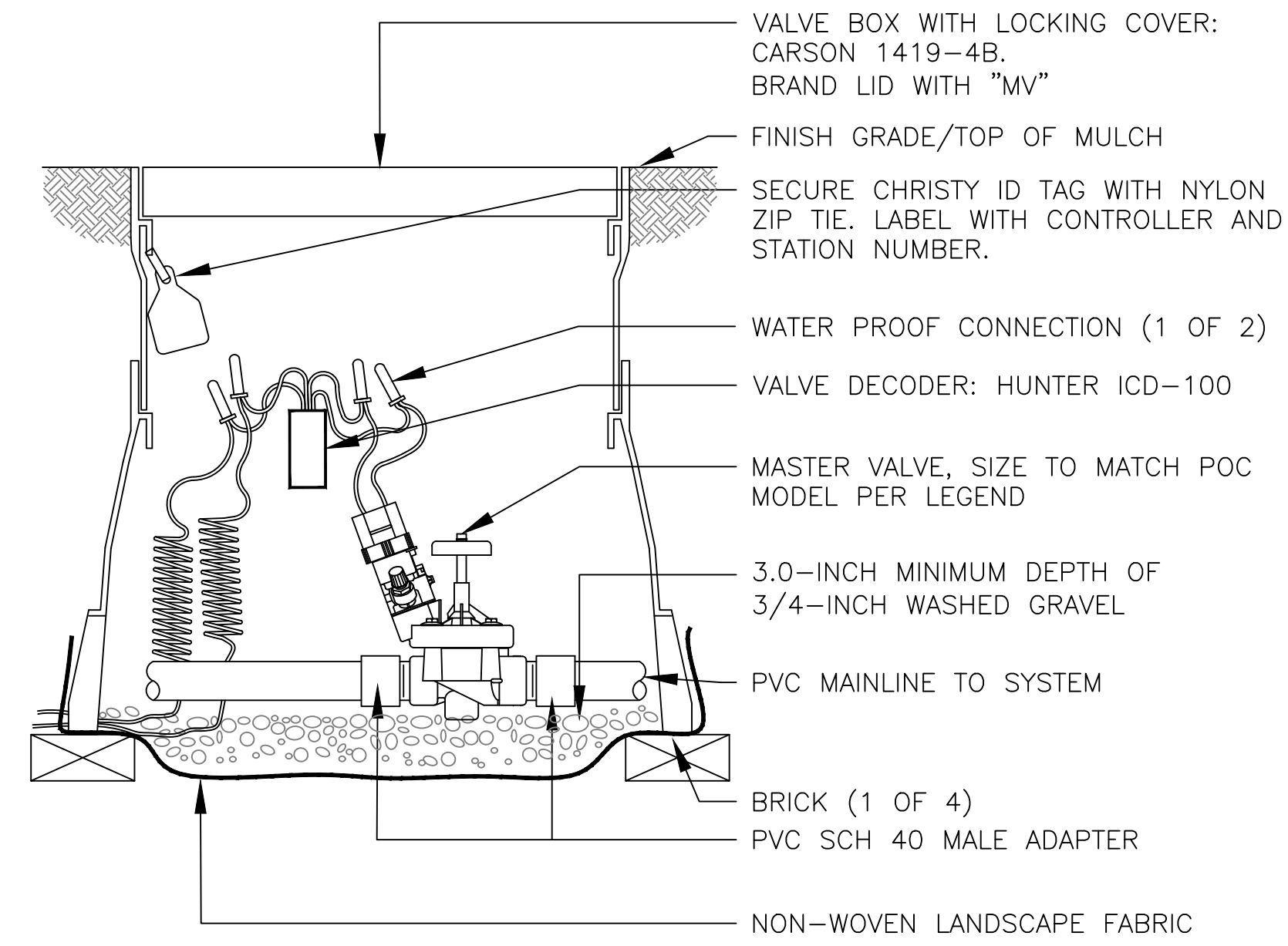
NOTE:
1. USE BARBED INSERT FITTINGS ON DRIP LATERAL PIPE WITH STAINLESS STEEL HOSE CLAMPS. PLACE CLAMPS ON DRIP TUBING DIRECTLY OVER BARBED AREA OF FITTING. PINCH CLAMPS ARE NOT ACCEPTABLE.

5 REMOTE CONTROL DRIP VALVE ASSEMBLY

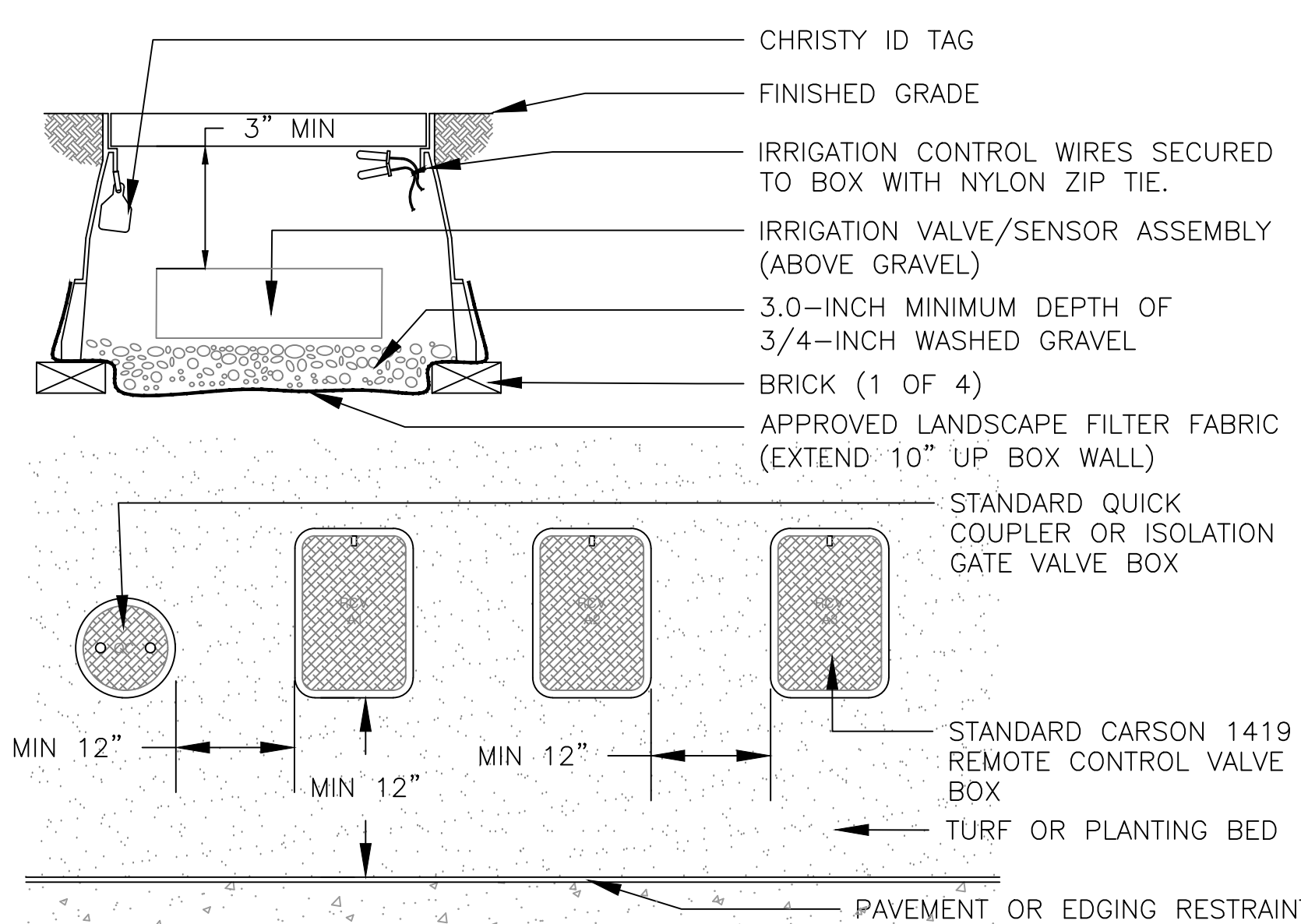


NOTES:
1. REFER TO LANDSCAPE PLANS FOR TREE GRATE INSTALLATION AND DETAILS.

9 BUBBLER ASSEMBLY FOR TREES IN SHRUB BEDS

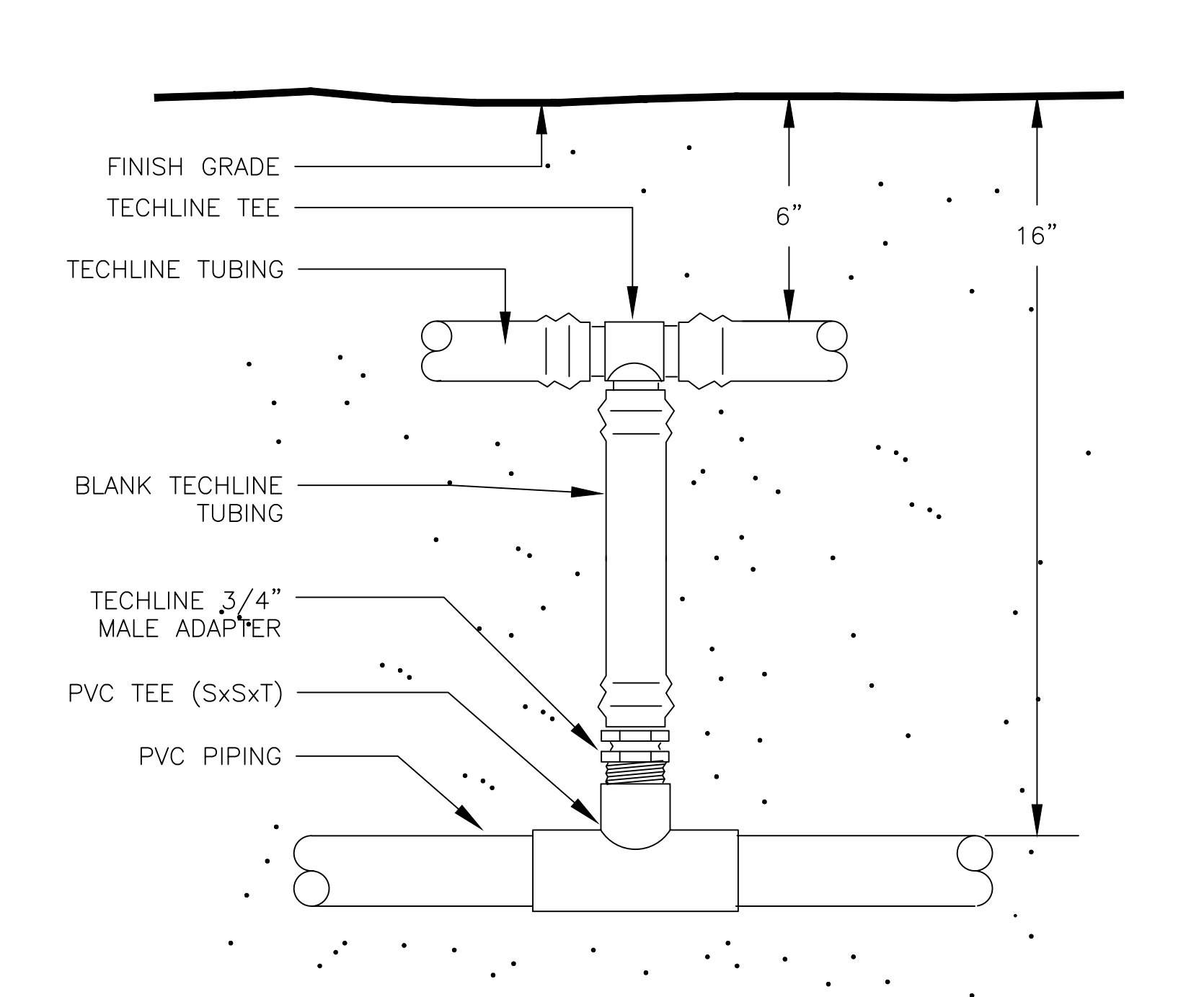


2 MASTER VALVE ASSEMBLY

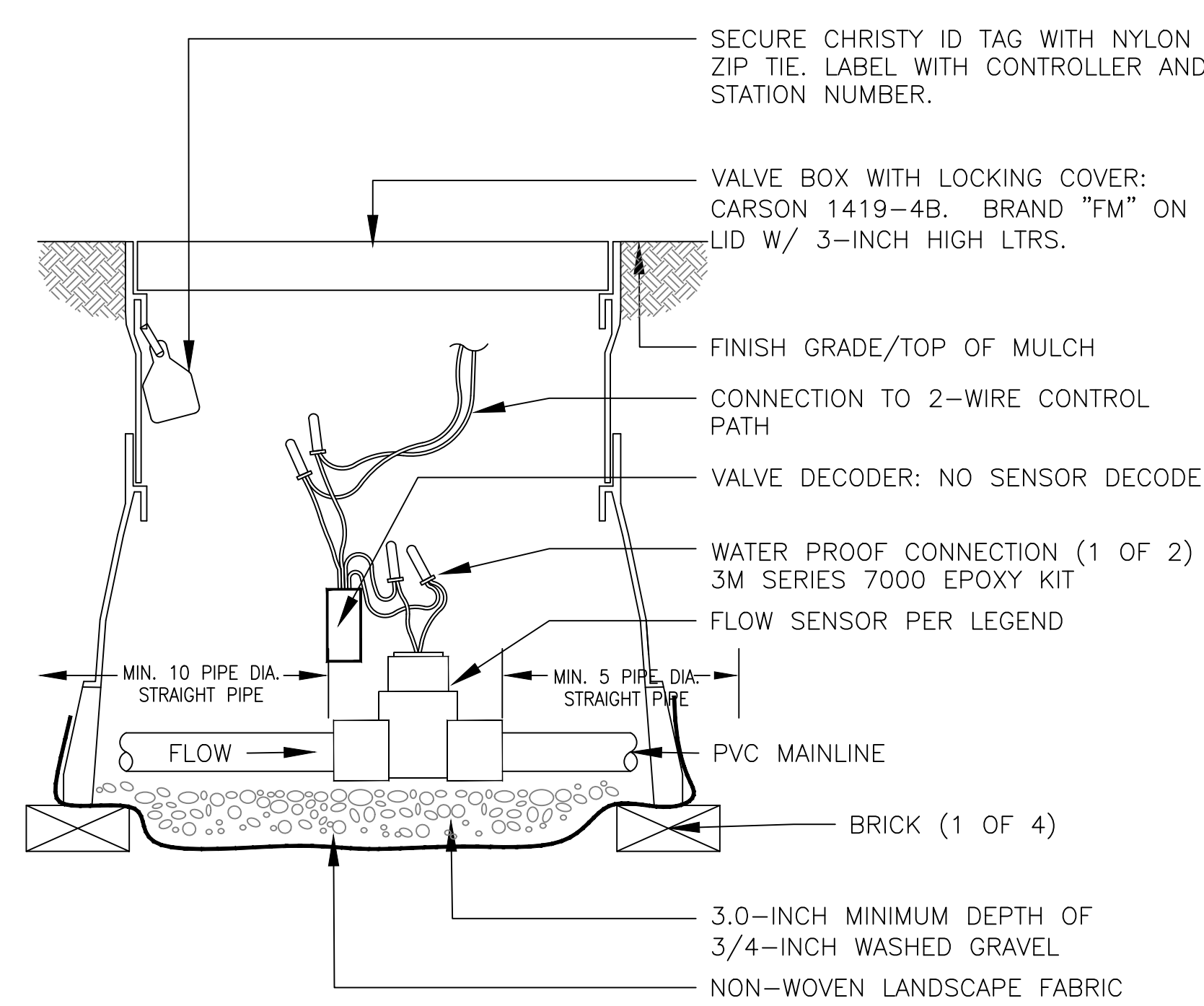


NOTES:
1. INSTALL ONLY ONE RCV TO VALVE BOX. LOCATE AT LEAST 12-INCHES FROM AND ALIGN WITH NEARBY WALLS OR EDGES OF PAVED AREAS. GROUP RCV ASSEMBLIES TOGETHER WHERE PRACTICAL.
4. GROUP RCV ASSEMBLIES TOGETHER WHERE PRACTICAL, BUT AVOID GROUPING MORE THAN THREE (3) STANDARD VALVE BOXES TOGETHER IN A SERIES.
5. ARRANGE GROUPED VALVE BOXES IN RECTANGULAR PATTERNS.

6 TYPICAL VALVE BOX INSTALLATION

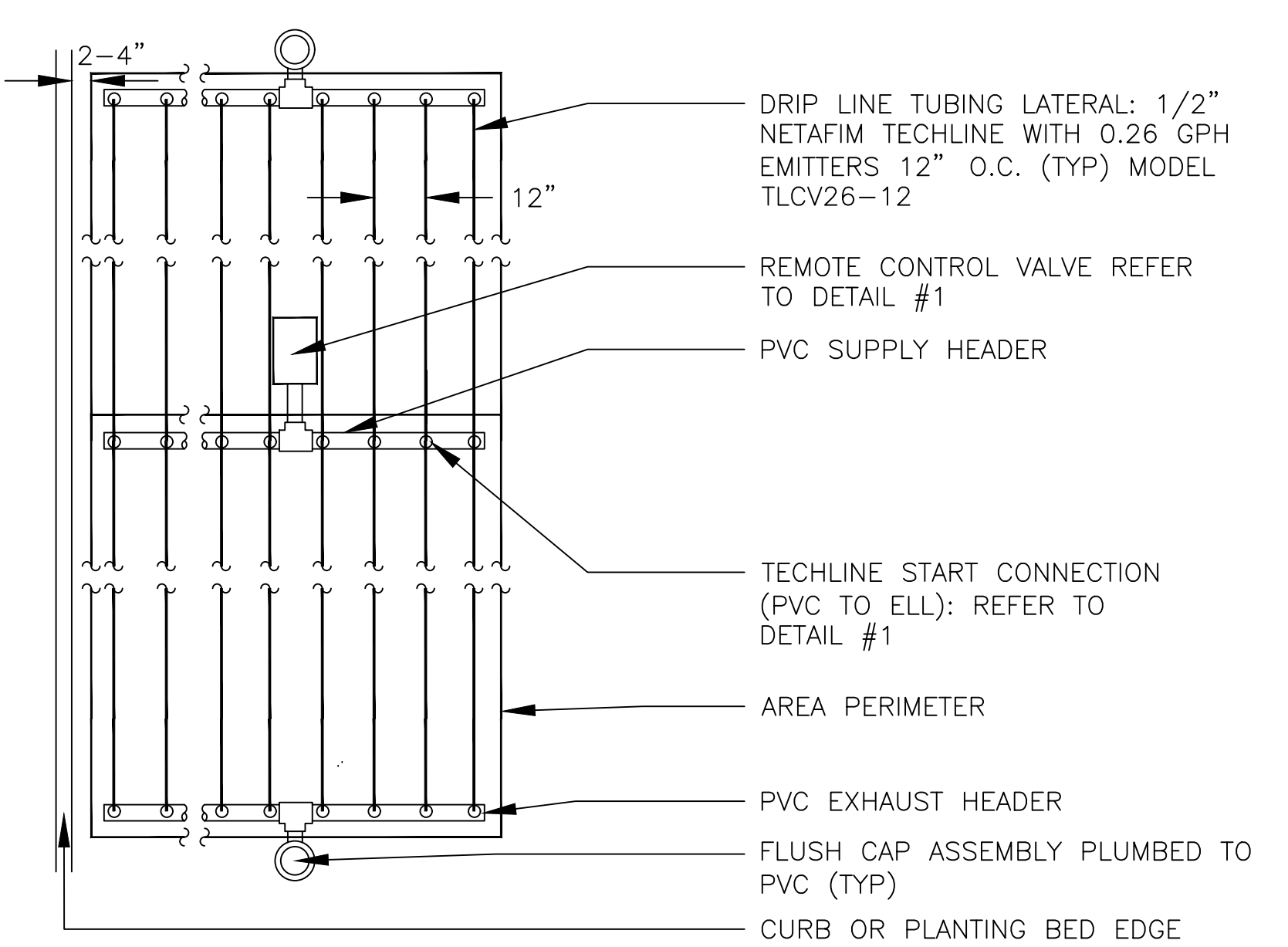


10 PVC TECHLINE CONNECTION



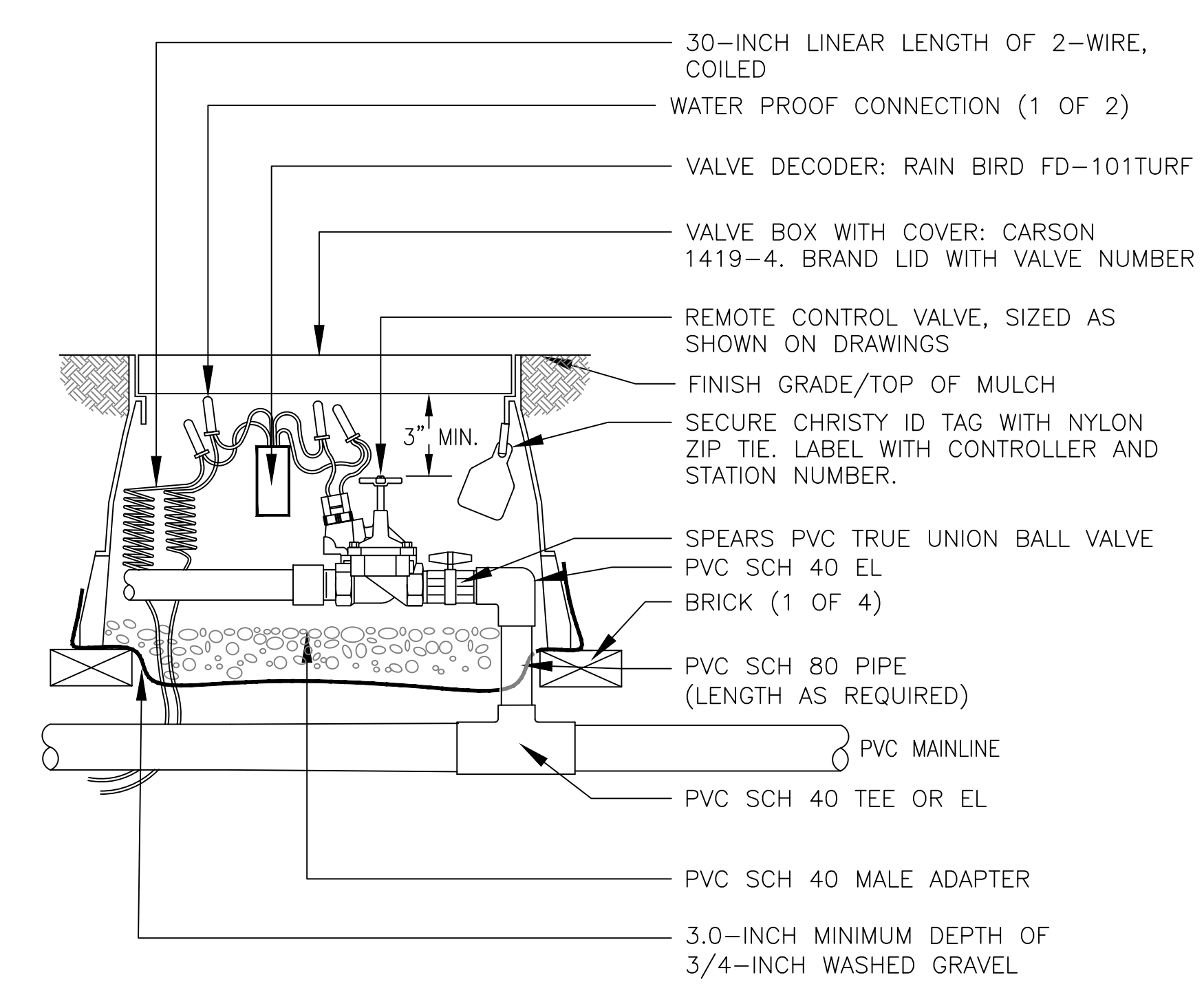
NOTES:
1. IF POLYETHYLENE PIPE IS USED FOR LATERAL PIPE, SUBSTITUTE INSERT TEE OR EL WITH STAINLESS STEEL CLAMPS FOR PVC SLIP TEE OR EL SHOWN ABOVE.
2. TO ACHIEVE MINIMUM RADIUS WITH ANY MP ROTATOR MODEL, USE 30 PSI PRESSURE REGULATING SPRAY BODY.

7 6-INCH POP UP MP-ROTATOR ASSEMBLY

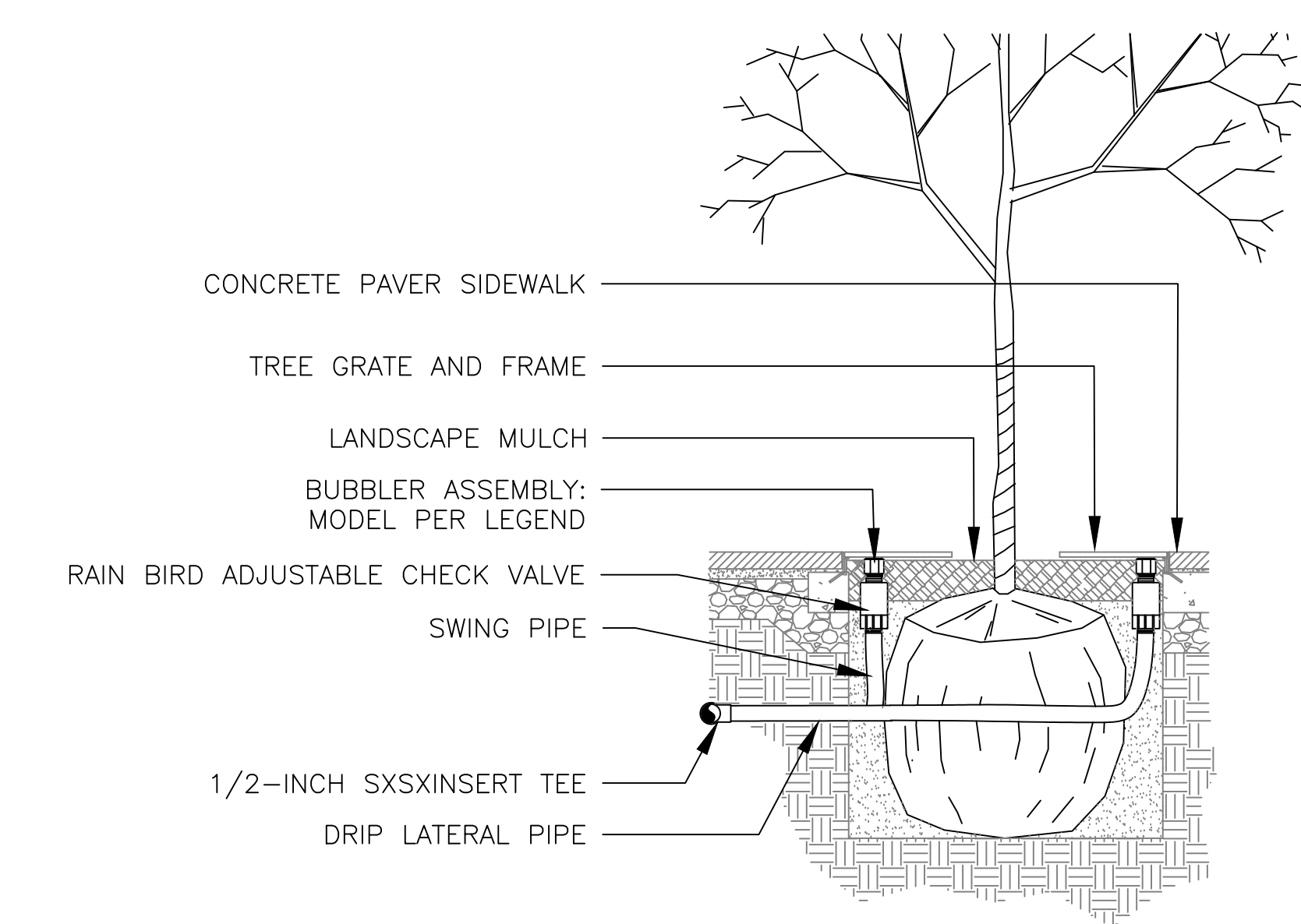


NOTES:
1. INSTALL SYSTEM PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR EQUIPMENT APPLICATION AND INSTALLATION.
2. MAXIMUM FLOW FOR 1-INCH REMOTE CONTROL VALVE ASSEMBLY IS 10 GPM.
3. INSTALL AT A DEPTH OF 4"-6" IN UNIFORM SOIL.

11 SUBSURFACE DRIP ASSEMBLY IN SHRUB BEDS

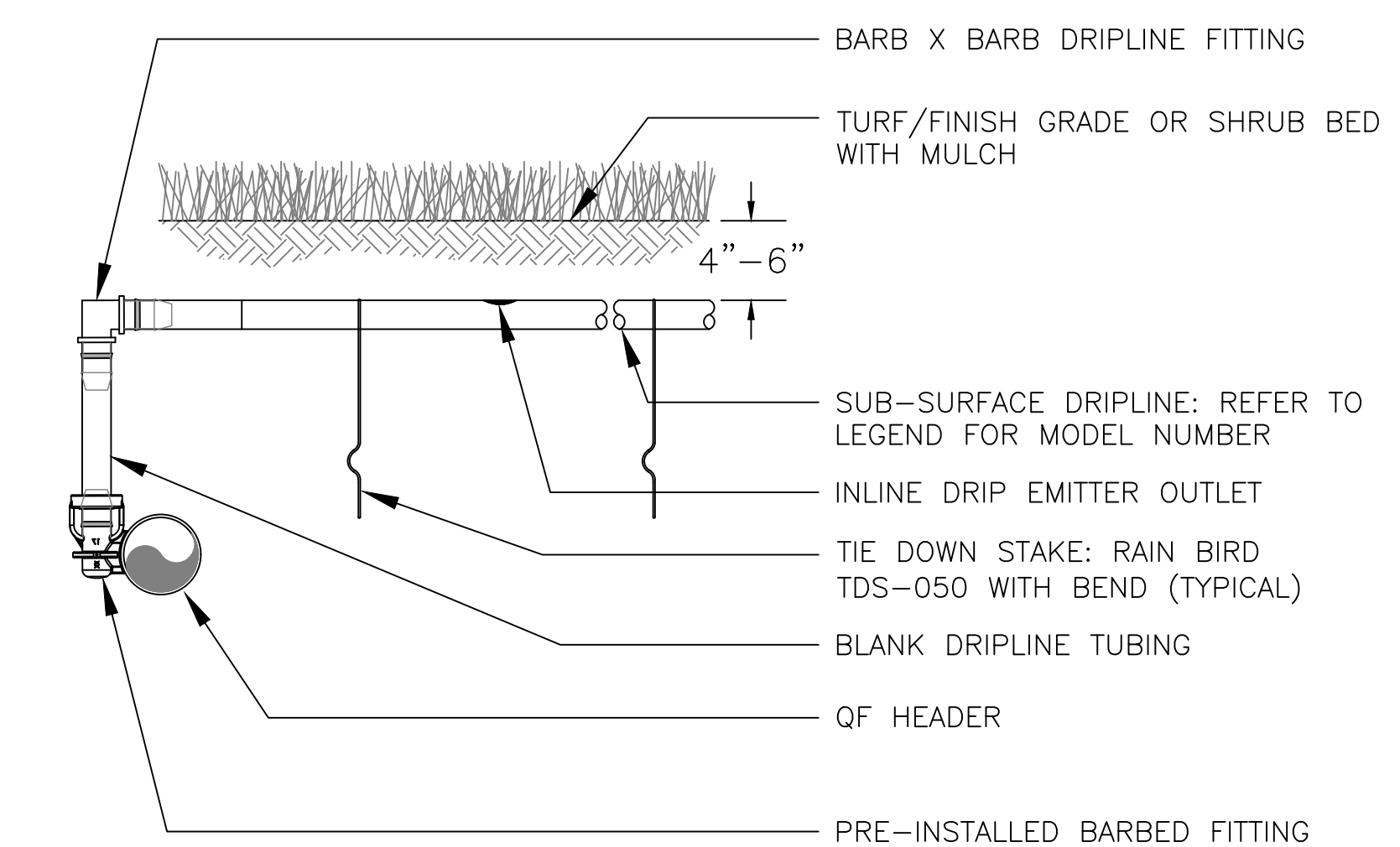


4 REMOTE CONTROL TURF VALVE ASSEMBLY



NOTES:
1. REFER TO LANDSCAPE PLANS FOR TREE GRATE INSTALLATION AND DETAILS.

8 BUBBLER ASSEMBLY FOR TREES IN GRATES

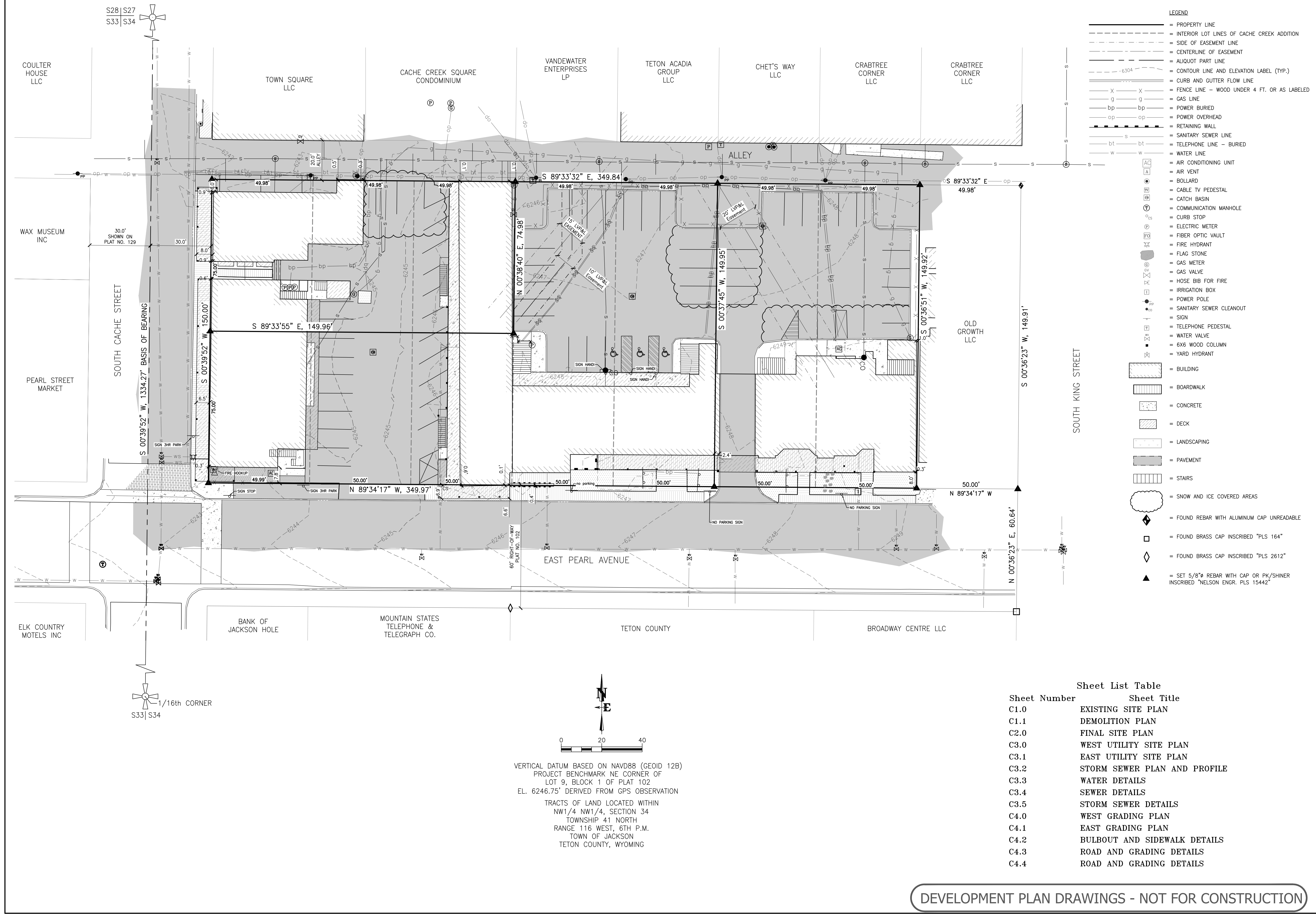


NOTES:
1. PLACE TIE-DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. INSERTION PLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE-DOWN STAKES.

12 QF DRIPLINE HEADER ASSEMBLY

CIVIL DRAWINGS

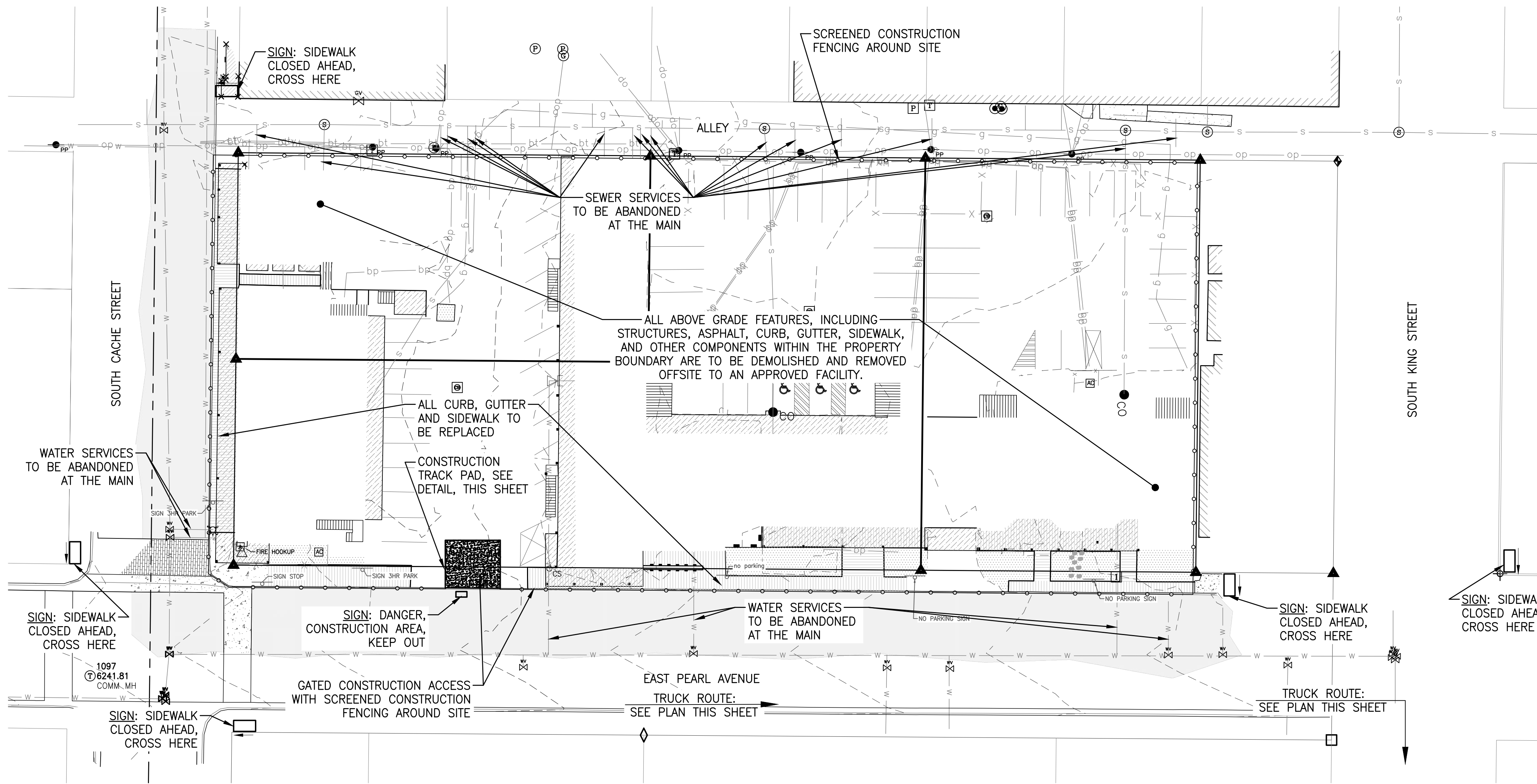
S:\Projects\2024\076-03\010 S. Cache St., 45 E. Pearl St., and 75 E. Pearl St. - NEI Route - Survey\04 Drawing\21-76-01 Existing ALTA\Map Existing Site Plan.dwg
Nor 25 2022 06:29:43 pm PLUTED BY: olson DWG: EDRW1: 241



DEVELOPMENT PLAN DRAWINGS - NOT FOR CONSTRUCTION

DRAWING NO		JOB TITLE	DRAWING TITLE	REV.				
C1.0	21-076-03	RANCH INN MOTEL CACHE AND PEARL JACKSON, WYOMING	EXISTING SITE PLAN	DATE	3/29/2022	NE		
				SURVEYED		ENGINEERED	BO/MB	
				DRAWN		BO/BIG		
				CHECKED		MB		
				APPROVED				
			<div>NELSON ENGINEERING</div> <div>P.O. BOX 1599, JACKSON WYOMING (307) 733-2087</div>					

S:\Projects\2021\076-03 Ranch Inn Motel, Cache and Pearl - 21-076-03 Demolition Plan - Mar 25 2022 06:29:59 pm - RUTTER BY: elson DWG: 21-076-03



LEGEND	
	= PROPERTY LINE
	= INTERIOR LOT LINES OF CACHE CREEK ADDITION PLAT NO. 102
	= SIDE OF EASEMENT LINE
	= CENTERLINE OF EASEMENT
	= ALIQUOT PART LINE
	= CONTOUR LINE AND ELEVATION LABEL (TYP.)
	= CURB AND GUTTER FLOW LINE
	= FENCE LINE - WOOD UNDER 4 FT. OR AS LABELED
	= GAS LINE
	= POWER BURIED
	= POWER OVERHEAD
	= RETAINING WALL
	= SANITARY SEWER LINE
	= TELEPHONE LINE - BURIED
	= WATER LINE
	= AIR CONDITIONING UNIT
	= AIR VENT
	= BOLLARD
	= CABLE TV PEDESTAL
	= CATCH BASIN
	= COMMUNICATION MANHOLE
	= CURB STOP
	= ELECTRIC METER
	= FIBER OPTIC VAULT
	= FIRE HYDRANT
	= FLAG STONE
	= GAS METER
	= GAS VALVE
	= HOSE BIB FOR FIRE
	= IRRIGATION BOX
	= POWER POLE
	= SANITARY SEWER CLEANOUT
	= SIGN
	= TELEPHONE PEDESTAL
	= WATER VALVE
	= 6X6 WOOD COLUMN
	= YARD HYDRANT
	= BUILDING
	= BOARDWALK
	= CONCRETE
	= DECK
	= LANDSCAPING
	= PAVEMENT
	= STAIRS
	= SNOW AND ICE COVERED AREAS
	= FOUND REBAR WITH ALUMINUM CAP UNREADABLE
	= FOUND BRASS CAP INSCRIBED "PLS 164"
	= FOUND BRASS CAP INSCRIBED "PLS 2612"
	= SET 5/8" REBAR WITH CAP OR PK/SHINER INSCRIBED "NELSON ENGR. PLS 15442"

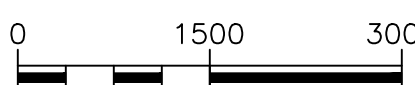
DEMOLITION PLAN

DEMOLITION NOTES

- CONSTRUCTION ACTIVITIES SHALL OCCUR 2022/2023.
- CONTRACTOR SHALL INSTALL CONSTRUCTION ACCESS TRACK PAD AT THE CONSTRUCTION ENTRANCE, SEE DETAIL 1 THIS SHEET.
- CONTRACTOR SHALL PREVENT TRACKING OF SOIL ONTO THE ROAD AND CLEAR ROAD OF ANY SOILS WHEN NECESSARY.
- ALL EXISTING UTILITY SERVICES TO BE ABANDONED AT THE MAIN. EXISTING UTILITIES WILL BE ABANDONED IN COORDINATION WITH THE UTILITY COMPANIES. EXISTING WATER AND SEWER SERVICES ARE INDICATED FROM THE TOWN OF JACKSON GIS. COORDINATION WITH TOJ PUBLIC WORKS WILL BE REQUIRED TO DETERMINE WHICH SERVICES ARE LIVE AND NEED TO BE ABANDONED PRIOR TO CONSTRUCTION.
- ASBESTOS CONTAINING MATERIALS MAY BE PRESENT. REFER TO TESTING REPORT.
- A TOJ ENCROACHMENT PERMIT WILL BE REQUIRED. PERMIT MUST BE SUBMITTED TO TOWN OF JACKSON PRIOR TO ANY WORK IN RIGHT-OF-WAY.
- TEMPORARY CONSTRUCTION FENCING TO BE SCREENED PER TOWN OF JACKSON REQUIREMENTS.
- GATED ENTRY TO REMAINED CLOSED AT ALL TIMES EXCEPT WHEN CONSTRUCTION EQUIPMENT AND/OR DEMOLITION DEBRIS IS BEING MOVED IN OR TRUCKED OUT.



TRUCK ROUTE/ VICINITY PLAN



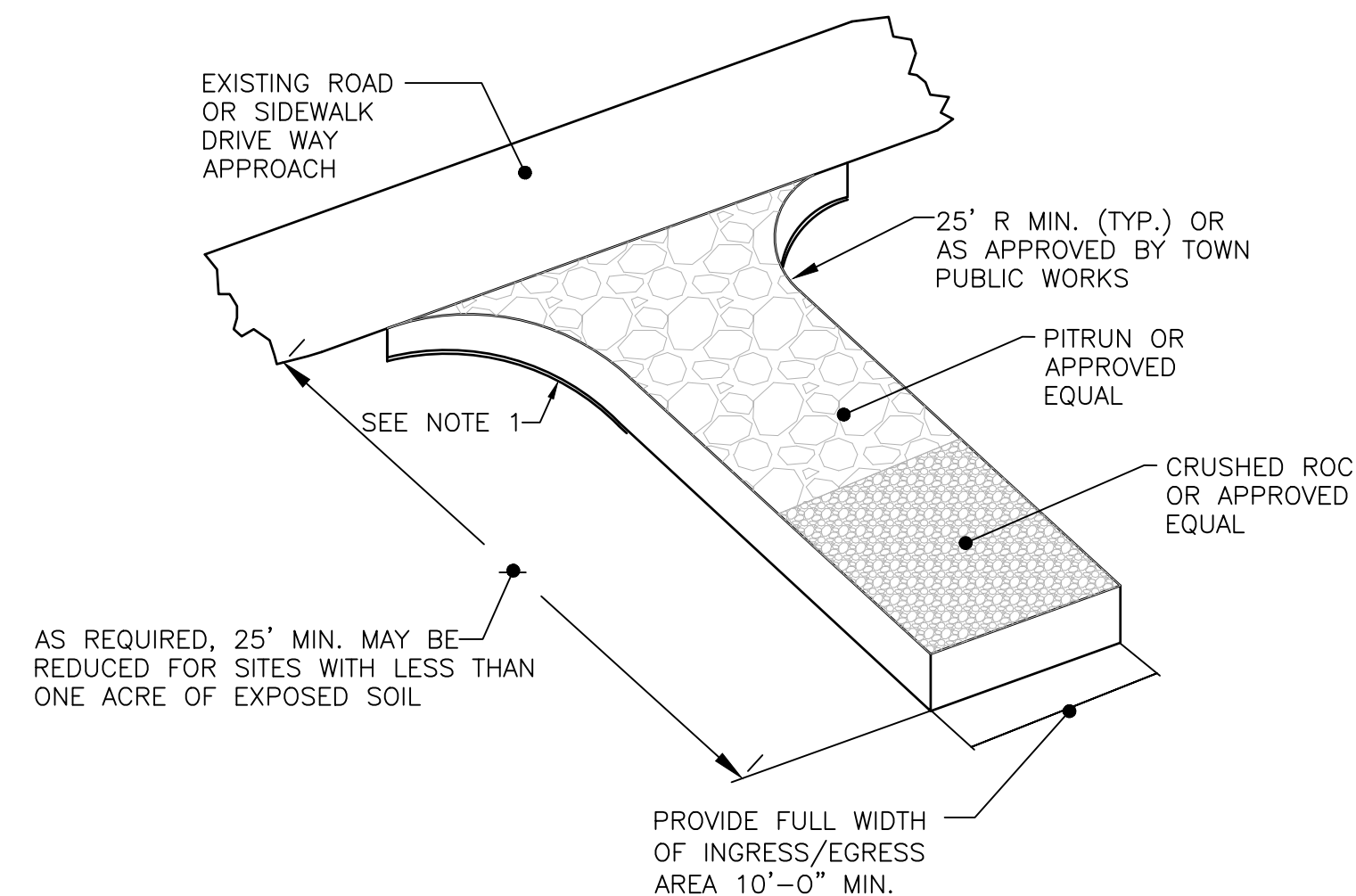
TRUCK ROUTE:
LEAVE SITE TO EAST ON PEARL AVENUE
TURN SOUTH ON TO SOUTH KING STREET
TURN WEST ON SNOW KING AVENUE
TURN SOUTH ON SCOTT LANE TO MAPLE WAY
TO ACCESS HIGHWAY 191 SOUTH OF TOWN



DANGER SIGN
(1 REQUIRED)



SIDEWALK
CLOSED SIGN
(4 REQUIRED,
2 LEFT, 2 RIGHT)



- NOTES:
- PLACE CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION UNDER THE CRUSHED ROCK FROM THE EDGE OF THE EXISTING ROADWAY TO THE RADIUS RETURNS, OR AS DIRECTED BY PUBLIC WORKS.
 - ENTRANCE SHALL BE REMOVED AND RECONSTRUCTED AS REQUIRED TO PREVENT EXCESS TRACKING OF MATERIALS ONTO RIGHT-OF-WAY, OR WHEN DIRECTED BY THE TOWN PUBLIC WORKS DEPARTMENT.

1
C1.1

CONSTRUCTION TRACK PAD DETAIL

N.T.S.

DEVELOPMENT PLAN DRAWINGS - NOT FOR CONSTRUCTION

DRAWING TITLE
FINAL DEMOLITION PLAN

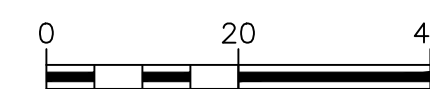
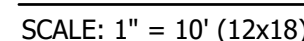
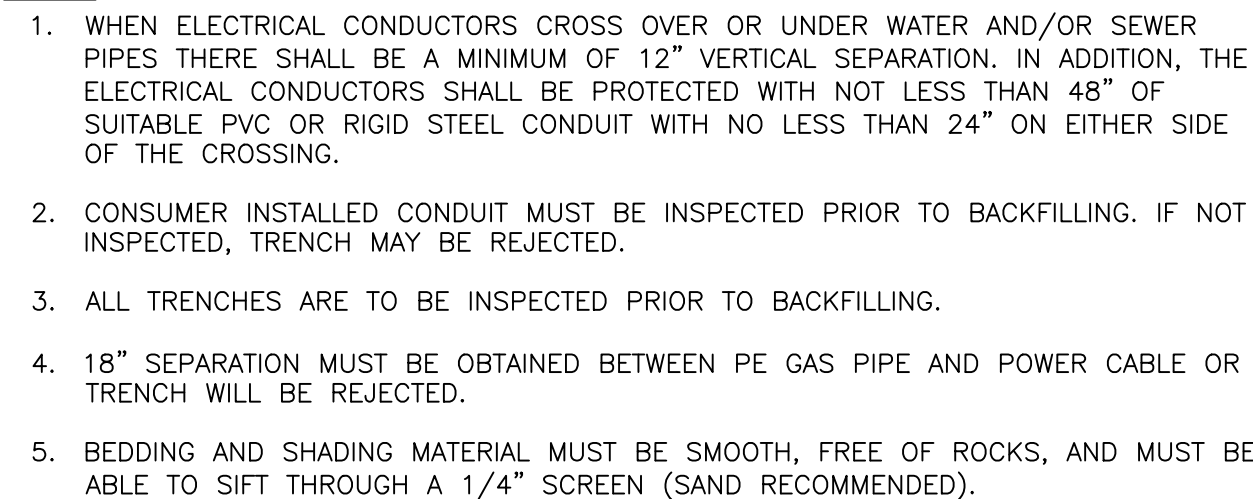
JOB TITLE
RANCH INN MOTEL
CACHE AND PEARL
JACKSON, WYOMING

DRAWING NO
C1.1
JOB NO
21-076-03

NELSON
ENGINEERING
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

DATE	3/29/2022	REV.
SURVEYED	NE	
ENGINEERED	BO/MB	
DRAWN	BO/BIG	
CHECKED	MB	
APPROVED		





(DEVELOPMENT PLAN DRAWINGS - NOT FOR CONSTRUCTION)

DATE	3/29/2022	REV.
SURVEYED	NE	
ENGINEERED	BO/MB	
DRAWN	BO/BJG	
CHECKED	MB	
APPROVED		

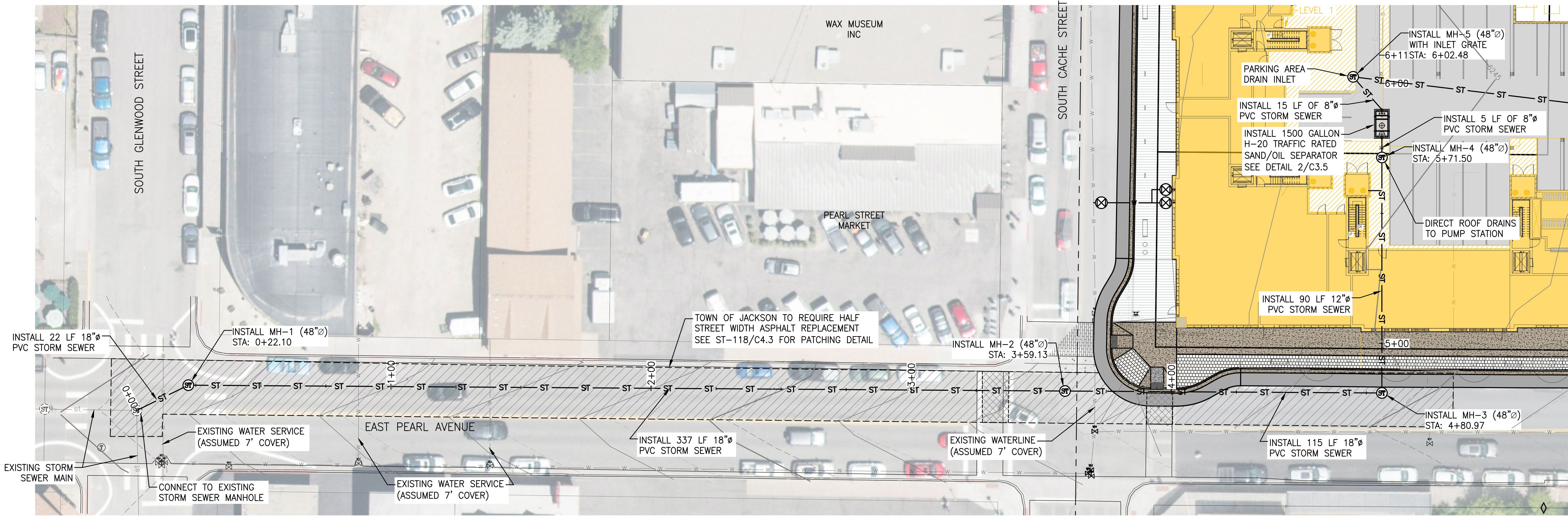
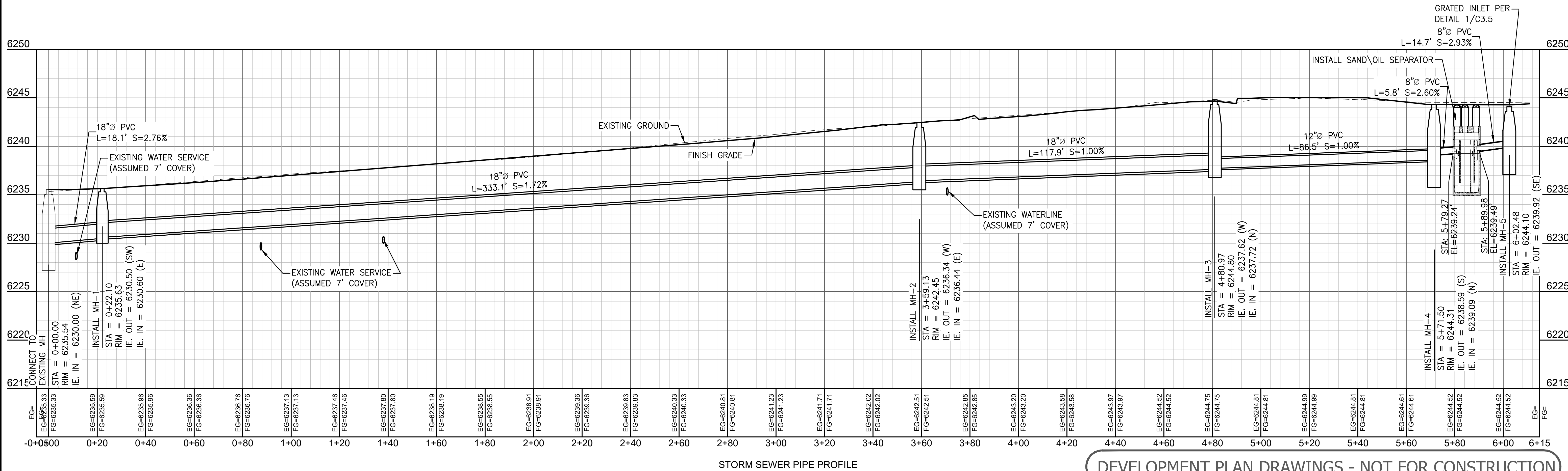
**NELSON
ENGINEERING**
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

DRAWING TITLE
WEST UTILITY SITE PLAN

JOB TITLE
RANCH INN MOTEL
CACHE AND PEARL
JACKSON, WYOMING

DRAWING NO	C3.0
JOB NO	21-076-03

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DRAWING NO

C3.2

JOB NO

21-076-03

JOB TITLE

RANCH INN MOTEL
CACHE AND PEARL
JACKSON, WYOMING

DRAWING TITLE

STORM SEWER PLAN AND PROFILE

DATE

3/29/2022

REV.

NE

BO/MB

BO/BIG

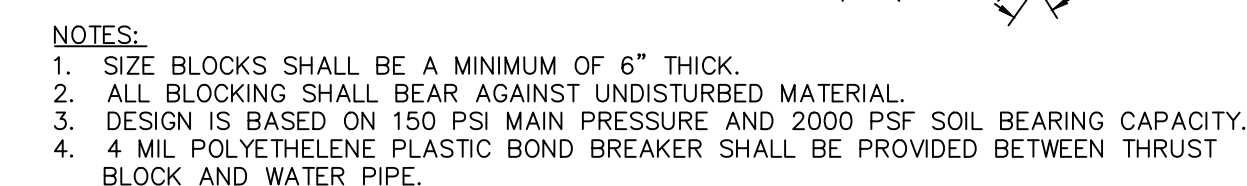
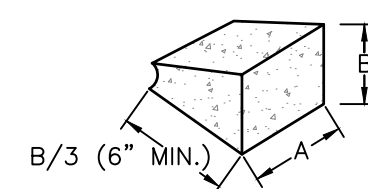
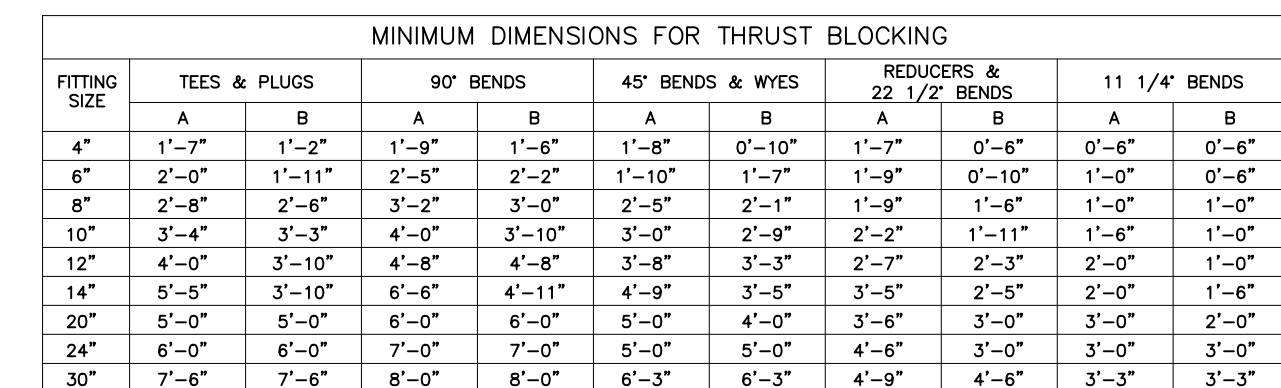
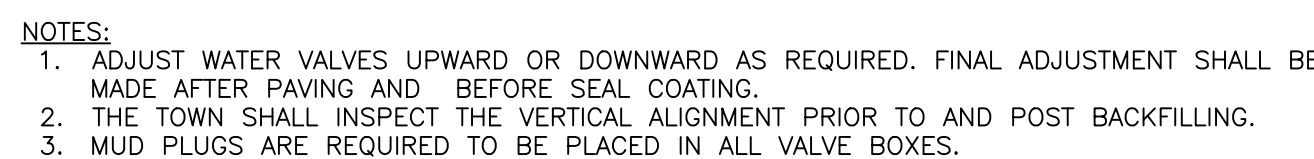
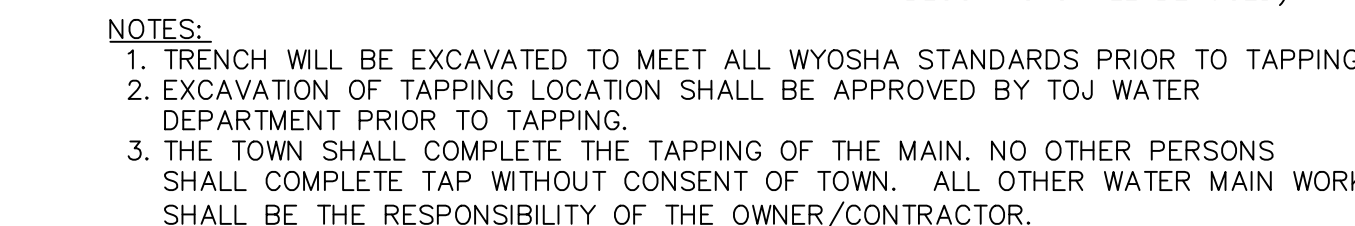
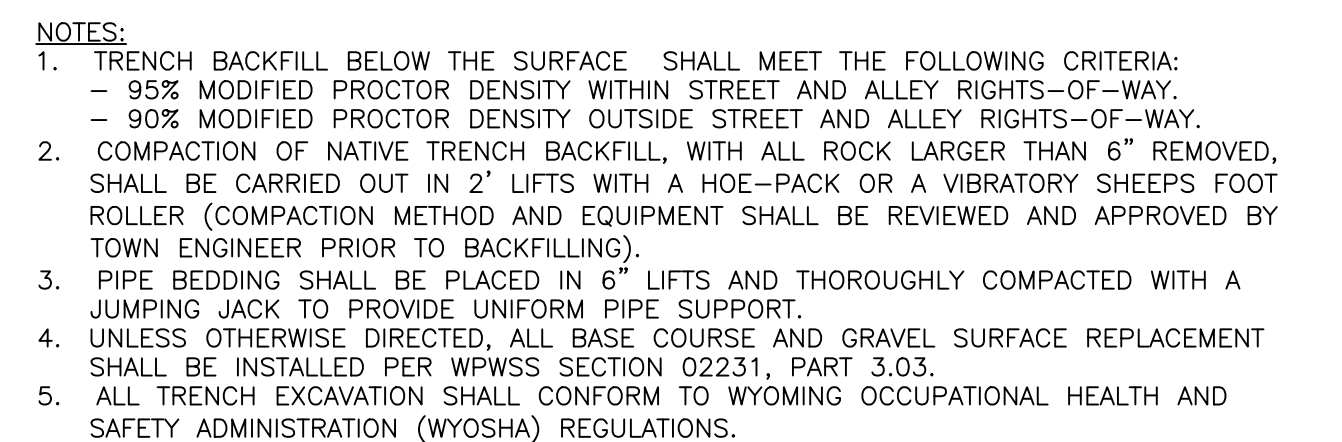
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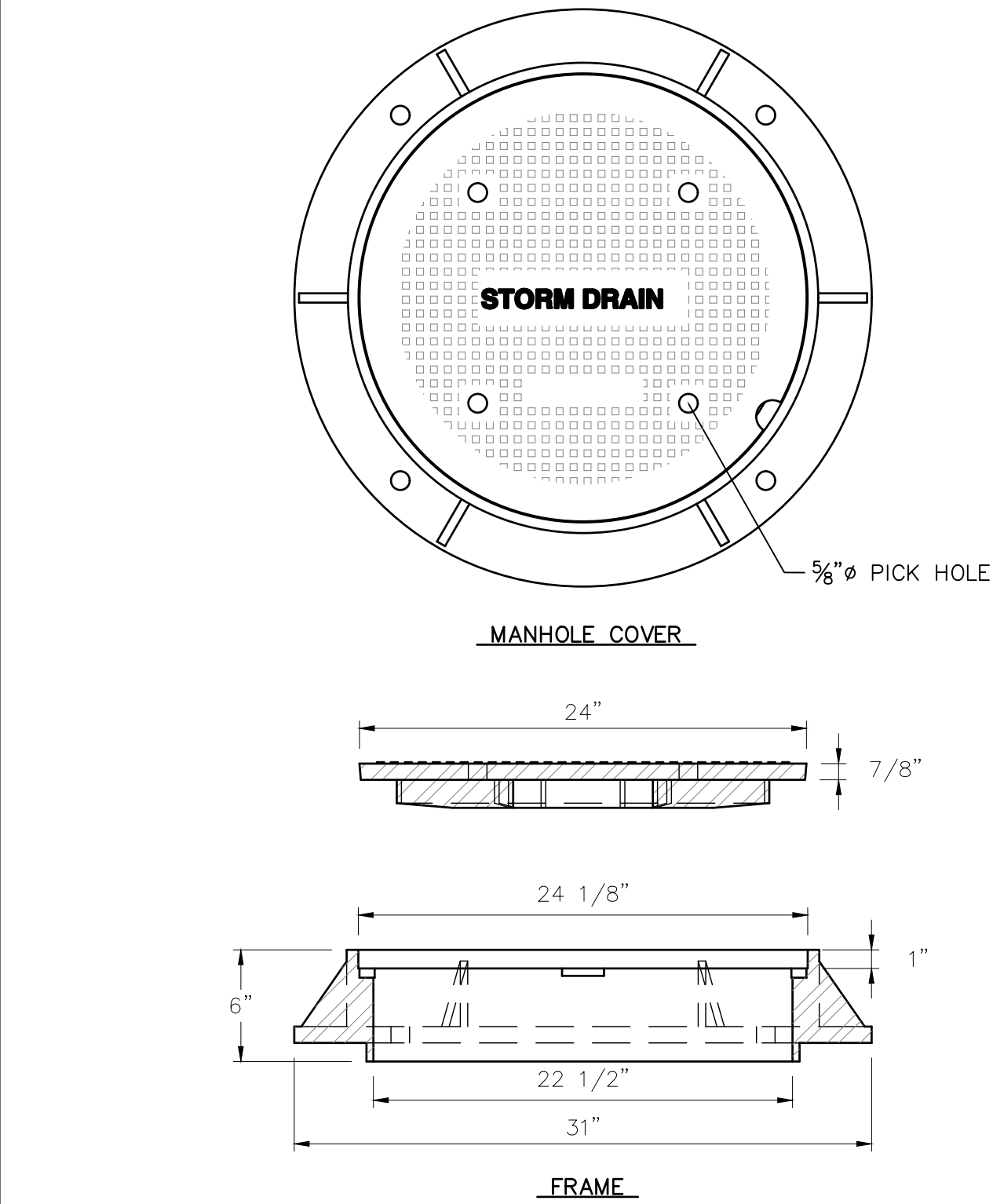
APPROVED

NELSON
ENGINEERING

P.O. BOX 1599, JACKSON WYOMING (307) 733-2087



S:\P\2023\07\6-03 ranch inn motel cache and pearl - mds - cadd\4 drawings\DETAILS-Storm\dwg STORM WATER DETAILS.dwg (3/29/2023 10:41:41 AM) PLOTTED BY: dson BUC FORMAT 241

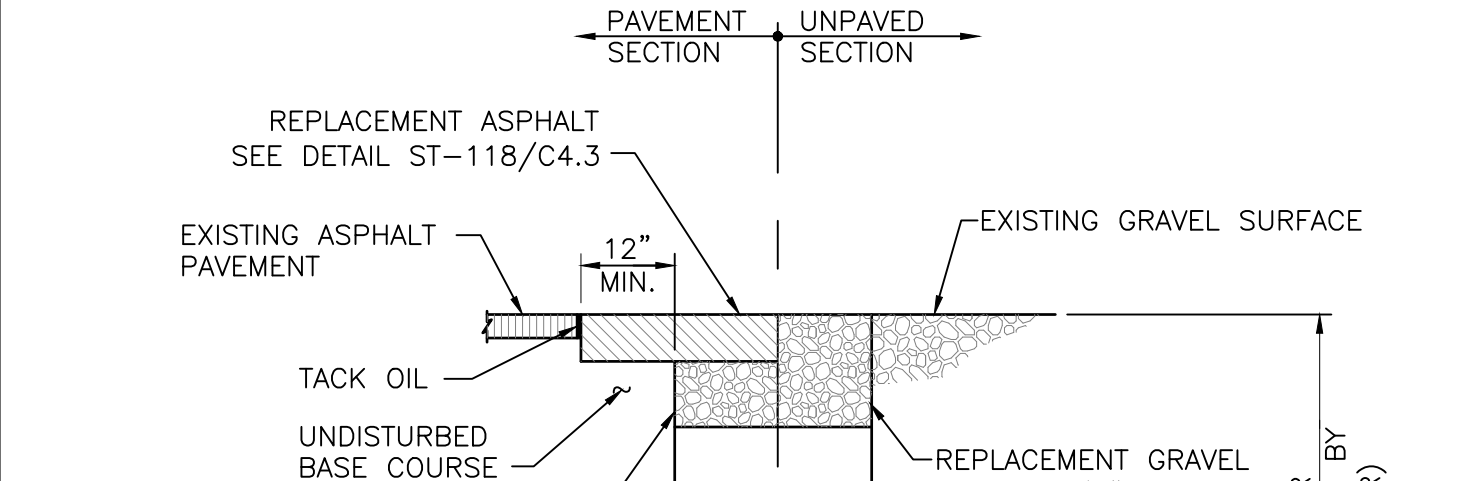
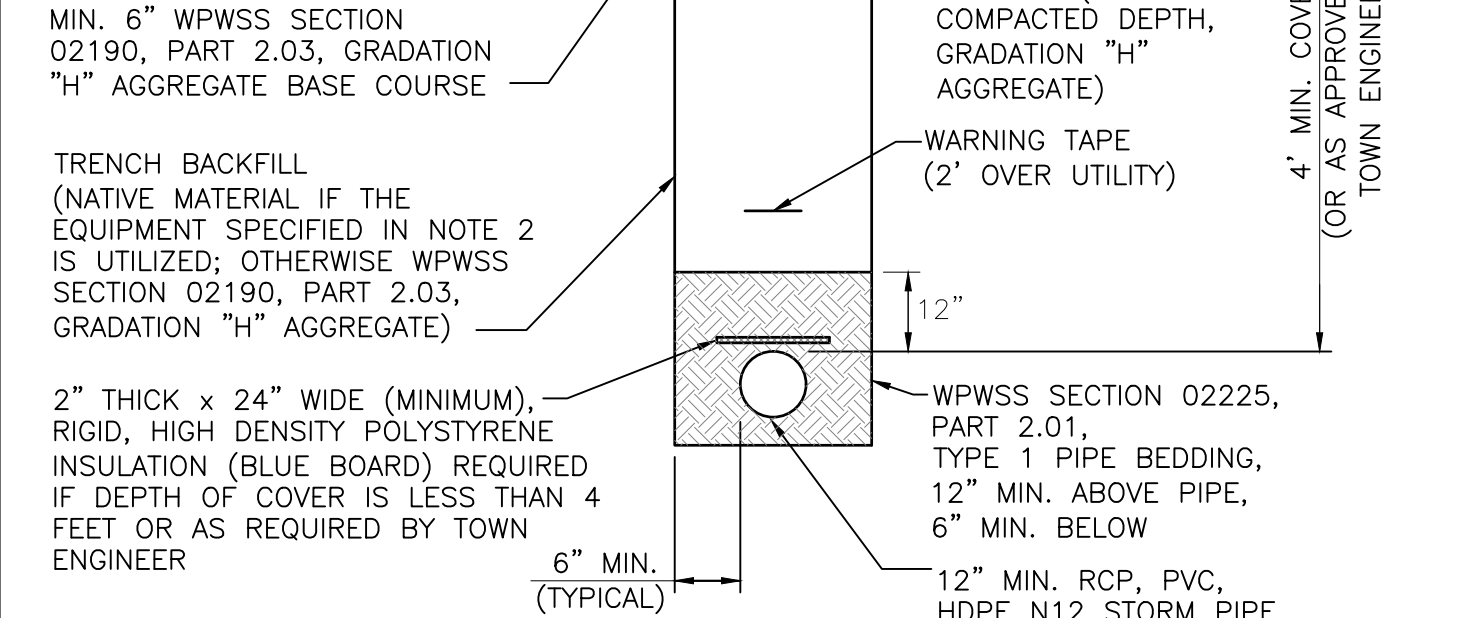


NOTES:
1. MANHOLE FRAME AND COVER SHALL BE MODEL NO. A-1055, AS MANUFACTURED BY D&L SUPPLY OF LINDON, UTAH, MODIFIED AS SHOWN, OR APPROVED SUBSTITUTE.
2. GREY IRON CONFORMS TO ASTM A-48, CLASS 35B. MEETS H-20 WHEEL LOAD.

STM-104 **DATE: 12/17/12**
C3.5 **SCALE: NTS**

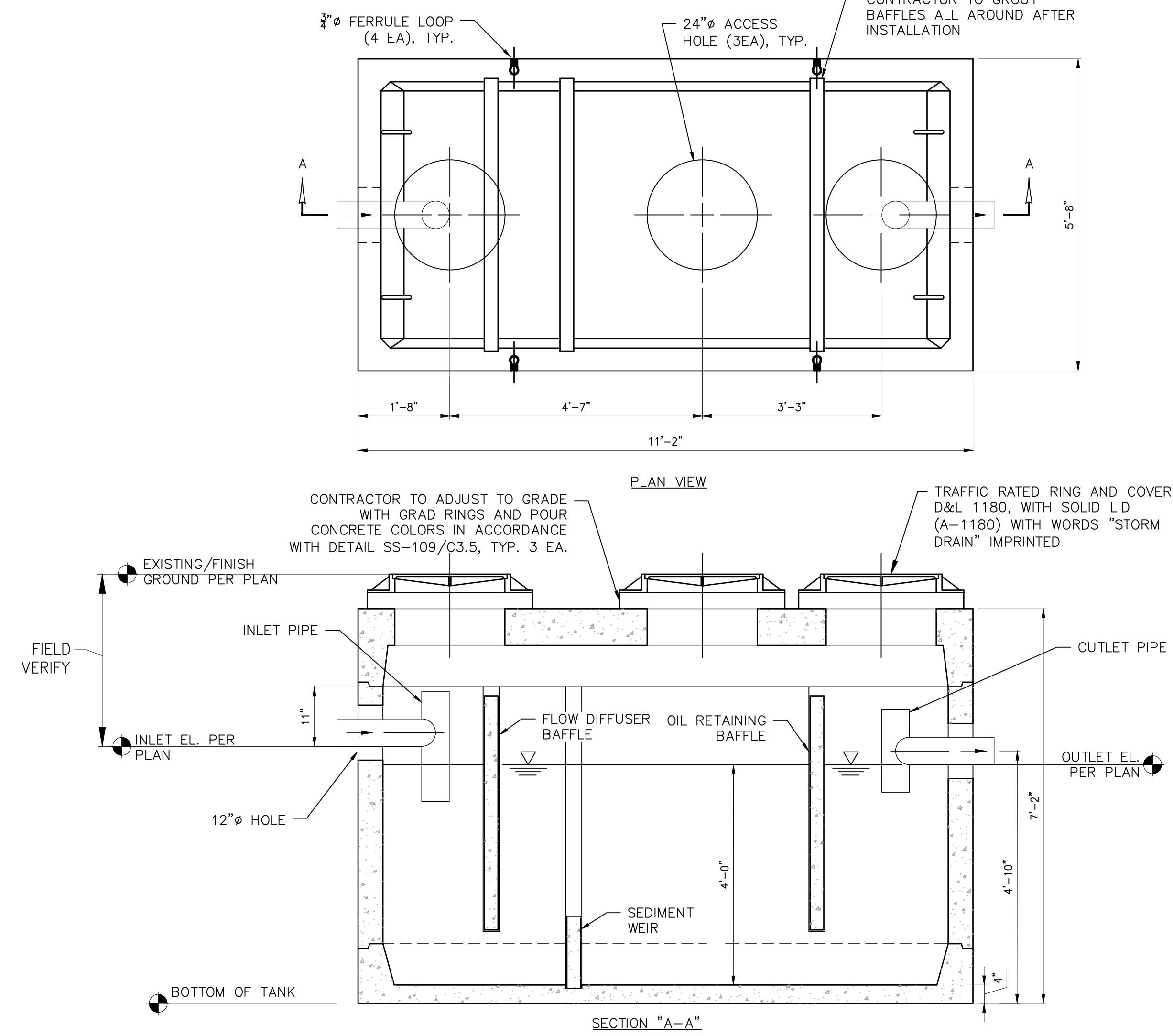
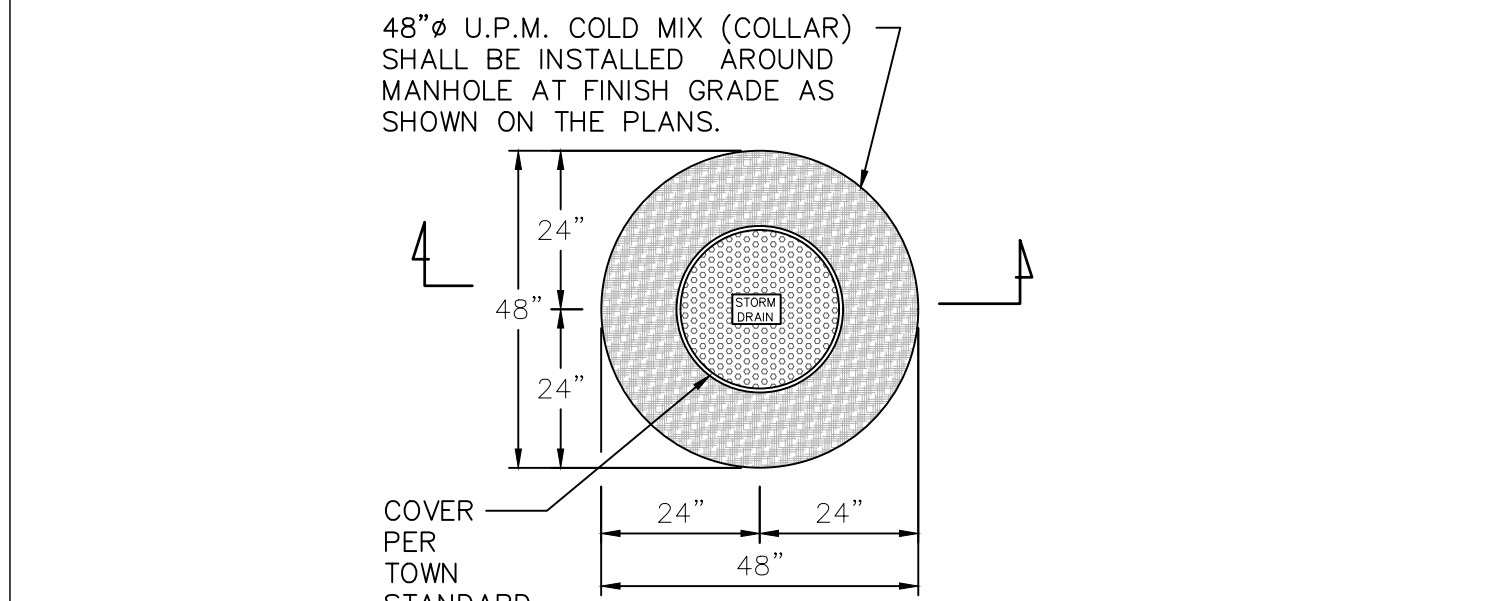
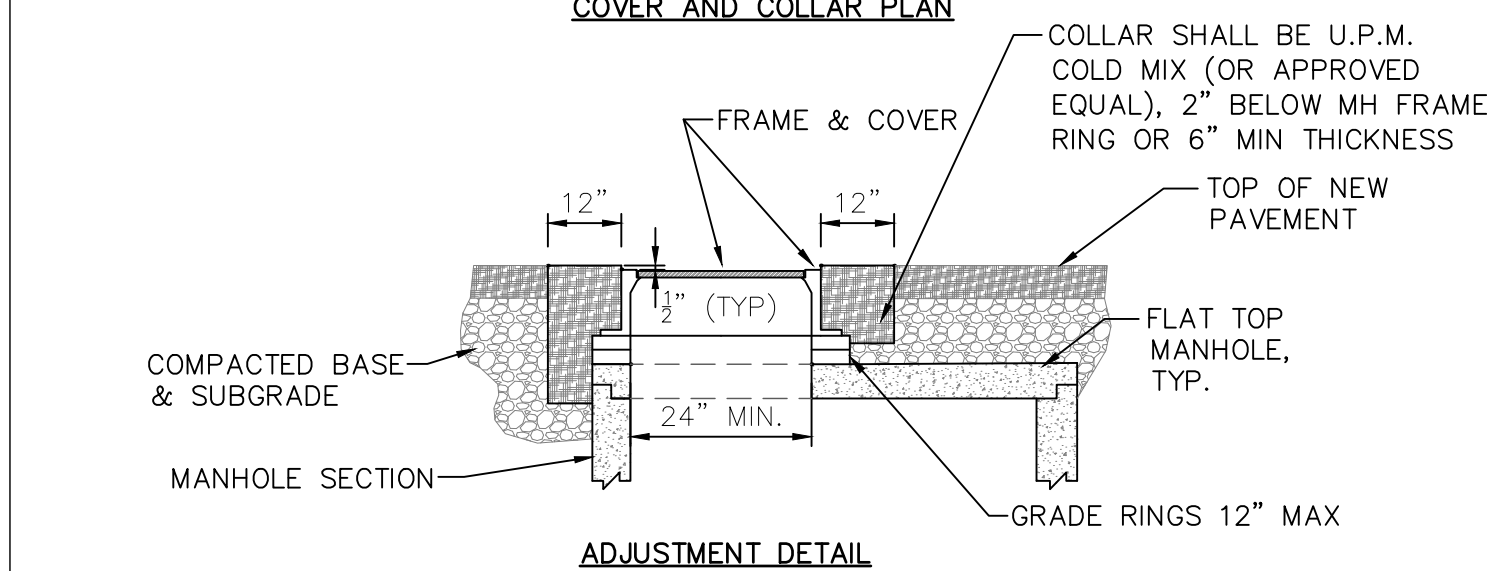
STM-100 **DATE: 12/11/12**
C3.5 **SCALE: NTS**

NOTES:
1. TRENCH BACKFILL BELOW THE SURFACE SHALL MEET THE FOLLOWING CRITERIA:
- 95% MODIFIED PROCTOR DENSITY WITHIN STREET AND ALLEY RIGHTS-OF-WAY.
- 90% MODIFIED PROCTOR DENSITY OUTSIDE STREET AND ALLEY RIGHTS-OF-WAY.
2. COMPACTION OF NATIVE TRENCH BACKFILL, WITH ALL ROCK LARGER THAN 6" REMOVED, SHALL BE CARRIED OUT IN 2' LIFTS WITH A HOE-PACK OR A VIBRATORY SHEEPS FOOT ROLLER (COMPACTION METHOD AND EQUIPMENT SHALL BE REVIEWED AND APPROVED BY TOWN ENGINEER PRIOR TO BACKFILLING).
3. PIPE BEDDING SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED WITH A JUMPING JACK TO PROVIDE UNIFORM PIPE SUPPORT.
4. UNLESS OTHERWISE DIRECTED, ALL BASE COURSE AND GRAVEL SURFACE REPLACEMENT SHALL BE INSTALLED PER WPSS SECTION 02231, PART 3.03.
5. ALL TRENCH EXCAVATION SHALL CONFORM TO WYOMING OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (WOSHA) REGULATIONS.



STM-103 **DATE: 12/12/12**
C3.5 **SCALE: NTS**

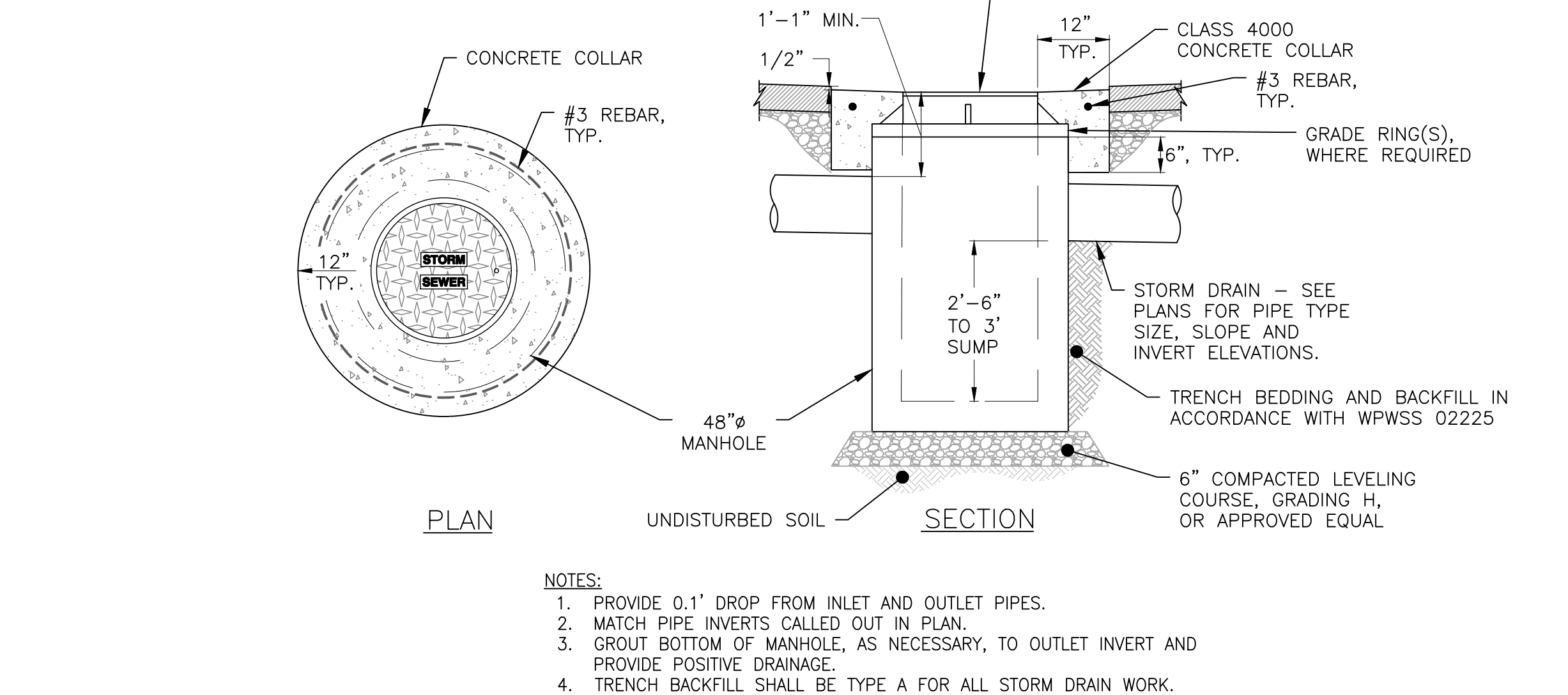
NOTES:
1. ADJUST MANHOLE UPWARD WITH ADJUSTING RINGS UNDER FRAME. ADJUST MANHOLE DOWNWARD BY REMOVING A PORTION OF THE MANHOLE RISER AND REBUILDING TO PROPER HEIGHT. SLOPE MANHOLE RING AS REQUIRED TO MATCH STREET GRADE AND CROSS SLOPE. MAKE FINAL MANHOLE ADJUSTMENT AFTER PAVING AND BEFORE SEAL COATING.
2. IF STORM DRAIN IS WITHIN UNPAVED AREA USE TAPERED COLLAR. SEE TOWN SANITARY SEWER DETAIL SS-110.



NOTES:
1. THE TANK SHALL BE HS-20 TRAFFIC RATED, OLDCASTLE PRECAST 5106-SA, OR APPROVED EQUAL.
2. ALL BAFFLES AND WEIRS TO BE PRECAST CONCRETE
3. CONTRACTOR SHALL SUPPLY AND INSTALL PIPING AND SAMPLING TEES, AND GROUT IN ALL PIPES.

2 **1500 GAL. OIL WATER SEPARATOR**
C3.5 **SCALE: N.T.S.**

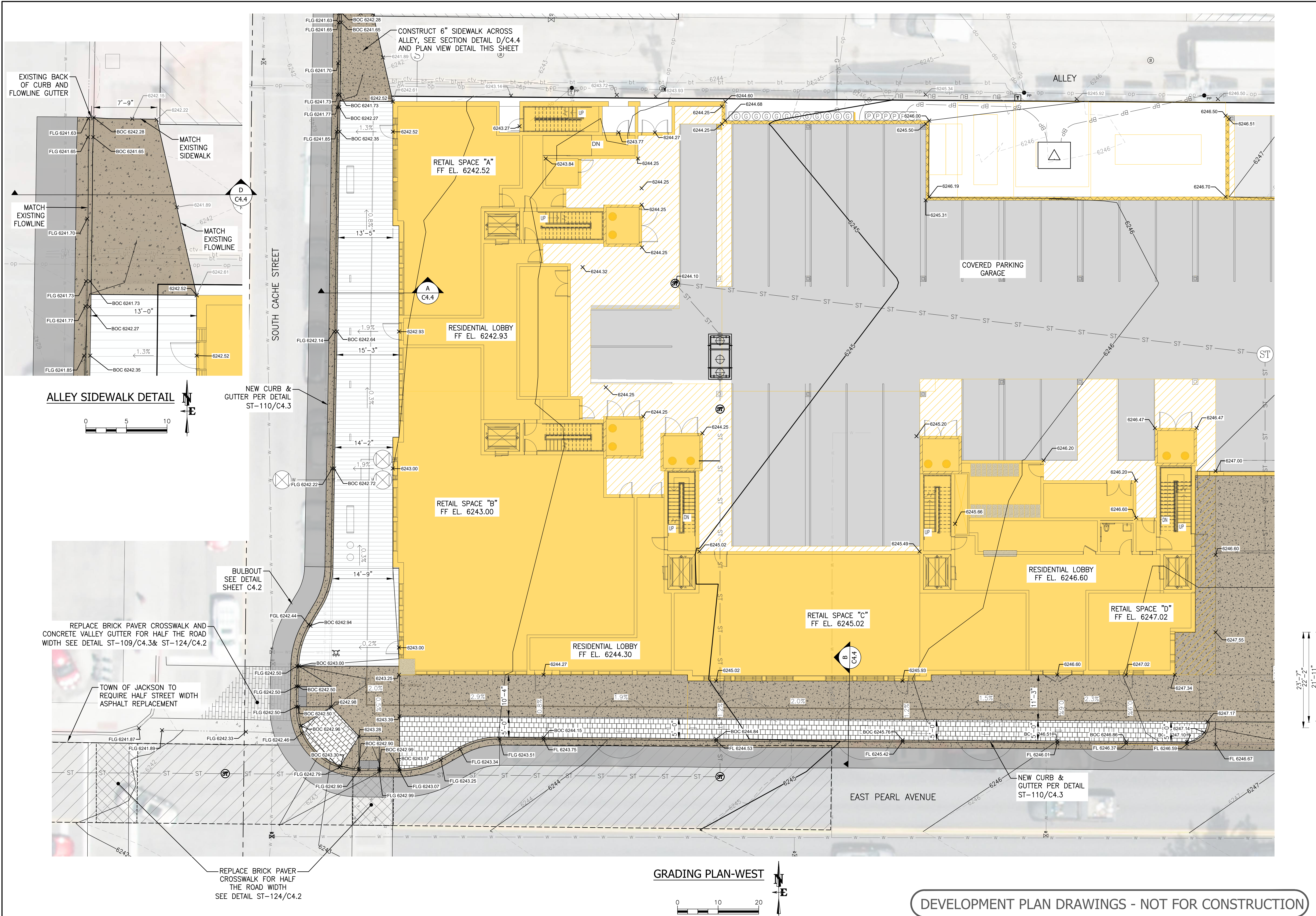
1 **STORM SEWER MANHOLE**
C3.5



NOTES:
1. PROVIDE 0.1' DROP FROM INLET AND OUTLET PIPES.
2. MATCH PIPE INVERTS CALLED OUT IN PLAN.
3. GROUT BOTTOM OF MANHOLE, AS NECESSARY, TO OUTLET INVERT AND PROVIDE POSITIVE DRAINAGE.
4. TRENCH BACKFILL SHALL BE TYPE A FOR ALL STORM DRAIN WORK.

DEVELOPMENT PLAN DRAWINGS - NOT FOR CONSTRUCTION

DRAWING NO C3.5		JOB TITLE RANCH INN MOTEL CACHE AND PEARL JACKSON, WYOMING	DRAWING TITLE STORM SEWER DETAILS	<div>NELSON ENGINEERING</div> <div>P.O. BOX 1599, JACKSON WYOMING (307) 733-2087</div>				DATE 3/29/2022	REV. NE
JOB NO 21-076-03					ENGINEERED BO/MB				
					DRAWN BO/BIG				
					CHECKED MB				
					APPROVED				

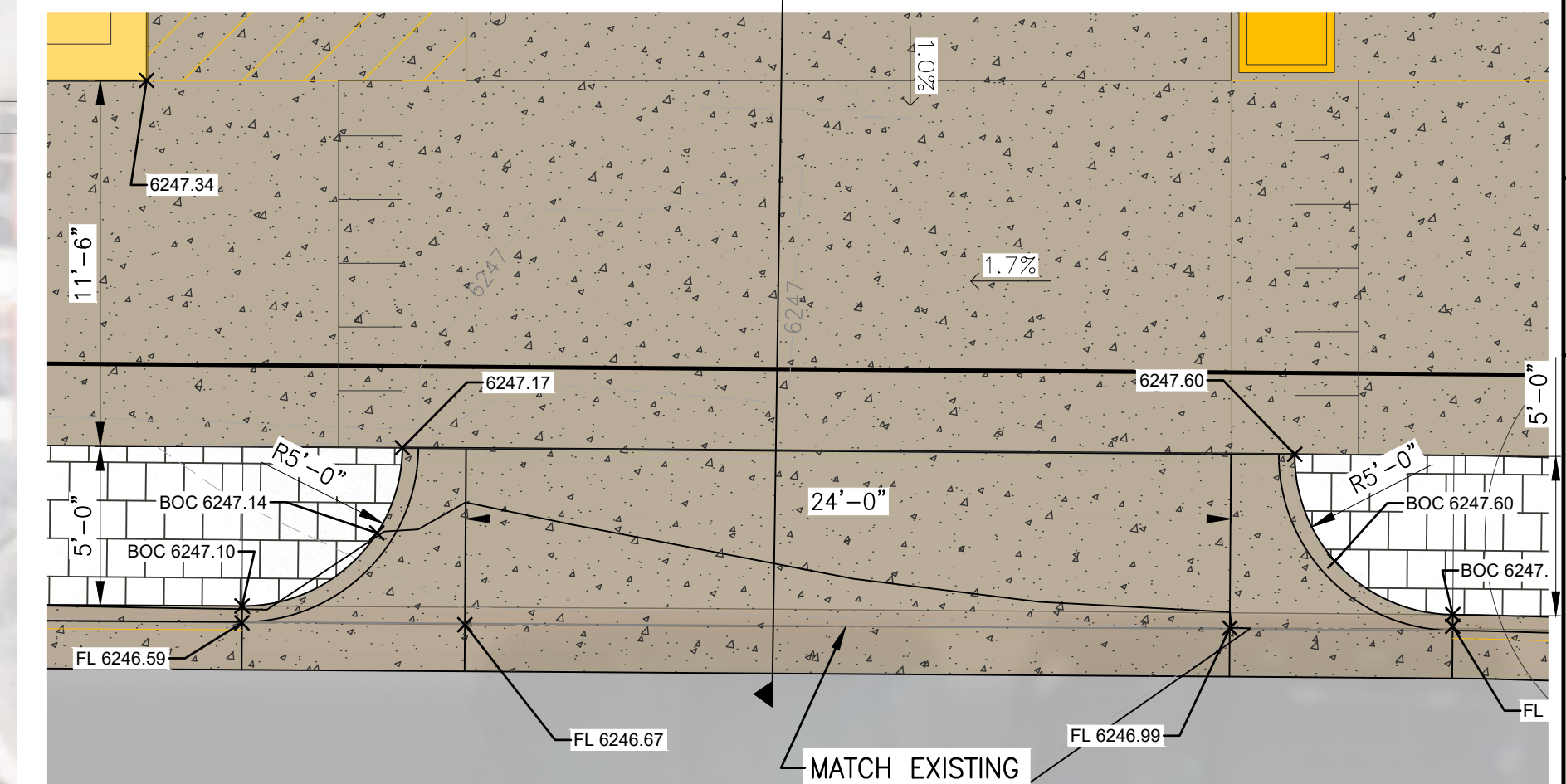
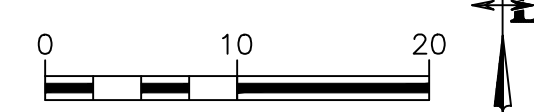


DRAWING NO C4.0		JOB TITLE RANCH INN MOTEL CACHE AND PEARL JACKSON, WYOMING	DRAWING TITLE WEST GRADING PLAN	<div>NELSON ENGINEERING</div> <div>P.O. BOX 1599, JACKSON WYOMING (307) 733-2087</div>	DATE	3/29/2022	REV.
JOB NO 21-076-03		SURVEYED			NE		
		ENGINEERED			BO/MB		
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			APPROVED				

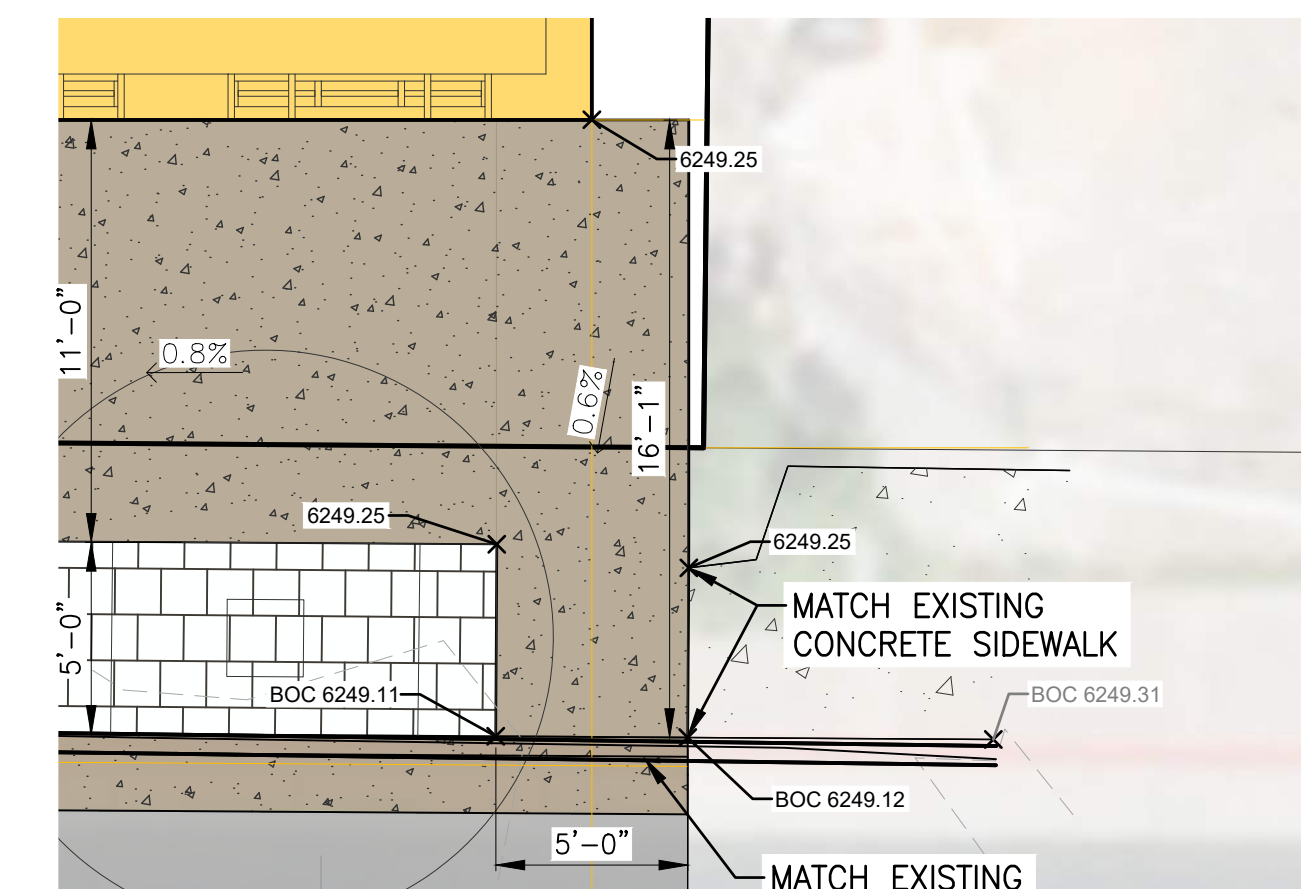
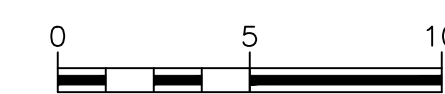
**NELSON
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P.O. BOX 1599, JACKSON WYOMING (307) 733-2087



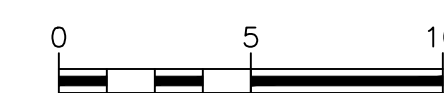
GRADING PLAN -EAST



ENTRY DETAIL



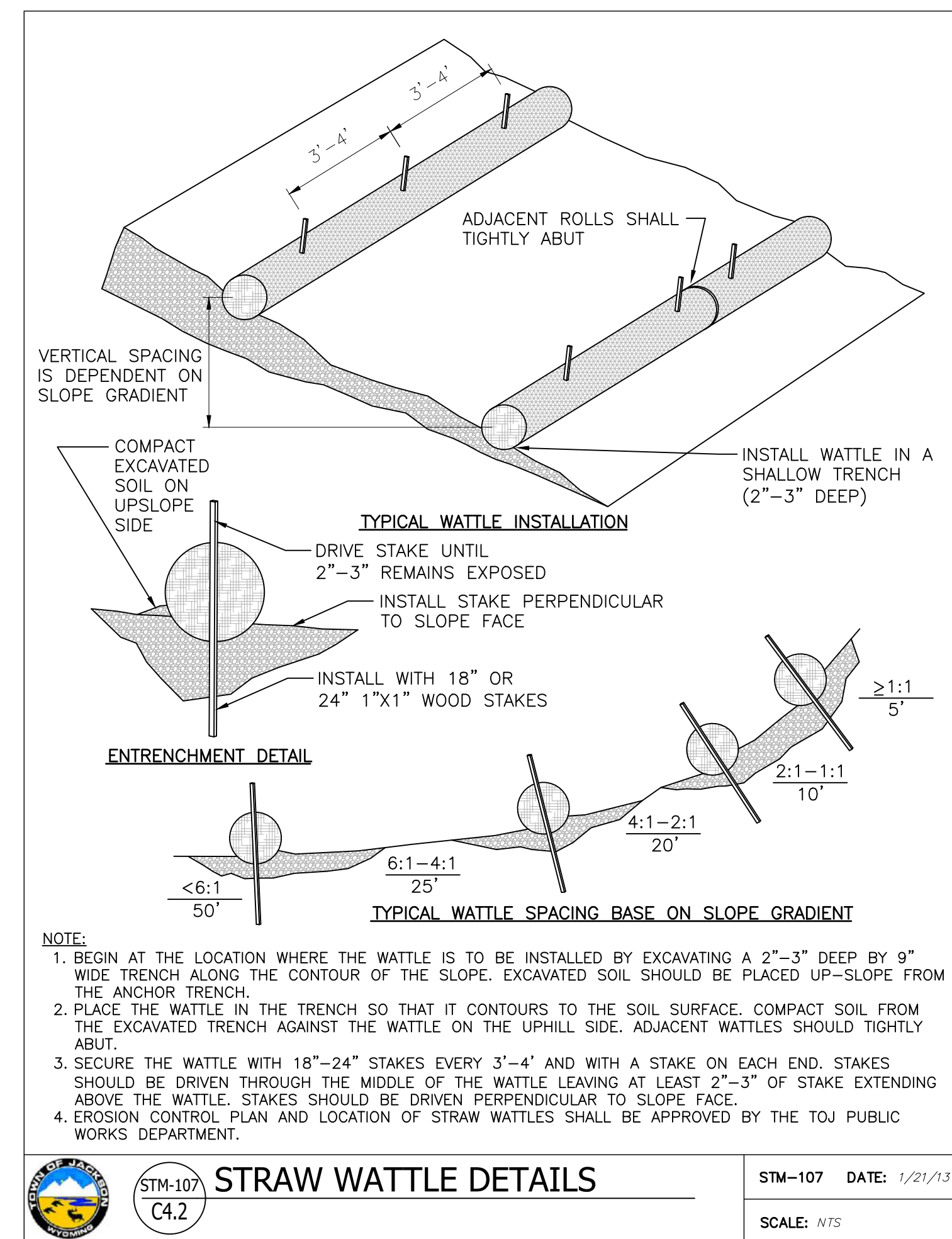
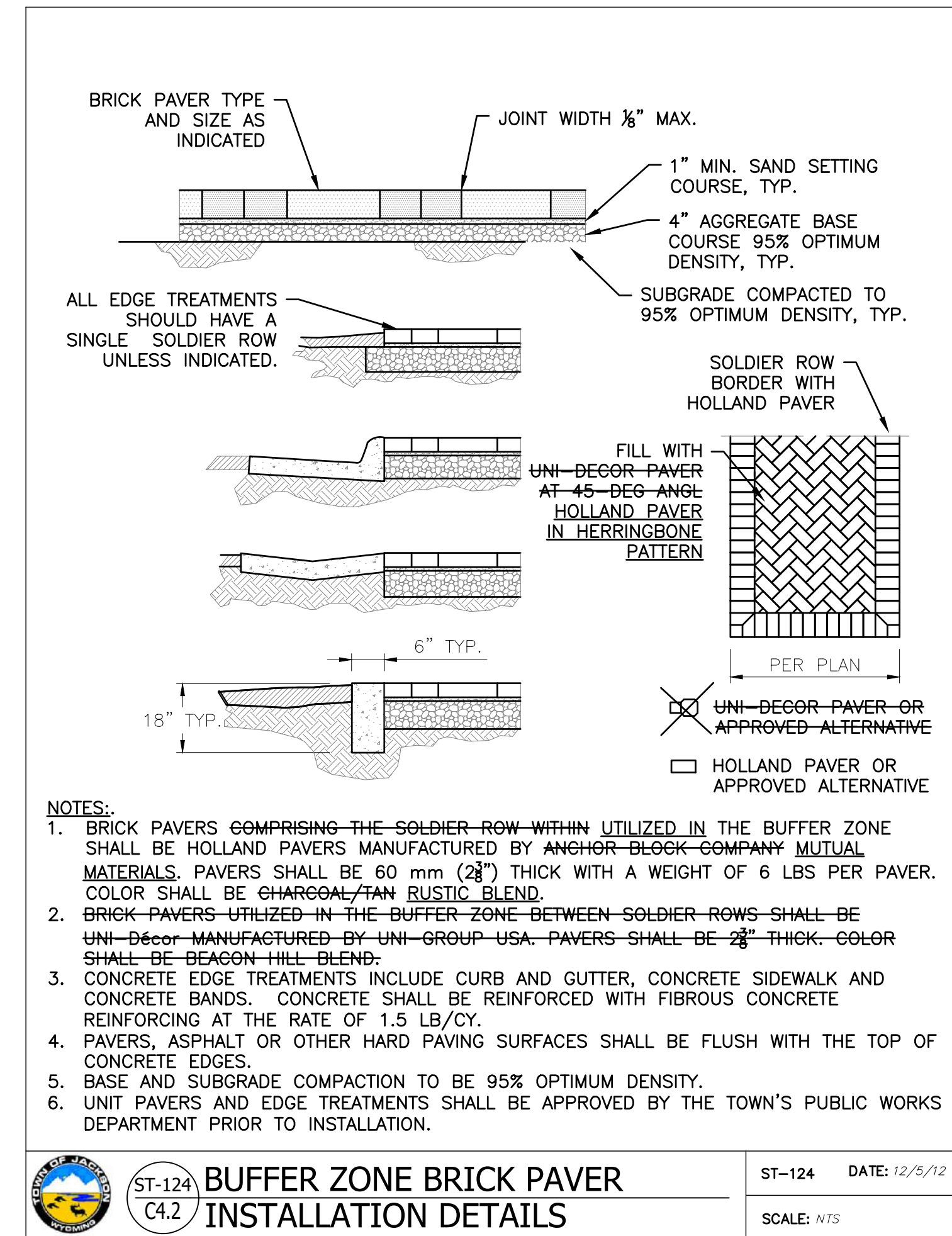
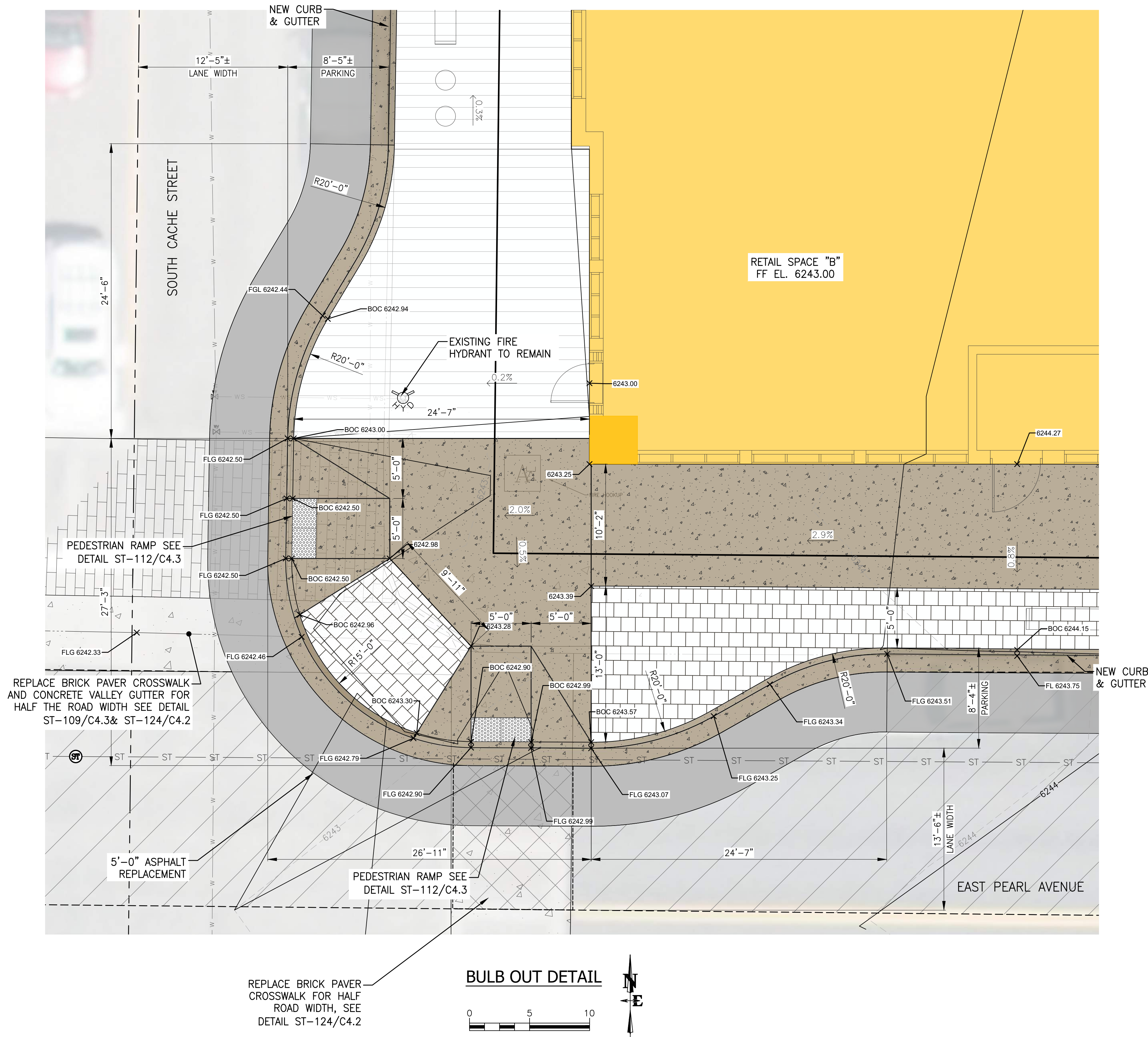
EAST SIDEWALK TIE-IN



(DEVELOPMENT PLAN DRAWINGS - NOT FOR CONSTRUCTION)

DRAWING NO	JOB TITLE	DRAWING TITLE	REV.
C4.1	RANCH INN MOTEL CACHE AND PEARL JACKSON, WYOMING	EAST GRADING PLAN	
JOB NO			
21-076-03			

S:\Projects\2021\1076-03 Ranch Inn Motel, Cache and Pearl - main - civil\4 drawings\3030 GRADING PLAN.dwg (JLB) DATE: 2/1/2021 10:00 AM PLOT: 2/1/2021 10:00 AM PLOT: 2/1/2021 10:00 AM

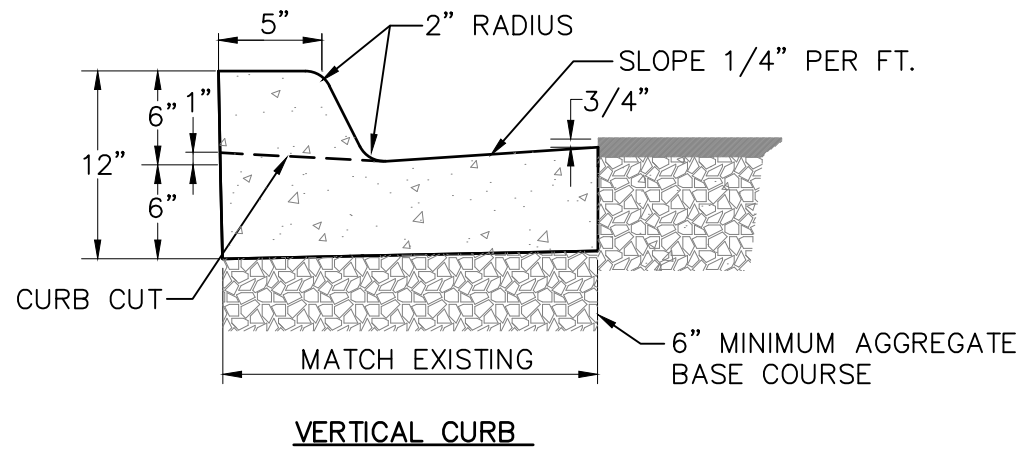


DEVELOPMENT PLAN DRAWINGS - NOT FOR CONSTRUCTION

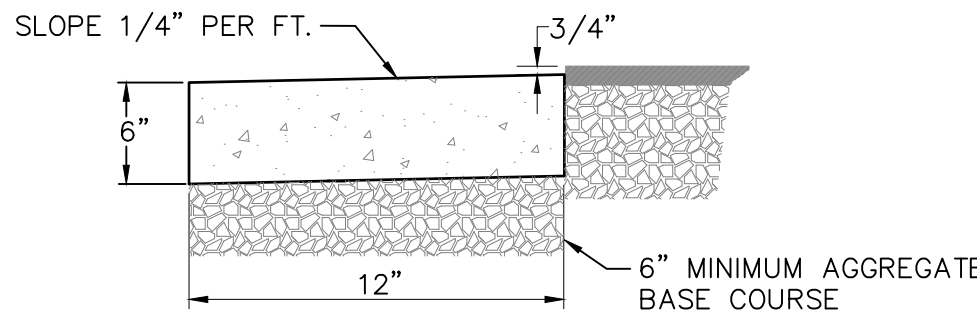
DRAWING NO	JOB TITLE	DRAWING TITLE				REV.			
		BULBOUT AND SIDEWALK DETAILS				DATE	SURVEYED	ENGINEERED	APPROVED
C4.2	RANCH INN MOTEL					3/29/2022	NE	BO/MB	
	CACHE AND PEARL						DRAWN	BO/BIG	
21-076-03	JACKSON, WYOMING						CHECKED	MB	
							APPROVED		

NELSON
ENGINEERING
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

S:\Projects\2025\016-03 Ranch Inn Motel, Curb and Pavement - 04/14/25\Drawings\DETAILS-GRADING-ROADWAY\ROAD-GRADING-DETAILS.dwg - Mr. 25 2022 06/20/21 pm PLUTTER BY: dson DWG: 016042 241



VERTICAL CURB



RIBBON CURB

NOTES:

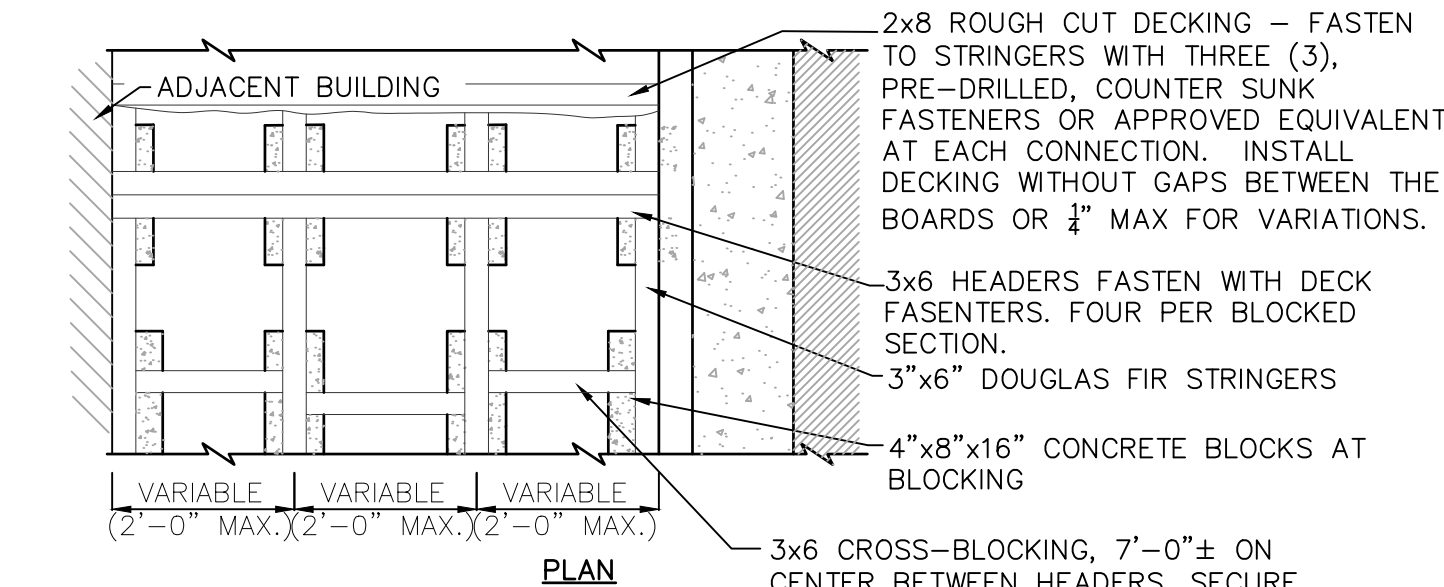
- CURBS SHALL CONFORM TO WPWSS SECTION 02525, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.07.
- AGGREGATE BASE COURSE SHALL BE SIX INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
- REMOVAL AND REPLACEMENT OF CURB SHALL TAKE PLACE IN FULL PANELS.
- ROLL CURB SHALL NOT BE ALLOWED.



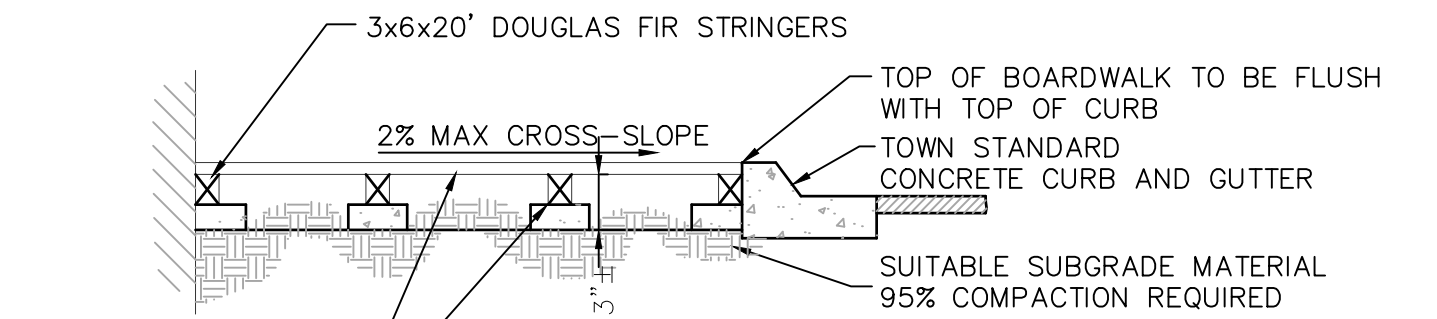
ST-110
C4.3

CURB SECTION DETAIL
TOJ STD DETAIL

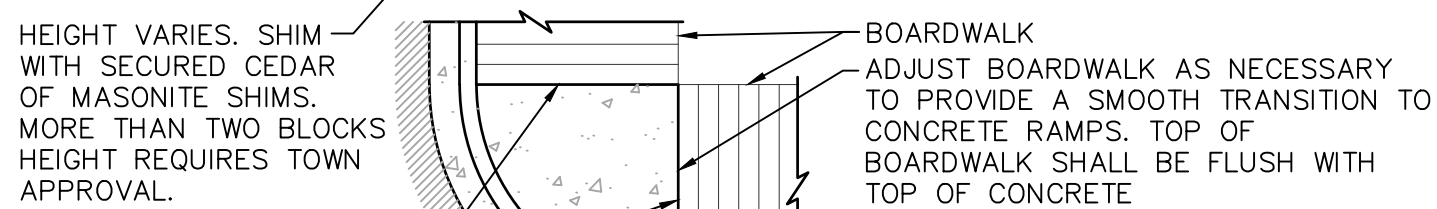
ST-110 DATE: 12/4/12
SCALE: NTS



PLAN



SECTION



INTERSECTION PLAN DETAIL

NOTES:

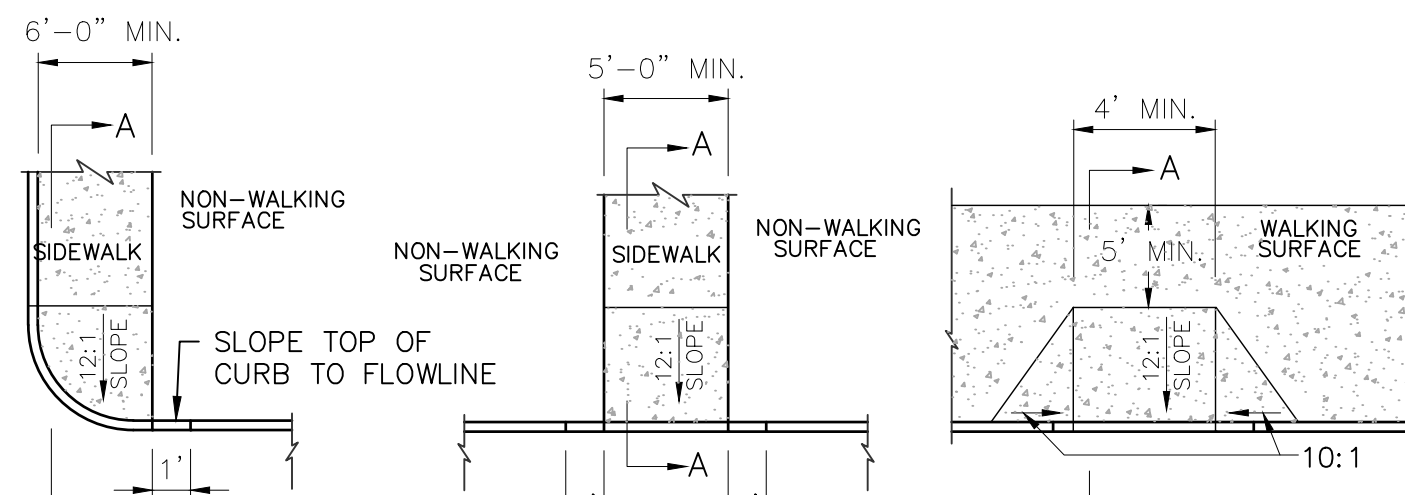
- UNLESS OTHERWISE APPROVED, ALL FASTENERS TO BE 5 1/8" LONG x 5/16" GRK RSS FASTENERS, T30, PRE-DRILLED, AND COUNTER SUNK (IN DECKING).
- ALL SUB-STRUCTURE LUMBER TO BE DOUGLAS FIR OR PRESSURE TREATED.
- ALL DECK LUMBER SHALL BE 2"x8" ROUGH CUT DOUGLAS FIR. FINISH WITH THREE COATS OF NATURAL STAIN.
- TOWN MAY ADJUST MATERIALS AND DETAILS AS NECESSARY.
- PEDESTRIAN RAMP TO BE PER TOWN STANDARD.



ST-111
C4.3

BOARDWALK DETAIL
TOJ STD DETAIL

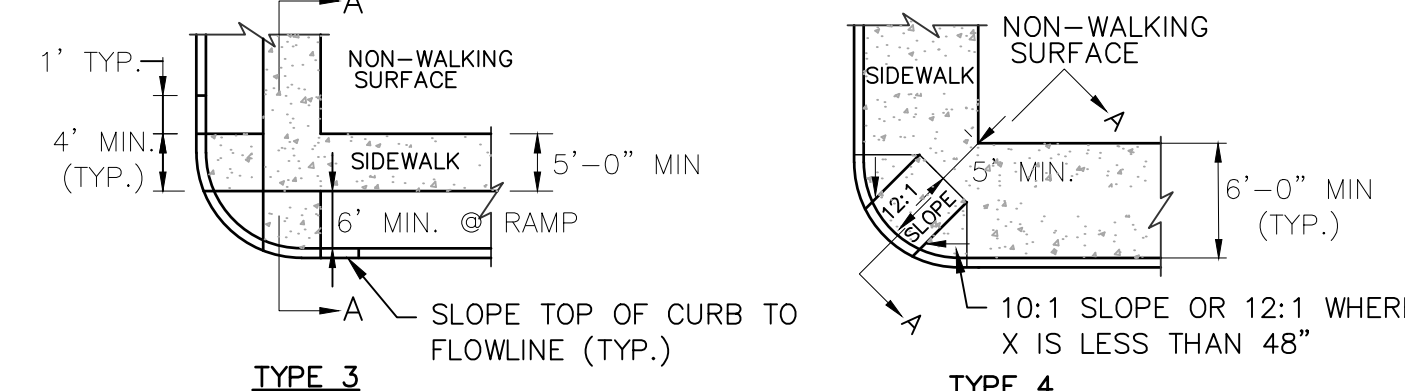
ST-111A DATE:
SCALE:



TYPE 1

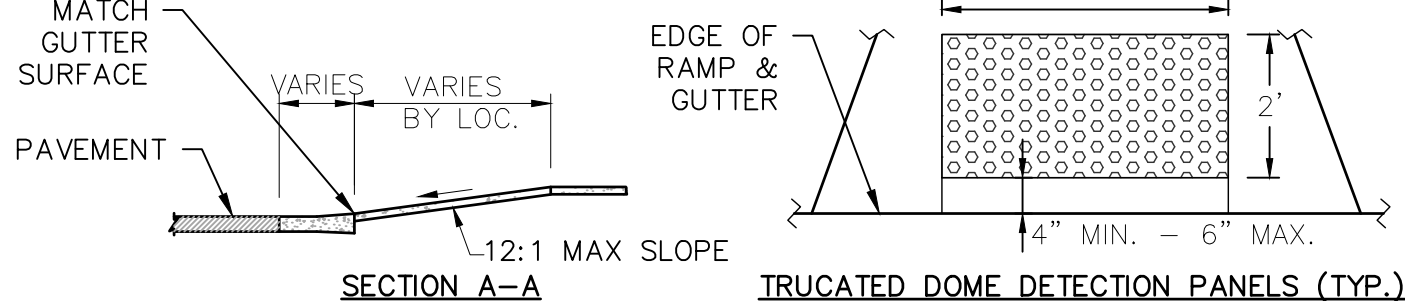
TYPE 2

TYPE 2A



TYPE 3

TYPE 4



TRUNCATED DOME DETECTION PANELS (TYP.)

NOTES:

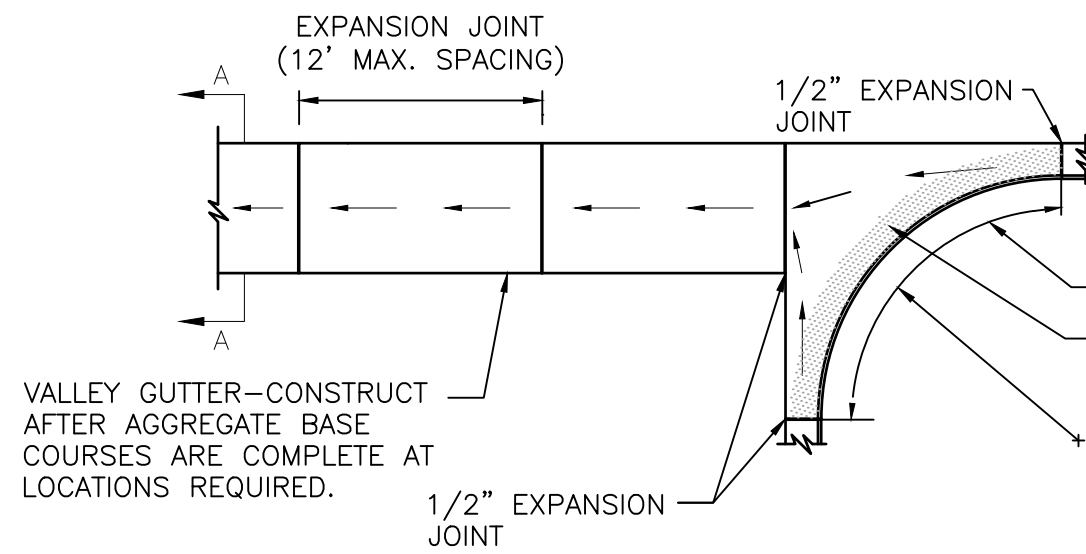
- SIDEWALKS SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS.
- LIP AT GUTTER TO BE NO MORE THAN 1/4" HIGH.
- CONCRETE TO BE A BROOM FINISH.
- ALL PEDESTRIAN RAMP SHALL INCLUDE PLACEMENT OF CAST IRON TRUNCATED DOME DETECTION PANELS IN A BRICK RED COLOR. (PANELS SHALL BE PROVIDED BY TOJ.)



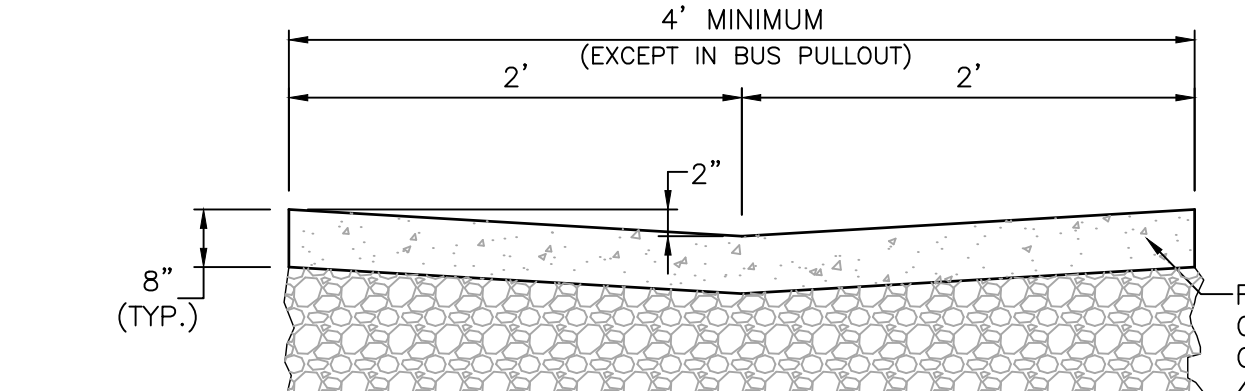
ST-112
C4.3

PEDESTRIAN RAMPS
TOJ STD DETAIL

ST-112 DATE: 12/4/12
SCALE: NTS



VALLEY GUTTER-CONSTRUCT AFTER AGGREGATE BASE COURSES ARE COMPLETE AT LOCATIONS REQUIRED.



SECTION A-A

NOTES:

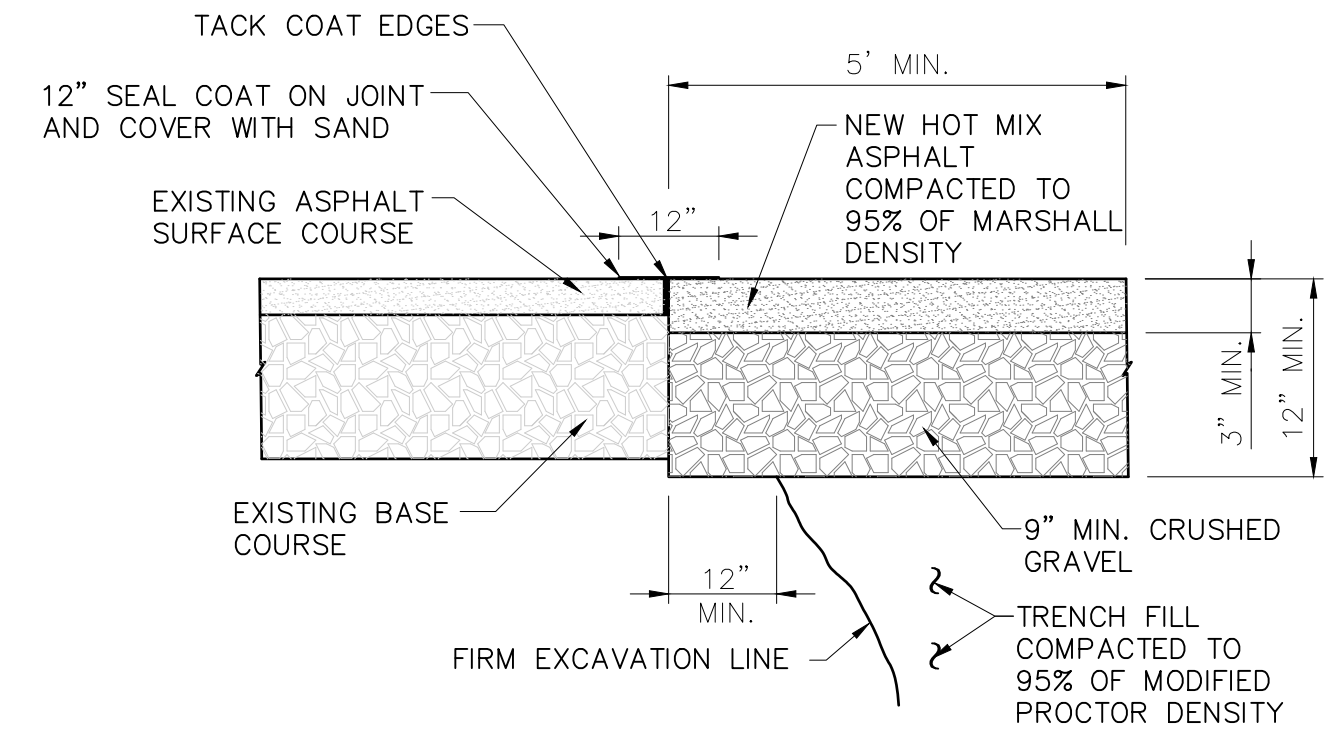
- VALLEY GUTTERS AND CURB TURN FILLETS SHALL CONFORM TO WPWSS SECTION 02528, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.08.
- AGGREGATE BASE COURSE SHALL BE SIX INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
- REMOVAL AND REPLACEMENT OF VALLEY GUTTER SHALL TAKE PLACE IN FULL PANELS.
- CURB AND GUTTER SECTION SHALL BE POURED SEPARATE OF VALLEY PAN AS WELL AS PEDESTRIAN RAMP AND/OR SIDEWALK.



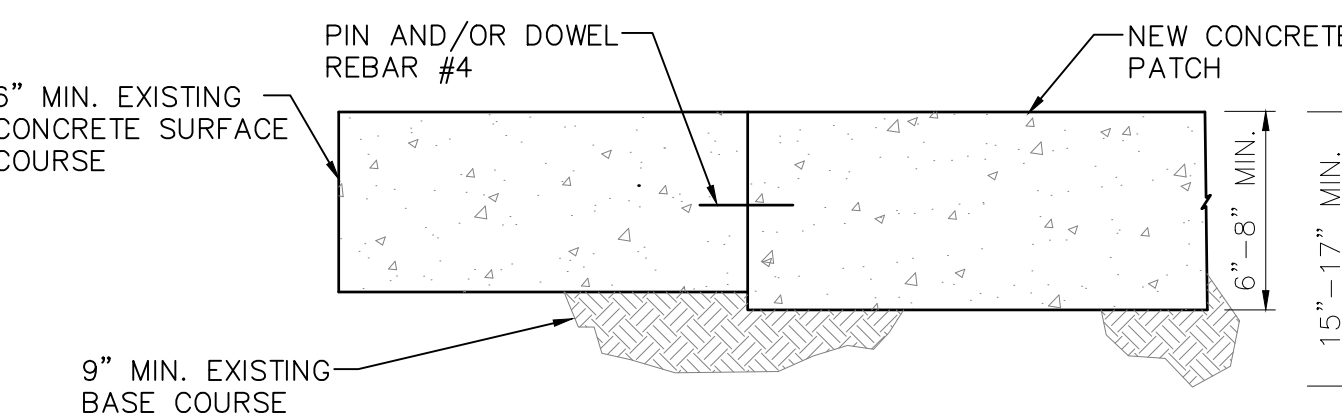
ST-109
C4.3

VALLEY GUTTER & CURB TURN FILLET
TOJ STD DETAIL

ST-109 DATE:
SCALE:



ASPHALT PATCH REPAIR DETAIL



CONCRETE PATCH REPAIR DETAIL

NOTES:

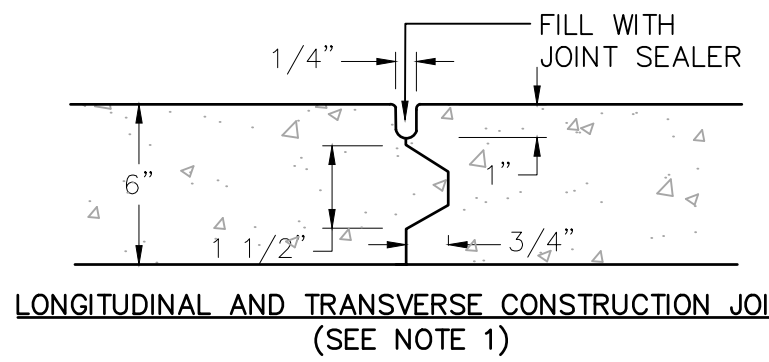
- REPLACEMENT ASPHALT THICKNESS SHALL BE 1" GREATER THAN EXISTING AND NO LESS THAN 3" MINIMUM.
- ASPHALT SHALL BE PLACED IN TWO (2) LIFTS, EACH NO LESS THAN 1 1/2" IN THICKNESS, AND COMPACTED TO 95% OF MARSHALL DENSITY.
- PORTLAND CEMENT CONCRETE PAVEMENT SHALL MEET APPLICABLE REQUIREMENTS OF SECTION 02520, 02776 AND 03304 AS DIRECTED BY TOWN PUBLIC WORKS DEPARTMENT.



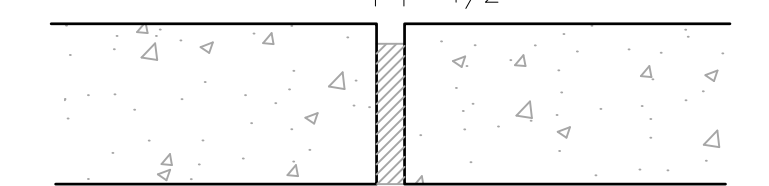
ST-118
C4.3

PATCH REPAIR SECTION
TOJ STD DETAIL

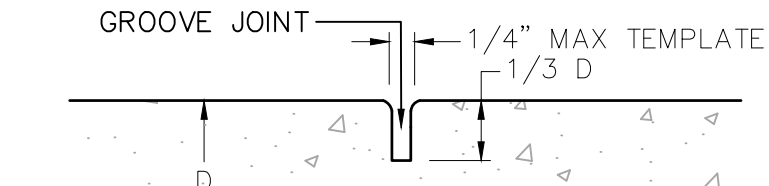
ST-118 DATE:
SCALE:



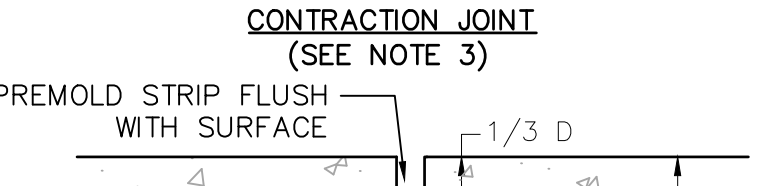
LONGITUDINAL AND TRANSVERSE CONSTRUCTION JOINT (SEE NOTE 1)



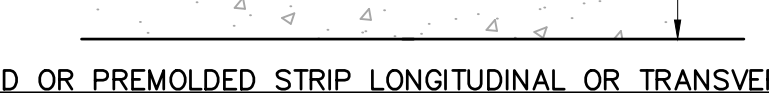
EXPANSION JOINT (SEE NOTE 2)



GROOVE JOINT (SEE NOTE 3)



CONTRACTION JOINT (SEE NOTE 3)



SAWED OR PREMOLDED STRIP LONGITUDINAL OR TRANSVERSE JOINT

NOTE:

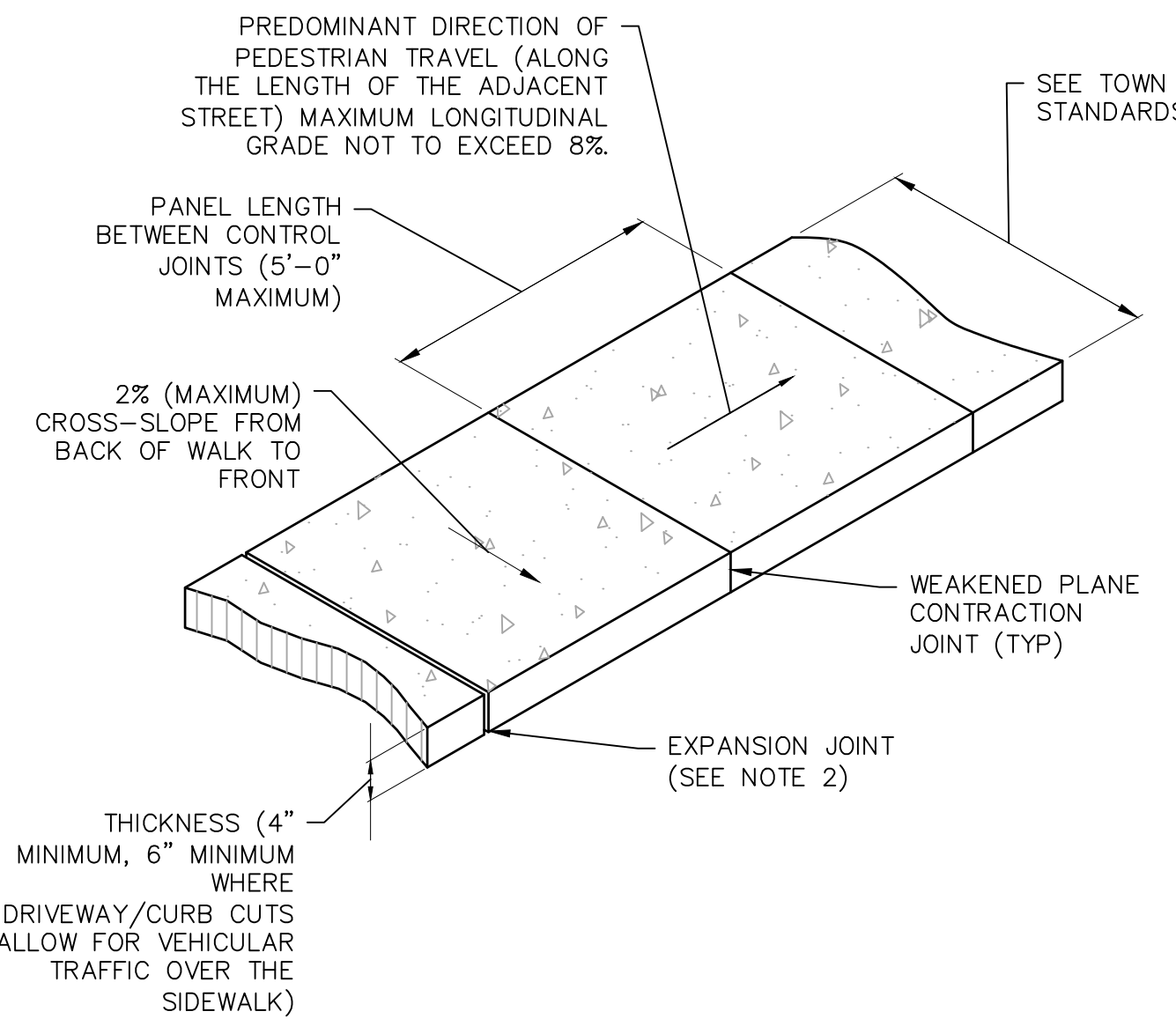
- KEYWAY FORMED BY FASTENING METAL KEY TO FORM.
- 1/2" PREMOLDED NON-EXTRUDING EXPANSION JOINT MATERIAL TO MEET AASHTO M-59. EXPANSION MATERIAL SHALL BE INSTALLED WHEN ABUTTING EXISTING CONCRETE OR FIXED STRUCTURES SUCH AS INLETS AND DRIVEWAYS, AND EVERY 30' ON LONG STRAIGHT CONCRETE STRETCHES.
- FORM WITH TEMPLATE OR SAWCUT JOINTS. IF SAWCUT JOINTS ARE USED, THEY SHALL BEGIN AS SOON AS CONCRETE IS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT EXCESSIVE RAVELING AND BEFORE UNCONTROLLED CRACKING OCCURS. MINIMUM DISTANCE BETWEEN JOINTS IS 5'.
- JOINT LAYOUT FOR CONCRETE STREETS IS TO BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL.



ST-123
C4.3

PAVING & CONCRETE JOINT DETAILS
TOJ STD DETAIL

ST-123 DATE: 12/6/12
SCALE: NTS



NOTES:

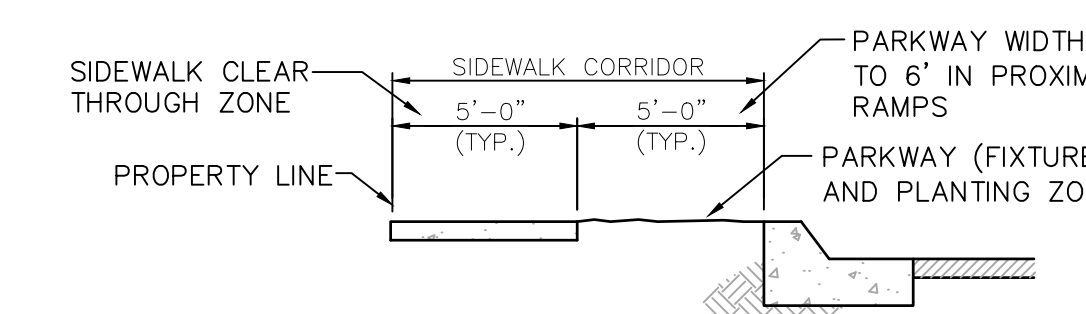
- SIDEWALK SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS SIDEWALKS SHALL CONFORM TO WPWSS SECTION 02776, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.07.
- EXPANSION JOINTS SHALL BE PLACED IN SIDEWALK AT THE SAME LOCATIONS AS THOSE IN CURB AND GUTTER WHEN SIDEWALK IS ADJACENT TO CURB. (PER WPWSS SECTION 03251, PART 3.04 SPACING SHALL NOT EXCEED 32'-0" ON CENTER.)
- FOR SIDEWALKS GREATER THAN SIX FEET IN WIDTH, A LONGITUDINAL CONTROL JOINT SHALL BE INSTALLED AT THE CENTER OF THE WALK.
- REMOVAL AND REPLACEMENT OF SIDEWALK SHALL TAKE PLACE IN FULL PANELS.
- AGGREGATE BASE COURSE SHALL BE FOUR INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.



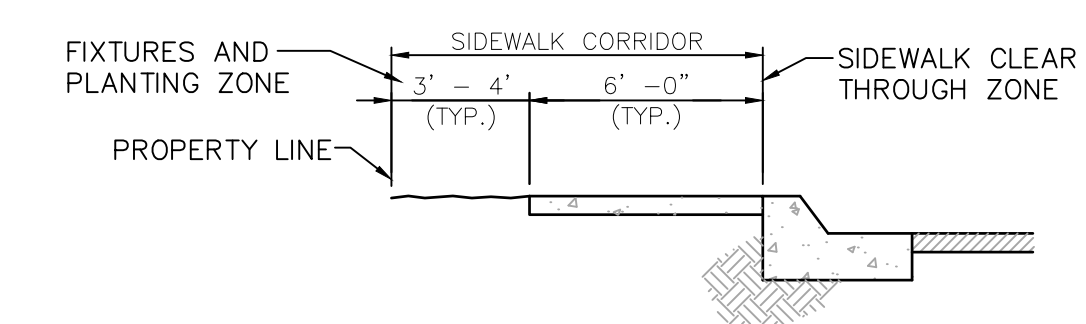
ST-127
C4.3

CONCRETE SIDEWALK
TOJ STD DETAIL

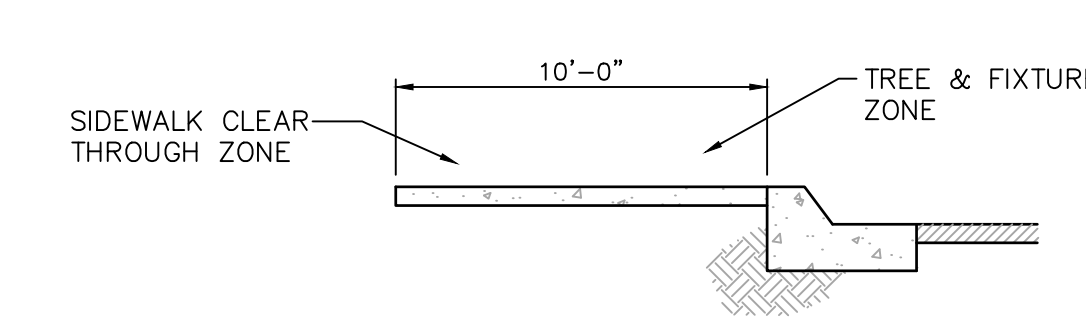
ST-127 DATE: 12/7/12
SCALE: NTS



DETACHED SIDEWALK (SEE NOTE 5)



ATTACHED SIDEWALK (NON-COMMERCIAL STREETS) (SEE NOTE 4)



ATTACHED SIDEWALK (COMMERCIAL STREETS)

NOTES:

- SIDEWALKS SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS
- SIDEWALK, PEDESTRIAN RAMPS AND CURB & GUTTER CONSTRUCTION SHALL BE PER TOWN STANDARDS
- WITHIN THE TOWN'S BOARDWALK DISTRICT, BOARDWALK (RATHER THAN SIDEWALK) SHALL BE INSTALLED.
- MINIMUM CLEARANCE AROUND ALL OBSTRUCTIONS SHALL BE 5'-0".
- ON NON-COMMERCIAL STREETS DETACHED SIDEWALK SHALL BE THE PREFERRED OPTION. IN ORDER TO MAINTAIN THE CLEAR THROUGH ZONE, THE FIXTURES ZONE SHALL BE WHERE FIRE HYDRANTS, UTILITY POLES, GUY WIRES, PULL BOXES, NEWSPAPER BOXES, PHONE BOOTHS, AND OTHER SUCH OBSTRUCTIONS ARE LOCATED.



ST-128
C4.3

SIDEWALK CORRIDOR
TOJ STD DETAIL

ST-128 DATE:
SCALE:

DRAWING TITLE
ROAD AND GRADING DETAILS

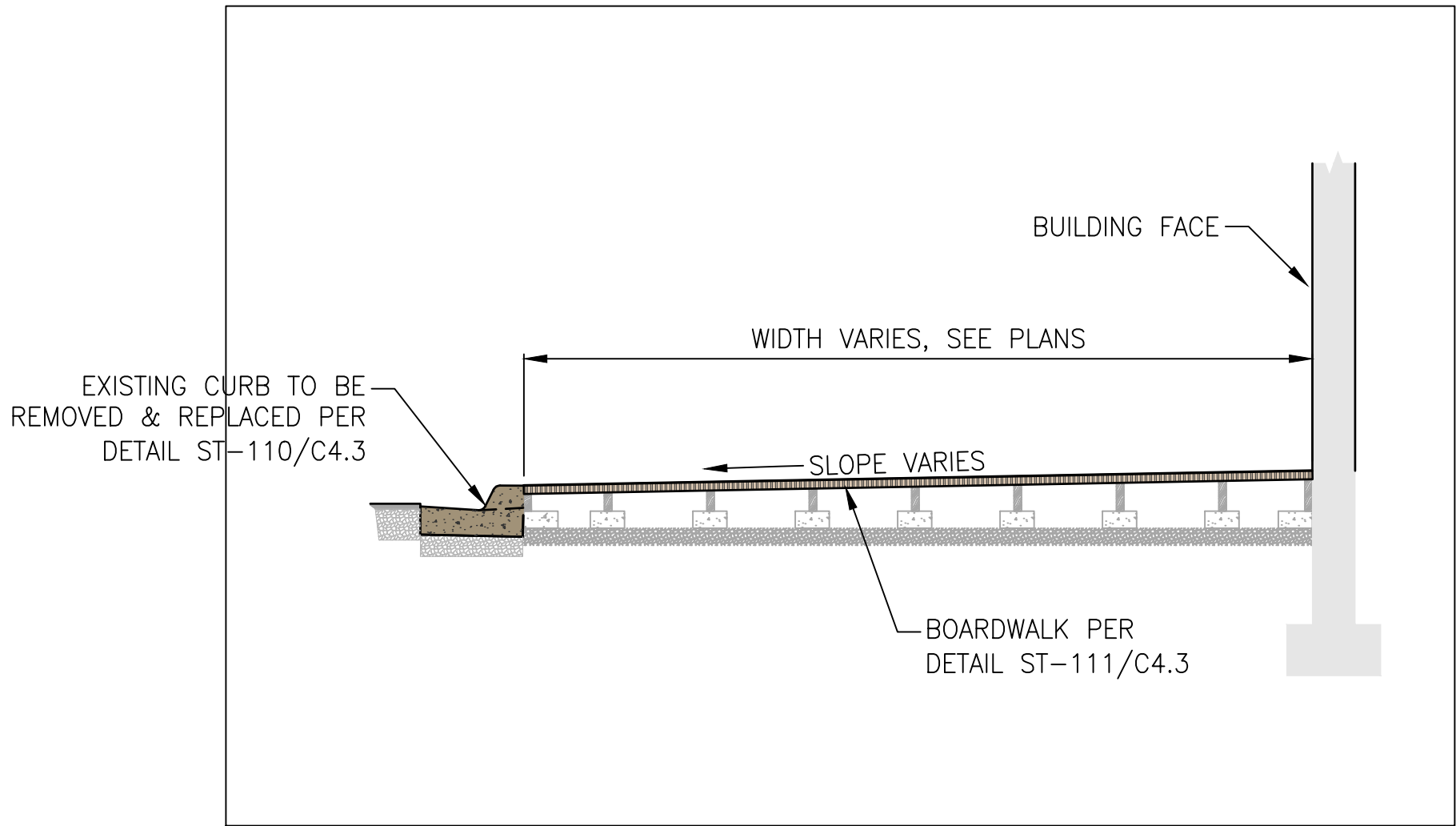
JOB TITLE
RANCH INN MOTEL
CACHE AND PEARL
JACKSON, WYOMING

DRAWING NO
C4.3
JOB NO
21-076-03

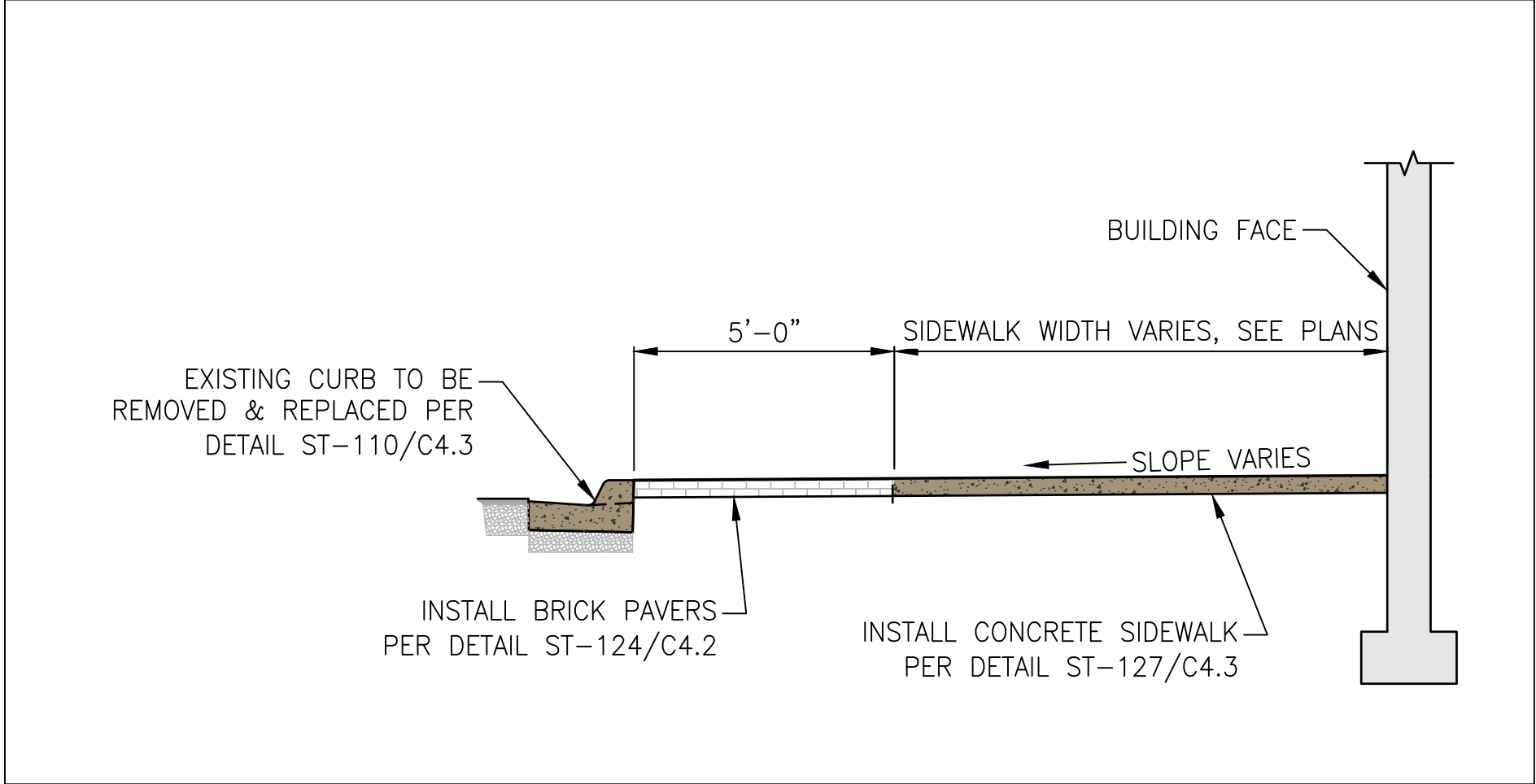
REV.
3/29/2022
NE
BO/MB
BO/BIG
MB
DATE
SURVEYED
ENGINEERED
DRAWN
CHECKED
APPROVED

NELSON
ENGINEERING
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

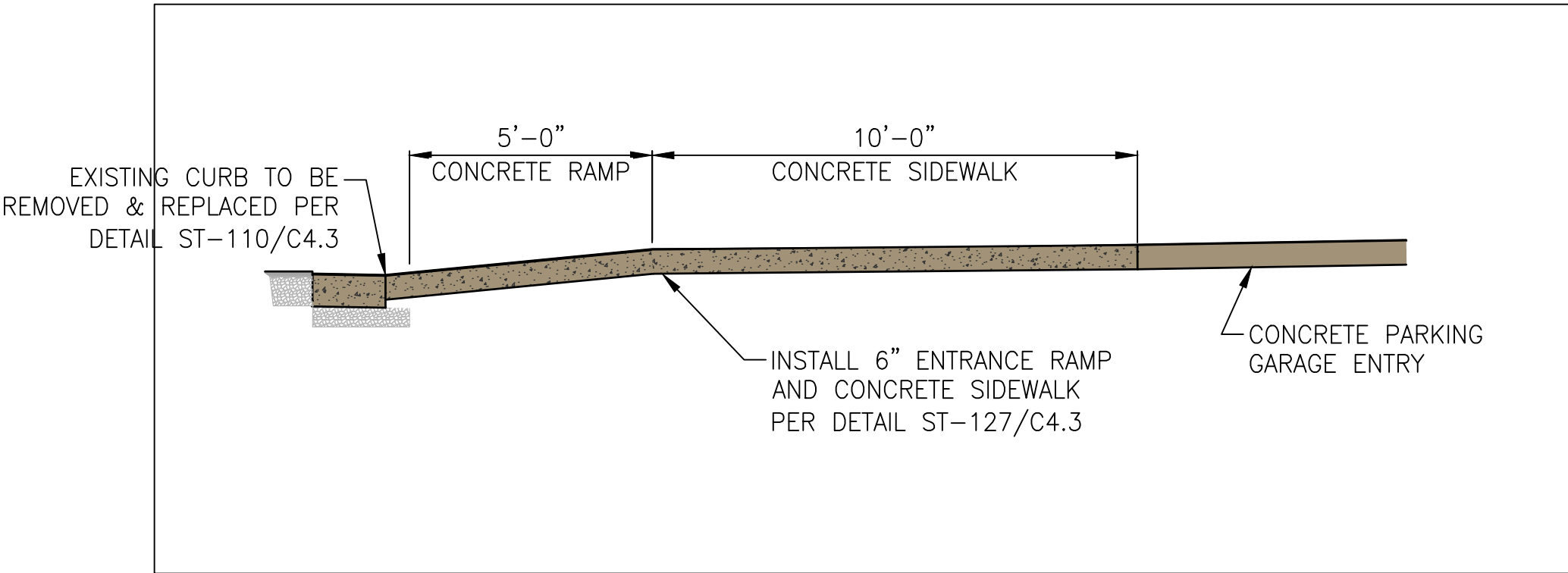
S:\Projects\2021\UP6-03 Ranch Inn Motel, Cache and Pearl - mds - civil\4 drawings\DETAILS-GRADING-ROADWAY (ROAD-GRADING DETAILS 2D) - Mar 25 2022 06:23:21 pm PLOTTED BY: dson DWG: UP6-03-241



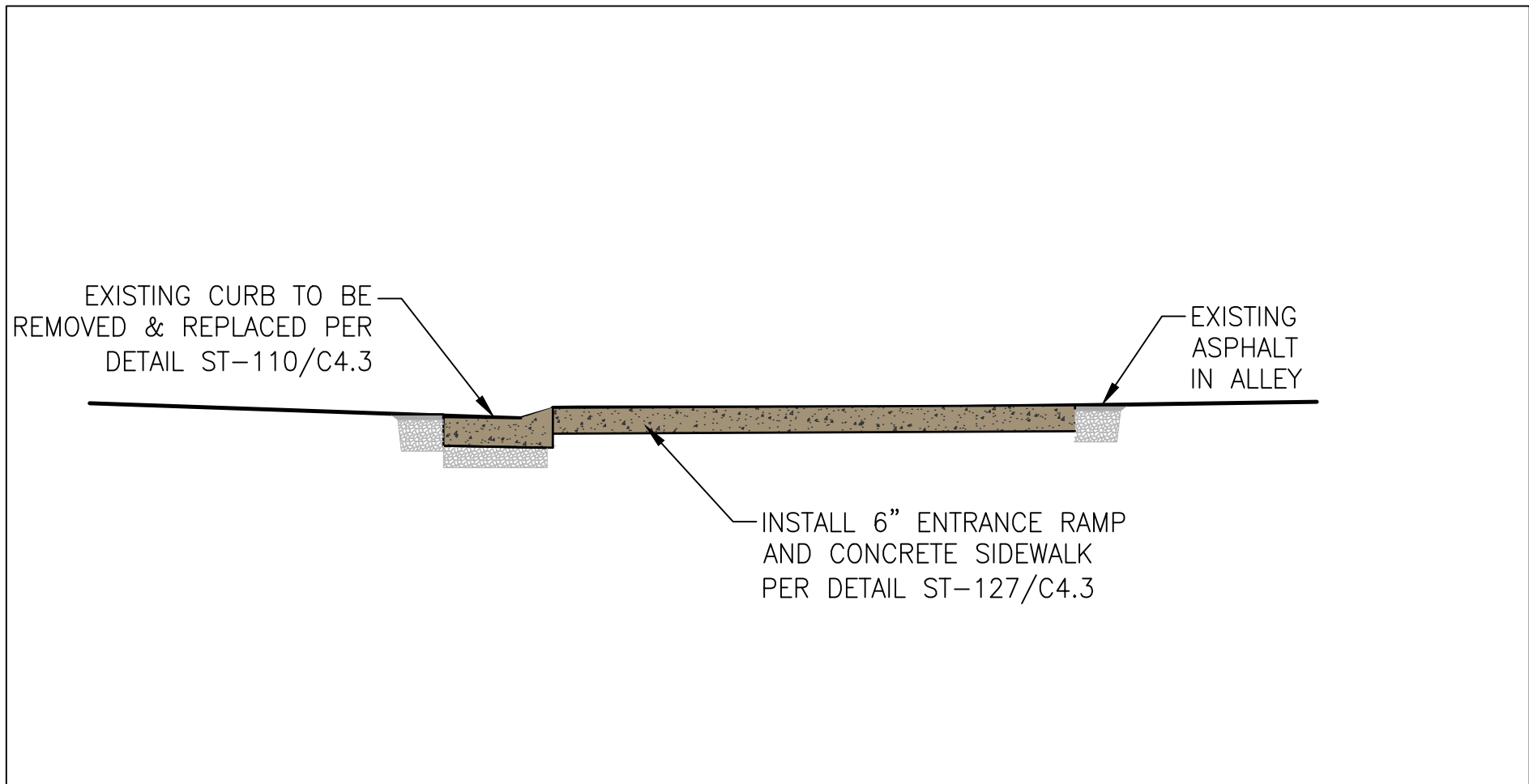
A
C4.4 **TYPICAL BOARDWALK SECTION (SOUTH CACHE)**
SCALE: NTS



B
C4.4 **TYPICAL SIDEWALK SECTION (EAST PEARL)**
SCALE: NTS



C
C4.4 **PARKING GARAGE ENTRY ON EAST PEARL**
SCALE: NTS



D
C4.4 **TYPICAL SIDEWALK SECTION (EAST PEARL)**
SCALE: NTS

DEVELOPMENT PLAN DRAWINGS - NOT FOR CONSTRUCTION

DRAWING NO	JOB TITLE	DRAWING TITLE	REV.				
			DATE	SURVEYED	ENGINEERED	CHECKED	APPROVED
C4.4	RANCH INN MOTEL CACHE AND PEARL JACKSON, WYOMING	ROAD AND GRADING DETAILS	3/29/2022	NE	BO/MB	BO/BIG	MB
21-076-03							

HOUSING MITIGATION PLAN

Note: Due to the significant reduction in units, this project generates three housing credits.



Jackson/Teton County Affordable Housing Checklist - Housing Mitigation Plan (LDR Division 6.3.6)

Every development application must include a Housing Mitigation Plan for sufficiency. Every Housing Mitigation Plan is required to contain the following information:

Applicability (LDR 6.3.6.A.3.a)

1. Does your development qualify for an exemption from a housing mitigation requirement? Yes ☐ No ☒
If yes, explain and refer to the proper LDR _____

2. Are there credits associated with your development? Yes ☒ No ☐ If yes, explain where the existing credits came from, provide the calculation, and refer to the proper LDR. _____
There are currently 10.428 housing credits associated with existing development on site.
Proposed use for the re-development requires 6.973 credits. There are 3+ credits remaining after the redevelopment. No units shall be required. See attached AFH Calculator Worksheet.

Calculation of Requirement (LDR 6.3.6.A.3.b)

3. Does your development require or are you otherwise requesting approval of an Independent Calculation (LDR section 6.3.3.B)? Yes ☐ No ☒
If yes, provide the calculation according to 6.3.3.B.2 along with impact analysis, verifiable local information, industry specific rather than business specific data, etc. The Planning Department is available to help with this calculation prior to submittal of your application. Attach as a separate sheet.

☐ I have attached a separate sheet with the calculation and supporting data for my Independent Calculation

Housing Mitigation Requirements Calculator. If no to 1 and 3 above, calculate your development's requirement, using the Housing Mitigation Requirements Calculator. The calculator can be found at this link: www.jacksonwy.gov/200/Planning Attach a copy of the first page of the calculator showing the calculations and requirements with your Housing Mitigation Plan. The Planning Department is available to help with this calculation prior to submittal of your application.

- ☒ I have attached a copy of the first page of the Housing Mitigation Requirements Calculator which includes my requirement and unit types.

Type of Affordable Housing Provided – Standard Restrictions. (LDR 6.3.4)

4. How many ownership or rental units are you proposing in which income ranges with how many bedrooms?
Please complete the matrix below:

Bedrooms	0 – 50%	50% - 80%	80% - 120%	Workforce	Ownership or Rental
1-bedroom					
2-bedroom					
3-bedroom					

Special Restriction. The Special Restriction is a contract between The Board of County Commissioners or the Town Council and the owner of real property developed or designated to satisfy the development requirements. The Special Restrictions will be recorded on the property. Appropriate restriction templates can be obtained from the Jackson/Teton County Affordable Housing Department or at this link:
www.tetonwyo.org/1856/Deed-Restriction-Templates .

☐ I have attached a draft of the Standard Restrictions for each unit.

Livability Standards (LDR 6.3.4.D and E) (Rules and Regs Section 2-3). Restricted housing must comply with the Livability Standards in the Jackson/Teton County Housing Department Rules and Regulations. The Livability Standards include amount of cabinetry/counter space, storage, closets, room sizes, appliances, laundry facilities, bathrooms, etc. The Rules and Regulations can be found at this link:
www.tetonwyo.org/1332/Housing-Rules-and-Regulations .

☐ I have reviewed the Livability Standards and understand the requirements. I have/will contact the Housing Department for approval of my units early in the design process to get their approval prior to submitting for building permit.

Method for Providing Required Housing (LDR 6.3.5):

One or a combination of the below methods may be proposed to satisfy your housing requirement. They are listed in the order of preference/priority. Highest priority must be used unless it is demonstrated that a higher priority is impracticable (LDR 6.3.5.C)

1. Construction of new units either on-site or off-site (LDR 6.3.5.D.1).
2. Conveyance of land for affordable/workforce housing (LDR 6.3.5.D.2).
3. Utilization of a banked affordable or workforce housing unit (LDR 6.3.5.D.3).
4. Restriction of an existing residential units as an affordable/workforce housing unit (LDR 6.3.5.D.4).
5. Payment of an in-lieu fee (LDR 6.3.5.D.5).

☐ I have attached a detailed explanation of my proposed method of providing Required Housing.

Phasing Plan (LDR 6.3.5.A.3). Restricted Housing Units shall be ready for occupancy no later than the free market portion of the development is occupied. If the free market portion is to be developed in phases, then the Restricted Housing Units shall be developed prior to or in proportion to the free market portion.

☐ I have attached a detailed description of my phasing plan as it pertains to Affordable/Workforce units.

Housing Mitigation Plan

updated 1/8/21

Development of a new house, hotel, or commercial space generates the need for employees. The construction workforce builds the space, the commercial workforce or residential service workforce works in the space, and first responders are needed to protect the space. Only about 27% of the employees generated by development can afford housing in the community, but the community's "community first" character goal is that 65% of employees live locally. To bridge this affordability gap, each development is required to include affordable workforce housing proportional to the employees it generates. These housing mitigation requirements are established in Division 6.3 of the Land Development Regulations. This worksheet is intended to assist in meeting the requirements for a project. However, an error in the worksheet does not amend the actual standard; if you find an error please notify the Planning Department. Fill in the highlighted cells, all the other cells will autopopulate.

Calculating the Requirement (Sec. 6.3.2 & 6.3.3)

Step 1: Location

Town of Jackson

The applicable regulations vary by jurisdiction please identify the location of your project using the above dropdown options.

The required housing is based on the existing and proposed use of the site. Step 2 is to enter the existing use and Step 3 is to enter the proposed use. Section 6.3.2 of the LDRs establishes the applicability of the affordable workforce housing standards and Section 6.3.3 establishes the specifics on calculation of the requirement. Enter each use in its own row, add rows if needed. If a building has multiple units with the same use, describe each unit in its own row. (For example: if a duplex is composed of a 2,300 sf attached unit and a 1,700 sf attached unit, put each unit in its own row do not put in 4,000 sf of attached single-family.) If a unit type (e.g. apartment floor plan, or commercial tennant space) is replicated exactly multiple times, you may use the "Use Quantity" column to avoid adding multiple rows.

Step 2: Existing Development

Housing is only required for new development. Please describe the existing use of the site so that it can be credited from the housing requirement. The definition of existing use is Section 6.3.2.A.1 of the LDRs. Generally, the existing use to enter is the use with the highest housing requirement that either existed in 1995, or has been permitted since 1995. Please attach proof of existence.

Existing Use (Sec. 6.3.2.A)	Housing Requirement (Sec. 6.3.3.A)	Use Size: bedrooms	Use Size: habitable sf	Use Quantity	Housing Required	
Conventional Lodging	0.102*bedrooms	1	0	49	5.005	Ranch Inn
Conventional Lodging	0.102*bedrooms	1	0	8	0.817	Ranch Square Building
Retail	0.000216*sf		3113	1	0.672	Under the Willow Building Per TC GIS, including basement
Retail	0.000216*sf		7584	1	1.636	Ranch Square Building Per TC GIS, including basement
Retail	0.000216*sf		2325	1	0.502	Grace Spa including basement
Restaurant/Bar	0.000599*sf		3000	1	1.796	Thai Me Up including basement
Assembly	Independent Calculation		3000	1		Conference Center per ZCV
Apartment (Unrestricted)	$0.000017*sf+(Exp(-14.17+1.59*Ln(sf)))/2.176$	2	820	1	0.000	Deed Restricted Unit per ZCV. Per Planning Dept unit shall not carry any credit
Apartment (Unrestricted)	$0.000017*sf+(Exp(-14.17+1.59*Ln(sf)))/2.176$	1	518	1	0.000	Apartment Per ZCV
Apartment (Unrestricted)	$0.000017*sf+(Exp(-14.17+1.59*Ln(sf)))/2.176$	2	752	1	0.000	Apartment Per ZCV
Existing Workforce Housing Credit					10.428	

Step 3: Proposed Development

Please describe the proposed use of the site to determine if affordable workforce housing is required as part of the development. Describe the end result of the proposed development. (For example: in the case of an addition do not enter the square footage of the addition, enter the size of the unit upon completion of the addition.)

Proposed Use	Housing Requirement (Sec. 6.3.3.A)	Use Size: bedrooms	Use Size: habitable sf	Use Quantity	Housing Required	
Retail	0.000216*sf		1316	1	0.284	Retail Unit A
Retail	0.000216*sf		3447	1	0.744	Retail Unit B
Retail	0.000216*sf		2427	1	0.524	Retail Unit C
Retail	0.000216*sf		493	1	0.106	Retail Unit D
Retail	0.000216*sf		585	1	0.126	Retail Unit E
Retail	0.000216*sf		509	1	0.110	Retail Unit F
Retail	0.000216*sf		1766	1	0.381	Retail Unit G
Assembly				1		Lobby
Short-Term Rental Unit	0.102*bedrooms	2	2041	1	0.204	Unit A
Short-Term Rental Unit	0.102*bedrooms	4	3512	1	0.409	Unit B
Short-Term Rental Unit	0.102*bedrooms	3	3352	1	0.306	Unit C
Short-Term Rental Unit	0.102*bedrooms	2	1976	1	0.204	Unit D
Short-Term Rental Unit	0.102*bedrooms	2	1968	1	0.204	Unit E
Short-Term Rental Unit	0.102*bedrooms	2	1909	1	0.204	Unit F.1
Short-Term Rental Unit	0.102*bedrooms	2	1868	1	0.204	Unit F.2
Short-Term Rental Unit	0.102*bedrooms	2	1913	1	0.204	Unit G
Short-Term Rental Unit	0.102*bedrooms	2	1853	1	0.204	Unit H
Short-Term Rental Unit	0.102*bedrooms	4	3690	1	0.409	Unit I
Short-Term Rental Unit	0.102*bedrooms	2	1998	1	0.204	Unit J
Short-Term Rental Unit	0.102*bedrooms	2	2111	1	0.204	Unit K
Short-Term Rental Unit	0.102*bedrooms	3	2637	1	0.306	Unit L
Short-Term Rental Unit	0.102*bedrooms	3	3163	1	0.306	Unit M
Short-Term Rental Unit	0.102*bedrooms	3	3024	1	0.306	Unit N
Short-Term Rental Unit	0.102*bedrooms	3	2939	1	0.306	Unit O
Short-Term Rental Unit	0.102*bedrooms	3	2835	1	0.306	Unit P
Short-Term Rental Unit	0.102*bedrooms	2	1903	1	0.204	Unit Q
Circulation or Nonhabitable Space	exempt		6518	1	0.000	Basement (Short Term Rental)
					6.973	
Affordable Workforce Housing Required:					0.000 units	
Fee-in-Lieu Amount:					\$ -	

If the amount of required affordable workforce housing is less than one unit, you may pay the above fee in-lieu of providing the required housing. If you elect to pay the fee, your Housing Mitigation Plan is complete. If the requirement is greater than one unit, or you would like to provide a unit to meet the requirement, please proceed to the [Unit Type Sheet](#).

PARKING CALCULATIONS

Note: The proposed development provides 69 parking spaces, 27 are required.

PARKING CALCULATIONS

As indicated in the calculations below, we are required to provide 24 parking spaces (before applying any credits) for the retail spaces and 27 spaces for the residential short-term rental units. As noted in the Planning Department Staff report from the previously approved Sketch Plan, the subject property has 33.38 historical parking credits available. Additionally, there will be 11 on-street parking spaces available for use. All of the required retail parking can be met by the 11 on-street parking spaces and a portion of the available historical parking credits. As a result, the only required on-site parking is for the 27 residential short-term rental units. Nonetheless, the proposed development will provide significantly more parking than the minimum required: 11 covered outdoor parking spaces on the North side of the building that are intended to be used by retail employees and their customers, and an additional 58 parking spaces within the enclosed parking garage, for a total of 69 covered on-site parking spaces.

Commercial Use	Square Footage	Parking Required	Number of Spaces	Notes
Retail A	1316	2.25 spaces per 1,000 sf	2.961	
Retail B	3447	2.25 spaces per 1,000 sf	7.75575	
Retail C	2427	2.25 spaces per 1,000 sf	5.46075	
Retail D	493	2.25 spaces per 1,000 sf	1.10925	
Retail E	585	2.25 spaces per 1,000 sf	1.31625	
Retail F	509	2.25 spaces per 1,000 sf	1.14525	
Retail G	1766	2.25 spaces per 1,000 sf	3.9735	
TOTAL	10543		23.72175	

Residential Use	Square Footage	Parking Required	Number of Spaces	Notes
Unit A	2041	1.5 Per DU	1.5	*Short term rental not eligible to share parking with other uses
Unit B	3512	1.5 Per DU	1.5	
Unit C	3352	1.5 Per DU	1.5	
Unit D	1976	1.5 Per DU	1.5	
Unit E	1968	1.5 Per DU	1.5	
Unit F.1	1909	1.5 Per DU	1.5	
Unit F.2	1868	1.5 Per DU	1.5	
Unit G	1913	1.5 Per DU	1.5	
Unit H	1853	1.5 Per DU	1.5	
Unit I	3690	1.5 Per DU	1.5	
Unit J	1998	1.5 Per DU	1.5	
Unit K	2111	1.5 Per DU	1.5	
Unit L	2637	1.5 Per DU	1.5	
Unit M	3163	1.5 Per DU	1.5	
Unit N	3024	1.5 Per DU	1.5	
Unit O	2939	1.5 Per DU	1.5	
Unit P	2835	1.5 Per DU	1.5	
Unit Q	1903	1.5 Per DU	1.5	
TOTAL	44692		27	

Parking Type	Quantity	Notes
Total Parking Spaces Required (From Above By Use)	50.72175	27 spaces associated with short term rental cannot be offset with parking credits
On-Street Availability	11	22' linear feet per space. Added Curb Bulb-Outs reduced available street parking.
Total Available Parking Credits	33.38	Existing historical credits associated with subject site
Allocated Parking Credits	23.72175	Each proposed retail space shall utilize existing credits based on the required parking for their current proposed use and square footage. See above for the required parking for each retail space. Final parking spaces and credits will be assigned to individual units upon sale.
Remaining Excess Parking Credits	9.65825	Excess parking credits will be assigned to individual units upon sale.
Required On-Site Parking	27	Required amount is short-term rental parking only, which cannot be offset with parking credits. All required commercial parking can be met with on-street availability and historical parking credits.
Provided On-Site Parking	69	Includes 11 covered outdoor parking spaces accessed from the alley that are intended to be used by retail employees and their customers. All other parking spaces are located within the enclosed garage.

ENGINEERING REPORT

ENGINEERING REPORT

Introduction

This engineering report provides the basis for design and addresses the engineering related issues for the proposed multi use development. The existing site contains several structures, a parking area, and asphalt parking. The site is completely developed with little to no existing pervious surfacing or landscaping. There are several existing buried and overhead utilities along the property. Water and sanitary sewer facilities are provided to the property through Town of Jackson (TOJ) Systems. The level of detail includes the basic layout and general design elements. Design detail will advance as the plan moves into the construction permitting and construction phases of the project.

Soils and Groundwater Conditions

A geotechnical investigation was performed by Nelson Engineering in 2021. This report noted that gravel, clay and sand down to 20' exist on site. No groundwater was found in the borings.

Access and Parking

Access to the site will be from Pearl Avenue via the main development entrance. This access is proposed as a 24' wide driveway to a garage door into the covered parking area. Parking for the development will be located internal to the building through the main Pearl Avenue entrance.

There will be on street parking along Cache Street and Pearl Avenue with the exception of the no parking zone along Pearl Avenue across from the fire hall.

The street frontage along Cache Street will include boardwalk as indicated on the drawings. Street frontage along Pearl Avenue will include detached sidewalk with a paver strip and tree wells as required. Also included in the design is the installation of a pedestrian bulbout at the corner of Cache Street and Pearl Avenue, consistent with the complete streets guidelines. It is assumed that since the existing use is commercial and lodging, and the proposed used is to be commercial and residential, that the vehicle trips will remain much the same.

Grading, Drainage, and Stormwater Management

Grading of the site will not alter the grades along Cache Street or Pearl Avenue. Curb and gutter will be removed in all the locations along the roadways. In addition all sidewalks will be removed and replaced. Grades of the replaced curb and gutter will match the existing asphalt paving. Development of the site will leave little to no pervious surface as currently exists. Storm water will be collected on the roofs and terraces of the development and conveyed to a central collection system internal to the site. All grading in the alley and along the east side will match existing grades.

The existing site contains 2 separate structures along with asphalt paving and parking. All existing stormwater runoff from the site sheet flows onto neighboring parcels and TOJ roadways and alley. Based on TOJ regulations the proposed development is required to detain any additional runoff above

and beyond the existing conditions. Preliminary stormwater calculations were performed and are included in the Appendix. Due to the proposed development having a longer time of concentration prior to leaving the site, the estimated runoff from a 100 yr storm event is just slightly lower than the existing 3.0 cfs compared to 3.5 cfs. As stated above, storm water will be collected on the roofs of the structures and various locations on the site, collected to a central collection system internal to the site, and conveyed to the TOJ storm pipe. Currently, the nearest TOJ stormwater collection system is in Pearl Avenue at the Glenwood intersection. An extension of the storm water in Pearl Street to the development is being proposed. In addition to the collection network gathering stormwater from the building roofs and surface drainage, snow melt and general drainage from the covered parking areas will have to be collected and conveyed to the stormwater system. All stormwater within the parking area will be collected and conveyed to a 1500 gallon sand/oil separator to be installed within the garage area. The calculations included in the Appendix along with grading and stormwater management plans will be refined through the Grading and Erosion Control Permit process as the project develops.

Water System

The site is surrounded on two sides by TOJ Water System Facilities. The TOJ has 8-inch water mains both streets. Due to the location of the project being near the downtown core of the TOJ, all water main facilities are adequately sized and looped.

To verify the existing water facilities are sized adequately, proposed water flows, both domestic and fire were estimated for the development. Current proposed programming values for the development were utilized for the estimates. Per mechanical engineer calculations the domestic demand for the development will be 172 gpm, requiring a 4" main and meter to serve the structure. Based on water system modeling it is expected that adequate capacity is available from the Town's water system.

Due to the size and proposed use of the development, the structures will require automatic fire sprinkler systems. Fire flow requirements were noted above as 498 gpm. Because of the location of the development being in the core downtown area, it was assumed that additional exterior flow requirements would be needed in the event of a fire. It is assumed that 2 additional fire flows of 1000 gpm would be required on adjacent fire hydrants. The building fire flow, along with the 2 exterior fire hydrant flows were simulated in the TOJ Water Model. Results of the modeling are included in the Appendix, which indicate that residual pressure within the water system at adjacent fire hydrants never dropped below 35 psi during a fire flow scenario.

Using the projected fire sprinkler flow demands, the water service supplying the development will need to be an 8-inch pipe to keep velocities within the pipeline below 6 feet per second during a fire flow scenario. To comply with the TOJ's conventional practice that a single development be supplied water through one location from the TOJ's system, a single connection will be constructed from Cache Street. This connection will then split at the property line with one connection feeding the fire suppression system and the other supplying domestic water to the development. To provide the

maximum domestic water demand a four-inch potable main will be installed to the development from the water main branch at the property line. All proposed water system requirements are indicated on the Proposed Utility Plan located in the Development Plan Drawings. As the project advances the project team will coordinate with the fire sprinkler designer and the Fire Department to ensure adequate fire protection measures and equipment are in place.

Sewer System

The proposed development will be connected to the TOJ sewer collection system in the alley. A new doghouse manhole will be constructed over the sewer main with a new 8-inch main serving the development. Based on conservative calculations from the mechanical engineers, the development will result in a maximum flow of approximately 100 gpm based on proposed fixture units. At this maximum flow the 8-inch service will have capacity to convey flows to the TOJ sewer main. No commercial cooking facilities are planned, therefore no grease interceptor is planned for the development.

Wire Utilities and Gas

Power and communication facilities are readily available throughout the area and to this specific location. Currently all wire utilities are served from the alley to the north. The proposed plan is to serve wire utilities from an existing power pole underground to the development. A new transformer will be installed with proper clearances on the north side of the building, within the property boundary. Gas and power meters will be installed in banks along the north side of the building. Included in the Development Plan Drawings is a utility plan indicating the proposed location of the facilities.

Refuse, Garbage, Trash, and Recycling

Refuse, garbage, trash, and recycling will be kept in covered containers at all times within the covered garage. All containers will be kept within enclosed structures as indicated on the proposed site plan.

Snow Storage

Due to the proposed scale of the development, there is very little area on the site which is not covered by roofs or decks. The only area on the site where snow removal will be required is the area of the drive lanes accessing the development which is very minimal. Due to the nature of the development and the proposed amenities, all snow will be removed from the site in an expedited manner.

PRE-DEVELOPMENT

ROOF CALCULATIONS

ROOF AREA (FT^2)=	18287	
C-VALUE =	0.9	
S =	33%	assume 4/12 pitch
L (ft) =	20	ridge pitch
tc (min) =	0.50	tc = 1.8(1.1 - C)L^0.5/S^0.3333, (Corps of Eng. Eqn.)

DRIVEWAY CALCULATIONS

DRIVEWAY AREA (FT^2)=	32904	
C-VALUE =	0.9	assumed for asphalt surface
S =	3%	based on surface slopes
L (ft) =	115	
tc (min) =	2.68	tc = 1.8(1.1 - C)L^0.5/S^0.3333, (Corps of Eng. Eqn.)

LANDSCAPING CALCULATIONS

LANDSCAPING AREA (FT^2)	1281	
C-VALUE =	0.3	
S =	2%	
L (ft) =	0	
tc (min) =	0.00	tc = 1.8(1.1 - C)L^0.5/S^0.3333, (Corps of Eng. Eqn.)

Total Time of Conc., Tc =	3.18	min
Composite Cc =	0.89	
Total Area, At =	52472	ft^2

TABLE 4920.B JACKSON IDF* CURVE DATA - 100-YR STORM EVENT

DURATION, Td (min)	INTENSITY, I (in/hr)	
0	3.70	assumes this portion of graph is linear
5	3	
10	2.33	
15	1.9	
20	1.65	
30	1.3	
40	1.08	
50	0.95	
60	0.82	
70	0.74	
80	0.65	
90	0.61	
100	0.56	
110	0.52	
120	0.48	

Initial Flow Rate, Qi (cfs) = 3.50 cfs at tc= 4.7 min

$$Q_i = C_c * I * A_t / (43200)$$

where,

Composite Cc =	0.89	
Intensity, I =	3.24	in/hr at Td = 4.7 min
Total Area, At =	52472	ft^2

POST-DEVELOPMENT

ROOF CALCULATIONS

ROOF AREA (FT^2)	24519	
C-VALUE =	0.9	
S =	2%	
L (ft) =	30	assumed longest run to roof drain
tc (min) =	1.57	tc = 1.8(1.1 - C)L^0.5/S^0.3333, (Corps of Eng. Eqn.)

DRIVEWAY CALCULATIONS

DRIVEWAY AREA (FT^2)	26672	
C-VALUE =	0.9	
S =	4%	
L (ft) =	260	
tc (min) =	3.66	tc = 1.8(1.1 - C)L^0.5/S^0.3333, (Corps of Eng. Eqn.)

LAWN CALCULATIONS

LAWN AREA (FT^2)	1281	
C-VALUE =	0.3	
S =	2%	
L (ft) =	0	
tc (min) =	0.00	tc = 1.8(1.1 - C)L^0.5/S^0.3333, (Corps of Eng. Eqn.)

Tc Pipe flow (min)= 1.31 tc= L(ft)/V(fps)/60 10" and 4" segments assumed

Total Time of Conc., Tc = 6.53 min
Composite Cc = 0.89
Total Area, At = 52472 ft^2

TABLE 4920.B
JACKSON IDF* CURVE DATA - 100-YR STORM EVENT

DURATION, Td (min)	INTENSITY, I (in/hr)	
0	3.70	assumes this portion of graph is linear
5	3	
10	2.33	
15	1.9	
20	1.65	
30	1.3	
40	1.08	
50	0.95	
60	0.82	
70	0.74	
80	0.65	
90	0.61	
100	0.56	
110	0.52	
120	0.48	

Final Flow Rate, Qf (cfs) = 3.00 cfs at tc = 3.33 min

$$Q_f = C_c * I * A_t / (43200)$$

where,

Composite Cc = 0.89
Intensity, I = 2.79 in/hr at Td = 3.33 min
Total Area, At = 52472 ft^2

Post and Pre-Development Diff = **-0.50** cfs

TABLE 1

DURATION, T _d (min)	INTENSITY, I (in/hr)	Design Flow, Q _d (ft ³ /s)	Design Storage Volume, V _d (ft ³)
2	3.40	3.658	-40
3	3.27	3.514	-3
4	3.13	3.370	22
5	3	3.226	34
6	2.87	3.082	36
7	2.73	2.938	26
8	2.60	2.794	8
9	2.46	2.650	-19
10	2.33	2.506	-52
15	1.9	2.043	-333
20	1.65	1.774	-737
30	1.3	1.398	-1722
40	1.08	1.161	-2851
50	0.95	1.022	-4108

TABLE 1 EQUATIONS: $Q_d = C_c \cdot I \cdot A_t / (43200)$

$$V_d = (Q_d - Q_i) \cdot ((Q_d - Q_i) / Q_r \cdot T_d) \cdot 60$$

Where,

Composite C_c = 0.89
Intensity, I = 2.79 in/hr
Total Area, A_t = 52472 ft²
Final Flow Rate, Q_d (cfs) = 3.00 cfs at t_c = 3.33 min
Initial Flow Rate, Q_i (cfs) = 3.50 cfs at t_c = 4.7 min
Duration, T_d = 6.53 (min)

Storage Volume = 22 ft³, or 163 gallons
Dry Bottom Basins to be Utilized for Stormwater Detention

CONSTRUCTION MANAGEMENT PLAN

CONSTRUCTION MANAGEMENT PLAN CACHE & PEARL PROJECT

Project Narrative

Overview:

The proposed project will re-develop a 1.29-acre seven lot parcel within the DC-2 zoning district located in the Town of Jackson. The site is bordered on the west by Cache Street, on the south by Pearl Avenue, on the east by a previously developed 0.17-acre DC-2 zoned site, and on the north by an alley which connects Cache Street and King Street.

Existing Site:

Currently, there are three major structures that exist on the site. These include the Ranch Inn, the Ranch Square Building and the Under the Willow Building. All above grade structures will be demolished. The new development will utilize approximately 68,000 total square feet (approximately 65,000 SF FAR area) of the total 71,219 square feet allowable within the 1.29-acre site. Some of the existing basements will remain in order to minimize earth work and shoring.

Background:

Since the proposed development exceeds 39,000 square feet, a development permit is required. The proposed development received unanimous approval from the Design Review Committee on 10/13/2021, as well as Sketch Plan approval from the Planning Commission on 12/01/2021 and from the Town Council on 01/18/2022. To address a “condition for approval” created during the Sketch Plan approval from the Town Council, the applicant changed the project design significantly. The applicant created two separate design options, both of which met the criteria to address “Condition 7” and submitted these two options to the Design Review Committee (“DRC”) for their review, comment, and ultimate recommendations for approval. Both options, “Options A & B” were well-received by DRC members although “Option B” was approved by a vote of 5-1. The single DRC member who voted “no” was generally supportive of the proposed design changes that were presented, but preferred Option A which is what prompted their dissenting vote. As a result, this application contains the “Option B” design as a result of DRC’s recommendation for approval. It also incorporates the recommendations from DRC to change the railings on the eastern building to be consistent with the remainder of the project as well as slight modifications to the chimneys. The Development Plan Review will be followed by a Grading Permit Pre-Application, and ultimately a Building Permit Application.

The Program:

The 68,000 square foot redevelopment will include commercial space at the street level, and 18 two, three, and four-bedroom condominium units on the second and third levels. 58 parking spaces are located in a covered garage located at grade level directly behind (north of) the redevelopment, and 11 outdoor

covered spaces are located north of the parking garage and accessed from the alley bordering the property. To access the garage, one will drive through a curb cut located on Pearl Avenue. To note, we are eliminating one large existing curb cut on Pearl Avenue and relocating the smaller existing curb cut that is currently located within the fire lane approximately 40 feet west to serve as the access point for the proposed parking garage. The proposed curb cut has been closely coordinated with Teton County Fire/EMS to ensure that the access and use of the fire station across Pearl Avenue is not impeded whatsoever.

Conclusion:

This Development Plan application complies with the Land Development Regulations, the Design Guidelines, the Comprehensive Plan and is being recommended for approval by Planning staff and the DRC. As noted above, the Development Plan submittal contains a number of design revisions that were informed by the Sketch Plan Conditions for Approval, as well as past commentary from Town staff, the Design Review Committee, the Planning Commission, and Town Council.

Scheduling (26 Month Construction Schedule):

March 2023 – May 2023	Demolition of Existing Structures
May 2023 – July 2023	Excavation / Shoring
April 2024 – June 2024	Utilities (or sooner. During Summer Month)
July 2023 – February 2025	Above Grade Vertical Construction Activities
August 2024 – September 2024	Sitework (During Summer Months)

Public Impact:

Below please find the Construction Management Plan and associated narrative breakdowns for review. Also provided within this package is the current Project Staging Plan and Shoring program narrative. Crystal Creek Capital (CCC) recognizes the importance of minimizing impacts during the summer seasons. During the first summer and fall (2023), construction activity will primarily involve existing building demolition, shoring, building excavations and completion of building foundation systems. During the second summer, the project will be in full construction with vertical assemblies being installed such as structural steel, steel stud framing and envelope enclosure consisting of windows/storefront, roofing and insulation. Interior construction will also be started at this time so full rough in of mechanical/electrical/plumbing/fire sprinkler as well as interior framing, drywall and interior finishes will be continuing through final completion date.

The final couple of months, the majority of the sitework will be completed including the new curb and gutter, sidewalks/boardwalks, approaches and hardscape. This work will be scheduled with the TOJ at the end of the summer 2024.

CCC is also aware that the right-of-way- is a shared use area, including community events, Town capital improvements and will work with the Town of Jackson to reduce impact in these situations as much as possible.

CCC has provided a list of the surrounding properties and businesses that will be most impacted by the construction activities. Please see Exhibit A at the end of this CMP for the list and sample Construction Neighborhood Meeting Notice. The complete list of names and emails will be emailed per the CMP checklist to the email address provided (townengineering@jacksonwy.gov) prior to construction.

Self-Enforced Parking Plan / Construction Parking:

For the duration of the project, it will be clearly stated in all subcontracts that construction related parking (employee and construction personnel) will not be allowed per the CMP checklist. Contractor shall implement a clear and self-enforcing construction parking plan that does not use/or encumber downtown on street and/or public parking lot parking spaces. The plan specifies that employee or contractor parking within the time restricted parking zones, the Home Ranch, East Deloney, Miller Park and/or the Parking Garage lots is not allowed.

Site Logistics:

Work Hours:

Standard work hours for project are Monday-Friday 7:00 AM to 5:00 PM with limited work on Holidays and weekends between 8:00 AM-5:00 PM.

The Contractor will also work with the TOJ to schedule special accommodations for events requiring extended working hours such as erection and dismantling of the tower crane and early morning concrete placements.

See attached Staging Plan.

Temporary Facilities / Staging:

All temporary facilities including construction trailers, trash, recycling, bathrooms, concrete washout, etc. will be located within the fenced areas of the project.

The project site will be fenced with an 8' tall, screened fence to limit viewing of construction activities.

A tower crane will be utilized during the construction of the project. The crane will be located within the property lines and will follow industry safety standards. At times, the crane boom will extend beyond the project limits, but all picks and delivery of materials will take place within the construction fence and/or unloading zone on Pearl Ave. If material picks are necessary outside of the construction fence, the activity will be coordinated with the TOJ and any lane closures and Right of Way permitting will be completed with TOJ prior to the completion of the activity. Cranes will be operated by a certified operator and follow industry and OSHA standards.

TOJ Street and Sidewalk Maintenance:

Construction Access and Exit tracking pads will be utilized at the site entrance off of Pearl as well as an additional location for site exiting into the existing alley to minimize any dirt being tracked onto neighboring streets. Street sweeping and cleaning will also be provided when necessary. Snow removal will be coordinated to not impact snow plowing of city streets. The sidewalk and site snow removal will be removed by DAC/CCC and trucked off site to a suitable location.

Traffic Control:

The contractor will provide traffic control for the duration of the activities within the public right of way and/or specific activities that require lane closures. All utility work in the right of way will require submission of a public right of way permit allowing the ability to coordinate utility installations and minimize impact. Utility work will be scheduled during summer months to ensure batch plants are operating. Work to be completed between the months of May - October.

Shoring:

The shoring plan is a delegated design that will be finalized prior to the construction start. The initial review of the shoring requirements for the project indicate that soil nails will not be required and that any shoring required will be a piling and cribbing system. At piling locations (approximately every 15' on center), a 24" to 30" caisson is drilled double the height of excavation (bottom of footing elevation) and a steel piling profile installed with lean concrete fill. Between the piling verticals, the shoring walls will be either wooden or concrete lagging. Final design will dictate this selection of lagging; however, all piling, and lagging will be within the property lines, so no shoring is anticipated outside of the property lines. Shoring plan will be provided once design and field investigations are finalized and will be submitted to TOJ in later submittals.

Project Access & Material Deliveries:

The main project access will be located off of Pearl Ave. All major deliveries will be received at this location if the delivery trucking cannot access the site through the existing alley. The proposed location for unloading is located along Pearl Ave. Large deliveries will be off loaded using a tower crane whenever possible to pick from the unloading zone and place materials within the staging area defined. Per correspondence with Kathy Clay, Battalion Chief Fire Marshall, as long as unloading zone is outside of the "red curb" locations along Pearl Ave, this activity will be acceptable. For any loads requiring forklift unloading, a vehicle tracking pad that is TOJ approved, will be installed at the entry/exit to the staging area off of Pearl Ave. See Staging Plan

The secondary project access will utilize the one-way alley to the north of the project site. Use of this access will be limited so existing business deliveries and traffic are affected to the least impact as possible. Again, DAC will install the necessary construction access profile to mitigate dirt and materials being transferred to TOJ streets.

Protection of Pedestrians:

CACHE STREET – Due to the volume of foot traffic on Cache Street, a covered pedestrian walkway will be provided from the alley to the corner of Pearl Ave and Cache Street. This will allow uninterrupted pedestrian traffic the full run of the project site along Cache Street.

PEARL AVE – The proposed plan for Pearl Ave. has been designed around the necessity to have an "Unloading Zone" for material deliveries. The proposed plan would divert all pedestrian traffic away from the "front" of the project on Pearl Avenue. Signage would be located at the corner of King/Pearl directing pedestrians to the south side of Pearl Ave. Signage would also be located on the west corners of Cache/Pearl closing indicating a sidewalk closure on Pearl with directions arrows for clarity. This approach was taken for multiple reasons:

- The unloading zone will be a very busy area and with the necessary crane picks over the building from Pearl, we will have to close these areas for pedestrian safety. This is also defined in the CMP checklist that “No moving of materials over an open to the public area is allowed”.
- There is only one business located outside the project limits on King/Pearl which will have full access to their street front per this design. All other existing businesses/structures on the north side of Pearl Ave will be part of this project.
- Both facades of the building along Cache and Pearl will require scaffolding along the exterior face of construction. Materials will have to be loaded to the scaffolding using the tower crane and reducing/eliminating pedestrians along Pearl will ensure a much safer experience for pedestrians.

Crane:

Finalized location of the tower crane will be defined with size, pick radius and limits in future submittal. This will allow for the selected crane company to provide the necessary input to finalize the crane selection. A tentative location has been shown on the Staging Plan.

Storm Water Management:

A comprehensive Storm Water Management Plan will be developed and submitted to the TOJ for review and acceptance during the grading permit process. Scope will include storm drain treatments, barriers, concrete washout profile, best management practices (BMP's), installation, maintenance, and inspection plan.

Performance Bond and Guarantee:

All necessary bonds and guarantees will be put in place with the Town of Jackson for all permitting and right of way work for the project. These measures will be established prior to starting work on the project.

PROJECT NAME: CACHE & PEARL

DATE: 3/28/2022

Exhibit A

SURROUNDING PROPERTIES & BUSINESSES

Name	Address 1	Address 2
36 EAST BROADWAY, LLC C/O KUVINKA & KUVINKA, PC	PO BOX 3007	JACKSON, WY 83001-3007
50 KING STREET BUILDING, LLC	PO BOX 2812	JACKSON, WY 83001-2812
BANK OF JACKSON HOLE C/O BANK OF ALPINE, ACCTS PAYABLE	PO BOX 3709	ALPINE, WY 83128-0709
BIG MOUNTAIN ENTERPRISES, LLC	PO BOX 1513	JACKSON, WY 83001-1513
BLUE JAY CORPORATION	PO BOX 1677	JACKSON, WY 83001-1677
BOYER, JOHN R. & JRB DESCENDANTS TRUST	PO BOX 882	JACKSON, WY 83001-0882
BOYER, SKIPPY LTD. PART. C/O PINK GARTER PLAZA	PO BOX 189	MEXICO, MO 65265-0189
BROADWAY CENTRE LLC	PO BOX 489	JACKSON, WY 83001-0489
CHET'S WAY, LLC	PO BOX 694	JACKSON, WY 83001-0694
COULTER HOUSE, LLC	PO BOX 694	JACKSON, WY 83001-0694
CRABTREE CORNER, LLC	PO BOX 3767	JACKSON, WY 83001-3767
ELK COUNTRY MOTELS, INC.	PO BOX 575	JACKSON, WY 83001-0575
ETOILE HOLDINGS, LLC	PO BOX 37	PENNS PARK, PA 18943-0037
GARAMAN, INC.	PO BOX 36	JACKSON, WY 83001-0036
HARGER, DONALD K. ET UX	PO BOX 2826	JACKSON, WY 83001-2826
JOURDAN FAMILY LIMITED PART.	PO BOX 3159	JACKSON, WY 83001-3159
LENZ, INC.	PO BOX 2530	JACKSON, WY 83001-2530
MADRIGAL, JOSE MIGUEL & FAVIOLA H	49 W MAIN ST	LOVELL, WY 82431
MARTIN, YVONNEDA M. TRUSTEE	PO BOX 11780	JACKSON, WY 83002-1780
MONROE NEEDLE ROCK LLC	PO BOX 8615	JACKSON, WY 83002-8615
MOUNTAIN STATES TELEPHONE & TELEGRAPH CO	501 E MONROE	RIVERTON, WY 82501
OLD GROWTH, LLC	PO BOX 12801	JACKSON, WY 83002-2801
OLD WEST CORP. (THE)	PO BOX 575	JACKSON, WY 83001-0575
PECK, JAMES M. & YOUNGBLOOD, KAREN M.	PO BOX 1233	JACKSON, WY 83001-1233
RIDGE CREEK INVESTMENT CO.	PO BOX 1	JACKSON, WY 83001-0001
ROOSEVELT, GAYLE L.	PO BOX 4091	JACKSON, WY 83001-4091
RTN-PSN TRUST, THE	PO BOX 6754	JACKSON, WY 83002-6754
TETON ACADIA GROUP, LLC C/O JDHCO	PO BOX 3369	JACKSON, WY 83001-3369
TETON COUNTY	PO BOX 1727	JACKSON, WY 83001-1727
TOWN SQUARE, LLC C/O WILLIAM LEE GARDNER	PO BOX 159	TETON VILLAGE, WY 83025-0159
VANDEWATER ENTERPRISES LP	1815 POPLAR ST	BUHL, ID 83316-1728
WAX MUSEUM, INC.	PO BOX 2393	JACKSON, WY 83001-2393

Date TBD

Ranch Inn: Construction Logistics Informational Meeting

Dear Neighbors,

Crystal Creek Capital (CCC) is planning to begin construction on The Cache & Pearl Project and we are looking forward to becoming an integral part of the neighborhood. We would like to inform our neighboring property owners and business owners of our construction logistics plan during a pre-construction open house on _____ from ____ MST ____ MST. The open house will be held at the _____ meeting space located at _____.

CCC recognizes the importance of minimizing impacts to our neighbors and the surrounding area. Demolition is currently scheduled to begin _____. During the first phase of the project, construction activity primarily involves excavation and completion of the building foundation. The second phase involves the completion of the building systems, exterior siding and hardscape. Covered walkways will be provided during various times of the project for public access and safety.

For any questions or concerns during the project our contact information is listed below:

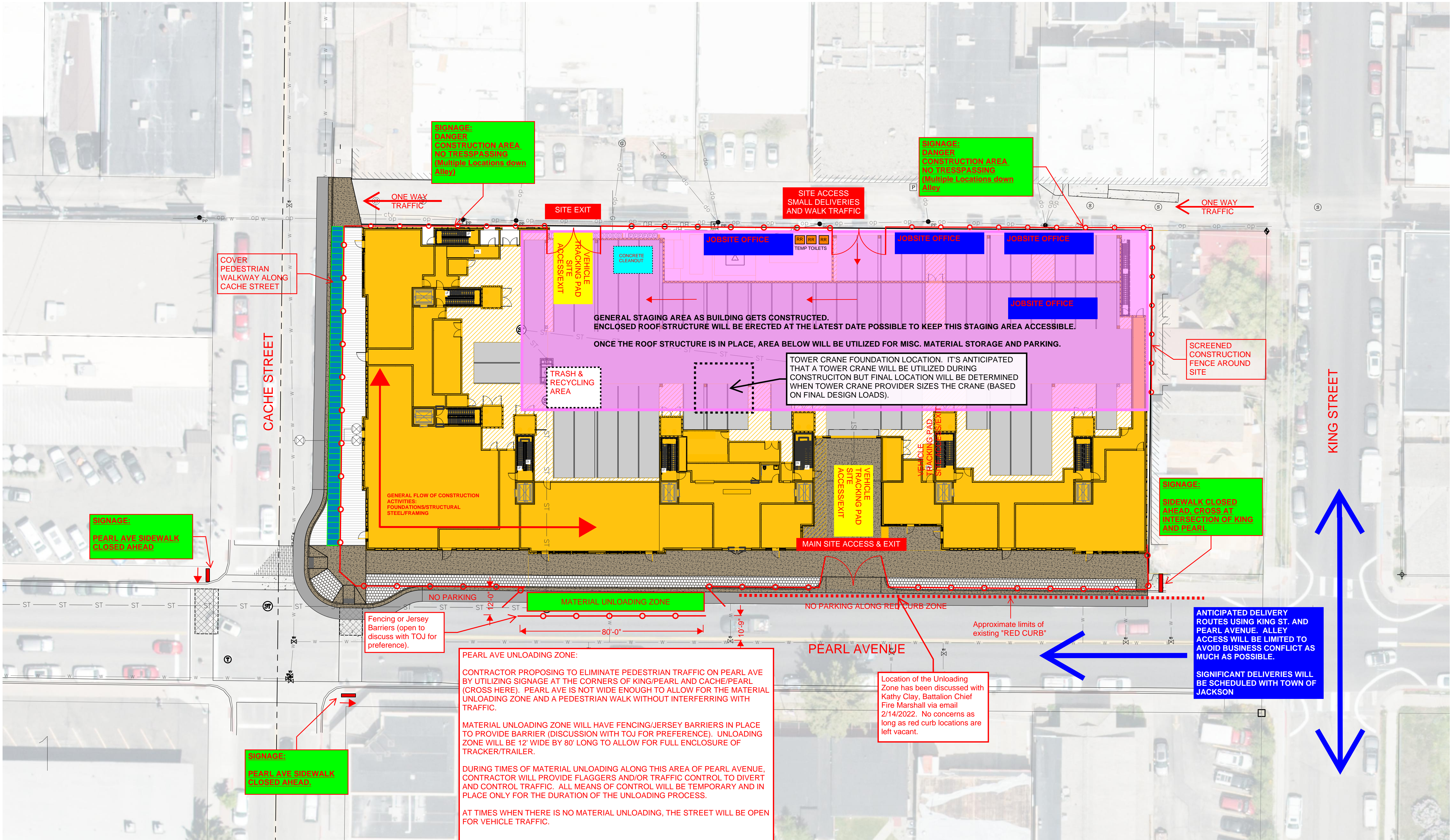
DAC contact info

CCC contact info

Best,

Adrian Barton
Crystal Creek Capital Real Estate Advisors, LL

STAGING PLAN



PEARL AVE UNLOADING ZONE:

CONTRACTOR PROPOSING TO ELIMINATE PEDESTRIAN TRAFFIC ON PEARL AVE BY UTILIZING SIGNAGE AT THE CORNERS OF KING/PEARL AND CACHE/PEARL (CROSS HERE). PEARL AVE IS NOT WIDE ENOUGH TO ALLOW FOR THE MATERIAL UNLOADING ZONE AND A PEDESTRIAN WALK WITHOUT INTERFERING WITH TRAFFIC.

MATERIAL UNLOADING ZONE WILL HAVE FENCING/JERSEY BARRIERS IN PLACE TO PROVIDE BARRIER (DISCUSSION WITH TOJ FOR PREFERENCE). UNLOADING ZONE WILL BE 12' WIDE BY 80' LONG TO ALLOW FOR FULL ENCLOSURE OF TRACKER/TRAILER.

DURING TIMES OF MATERIAL UNLOADING ALONG THIS AREA OF PEARL AVENUE, CONTRACTOR WILL PROVIDE FLAGGERS AND/OR TRAFFIC CONTROL TO DIVERT AND CONTROL TRAFFIC. ALL MEANS OF CONTROL WILL BE TEMPORARY AND IN PLACE ONLY FOR THE DURATION OF THE UNLOADING PROCESS.

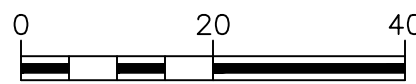
AT TIMES WHEN THERE IS NO MATERIAL UNLOADING, THE STREET WILL BE OPEN FOR VEHICLE TRAFFIC.

Location of the Unloading Zone has been discussed with Kathy Clay, Battalion Chief Fire Marshall via email 2/14/2022. No concerns as long as red curb locations are left vacant.

General Notes:

Secondary Staging location for material storage being located as necessary.

CONSTRUCTION PLAN EXHIBIT



S:\Proj\2021\016-03 Ranch Inn Motel, Cache and Pearl - NWCE - Civil\4 Planning\100N GRADING, PLANNING, CONSTRUCTION PLAN EXHIBIT - Feb 18 2022 07:54:05 pm PLUTED BY: dson ENG EXHIBIT 241

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JOB NO 21-076-03				DRAWN	BO/BAG	MB		
				CHECKED				
				APPROVED				

GEOTECHNICAL REPORT

GEOTECHNICAL INVESTIGATION

MULTI-USE COMMERCIAL DEVELOPMENT

LOTS 10 THROUGH 16, BLOCK 1

CACHE-1 SUBDIVISION

JACKSON, WYOMING

PREPARED

FOR

CRYSTAL CREEK CAPITAL REAL ESTATE ADVISORS

JACKSON, WYOMING

PREPARED

BY

NELSON ENGINEERING

JACKSON, WYOMING

SD DRAFT AUGUST 10, 2021

Project No. 21-076-02

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GENERAL AND PROJECT DESCRIPTION

A geotechnical investigation was performed for a mixed-use development at Lots 10 through 16, Block 1 of the Cache-1 Subdivision in Jackson Wyoming. A three-story mixed-use building with partial basement parking is planned. Geotechnical recommendations in this report are based on schematic design level plans as of July 2021 prepared by Northworks Architects and subconsultants.

Scope of Services

The scope of services for this investigation was to provide geotechnical recommendations based on a subsurface investigation and soils laboratory testing for the proposed mixed-use development. The purpose of the subsurface investigation was to determine soil and groundwater characteristics. The results of the subsurface investigation and subsequent laboratory testing were utilized in engineering analysis for recommendations pertaining to structural foundations, drive and parking areas, retaining walls, and general earthwork. It is our engineering judgment that the existing and proposed slope geometry and composition indicate stability therefore slope stability analyses were not conducted. Specific recommendations for drainage and surface water conveyance are not within the scope of work.

Foundation analysis and resulting recommendations are based on typical loads for the type of structure proposed. Prior to finalization of project plans, foundation plans and loads should be sent to this office for review to ensure compliance with this report. Recommendations assume foundation elements are not subjected to unusual loading conditions such as eccentric loads or vibratory equipment. Lateral earth pressure recommendations contained herein are general in nature; it is critical that retaining wall designs are reviewed by the geotechnical engineer.

SITE CONDITIONS

Description

The project is located at the corner of East Pearl Avenue and South Cache Street, Lots 10 through 16, Block 1 of the Cache-1 Subdivision. Existing structures include three Ranch Inn buildings and an older commercial building fronting Cache Street. There are two interior parking areas accessed from Pearl Avenue. Adjoining to the east are developed commercial lots along King Street. To the north is an alley.

The three Ranch Inn buildings have full basements, the older commercial building has a partial basement. Local topography is relatively flat with very gentle slopes to the west/northwest.

Geology and Soil Mapping

The area's surface geology is mapped on the USGS "Geologic Map of the Jackson Quadrangle, Teton County, Wyoming," J.D. Love and H.F. Albee, 2004. The map shows "Qf-Alluvial Fan Deposits-Water-laid gravel, sand, silt, and clay spreading out from mouths of ravines and canyons" throughout the site.

The US Natural Resources Conservation Service's Soil Survey of Teton County has mapped the Greyback gravelly loam at the site. The soils are alluvial and/or glaciofluvial deposits located on 0 to 3 percent slopes. This soil is described as very deep, somewhat excessively

drained, and composed of gravelly loam, very gravelly sandy loam, and very gravelly loamy sand. Depth to water table is indicated to be deeper than 80 inches.

Seismic Hazard

Jackson Hole is located within the Intermountain Seismic Belt, a zone extending from southern Utah through eastern Idaho and western Montana, and encompassing western Wyoming and the Teton Range as referenced by Robert B. Smith and Walter J. Arabasz in "Seismicity of the Intermountain Seismic Belt, Neotectonics of North America," 1991. The USGS Earthquake Hazards Program has mapped Quaternary faults and folds in the United States as displayed on Google Earth with the following active faults near the site: the Teton Fault, the Phillips Valley Fault, and secondary faults within the Jackson Hole Valley. In particular, the Teton Fault is thought to be capable of producing major earthquakes of a magnitude of six or greater. The portion of the Teton Fault mapped as active in the Quaternary is approximately 6.7 miles northwest of the site.

The USGS "Geologic Map of the Jackson Quadrangle, Teton County, Wyoming," J.D. Love and H.F. Albee, 2004, shows the postulated trace of the Cache Creek Thrust Fault 500 feet south of the site and the East Gros Ventre Fault 2000 feet northwest of the site. The Cache Creek Thrust Fault is not classified by the USGS as active. The East Gros Ventre fault is a Class B fault. Class B is defined as "geologic evidence demonstrates the existence of a fault or suggests Quaternary deformation, but either (1) the fault might not extend deeply enough to be a potential source of significant earthquakes or (2) the currently available geologic evidence is too strong to confidently assign the feature to Class C [which show insufficient evidence of faulting or deformation] but not strong enough to assign it to Class A [evidence demonstrates Quaternary faulting of tectonic origin]."

SITE INVESTIGATIONS

Field Investigations

In March and July of 2021, nine borings were advanced at the locations shown on Drawing 2 in the Appendix. Borings were approximately located with a Leica Zeno 20 GPS unit to within 3 feet and with a tape measure from existing site features. Boring locations and depths were selected to best determine subsurface conditions throughout the project. All borings were backfilled with drilling spoils after logging was completed, asphalt/concrete patch was installed on the surface of BH-1, BH-2, BH-4, and BH-6. Flush mounted monitoring wells were installed in BH-3, BH-5, BH-7, and BH-8.

IME of Riverton, Wyoming, drilled borings with a truck-mounted Mobile B-57 drill rig. All borings were advanced using a 7-inch outer-diameter (O.D.) hollow stem auger. Sampling was performed with 2-inch and 3-inch split-barrel (split-spoon) samplers per ASTM D1586. Andy Pruett, a Professional Geologist at Nelson Engineering logged the borings and directed the sampling. Soils were classified in the field and logged by the geologist. The soil classifications, moisture conditions, and presence of organic or other notable features were recorded in the field logs. Bulk samples were sealed in plastic bags and transported to our laboratory for testing and further classification. Undisturbed samples of fine-grained soils were obtained in Dames and Moore liners for consolidation and unconfined compressive strength testing. Groundwater observations were made at the time of the boring advancement based on field observations of soil moisture conditions. Field observations and laboratory testing results are presented both on the boring logs and in the Laboratory Results sheets in the Appendix.

The stratification lines shown on the boring logs represent the approximate boundary between soil types. The actual in-situ transition may be either gradual or abrupt. Due to the nature and depositional characteristics of natural soils and fills, care should be taken in interpolating subsurface conditions beyond the location of the boreholes. Soil conditions can change rapidly in both the lateral and vertical directions. Groundwater conditions shown on the logs are only for the dates indicated.

The subsurface conditions were interpreted from the described boreholes at the site. The soil properties inferred from the field and laboratory analyses supported by our experience formed the basis for developing our conclusions and recommendations.

Samples obtained during the field investigation were taken to the laboratory where they were visually classified in accordance with ASTM Test Method D-2487-93, which is based on the Unified Soils Classification System. The soil samples stored in our laboratory will be discarded after 30 days from the date this report is submitted unless we receive a specific request to retain them.

SUBSURFACE CONDITIONS

Soil Profiles

Soil profiles consisted of imported landscaping topsoil or surficial asphalt and parking lot sections overlying gravelly alluvial fan deposits. In BH-3 and BH-7 strata of sand silt and clay were encountered in intervals at depth. Borings in paved areas showed a paved section of 2 inches of asphalt over 4-inches of crushed gravel with sand. Surficial soils in BH-8 and BH-9 in unpaved landscaping areas encountered dry dark brown imported silt topsoil overlying dark brown silty gravel with sand deposits to depths of 3 to 4 feet. Underlying native soils were alluvial fan deposits composed of clayey gravels (GC) and gravel with sand (GP), with frequent cobbles and occasional boulders. Alluvial fan deposit samples contained angular to round gravels with numerous freshly fractured gravels indicating the presence of larger gravels and cobbles. Alluvial fan gravels were dense to very dense at all sampling intervals below 3-foot depth. Interbedded deposits of poorly-graded, fine sand, sandy silt, sandy lean clay, lean clay and clayey gravel were encountered from about 29- to 40-foot depth in BH-3 and from 35- to 43-foot depth in BH-7.

Groundwater

Groundwater was only observed in saturated sand lenses within interbedded sand, silt, and clay deposits from 35- to 43-foot depth in BH-7. Groundwater measurements on July 28, 2021 revealed groundwater at 44.5-foot depth in BH-7 and dry monitoring wells in BH-3 to 41.5-foot depth, BH-5 to 30.5-foot depth, and BH-8 to 41.3-foot depth. The existing structures on the site contain full and partial basements with no known history of flooding. Wyoming DEQ records for Leaky Underground Storage Tank remediation for the Bill's Standard site for monitoring wells located along South Glenwood Street, approximately 450 ft to the west, show seasonal high levels of about 26 feet depth.

GEOTECHNICAL ANALYSIS & RECOMMENDATIONS

General

This report addresses schematic design level plans prepared in July 2021 by Northworks and subconsultant structural designers, DCI Engineers. All above grade structures will be

demolished and removed. Basements of the commercial structure on Cache and portions of the Rancher Inn may be backfilled forming the subgrade for footings. Lot line to lot line construction is proposed. From DCI Engineers structural narrative for schematic design:

"The new Cache & Pearl building is planned to provide two stories of luxury residential over ground floor commercial space and parking, as well as a roof deck with spa area. The existing basements for the Ranch Inn and Ranch Square are intended to remain and be used for storage. Currently, the intent is to move forward with design option 2: demolition of the existing structures on the lot and expanding the new building. Schematic plans of design Option 2 provided to date show a three-story structure with an approximate footprint of 30,500 square feet, excluding the at-grade parking. Also added in Option 2 is a nearly 12,000 square foot landscaped courtyard to enclose the parking below. It is anticipated that the new building will be designed and constructed as a traditional steel post and beam structure."

Seismic Design Parameters

The 2018 International Building Code (IBC) designates site class per ASCE 7 Chapter 20. Data obtained in this investigation is not sufficient to determine soil parameters as required by ASCE 7; therefore, the IBC directs that seismic coefficients and design spectra shall be determined using **Site Class D**, Latitude of **43.479°** and Longitude of **-110.761°**.

Abandoned Basements

Existing basement areas supporting hardscapes, paved areas, or structure slabs and footings shall be backfilled with structural fill.

Spread Footings

Spread footings bearing on dense, cobble and gravel deposits are appropriate foundation elements. If pockets of sand/silt/or clay are found at bottom of footing and slabs, these soils shall be removed until competent cobble and gravel alluvium is exposed. Backfill of existing foundations may be poorly compacted or composed of unsuitable soils, where this occurs, unsuitable backfill shall be evaluated by this office. Where required, structural fill shall be placed to achieve footing grade. Subgrades beneath all footings and fills below foundations shall be compacted to a depth of 8 inches to 95% of maximum density per ASTM D698 (Standard Proctor).

A net allowable bearing capacity of **7000 PSF is appropriate**. The net allowable soil pressure includes dead load plus maximum live load. The above analysis assumes a **maximum width of 8.0 feet** for continuous footings and a **maximum dimension of 18 feet** for isolated footings. The net allowable soil pressure includes dead load plus maximum live load. These calculations assume a **minimum footing depth of 3 feet and a maximum footing depth of 15 feet below existing grade** and that a maximum total settlement of 0.5 inches be tolerated on any one footing and the maximum differential settlement between footings that can be tolerated is 0.25 inches.

Bearing capacity values and settlement shall be checked for each combination of load to determine whether settlement or bearing capacity will control the response of the footing. Foundation elements supporting large concentrated loads should be analyzed on an individual basis to determine settlement and bearing characteristics. Other foundation parameters and restrictions are given below:

1. **Existing Footing Loading:** Proposed footings shall be located to avoid loading of existing basement level footings and walls. Footings should be located beyond a line drawn upward from the edge of existing footings at 1(H):2(V). This office should be consulted in instances where this restriction cannot be met.
2. A one-third increase in allowable bearing capacity may be used for short duration loads such as wind or seismic.
3. Backfill against shallow foundations and stem walls shall conform to Drawing 3 in the Appendix. In no case shall material greater than 6 inches in diameter bear directly on or against foundation elements. Placing oversized material against rigid surfaces can damage the structure and interferes with proper compaction.

Any soil type encountered at the bottom of footing excavations other than those described above should be analyzed by Nelson Engineering. Isolated boulders at footing grade should be excavated and removed unless approved by Nelson Engineering. Any excessively loose material or soft spots encountered in the footing subgrade will require over-excavation and backfilling with structural fill. All footings shall be suitably reinforced to make them as rigid as possible.

Lateral Earth Pressure

For this analysis, it is assumed that 1) all foundation or retaining walls are founded on compacted, native colluvium or structural fills, 2) all foundation and retaining walls will be backfilled Drawing #3. The lateral earth pressures given here are NOT APPLICABLE to walls retaining slopes of greater than 10%, these walls shall be evaluated on an individual basis. For foundation or stem walls restrained from movement such that active earth pressures will not be allowed to develop, an at-rest equivalent fluid pressure of **60 PCF** is appropriate. For foundation or stem walls with active earth pressure loading, an equivalent fluid pressure of **45 PCF** is appropriate.

The Mononobe-Okabe (M-O) equations are often used to estimate dynamic forces against retaining walls. The M-O analysis is theoretically derived using active earth pressure conditions. Although there is debate about the theoretical applicability of this methodology to restrained or rigid walls, the method has been used for many years for the seismic design of such walls. The performance record of underground walls during earthquakes has generally been good. Appropriate parameters for the M-O analysis are: 1) soil unit weight 135 pounds per cubic foot, 2) Internal Friction Angle= 35°. The more limiting case, at-rest or active seismic pressure, shall be utilized in the structural design of restrained or rigid retaining walls.

Shoring, Underpinning, Excavation Slopes

Stabilizing underground utilities, adjacent foundations, excavation slopes, and other features will be required for foundation and basement construction. Loads and location of the foundation elements of all adjacent structures and infrastructure should be thoroughly researched and understood by project designers. Utility location should be thoroughly researched and understood by project designers

Shoring and underpinning design and construction is typically delivered by specialty design-build contractors. Shoring and underpinning designs should be performed by

engineers licensed in Wyoming with experience in this type of work. Shoring and underpinning should be performed by experienced geotechnical contractors.

Shoring will be required for excavations occurring near property lines. Soil nail walls or soldier pile walls with tiebacks are commonly utilized for this purpose. Underground easements for shoring elements extending into neighboring properties will be required.

Conservatively assigned soil properties appropriate for shoring and underpinning design based on soil properties found the borings. Note that soil profiles may vary from those found in the borings. Shoring designers are responsible for designs that address all aspects and may determine that additional investigations may be necessary for adequate shoring design.

Table 1: Soil Properties for Shoring and Underpinning

Soil Type:	Medium Dense Clayey Gravel w/Cobble	Dense to Very Dense Clayey Gravels w/Cobble
Moist Unit Weight (γ) =	135 lbs./ft ³	135 lbs./ft ³
Cohesion (c) =	25 lbs./ft ²	25 lbs./ft ²
Effective Friction Angle (ϕ') =	34°	38°

Interior Slabs-On-Grade

Interior slabs shall be founded upon the following section from top to bottom: 1) a leveling course mat 4 inches in thickness composed of clean pea gravel or WYDOT Grade GR or equivalent compacted to a minimum of 95% of maximum density as determined by ASTM D 698, 2) 12 inches of structural fill, 3) native subgrade compacted to >95% of Standard Proctor maximum density. Where suitably dense gravels are found at subgrade, structural fill thickness may be reduced if approved by this office.

Concrete slab-on-grade control joints should be saw-cut as early as possible. Nelson Engineering recommends the use of a soft cut system, which allows saw cutting as soon as the concrete can support foot traffic. Successful crack control is dependent upon proper joint spacing. Control joints should be placed in accordance with current Portland Cement Concrete Paving Association guidelines.

Sidewalks and Exterior Slabs

Sidewalks and exterior concrete slabs for foot traffic shall be placed upon a minimum of 4 inches of ¾-inch minus crushed gravel placed on 8 inches of structural fill. Any excessively loose material or soft spots encountered in slab subgrade will require over-excavation and backfilling with structural fill. Where suitably dense gravels are found at subgrade, structural fill thickness may be reduced if approved by this office. All fill material within 2 feet of the slabs must be compacted to a minimum 95% of the maximum density as determined by ASTM D698.

Roadway and Parking Lot Sections

The section given here is based on providing a stable surface for construction traffic and will provide a satisfactory final paved section based on the assumed traffic loading. Design traffic loading is estimated as no traffic data is available. Existing paved areas may have an adequate section. The section given may be reduced where more competent subgrade is found after consultation with this office.

PAVEMENT SECTION COMPONENTS	Existing Paved Areas*	Newly Paved Areas
Asphalt	3 inches	3 inches
Grade GR Crushed Aggregate Compacted to 95% Max. Per ASTM D698	4 inches	4 inches
6 inch minus Clean Pit Run Structural Fill subbase	N/A	10 inches
Compacted Subgrade	Surficial 8 inches of native soil compacted to the maximum moisture and subgrade conditions permit	

*See Discussion above

CONSTRUCTION CONSIDERATIONS

Earthwork and Site Grading

Excavation work and heavy equipment access will be difficult due to soft to very soft subgrades. During wet conditions, conditions will deteriorate. A protracted period of wet conditions can be expected during and after seasonal snowmelt. **Placement of imported gravels supported by geotextiles and/or geogrid will be required to provide construction access and to provide platforms for equipment.** Utility trenches will encounter groundwater at shallow depths. General recommendations for earthwork suitability, placement, and compaction procedures are provided below:

- Within the building footprints and areas to be paved, a minimum of 6 inches of material shall be stripped and removed. Beneath all footings, a minimum of 1 foot of material shall be stripped and removed. All organic material, deleterious undocumented fill, and debris shall be removed regardless of depth below the surface. Loose and disturbed native soils should be scarified, moisture-conditioned, and compacted. Finish surfaces shall be sloped away from foundations.
- Fill materials shall not be placed, spread, or compacted while the ground is frozen or during unfavorable weather conditions. Fill materials shall be at the proper moisture content prior to compaction and shall contain no frozen soil.
- Native subgrade shall be compacted with vibratory equipment appropriate for the soil types. Where soft and loose or over moist areas are encountered that do not improve with repeated compactive effort, replace native soils with structural fill.
- Moisture shall be prevented from saturating clay containing subgrades and bearing soils during construction. Measures to prevent moisture infiltration include grading

during construction to drain storm water from exposed excavations during precipitation and snowmelt events, tenting, or tarping. In the event that moisture has been allowed to infiltrate and soften subgrade or bearing soils, excavation and backfill operations should cease and not resume until Nelson Engineering approves the moisture and density conditions of the soils.

- **Structural Fill** shall consist of Clean Rock Fill or Crushed Concrete, or gravels (USCS classification GW or GP).

Gravels shall have the following characteristics: 6-inch maximum particle size with no more than 40% oversize (greater than $\frac{3}{4}$ ") and no more than 5% fines passing the #200 sieve. Structural fill shall be placed in layers of not more than 8 inches in thickness. Each layer of structural fill should be moisture conditioned to within 2% of optimum moisture content and compacted to a minimum density of 95% of the maximum dry density as determined by ASTM Designation D 698. The maximum density of material containing more than 30% oversize (greater than $\frac{3}{4}$ " diameter) cannot be determined by use of the ASTM Designation D 698. In this case, a field maximum density may be determined by a test strip method. The material shall be compacted at or near optimum moisture content and a field density test shall be taken after each pass of the compaction equipment. This sequence shall continue until the maximum field density is achieved. This maximum field density shall be used for subsequent field compaction tests. Enough density tests should be taken to monitor proper compaction.

Crushed Concrete shall meet the gradation requirements of gravels and shall be free of all debris and rebar. Proposed gradation, source, and compaction methods shall be submitted to Nelson Engineering for approval prior to use.

Clean Rock fill consisting of hard durable crushed or screened rock of $\frac{3}{4}$ "-4" size. Proposed gradation, source, and compaction methods shall be submitted to Nelson Engineering for approval prior to use.

Crushed Concrete and Clean Rock fill compaction testing shall consist of proof rolling with loaded rubber-tired equipment observed and approved of by Nelson Engineering.

- Safety of construction personnel including safe trenches and excavations are the responsibility of the contractor. Excavations for retaining walls and foundations shall conform to the applicable OSHA and Wyoming safety standards. Excavations and utility trenches shall be laid back to safe slopes or properly shored. Excavations and shoring operations shall be conducted in accordance with the most recent versions of the OSHA Construction Standards for Excavations, Part 1926, Subpart P and Wyoming Public Works Standard Specifications. Excavations for utilities shall be shored if the proper slope cannot be maintained.
- During earthwork phases of the project, a representative of Nelson Engineering shall be present to observe exposed native soils and fill materials for suitability and consistency. A documented testing program should be conducted to determine that soil compaction is in accordance with requirements.

- Backfill placed against structures (i.e., pipes and walls) shall be of a character and in a manner that will not damage that structure. In no case shall material greater than 6 inches in diameter bear directly on or against these structures. Placing oversized material against rigid surfaces can damage the structure and interferes with proper compaction.

GENERAL COMMENTS

This report is preliminary for use in due diligence investigations. Project designers should consult with this office to ensure compliance with this report when project plans are formulated. Additional or supplementary recommendations concerning foundations and earthwork may be required at that time. It is critical that the structural engineer, civil engineer and other project designers review this report.

Monitoring and testing should be performed to verify that suitable materials are used for structural fills and backfills and that fills are properly placed and compacted. Concrete testing and special inspections should be performed prior to and during placement of all concrete to ensure concrete and reinforcing steel bar comply with project plans and specifications.

WARRANTY AND LIMITING CONDITIONS

The field observations and research reported herein are considered sufficient in detail and scope to form a reasonable basis for the purposes cited above. Nelson Engineering warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics, and engineering geology, only for the site described in this report. No other warranties are implied or expressed.

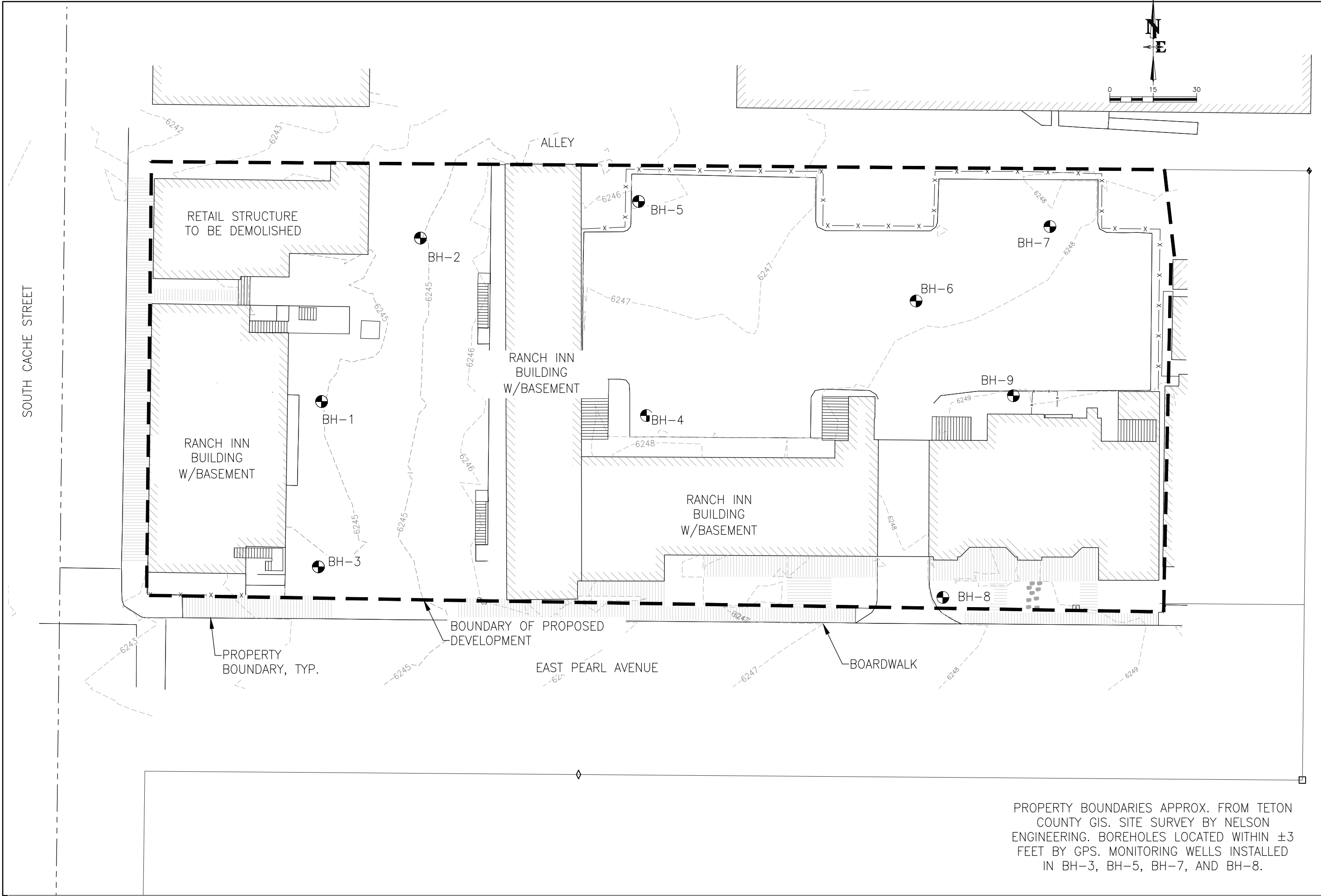
These engineering methods have been developed to provide the client with information regarding apparent or potential engineering conditions relating to the subject property within the scope cited above and are limited to the conditions observed at the time of the site visit and research. There is a distinct possibility that conditions may exist which could not be identified within the scope of the investigation or which were not apparent during the site investigation. The report is also limited to the information available at the time it was prepared. In the event additional information is provided to Nelson Engineering following this report, it will be forwarded to the client in the form received for evaluation by the client. This report was prepared for use by Crystal Creek Capital Real Estate Advisors ("Client") and the conclusions and recommendations presented in this report are based on the agreed-upon scope of work outlined in the report and the contract for professional services between Client and Nelson Engineering ("Consultant"). Use or misuse of this report, or reliance upon the findings hereof by any parties other than the Client, is at their own risk. Neither the Client nor Consultant may make any representation of warranty to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatsoever, known or unknown, to the Client or Consultant. Neither Crystal Creek Capital Real Estate Advisors nor Nelson Engineering shall have any liability to or indemnifies or holds harmless third parties for any losses incurred, by the actual or purported use or misuse of this report. No other warranties are implied or expressed.

Philip Gyr, PE, Geotechnical Engineer

APPENDIX

DRAWINGS

S:\Pro\2021\07-02 Cache and Pearl - Geotech\Drawings\Cache-Pearl\BOLDMap.dwg (BOLDMAP) - Aug 10 2021 08:10:02 pm PLOTTED BY: gyt DWG FORMAT: 220



PROPERTY BOUNDARIES APPROX. FROM TETON COUNTY GIS. SITE SURVEY BY NELSON ENGINEERING. BOREHOLES LOCATED WITHIN ± 3 FEET BY GPS. MONITORING WELLS INSTALLED IN BH-3, BH-5, BH-7, AND BH-8.

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	XXXX	45 E PEARL AVE & 50 S. CACHE ST LOTS 14-16, BLOCK 1 CACHE-1 GEOTECHNICAL INVESTIGATION	BOREHOLE LOCATION MAP		SURVEYED	ENGINEERED	NE	AP	AP	PG
JOB NO	21-076-02				DRAWN	CHECKED	AP	PG	AP	PG
							APPROVED		733-2087	
									P.O. BOX 1599, JACKSON WYOMING (307)	
									NELSON ENGINEERING	

GRADE AWAY FROM
STRUCTURES 5% MINIMUM
FOR 10' OR PER
APPROVED DRAINAGE PLAN

LAWN AND LANDSCAPE
AREAS 8" TO 10"
FINE-GRAINED SOILS
COMPACTED TO A MINIMUM
OF 90% PER ASTM D-698
STRUCTURAL FILL BENEATH
HARDSCAPES, SLABS, AND
ROADWAYS

FINISHED
GRADE

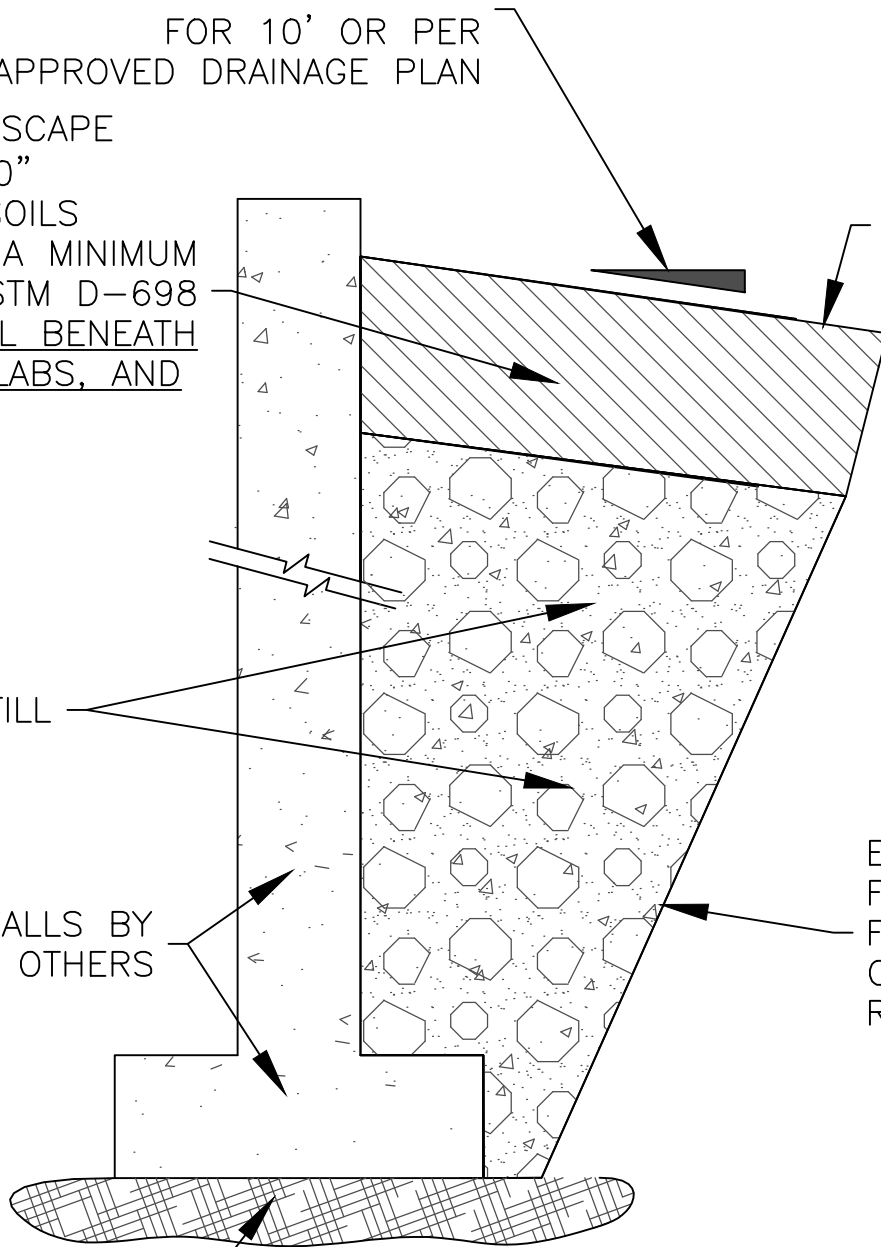
STRUCTURAL FILL

FOOTINGS & WALLS BY
OTHERS

EXCAVATION
FACE TYP.
FOLLOW
OSHA
REGULATIONS

COMPACTED NATIVE
SUBGRADE OR
STRUCTURAL FILL PER
RECOMMENDATIONS IN
REPORT

FOUNDATION BACKFILL TYPICAL
NOT TO SCALE



DRAWING NO

3

JOB NO

21-072-2

TITLE

CACHE AND PEARL
MIXED USE BUILDING
FOUNDATION BACKFILL TYPICAL

**NELSON
ENGINEERING**

P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

DATE

4/21/21

REV.

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APPROVED

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BORING LOGS

GEOTECHNICAL GENERAL NOTES

CORRECTED SPT: Standard Penetration Test values corrected to N₁₆₀ correcting for theoretical free-fall hammer energy and overburden pressure per 7th edition of the AASHTO Bridge Design Specifications.

DRILLING, SAMPLING, AND SOIL PROPERTIES ABBREVIATIONS AND SYMBOLS

N: Standard Penetration Test

U_c: Unconfined compressive strength, Pounds/ft² (PSF)

Pp: Pocket Penetrometer values, Ton/ft² (TSF)


FILGC: Fragments indicate gravels and cobbles larger than split spoon diameter.

w: Water content, %

LL: Liquid limit, %

PI: Plasticity index, %

gd: In-situ dry density, lbs/ft³ (PCF)

: Ground water level

SS: Split-Spoon Sample

ST: Shelby Tube Sampler

CS: Cylindrical Brass Lined Sample



Monitoring Well, diagonal hatching indicates screen and sand packed interval

SOIL RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

Non-Cohesive Soils		SPT	Cohesive Soils		Pp-(tons/ft ²)
Very Loose		0 - 4	Very Soft		0 - 0.25
Loose		4 - 10	Soft		0.25 - 0.50
Slightly Compact		8 - 15	Medium Stiff		0.50 - 1.00
Medium Dense		10 - 30	Stiff		1.00 - 2.00
Dense		30 - 50	Very Stiff		2.00 - 4.00
Very Dense		50+	Hard		4.00+

PARTICLE SIZE

Boulders:	12 in.+	Coarse Sand:	5 mm(#4)-2 mm(#10)	Silts and Clays: <#200
Cobbles:	12 in.-3in.	Medium Sand:	2 mm(#10)-0.4mm(#40)	
Gravel:	3in.-5mm(#4)	Fine Sand:	0.4mm(#40)-0.075mm(#200)	

SOIL GRAPHICS

<i>GW</i>		<i>SC</i>	
<i>GP</i>		<i>ML</i>	
<i>GM</i>		<i>CL</i>	
<i>GC</i>		<i>ML-CL</i>	
<i>SW</i>		<i>OL</i>	
<i>SP</i>		<i>MH</i>	
<i>SM</i>		<i>CH</i>	
<i>BEDROCK</i>		<i>OH</i>	
<i>COBBLES/BOULDERS</i>		<i>PT</i>	

NOTE: ANGLED DEMARCATIONS ON THE LOGS INDICATE APPROXIMATE OR POORLY DEFINED BOUNDARIES BETWEEN SOIL TYPES.

PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-1	PAGE: 1 OF 2
DATE STARTED / FINISHED: 3/22/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6245.1'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

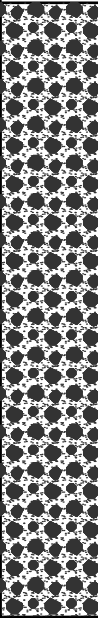
WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
							MATERIAL DESCRIPTION						
		1					SURFACE: 2" ASPHALT PAVEMENT OVERLYING 4" OF CRUSHED BASE						ASPHALT PARKING LOT
		2											
		3											
		4											
		5	6				5.0'-6.5' DRY, BROWN/GRAY, GRAVEL WITH CLAY AND SAND, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C, POORLY-GRADED, VERY DENSE			103			EASY TO MODERATE DRILLING CONSTANT BIT GRINDING FROM 0' TO 6.5'
		6	26			BH1-1 2" SS 61							
		7	33										BIT GRINDING ON COBBLE AT 6.5' TO 7.5'
		8											
		9											
		10	27				10.0'-11.5' SAME AS ABOVE			103			MODERATE TO HARD DRILLING WITH CONSTANT BIT GRINDING FROM 6.5' TO 12'
		11	33			BH1-2 2" SS 83							
		12	37										
		13	32				13.0'-14.5' SAME AS ABOVE						SMOOTH, HARD DRILLING FROM 12' TO 13'
		14	38			BH1-3 2" SS 67				118			MODERATE TO HARD DRILLING WITH CONSTANT BIT GRINDING FROM 13' TO 15'
		15	49				15.0'-16.5' SAME AS ABOVE						
		16	16							126			SLOW, HARD DRILLING WITH CONSTANT BIT GRINDING FROM 15' TO BOH
		17	47			BH1-4 2" SS 89							
		18	50										
		19											20 MINS TO DRILL FROM 15'-20'
		20	16				20.0'-21.5' SAME AS ABOVE			98			
		21	43			BH1-5 2" SS 78							

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WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		40				BH1-5 2" SS 78	20.0'-21.5' SAME AS ABOVE			98			10 MINS TO DRILL FROM 20'-25'
		22											
		23											
		24											
		25	50/6			BH1-6 2" SS 100	25.0'-25.5' SAME AS ABOVE			>50			SLOW, HARD DRILLING WITH CONSTANT BIT GRINDING FROM 15' TO BOH
		26											18 MINS TO DRILL FROM 25'-30'
		27											
		28											
		29											
		30	20			BH1-7 2" SS 67	30'-31.5' MOIST, COMPOSITION AS ABOVE			58			
		31	28										
		32	30										
		33											22 MINS TO DRILL FROM 30'-35'
		34											
		35					CUTTINGS ARE MOIST						
		36											
		37											
		38											20 MINS TO DRILL FROM 35'-40'
		39											
		40	34				40.0'-41.0' SAME AS ABOVE, MOIST						BORING CAVED TO 35'-7" AFTER HSA REMOVAL
		41	50/6			BH1-8 2" SS 83	B.O.H. = 41.0' NO GROUNDWATER			>50			
		42											
		43											
		44											

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		50	5			BH2-4 2" SS 59	20.0'-21.4' SAME AS ABOVE			>50			SLOW, HARD DRILLING WITH CONSTANT BIT GRINDING FROM 17' TO BOH
		22											
		23											
		24											
		25											
		26											
		27											
		28					28.0'-29.5' SAME AS ABOVE						
		26				BH2-5 2" SS 72				77			LITTLE TO NO PROGRESS FOR 15 MINUTES FROM 27.5'-28'
		31											
		29											
		43					B.O.H. = 29.5' NO GROUNDWATER						BORING CAVED TO 22'-4" AFTER HSA REMOVAL
		30											
		31											
		32											
		33											
		34											
		35											
		36											
		37											
		38											
		39											
		40											
		41											
		42											
		43											
		44											

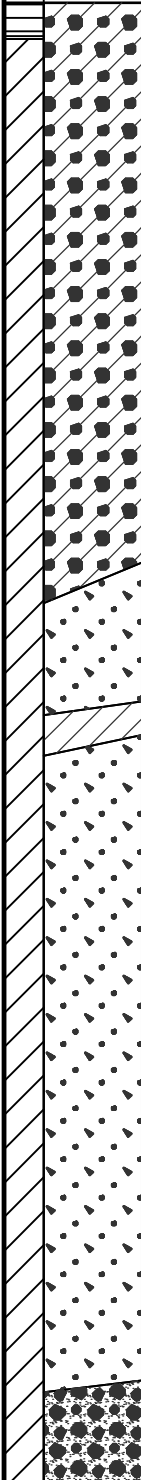
PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-3	PAGE: 1 OF 2
DATE STARTED / FINISHED: 3/23/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6244.8'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES		SAMPLE ID	RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED									
							MATERIAL DESCRIPTION						
		1					SURFACE: 2" ASPHALT PAVEMENT OVERLYING 4" OF CRUSHED BASE						ASPHALT PARKING AREA WITH PEARL ST BOARDWALK ~ 10' SOUTH
		2											COBBLES FROM 2'-3'
		3	26				3.0'-3.67' MOIST, BROWN/GRAY, GRAVEL WITH CLAY AND SAND, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C, POORLY-GRADED, VERY DENSE			>50			MODERATE TO HARD DRILLING WITH CONSTANT BIT GRINDING FROM 0' TO 8'
		4	50/2		BH3-1 2" SS	100							8 MINS TO DRILL FROM 5'-10'
		5											
		6											
		7											
		8											
		9											
		10	20				10.0'-11.5' SAME AS ABOVE						MODERATE DRILLING WITH INTERMITTENT BIT GRINDING FROM 8' TO 29'
		11	29		BH3-2 2" SS	78				101			
		12	40										
		13											
		14											
		15	16				15.0'-16.5' SAME AS ABOVE, GRAVEL LODGED IN TIP OF SS						4 MINS TO DRILL FROM 10'-15'
		16	23		BH3-3 2" SS	67				64			
		17	26										8 MINS TO DRILL FROM 15'-20'
		18											
		19											
		20	13				20.0'-20.75' MOIST, BROWN CLAYEY GRAVEL, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C.						
		21	50/3		BH3-4 2" SS	89				>50			

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WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		22											
		23											
		24											
		25	18				25.0'-26.5' SAME AS ABOVE, MINOR ORANGE OXIDATION, STAINING ON CLAY MATRIX			72			MODERATE DRILLING WITH INTERMITTENT BIT GRINDING FROM 8' TO 29'
		26	30										8 MINS TO DRILL FROM 20'-25'
		27	36										
		28											
		29											3 MINS TO DRILL FROM 25'-30'
		30	4				30.0'-31.5'						
		31	6				0"-10", MOIST, BROWN, POORLY-GRADED, FINE-GRAINED SAND WITH CLAY, MEDIUM DENSE			15			SMOOTH, EASY DRILLING FROM 29' TO 32.5'
		32	9				10"-15", MOIST, BROWN LEAN CLAY, PP=2.5 TSF, VERY STIFF						
		33	9				15"-18", SAME AS FROM 0"-10"						
		34											
		35											
		36											
		37											
		38											
		39											
		40	23				40.0'-41.5'						
		41	38				0"-1", SAME AS ABOVE						
		42					1"-15", MOIST, BROWN/GRAY GRAVEL WITH SAND, CLAY, ROUND TO ANGULAR GRAVELS, POORLY-GRADED, VERY DENSE			63			
		43	33				B.O.H. = 41.5'						
		44					NO GROUNDWATER						
							MONITORING WELL CONSTRUCTION: LENGTH OF PIPE = 41.3' (1.5"Ø PVC, FLUSH MOUNTED) SLOTTED EVERY 6" FROM 21.5' TO 41.5' PIPE STICKUP = -0.2'						


PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-4	PAGE: 1 OF 2
DATE STARTED / FINISHED: 3/23/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6247.8'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
							MATERIAL DESCRIPTION						
		1					SURFACE: 2" ASPHALT PAVEMENT OVERLYING 4" OF CRUSHED BASE						ASPHALT PARKING LOT
		2											
		3											
		4	4				3.0'-4.5' MOIST, BROWN/GRAY GRAVEL WITH SAND AND CLAY, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C., POORLY-GRADED, MEDIUM DENSE, TOP 2" SATURATED DUE TO SNOW MELT INTO BOREHOLE, GRAVEL LODGED IN TIP OF SS			21			EASY TO MODERATE DRILLING WITH INTERMITTENT BIT GRINDING THRU FINE GRAVELS FROM 0' TO 10'
		5											
		6											
		7											
		8											
		9											
		10	15				10.0'-11.5' SAME AS ABOVE, VERY DENSE, BOTTOM 4" AND TIP OF SPLIT SPOON IS PULVERIZED LIMESTONE COBBLE			103			MODERATE DRILLING WITH INTERMITTENT BIT GRINDING THROUGH FINE GRAVELS & COBBLES FROM 10' TO BOH
		11	23										
		12	47										
		13											
		14											5 MINS TO DRILL FROM 10'-15'
		15											
		16											
		17											
		18											6 MINS TO DRILL FROM 15'-20'
		19											
		20	21				20.0'-21.5' SAME AS ABOVE						
		21	32							>50			

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WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		50/6				BH4-3 2" SS 67	20.0'-21.5' SAME AS ABOVE			>50			MODERATE DRILLING WITH INTERMITTENT BIT GRINDING THROUGH FINE GRAVELS & COBBLES FROM 10' TO BOH 5 MINS TO DRILL FROM 20'-25'
		22											
		23											
		24											
		25											
		26											
		27											
		28											6 MINS TO DRILL FROM 25'-30'
		29											
		30					30.0'-31.5' SAME AS ABOVE						
		29											
		31				BH4-4 2" SS 83				69			
		32											8 MINS TO DRILL FROM 30'-35'
		33											
		34											
		35											
		36					B.O.H. = 35.5' UNABLE TO SAMPLE AT 35.5', TRANSMISSION ISSUES ON DRILLING RIG PREVENTED DRILLING TO 40'						
		37					NO GROUNDWATER						
		38											
		39											
		40											
		41											
		42											
		43											
		44											

PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-5	PAGE: 1 OF 2
DATE STARTED / FINISHED: 3/24/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6245.9'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES		SAMPLE ID	RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED			MATERIAL DESCRIPTION						
							SURFACE: 2" ASPHALT PAVEMENT OVERLYING 4" OF CRUSHED BASE						ASPHALT PARKING LOT
		1											
		2											
		3					2.5'-4.0' MOIST, BROWN/GRAY CLAYEY GRAVEL WITH ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C., VERY DENSE			59			
		4											
		5											MODERATE DRILLING WITH CONSTANT BIT GRINDING FROM 0' TO 8'
		6											
		7											7 MINS TO DRILL FROM 5'-10'
		8											
		9											EASY TO MODERATE DRILLING WITH INTERMITTENT BIT GRINDING THRU FINE GRAVELS AND SMALL COBBLES FROM 8' TO BOH
		10					10.0'-11.5' DRY, BROWN/GRAY GRAVEL WITH SAND AND CLAY, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C., POORLY-GRADED, PULVERIZED COBBLE IN BOTTOM 4" OF SPLIT SPOON			>50			6 MINS TO DRILL FROM 10'-15'
		11											
		12											
		13											
		14											
		15											
		16											
		17											7 MINS TO DRILL FROM 15'-20'
		18											
		19											
		20					20.0'-21.5' SAME AS ABOVE						
		21								65			

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WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		25				BH5-3 2" SS 83	20.0'-21.5' SAME AS ABOVE			65			7 MINS TO DRILL FROM 20'-25'
		22											
		23											
		24											
		25											
		26											
		27											
		28											
		29											
		30											
		21				BH5-4 2" SS 67	30.0'-31.5' SAME AS ABOVE			62			
		32											
		31											
		30											
		32					B.O.H. = 31.5'						
							NO GROUNDWATER						
		33					MONITORING WELL CONSTRUCTION:						
							LENGTH OF PIPE = 30.25' (1.5"Ø PVC, FLUSH MOUNTED)						
		34					SLOTS EVERY 6" FROM 20.5' TO 30.5'						
							PIPE STICKUP = -0.25'						
		35											
		36											
		37											
		38											
		39											
		40											
		41											
		42											
		43											
		44											

PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-6	PAGE: 1 OF 2
DATE STARTED / FINISHED: 7/26/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6247.8'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
							MATERIAL DESCRIPTION						
		1					SURFACE: 2" ASPHALT PAVEMENT OVERLYING 4" OF CRUSHED BASE						ASPHALT PARKING LOT
		2											MINOR BIT GRINDING TO 2'
		3					2.5'-4.0' DRY, BROWN/GRAY, GRAVEL WITH SILT AND SAND, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C, POORLY-GRADED, VERY DENSE			105			
		4											MODERATE TO HARD DRILLING WITH CONSTANT BIT GRINDING FROM 2'-10'
		5					5.0'-6.25' SAME AS ABOVE			>50			
		6											
		7											
		8											
		9											
		10					10.0'-10.9' SAME AS ABOVE, WITH CLAY, NO SILT			>50			HARD DRILLING WITH CONSTANT BIT GRINDING FROM 10'-BOH
		11											9 MINS TO DRILL FROM 10'-15'
		12											
		13											
		14											
		15					15.0'-16.5' SAME AS ABOVE			86			
		16											
		17											
		18											8 MINS TO DRILL FROM 15'-20'
		19											
		20					20.0'-21.5' SAME AS ABOVE, BOTTOM 5" IS PULVERIZED GRAY LIMESTONE COBBLE			76			
		21											

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WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		31				BH6-5 2" SS 67	20.0'-21.5' SAME AS ABOVE, BOTTOM 5" IS PULVERIZED GRAY LIMESTONE COBBLE			76			7 MINS TO DRILL FROM 20'-25'
		22											
		23											
		24											HARD DRILLING WITH CONSTANT BIT GRINDING FROM 10' TO BOH
		25	50/6"			BH6-6 2" SS 83	25.0'-25.5' SAME AS ABOVE			>50			8 MINS TO DRILL FROM 25'-30'
		26											
		27											
		28											
		29											
		30	17			BH6-7 2" SS 89	30'-31.5' MOIST, COMPOSITION AS ABOVE			60			
		31	30										
		32	30										
		33											7 MINS TO DRILL FROM 30'-35'
		34											
		35	29			BH6-8 2" SS 100	35.0'-35.9' SAME AS ABOVE			>50			
		36	50/5"										
		37											
		38											6 MINS TO DRILL FROM 35'-40'
		39											
		40	25			BH6-9 2" SS 83	40.0'-41.5' SAME AS ABOVE			63			BORING CAVED TO 28'-4" AFTER HSA REMOVAL
		41	33										
		42	38				B.O.H. = 41.5'						
		43					NO GROUNDWATER						
		44											

PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-7	PAGE: 1 OF 3
DATE STARTED / FINISHED: 7/26/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6247.9'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
							MATERIAL DESCRIPTION						
		1					SURFACE: 2" ASPHALT PAVEMENT OVERLYING 4" OF CRUSHED BASE						ASPHALT PARKING LOT
		2											MINOR BIT GRINDING TO 2'
		26											
		3					2.5'-4.0' DRY, BROWN/GRAY, GRAVEL WITH SILT AND SAND, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C, POORLY-GRADED, VERY DENSE			168			MODERATE TO HARD DRILLING WITH CONSTANT BIT GRINDING FROM 2'-5'
		41											
		44											
		4											
		5					5.0'-6.5' SAME AS ABOVE						
		21											
		36								122			
		6											
		34											
		7											
		8											
		9											
		10					10.0'-11.5' SAME AS ABOVE						
		17											
		29											
		11								93			
		34											
		12											
		13											
		14											
		15					15.0'-16.5' SAME AS ABOVE. WITH CLAY, NO SILT, GRAVEL LODGED IN TIP OF SS						
		12											
		20								53			
		21											
		16											
		17											
		18											
		19											
		20					20.0'-21.5' SAME AS ABOVE, DENSE						
		20											
		17											
		21								44			
		20											
		21											

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WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		20				BH7-5 2" SS 94	20.0'-21.5' SAME AS ABOVE, DENSE			44			7 MINS TO DRILL FROM 20'-25'
		22											
		23											
		24											
		25				BH7-6 2" SS 83	25.0'-26.5' SAME AS ABOVE, VERY DENSE			56			HARD DRILLING WITH CONSTANT BIT GRINDING FROM 5' TO 35'
		30											
		29											
		23											8 MINS TO DRILL FROM 25'-30'
		27											
		28											
		29											
		30				BH7-7 2" SS 100	30'-31.5' MOIST, COMPOSITION AS ABOVE, DENSE			46			
		14											
		21											
		25											
		32											
		33											7 MINS TO DRILL FROM 30'-35'
		34											
		35				BH7-8 2" SS 100	35.0'-36.5' MOIST, BROWN INTER-TONGUING LENSES OF SANDY SILT, SANDY LEAN CLAY, AND POORLY-GRADED FINE SAND, SILT AND CLAY PP=1-3.5 TSF, STIFF TO VERY STIFF, SAND IS MEDIUM DENSE			16			SMOOTH, EASY DRILLING FROM 35' TO 43'
		3											
		5											
		12											
		37											
		38				BH7-9 3" DM 100	38.0'-39.0' SAME AS ABOVE, MOIST TO SATURATED SAND LENSES, ADDITIONAL LENS OF MOIST, CLAYEY GRAVEL, SILT AND CLAY ARE STIFF TO VERY STIFF, SAND AND GRAVEL ARE MEDIUM DENSE			15			
		14											
		11											
		39											
		40											
		41											
		42											
		43											
		44											

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		45	15			BH7-10 2" SS 88	GROUNDWATER MEASURED AT 44.5' BGS ON 7/28/2021 45.0'-46.3' MOIST, BROWN/GRAY, GRAVEL WITH SILT AND SAND, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C, POORLY-GRADED, VERY DENSE B.O.H. = 46.3' MONITORING WELL CONSTRUCTION: LENGTH OF PIPE = 45.7' (1.5"Ø PVC, FLUSH MOUNTED) SLOTS EVERY 6" FROM 26.0' TO 46.0' PIPE STICKUP = -0.3'						MODERATE DRILLING WITH CONSTANT BIT GRINDING FROM 43' TO BOH
		46	40										
		50	4"							>50			BORING CAVED TO 27'-4" AFTER HSA REMOVAL
		47											
		48											
		49											
		50											
		51											
		52											
		53											
		54											
		55											
		56											
		57											
		58											
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		60											
		61											
		62											
		63											
		64											
		65											
		66											
		67											

PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-8	PAGE: 1 OF 2
DATE STARTED / FINISHED: 7/27/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6247.9'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
							MATERIAL DESCRIPTION						
		1					IMPORTED SILT TOPSOIL G.S.						LANDSCAPING AREA, ~5 WEST OF THAI ME UP SIGN
		2					FROM 1'-5', C.I. DK BROWN SILTY GRAVEL WITH SAND						MODERATE TO HARD DRILLING WITH CONSTANT BIT GRINDING FROM 1'-5'
		3											
		4											
		5	16				5.0'-6.0' DRY, LT BROWN/GRAY, GRAVEL WITH SILT AND SAND, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C, POORLY-GRADED, VERY DENSE			>50			HARD DRILLING WITH CONSTANT BIT GRINDING FROM 5'-30'
		6	50/6"			BH8-1 2" SS 25							
		7											
		8											7 MINS TO DRILL FROM 5'-10'
		9											
		10	20				10.0'-11.5' SAME AS ABOVE			69			
		11	24			BH8-2 2" SS 78							
		12	23										
		13											8 MINS TO DRILL FROM 10'-15'
		14											
		15	15				15.0'-16.5' SAME AS ABOVE, WITH CLAY, NO SILT			51			8 MINS TO DRILL FROM 15'-20'
		16	18			BH8-3 2" SS 94							GRINDING ON COBBLE FROM 17'-17.5'
		17	21										
		18											
		19											
		20	10				20.0'-21.5' SAME AS ABOVE, DENSE			33			
		21	14			BH8-4 2" SS 83							
		22	14										

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WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY (%)	MATERIAL DESCRIPTION	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
		14				BH8-4 2" SS 83	20.0'-21.5' SAME AS ABOVE, DENSE			33			10 MINS TO DRILL FROM 20'-25'
		22											
		23											
		24											
		25				BH8-5 2" SS 83	25.0'-26.5' SAME AS ABOVE			40			HARD DRILLING WITH CONSTANT BIT GRINDING FROM 5' TO 30'
		19											
		17											
		20											11 MINS TO DRILL FROM 25'-30'
		27											
		28											
		29											
		30				BH8-6 2" SS 94	30'-31.5' MOIST, COMPOSITION AS ABOVE			40			
		16											
		19											
		31											
		21											
		32											
		33											7 MINS TO DRILL FROM 30'-35'
		34											
		35											HARD DRILLING WITH INTERMITTENT BIT GRINDING FROM 30' TO BOH
		36											
		37											
		38											9 MINS TO DRILL FROM 35'-40'
		39											
		40				BH8-7 2" SS 94	40.0'-41.5' SAME AS ABOVE, VERY DENSE			61			BORING CAVED TO 25'-8" AFTER HSA REMOVAL
		23											
		29											
		41											
		40											
		42					B.O.H. = 41.5' NO GROUNDWATER						
		43					MONITORING WELL CONSTRUCTION: LENGTH OF PIPE = 41.1' (1.5"Ø PVC, FLUSH MOUNTED) SLOTS EVERY 6" FROM 21.3' TO 41.3' PIPE STICKUP = -0.2'						
		44											

PROJECT NAME: LOTS 10-16, BLOCK 1, CACHE 1	DRILL HOLE No. BH-9	PAGE: 1 OF 2
DATE STARTED / FINISHED: 7/27/2021	DRILLER: IME	
LOGGED BY: ANDY PRUETT	DRILL TYPE: MOBILE B57 TRUCK-MOUNTED	
BOREHOLE LOCATION/ELEVATION: SEE BOREHOLE LOCATION MAP/6249.1'	HOLE DIAMETER: 7" O.D. HSA (HOLLOW STEM AUGER)	
	HAMMER TYPE: 140# AUTOMATIC	

WELL LOG	GRAPHIC LOG	DEPTH (FT)	SAMPLES			RECOVERY %	This log is part of a report prepared by Nelson Engineering for this project and should be read with the report. This summary applies only at the location of the boring and at the time of the drilling. Subsurface conditions may differ at other locations and may change at this location with passage of time. The data presented is a simplification of actual conditions encountered.	LIQUID LIMIT	PLASTIC LIMIT	CORRECTED SPT	DRY DENSITY (PCF)	MOISTURE (%)	REMARKS
			DRIVE	UNDISTURBED	BULK								
							MATERIAL DESCRIPTION						
		1					IMPORTED SILT TOPSOIL G.S.						LANDSCAPING AREA BETWEEN PARKING LOT AND BUILDING
		2					FROM 1'-5', C.I. DK BROWN SILTY GRAVEL WITH SAND						
		3											
		4											
		5					5.0'-6.2' DRY, LT BROWN/GRAY, GRAVEL WITH SILT AND SAND, ROUND TO ANGULAR AND FRACTURED GRAVELS, F.I.L.G.C, POORLY-GRADED, VERY DENSE			>50			HARD DRILLING WITH CONSTANT BIT GRINDING FROM 1'-25'
		6											
		7											
		8											14 MINS TO DRILL FROM 5'-10'
		9											
		10					10.0'-11.5' SAME AS ABOVE			90			15 MINS TO DRILL FROM 10'-15'
		11											
		12											
		13											GRINDING ON COBBLES/BOULDER FROM 13.5'-15'
		14											
		15					15.0'-16.5' SAME AS ABOVE, WITH CLAY, NO SILT			70			9 MINS TO DRILL FROM 15'-20'
		16											
		17											
		18											
		19											
		20					20.0'-21.5' SAME AS ABOVE			58			
		21											

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