



Warrenton Planning Commission  
AGENDA  
August 12, 2021 | 6 PM | City Hall – Commission Chambers

**\*\*\*The meeting will be broadcast via Zoom at the following link\*\*\***

<https://us02web.zoom.us/j/89594092173?pwd=VG5sMFFTVExqTWI1dXVXSTBFbWw2UT09>

**Meeting ID: 895 9409 2173**

**Passcode: 612659**

**Dial in number: 253-215-8782**

1. Attendance
2. Flag Salute
3. Public Comment Period on *Non-Agenda* Items
4. Approval of minutes of May 13, 2021
  - *Action Item: Motion to Adopt*
5. **PUBLIC HEARING:** Consolidated Application SUB-21-1/SDR-21-1 Subdivision and Residential Site Design Review
  - Applicant: Jetty Street, LLC
  - Proposal: Nine-unit Jetty View subdivision to develop three townhome structures, each with three attached single-family dwellings. The proposed development is located on Tax Lot 81005CD03500, at 444 Jetty Street. The subject property is zoned Commercial-Mixed Use (C-MU)
  - *Action Item: Recommendation to approve with conditions*
6. **PUBLIC HEARING:** SDR-21-2 Commercial Site Design Review
  - Applicant: Kyle Langeliers on behalf of Warrenton Fiber Company, David Nygaard and John Nygaard
  - Proposal: New 27,550-square-foot building and site improvements for a Roby's Furniture Store. The proposed development is located on Tax Lot 81027AB06400 on the north side of Highway 101 Business west of SE Marlin Avenue. The subject property is zoned General Commercial (C-1)
  - *Action Item: Recommendation to approve with conditions*

**WITHDRAWN**

~~7. **PUBLIC HEARING:** SDR-21-3 Commercial Site Design Review~~

- ~~● Applicant: Greta Holstrom/Ardor Consulting, LLC on behalf of Fuiten West Partnership~~
- ~~● Proposal: New 13,607-square-foot building for the Medix ambulance dispatch facility. The proposed development is located on Tax Lot 81033AA01100 at 2325 SE Dolphin Avenue. The subject property is zoned General Industrial (I-1)~~
- ~~● Action Item: Recommendation to approve with conditions~~

8. Staff Announcements & Project Updates

9. **Next Meeting:** September 9, 2021

MINUTES  
Warrenton Planning Commission  
May 13, 2021  
6:00 p.m.  
Warrenton City Hall - Commission Chambers  
225 S. Main  
Warrenton, OR 97146

Chair Paul Mitchell called the meeting to order at 6:03 p.m. and led the public in the Pledge of Allegiance.

Commissioners Present: Chair Paul Mitchell, Kevin Swanson (via Zoom), Christine Bridgens, Mike Moha, Ken Yuill, and Lylla Gaebel (via Zoom)

Excused: Commissioner Chris Hayward

Staff Present: Interim City Planner Will Caplinger (via Zoom) and Secretary Rebecca Sprengeler.

PUBLIC COMMENT ON NON-AGENDA ITEMS - None

## APPROVAL OF MINUTES

A. Planning Commission Meeting Minutes – 4.8.21

**Commissioner Yuill made the motion to approve the minutes as written from April 8th. Motion was seconded by Commissioner Bridgens and passed by majority.**

**Mitchell – aye; Swanson – aye; Bridgens – aye; Moha – aye; Yuill – aye; Gaebel - abstained**

Commissioner Gaebel noted that she abstained because she was not in attendance at the April meeting.

## PUBLIC HEARING

Chair Mitchell opened the public hearing for the matter of Major Modification MC20-21 Site Design and Conditional Use Review for commercial development located in Youngs Bay Plaza, at 103 Highway 101, Warrenton. Formalities followed and no conflicts of interest were disclosed. Commissioner Yuill disclosed an ex parte contact that he has looked at the site but feels it will not affect his decision.

Interim City Planner Will Caplinger reviewed the staff report on the Major Modification MC20-21 Site Design and Conditional Use Review for Baysinger Partners Architecture on behalf of Atlas Youngs Bay, LLC. There are four modifications that will eliminate the previously approved new pad building, relocate the previously approved pick-up window and the que to the existing building, move trash enclosures, and eliminate the previously approved three parking

stalls in front of the pump station. A Type III review by the Planning Commission was triggered by a change in the type and/or location of access ways, drives or parking areas that affect off-site traffic. Mr. Caplinger stated that although the proposed modifications may result in a reduction in off-site traffic, the code language does not qualify the term, “affect” as positive or negative. Staff reasoned that the scope of the project encompasses the community’s concern over drive-through developments, and that the Planning Commission should be afforded the opportunity to review the modification proposal. Staff recommends approval of MC-20-21, subject to the condition of approval that the effective date of expiration for MC-20-21 and SDR 20-3/CUP 20-1 shall be May 19, 2022.

Commissioner Gaebel asked if the pick-up window is still strictly preorder. Mr. Caplinger noted the pick-up window will only serve one of the restaurants; it will be for preorder and pick up only. Commissioner Gaebel noted traffic concerns. Commissioner Yuill asked for an update on ODOT’s (Oregon Department of Transportation) recommended improvements to East Harbor Drive. Mr. Caplinger responded that nothing has been submitted to the City or agreed upon yet. Discussion about ODOT continued. Mr. Caplinger noted he will look into an update on ODOT recommendations.

William Rueker, with Baysinger Partners Architecture, thanked Mr. Caplinger and gave a brief history of the project. He confirmed the pick-up window remains as such. The average time in the drive-through is one minute and twenty-eight seconds. The drive-through configuration changed to wrap around the building, preventing traffic from backing up onto East Harbor Drive. He thanked the City for their assistance on the drive-through layout and trash location. They will be planting the required street trees. The applicant is continuing to work with ODOT. Chair Mitchell asked about the anticipated number of cars going through the drive-through during peak hours. Mr. Rueker responded that this is a quick, casual, Mexican restaurant. The other restaurant will serve pizza and will not be using the drive-through. Discussion continued. Mr. Rueker thanked Mr. Caplinger for his thorough review.

No one spoke in favor or opposition of the applicant. Chair Mitchell closed the public hearing.

Chair Mitchell asked about traffic studies for this project. He discussed concerns about traffic during peak hours. Mr. Caplinger noted he is not aware of any traffic studies for diners in the area. He stated there was a traffic study done and then a memo updated for that; this was generally based on the kind of traffic that you get for restaurants of a certain size. Commissioner Moha noted the traffic data is contained in the agenda packet on the transportation memo from Lancaster Mobley date March 4, 2021. Discussion followed. Commissioner Swanson noted traffic concerns about having a driveway on East Harbor Drive. Chair Mitchell discussed his concern of having traffic issues similar to Wendy’s. Commissioner Swanson made similar comments about Wendy’s traffic concerns. Commissioner Moha noted there was similar discussion before Wendy’s was built; this project is smaller than Wendy’s. Commissioner Yuill noted he would feel more comfortable making a decision after seeing what ODOT’s proposal. He does not want to see another ‘Wendy’s situation.’ Discussion about traffic issues continued. Chair Mitchell noted he has no problem with the conditions. He stated that he would like to make it a condition that ODOT and Public Works Director, Collin Stelzig feel good about the traffic study and what it will mean. Commissioner Gaebel noted her ‘no’ vote last time because of the

traffic impact. She feels there should be a new traffic impact study. Chair Mitchell asked if the ODOT study is still part of the conditions of approval. Mr. Caplinger noted it is condition of approval number one and is still in effect. He noted that the decision today is only for site modification. It may not be correct or legal to apply other conditions that are not part of what the applicant is proposing to modify, especially because they are decreasing traffic by eliminating the main pad building. Part of the applicant's request for extension is because of slow progress with the City and ODOT. This will still have to come back and be approved by the City. Building cannot begin until the conditions of approval are met.

**Commissioner Moha made the motion to approve the Major Modification of an Approved Site Design Review and Conditional Use Review SDR 20-3/CUP 20-1, for Youngs Bay Plaza, located at US Highway 101 and East Harbor Drive, based on the findings in the staff report, Conditions of Approval, and discussion. Motion was seconded by Commissioner Bridgens. The motion failed.**

**Mitchell – aye; Swanson – nye; Bridgens – aye; Moha – aye; Yuill – nye; Gaebel – nye**

Chair Mitchell noted that this vote is just on the Site Design. ODOT is not a part of this issue. Discussion followed. Mr. Caplinger confirmed that this vote is just for approval of the four modifications in the staff report. If this motion fails, there will be an administrative decision to extend the application deadline. Commissioner Swanson noted that because this does not involve ingress or egress, he would like to change his vote.

**Commissioner Bridgens made the motion to approve the Major Modification of an Approved Site Design Review and Conditional Use Review SDR 20-3/CUP 20-1, for Youngs Bay Plaza, located at US Highway 101 and East Harbor Drive, based on the findings in the staff report, Condition of Approval, and discussion. Motion was seconded by Commissioner Moha and passed by majority.**

**Mitchell – aye; Swanson – aye; Bridgens – aye; Moha – aye; Yuill – aye; Gaebel – nye**

#### STAFF ANNOUNCEMENTS & PROJECT UPDATES

Mr. Caplinger noted several pending projects including Trillium House project, Scoular Company development, the Food Pod designs, a tiny house project, a reroofing request for historic house in Ft. Stevens, and a Pacific Power fiber optics upgrade. There are many questions coming in. He noted a pre application meeting for establishing a coffee kiosk in the Premark center that will be coming to the Planning Commission soon. There was brief discussion about the tiny house project.

Chair Mitchell noted his participation in the new City Planner interviews. He briefly discussed the applicants. This is the first time the City has allowed the Planning Commission to be involved in the interview process.

Commissioner Gaebel noted that as a member of the Economic Development Committee she attended the recent TAC (Tactical Analysis Committee) meeting; attendance was sparse. The

current EOA (Economic Opportunity Analysis) draft will be going out for feedback from all citizens; it must be completed by the end of June. There will be another TAC meeting. She hopes that all Planning Commissioners will provide their input. Brief discussion followed.

There being no further business, Chair Mitchell adjourned the meeting at 7:01 p.m.

**Next Meeting:** June 10, 2021

APPROVED:

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Paul Mitchell, Chair

ATTEST:

\_\_\_\_\_  
Rebecca Sprengeler, Secretary

DRAFT

# 5. SDR-21-1 SUB-21-1



P.O. BOX 250 ■ WARRENTON, OR 97146 -0250 ■ OFFICE: 503.861.2233 ■ FAX: 503.861.2351

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August 3, 2021

To: Warrenton Planning Commission  
From: Will Caplinger, Interim City Planner  
Re: Subdivision Application SUB-21-1 and Site Design Review Application SDR-21-1

## BACKGROUND

On June 23, 2021, Jetty Street, LLC submitted the applications listed above for a 0.59-acre undeveloped property at 444 Jetty Avenue, Tax Lot 81005CD03500, located on the south side of 4<sup>th</sup> Avenue, an undeveloped street. The applicant proposes Jetty View Townhomes, a nine-unit residential subdivision consisting of three standalone townhome buildings, each containing three single-family dwellings on individual lots.

Warrenton Municipal Code (WMC) Section 16.208.070.D.2 requires the review and decision of the two applications to be consolidated according to these provisions:

2. *Consolidation of Proceedings. When an applicant applies for more than one type of land use or development permit (e.g., Type II and III) for the same one or more parcels of land, the proceedings shall be consolidated for review and decision.*
  - a. *If more than one approval authority would be required to decide on the applications if submitted separately, then the decision shall be made by the approval authority having original jurisdiction over one of the applications in the following order of preference: the City Commission, the Planning Commission, or the Community Development Director.*
  - b. *When proceedings are consolidated:*
    - i. *The notice shall identify each application to be decided;*
    - ii. *The decision on a plan map amendment shall precede the decision on a proposed land use district change and other decisions on a proposed development. Similarly, the decision on a zone map amendment shall precede the decision on a proposed development and other actions; and*
    - iii. *Separate findings and decisions shall be made on each application.*

Hence, the Planning Commission is the hearing body and the staff findings and recommendations for each application are separated in the staff report, beginning with the subdivision. Findings that apply to both applications and are identical are cross-referenced.

The applications were deemed complete on July 13, 2021. Initial notices for pending separate Type II and Type III decisions were mailed on July 20, 2021, and a revised notice for a consolidated Type

II/Type III review was mailed on July 29, 2021. A notice for the August 12, 2021 public hearing on the consolidated application by the Planning Commission was published in the Astorian on July 31, 2021. No public comments have yet been received.

Previous staff reports have typically reproduced and focused on questions from the application form and applicant's responses, but the application form questions and responses do not demonstrate compliance with the specific criteria and standards. Applicant's responses are included in the discussions following the Staff Finding as appropriate, and the application form with applicant's responses is attached to the staff report for reference.

The primary purpose and intent of the staff report is to make findings on whether the application satisfies criteria and standards specified in the WMC, in that the City maintains consistency with Comprehensive Plan provisions through the enactment and application of land use regulations. Hence, the staff report adheres to the WMC chapter order listed below.

## **Subdivision Application SUB-21-1**

### **APPLICABLE CRITERIA AND STANDARDS**

*Chapter 16.44 Commercial-Mixed Use (C-MU) District*

*Chapter 16.116 Design Standards*

*Chapter 16.120 Access and Circulation*

*Chapter 16.124 Landscaping, Street Trees, Fences, and Walls*

*Chapter 16.128 Vehicle and Bicycle Parking*

*Chapter 16.136 Public Facilities Standards*

*Chapter 16.140 Stormwater and Surface Water Management*

*Chapter 16.152 Grading, Excavating, and Erosion Control Plans*

*Chapter 16.184 Single-Family Attached, Duplex, and Triplex Design Standards*

*Chapter 16.208 Types of Applications and Review Procedures*

*Chapter 16.216 Land Divisions and Lot Line Adjustments*

**FINDINGS** (Staff Findings are presented immediately following respective criteria. Discussions supporting findings follow at the bullet points)

### **Chapter 16.44 Commercial-Mixed Use (C-MU) District**

#### **16.44.020 Permitted Uses**

A. **Residential.**

2. *Duplex, townhome, triplex, multifamily and rowhouse with garage (attached or detached) in accordance with Chapter 16.180 and subject to standards of Chapter 16.184.*

Staff Finding: This criterion is met.

- The proposed project consists of three structures, each containing three single-family attached townhomes on individual lots. By WMC definition, the 3-unit structures are essentially triplexes, but they have common side walls rather than common end walls:  
*Single-Family Attached (Duplex, Townhome, Triplex, Rowhouse): Two (duplex, townhome) or more (triplex, rowhouse) single-family dwellings with common end walls.*
- The subdivision as proposed is a permitted use.



**16.44.040 Development Standards.**

**A. Density Provisions.**

2. *Minimum lot size, residential uses: same as in Section 16.36.040.*
5. *Minimum lot width at the front building line, residential uses: same as in Section 16.36.040.*
7. *Minimum lot depth, residential uses: same as in Section 16.36.040.*
10. *Lot coverage—Residential uses: Not more than 55% of the lot area shall be covered by buildings...*

Staff Finding: These criteria are met.

- It is relevant to consider that these criteria fall under “Density Provisions.” The applicant also stated that, “...my intent in the narrative was to show that the density allowed to us was actually closer to 15 units; we have elected to go with larger units themselves and less total units, which will be a net total benefit in terms of impacts to the neighborhood and infrastructure. In total, we are developing 40% less than what could be allowed.”
- Section 16.36.040.A.2 requires a minimum lot size of 2500 square feet per unit for a townhome or rowhouse. The minimum lot width is 25 feet per unit, and the minimum lot depth is 70 feet.
- The applicant states that, “each lot will own a 1/9th undivided interest of the common area lot [Tract A], which will be enjoyed by all of the owners. This combined with each legal lot of record results in a total individual ownership of 5,648 to 5,679 square feet, exceeding the minimum lot size of 2,500.” Following this logic, the width of the development, including the common area lot, is 227.17 feet, which averages 25.24 feet of width per individual ownership. Each individual lot exceeds the minimum lot depth of 70 feet.
- The building footprints range between approximately 876 square feet to 886 square feet, well below the 55% maximum coverage standard.
- Since Tract A will not be dedicated to the public or to another entity, but will be under common ownership, applicant’s logic meets the intent of the criteria, if not the letter. The development is consistent with the Development Standards, in that a liberal interpretation of the standards does not conflict with the #1 policy stated in the Purpose section of the C-MU District, to “Use land and urban services efficiently”.

**B. Setback Requirements (Residential and Multiple Uses).**

1. *Minimum front yard setback: 15 feet. (residential); none (multiple uses)*
2. *Minimum side yard setback: 8 feet.*
3. *Minimum corner lot street side yard setback: 8 feet.*
4. *Minimum rear yard setback: 15 feet except accessory structures that meet the criteria of Section 16.280.020 may extend to within five feet of a rear property line.*

Staff Finding: These criteria are met.

- The setbacks meet or exceed the requirements and are indicated on the attached Jetty View Site Plan.

**16.44.050 Other Applicable Standards.**

*E. All uses will comply with access and parking standards in Chapter 16.128 except as may be permitted by conditional use or variance.*

*H. All other applicable Development Code requirements will also be satisfied; and all new sewer and water connections for a proposed development shall comply with all City regulations.*

Staff Finding: These criteria are discussed under other chapters.

- Access and parking standards are addressed under Chapter 16.120 Access and Circulation.
- Sewer and water connections are addressed under Chapter 16.136 Public Facilities Standards.

Chapter 16.116 Design Standards

**16.116.020 Applicability.**

Staff Finding: Detailed findings follow in the chapters as they apply to a subdivision.

- The Applicability section states that, “Some developments, such as major projects requiring land division and/or site design review approval, may require detailed findings demonstrating compliance with each chapter of the Code.”

Chapter 16.120 Access and Circulation

**16.120.020 Vehicular Access and Circulation.**

*B. Applicability. This chapter shall apply to all transportation facilities and improvements (e.g., public and private streets, driveways, multi-use paths, etc.) within the City and to all properties that abut these facilities. Additional standards can be found in Chapter 16.136, Public Facilities Standards.*

*F. Access Options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (a minimum of 10 feet per lane is required). These methods are “options” to the developer/subdivider, unless one method is specifically required under Division 2, or through conditions required by the hearings body.*

- 2. Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., “shared driveway”). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.*

Staff Finding: This criterion is met.

- The preliminary plat indicates a Shared Access Easement on the south side of the development that provides access to Jetty Street. The easement is recorded as Instrument No. 200503426.

*I. Shared Driveways. The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The City shall require shared driveways as a condition of land division, development review, or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:*

- 1. Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. “Stub” means that a driveway or street temporarily ends at the property line, but may be extended in the future as*

*the adjacent parcel develops. “Developable” means that a parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).*

*2. Access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including pathways, at the time of final plat approval (Chapter 16.216) or as a condition of development review or site development approval (Chapter 16.212).*

Staff Finding: These criteria are met.

- 1. The shared access easement on the south side of the development could not be extended in the future because of an existing building on the adjacent parcel to the east. The 4<sup>th</sup> Avenue frontage will be stubbed as illustrated in Jetty Street Improvement Plan (Right-of-Way Improvements, Sheet C6).
- 2. The shared access easement was recorded as Instrument No. 200503426.

*K. Driveway Openings and Widths. Driveway openings (or curb cuts) shall be the minimum width necessary to provide the required number of vehicle travel lanes (10 feet for each travel lane). The following standards (i.e., as measured where the front property line meets the sidewalk or right-of-way) are required to provide adequate site access, minimize surface water runoff, and avoid conflicts between vehicles and pedestrians:*

*3. Multiple-family uses with eight or more dwelling units shall have a minimum driveway width of 24 feet, and a maximum width of 30 feet. These dimensions may be increased if the Community Development Director, City-appointed engineer, or Planning Commission determines that more than two lanes are required based on the number of trips generated or the need for turning lanes.*

*4. Access widths for all other uses shall be based on 10 feet of width for every travel lane, except that driveways providing direct access to parking spaces shall conform to the parking area standards in Chapter 16.128.*

*5. Setback Required. A minimum five-foot setback from the edge of driveway to any property line is required. The setback area shall be kept free of impervious surfaces at all times and shall be vegetated to minimize surface water runoff to adjoining properties.*

Staff Finding: These criteria are partially met and will be completely met by a condition of approval.

- Although the development proposes nine dwelling units, it is not a multiple-family use by definition (4 or more dwelling units per building). Nonetheless, the Road Notes on the attached Jetty Street Improvement Plan (Right-of-Way Improvements, Sheet C6) indicate a driveway cutout width of 25 feet. A condition of approval will require two travel lanes each at 10 feet wide to be established and maintained within the access easement.

Criterion No. 5 cannot be applied since the existing recorded access easement, which also provides access to developed properties on the south side of the block, encumbers and has been developed over the property lines of five adjacent underlying lots in south half of Block 9 of the First Addition to Kindred Park Subdivision.

*L. Fire Access and Circulation. The City of Warrenton adopts the Uniform Fire Code, as amended, including administrative sections and all appendices and all the State of Oregon revisions. All development in the City of Warrenton is required to meet these minimum adopted standards.*

*1. Required Access. A fire equipment access drive that meets City construction standards shall be provided for any portion of an exterior wall of the first story of a building that is*

*located more than 150 feet from an improved public street or approved fire equipment access drive. Plans for fire apparatus access roads shall be submitted to the Warrenton Fire Department and Warrenton City-appointed engineer for review and approval prior to issuance of building permits, grading permits, or start of construction. When fire apparatus access road(s) are required, the road(s) shall be installed and made serviceable prior to and during time of construction. Fire department access roads shall be provided and maintained in accordance with the fire department access requirements of the Uniform Fire Code, as amended.*

*2. Dimensions. Fire apparatus roads shall have an unobstructed width of not less than 20 feet and unobstructed vertical clearance of not less than 13 feet 6 inches. Fire apparatus roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities.*

*3. Turnaround Required. Dead-end fire apparatus roads in excess of 150 feet shall be provided with approved provisions for the turning around of fire apparatus. See Table 16.136.010 for minimum standards.*

Staff Finding: This criterion will be met with a condition of approval requiring the Fire Chief's approval of the alternative hammerhead.

- The applicant has stated that, "4th and Jetty will be the main fire access roads. Hydrants are shown on each. The shared private [access easement] will not be fire access." The Jetty Street Improvement Plan (Right-of-Way Improvements, Sheet C6) shows a hammerhead turnaround at the east end of the 4<sup>th</sup> Avenue frontage that is intended to comply with the "Acceptable Alternative to 120' Hammerhead" illustrated in the Fire Department comments in the attached January 5, 2021 Pre-application Memo.

#### ***16.120.030 Pedestrian Access and Circulation.***

*A. Pedestrian Access and Circulation. To ensure safe, direct and convenient pedestrian circulation, all developments, except single-family detached housing, duplexes, or triplexes on individual lots, shall provide a continuous pedestrian and/or multi-use pathway system.*

Staff Finding: This criterion does not apply.

- The triplexes are on individual lots. The development nevertheless provides public sidewalks along the Jetty Street and 4<sup>th</sup> Avenue frontages, and sidewalks between each block of three townhomes.

#### ***Chapter 16.124 Landscaping, Street Trees, Fences, and Walls***

##### ***16.124.070 New Landscaping.***

*A. Applicability. This section shall apply to all developments within the City of Warrenton.*

*B. Landscaping Plan Required. For every new development in the City of Warrenton requiring a City permit, a landscape plan is required.*

Staff Finding: This criterion will be met by a condition of approval.

- The applicant stated that, "We intend to use native dune and beach grasses as well as trees and shrubs native to this area that are drought tolerant, thus we would propose no irrigations system. Plants will be hand-watered for the first year to get them established and then maintained by a professional landscape group under the management of the HOA."

- Subdivisions typically are not required to provide landscape plans for individual residential lots, in that landscaping is left to the discretion of the owners. A landscape plan will be required, however, for the required street trees and the common areas.

Chapter 16.128 Vehicle and Bicycle Parking

**16.128.030 Vehicle Parking Standards.**

*At the time a structure is erected or enlarged, or the use of a structure or parcel of land is changed within any zone in the City, off-street parking spaces shall be provided in accordance with requirements in this section, chapter, and Code, unless greater requirements are otherwise established. The minimum number of required off-street vehicle parking spaces (i.e., parking that is located in parking lots and garages and not in the street right-of-way) shall be determined based on the standards in Table 16.128.030.A.*

A. General Provisions.

*1. Groups of four or more off-street parking spaces shall be served by a driveway or aisle so that no backing movements or other maneuvering within a street or right-of-way, other than an alley, will be required. Section 16.120.020 contains driveway opening and width standards.*

Staff Finding: This criterion is met.

- The subdivision does not include a parking lot. Table 16.128.030.A requires single-family attached dwellings with three or more bedrooms to provide two parking spaces per unit. Each townhome has four bedrooms and a two-car garage.  
(Garage design and other applicable standards are addressed in the Site Design Review. Driveway standards are addressed above under Chapter 16.120 Access and Circulation, Subsection I.)

Chapter 16.136 Public Facilities Standards

**16.136.010 Purpose and Applicability.**

A. Purpose. *The purpose of this chapter is to provide planning and design standards for public and private transportation facilities and utilities. Streets are the most common public spaces, touching virtually every parcel of land. Therefore, one of the primary purposes of this chapter is to provide standards for attractive and safe streets that can accommodate vehicle traffic from planned growth, and provide a range of transportation options...*

C. Standard Specifications. *The City shall establish standard construction specifications consistent with the design standards of this chapter and application of engineering principles. They are incorporated in this Code by reference.*

D. Conditions of Development Approval. *No development may occur unless required public facilities are in place or guaranteed, in conformance with the provisions of this Code. Improvements required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of development. Findings in the development approval shall indicate how the required improvements are roughly proportional to the impact.*

Staff Finding: These criteria are met or will be met by a condition of approval.

- Although staff anticipates that the applicant will voluntarily accept the improvement requirements, the improvements are nonetheless roughly proportional to the impact of the development, in that

the improvements are confined to the site and the public access areas adjacent to the site and are consistent with the Purpose of the chapter and established standard specifications.

**16.136.020 Transportation Standards.**

A. Development Standards. *No development shall occur unless the lot or parcel abuts a public or private street, other than an alley, for at least 25 feet and is in conformance with the provisions of Chapter 16.120, Access and Circulation, and the following standards are met:*

1. *Streets within or adjacent to a development shall be improved in accordance with the Comprehensive Plan, Transportation System Plan, and the provisions of this chapter;*
2. *Development of new streets (public or private), and additional street width or improvements planned as a portion of an existing street, shall be improved in accordance with this section, and public streets shall be dedicated to the applicable City, County or State jurisdiction;*
3. *New streets and drives connected to a City collector or arterial street shall be paved;*

Staff Finding: These criteria are met or will be met by conditions of approval.

- The lots abut a public street for at least 25 feet, the street improvements shall be improved and dedicated by conditions of approval, and the streets will be paved as indicated in the Jetty Street Improvement Plan.

D. Creation of Access Easements. *The City may approve an access easement established by deed when the easement is necessary to provide for access and circulation in conformance with Chapter 16.120, Access and Circulation. Access easements shall be created and maintained in accordance with the Uniform Fire Code, as amended.*

Staff Finding: This criterion will be met by a condition of approval.

- The existing access easement recorded as Instrument 200503428 was necessary for shared access and conforms with Chapter 16.120 as described above under Section 16.120.020.F.

E. Street Location, Width and Grade. *Except as noted below, the location, width and grade of all streets shall conform to the Transportation System Plan and Comprehensive Plan, as applicable; and an approved street plan or subdivision plat. Street location, width and grade shall be determined in relation to existing and planned streets, topographic conditions, public convenience and safety, and in appropriate relation to the proposed use of the land to be served by such streets:*

1. *Street grades shall be approved by the City-appointed engineer in accordance with the design standards in subsection N of this section;*

Staff Finding: These criteria are met or will be met by a condition of approval.

- The locations of Jetty Street and 4<sup>th</sup> Avenue, as platted public streets, conform to the TSP, the Comprehensive Plan, and the approved First Addition Kindred Park Subdivision plan.
- The street widths and grades as indicated in the Jetty Street Improvement Plan will be subject to review and conditions of approval by a city-appointed engineer.

F. Minimum Rights-of-Way and Street Sections. *Street rights-of-way and improvements shall conform to the design standards in Table 16.136.010.*

Staff Finding: These criteria will be met by conditions of approval.

- The street rights-of-way and improvements as indicated in the Jetty Street Improvement Plan will be subject to review and conditions of approval recommended by the city-appointed engineer.

H. Future Street Plan and Extension of Streets.

1. A future street plan shall be filed by the applicant in conjunction with an application for a subdivision in order to facilitate orderly development of the street system. The plan shall show the pattern of existing and proposed future streets from the boundaries of the proposed land division and shall include other parcels within 500 feet surrounding and adjacent to the proposed land division. The street plan is not binding; rather it is intended to show potential future street extensions with future development.

Staff Finding: This criterion will be met by a condition of approval.

2. Streets shall be extended to the boundary lines of the parcel or tract to be developed, when the Community Development Director or Planning Commission determines that the extension is necessary to give street access to, or permit a satisfactory future division of, adjoining land. The point where the streets temporarily end shall conform to subparagraphs a through c of this paragraph:

- a. These extended streets or street stubs to adjoining properties are not considered to be cul-de-sacs since they are intended to continue as through streets when the adjoining property is developed.
- b. A barricade (e.g., fence, bollards, boulders or similar vehicle barrier) shall be constructed at the end of the street by the subdivider and shall not be removed until authorized by the City or other applicable agency with jurisdiction over the street. The cost of the barricade shall be included in the street construction cost.
- c. Temporary turnarounds (e.g., hammerhead or bulb-shaped configuration) may be constructed for stub streets over 150 feet in length for a time period of up to two years. The developer shall guarantee conversion of the temporary hammerhead into a cul-de-sac that meets the standards of this Code by posting a performance bond that guarantees the required improvement within the time specified.

Staff Finding: These criteria will be met by conditions of approval.

- The Jetty Street Improvement Plan indicates that 4<sup>th</sup> Avenue will be extended beyond the development's eastern boundary line, but it does not indicate a barricade, which will be required as a condition of approval. The hammerhead shown on the Plan is provided for fire apparatus access but may not be able to be replaced by a cul-de-sac, which the code requires to be 96 feet in diameter. The 4<sup>th</sup> Avenue ROW is only 60 feet wide.

J. Sidewalks, Planter Strips, Bicycle Lanes. Sidewalks, planter strips, and bicycle lanes shall be installed in conformance with the standards in Table 16.136.010, applicable provisions of the Transportation System Plan, the Comprehensive Plan, and adopted street plans. Sidewalks are required on both sides of all streets (including streets inside easements), except for alley ways and walking paths. Maintenance of sidewalks, curbs, and planter strips is the continuing obligation of the adjacent property owner.

Staff Finding: These criteria are met or will be met by conditions of approval.

- Sidewalks proposed in the Jetty Street Improvement Plan comply with the standards, but planter strips and bicycle lanes are not included on the plans. Unless alternate planting areas are proposed and approved, planter strips will be required as a condition of approval. Table 16.136010 does not require bicycle lanes along Local Roads, which is the classification of Jetty Street and 4<sup>th</sup> Avenue in the 2019 Transportation System Plan.

*O. Curbs, Curb Cuts, Ramps, and Driveway Approaches. Concrete curbs, curb cuts, wheelchair, bicycle ramps and driveway approaches shall be constructed in accordance with standards specified in Chapter 16.120, Access and Circulation, and City construction standards.*

Staff Finding: These criteria will be met by conditions of approval.

- The curbs, curb cuts, and driveway approaches proposed in the Jetty Street Improvement Plan will be subject to the approval of the City Engineer or City-appointed engineer.

*X. Street Light Standards. Street lights shall be installed in accordance with City standards.*

Staff Finding: This criterion will be met by a condition of approval.

- Street lights are not indicated on the Jetty Street Improvement Plan.

*Y. Street Cross-Sections. The final lift of asphalt or concrete pavement shall be placed on all new constructed public roadways prior to final City acceptance of the roadway and within one year of the conditional acceptance of the roadway unless otherwise approved by the City-appointed engineer.*

Staff Finding: This criterion will be met by a condition of approval.

### Chapter 16.140 Stormwater and Surface Water Management

#### **16.140.020 Developments Must Drain Properly.**

- A. All developments must provide an adequate drainage system to prevent the undue detention or retention of stormwater or surface water on the development site.*
- C. Whenever practicable, the drainage system of a development must coordinate with and connect to the drainage systems or drainage ways on surrounding properties or streets.*
- D. All developments must be constructed and maintained so that adjacent properties are not unreasonably burdened with stormwater runoff as a result of the developments.*

#### **16.140.030 Surface Water Management.**

*All developments must be constructed and maintained so that impacts to natural and man-made drainage ways do not unreasonably burdened upstream or downstream properties with surface water flooding as a result of the developments.*

Staff Finding: These criteria will be met by a condition of approval.

- The applicant stated that, “Water from the roadways will be collected and transmitted to the existing drainage system for disposal to Hammond Boat Basin. Water runoff from the buildings and private drive will be collected and disposed through subsurface infiltration. Overflow from the infiltration system will be directed into the roadway drainage system.



- The Jetty Street Improvement Plan (Sheets C1, C3, C4, C9, & C10) contain the drainage design, components and associated notes by Morgan Civil Engineering, Inc., which will be subject to approval by the City Engineer or city-appointed engineer.

**16.140.040 Erosion and Sediment Control.**

- B. Erosion and sediment control plans are required by the City as a component of the site plan for all plats and all projects which require site plan review. Erosion control plans must be designed to the specifications as outlined in this chapter.*
- C. Development of the land may not begin (and no building permits may be issued) until the City-appointed engineer approves the erosion control plan.*

Staff Finding: These criteria will be met by conditions of approval.

- The application does not contain an erosion and sediment control plan.

**16.140.050 Stormwater System Design.**

- A. Storm sewers constructed within the street will be sized by the developer’s engineer and will consider all potential runoff requirements within the site and upstream of the site.*
  - 1. The storm sewer will be sized for a 100-year design recurrence criteria for storm drainage facilities.*
  - 2. The minimum size of storm sewers is eight inches in diameter.*
  - 3. Spacing of catch basins along the street must conform to published engineering recommendations, which consider profile of the street and street width.*

Staff Finding: These criteria will be met by a condition of approval.

- The Jetty Street Improvement Plan (Sheets C1, C3, C4, C9, & C10) contain the drainage design, components and associated notes by Morgan Civil Engineering, Inc., which will be subject to approval by the City Engineer or city-appointed engineer.

Chapter 16.152 Grading, Excavating, and Erosion Control Plans

**16.152.060 Grading Permit Requirements.**

- A. Permits Required. Except as exempted in Section 16.152.040, no person shall do any grading without first obtaining a grading permit from the building official. A separate permit shall be obtained for each site, and may cover both excavations and fills.*
- E. Regular Grading Requirements. Each application for a grading permit shall be accompanied by a plan in sufficient clarity to indicate the nature and extent of the work.*

Staff Finding: These criteria will be met by conditions of approval.

- The application does not contain plans for grading, excavation and erosion control plans.

Chapter 16.184 Single-Family Attached, Duplex, and Triplex Design Standards

**16.184.030 Design Standards.**

- A. Building Mass Supplemental Standard. The maximum number and width of consecutively attached townhomes (i.e., with attached walls at property lines) shall not exceed eight units or 200 feet (from end-wall to end-wall) whichever is less.*

*B. Access Standards. Townhomes, duplexes and triplexes receiving access directly from a public or private street (as opposed to alley access) shall comply with the following standards, in order to minimize interruption of adjacent sidewalks by driveway entrances, slow traffic, improve appearance of the streets, and minimize paved surfaces for better stormwater management.*

*1. The maximum allowable driveway width facing the street is 10 to 24 feet per dwelling unit. The maximum combined garage width per unit is 50% of the total building width. For example, a 24-foot wide unit may have one 12-foot wide garage.*

*2. Two adjacent garages shall share one driveway when individual driveways would be separated by less than 20 feet (i.e., the width of one on-street parking space). When a driveway serves more than one lot, the developer shall record an access and maintenance agreement/easement to benefit each lot, prior to building permit issuance.*

*C. Common Areas. Common areas (e.g., landscaping in private tracts, shared driveways, private alleys, and similar uses) shall be maintained by a homeowners association or other legal entity. A homeowners association may also be responsible for exterior building maintenance. A copy of any applicable covenants, restrictions, and conditions shall be recorded and provided to the City prior to building permit approval.*

Staff Finding: These criteria are met except for C, which will be met be a condition of approval.

- A. The number of attached townhomes in the structures is three, and the width of each structure is less than 66 feet.
- B. N/A. The townhomes receive access directly from the rear easement.
- C. The applicant has stated that a homeowners association will be responsible for maintenance of the common area landscape.

#### Chapter 16.208 Types of Applications and Review Procedures

##### **16.208.020 Description of Permit/Decision-Making Procedures.**

*C. Type III Procedure (Quasi-Judicial). Type III decisions are made by:*

*1. The Planning Commission after the mailing of a public notice and publication of notice of the hearing.*

Staff Finding: These criteria are met.

- The mailing and publication of public notices of the hearing are described on Page 1.

##### **16.208.050 Type III Procedure (Quasi-Judicial).**

*A. Pre-application Conference. A pre-application conference is required for all Type III applications. The requirements and procedures for a pre-application conference are described in Section 16.208.070.*

Staff Finding: This criterion is met.

- A pre-application conference was held on December 16, 2020. The pre-application conference memo is attached for reference.

*B. Application Requirements.*

*2. Content. Type III applications shall:*

*e. Include an impact study for all Type III applications. The impact study shall quantify/assess the effect of the development on public facilities and services. The study*

*shall address, at a minimum, the transportation system, including pedestrian ways and bikeways, the drainage system, the parks system, the water system, the sewer system, and the noise impacts of the development. For each public facility system and type of impact, the study shall propose improvements necessary to meet City standards and to minimize the impact of the development on the public at large, public facilities systems, and affected private property users.*

Staff Finding: This criterion will be met by a condition of approval.

- Although the application proposed detailed improvements intended to meet City standards and to minimize the impact of the development as describe above, the improvements were not supported by an impact study. Since this approval is only for the preliminary plat, the study may be provided prior to the approval of the proposed improvements and the final plat.

### Chapter 16.216 Land Divisions and Lot Line Adjustments

#### **16.216.020 General Requirements.**

*A. Subdivision and Partition Approval Through Two-step Process. Applications for subdivision or partition approval shall be processed through a two-step process: the preliminary plat and the final plat.*

*1. The preliminary plat shall be approved before the final plat can be submitted for approval consideration.*

Staff Finding: This criterion will be met by a condition of approval.

- Application SUB-21-1 is only for approval of the subdivision design elements and the preliminary plat.

*G. Need for Adequate Utilities. Shall comply with Chapters 16.136 and 16.216.*

Staff Finding: The associated criteria are addressed in Findings under Chapter 16.136 above and Findings within this section on Chapter 16.216.

*H. Need for Adequate Drainage. All subdivision and partition proposals shall comply with Chapter 16.140.*

Staff Finding: The associated criteria are addressed in Chapter 16.140 above.

*I. Open space shall provide opportunities for active and/or passive recreation and may include existing stands of trees, resource areas, and storm water facilities as outlined in this section. Active open space shall allow human activities including recreational and social opportunities such as play fields, playgrounds, swimming pools, plazas and other recreational facilities. Open space may also be passive and include human activities limited to walking, running, and cycling, seating areas and wildlife viewing or natural areas such as a wetland.*

*1. A proposed subdivision preliminary plat with 20 lots or more shall provide baseline active open space of an area equal to at least five percent of the subject site.*

Staff Finding: This criterion does not apply.

- The requirement for active open space does not apply to a nine-lot subdivision. The proposed subdivision involves passive open space that will not have the potential for active open space human activities as described above.

8. *An association of owners or tenants, created as a non-profit corporation under the laws of the state (ORS 94.572) which shall adopt and impose articles of incorporation and bylaws and adopt and impose a declaration of covenants and restrictions on the common open space that is acceptable to the City Attorney as providing for the continuing care of the space. Any subsequent changes to such CC&Rs regarding the active open space must be approved by the City Attorney. Such an association shall be formed and continued for the purpose of maintaining the common open space and shall provide for City intervention and the imposition of a lien against the entire subdivision development in the event the association fails to perform as required.*

Staff Finding: These criteria will be met by conditions of approval.

**16.216.040 Preliminary Plat Submission Requirements.**

A. General Submission Requirements. *For partitions (three lots or fewer), the applicant shall submit an application containing all of the information required under Section 16.208.040. For subdivisions (greater than three lots), the application shall contain all of the information required under Section 16.208.050.*

B. Preliminary Plat Information. *In addition to the general information described in subsection A of this section, the preliminary plat application shall consist of drawings and supplementary written material (i.e., on forms and/or in a written narrative) adequate to provide the following information:*

1. General Information.

- a. *Name of subdivision (not required for partitions). This name must not duplicate the name of another subdivision in the county in which it is located (please check with County Surveyor);*
- b. *Date, north arrow, and scale of drawing;*
- c. *Location of the development sufficient to define its location in the City, boundaries, and a legal description of the site;*
- d. *Names, addresses and telephone numbers of the owners, designer, and engineer or surveyor if any, and the date of the survey; and*
- e. *Identify the drawing as a “preliminary plat.”*

2. Site Analysis. (applicable elements)

- a. Streets. *Location, name, present condition (i.e., paved, gravel, unimproved, etc.), and width of all streets, alleys and rights-of-way on and abutting the site;*
- b. Easements. *Width, location and purpose of all existing easements of record on and abutting the site;*
- c. Utilities. *Location and identity of all utilities on and abutting the site. If water mains and sewers are not on or abutting the site, indicate the direction and distance to the nearest ones;*
- d. *Ground elevations shown by contour lines at five-foot vertical intervals for ground slopes exceeding 10% and at two-foot intervals for ground slopes of less than 10%. Such ground elevations shall be related to some established bench mark or other datum*

- approved by the County Surveyor. This requirement may be waived for partitions when grades, on average, are less than two percent;*
- e. The location and elevation of the closest benchmark(s) within or adjacent to the site (i.e., for surveying purposes);*
  - h. Site features, including existing structures, pavement, drainage ways, canals and ditches;*
  - j. North arrow, scale, name and address of owner;*
  - k. Name and address of surveyor or engineer; and*
  - l. Other information, as deemed appropriate by the Community Development Director. The City may require studies or exhibits prepared by qualified professionals to address specific site features and code requirements.*
3. *Proposed Improvements.*
- a. Public and private streets, tracts, driveways, open space and park land; location, names, right-of-way dimensions, approximate radius of street curves; and approximate finished street center line grades. All streets and tracts which are being held for private use and all reservations and restrictions relating to such private tracts shall be identified;*
  - b. Easements. Location, width and purpose of all easements;*
  - c. Lots and private tracts (e.g., private open space, common area, or street): approximate dimensions, area calculation (e.g., in square feet), and identification numbers for all lots and tracts;*
  - d. Proposed uses of the property, including all areas proposed to be dedicated to the public or reserved as open space for the purpose of surface water management, recreation, or other use;*
  - e. Proposed improvements, as required by Division 3 (Design Standards), and timing of improvements (e.g., in the case of streets, sidewalks, street trees, utilities, etc.);*
  - f. The proposed source of domestic water;*
  - g. The proposed method of sewage disposal and method of surface water drainage (shall comply with Chapter 16.140). Water quality treatment areas, if required;*
  - h. The approximate location and identity of other utilities, including the locations of street lighting fixtures;*

Staff Finding: These criteria are met.

- The required information may be found on the Preliminary plat and supplementary written materials.

### CONCLUSION, RECOMMENDATION, AND CONDITIONS OF APPROVAL

The findings above demonstrate that the proposed design of the Jetty View preliminary plat is generally consistent with the CMU zoning district development standards, the design standards of the development code, and the subdivision code. Staff recommends the Planning Commission approve the subdivision/preliminary plat application subject to the following conditions:

Within 30 days of conditional approval of the preliminary plat:

1. Reword the title of the preliminary plat to read, Preliminary Plat.
2. Delineate two travel lanes on the preliminary plat, each at 10 feet wide to be established and maintained within the access easement.
3. Obtain and provide the City Fire Chief's written approval of the alternative hammerhead proposed at the east end of the 4<sup>th</sup> Avenue ROW.
4. Provide a landscape plan of street trees and the common areas as required by and compliant with Sections 16.124.070 and 16.124.080. The plan shall include planter strips as required by Section 16.136.020.J and Table 16.136.010.
5. Indicate locations of street lights on the site plan as required by Section 16.136.020.X.

Prior to issuance of grading or building permits:

6. Provide to and receive approval from Public Works of a grading plan as required by Section 16.152.060.E.
7. Provide to and receive approval from Public Works of an erosion and sediment control plan as required by Section 16.140.040.
8. The project contractor shall secure a permit for work in the public right of way in accordance with Warrenton Municipal Code.
9. Provide a Future Street Plan as required by Section 16.136.020.
10. Ensure that all required public facilities are in place or are guaranteed as required by Section 136.010.D.
11. Obtain the City Attorney's approval of the Homeowners Association's Covenants, Conditions & Restrictions ensuring maintenance of the common areas, and submit a copy of the recorded document to the Community Development Department, as required by Sections 16.184.030.C and 16.216.020.I.8.

General conditions:

12. Prior to approval of construction plans, the developer will waive any and all rights to remonstrate against the formation of a Local Improvement District (LID) for the purpose of making sanitary sewer, storm sewer, water or street improvements that benefit the property and assessing the cost to the benefited properties pursuant to the City's regulations in effect at the time of such improvement.
13. The developer shall submit a final Stormwater Report with the final construction documents.
14. The developer shall agree to make all necessary offsite stormwater improvements if downstream deficiencies are created by the development of this property.
15. Any utility easements shall be dedicated to City of Warrenton.
16. Developer shall provide as-built drawings and certification by a registered engineer in accordance with adopted criteria for all improvements, prior to acceptance by the City.
17. Developer shall comply with the comments and conditions contained in the Pre-Application Memo of January 1, 2021.
18. Developer shall comply with the General Notes and Comments provided by the Public Works Director in the *Jetty View Townhomes Planning Review Comments* dated August 5, 2021, attached to this staff report and incorporated in the Conditions of Approval by reference.

**Suggested motion:** Based on the findings and conclusions of the August 3, 2021 staff report, I move to approve SUB-21-1 Preliminary Plat Application for Jetty View Subdivision subject to the conditions of approval included in the staff report.

### Attachments

- Subdivision Application
- Project Narrative
- Jetty View Preliminary Plat
- Jetty Street Improvement Plan
- Site Plan
- Floor Plans (3 pp.)
- Shared Access Easement Inst. No. 200503426
- Will Serve Notices
- Pre-Application Memo
- Mailed Public Hearing Notice
- Published Public Hearing Notice
- Jetty View Townhomes Planning Review Comments dated August 5, 2021

## **Site Design Review Application SDR-21-1**

### **APPLICABLE CRITERIA AND STANDARDS**

*Chapter 16.44 Commercial-Mixed Use (C-MU) District*

*Chapter 16.116 Design Standards*

*Chapter 16.120 Access and Circulation*

*Chapter 16.124 Landscaping, Street Trees, Fences, and Walls*

*Chapter 16.128 Vehicle and Bicycle Parking*

*Chapter 16.136 Public Facilities Standards*

*Chapter 16.140 Stormwater and Surface Water Management*

*Chapter 16.144 Signs*

*Chapter 16.152 Grading, Excavating, and Erosion Control Plans*

*Chapter 16.184 Single-Family Attached, Duplex, and Triplex Design Standards*

*Chapter 16.208 Types of Applications and Review Procedures*

*Chapter 16.212 Site Design Review*

The Site Design Review Criteria and Standards are in most instances identical to those of the Subdivision review, which is why past planners have consolidated two or more applications into one review, in spite of WMC provisions requiring separate reviews and decisions. The staff report makes findings below, but as appropriate, the findings refer to the supporting discussions that have already been reviewed in the Subdivision portion.

### **FINDINGS**

*Chapter 16.44 Commercial-Mixed Use (C-MU) District*

#### **16.44.020 Permitted Uses**

A. Residential.

2. *Duplex, townhome, triplex, multifamily and rowhouse with garage (attached or detached) in accordance with Chapter 16.180 and subject to standards of Chapter 16.184.*

Staff Finding: This criterion is met.

- See discussion points on Page 2.

#### **16.44.040 Development Standards.**

A. Density Provisions.

2. *Minimum lot size, residential uses: same as in Section 16.36.040.*
5. *Minimum lot width at the front building line, residential uses: same as in Section 16.36.040.*
7. *Minimum lot depth, residential uses: same as in Section 16.36.040.*
8. *Maximum building height: commercial, 45 feet; residential, 40 feet.*
10. *Lot coverage—Residential uses: Not more than 55% of the lot area shall be covered by buildings...*

Staff Finding: These criteria are met.

- See discussion points on Page 3.
- The discussion points in the subdivision review did not concern maximum building height. The height of the proposed townhome structures is approximately 35 feet to the roof peak.

#### **16.44.050 Other Applicable Standards.**



*E. All uses will comply with access and parking standards in Chapter 16.128 except as may be permitted by conditional use or variance.*

*H. All other applicable Development Code requirements will also be satisfied; and all new sewer and water connections for a proposed development shall comply with all City regulations.*

Staff Finding: These criteria are discussed under other chapters.

- See discussion points on Page 3.

### Chapter 16.116 Design Standards

#### **16.116.020 Applicability.**

Staff Finding: Detailed findings follow in the chapters as they apply to a site design review.

### Chapter 16.120 Access and Circulation

#### **16.120.020 Vehicular Access and Circulation.**

*B. Applicability. This chapter shall apply to all transportation facilities and improvements (e.g., public and private streets, driveways, multi-use paths, etc.) within the City and to all properties that abut these facilities. Additional standards can be found in Chapter 16.136, Public Facilities Standards.*

*F. Access Options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (a minimum of 10 feet per lane is required). These methods are “options” to the developer/subdivider, unless one method is specifically required under Division 2, or through conditions required by the hearings body.*

- 2. Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., “shared driveway”). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.*

Staff Finding: This criterion is met.

- See discussion point on Page 4.

*I. Shared Driveways. The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The City shall require shared driveways as a condition of land division, development review, or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:*

- 1. Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. “Stub” means that a driveway or street temporarily ends at the property line, but may be extended in the future as the adjacent parcel develops. “Developable” means that a parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).*
- 2. Access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including pathways, at the time of final plat approval (Chapter 16.216) or as a condition of development review or site development approval (Chapter 16.212).*

Staff Finding: These criteria are met.

- See discussion point on Page 4.

*K. Driveway Openings and Widths. Driveway openings (or curb cuts) shall be the minimum width necessary to provide the required number of vehicle travel lanes (10 feet for each travel lane). The following standards (i.e., as measured where the front property line meets the sidewalk or right-of-way) are required to provide adequate site access, minimize surface water runoff, and avoid conflicts between vehicles and pedestrians:*

- 3. Multiple-family uses with eight or more dwelling units shall have a minimum driveway width of 24 feet, and a maximum width of 30 feet. These dimensions may be increased if the Community Development Director, City-appointed engineer, or Planning Commission determines that more than two lanes are required based on the number of trips generated or the need for turning lanes.*
- 4. Access widths for all other uses shall be based on 10 feet of width for every travel lane, except that driveways providing direct access to parking spaces shall conform to the parking area standards in Chapter 16.128.*
- 5. Setback Required. A minimum five-foot setback from the edge of driveway to any property line is required. The setback area shall be kept free of impervious surfaces at all times and shall be vegetated to minimize surface water runoff to adjoining properties.*

Staff Finding: These criteria are partially met and will be completely met by a condition of approval.

- See discussion point on Page 5.

*L. Fire Access and Circulation. The City of Warrenton adopts the Uniform Fire Code, as amended, including administrative sections and all appendices and all the State of Oregon revisions. All development in the City of Warrenton is required to meet these minimum adopted standards.*

- 1. Required Access. A fire equipment access drive that meets City construction standards shall be provided for any portion of an exterior wall of the first story of a building that is located more than 150 feet from an improved public street or approved fire equipment access drive. Plans for fire apparatus access roads shall be submitted to the Warrenton Fire Department and Warrenton City-appointed engineer for review and approval prior to issuance of building permits, grading permits, or start of construction. When fire apparatus access road(s) are required, the road(s) shall be installed and made serviceable prior to and during time of construction. Fire department access roads shall be provided and maintained in accordance with the fire department access requirements of the Uniform Fire Code, as amended.*
- 2. Dimensions. Fire apparatus roads shall have an unobstructed width of not less than 20 feet and unobstructed vertical clearance of not less than 13 feet 6 inches. Fire apparatus roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities.*
- 3. Turnaround Required. Dead-end fire apparatus roads in excess of 150 feet shall be provided with approved provisions for the turning around of fire apparatus. See Table 16.136.010 for minimum standards.*

Staff Finding: This criterion will be met with a condition of approval requiring the Fire Chief's approval of the alternative hammerhead.

- See discussion point on Page 6

**16.120.030 Pedestrian Access and Circulation.**

A. Pedestrian Access and Circulation. *To ensure safe, direct and convenient pedestrian circulation, all developments, except single-family detached housing, duplexes, or triplexes on individual lots, shall provide a continuous pedestrian and/or multi-use pathway system.*

Staff Finding: This criterion does not apply.

- See discussion point on Page 6.

Chapter 16.124 Landscaping, Street Trees, Fences, and Walls

**16.124.070 New Landscaping.**

A. Applicability. *This section shall apply to all developments within the City of Warrenton.*

B. Landscaping Plan Required. *For every new development in the City of Warrenton requiring a City permit, a landscape plan is required.*

Staff Finding: This criterion will be met by a condition of approval.

- See discussion points on Page 6.

Chapter 16.128 Vehicle and Bicycle Parking

**16.128.030 Vehicle Parking Standards.**

*At the time a structure is erected or enlarged, or the use of a structure or parcel of land is changed within any zone in the City, off-street parking spaces shall be provided in accordance with requirements in this section, chapter, and Code, unless greater requirements are otherwise established. The minimum number of required off-street vehicle parking spaces (i.e., parking that is located in parking lots and garages and not in the street right-of-way) shall be determined based on the standards in Table 16.128.030.A.*

A. General Provisions.

1. *Groups of four or more off-street parking spaces shall be served by a driveway or aisle so that no backing movements or other maneuvering within a street or right-of-way, other than an alley, will be required. Section 16.120.020 contains driveway opening and width standards.*

Staff Finding: This criterion is met.

- See discussion point on Page 7.

**16.128.040 Bicycle Parking Requirements.**

A. *All uses shall provide bicycle parking in conformance with the following standards which are evaluated during development review or site design review.*

B. Number of Bicycle Parking Spaces. *The minimum number of bicycle parking spaces required for uses is provided in Table 16.128.040.A.*

Staff Finding: This criterion does not apply, subject to the interpretation of the Planning Commission.

- Subsection D describes, *Exemptions.* *This section does not apply to single-family and duplex housing.* Since the exemption does not distinguish between detached and attached single-family housing, staff's interpretation is that the exemptions applies to townhomes as well.

## Chapter 16.136 Public Facilities Standards

### **16.136.010 Purpose and Applicability.**

A. Purpose. *The purpose of this chapter is to provide planning and design standards for public and private transportation facilities and utilities. Streets are the most common public spaces, touching virtually every parcel of land. Therefore, one of the primary purposes of this chapter is to provide standards for attractive and safe streets that can accommodate vehicle traffic from planned growth, and provide a range of transportation options...*

C. Standard Specifications. *The City shall establish standard construction specifications consistent with the design standards of this chapter and application of engineering principles. They are incorporated in this Code by reference.*

D. Conditions of Development Approval. *No development may occur unless required public facilities are in place or guaranteed, in conformance with the provisions of this Code. Improvements required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of development. Findings in the development approval shall indicate how the required improvements are roughly proportional to the impact.*

Staff Finding: These criteria are met or will be met by a condition of approval.

- See discussion point on Page 7.

### **16.136.020 Transportation Standards.**

A. Development Standards. *No development shall occur unless the lot or parcel abuts a public or private street, other than an alley, for at least 25 feet and is in conformance with the provisions of Chapter 16.120, Access and Circulation, and the following standards are met:*

1. *Streets within or adjacent to a development shall be improved in accordance with the Comprehensive Plan, Transportation System Plan, and the provisions of this chapter;*
2. *Development of new streets (public or private), and additional street width or improvements planned as a portion of an existing street, shall be improved in accordance with this section, and public streets shall be dedicated to the applicable City, County or State jurisdiction;*
3. *New streets and drives connected to a City collector or arterial street shall be paved;*

Staff Finding: These criteria are met or will be met by conditions of approval.

- See discussion point on Page 8.

D. Creation of Access Easements. *The City may approve an access easement established by deed when the easement is necessary to provide for access and circulation in conformance with Chapter 16.120, Access and Circulation. Access easements shall be created and maintained in accordance with the Uniform Fire Code, as amended.*

Staff Finding: This criterion will be met by a condition of approval.

- See discussion point on Page 8.

E. Street Location, Width and Grade. *Except as noted below, the location, width and grade of all streets shall conform to the Transportation System Plan and Comprehensive Plan, as applicable; and an approved street plan or subdivision plat. Street location, width and grade shall be*

*determined in relation to existing and planned streets, topographic conditions, public convenience and safety, and in appropriate relation to the proposed use of the land to be served by such streets:*

*1. Street grades shall be approved by the City-appointed engineer in accordance with the design standards in subsection N of this section;*

Staff Finding: These criteria are met or will be met by a condition of approval.

- See discussion points on Page 8.

*F. Minimum Rights-of-Way and Street Sections. Street rights-of-way and improvements shall conform to the design standards in Table 16.136.010.*

Staff Finding: These criteria will be met by conditions of approval.

- See discussion point on Page 8.

*H. Future Street Plan and Extension of Streets.*

*1. A future street plan shall be filed by the applicant in conjunction with an application for a subdivision in order to facilitate orderly development of the street system. The plan shall show the pattern of existing and proposed future streets from the boundaries of the proposed land division and shall include other parcels within 500 feet surrounding and adjacent to the proposed land division. The street plan is not binding; rather it is intended to show potential future street extensions with future development.*

Staff Finding: This criterion will be met by a condition of approval.

*2. Streets shall be extended to the boundary lines of the parcel or tract to be developed, when the Community Development Director or Planning Commission determines that the extension is necessary to give street access to, or permit a satisfactory future division of, adjoining land. The point where the streets temporarily end shall conform to subparagraphs a through c of this paragraph:*

*a. These extended streets or street stubs to adjoining properties are not considered to be cul-de-sacs since they are intended to continue as through streets when the adjoining property is developed.*

*b. A barricade (e.g., fence, bollards, boulders or similar vehicle barrier) shall be constructed at the end of the street by the subdivider and shall not be removed until authorized by the City or other applicable agency with jurisdiction over the street. The cost of the barricade shall be included in the street construction cost.*

*c. Temporary turnarounds (e.g., hammerhead or bulb-shaped configuration) may be constructed for stub streets over 150 feet in length for a time period of up to two years. The developer shall guarantee conversion of the temporary hammerhead into a cul-de-sac that meets the standards of this Code by posting a performance bond that guarantees the required improvement within the time specified.*

Staff Finding: These criteria will be met by conditions of approval.

- See discussion point on Page 9.

*J. Sidewalks, Planter Strips, Bicycle Lanes. Sidewalks, planter strips, and bicycle lanes shall be installed in conformance with the standards in Table 16.136.010, applicable provisions of the Transportation System Plan, the Comprehensive Plan, and adopted street plans. Sidewalks are required on both sides of all streets (including streets inside easements), except for alley ways and walking paths. Maintenance of sidewalks, curbs, and planter strips is the continuing obligation of the adjacent property owner.*

Staff Finding: These criteria are met or will be met by conditions of approval.

- See discussion point on Page 9.

*O. Curbs, Curb Cuts, Ramps, and Driveway Approaches. Concrete curbs, curb cuts, wheelchair, bicycle ramps and driveway approaches shall be constructed in accordance with standards specified in Chapter 16.120, Access and Circulation, and City construction standards.*

Staff Finding: These criteria will be met by conditions of approval.

- See discussion point on Page 9.

*X. Street Light Standards. Street lights shall be installed in accordance with City standards.*

Staff Finding: This criterion will be met by a condition of approval.

*Y. Street Cross-Sections. The final lift of asphalt or concrete pavement shall be placed on all new constructed public roadways prior to final City acceptance of the roadway and within one year of the conditional acceptance of the roadway unless otherwise approved by the City-appointed engineer.*

Staff Finding: This criterion will be met by a condition of approval.

#### **Chapter 16.140 Stormwater and Surface Water Management**

##### **16.140.020 Developments Must Drain Properly.**

- A. All developments must provide an adequate drainage system to prevent the undue detention or retention of stormwater or surface water on the development site.*
- C. Whenever practicable, the drainage system of a development must coordinate with and connect to the drainage systems or drainage ways on surrounding properties or streets.*
- D. All developments must be constructed and maintained so that adjacent properties are not unreasonably burdened with stormwater runoff as a result of the developments.*

##### **16.140.030 Surface Water Management.**

*All developments must be constructed and maintained so that impacts to natural and man-made drainage ways do not unreasonably burdened upstream or downstream properties with surface water flooding as a result of the developments.*

Staff Finding: These criteria will be met by a condition of approval.

- See discussion points on Page 10.

##### **16.140.040 Erosion and Sediment Control.**

*B. Erosion and sediment control plans are required by the City as a component of the site plan for all plats and all projects which require site plan review. Erosion control plans must be designed to the specifications as outlined in this chapter.*

C. *Development of the land may not begin (and no building permits may be issued) until the City-appointed engineer approves the erosion control plan.*

Staff Finding: These criteria will be met by conditions of approval.

- The application does not contain an erosion and sediment control plan.

**16.140.050 Stormwater System Design.**

A. *Storm sewers constructed within the street will be sized by the developer's engineer and will consider all potential runoff requirements within the site and upstream of the site.*

1. *The storm sewer will be sized for a 100-year design recurrence criteria for storm drainage facilities.*
2. *The minimum size of storm sewers is eight inches in diameter.*
3. *Spacing of catch basins along the street must conform to published engineering recommendations, which consider profile of the street and street width.*

Staff Finding: These criteria will be met by a condition of approval.

- See discussion point on Page 11.

Chapter 16.152 Grading, Excavating, and Erosion Control Plans

**16.152.060 Grading Permit Requirements.**

A. Permits Required. *Except as exempted in Section 16.152.040, no person shall do any grading without first obtaining a grading permit from the building official. A separate permit shall be obtained for each site, and may cover both excavations and fills.*

E. Regular Grading Requirements. *Each application for a grading permit shall be accompanied by a plan in sufficient clarity to indicate the nature and extent of the work.*

Staff Finding: These criteria will be met by conditions of approval.

- The application does not contain plans for grading, excavation and erosion control plans.

Chapter 16.184 Single-Family Attached, Duplex, and Triplex Design Standards

**16.184.030 Design Standards.**

A. Building Mass Supplemental Standard. *The maximum number and width of consecutively attached townhomes (i.e., with attached walls at property lines) shall not exceed eight units or 200 feet (from end-wall to end-wall) whichever is less.*

B. Access Standards. *Townhomes, duplexes and triplexes receiving access directly from a public or private street (as opposed to alley access) shall comply with the following standards, in order to minimize interruption of adjacent sidewalks by driveway entrances, slow traffic, improve appearance of the streets, and minimize paved surfaces for better stormwater management.*

1. *The maximum allowable driveway width facing the street is 10 to 24 feet per dwelling unit. The maximum combined garage width per unit is 50% of the total building width. For example, a 24-foot wide unit may have one 12-foot wide garage.*
2. *Two adjacent garages shall share one driveway when individual driveways would be separated by less than 20 feet (i.e., the width of one on-street parking space). When a driveway serves more than one lot, the developer shall record an access and maintenance agreement/easement to benefit each lot, prior to building permit issuance.*

C. Common Areas. Common areas (e.g., landscaping in private tracts, shared driveways, private alleys, and similar uses) shall be maintained by a homeowners association or other legal entity. A homeowners association may also be responsible for exterior building maintenance. A copy of any applicable covenants, restrictions, and conditions shall be recorded and provided to the City prior to building permit approval.

Staff Finding: These criteria are met except for C, which will be met be a condition of approval.

- See discussion points on Page 11.

#### Chapter 16.208 Types of Applications and Review Procedures

##### **16.208.020 Description of Permit/Decision-Making Procedures.**

C. Type III Procedure (Quasi-Judicial). Type III decisions are made by:

1. *The Planning Commission after the mailing of a public notice and publication of notice of the hearing.*

Staff Finding: These criteria are met.

- The mailing and publication of public notices of the hearing are described on Page 1.

##### **16.208.050 Type III Procedure (Quasi-Judicial).**

A. Pre-application Conference. A pre-application conference is required for all Type III applications. The requirements and procedures for a pre-application conference are described in Section 16.208.070.

Staff Finding: This criterion is met.

- A pre-application conference was held on December 16, 2020. The pre-application conference memo is attached for reference.

B. Application Requirements.

2. Content. Type III applications shall:

*e. Include an impact study for all Type III applications. The impact study shall quantify/assess the effect of the development on public facilities and services. The study shall address, at a minimum, the transportation system, including pedestrian ways and bikeways, the drainage system, the parks system, the water system, the sewer system, and the noise impacts of the development. For each public facility system and type of impact, the study shall propose improvements necessary to meet City standards and to minimize the impact of the development on the public at large, public facilities systems, and affected private property users.*

Staff Finding: This criterion will be met by a condition of approval.

- See discussion point on Page 12.

#### Chapter 16.212 Site Design Review

##### **16.212.040 Site Design Review.**

A. Application Review Procedure.

1. Site Design Review—Determination of Type II and Type III Applications. Applications for site design review shall be subject to Type II or Type III review, based on the following criteria:



a. Residential developments with between five and nine dwelling units shall be reviewed as a Type II application, except when development review is allowed under Section 16.212.020. Residential developments with greater than nine units shall be reviewed as a Type III application.

Staff Finding: This criterion is met.

- Although a nine-unit residential development requires a Type II administrative review, (WMC) Section 16.208.070.D.2 requires the review and decision of the two applications to be consolidated as discussed on Page 1.

B. Application Submission Requirements. All of the following information (subsections (B)(1) through (7) of this section) is required for site design review application submittal:

1. Proposed Site Plan. The site plan shall contain the following information:
  - a. The proposed development site, including boundaries, dimensions, and gross area.
  - b. Natural land features identified which are proposed to be removed or modified by the development, including modifications to existing drainage patterns.
  - c. The location and dimensions of all proposed public and private streets, drives, rights-of-way, and easements.
  - d. The location and dimensions of all existing and proposed structures, utilities, pavement and other improvements on the site. Setback dimensions for all existing and proposed buildings shall be provided on the site plan.
  - e. The location and dimensions of entrances and exits to the site for vehicular, pedestrian, and bicycle access.
  - f. The location and dimensions of all parking and vehicle circulation areas (show striping for parking stalls and wheel stops, as applicable), and proposed paving materials.
  - g. Pedestrian and bicycle circulation areas, including sidewalks, internal pathways, pathway connections to adjacent properties, and any bicycle lanes or trails.
  - h. Loading and service areas for waste disposal, loading and delivery.
  - i. Outdoor recreation spaces, common areas, plazas, outdoor seating, street furniture, and similar improvements.
  - j. Location, type, and height of outdoor lighting.
  - k. Location of mail boxes, if known.
  - l. Locations, sizes, and types of signs (shall comply with Chapter 16.144).
  - m. The Community Development Director may require studies or exhibits prepared by qualified professionals to address specific site features (e.g., traffic, noise, environmental features, site drainage, natural hazards, etc.).
  - n. The applicant's entire tax lot and the surrounding property to a distance sufficient to determine the location of the development in the City, and the relationship between the proposed development site and adjacent property and development. The property boundaries, dimensions and gross area shall be identified.
  - o. Identification of slopes greater than 10%.

- p. *The location, condition (paved, gravel unimproved, etc.) and width of all public and private streets, drives, sidewalks, pathways, rights-of-way, and easements on the site and adjoining the site.*
- q. *Any areas identified as located in a designated floodplain and/or floodway.*
- r. *Depict any wetland and riparian areas, streams and/or wildlife habitat areas.*
- s. *Site features such as pavement, areas having unique views, and drainage ways, canals and ditches.*
- t. *Any designated historic and cultural resources areas on the site and/or adjacent parcels or lots.*
- u. *The location, size and type of trees and other vegetation on the property.*
- v. *North arrow, scale, names and addresses of all property owners.*
- w. *Name and address of applicant, project designer, engineer, architect, surveyor, and/or planner, if applicable.*

Staff Finding: These criteria are met or will be met with conditions of approval.

- Not all items apply to the development, but the application lacks two required items:
  - j. Location, type, and height of outdoor lighting (applicant did not propose lighting).
  - l. Locations, sizes, and types of signs (applicant did not propose signs).
- Studies and exhibits related to the project as noted under item m are included in the submittals for the subdivision review.

2. *Architectural Drawings.* *Architectural drawings shall be submitted showing the following information from subparagraphs a through c of this paragraph 2, and shall comply with Division 3:*

- a. *Building elevations with building height and width dimensions.*
- b. *Building materials, color and type.*
- c. *The name of the architect or designer.*

Staff Finding: These criteria are met.

- The information under items a-c is contained in the submittals for the subdivision.

3. *Preliminary Grading Plan.* *A preliminary grading plan prepared by a registered engineer shall be required for developments which would result in the grading (cut or fill) of 1,000 cubic yards or greater. The preliminary grading plan shall show the location and extent to which grading will take place, indicating general changes to contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed. Surface water detention and treatment plans may also be required, in accordance with Chapter 16.140.*

Staff Finding: This criterion will be met by a condition of approval.

- A grading plan is pending review and approval of the civil engineering submittal in the subdivision review.

4. *Landscape Plan.* *A landscape plan is required and shall comply with Chapter 16.124.*

Staff Finding: This criterion will be met by a condition of approval.

- The applicant stated that a landscape plan should not be required for single-family homes on individual lots. Staff nonetheless recommended a condition of approval in the subdivision review for a landscape plan that depicts and describes the common area landscaping and the required street trees.

6. *Copies of all existing and proposed restrictions or covenants.*

Staff Finding: This criterion will be met with a condition of approval.

- The applicant does not have any existing or proposed CC&Rs, but will provide them after they are prepared, submitted to the City Attorney for review, and recorded.

7. *Letter or narrative report documenting compliance with the applicable approval criteria contained in subsection C of this section.*

Staff Finding: This criterion is met.

- Applicant's narrative is attached.

C. Review Criteria. *The Community Development Director shall make written findings with respect to all of the following criteria...*

1. *The application is complete, as determined in accordance with Chapter 16.208 and subsection B of this section.*

Staff Finding: This criterion will be met with conditions of approval.

- The application was deemed complete in terms of what applicant could realistically provide in the preliminary stage of the development.
  - Chapter 16.208 requires an impact study, which depends in part on the results of the review of the project's engineering submittal.
  - Subsection B requires plans for lighting, signs, grading, landscaping, and a copy of CC&Rs after they are drafted and approved. See discussion points under Chapter 16.208 and subsection B.

2. *The application complies with all of the applicable provisions of the underlying land use district (Division 2), including building and yard setbacks, lot area and dimensions, density and floor area, lot coverage, building height, building orientation, architecture, and other special standards as may be required for certain land uses.*

Staff Finding: These criteria are met.

- The applicable provisions of the CMU District are covered in detail on pages 2-12 of the subdivision review portion and Pages 17-24 of the site design review portion.
- Building orientation and architectural standards are contained in Section 16.116.030, which does not apply to this project: **16.116.030 Architectural and Site Design Standards.** *The City's development design standards are for the commercial district corridors along US Highway 101, Alternate Highway 101, SW & SE Dolphin, SE Marlin Avenue, E Harbor Drive, S Main Avenue, SE Ensign Lane, Pacific Drive, and SE Neptune. The standards in this section apply only to property in the commercial corridors listed above; lands outside of these commercial corridors are not subject to these standards.*

3. *The applicant shall be required to upgrade any existing development that does not comply with the applicable land use district standards, in conformance with Chapter 16.276, Nonconforming Uses and Development.*

Staff Finding: This criterion does not apply.

- The site is vacant and does not contain any nonconforming uses or structures.

4. *The application complies with the applicable design standards contained in Division 3.*

Staff Finding: This criterion is met.

- The applicable design standards are covered in detail on pages 2-12 of the subdivision review portion and Pages 17-24 of the site design review portion.

### CONCLUSION, RECOMMENDATION, AND CONDITIONS OF APPROVAL

The findings above demonstrate that the proposed design of the Jetty View development is generally consistent with the CMU zoning district development standards and the design standards of the development code. Staff recommends the Planning Commission approve the site design review application subject to the following conditions.

#### Within 30 days of conditional approval of the site design review:

1. Provide details on the site plan or on a separate plan the locations, type, and height of outdoor lighting.
2. If signs subject to the sign code are planned, provide details on the site plan or on a separate plan the locations, sizes and types of signs.

#### General condition:

3. Compliance with the Conditions of Approval adopted for Subdivision SUB-21-1, herein incorporated by reference.

**Suggested motion:** Based on the findings and conclusions of the August 3, 2021 staff report, I move to approve SDR-21-1 Site Design Review Application for Jetty View Subdivision subject to the conditions of approval included in the staff report.

### ATTACHMENTS

- Site Design Review Application
- Renderings (2)
- Elevations (2)

(See SUB-21-1 relevant Attachments)

**CITY OF WARRENTON  
PLANNING AND BUILDING DEPARTMENT**

**SUBDIVISION APPLICATION**

(To be accompanied by a Tentative Map, and copy of property deed, Letter of Authorization, if applicable.)

OFFICE USE ONLY	
FILE # _____	FEE _____
ZONING DISTRICT _____	
RECEIPT # _____	
DATE RECEIVED _____	

Legal Description of the Subject Property:

Township	Range	Section	Tax Lot
8N	10W	SE 1/4 and SW 1/4 of Section 5	3500

Street address of the property: \_\_\_\_\_ 444 Jetty Street \_\_\_\_\_

**I/WE, THE UNDERSIGNED APPLICANT(S) OR AUTHORIZED AGENT, AFFIRM BY MY/OUR SIGNATURE(S) THAT THE INFORMATION CONTAINED IN THE FOREGOING APPLICATION AND ASSOCIATED SUBMISSIONS IS TRUE AND CORRECT.**

**APPLICANT:**

Printed Name: \_\_\_\_\_ Jetty Street, LLC \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ 9879 Buena Vista Road \_\_\_\_\_ Phone: \_\_\_\_\_ 503-209-6034 \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Independence, OR 97351 \_\_\_\_\_ Fax: \_\_\_\_\_

**PROPERTY OWNER (if different from Applicant)**

Printed Name: \_\_\_\_\_ Same \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Fax: \_\_\_\_\_

Is this a Planned Unit Development (PUD)? No \_\_\_\_\_ Yes \_\_\_\_\_ X \_\_\_\_\_

**IS THIS A "PHASED DEVELOPMENT"?** Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_

\*\*\*\*\*

a. Overall development plan, including phase or unit sequence.

Development plans are for the design and construction of a 9 unit subdivision consisting of 3 standalone town home structures containing 3 SFR dwelling units each. Initially, site infrastructure, including half street improvements, utility connections, grading and drainage will be completed, followed immediately by construction of the first 3 unit town home.

b. Projected Timetable for sequence of development

Based on suggested time line from City, we plan to have preliminary plat, subdivision and land use approvals by the third quarter, 2021, with infrastructure improvements completed in 4th quarter 2021 and the first 3 unit town home completed in 2nd or 3rd quarter 2022.

c. Development plans for any common elements or facilities.

Landscaping will be commonly owned through its own separate tax parcel and will be governed and maintained as outlined in the to be established Home Owners Association (HOA).

d. If the proposed subdivision has an unknown impact upon adjacent lands or land within the general vicinity, the Planning Commission may require a potential street development pattern for adjoining lands to be submitted together with the tentative plan as part of the phased development plan for the subject subdivision.

We do not believe this to be applicable.

e. Show compliance with the Comprehensive Plan and applicable sections of the Development Code.

Site is zone for Commercial Mixed Use (CMU) for which single family attached townhome development is an outright permitted use. The project is also bound by the south, west and east to similar single family detached units. City of Warrenton's 2011 site the need for emphasis of increased housing demand and sites specifically attached single family dwellings as a means in which to accomplish this. In fact, it notes that CMU zone is only one of four potential zones that will allow for attached family dwellings.

f. Schedule of improvements and completion.

Assuming land use and site development approvals are given by the end of August, 2021, Construction on the subdivision improvements will begin in September of 2021 and should be completed by November of 2021. Final Platting should be completed in December 2021 with construction of the first 3 unit town home in January of 2022 and completion in July of 2022.

g. Overall transportation and traffic pattern.

Primary vehicular access will be through rear loaded private easement located off of Jetty Street. Half street improvements on Jetty Street and 4th Ave will be completed, although 4th Ave will not be connected to Iredale and will remain temporarily dead ended.

## **PRELIMINARY SUBDIVISION PLAT REQUIREMENTS**

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A "preliminary subdivision plat" shall be submitted with the following information depicted:

1. Proposed name of the subdivision;
2. Names, addresses, and phone numbers of property owner(s) (including mortgage holders if any), surveyor, and applicant if different from property owner, and assumed business name(s) filed or to be filed with the Corporation Commission by the applicant;
3. Proposed subdivision showing the parcel boundaries and dimensions, the area of each parcel, location of any and all easements (and what the easement is), right-of-way widths, existing roads;
4. Date of map preparation, north point, scale, property identification by township, range, section and tax lot numbers;
5. Location of all existing buildings, creeks, canals, ditches, any topographical features (ie., canyons, bluffs, wetlands, natural springs, floodplain);
6. Location, width, name, curve ratio, and approximate grade of all proposed right-of-ways;
7. Location of any existing features such as section lines, section corners, city and special district boundary lines, and survey monuments;
8. Existing sewer lines, water mains, culverts, and other underground and overhead utilities within and adjacent to the proposed subdivision together with pipe sizes, grades and locations;
9. Contour lines related to some established bench mark or other engineering acceptable datum;
10. Zoning of subject property, and adjacent tax lots to the proposed subdivision;
11. Location, names, width, typical improvements, cross sections, bridges, culverts, approximate grades, curve radii and centerline lengths and reserve strips of all proposed streets, and the relationship to all existing and projected streets;
12. Location, width and purpose of all proposed easements or right-of-ways, and relationship to all existing easements and right-of-ways;
13. Location of at least one temporary bench mark within the proposed subdivision boundary;
14. Location, approximate area and dimensions of each lot, and proposed lot and block numbers;
15. Location, approximate area and dimensions of any lot or area proposed for public use, the type of use proposed, and plans for improvements or development;
16. Proposed use, location, approximate area and dimensions of any lot intended for non-residential use;

17. Source, method, and preliminary plans for domestic and other water supplies, sewer lines, and all utilities;
18. Description and location of any proposed community facility;
19. Storm water and other drainage facility plans;
20. Proposed deed restrictions including access restrictions or protective covenants if such are proposed to be utilized for the proposed subdivision;

**ADDITIONAL SUBMITTALS**

21. Statement from each utility company proposed to serve the proposed subdivision stating that each company is able and willing to serve the proposed subdivision as set forth in the tentative plan, and the conditions and estimated costs of each service;
22. Proposed Fire protection system for the proposed subdivision and written approval thereof by the fire chief.
23. Statement from School District.

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**REQUIREMENTS**

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1. A vicinity map must be submitted showing the proposed subdivision in relationship to the adjacent properties, roadways, and ownership patterns. This map must include names of all existing roadways.
2. Who will supply the water? City of Warrenton
3. Access will be taken from Jetty Street
4. What is the intended use of the parcels being created? Nine Single Family Attached residences through three town home structures.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. What is the current use of the parcel? Unimproved, vacant land.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Proposal is in compliance with the City of Warrenton's Comprehensive Plan and Development Code. Site is zone for Commercial Mixed Use (CMU) for which single family attached townhome development is an outright permitted use. The project is also bound by the south, west and east to similar single family detached units. City of Warrenton's 2011 site the need for emphasis of increased housing demand and sites specifically attached single family dwellings as a means in which to accomplish this. In fact, it notes that CMU zone is only one of four potential zones that will allow for attached family dwellings.  
\_\_\_\_\_



7. Proposal does not conflict with acquired public access easements within or adjacent to the subdivision.  
Confirmed  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
8. All required public services and facilities are available and adequate or are proposed to be provided by the applicant.  
Confirmed. Will Serves from Pacific Power and Northwest Natural Gas provided.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
9. The subdivision contributes to orderly development and land use patterns in the area, and provides for the preservation of natural features and resources such as streams, lakes, natural vegetation, and special terrain features.  
The subdivision is consistent with the surrounding land uses and zoning criteria. Landscaping established through HOA will utilize plants, grasses and practices consistent with marine area landscaping and local nature. There are no streams, lakes or special terrain on the site.  
 \_\_\_\_\_  
 \_\_\_\_\_
10. The subdivision will not create an excessive demand on public facilities and services required to serve the development.  
Confirmed. The additional of 9 attached residential dwelling units will not create undo demand on public utilities. Developer has identified inadequate water flow to the site and as part of the improvement plans will upsize the sizing of the water facilities to compensate for the new units. Additionally, the city has identified additional surface water issues generated from neighboring structure's utilizing storm surface flow practices. Developer will also be extending public storm systems to correct this issues as well as install its own storm systems onsite to mitigate future concerns.  
 \_\_\_\_\_  
 \_\_\_\_\_
11. The preliminary plat for the proposed subdivision meets the requirements of ORS 92.090.  
Confirmed  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\*\*\*\*\*

Return Application To: City of Warrenton  
 Planning and Building Department  
 PO Box 250  
 225 SW Main Street  
 Warrenton, Oregon 97146  
 Phone: 503-861-0920  
 Fax: 503-861-2351

# PROJECT NARRATIVE FOR JETTY VIEW TOWNHOMES

Jetty Street, LLC proposes to construct a total of nine townhome units on the property located at 444 Jetty Street, LLC by way of constructing three separate structures of three units each, with each structure residing on their own individual legal lot of record.

The legal use of the lot shall be for townhomes by way of the Single-Family Attached definition in Chapter 16.12.010. The CMU district identifies townhomes as an outrighted permitted use. Further, the code looks to Chapter 16.36 to identify standards for residential use within the CMU zone. The proposed density of nine units is less than the maximum allowed of fifteen. Each lot will own a 1/9th undivided interest of the common area lot, which will be enjoyed by all of the owners. This combined with each legal lot of record results in a total individual ownership of 5,648 to 5679 square feet, exceeding the minimum lot size of 2,500. Setbacks, as shown on the provided site plan, meet the requirements as set forth in Section B. 36" entry doors have been provided on street frontage side, with 56 square feet of glazing facing Jetty Street (side) and 186 square feet of glazing facing 4<sup>th</sup> Street (front). Per the design standards of Section 16.184.030, the building massing meets the criteria as the buildings are contained to three units and does not exceed 200 feet in length. Access and garage door standards would not apply as there will be a single curb cut through Jetty Street to the west and alleyway access via a private drive easement to allow each of the nine units access to the garages situated on the south face of the buildings. Lastly, the common areas will be maintained by an HOA through a separate legal entity (see tract A of preliminary plat) that will hold the commonly held area.

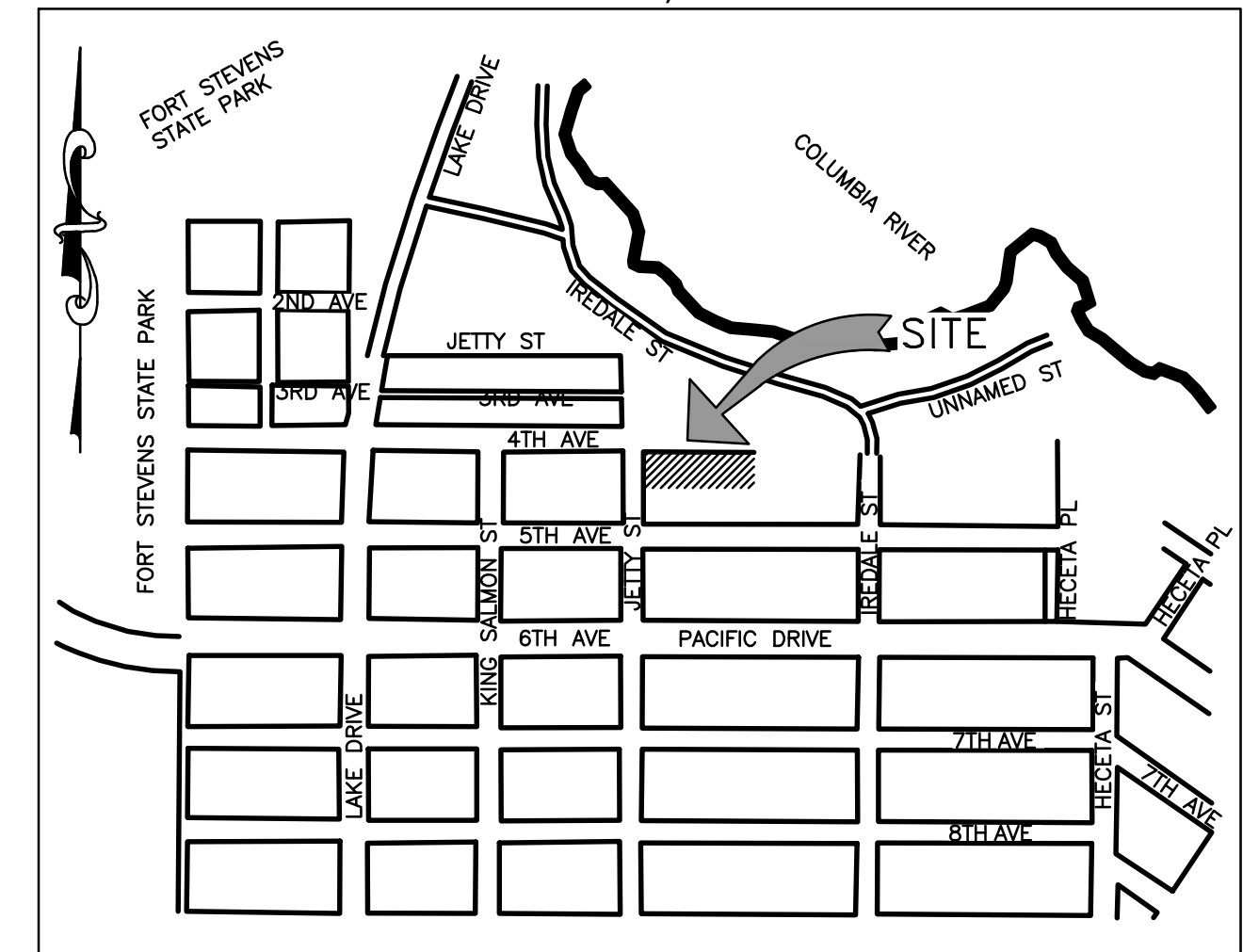
Massing of the exterior façade will be made up of a combination of James Hardi Cementous products, including lap siding, board and batt, and prefabricated panel boards, as well as Hardi trim used for door and window wraps. Reliance upon these products in this climate should provide for a solid building exterior that will be highly resistant to the unique marine climate where the project is situated. Additionally, use of decorative cedar shingles and post wraps will give a nice contrast to the darker grey tones used throughout the paint scheme as provided in the attached rendering, where the goal is to provide a "nautical" look compatible with the surrounding marine climate. Synthetic stone will be used at the fronts of the buildings to provide for further accents and added aesthetics.

The project fits well within the surrounding community. It is bound by its south, west and east by single family residences and will have very low impact on surrounding uses. Half street improvements required by code will help with vehicular and pedestrian traffic flow as well as improve some existing storm water build up occurring presently. This will also help fill the lack of sufficient housing in the community.

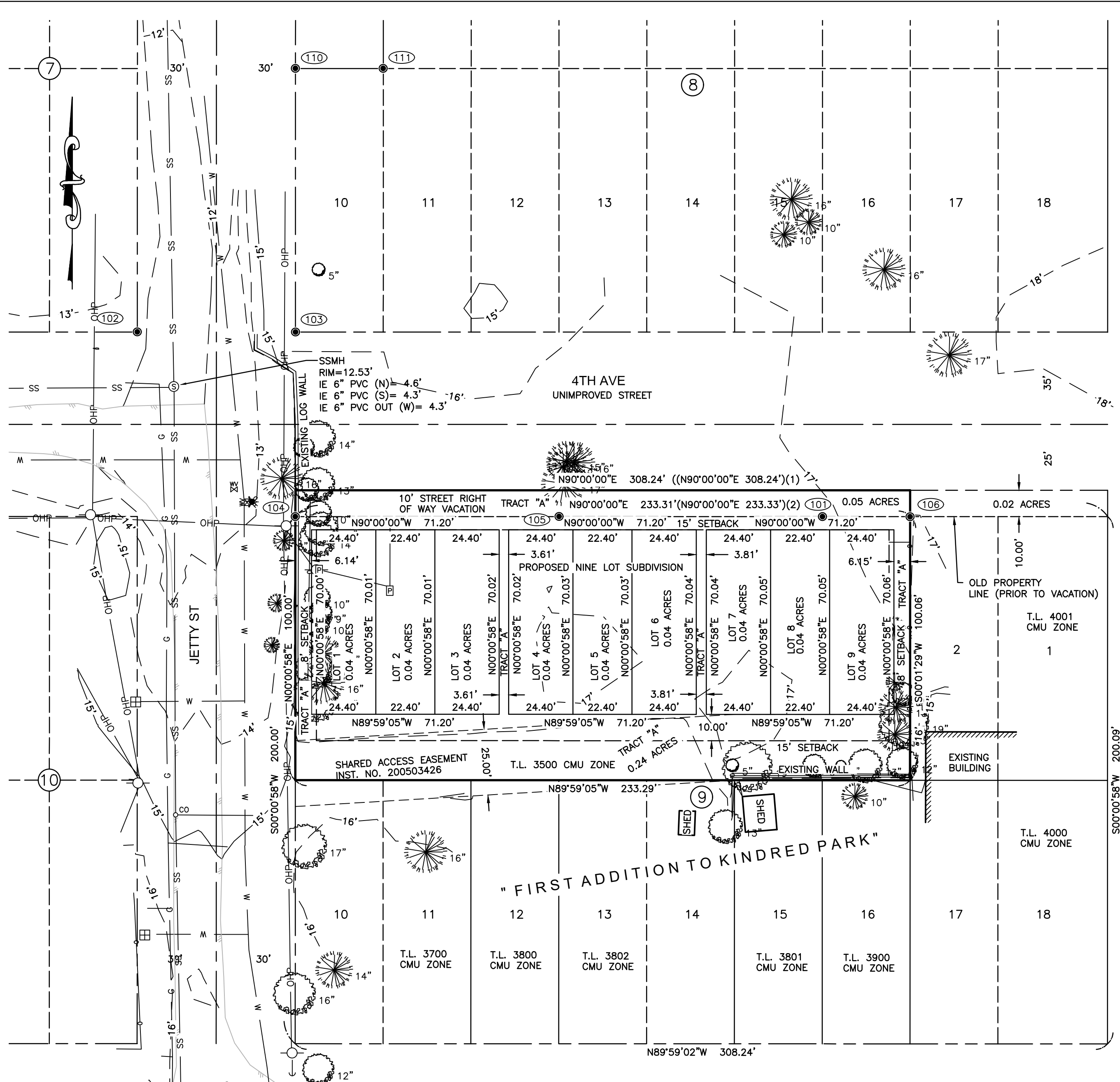
# PRELIMINARY SUBDIVISION JETTY VIEW TOWNHOMES

LOCATED IN THE SE 1/4 AND THE SW 1/4 OF SECTION 5,  
TOWNSHIP 8 NORTH, RANGE 10 WEST W.M.  
CITY OF WARRENTON, CLATSOP COUNTY, OREGON

JUNE 18, 2021



VICINITY MAP (NOT TO SCALE)  
HAMMOND/WARRENTON, OR



### LEGEND:

●	FOUND MONUMENT - 5/8" IRON ROD	---	W	---	EDGE OF PAVEMENT
⊗	FOUND MONUMENT NO.	---	G	---	WATER
IR	IRON ROD	---	E	---	GAS
YPC	YELLOW PLASTIC CAP	---	OHP	---	ELECTRIC
CS	CLATSOP COUNTY SURVEY NUMBER	---	SS	---	OVERHEAD POWER
∞	SANITARY SEWER CLEANOUT	---	O	---	SANITARY SEWER
⊙	SANITARY SEWER MANHOLE	---	---	---	FENCE - CHAINLINK
⊕	FIRE HYDRANT	---	---	---	CENTERLINE
⊗	WATER METER	---	---	---	RIGHT OF WAY
⊕	WATER VALVE	---	---	---	BOUNDARY LINE
⊙	POWER POLE	---	---	---	EASEMENT
⊕	POWER JUNCTION BOX	---	---	---	LOT/PARCEL LINE
⊕	GUY ANCHOR	---	---	---	TREE - DECIDUOUS
		---	---	---	TREE - CONIFER

### MONUMENT NOTES:

- (101) FOUND 5/8" IR W/YPC MARKED "K FOESTE LS 849" DOWN 0.1' ORIGIN UNKNOWN
- (102) FOUND 5/8" IR W/YPC MARKED "K FOESTE LS 849" FLUSH POSSIBLY SET IN SURVEY CS B-13000 (ELEVATION 13.28')
- (103) FOUND 5/8" IR W/YPC MARKED "K FOESTE LS 849" DOWN 0.2' ORIGIN UNKNOWN
- (104) FOUND 5/8" IR W/YPC MARKED "K FOESTE LS 849" UP 0.1' 0.6' WEST OF FACE OF LOG RETAINING WALL POSSIBLY SET IN SURVEY CS A-8633
- (105) FOUND 5/8" IR W/YPC MARKED "K FOESTE LS 849" DOWN 0.1' ORIGIN UNKNOWN
- (106) FOUND 5/8" IR W/YPC MARKED "K FOESTE LS 849" FLUSH CENTER OF DOUBLE SIDED WOOD SLAT FENCE POSSIBLY SET IN SURVEY CS A-8633 (ELEVATION 17.25')

### OWNERS:

JETTY STREET, LLC  
9879 BUENA VISTA ROAD  
INDEPENDENCE, OR 97351  
(503) 209-6034

### DEVELOPERS:

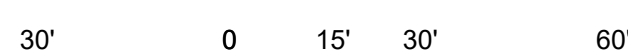
JETTY STREET, LLC  
9879 BUENA VISTA ROAD  
INDEPENDENCE, OR 97351  
(503) 209-6034

### SURVEYOR:

JACK L. WHITE II  
S & F LAND SERVICES  
1725 N ROOSEVELT DR. SUITE B  
SEASIDE, OR 97138  
(503) 738-3425

### SURVEY REFERENCES:

- (1) RECORD DATA PER PLAT "FIRST ADDITION TO KINDRED PARK" BOOK 1, PAGE 60
- (2) RECORD DATA PER CS A-8633



SCALE: 1" = 30'

### BASIS OF BEARING:

BASIS OF BEARING IS THE LINE  
BETWEEN FOUND MONUMENTS 104  
AND 106 N90°00'00"E

### VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988  
21G35101\_PRELIM.dwg

## S&F Land Services

PORTLAND, VANCOUVER, BEND, SEASIDE

1725 N ROOSEVELT DR.  
STE B, SEASIDE, OR 97138  
(503) 738-3425

WWW.SFLANDS.COM

EMAIL: INFO@SFLANDS.COM

DATE	JOB NO.	FIELD	DRAWN	CHECKED
APR. 15, 2021	2021-G351-01	CB	RER	JLW

### SURVEY FOR:

JORDAN WINTERS  
SANTE DEVELOPMENT, LLC

1220 20TH ST, SUITE 310  
SALEM, OR 97302

CITY OF WARRENTON, CLATSOP COUNTY

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Jack L. White II*  
OREGON  
SEPTEMBER 10, 2019  
JACK L. WHITE II  
91987PLS

RENEWS 6/30/22

# JETTY STREET LLC JETTY VIEW TOWNHOMES RIGHT-OF-WAY IMPROVEMENTS FOURTH AVENUE & JETTY STREET HAMMOND, CLATSOP COUNTY, OREGON

## UTILITY LOCATE ONE CALL (1-800-332-2344) or (8-1-1)

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).

PROPERTY IS TAX LOT 3500, MAP 08N 10W 05 CD.  
JETTY STREET AND FOURTH AVENUE, HAMMOND, OR

BASIS OF ELEVATIONS IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).  
TIDAL STATION DISK LOCATED AT THE HAMMOND MARINA, 0.2 MILES EAST OF THE MARINE OFFICE AND AT THE JUNCTION OF IREDALE STREET AND A SAND ROAD LEADING TO THE RIVER. EL = 17.75

### UTILITIES SERVICE PROVIDERS

**WATER-SEWER-ROADS**  
CITY OF WARRENTON  
45 SW 2ND ST  
WARRENTON, OR 97146  
(503) 861-0912

**OWNER**  
JETTY STREET, LLC  
9879 BUENA VISTA ROAD  
INDEPENDENCE, OR 97351

**SURVEYING - 1**  
BARKER SURVEYING  
3657 KASHMIR WAY SE  
SALEM, OR 97317  
(503) 588-8800  
ATTN: GREGORY BARKER, PLS

**ELECTRICITY**  
PACIFIC POWER  
825 NE MULTNOMAH  
PORTLAND, OR 97232  
800-469-3981

**SURVEYING - 2**  
S&F LAND SURVEYING  
1725 N ROOSEVELT DRIVE #B  
SEASIDE, OR 97138  
(503) 738-3425  
ATTN: JACK WHITE, PLS

**NATURAL GAS**  
NORTHWEST NATURAL GAS  
176 W MARINE DR  
ASTORIA, OR 97103  
(503) 325-1632

**NARRATIVE**  
ROAD - HALF-STREET DEVELOPMENT ON FOURTH AVE AND JETTY STREET, ALONG TOWNHOMES  
STORM - INFILTRATE WATER FROM BUILDINGS. WATER FROM ROADS TO BE CONVEYED TO BOAT BASIN.  
SEWER - INSTALL ON FOURTH AVENUE  
WATER - EXTEND FROM PACIFIC AVE ON JETTY ST AND DOWN FOURTH AVE.  
PROPERTY SIZE = 23,330 SF = 0.56 ACRES

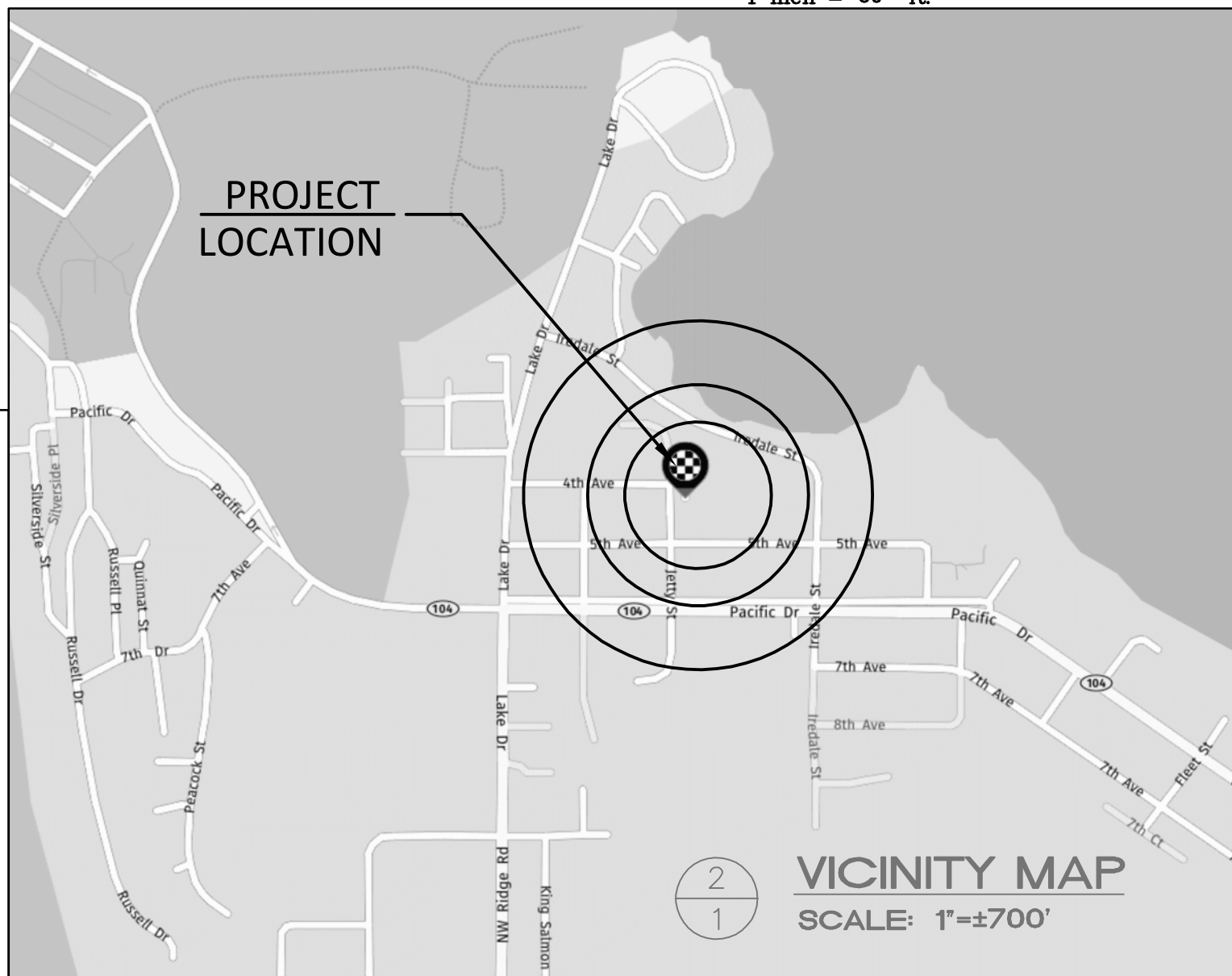
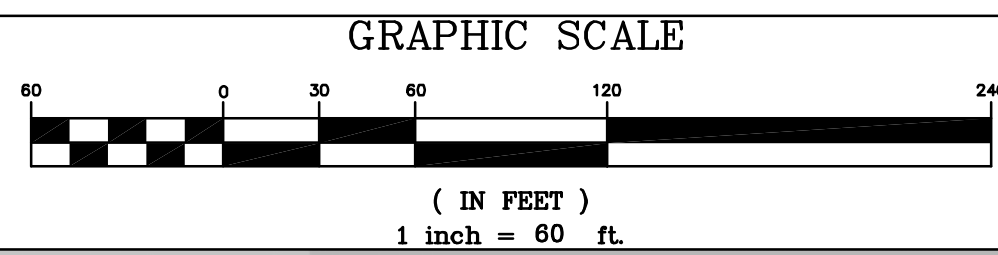
SEE 2018 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION WITH SUPPLEMENTAL CITY GENERAL CONDITIONS AND SPECIAL PROVISIONS.

### SHEETS

- C1 - COVER SHEET
- C2 - JETTY ST WATERLINE
- C3 - JETTY ST STORM DRAINAGE
- C4 - JETTY ST DRAINAGE PROFILE
- C5 - FOURTH AVE UTILITIES
- C6 - FOURTH AVE ROADWAY
- C7 - ROADWAY PROFILES
- C8 - SEWER NOTES & DETAILS
- C9 - DRAINAGE NOTES & DETAILS
- C10 - DRAINAGE DETAILS
- C11 - WATER NOTES & DETAILS
- C12 - WATER DETAILS
- C13 - ROAD NOTES & DETAILS
- C14 - ROAD DETAILS

### SCOPE OF WORK

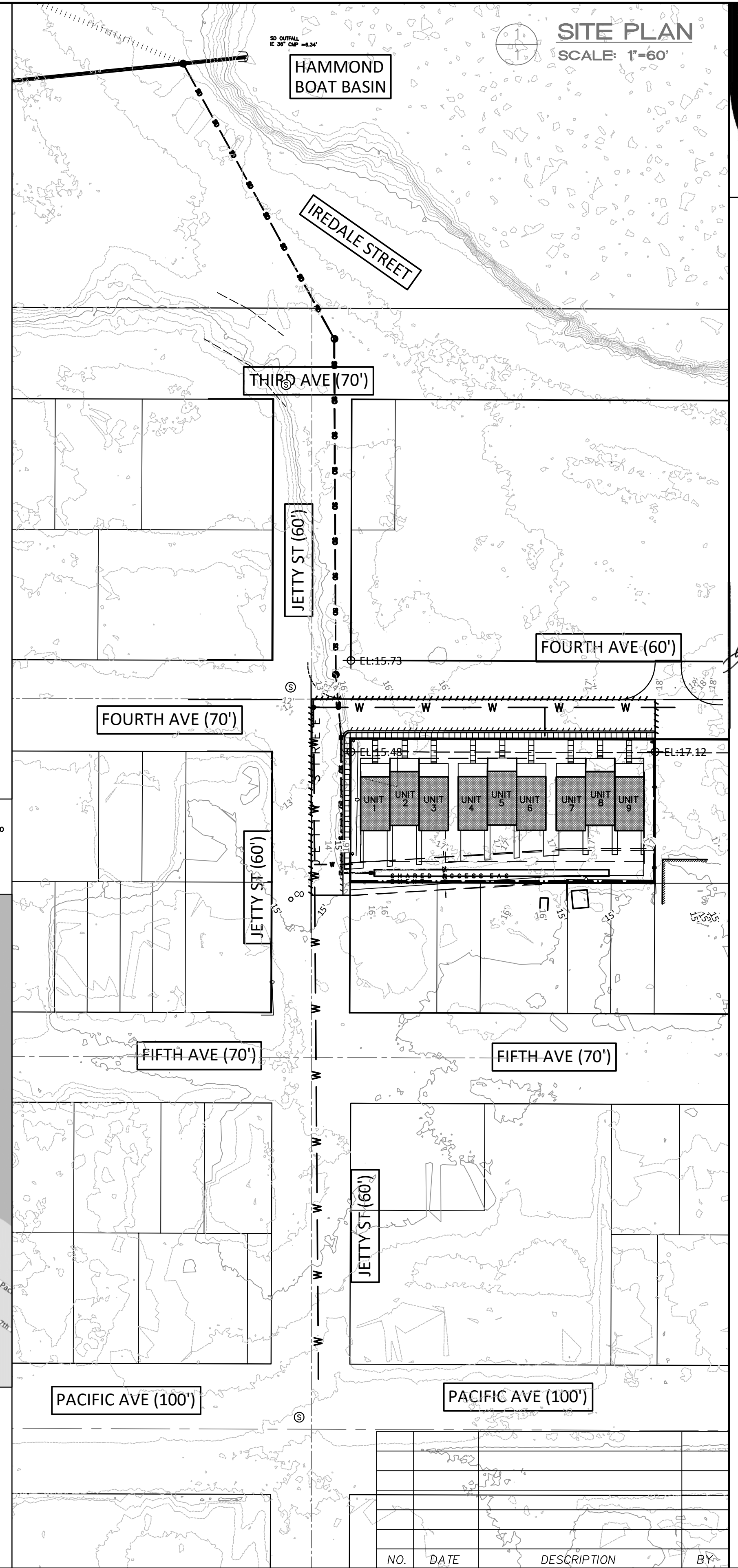
12"Ø STORM DRAIN LINE	410 LF
8"Ø STORM DRAIN LINE	255 LF
72"Ø CONCRETE DRAINAGE MANHOLE	1 EA
48"Ø CONCRETE DRAINAGE MANHOLE	2 EA
CONCRETE CATCH BASINS	3 EA
30"x16" STORM DRAIN CHAMBERS	180 LF
8"Ø WATERLINE	800 LF
8" CROSS	1 EA
8" TEE	3 EA
GATE VALVES	12 EA
WATER SERVICE ASSEMBLIES	9 EA
RECONNECT WATER SERVICES	2 EA
FIRE HYDRANT ASSEMBLIES	2 EA
48" CONC. SEWER MANHOLE	1 EA
8"Ø PVC SEWER PIPE	290 LF
SEWER SERVICES	9 EA
24' WIDE ROADWAY CONSTRUCTION	365 LF
CONCRETE CURB & SIDEWALK	365 LF
ASPHALT	200 TON
LEVELING ROCK	150 CY
BASE ROCK	440 CY
FABRIC	820 SY



### CITY APPROVAL

REVIEWED BY: \_\_\_\_\_

DATED: \_\_\_\_\_

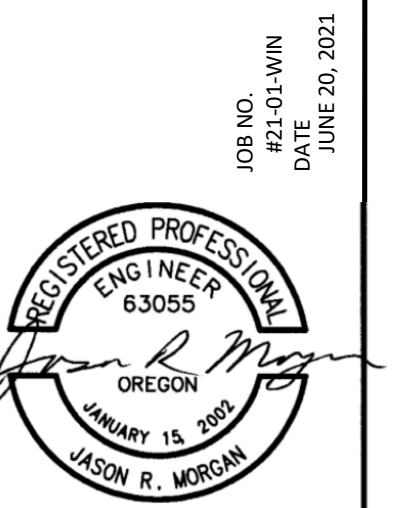


NO.	DATE	DESCRIPTION	BY



**MORGAN CIVIL ENGINEERING, INC.**

- CIVIL ENGINEERING
  - INSPECTION
  - PLANNING
- PO BOX 358  
MANZANITA, OR 97130  
(503) 801-6016  
WWW.MORGANCIVIL.COM



**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
FOURTH AVENUE & JETTY STREET IMPROVEMENTS  
PROJECT AREA

SHEET  
**C1**  
OF 14

### Appendix A - Standard Notes

Standard notes are to be included on all plan sets submitted. Sections not included in the work may be omitted with approval from the Public Works Director or their authorized representative.

**General Notes:**  
No person shall do work affecting the public right-of-way without first obtaining a permit from the Public Works Department. Work affecting the right-of-way includes, but is not limited to, construction, reconstruction, grading, oiling, repair, opening or excavation of a sidewalk, street, curb, driveway, culvert or ditch in a public right-of-way, but does not include the construction of improvements performed under City contract.

Construction shall conform to the Oregon Specifications and Standard Drawings for Construction and as revised by the City of Warrenton. Any condition not described in the permit shall be per submitted plans and to all applicable requirements of APWA, AWWA, DEQ, EPA, DSL, and ODOT Construction Standards.

It shall be the responsibility of the Contractor to verify all utility locations prior to construction and arrange for the relocation of any in conflict with the proposed construction. The locations, depth, and description of existing utilities shown were compiled from available records and/or field surveys. The City or utility companies do not guarantee the accuracy of the completeness of such records. Additional utilities may exist within the work area.

Oregon law requires that the rules adopted by Oregon Utility Notification Center be followed. Those rules are set forth in OAR 952-001-0090. The contractor is responsible to call 1-800-332-2344 for locates prior to excavation. Any damage to City or private services shall be repaired by the contractor with own repair materials.

The contractor shall make provisions to keep all existing utilities (including non-locatable) in service and protect them during construction. Contractor shall be responsible for the immediate notification of damage to utilities and the repair or replacement of damaged utilities using materials and methods approved by the utility owner. No service interruptions shall be permitted without prior written agreement with the utility owner/provider.

The contractor shall pothole and verify location and depth of all existing utilities prior to the start of construction. The contractor shall take all necessary field measurements and otherwise verify all dimensions and existing construction conditions indicated and or shown on the plans. Should any error or inconsistency exist, the contractor shall not proceed with the work affected until reported to the design engineer for clarification or correction.

All project elements shall be constructed per approved project drawings; specifications; federal, state and local permits; and preconstruction meeting notes.

The contractor shall keep an approved set of plans on the project site at all times.

70

### LEGEND

	EXISTING PROPERTY LINES
	ROAD CENTERLINE
	EXISTING WATERLINE
	PROPOSED WATERLINE
	EXISTING GATE VALVE
	PROPOSED GATE VALVE
	EXISTING HYDRANT
	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
	EXISTING DRAINAGE PIPE
	PROPOSED DRAINAGE PIPE
	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN/ SEDIMENT BASIN
	EXISTING EDGE OF GRAVEL
	PROPOSED ASPHALT ROADWAY
	PROPOSED CURB AND SIDEWALK

Engineering Design Standards April 2020

traffic control plan with ROW permit to appropriate City, County, and State personnel for approval. Approvals shall be obtained prior to start of work.

Any inspection by the City, County, State, Federal Agency or design engineer shall not, in any way, relieve the contractor from any obligation to perform the work in compliance with the applicable codes, regulations, city standards and project contract documents.

Tracer wire installation shall be performed in such a manner that allows proper access for connection of line tracing equipment, proper locating of wire without loss or deterioration of low frequency signal, and without distortion of signal caused by more than one wire being installed in close proximity to one another.

Tracer wire systems must be installed as a single continuous wire, except where using approved connectors. No looping or coiling of wire is allowed. One foot of excess/slack wire is required in all tracer wire access points after meeting final elevation.

All new tracer wire installations shall be located using typical low frequency (512 Hz) line tracing equipment, witnessed by the design engineer or Public Works Department, prior to acceptance of ownership. This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project.

Upon completion of construction, the contractor shall submit "redline drawings" to design engineer for preparation of record drawings. "Redline drawings" document all deviations and revisions to the approved plans; they also record a description of construction materials actually used (pipe material, etc.). From the information contained on these redline drawings, as well as any notes recorded by the design engineer, the design engineer shall prepare and submit record drawings to Public Works Engineering Development Services. Record drawings are required for any public improvements. City acceptance of any public improvements are tied to the submittal of these record drawings. CAD-generated plans shall also have electronic record drawings submitted to the City in compliance with the digital mapping requirements. Comply with section 2.11 As-Built Documents of the City of Warrenton Engineering Design Standards.

Engineering Design Standards April 2020

All DSL, DEQ, ODOT, and OHA permits and regulations will be the responsibility of the developer.

Project inspection on private projects is the responsibility of the developer. The City Warrenton requires the design engineer to monitor construction standards and workmanship.

Project Plans shall always have an engineer-of-record performing the function of design engineer. If the design engineer is changed during the course of the work, the City shall be notified in writing and the work shall be stopped until the replacement engineer has agreed to accept the responsibilities of the design engineer. The new design engineer shall provide written notice of accepting project responsibility to the City within 72 hours of accepting the position as design engineer.

Infrastructure through neighboring property is allowed only when recorded access easements are granted by owners. Recorded easements shall be submitted to Public Works prior to the start of the warranty period.

Subdivision projects are required to have utility location plan.

All public, private and franchise utilities shall be in place prior to project final approval and acceptance, e.g. all street lights must be in and operational.

All survey monuments on the project's site or that may be subject to disturbance within the construction area, or the construction of any off-site improvements shall be adequately referenced and protected prior to commencement of any construction activity. If the survey monuments are disturbed, moved, relocated, or destroyed as a result of any construction, the contractor shall, at their cost, retain the services of a registered professional land surveyor in the state of Oregon to restore the monument to its original condition and file the necessary surveys as required by Oregon State Law.

Grading and Fill/Excavation Permits or Private Service Plumbing Permits shall be required when work is performed on private property. Owner, engineer, or contractor must contact the City of Warrenton Planning and Building Department, prior to construction.

The contractor is required to meter construction water through a City hydrant water meter. Water used during construction for dust control or other procedures shall be with a permit and fee. Certain hydrants are available, permits for connection and flow are required from the Public Works Department, and backflow devices shall be present.

All existing streets and sidewalks to be cleaned and or protected daily. City has the right to enforce cleaning and safety issues. The contractor can be fined or charged for Public Works time and material. Trench excavation on existing roadways need to be cold patched and kept smooth with existing asphalt at end of each day.

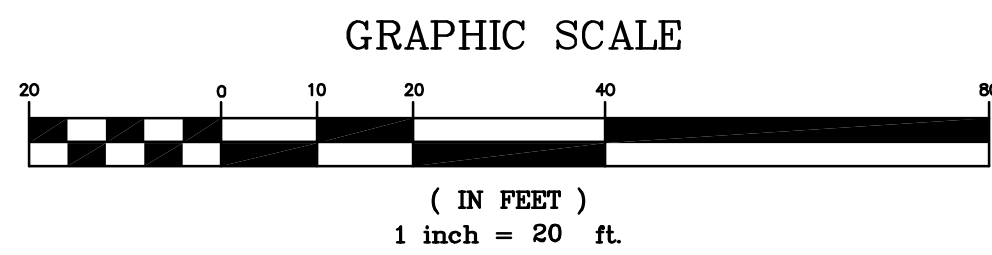
Contractor shall erect and maintain temporary traffic control per the "Manual on Uniform Traffic Control Devices" (MUTCD), Part 6, and deviations to the MUTCD as adopted and modified by ODOT. Should work be in an existing public right of way that is open to traffic, the contractor shall submit a

1 FIFTH AVE. - WATERLINE CONNECTION  
SCALE: 1"=10'

2 FOURTH AVE. - WATERLINE CONNECTION  
SCALE: 1"=10'

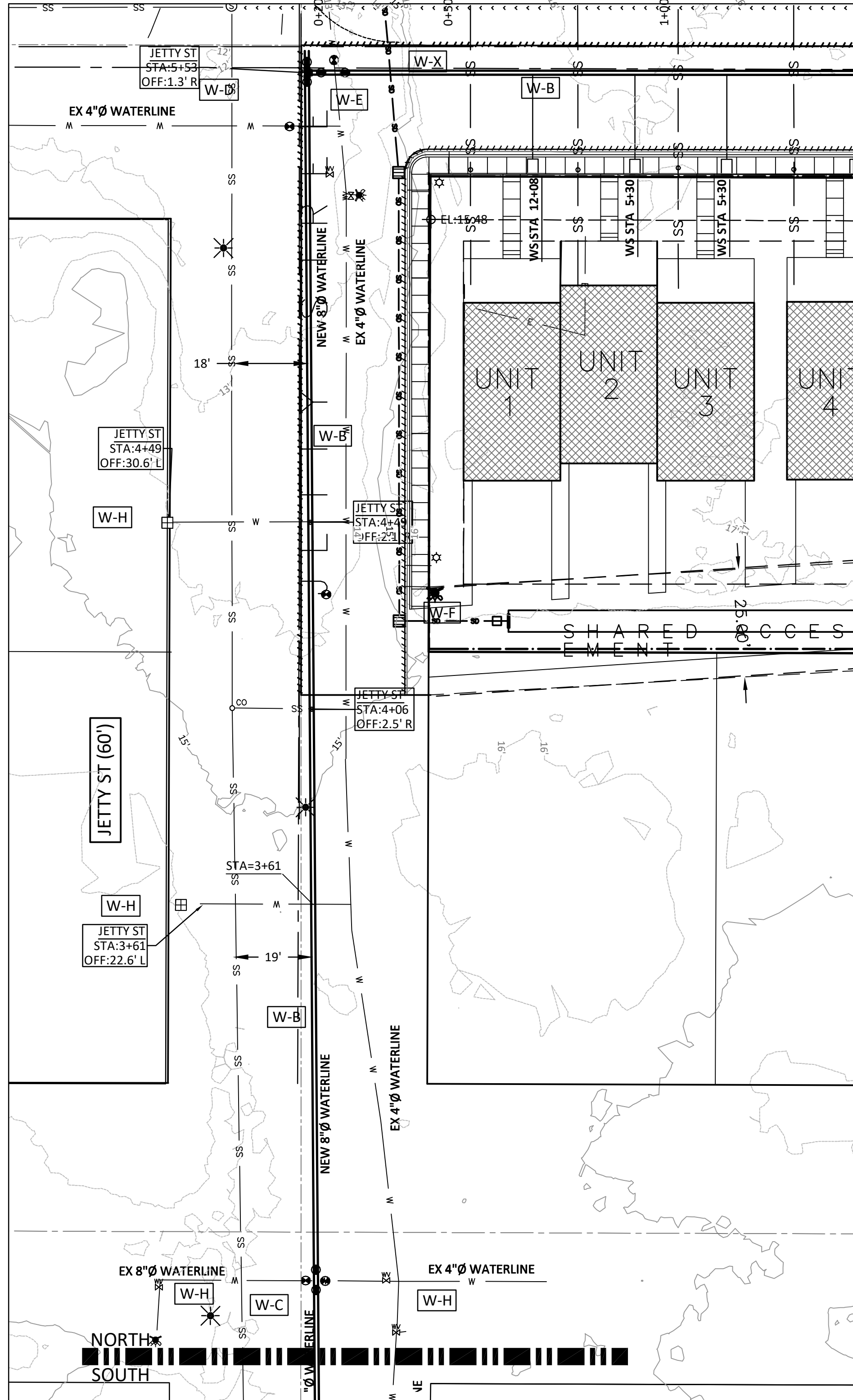
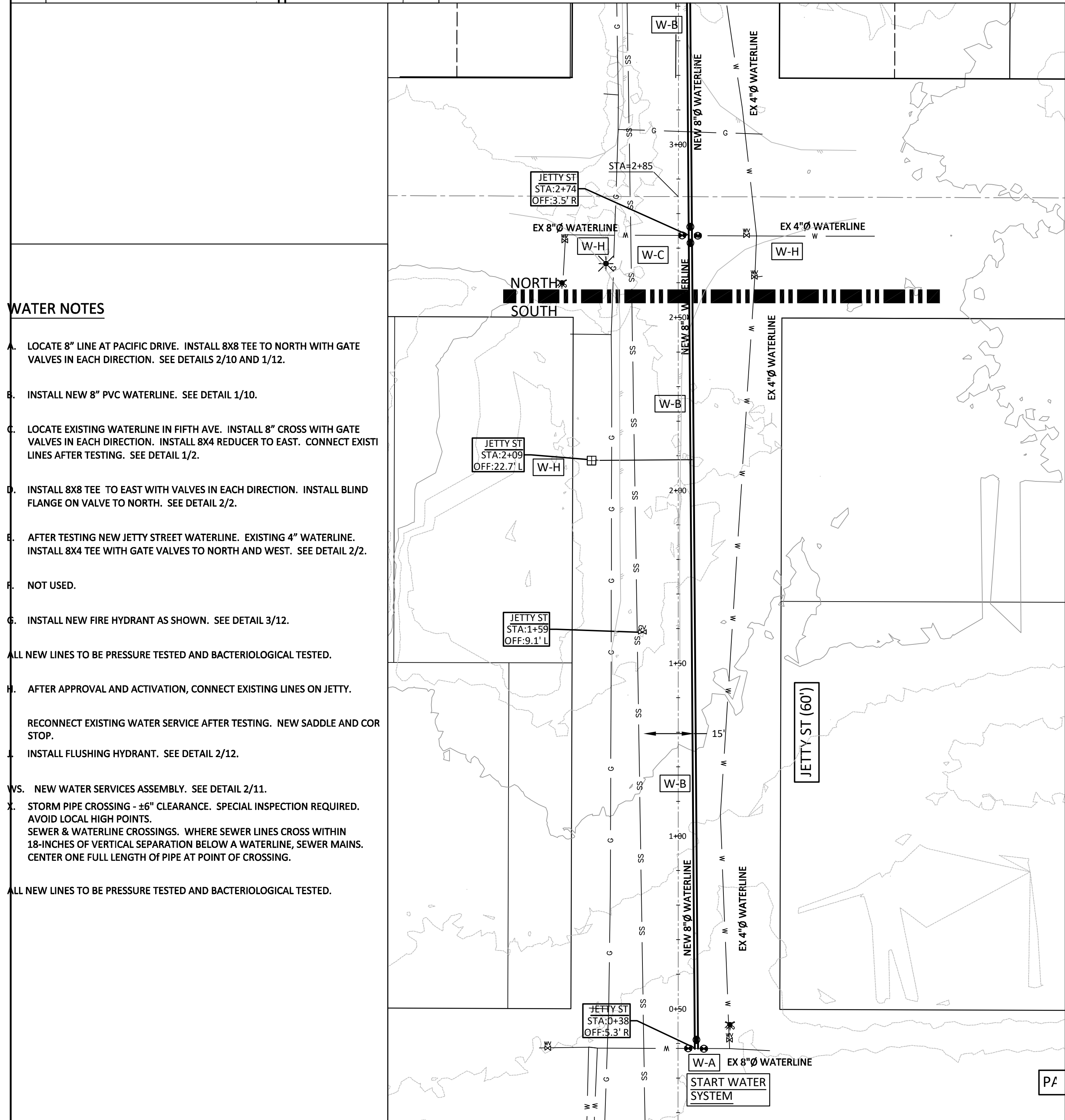
3 JETTY STREET WATERLINE-PACIFIC TO FIFTH  
SCALE: 1"=20'

4 JETTY STREET WATERLINE-FIFTH TO FOURTH  
SCALE: 1"=20'



WATER NOTES

- A. LOCATE 8" LINE AT PACIFIC DRIVE. INSTALL 8X8 TEE TO NORTH WITH GATE VALVES IN EACH DIRECTION. SEE DETAILS 2/10 AND 1/12.
- B. INSTALL NEW 8" PVC WATERLINE. SEE DETAIL 1/10.
- C. LOCATE EXISTING WATERLINE IN FIFTH AVE. INSTALL 8" CROSS WITH GATE VALVES IN EACH DIRECTION. INSTALL 8X4 REDUCER TO EAST. CONNECT EXISTING LINES AFTER TESTING. SEE DETAIL 1/2.
- D. INSTALL 8X8 TEE TO EAST WITH VALVES IN EACH DIRECTION. INSTALL BLIND FLANGE ON VALVE TO NORTH. SEE DETAIL 2/2.
- E. AFTER TESTING NEW JETTY STREET WATERLINE. EXISTING 4" WATERLINE. INSTALL 8X4 TEE WITH GATE VALVES TO NORTH AND WEST. SEE DETAIL 2/2.
- F. NOT USED.
- G. INSTALL NEW FIRE HYDRANT AS SHOWN. SEE DETAIL 3/12.
- H. ALL NEW LINES TO BE PRESSURE TESTED AND BACTERIOLOGICAL TESTED.
- I. AFTER APPROVAL AND ACTIVATION, CONNECT EXISTING LINES ON JETTY.
- J. RECONNECT EXISTING WATER SERVICE AFTER TESTING. NEW SADDLE AND COR STOP.
- K. INSTALL FLUSHING HYDRANT. SEE DETAIL 2/12.
- L. WS. NEW WATER SERVICES ASSEMBLY. SEE DETAIL 2/11.
- M. STORM PIPE CROSSING - ±6" CLEARANCE. SPECIAL INSPECTION REQUIRED. AVOID LOCAL HIGH POINTS.
- N. SEWER & WATERLINE CROSSINGS. WHERE SEWER LINES CROSS WITHIN 18-INCHES OF VERTICAL SEPARATION BELOW A WATERLINE, SEWER MAINS. CENTER ONE FULL LENGTH OF PIPE AT POINT OF CROSSING.
- O. ALL NEW LINES TO BE PRESSURE TESTED AND BACTERIOLOGICAL TESTED.



**LEGEND**

	EXISTING PROPERTY LINES
	ROAD CENTERLINE
	EXISTING WATERLINE
	PROPOSED WATERLINE
	EXISTING GATE VALVE
	PROPOSED GATE VALVE
	EXISTING HYDRANT
	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
	EXISTING DRAINAGE PIPE
	PROPOSED DRAINAGE PIPE
	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN/ SEDIMENT BASIN
	EXISTING EDGE OF GRAVEL
	PROPOSED ASPHALT ROADWAY
	PROPOSED CURB AND SIDEWALK



**MORGAN CIVIL ENGINEERING, INC.**

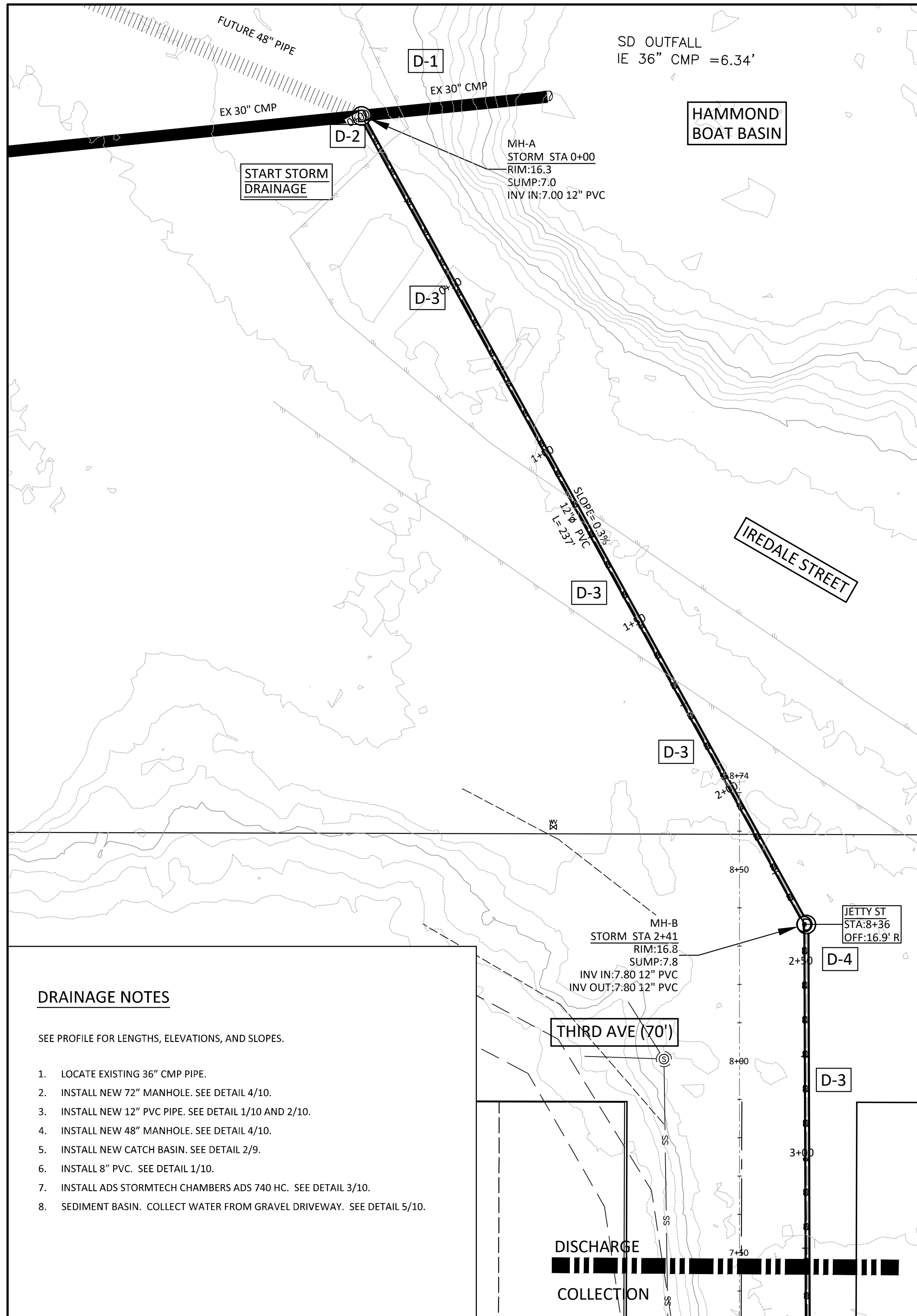
PO BOX 358  
MANZANITA, OR 97130  
(503) 801-6016  
WWW.MORGANCIVIL.COM

REGISTERED PROFESSIONAL ENGINEER  
63055  
OREGON  
JASON R. MORGAN  
RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
JETTY STREET IMPROVEMENTS  
OFF-SITE WATERLINE EXTENSION

SHEET  
**C2**  
OF 14

NO.	DATE	DESCRIPTION	BY



**DRAINAGE NOTES**

SEE PROFILE FOR LENGTHS, ELEVATIONS, AND SLOPES.

1. LOCATE EXISTING 36" CMP PIPE.
2. INSTALL NEW 72" MANHOLE. SEE DETAIL 4/10.
3. INSTALL NEW 12" PVC PIPE. SEE DETAIL 1/10 AND 2/10.
4. INSTALL NEW 48" MANHOLE. SEE DETAIL 4/10.
5. INSTALL NEW CATCH BASIN. SEE DETAIL 2/9.
6. INSTALL 8" PVC. SEE DETAIL 1/10.
7. INSTALL ADS STORMTECH CHAMBERS ADS 740 HC. SEE DETAIL 3/10.
8. SEDIMENT BASIN. COLLECT WATER FROM GRAVEL DRIVEWAY. SEE DETAIL 5/10.



1  
3

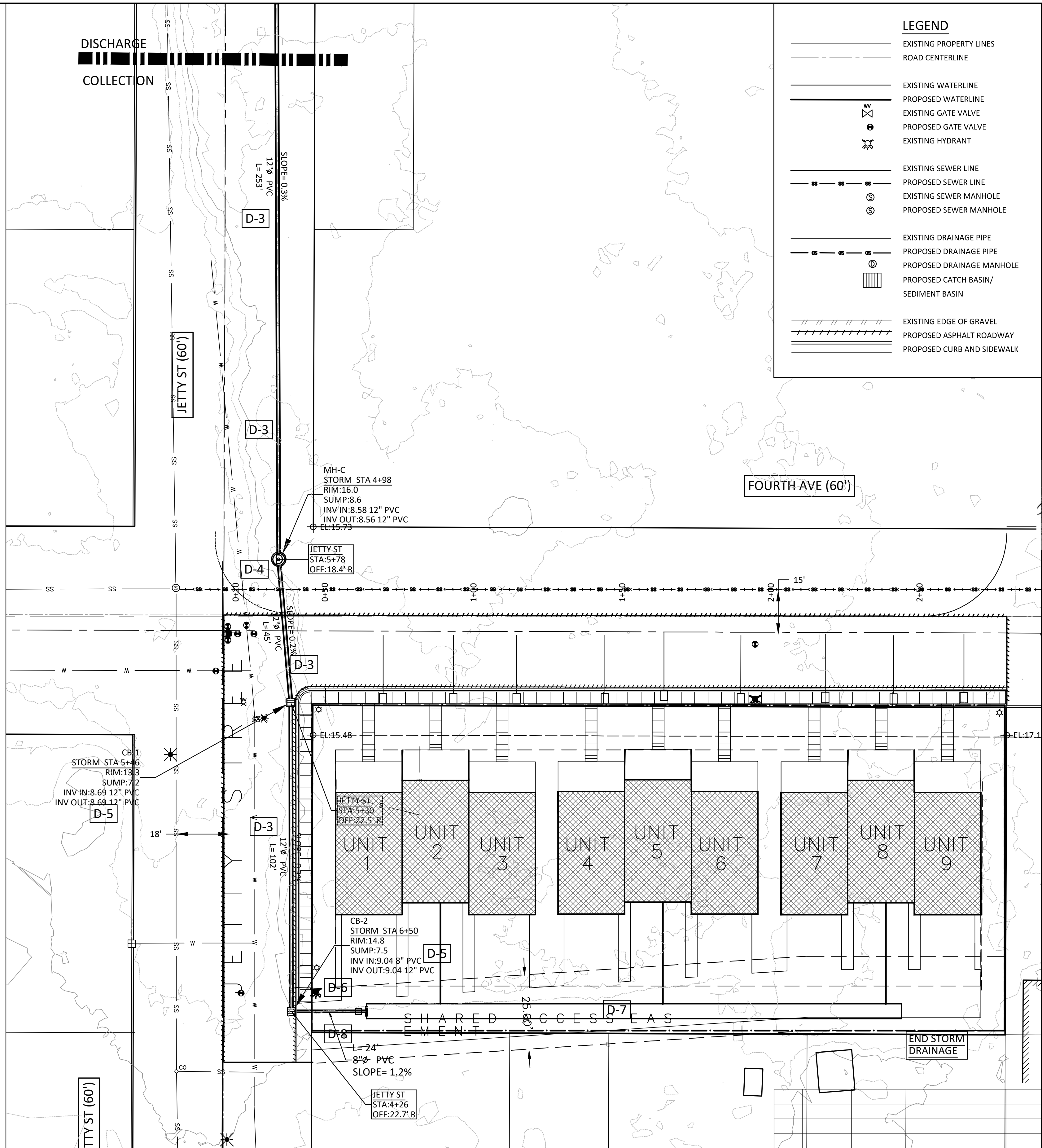
**JETTY STREET STORM DRAINAGE-DISCHARGE**

SCALE: 1"=20'

GRAPHIC SCALE



( IN FEET )  
1 inch = 20 ft.



2  
3

**JETTY STREET STORM DRAINAGE-COLLECTION**

SCALE: 1"=20'

**LEGEND**

	EXISTING PROPERTY LINES
	ROAD CENTERLINE
	EXISTING WATERLINE
	PROPOSED WATERLINE
	EXISTING GATE VALVE
	PROPOSED GATE VALVE
	EXISTING HYDRANT
	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
	EXISTING DRAINAGE PIPE
	PROPOSED DRAINAGE PIPE
	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN/ SEDIMENT BASIN
	EXISTING EDGE OF GRAVEL
	PROPOSED ASPHALT ROADWAY
	PROPOSED CURB AND SIDEWALK



**MORGAN CIVIL  
ENGINEERING, INC.**

PO BOX 358  
MANZANITA, OR 97130  
(503) 801-6016  
www.morgancivil.com

JOB NO. 24131 WIN  
DATE JUNE 20, 2021



**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
UJETTY STREET IMPROVEMENTS  
STORM DRAINAGE IMPROVEMENTS

HAMMOND

SHEET

**C3**

OF 14

NO.	DATE	DESCRIPTION	BY



**MORGAN CIVIL  
ENGINEERING, INC.**

PO BOX 358  
MANZANITA, OR 97130  
(503) 801-6016  
www.morgancivil.com

JRM  
4/11/21  
JUN 20, 2021



**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
JETTY STREET IMPROVEMENTS  
STORM DRAINAGE SYSTEM PROFILE

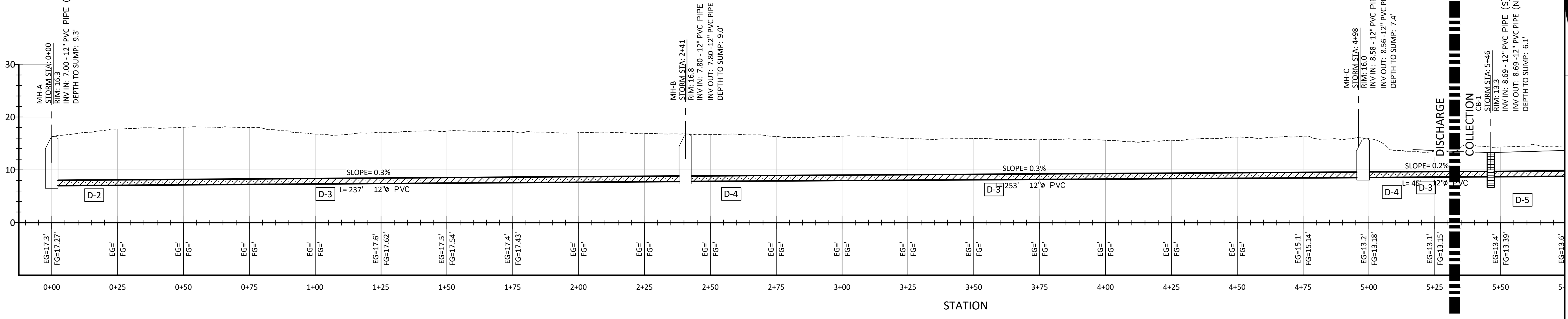
HAMMOND

SHEET

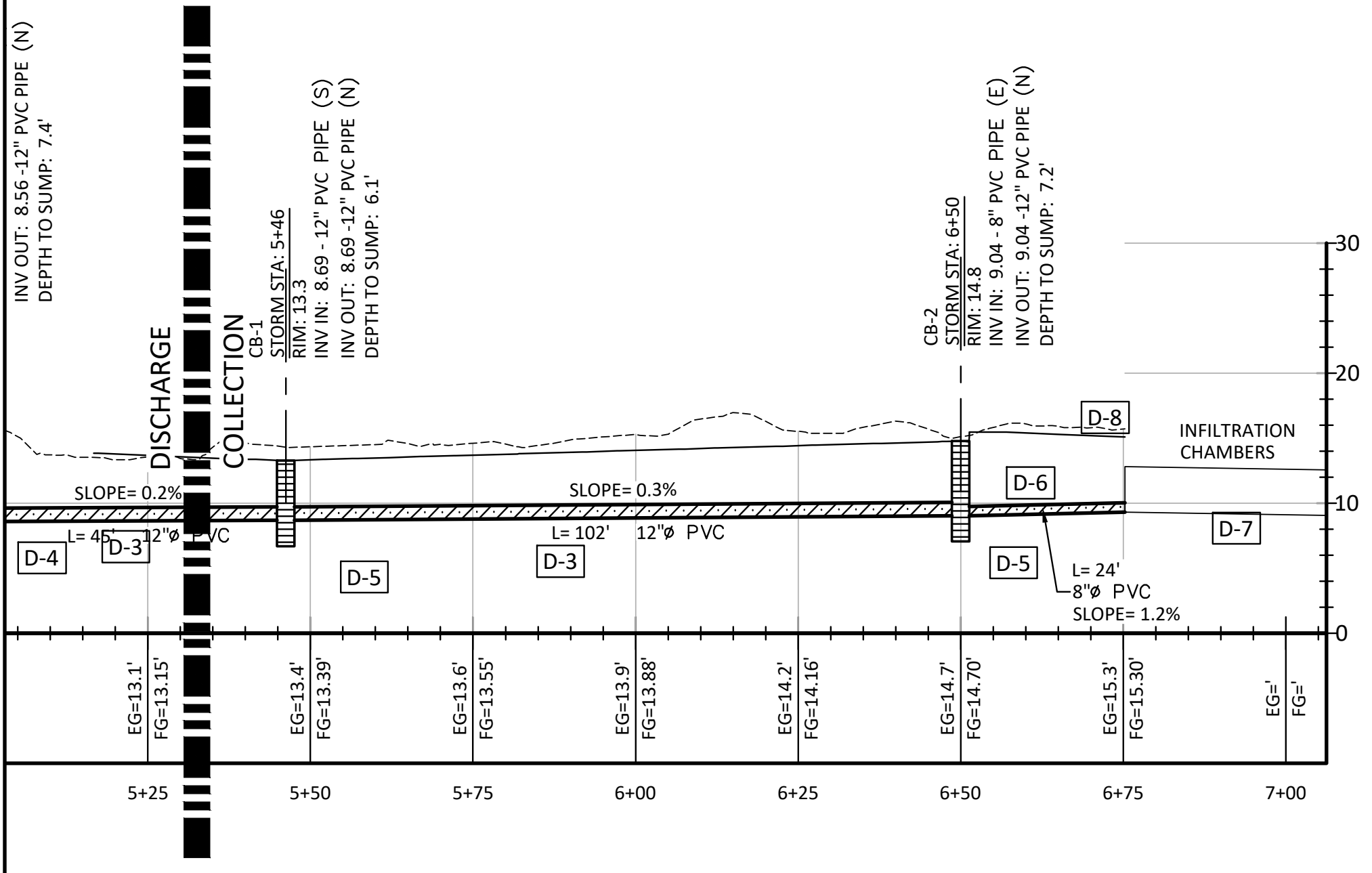
**C4**

OF 14

**1**  
**4** STORM DRAINAGE ROUTE PROFILE - JETTY STREET (DISCHARGE)  
SCALE: 1"=20' VERT: 1"=10'



**2**  
**4** STORM DRAINAGE ROUTE PROFILE - JETTY STREET (COLLECTION)  
SCALE: 1"=20' VERT: 1"=10'



**DRAINAGE NOTES**

SEE PROFILE FOR LENGTHS, ELEVATIONS, AND SLOPES.

1. LOCATE EXISTING 36" CMP PIPE.
2. INSTALL NEW 72" MANHOLE. SEE DETAIL 4/10.
3. INSTALL NEW 12" PVC PIPE. SEE DETAIL 1/10 AND 2/10.
4. INSTALL NEW 48" MANHOLE. SEE DETAIL 4/10.
5. INSTALL NEW CATCH BASIN. SEE DETAIL 2/9.
6. INSTALL 8" PVC. SEE DETAIL 1/10.
7. INSTALL ADS STORMTECH CHAMBERS ADS 740 HC. SEE DETAIL 3/10.
8. SEDIMENT BASIN. COLLECT WATER FROM GRAVEL DRIVEWAY. SEE DETAIL 5/10.

**SPECIFICATIONS**

**WATER**

WATER PIPE - 8"Ø PVC A-900, IPS, SDR 18  
GATE VALVES - AWWAS C509 OR C515, VANOUVER STYLE MODEL 910. C.I. BOX.  
FIRE HYDRANTS - MUELLER SUPER CENTURION 250, A-243.  
TRACER WIRE - 12-GAUGE SOLID COPPER CORE, BLUE INSULATION.

**WATER SERVICES**

SERVICE TUBING - 1" MUNICIPEX (PEX) AWWA 904-06.  
METER BOX - ARMORCAST WITH 20K RATED SOLID LIDS - COORDINATE WITH PWD.

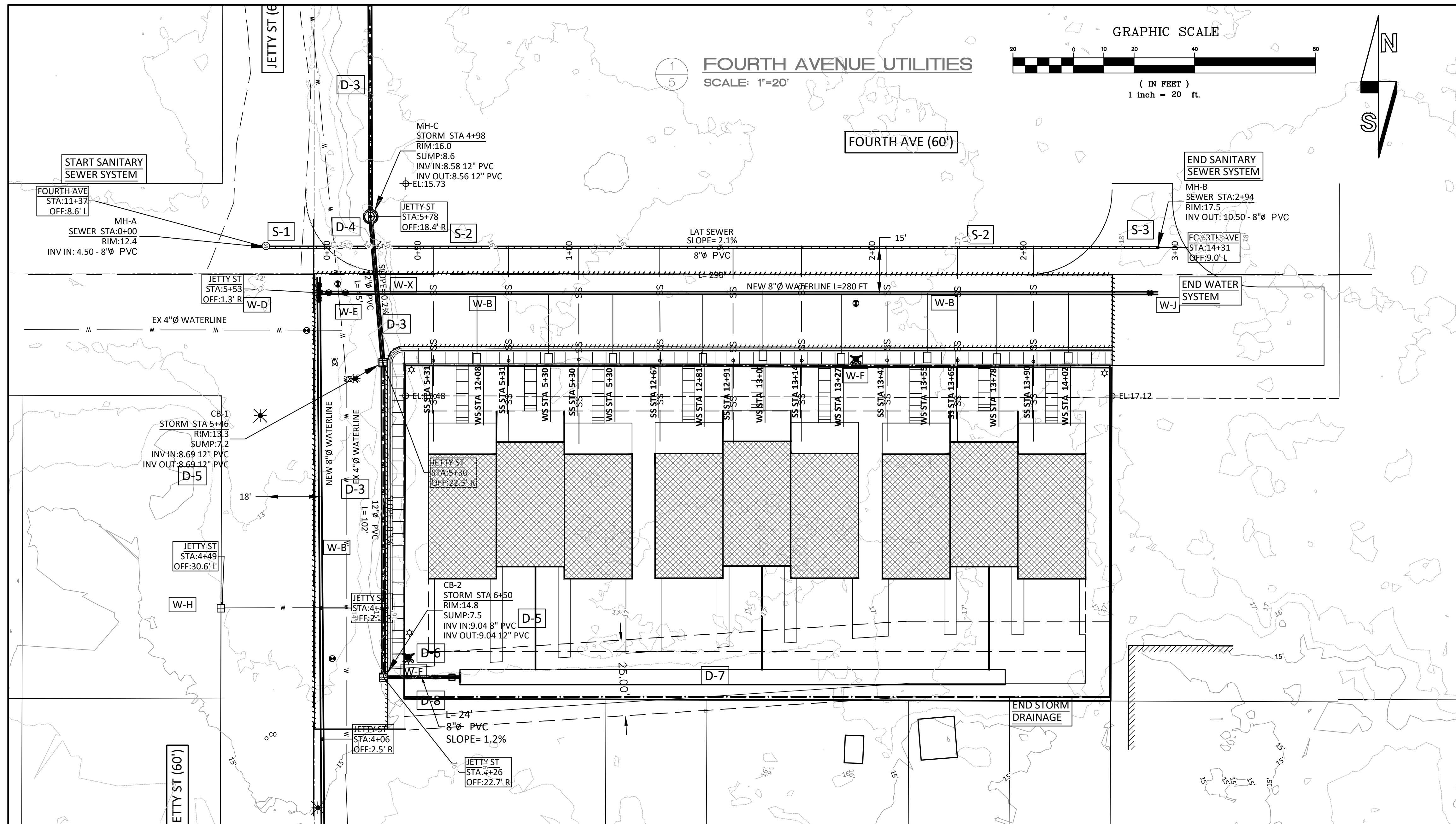
**SEWER**

8"Ø WATER PIPE - GREEN PVC, ASTM 3034, SDR 26  
48" MANHOLES - PRE-CAST CONCRETE, ECCENTRIC, WITH STAIRS AND CAST IRON LID  
72" MANHOLE - PRE-CAST CONCRETE, ECCENTRIC, WITH STAIRS AND CAST IRON LID  
TRACER WIRE - 12-GAUGE SOLID COPPER CORE, GREEN INSULATION.

**STORM**

STORM PIPE - WHITE PVC, ASTM 3034, SDR 26  
48" MANHOLES - PRE-CAST CONCRETE, ECCENTRIC, WITH STAIRS AND CAST IRON LID  
INFILTRATION CHAMBERS - STORMTECH SC-740 CHAMBERS

NO.	DATE	DESCRIPTION	BY



#### SEWER NOTES

- S-1. LOCATE EXISTING MANHOLE AND STUB. CONNECT NEW PIPELINE TO EAST.
- S-2. INSTALL NEW 8" PVC PIPE. SEE DETAIL 1/10.
- S-3. INSTALL NEW CONCRETE MANHOLE. SEE DETAILS 2/8 AND 3/8.
- SS. SEWER SERVICE. SEE DETAIL 4/8.

#### WATER NOTES

- A. LOCATE 8" LINE AT PACIFIC DRIVE. INSTALL 8X8 TEE TO NORTH WITH GATE VALVES IN EACH DIRECTION. SEE DETAILS 2/10 AND 1/12.
- B. INSTALL NEW 8" PVC WATERLINE. SEE DETAIL 1/10.
- C. LOCATE EXISTING WATERLINE IN FIFTH AVE. INSTALL 8" CROSS WITH GATE VALVES IN EACH DIRECTION. INSTALL 8X4 REDUCER TO EAST. CONNECT EXISTING LINES AFTER TESTING. SEE DETAIL 1/2.
- D. INSTALL 8X8 TEE TO EAST WITH VALVES IN EACH DIRECTION. INSTALL BLIND FLANGE ON VALVE TO NORTH. SEE DETAIL 2/2.
- E. AFTER TESTING NEW JETTY STREET WATERLINE, EXISTING 4" WATERLINE. INSTALL 8X4 TEE WITH GATE VALVES TO NORTH AND WEST. SEE DETAIL 2/2.
- F. NOT USED.
- G. INSTALL NEW FIRE HYDRANT AS SHOWN. SEE DETAIL 3/12.

ALL NEW LINES TO BE PRESSURE TESTED AND BACTERIOLOGICAL TESTED.

H. AFTER APPROVAL AND ACTIVATION, CONNECT EXISTING LINES ON JETTY.

I. RECONNECT EXISTING WATER SERVICE AFTER TESTING. NEW SADDLE AND CORP STOP.

J. INSTALL FLUSHING HYDRANT. SEE DETAIL 2/12.

WS. NEW WATER SERVICES ASSEMBLY. SEE DETAIL 2/11.

X. STORM PIPE CROSSING - 6" CLEARANCE. SPECIAL INSPECTION REQUIRED. AVOID LOCAL HIGH POINTS. SEWER & WATERLINE CROSSINGS. WHERE SEWER LINES CROSS WITHIN 18-INCHES OF VERTICAL SEPARATION BELOW A WATERLINE, SEWER MAINS. CENTER ONE FULL LENGTH OF PIPE AT POINT OF CROSSING.

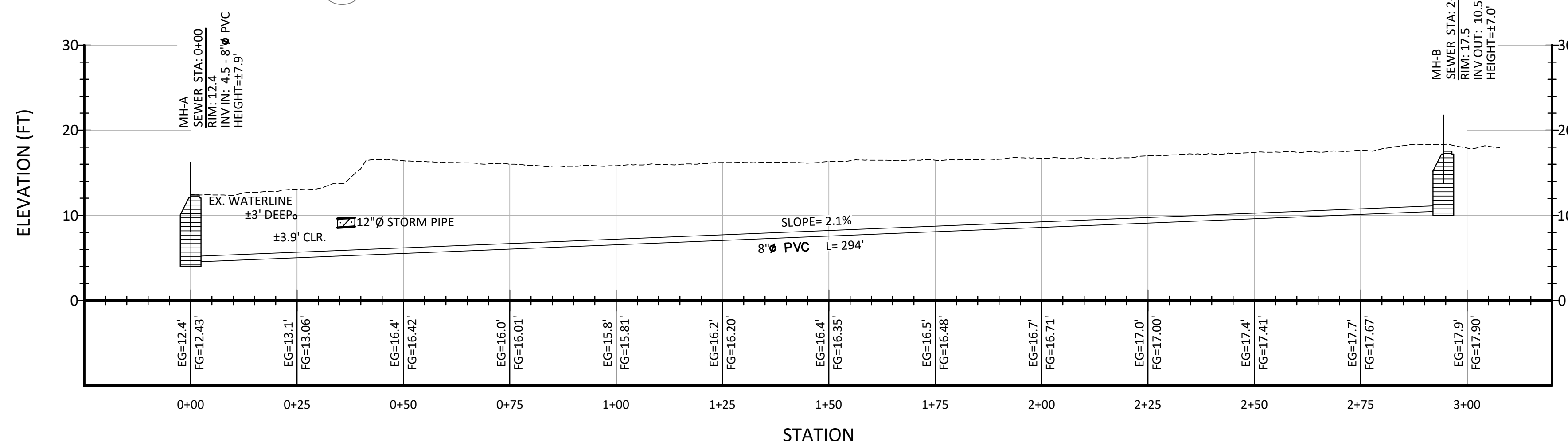
ALL NEW LINES TO BE PRESSURE TESTED AND BACTERIOLOGICAL TESTED.

#### LEGEND

- EXISTING PROPERTY LINES
- - - ROAD CENTERLINE
- EXISTING WATERLINE
- - - PROPOSED WATERLINE
- EXISTING GATE VALVE
- PROPOSED GATE VALVE
- EXISTING HYDRANT
- EXISTING SEWER LINE
- - - PROPOSED SEWER LINE
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- EXISTING DRAINAGE PIPE
- - - PROPOSED DRAINAGE PIPE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN/ SEDIMENT BASIN
- EXISTING EDGE OF GRAVEL
- PROPOSED ASPHALT ROADWAY
- PROPOSED CURB AND SIDEWALK

### FOURTH AVENUE SEWER PROFILE

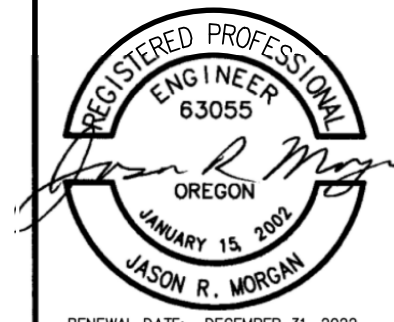
SCALE: 1"=20' VERT: 1"=10'



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ENGINEERING, INC.**

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JOB NO.  
DATE



RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
**FOURTH AVENUE IMPROVEMENTS**  
**WATER & SEWER EXTENSIONS**

HAMMOND

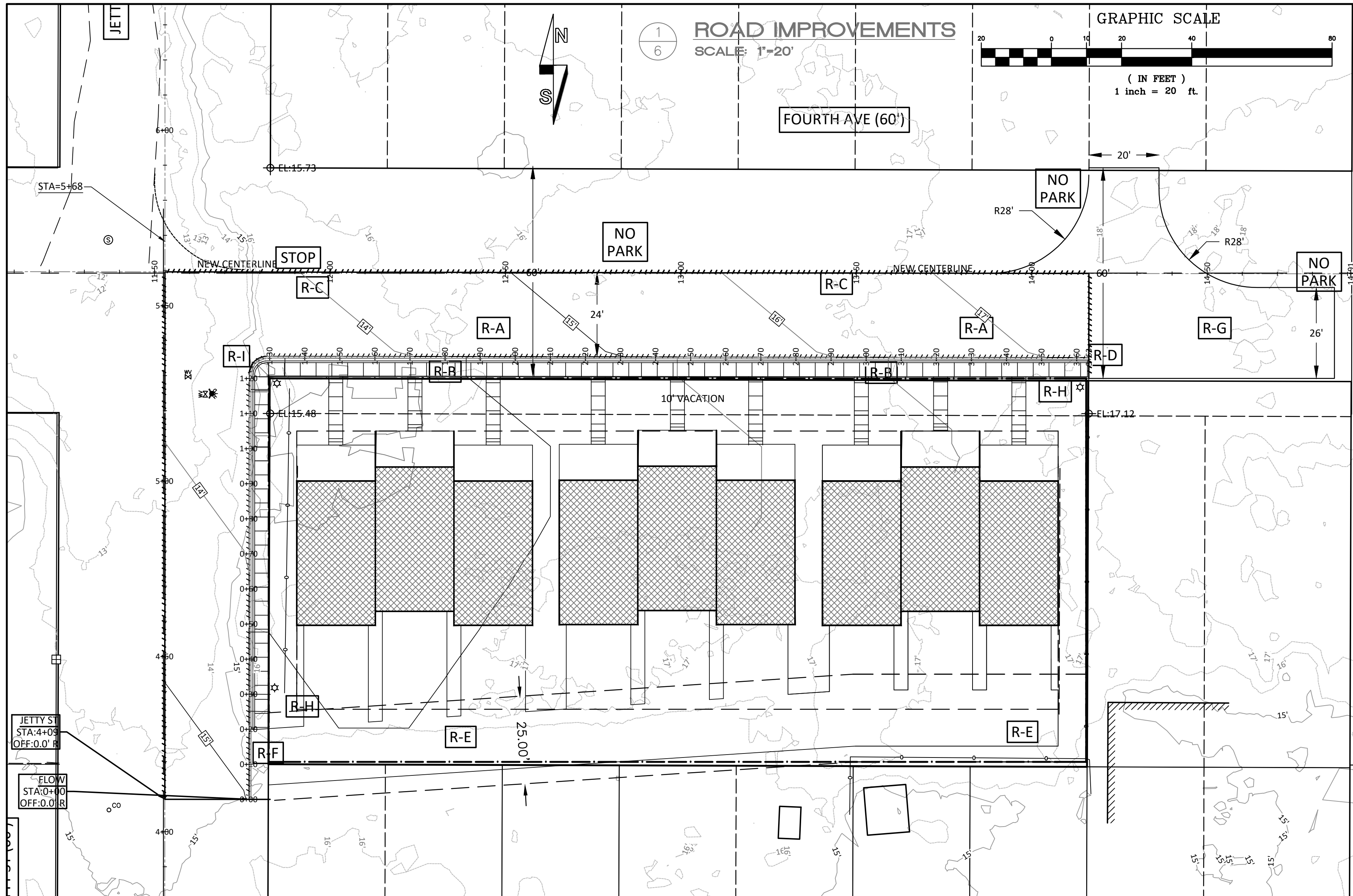
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**C5**

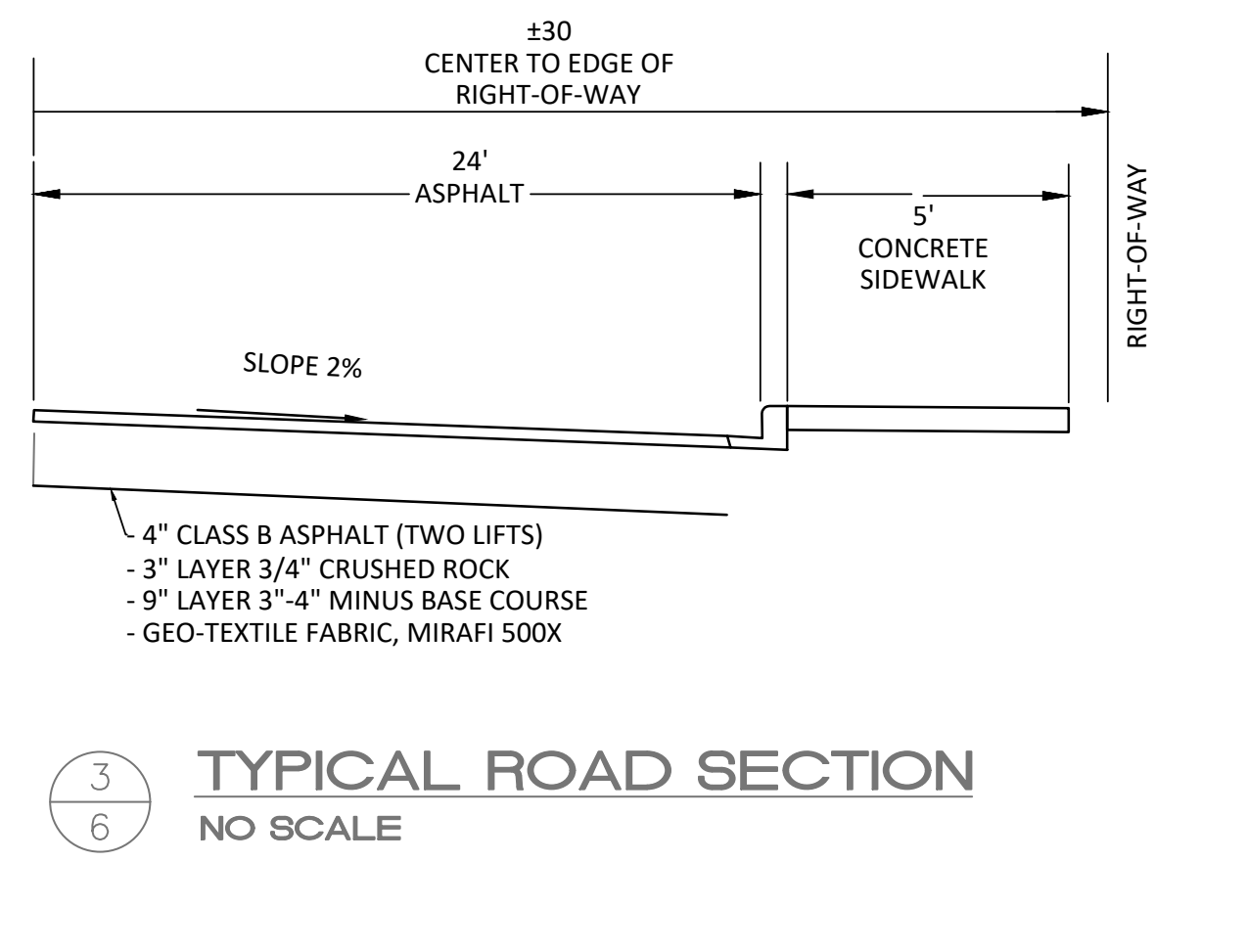
OF 14

NO.	DATE	DESCRIPTION	BY





- ### ROAD NOTES
- HALF-STREET CONSTRUCTION
- R-A. INSTALL 6" CURB WITH 18" GUTTER. SEE DETAIL 4/13.
  - B. INSTALL 5' SIDEWALK. SEE DETAIL 3/13.
  - C. INSTALL 24' ROADWAY - HMAC. PITCH TO CURB. SEE DETAIL 2/13.
  - D. INSTALL END OF WALK RAMP AND CURB. SEE DETAILS 4/13.
  - E. RAVEL DRIVEWAY - WIDTH VARIES. USE FABRIC, 9" BASE ROCK, 3" LEVELING COURSE. VALLEY GUTTER. DRAIN TO SEDIMENT BASIN.
  - F. DRIVEWAY CUTOUT - 25' WIDE. SEE DETAIL 1/14.
  - G. HAMMERHEAD TURNAROUND. GRAVEL. CROWN AT ROW CENTERLINE.
  - H. LIGHTING LOCATIONS - DETAILS TO BE DETERMINED.
  - I. PEDESTRIAN CURB RAMP. SEE DETAIL 4/14.
- STOP. STOP SIGN. SEE DETAIL 5/12.  
NO PARK NO PARKING SIGN. SEE DETAIL 4/12.



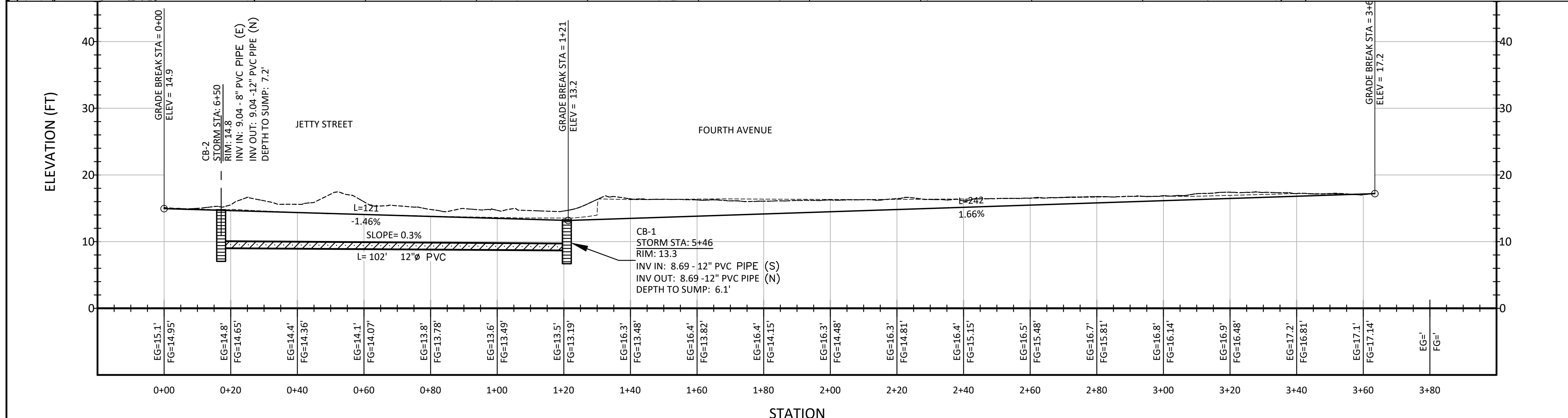
- ### LEGEND
- EXISTING PROPERTY LINES
  - ROAD CENTERLINE
  - EXISTING WATERLINE
  - PROPOSED WATERLINE
  - EXISTING GATE VALVE
  - PROPOSED GATE VALVE
  - EXISTING HYDRANT
  - EXISTING SEWER LINE
  - PROPOSED SEWER LINE
  - EXISTING SEWER MANHOLE
  - PROPOSED SEWER MANHOLE
  - EXISTING DRAINAGE PIPE
  - PROPOSED DRAINAGE PIPE
  - PROPOSED DRAINAGE MANHOLE
  - PROPOSED CATCH BASIN/ SEDIMENT BASIN
  - EXISTING EDGE OF GRAVEL
  - PROPOSED ASPHALT ROADWAY
  - PROPOSED CURB AND SIDEWALK

### Street Plan Notes:

Standard monolithically poured 6" curb and 18" gutter section shall be constructed. Sub-grade AASHTO-T99 compaction tests completed every one-hundred feet with test reports given to Public Works.

The full street section shall have a minimum of 4" Asphalt Concrete in two 2" lifts. The top layer shall be 12.5 mm (1/2") dense mix for the surface wearing course with the lower lift either 19 mm (3/4") dense hot mix asphalt concrete (HMAC) or 12.5 mm (1/2") dense mix.

Roadway structure of twelve inches of 1" or 3/4" - 0" inch compacted base rock. An additional 12" layer of 3" cobble sub-base with geotextile layer may be used during wet weather or winter construction periods.



### Engineering Design Standards

April 2020

All cuts in asphalt paving, Portland cement paving, concrete curbs, gutters and sidewalks shall be saw cut at least three inches deep unless excepted as a condition of the permit.

Trench compaction of 1" or 3/4" - 0" backfill in public utilities. Street saw cut and restoration are required. Tack coating and sand sealing of edges of pavement cut is required.

Mailbox units mounted in sidewalk shall have a driveway approach with the obstruction so that 4 feet of clear passing distance is maintained. Location to be coordinated with the United States Post Service Office for Warrenton.

New ADA ramp(s) with Truncated Domes texture pattern is required on all street corners. The contractor shall provide the pattern panels for the ramps. Damage to ADA ramps or sidewalks during construction or building construction shall be the responsibility of the contractor to repair.

All street name signs shall be installed by contractor to APWA, MUTCD and City standards. Signs poles mounted in grade, curbs or sidewalks have V-lock anchors.

All street markings such as Stop Bars or Crosswalks etc., shall be installed by contractor following the most current addition of the MUTCD and be made of thermoplastic material per APWA standards.

Streetlight poles and luminaries shall be installed prior to final approval.

Sidewalk portions to be (re)constructed for full frontage or where broken and missing. Two inches of compacted 3/4" - 0" base rock under concrete, with 1/2" fiber board expansion joint at ends, dummy tool construction joints every 5 feet also matching score marks in any existing adjacent curb and gutter. An 8-inch thickness in commercial (6" residential) driveway aprons is required. All sidewalk widths are determined by the street classification. The sidewalk shall be a minimum of four inches thick and six inches thick at the driveways. Each lot shall have a driveway approach with three-foot curb transitions with sidewalk sweep around the back of the access per the attached plan set.

Newly constructed curbs shall be stamped with the capital letter "D" for storm, "S" for sanitary, and "W" for water at the location of each underground service crossing. Letters shall be three (3) inches in height and embossed a minimum of one-quarter (1/4) inch deep.

### Street Lighting Notes:

Street lights to be Fiberglass Poles (provided by PP & L) with LED 6,200 lumen rating (minimum) lamps and installed on foundations per Pacific Power & Light requirements.

All street lights to have individual pull box (J-Box), (provided by the utility company), installed within 2 to 4' from the base of the pole.

All street lights to be 2' from back of curb where recessed or no sidewalk exists, or 2' back of sidewalk to the face of pole unless otherwise approved by City.

All street light conduits to be 2-1/2" PVC Schedule 40.

NO.	DATE	DESCRIPTION	BY

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CIVIL ENGINEERING  
INSPECTION  
PLANNING

JOB NO. 42101WIN  
DATE JUNE 20, 2021

REGISTERED PROFESSIONAL ENGINEER  
OREGON  
JASON R. MORGAN  
RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**

**FOURTH AVENUE IMPROVEMENTS**

**FOURTH AVENUE**

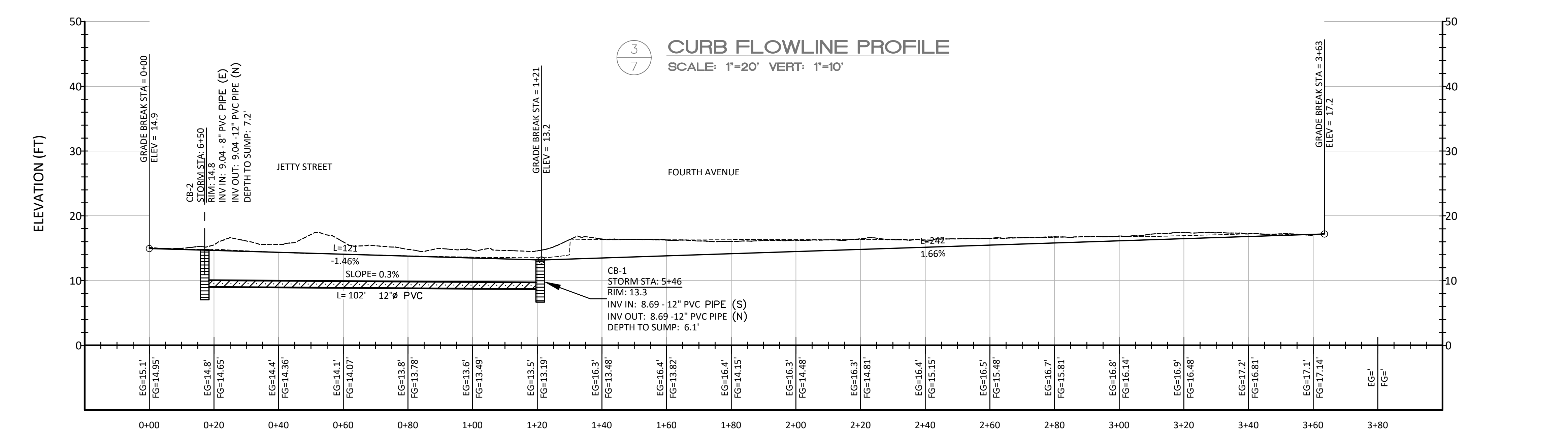
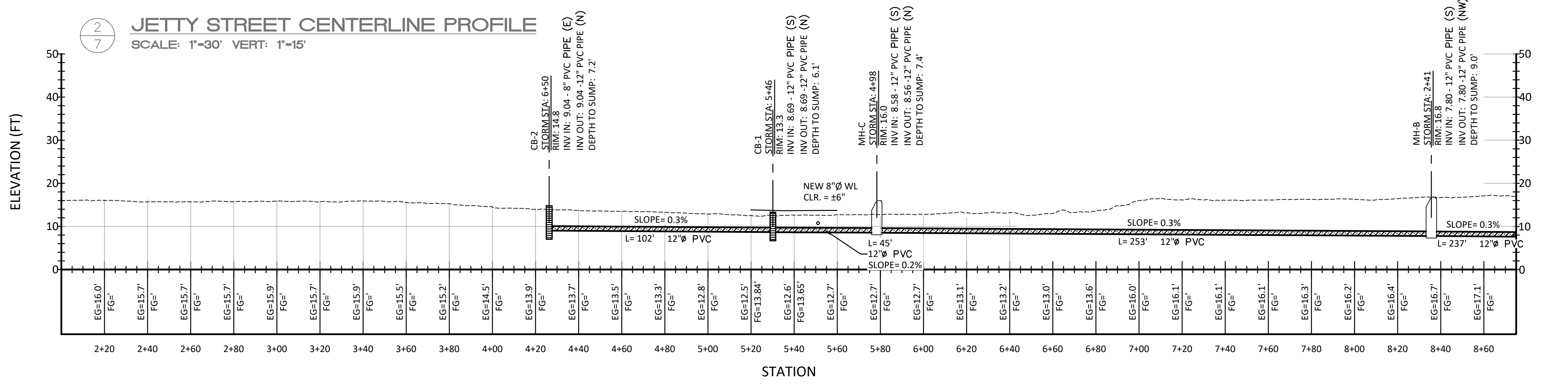
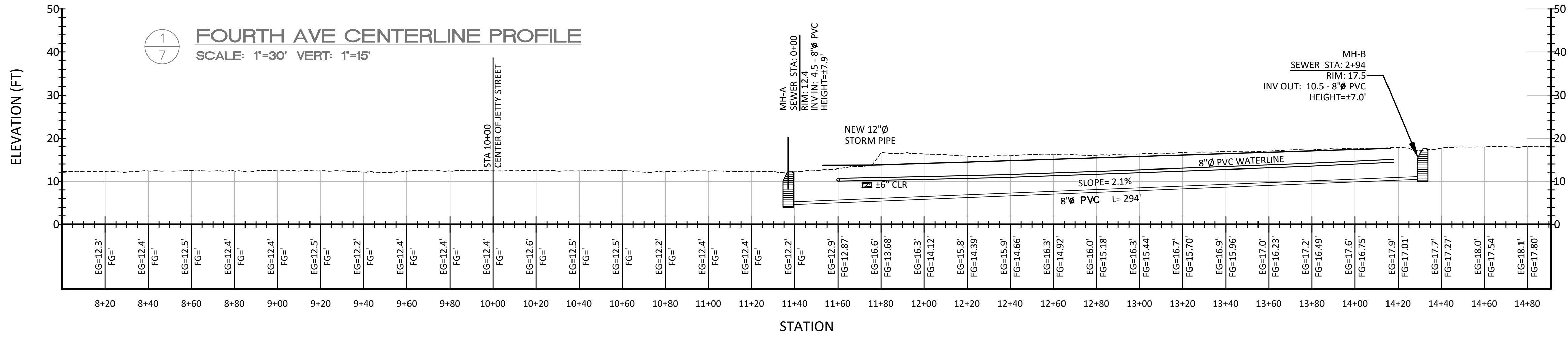
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SHEET

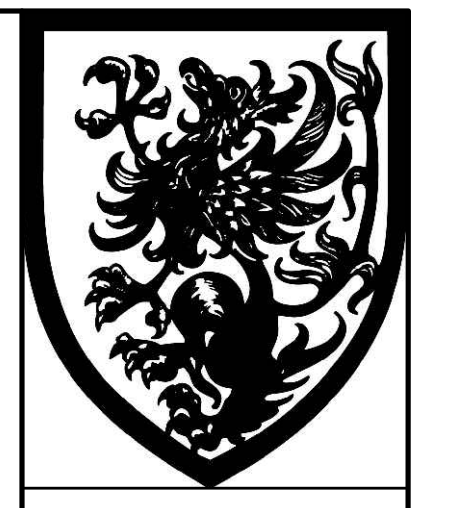
**C6**

OF 14

2 CURB FLOWLINE PROFILE  
6 SCALE: 1"=20' VERT: 1"=10'



NO.	DATE	DESCRIPTION	BY



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REGISTERED PROFESSIONAL ENGINEER  
 63055  
 OREGON  
 JANUARY 15, 2005  
 JASON R. MORGAN  
 RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
 FOURTH AVENUE IMPROVEMENTS  
 FOURTH AVENUE  
 HAMMOND

SHEET  
**C7**  
 OF 14

**Sewer Plan Notes:**

The interior of the manhole base shall be formed so the effluent enters the flow smoothly with the shelf slope no more than 1:12. Grouting shall be smooth with no protruding sharp edges. Grouting around pipe intrusions including service laterals to be smooth with flow channels to prevent uncontrolled drops.

Manhole, Base, and Cone or Flat-top lids shall have only mainline tracer wire extended into each manhole and secured under the manhole lid for easy access.

New 4" ASTM D3034 PVC lateral to connection on public mainline with 4" sanitary tee-wye. Connection is to be inspected by Public Works and Building Division.

The sewer laterals shall be installed entering the sewer main line from the upper quadrant of the pipe. Any sewer lateral entering the pipe at the spring line must have a tee-wye sweep fitting installed. All lateral connection(s) are to be inspected by Public Works and Building Departments before backfilling.

Newly constructed curbs or replaced curbs shall be stamped with the capitol letter "S" at the location each sanitary lateral crossing. Letters shall be three (3) inches in height and embossed a minimum of one-quarter (1/4) inch deep.

Construct service saddles at least 24" from manhole wall or adjacent service.

Construct service lateral within 5' of the center of the property served.

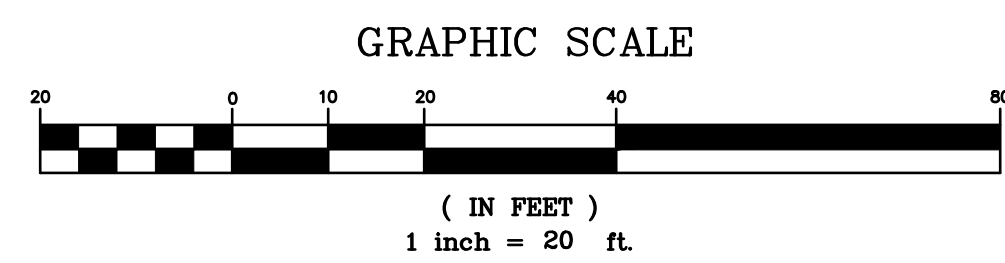
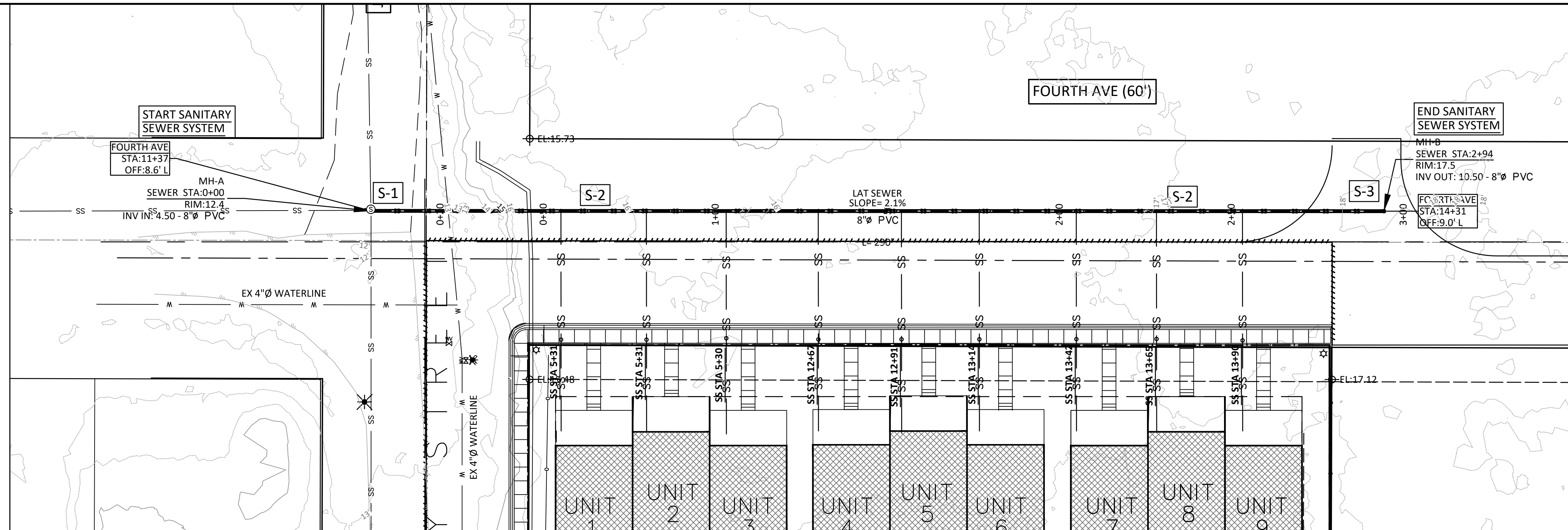
Each lateral shall be marked with a green 2" x 4" buried at the end of the pipe with the green tracer wire secured above grade to the 2" x 4". The lateral shall be plugged with a water tight plug. When connecting new lines to existing manholes, the manhole wall must be core drilled cleanly, sealed with LINK-SEAL® and grouted or sealed with a Kor-N-Seal® boot to prevent groundwater inflow and infiltration. Use of saw cut and knock out by hammer is prohibited.

Contractor is responsible for vacuum, mandrel and television testing and inspection requirements, see section 4.8 of the City of Warrenton Engineering Design Standards for required testing.

Contractor shall keep downstream sanitary sewer pipes and manholes clean of construction debris. Notification to clean the system may be given by the City at any time. The contractor is responsible for all cleaning which may include manholes downstream of the project scope of work.

All manholes located in unimproved easements and right of ways shall be provided with tamper proof lids, be installed two feet (2') above existing grade and marked with a green Carsonite® marker post, labeled "Sewer".

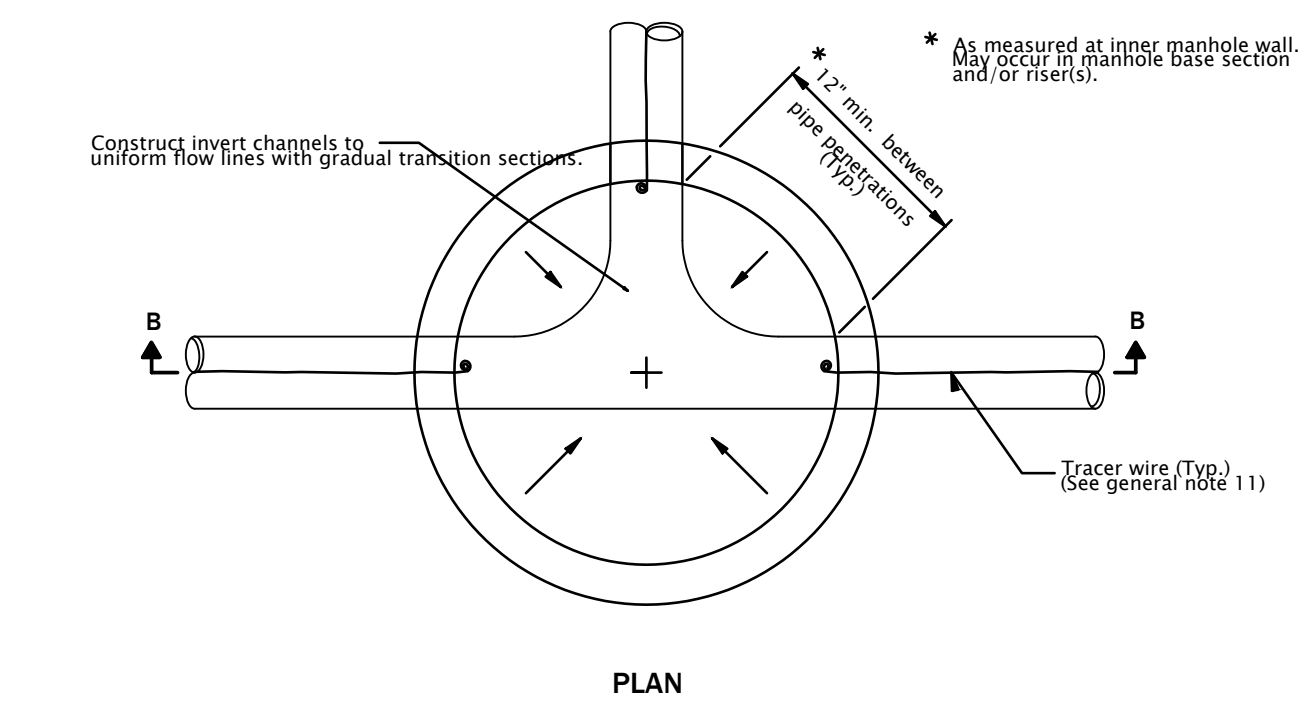
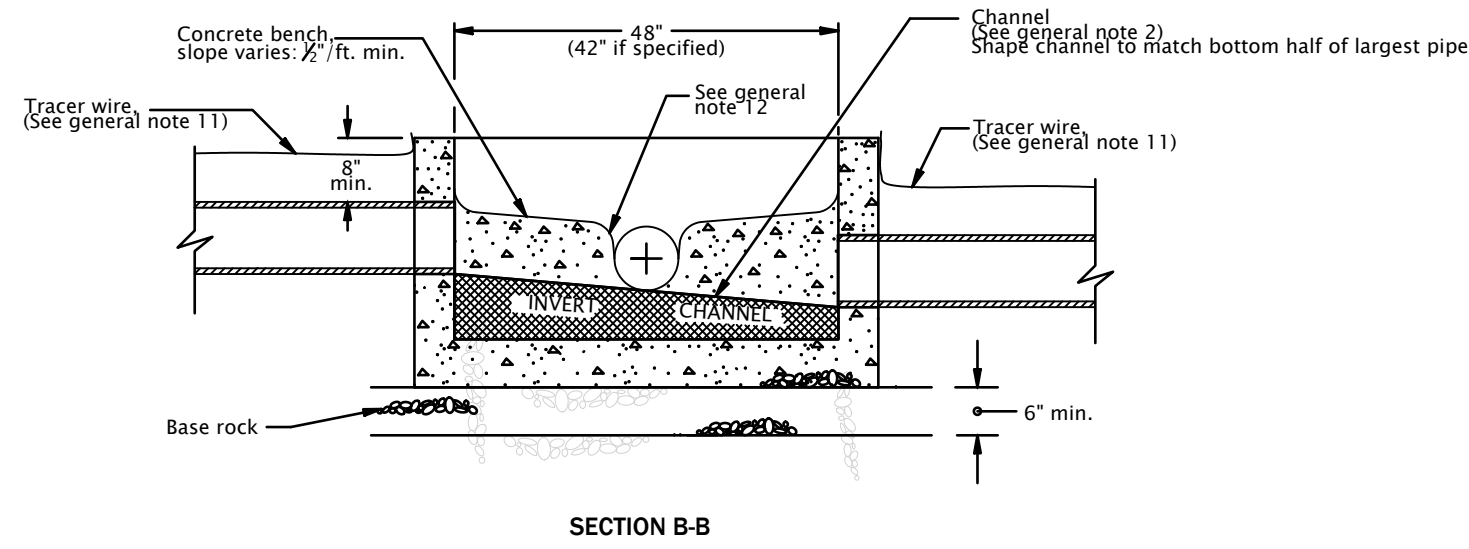
Contractor shall submit accurate as-built stations for all connections of sewer laterals and note the distance from upstream manholes. This information will be provided on the as-built documents before submittal.



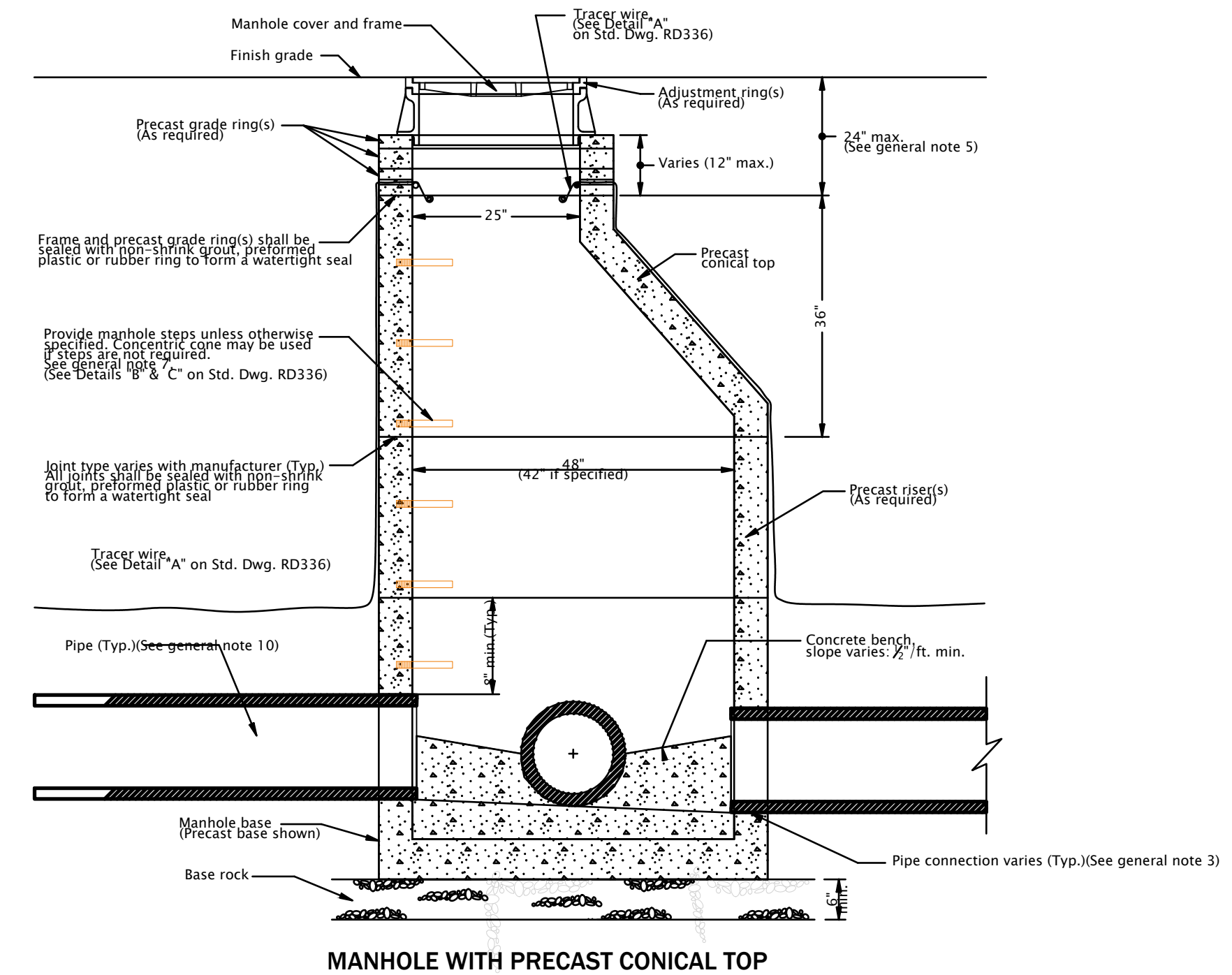
**FOURTH AVENUE SEWER**  
SCALE: 1"=20'

**SEWER NOTES**

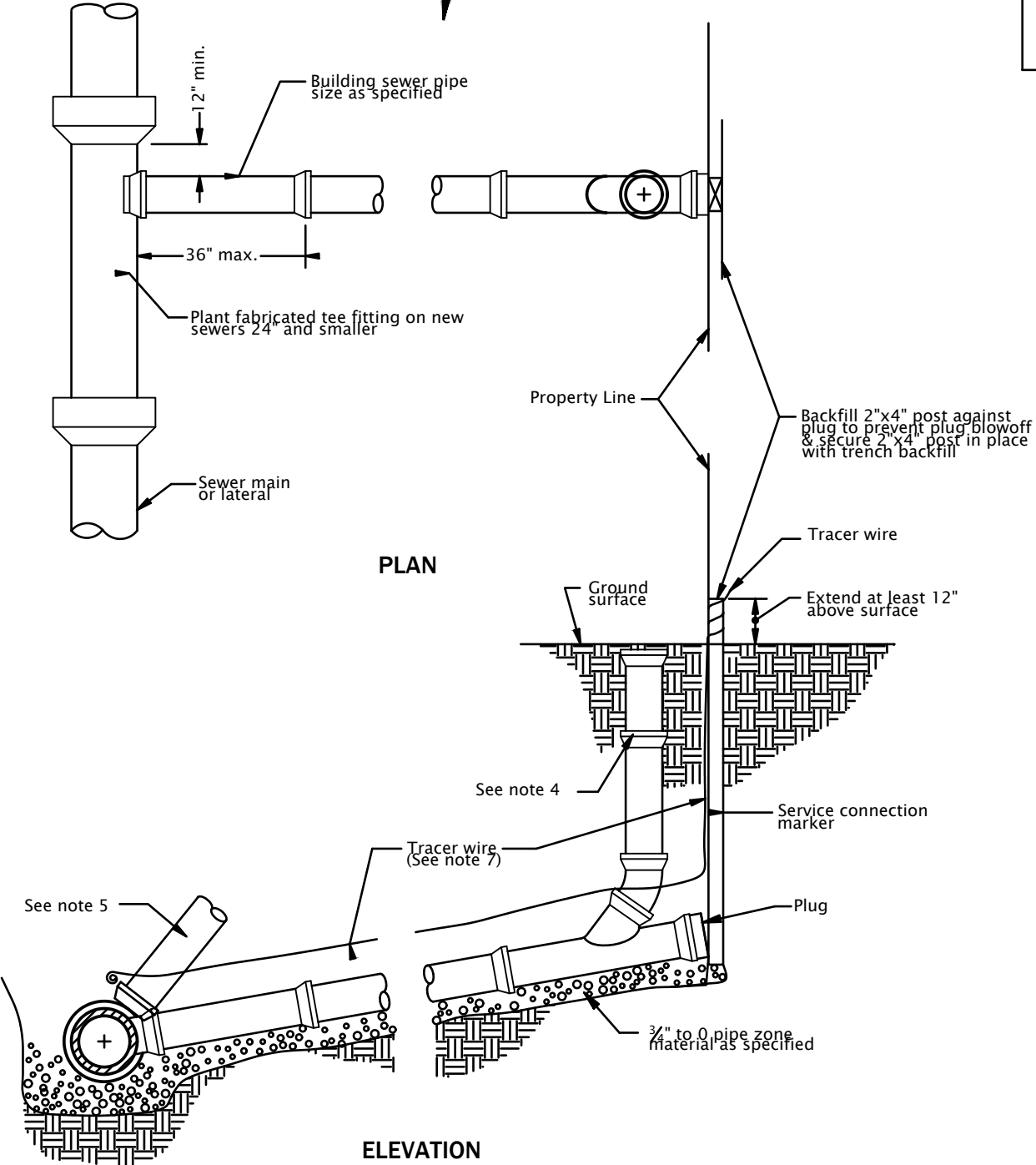
- LOCATE EXISTING MANHOLE AND STUB. CONNECT NEW PIPELINE TO EAST.
- INSTALL NEW 8" PVC PIPE. SEE DETAIL 1/10.
- INSTALL NEW CONCRETE MANHOLE. SEE DETAILS 2/8 AND 3/8.
- SEWER SERVICE. SEE DETAIL 4/8.



**PRECAST MANHOLE BASE**



**MANHOLE WITH PRECAST CONICAL TOP**



**SHALLOW TRENCH SERVICE**

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
- All concrete shall be commercial grade concrete.
  - Channels shall be constructed to provide smooth slopes and radii to outlet pipe. 3. Bases may be precast or cast in place.
  - Max. pipe diameter varies with pipe material.
  - Use on 42" and 48" diameter manhole.
  - Extend pipe into manhole and grout smooth. Pipe(s) may extend 2" max. beyond the interior manhole wall.
  - Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.
  - All precast products shall conform to the requirements of ASTM C478.
  - See Std. Dwg. RD345 for pipe to manhole connections.
  - See Std. Dwg. RD336 for manhole steps details.
  - See Std. Dwg. RD336 for tracer wire details.
  - At spring line of pipe, extend channel up to crown line on 12:1 batter.

**MANHOLE BASE**  
NO SCALE

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
- All precast products shall conform to requirements of ASTM C478.
  - Standard precast manhole section diameter shall be 48". Use 42" if specified by the Engineer.
  - See Std. Dwg. RD345 for pipe to manhole connections.
  - See Std. Dwg. RD344 for manhole base section.
  - Adjust 24" maximum.
  - All connecting pipes shall have a tracer wire, or approved alternate.
  - See Std. Dwg. RD336 for manhole steps.
  - See Std. Dwg. RD336 for details not shown.
  - See Std. Dwg. RD336 for manhole covers and frames, manhole adjustment rings, etc.
  - Max. pipe diameter varies with pipe material.
  - See Std. Dwg. RD342 for shallow manholes.
  - Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.

**SEWER MANHOLE**  
NO SCALE

- NOTES:
- Pipe and fittings shall be compatible. Only manufactured fittings shall be used.
  - Minimum depth at right of way or easement line shall be 4'.
  - Marker posts and blocking shall be treated wood. Post shall be 2"x4" fir. Post to extend 12" minimum above finish grade and exposed area shall be painted green.
  - When required, a cleanout shall be installed where directed.
  - Lay building sewer at max. 45° from horizontal to achieve required depth at property line when minimum slope results in excessive depth.
  - For bedding and backfill see Std. Dwg. RD300.

**SEWER SERVICE**  
NO SCALE

**LEGEND**

	EXISTING PROPERTY LINES
	ROAD CENTERLINE
	EXISTING WATERLINE
	PROPOSED WATERLINE
	EXISTING GATE VALVE
	PROPOSED GATE VALVE
	EXISTING HYDRANT
	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
	EXISTING DRAINAGE PIPE
	PROPOSED DRAINAGE PIPE
	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN/ SEDIMENT BASIN
	EXISTING EDGE OF GRAVEL
	PROPOSED ASPHALT ROADWAY
	PROPOSED CURB AND SIDEWALK

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JOB NO. 42101WIN  
 DATE JUNE 20, 2021  
 REGISTERED PROFESSIONAL ENGINEER  
 63055  
 OREGON  
 JANUARY 15, 2009  
 JASON R. MORGAN  
 RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
**FOURTH AVENUE IMPROVEMENTS**  
**SEWER NOTES & DETAILS**  
 HAMMOND

SHEET  
**C8**  
 OF 14

**Stormwater Plan Notes:**

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Engineering Design Standards April 2020

Installation of curb inlets, field inlets and manholes are to conform to City standards. Connection to existing public systems from private catchments shall be at or have installed curb catch basins or area inlets within the public right-of-way.

Construction of inlet / outlet headwall structures, riprap bank stabilization, bio-filter swale and energy dissipation features.

Installation of storm water detention, flow and pollution control water quality features per approved plans. Below ground culverts, box, MH or wet/dry basin etc.

Construction of drainage ditch to approved slope & grade, vegetation on side slopes for erosion control.

Roof and garage runoff drainage shall drain to approved drainways. Approved drainways include public curb and gutter street systems, pipe systems, or roadside ditches. Drainage grates across a public sidewalk are prohibited.

Each lot may have 2 each 3" schedule 40 PVC weep holes installed on each side of the driveway through the curb or accommodate runoff through easement to collection point with special approval from the Public Works Department.

Contractor is responsible for, mandrel and television testing and inspection requirements - see General Section.

Storm water detention may be required. Engineered Hydrology Studies are required prior to permitting.

**Erosion Control Plan Notes:**

All sites shall submit an erosion control plan for review, regardless of size. New developments impacting areas of 10,000 square feet or greater must obtain an Erosion Control Permit.

Erosion Control Plan shall include:

- The methods and/or facilities to be used to prevent erosion and pollution created from the development both during and after construction.
- Limits of clearing by flagging boundaries in the field before starting site grading or construction. Staging areas shall be included.
- An analysis of source controls, such as detention and storage during construction as an alternative method to control erosion from storm water runoff.
- A drainage plan during construction.
- Show existing contours as well as all sensitive areas, creeks, streams, wetlands, and open areas.
- A description of historic localized flooding problems resulting from surface water runoff, FEMA or flooding problems known to the community or the City.
- Erosion control plan shall include a schedule for implementation of erosion measures. The schedule shall include:
  - Measures to cover bare soil within 14 days following final grading.

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- Implementation of wet weather measures between October 1<sup>st</sup> and April 30<sup>th</sup>, unless otherwise approved by the City.
- On sites where vegetation and ground cover have been removed, City approved ground cover shall be re-established by seeding and mulching on or before September 1<sup>st</sup> with the ground cover established by October 15<sup>th</sup>. As an alternative to seeding and mulching, or if ground cover is not established by October 15<sup>th</sup>, the open areas shall be protected through the wet season with straw mulch, erosion blankets, or other approved methods, where appropriate, with long term maintenance plan.

Water containing sediment shall not be discharged into the surface water management system, wetlands or streams without first passing through an approved sediment filtering facility or device. Discharge from temporary sedimentation ponds or detention facilities used for sedimentation during construction shall be constructed to City standards to provide adequate sediment filtration.

A site-specific plan prepared by a registered professional engineer shall be required and additional erosion control measures may be required for sites having one or more of the following characteristics:

- Sites greater than five (5) acres disturbed;
- Sites with slopes greater than 15 percent on any portion of the site;
- Sites with highly erodible soils;
- Sites adjacent to sensitive areas;
- Sites where grading and clearing activities are likely between October 1<sup>st</sup> and April 30<sup>th</sup>

Additional erosion control measures may include one or more of the following:

- Limited area cleared at any one time;
- Additional drainage requirements during construction;
- Filtering or treatment of runoff;
- Additional water quality;
- Additional erosion control to cover portions of the site;
- Maintaining a vegetated buffer strip between site and sensitive area;
- Additional facilities to reduce volume and velocity of water runoff;
- If there are no workable alternatives, limit clearing and grading in some areas between October 1<sup>st</sup> and April 30<sup>th</sup>.
- All disturbed land areas that shall remain unworked for 14 days or more shall be physically covered in the wet weather season

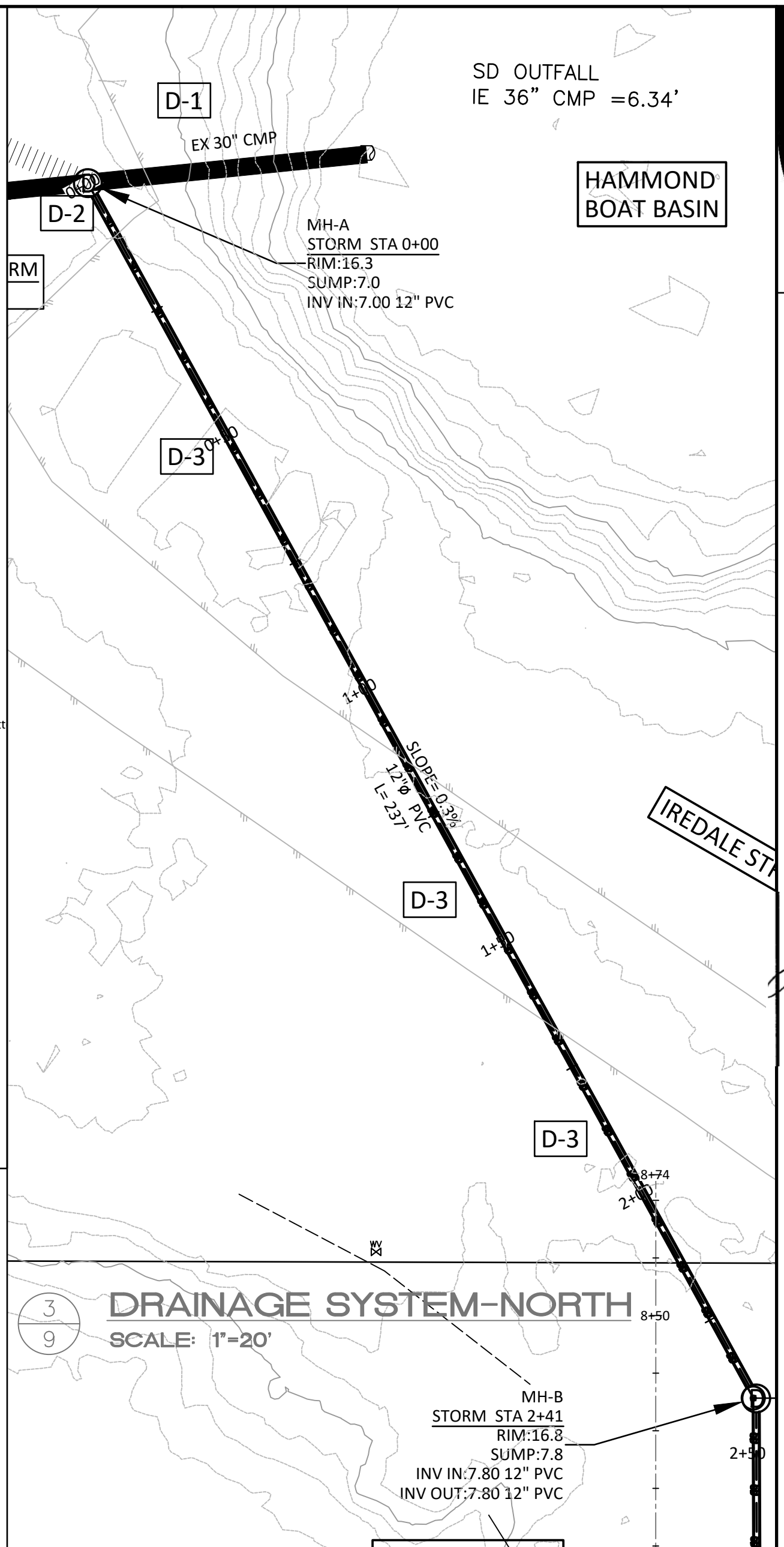
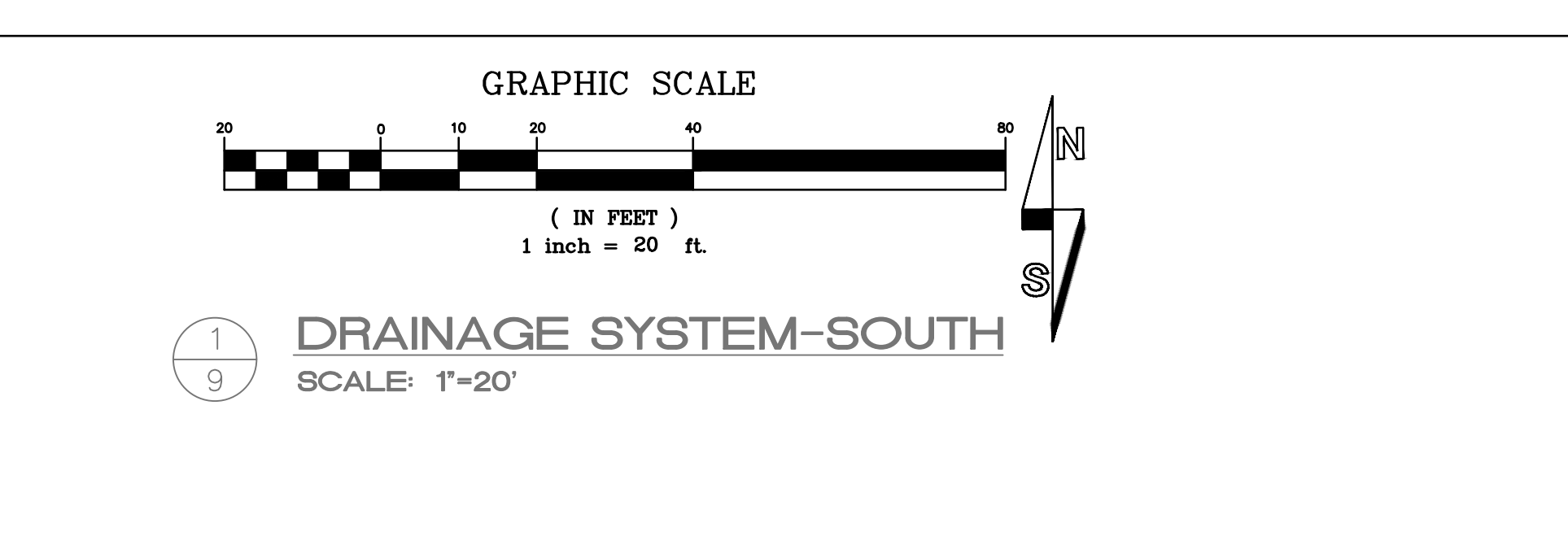
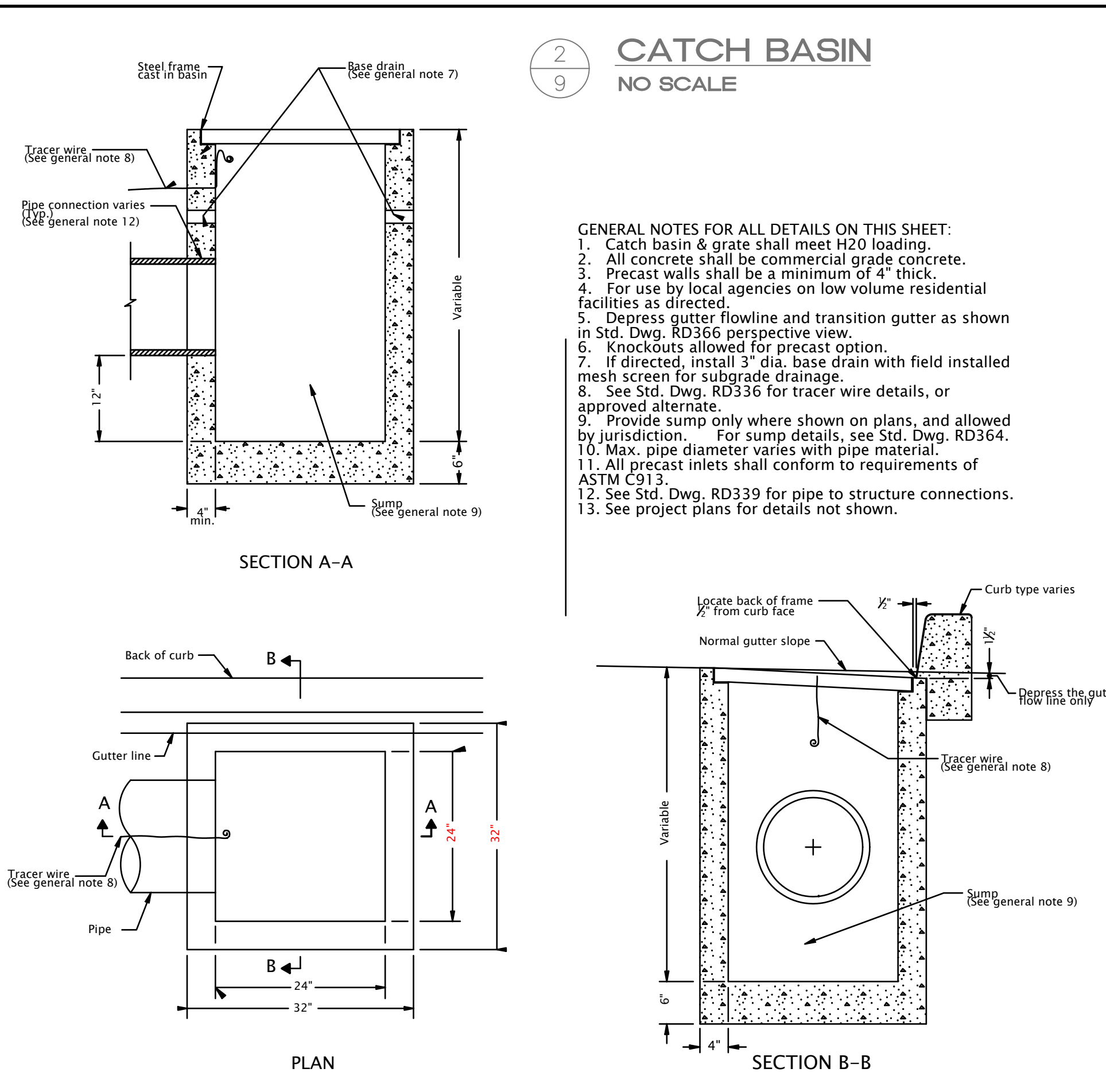
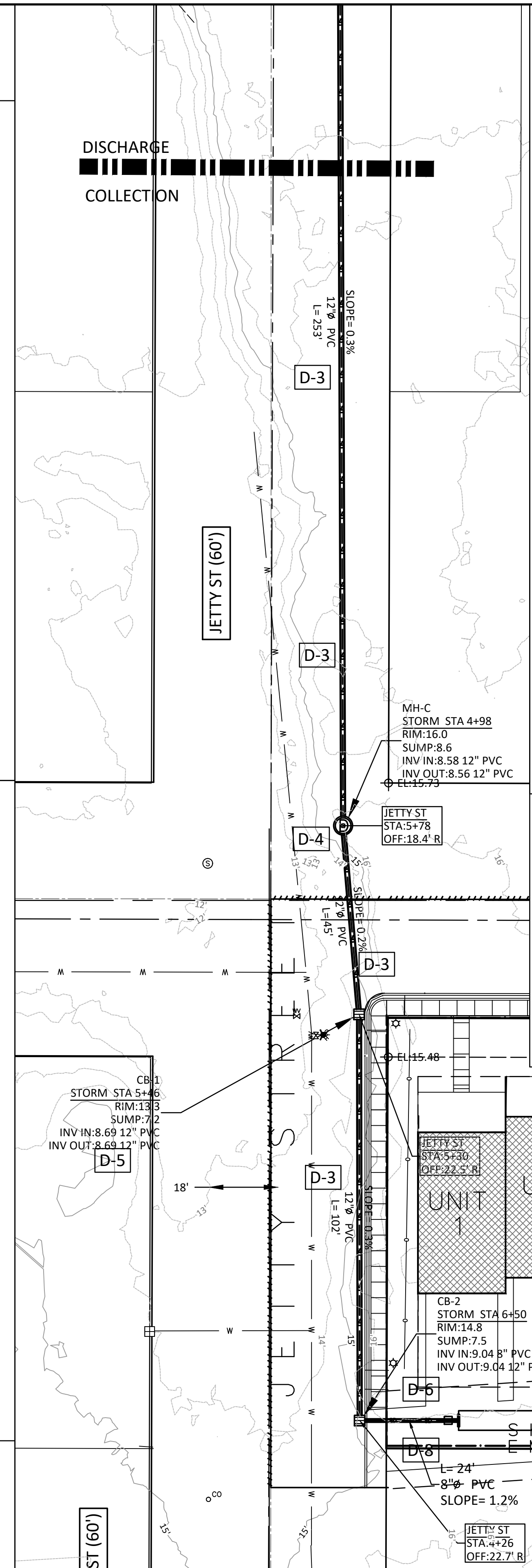
Site cleanup and debris removal. Contractor to remove excessive soil and debris deposited onto streets or into the City storm drainage system. Street cleanup on streets every day and upon completion of work or as required by the City.

Dust control on streets accessible and used by residents is required.

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Engineering Design Standards April 2020

Minimum Erosion control measures shall include but are not limited to the following. Sediment fences along the downgrade slope of the project perimeter. Filter bags at catch basin inlets. Street cleaning of debris or material dropped in transit. Installation of water quality erosion control BMP's per project plans.



**DRAINAGE NOTES**

SEE PROFILE FOR LENGTHS, ELEVATIONS, AND SLOPES.

- LOCATE EXISTING 36" CMP PIPE.
- INSTALL NEW 72" MANHOLE. SEE DETAIL 4/10.
- INSTALL NEW 12" PVC PIPE. SEE DETAIL 1/10 AND 2/10.
- INSTALL NEW 48" MANHOLE. SEE DETAIL 4/10.
- INSTALL NEW CATCH BASIN. SEE DETAIL 2/9.
- INSTALL 8" PVC. SEE DETAIL 1/10.
- INSTALL ADS STORMTECH CHAMBERS ADS 740 HC. SEE DETAIL 3/10.
- SEDIMENT BASIN. COLLECT WATER FROM GRAVEL DRIVEWAY. SEE DETAIL 5/10.

NO.	DATE	DESCRIPTION	BY

**MORGAN CIVIL ENGINEERING, INC.**

PO BOX 358  
MANZANITA, OR 97130  
(503) 801-6016  
www.morgancivil.com

CIVIL ENGINEERING  
INSPECTION  
PLANNING

JOB NO. 42101WIN  
DATE JUNE 20, 2021

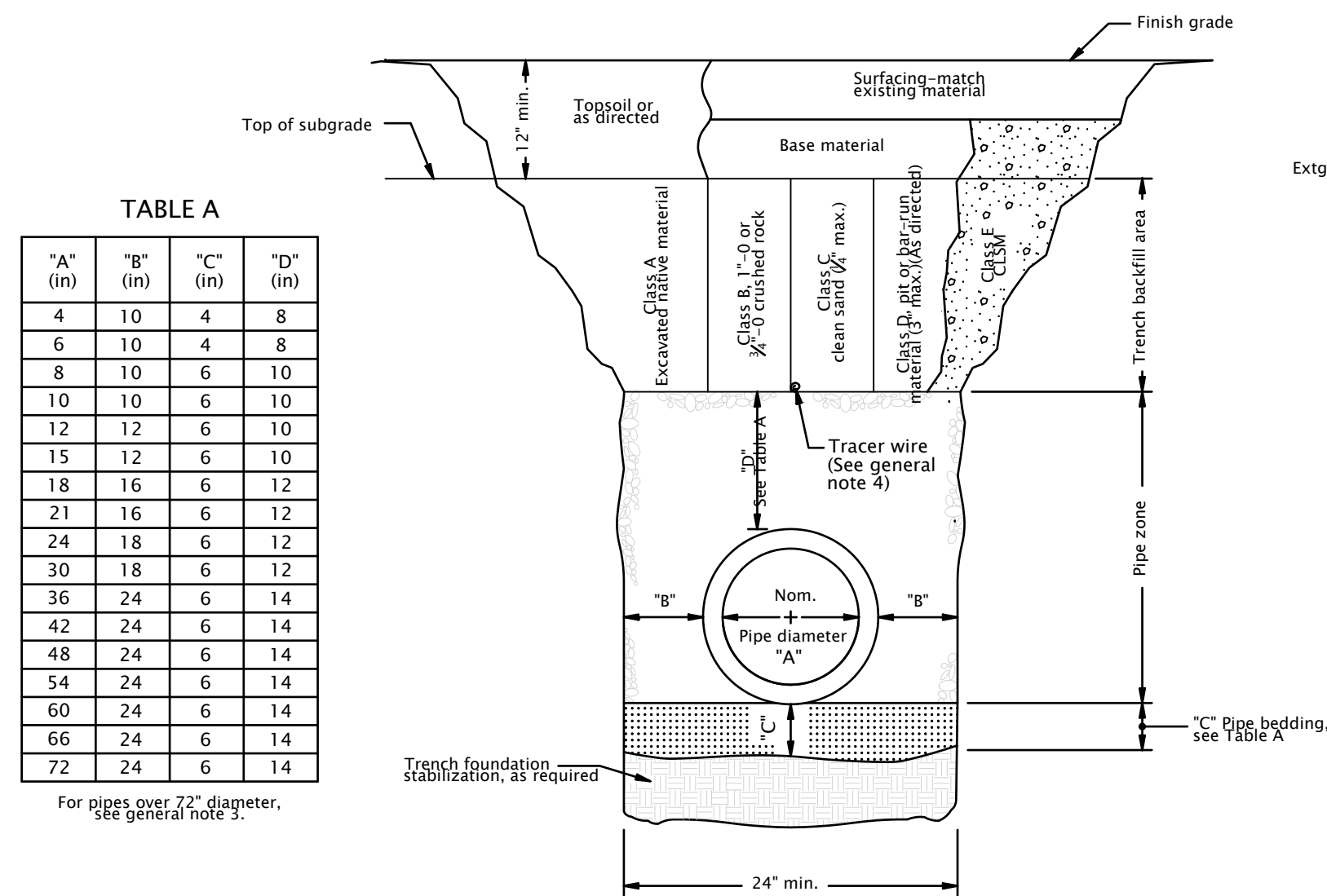
REGISTERED PROFESSIONAL ENGINEER  
63055  
OREGON  
JASON R. MORGAN  
RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
FOURTH AVENUE IMPROVEMENTS  
DRAINAGE NOTES & DETAILS

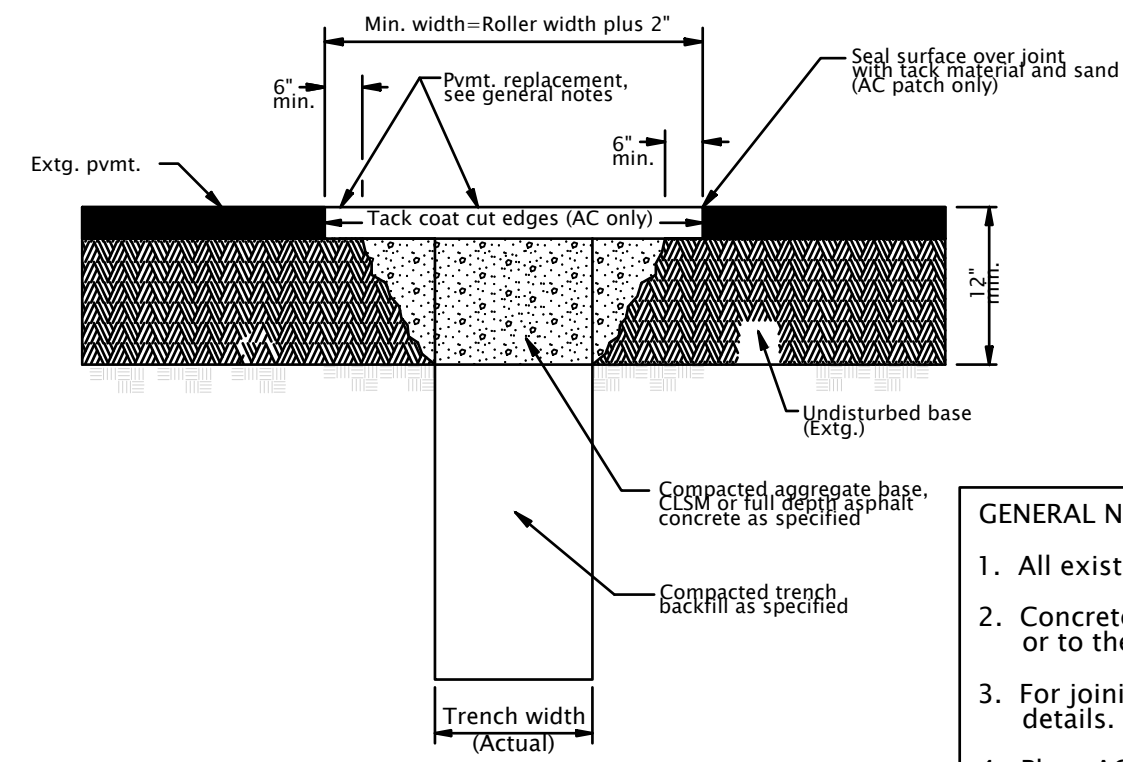
HAMMOND

SHEET **C9** OF 14

1  
10  
**TYPICAL TRENCH**  
NO SCALE

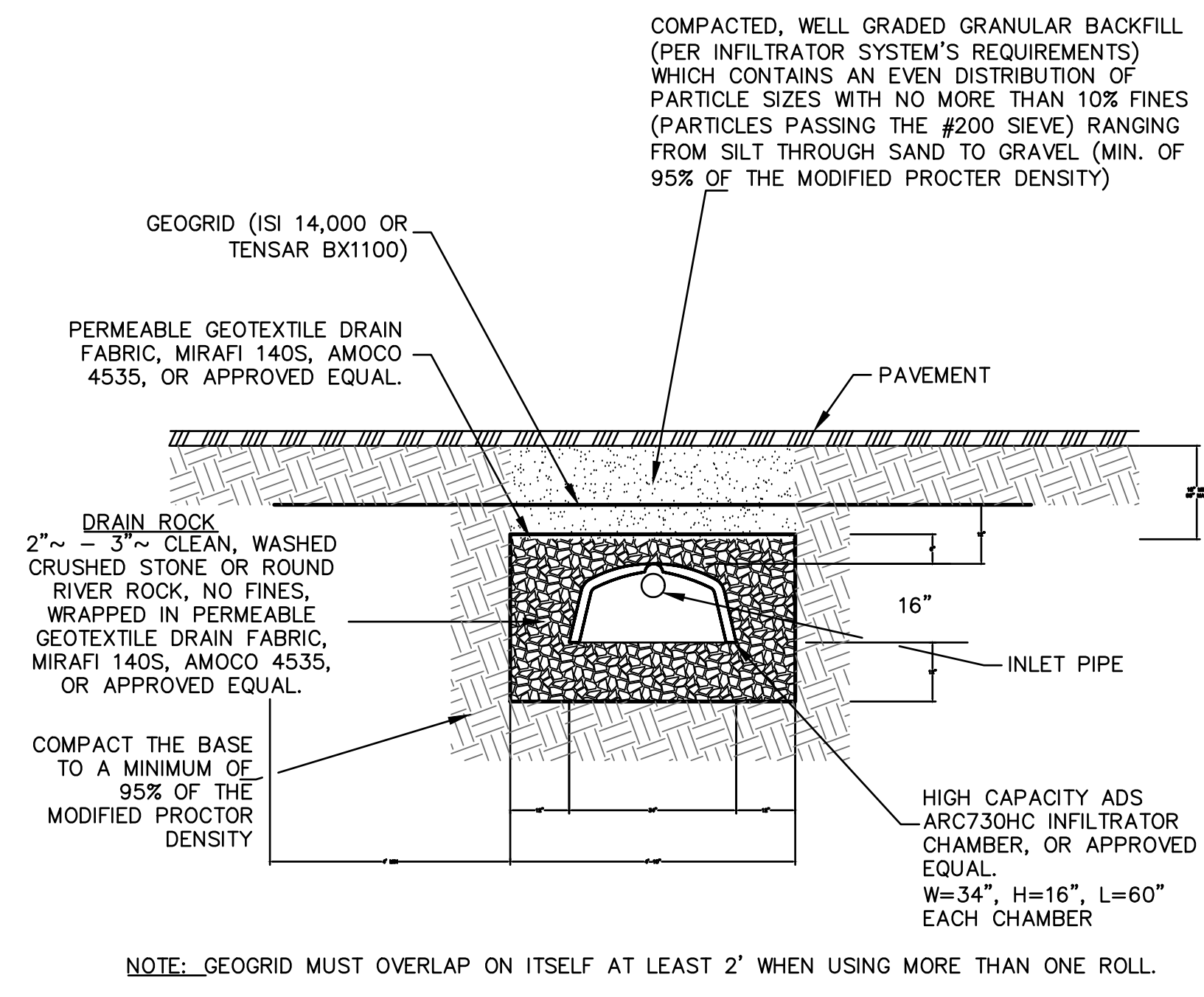


2  
10  
**ROAD CUT**  
NO SCALE

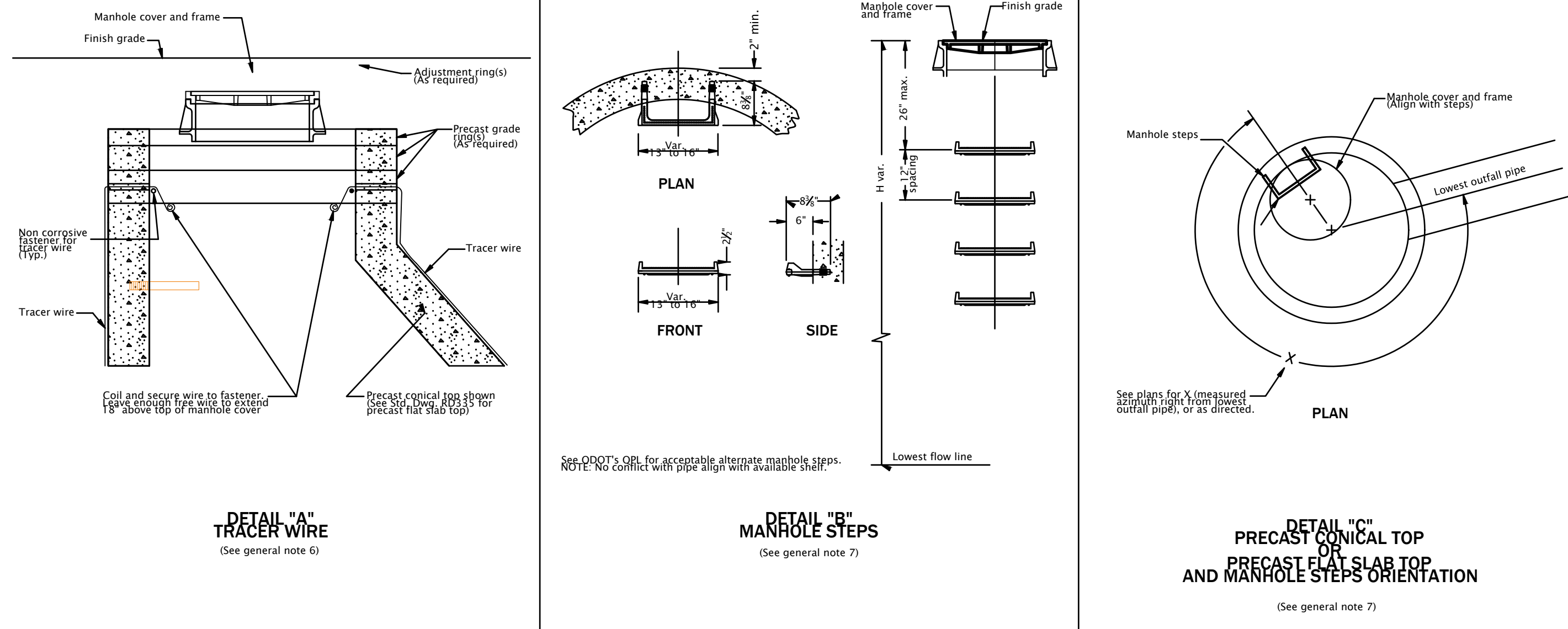


- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
1. All existing AC or PCC pavement shall be sawcut prior to repaving.
  2. Concrete pavement shall be replaced with concrete to a minimum thickness of 8" or to the thickness of removed pavement, whichever is greater.
  3. For joining new concrete to existing concrete, see contract plans for specific details.
  4. Place AC mix minimum thkn. of 6" or the thkn. of the removed pavement, whichever is greater. Compact as specified.

3  
10  
**INFILTRATION TRENCH**  
NO SCALE

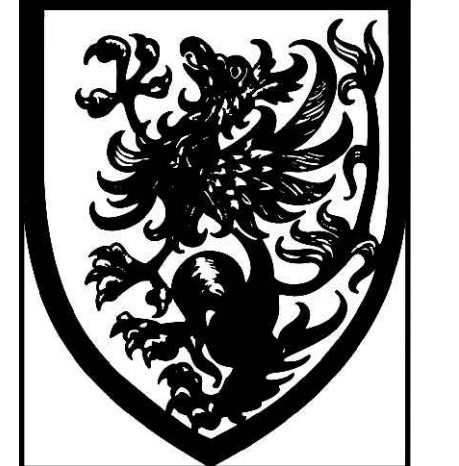
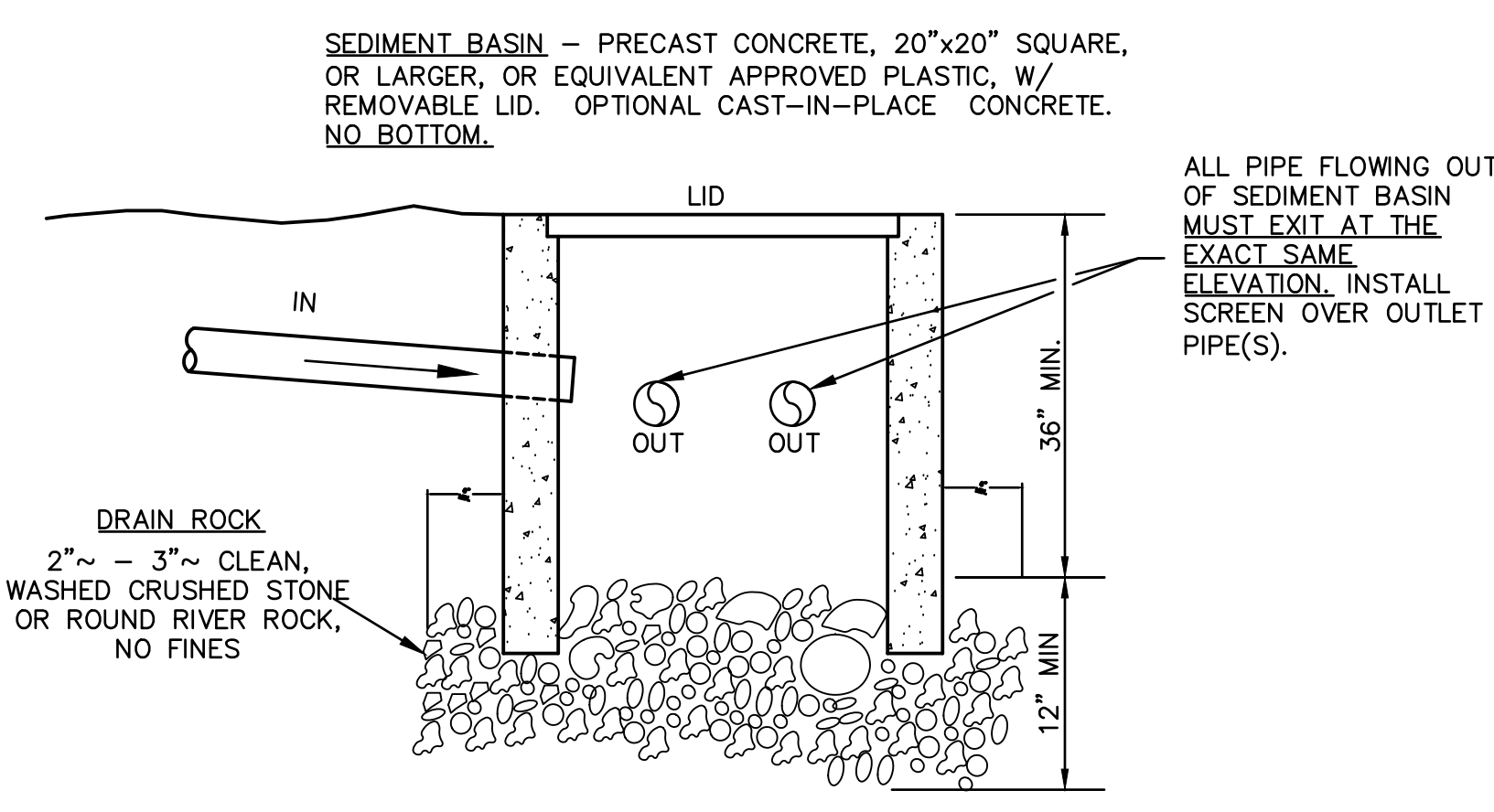


4  
10  
**MANHOLE DETAILS**  
NO SCALE



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
1. All precast products shall conform to requirements of ASTM C478.
  2. Standard precast manhole section diameter shall be 48". Use 42" if specified by the Engineer.
  3. See Std. Dwg. RD345 for pipe to manhole connections.
  4. See Std. Dwg. RD344 for manhole base section.
  5. Adjust 24" maximum.
  6. All connecting pipes shall have a tracer wire, or approved alternate. Place tracer wire directly over pipe centerline and on top of the pipe zone material.
  7. Steps shall conform to requirements of ASTM C478. When H=42" or less omit steps. See Detail "C" for alignment of steps, and manhole cover and frame.
  8. See Std. Dwg. RD335 for details not shown.
  9. See Std. Dwg. RD356 for manhole covers and frames, manhole adjustment rings, etc.
  10. Max. pipe diameter varies with pipe material.
  11. See Std. Dwg. RD342 for shallow manholes.
  12. See project plans for details not shown.

5  
10  
**SEDIMENT BASIN**  
NO SCALE



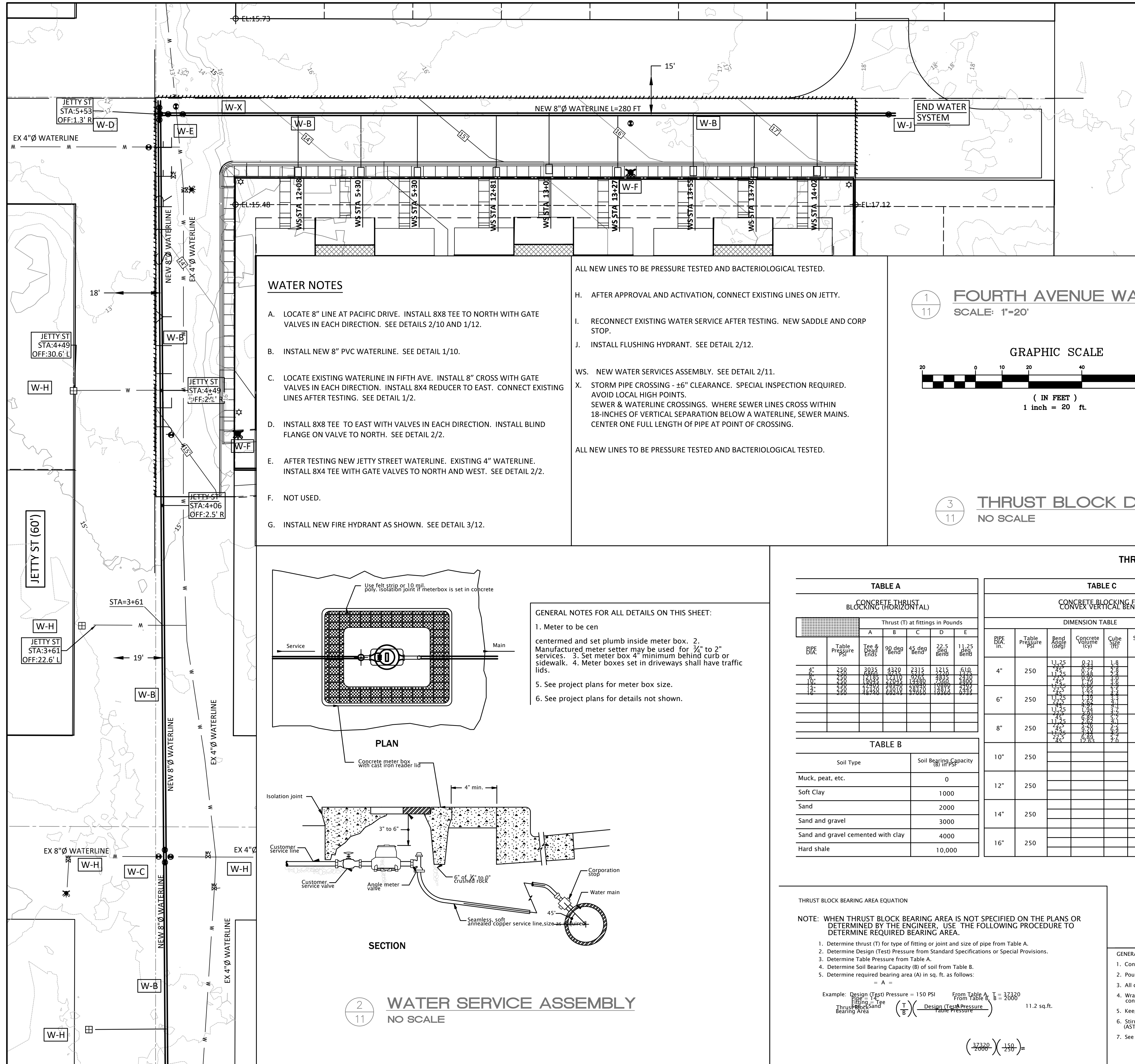
**MORGAN CIVIL ENGINEERING, INC.**  
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PROF. NO. 4421-01-WIN  
 DATE: JUNE 20, 2021  
 REGISTERED PROFESSIONAL ENGINEER  
 63055  
 JASON R. MORGAN  
 OREGON  
 JANUARY 15, 2005  
 RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
 FOURTH AVENUE IMPROVEMENTS  
 DRAINAGE NOTES & DETAILS  
 HAMMOND

SHEET  
**C10**  
 OF 14

NO.	DATE	DESCRIPTION	BY



**WATER NOTES**

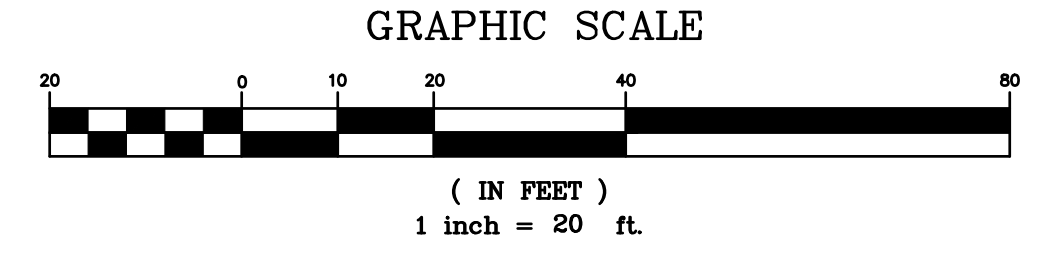
- A. LOCATE 8" LINE AT PACIFIC DRIVE. INSTALL 8X8 TEE TO NORTH WITH GATE VALVES IN EACH DIRECTION. SEE DETAILS 2/10 AND 1/12.
- B. INSTALL NEW 8" PVC WATERLINE. SEE DETAIL 1/10.
- C. LOCATE EXISTING WATERLINE IN FIFTH AVE. INSTALL 8" CROSS WITH GATE VALVES IN EACH DIRECTION. INSTALL 8X4 REDUCER TO EAST. CONNECT EXISTING LINES AFTER TESTING. SEE DETAIL 1/2.
- D. INSTALL 8X8 TEE TO EAST WITH VALVES IN EACH DIRECTION. INSTALL BLIND FLANGE ON VALVE TO NORTH. SEE DETAIL 2/2.
- E. AFTER TESTING NEW JETTY STREET WATERLINE. EXISTING 4" WATERLINE. INSTALL 8X4 TEE WITH GATE VALVES TO NORTH AND WEST. SEE DETAIL 2/2.
- F. NOT USED.
- G. INSTALL NEW FIRE HYDRANT AS SHOWN. SEE DETAIL 3/12.

ALL NEW LINES TO BE PRESSURE TESTED AND BACTERIOLOGICAL TESTED.

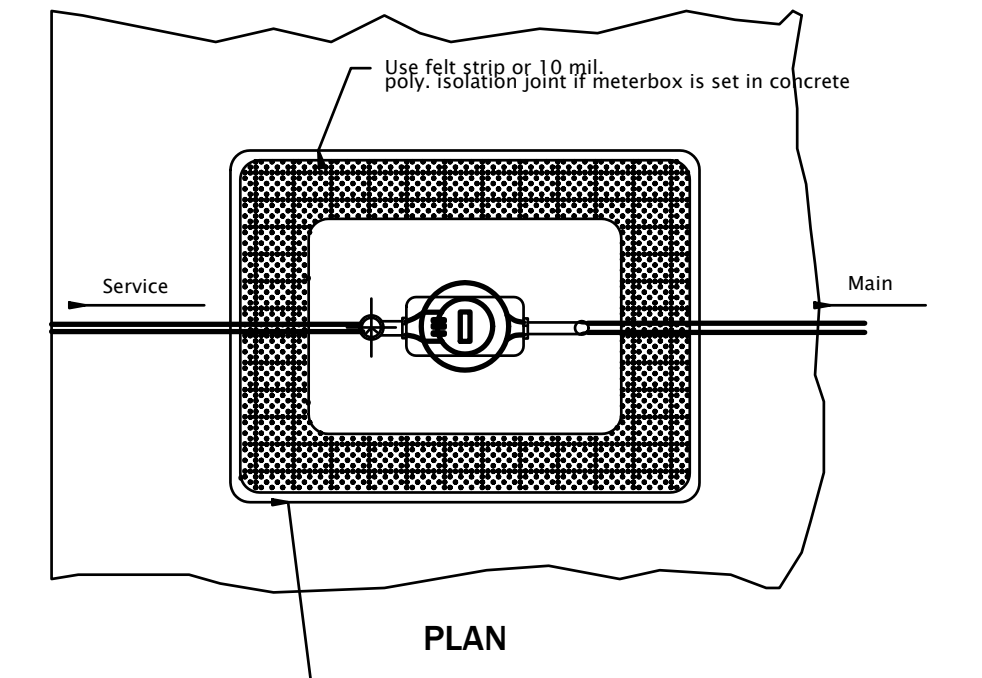
- H. AFTER APPROVAL AND ACTIVATION, CONNECT EXISTING LINES ON JETTY.
- I. RECONNECT EXISTING WATER SERVICE AFTER TESTING. NEW SADDLE AND CORP STOP.
- J. INSTALL FLUSHING HYDRANT. SEE DETAIL 2/12.
- WS. NEW WATER SERVICES ASSEMBLY. SEE DETAIL 2/11.
- X. STORM PIPE CROSSING - ±6" CLEARANCE. SPECIAL INSPECTION REQUIRED. AVOID LOCAL HIGH POINTS. SEWER & WATERLINE CROSSINGS. WHERE SEWER LINES CROSS WITHIN 18-INCHES OF VERTICAL SEPARATION BELOW A WATERLINE, SEWER MAINS. CENTER ONE FULL LENGTH OF PIPE AT POINT OF CROSSING.

ALL NEW LINES TO BE PRESSURE TESTED AND BACTERIOLOGICAL TESTED.

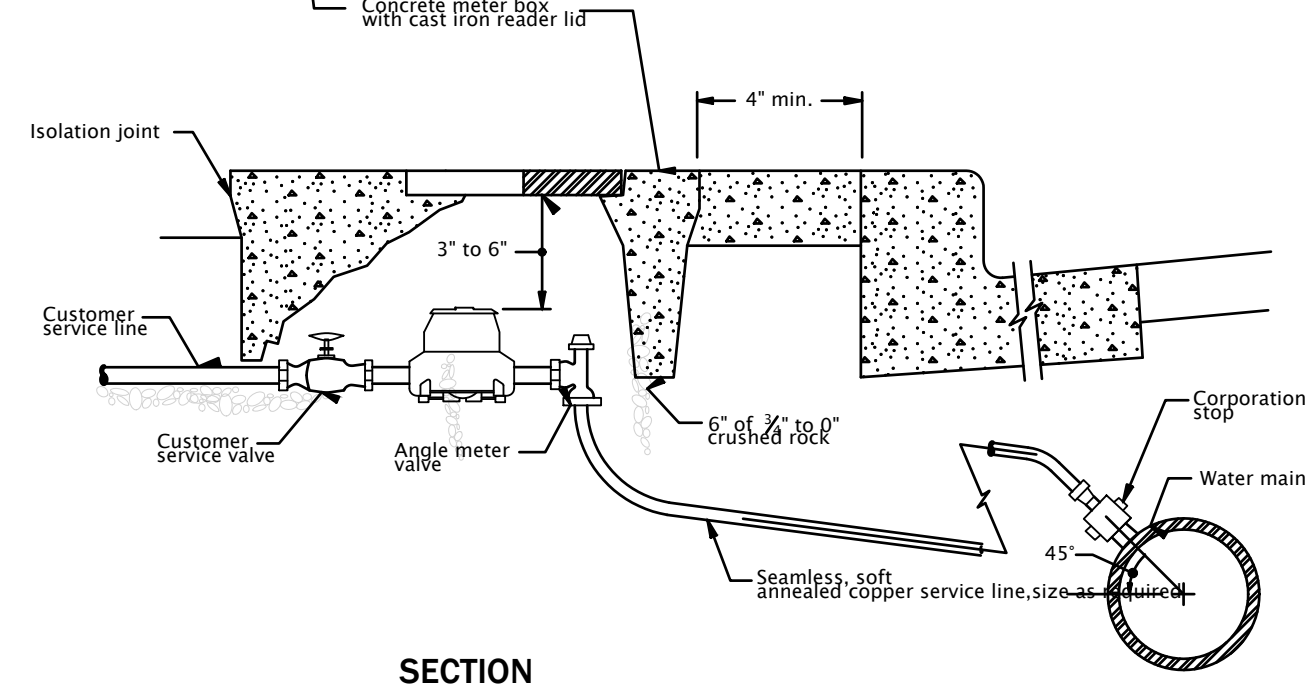
**1 FOURTH AVENUE WATERLINE**  
SCALE: 1"=20'



**3 THRUST BLOCK DETAILS**  
NO SCALE



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Meter to be centered and set plumb inside meter box.
  - Manufactured meter setter may be used for 3/4" to 2" services.
  - Set meter box 4" minimum behind curb or sidewalk.
  - Meter boxes set in driveways shall have traffic lids.
  - See project plans for meter box size.
  - See project plans for details not shown.



**2 WATER SERVICE ASSEMBLY**  
NO SCALE

**TABLE A**  
CONCRETE THRUST BLOCKING (HORIZONTAL)

PIPE DIA.	Table Pressure (psi)	Thrust (T) at fittings in Pounds				
		A	B	C	D	E
4"	250	2825	4320	2315	1215	610
6"	250	16485	17835	12750	9825	4800
8"	250	57300	59010	42600	32818	16492

**TABLE B**

Soil Type	Soil Bearing Capacity (lb/sq. ft.)
Muck, peat, etc.	0
Soft Clay	1000
Sand	2000
Sand and gravel	3000
Sand and gravel cemented with clay	4000
Hard shale	10,000

**TABLE C**  
CONCRETE BLOCKING FOR CONVEX VERTICAL BENDS

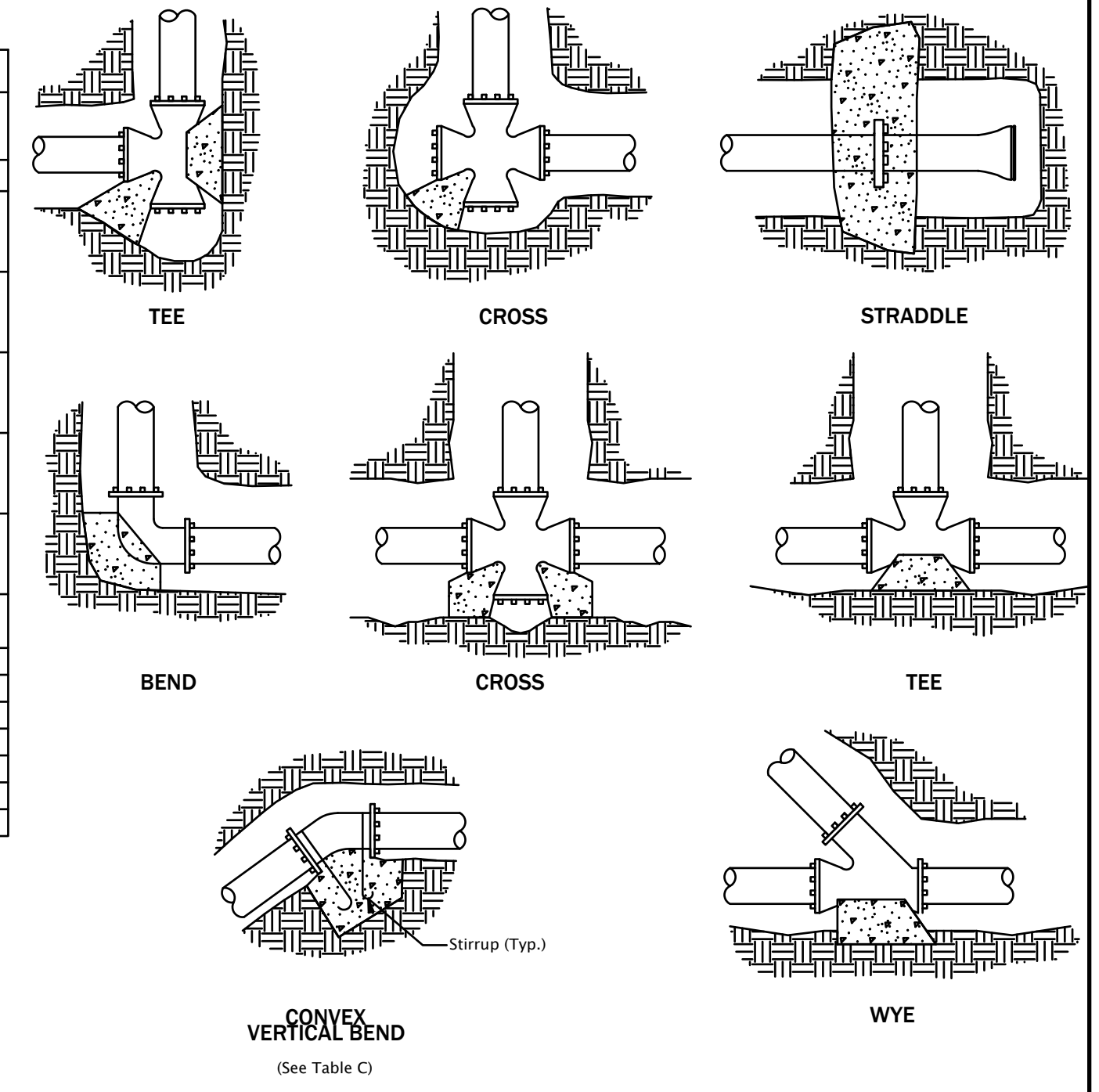
PIPE DIA.	Table Pressure (psi)	Bend Angle (deg)	DIMENSION TABLE		
			Concrete Volume (cy)	Cure Time (days)	Stirrup Dia. (in)
4"	250	11.25	0.21	1.8	1/8
		45	0.32	2.8	1/4
6"	250	11.25	0.32	2.8	1/4
		45	0.48	4.2	3/8
8"	250	11.25	0.48	4.2	3/8
		45	0.72	6.3	1/2
10"	250	11.25	0.72	6.3	1/2
		45	1.08	9.4	5/8
12"	250	11.25	1.08	9.4	5/8
		45	1.44	13.8	3/4
14"	250	11.25	1.44	13.8	3/4
		45	2.16	20.7	1
16"	250	11.25	2.16	20.7	1
		45	2.88	31.1	1 1/4

THRUST BLOCK BEARING AREA EQUATION

NOTE: WHEN THRUST BLOCK BEARING AREA IS NOT SPECIFIED ON THE PLANS OR DETERMINED BY THE ENGINEER, USE THE FOLLOWING PROCEDURE TO DETERMINE REQUIRED BEARING AREA.

- Determine thrust (T) for type of fitting or joint and size of pipe from Table A.
  - Determine Design (Test) Pressure from Standard Specifications or Special Provisions.
  - Determine Table Pressure from Table A.
  - Determine Soil Bearing Capacity (B) of soil from Table B.
  - Determine required bearing area (A) in sq. ft. as follows:  
 $A = \frac{T}{B}$
- Example: Design (Test) Pressure = 150 PSI From Table A, T = 37320  
 From Table B, B = 2000  
 $A = \frac{37320}{2000} = 18.66$  sq. ft.

**THRUST BLOCKING**



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

- Contractor to provide blocking adequate to withstand full test pressure.
- Pour concrete blocking against undisturbed earth.
- All concrete shall be commercial grade concrete.
- Wrap pipe and/or fittings with 2 layers of polyethylene film where in contact with concrete.
- Keep concrete clear of all joints and accessories.
- Stirrups shall be deformed galvanized cold rolled steel AASHTO M31 (ASTM A615), Grade 60. Coat with coal tar epoxy after installation.
- See project plans for details not shown.

NO.	DATE	DESCRIPTION	BY

**Water Plan Notes:**

Only City of Warrenton personnel may operate public water valves on City water mains. Requests shall be made 3 business days in advance to Public Works office: 503 861-0912.

Contractor is responsible to flush, clean, disinfect and pressure test water lines per AWWA standards. Testing is to be performed by the contractor and witnessed by City personnel. Test samples to be transported to a lab approved by the City. City and design engineer shall receive copies of test reports.

Fire hydrants shall be Mueller Super Centurion 250 Model A-423 or an approved equal with a recirculation oil lubrication system. Fire hydrant connections to the mainline shall require a photo of tee and isolation valve prior to backfill, and shall be submitted with final documents.

Hydrants adjacent to paved streets shall be marked using Blue Stimsonite® two sided markers (2-way Blue 88AB) to be attached to the road surface with Thermostat 2 part epoxy (EP-308 hardener Part B+EP-308 Epoxy Resin Part A). Markers shall be placed right of centerline in the lane closest to the hydrant. If the hydrant is located on a corner, markers must be on both streets.

Contractor shall perform a flow test for each hydrant and verify hydrant opening ease and lubricant. Contractor shall paint fire hydrants to City standard.

Air Release and valve assemblies shall be automatic only.

All water valves shall have VC212 valve box self-centering guides or equal.

Valve boxes shall be model 910 Vancouver style w/manufactured cast notches aligned with direction of main and traffic rated lid, labeled "W" or "water" or equal.

All valves shall be operated to verify valve wrench tool clearance prior to final paving.

All valve boxes not set in asphalt shall have a minimum of 18" x 18" x 3" thick concrete pad with valve box centered.

Residential service lines shall have Ford F500-4-NL brass one-inch (1") corporation stop, one-inch (1") MUNICIPEX® water service line with compression fittings, and a 1"x3/4" lockable angle stop using Ford grip ring fittings. All service fittings shall be brass, male x male, iron pipe size, and iron pipe thread. If 1"x1" angle stops are installed, 1"x3/4" adapters shall be included. Meter boxes shall be Armorcast® straight wall polymer concrete RPM A6000485 (12x20x12) with Armorcast® one-piece 20K traffic-rated lid.

Construct service saddles at least 24" from mainline end or an adjacent service.

Engineering Design Standards April 2020

Commercial properties making connections to the City infrastructure shall provide and install Master Meter Allegro Under-the-Glass (UTG) or Master Meter Octave water meters. The City of Warrenton has a FCC approved radio frequency identification that is programmed into these meters, the developer/contractor must contact the City and receive the required frequency for ordering. Meter boxes shall be Armorcast straight wall polymer concrete with one-piece 20K traffic rated lids.

Customer Yard Valves (shut-offs) behind the meter shall be installed by the developer on the proposed water service and are required to be in place prior to the activation of the Water Meter.



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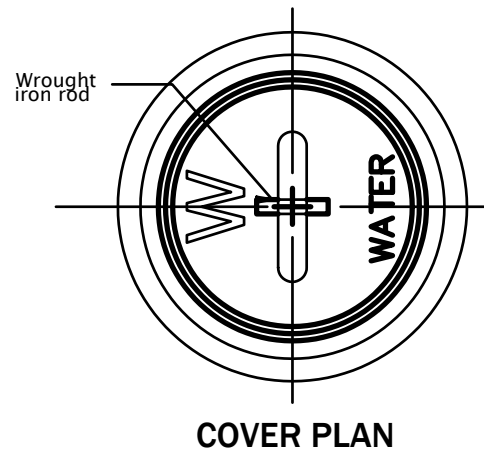
PROF. NO. 442101-WIN  
DATE: JUNE 20, 2021

REGISTERED PROFESSIONAL ENGINEER  
63055  
OREGON  
JASON R. MORGAN  
RENEWAL DATE: DECEMBER 31, 2022

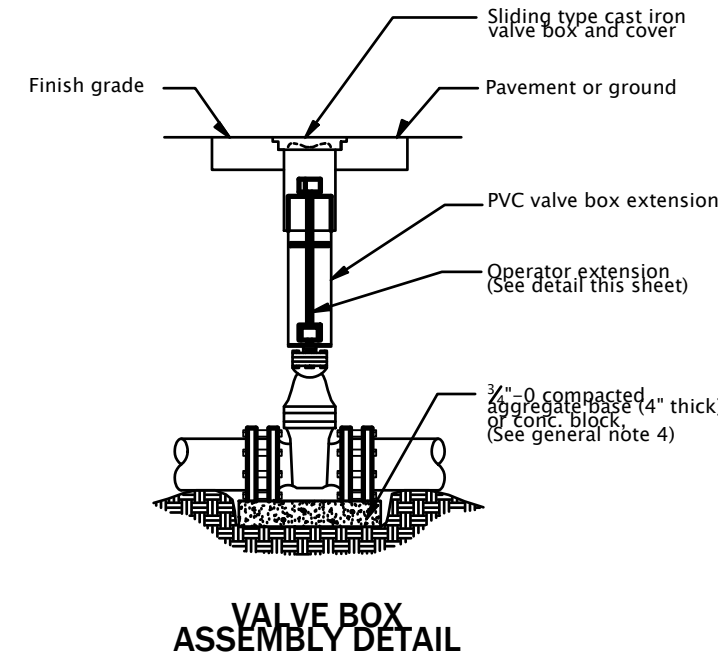
**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
**FOURTH AVENUE & JETTY STREET IMPROVEMENTS**  
**WATER NOTES & DETAILS**

SHEET  
**C11**  
OF 14

HAMMOND

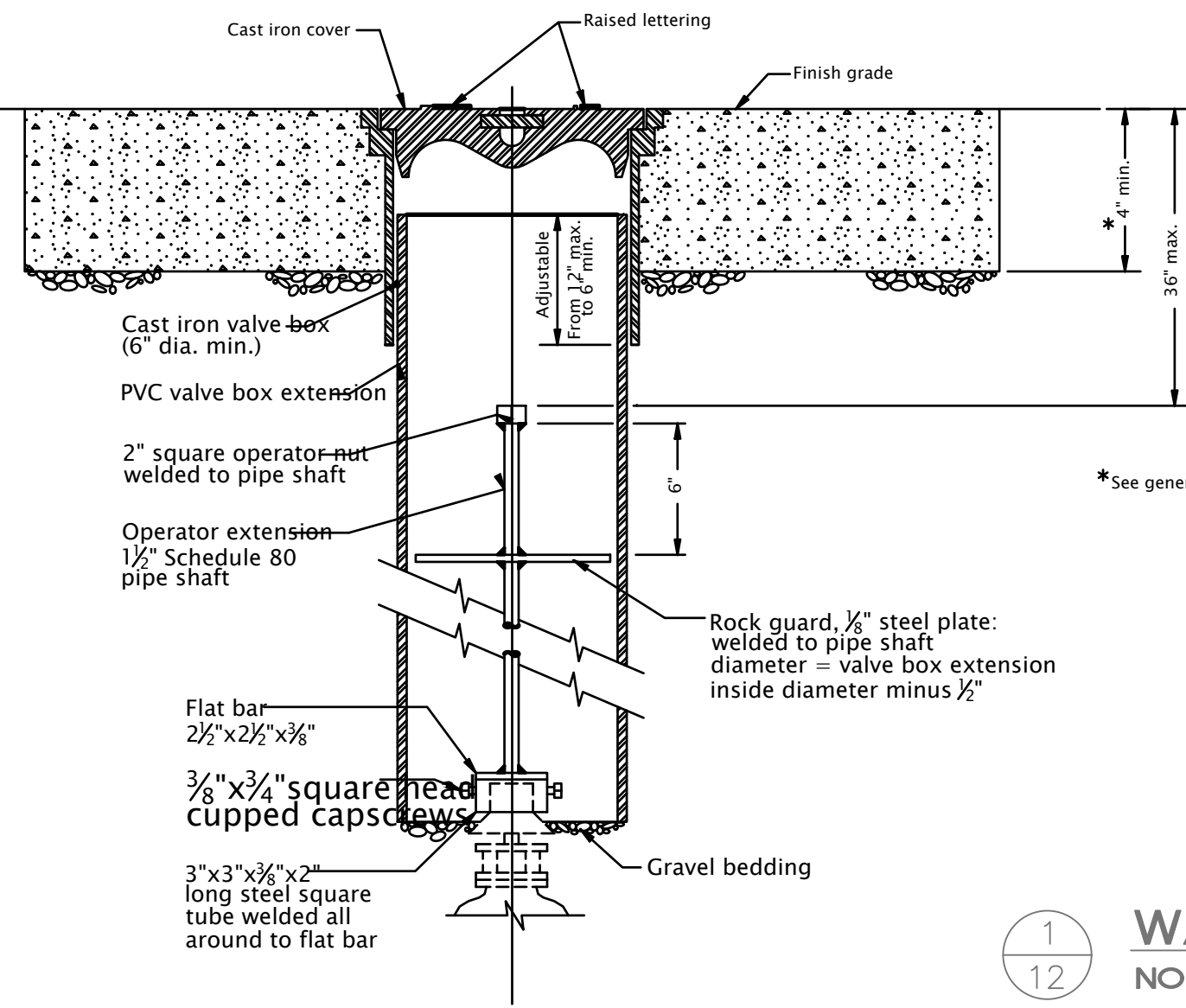


COVER PLAN



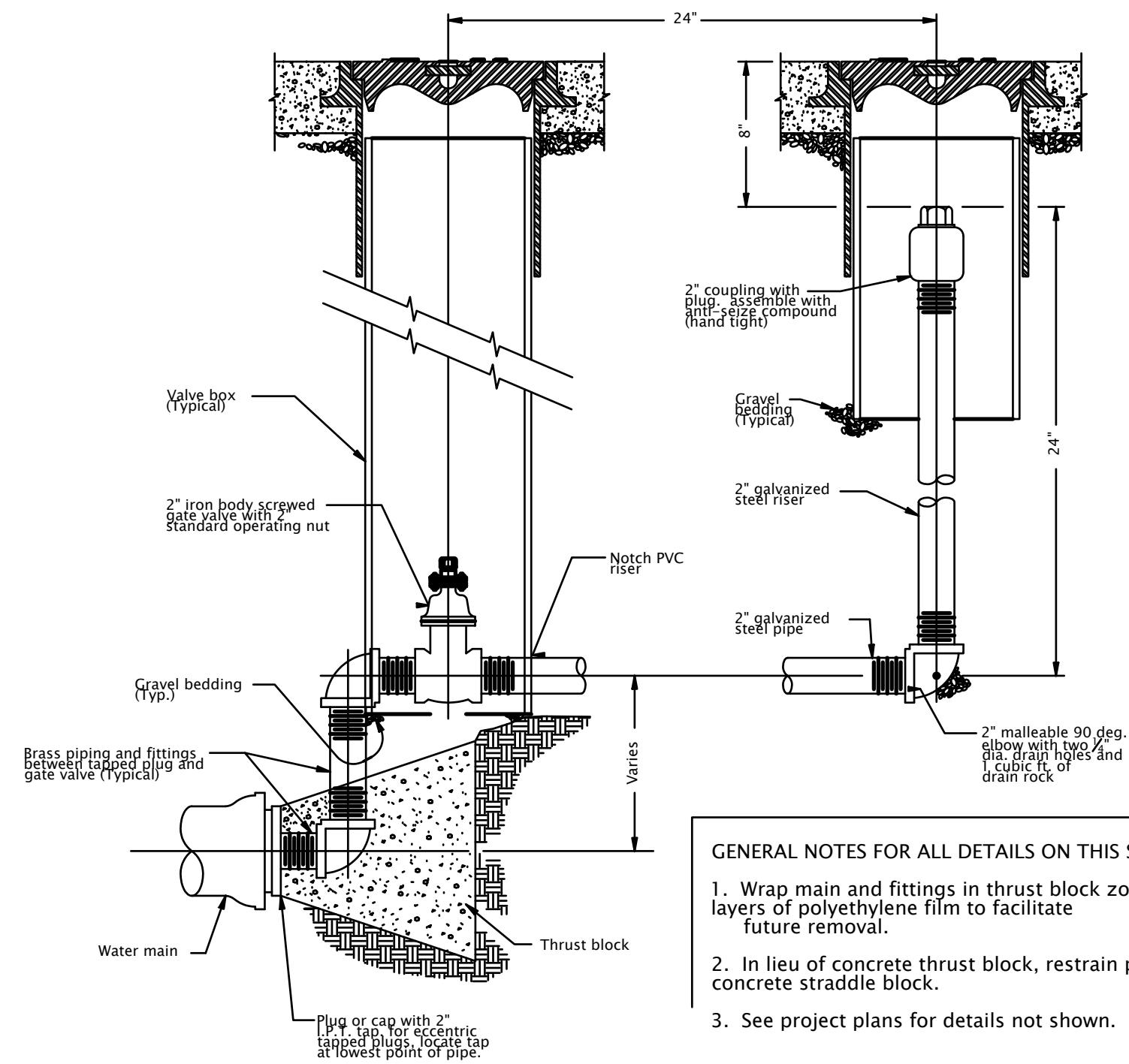
VALVE BOX ASSEMBLY DETAIL

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
1. Valve box not to rest on operating assembly.
  2. Operator extension required when valve nut is deeper than 4" from finish grade.
  3. Center valve box on axis of operator nut.
  4. Valves 12" and smaller shall be provided with compacted aggr. base on undisturbed ground. Valves greater than 12" shall be installed on precast concrete block, (4" thick).
  5. Welds shall be minimum 1/4" all around.
  6. Hot dip galvanize operator extension after fabrication.
  7. Casting shall meet H20 load requirement.
  8. Provide concrete or asphalt pad (24" square, 4" thick), when required.
  9. See project plans for details not shown.



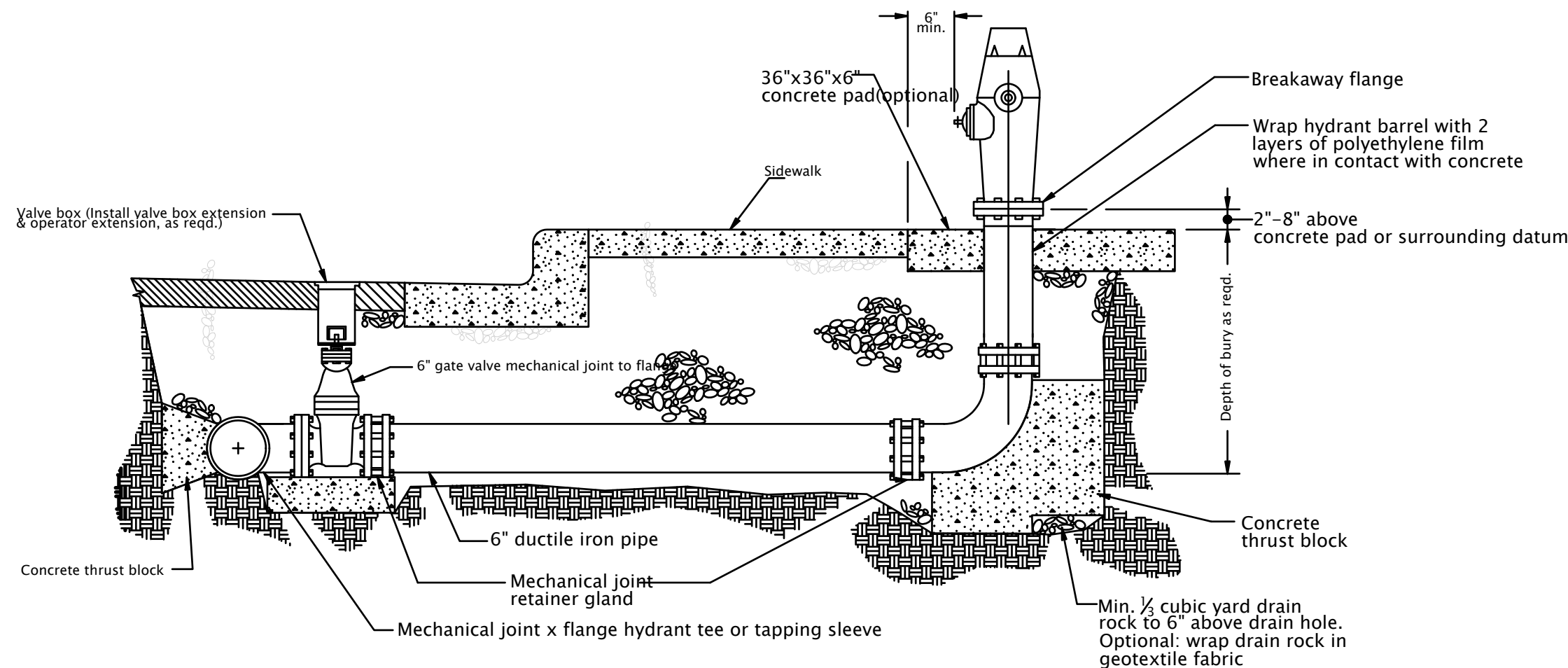
VALVE BOX EXTENSION SECTION

1  
12 WATER VALVE  
NO SCALE



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
1. Wrap main and fittings in thrust block zone with two layers of polyethylene film to facilitate future removal.
  2. In lieu of concrete thrust block, restrain pipe or pour concrete straddle block.
  3. See project plans for details not shown.

2  
12 FLUSHING HYDRANT/BLOW-OFF  
NO SCALE



HYDRANT ASSEMBLY

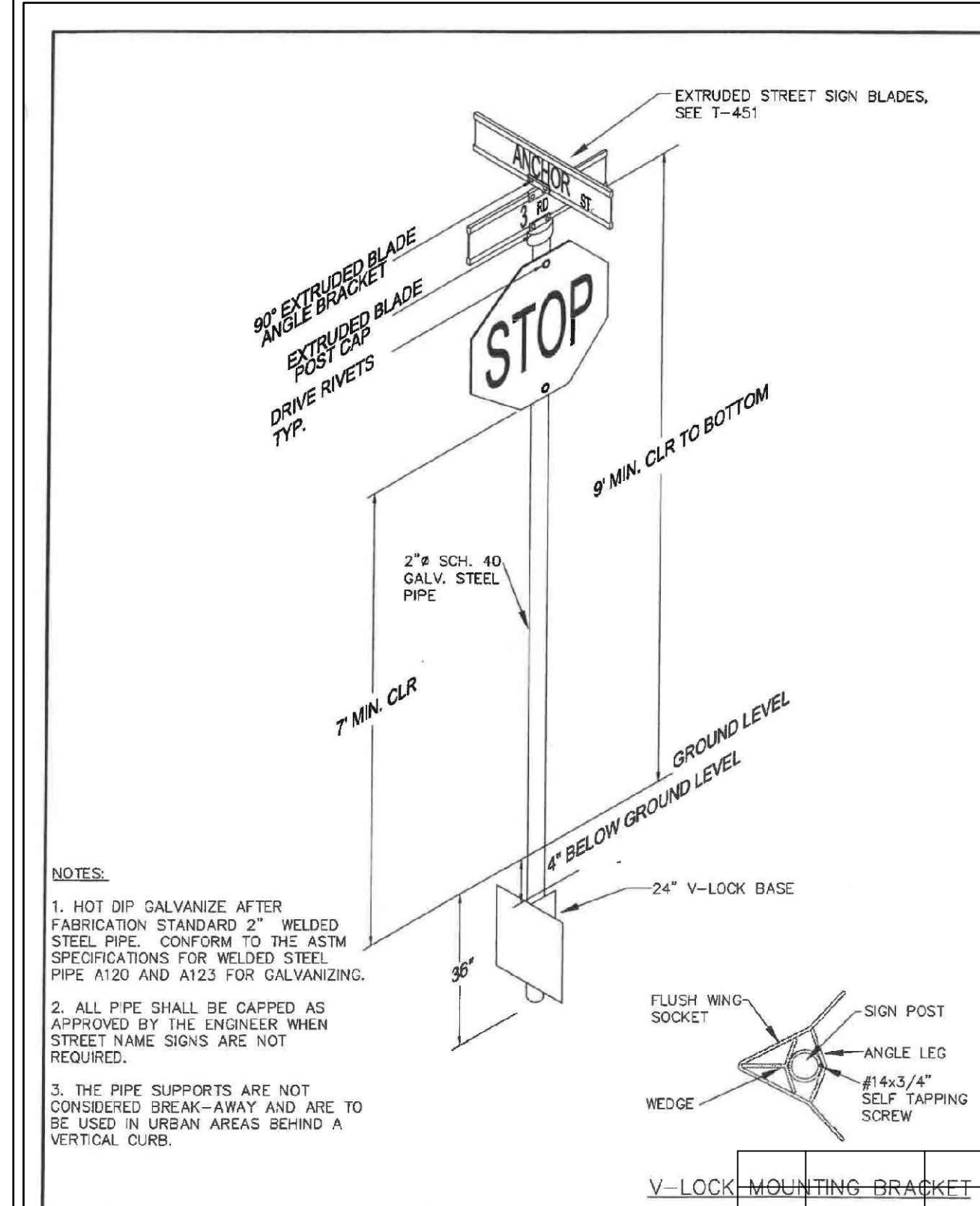
- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
1. When pipe is shorter than 18', no joints allowed. Use mechanical joint retainer glands. Two 3/4" galvanized tie rods may be used in lieu of thrust blocks for installations less than 18' long. Coat tie rods with two coats of coal tar epoxy.
  2. When pipe is longer than 18' retainer glands not required.
  3. There shall be a minimum of 18" horizontal clearance around hydrant.
  4. When placed adjacent to curb, hydrant port shall be 24" from face of curb.
  5. Concrete thrust blocks shall be constructed as per thrust blocking Std. Dwg. RD250. Do not block drain holes.
  6. Extensions required for hydrant systems shall be installed to the manufacturer's specifications.
  7. Hydrants shall be placed to provide a minimum of 5' clearance from driveways, poles, and other obstructions.
  8. Hydrant pumper port shall face direction of access.
  9. Set hydrant plumb in all directions.
  10. See project plans for details not shown.

3  
12 FIRE HYDRANT  
NO SCALE



- TOP LEFT COLORS: LEGEND — WHITE (RETROREFLECTIVE) BACKGROUND — RED (RETROREFLECTIVE)
- TOP RIGHT COLORS: LEGEND — RED (RETROREFLECTIVE) BACKGROUND — WHITE (RETROREFLECTIVE)
- BOTTOM COLORS: LEGEND — RED (RETROREFLECTIVE) BACKGROUND — WHITE (RETROREFLECTIVE)
- 1-94

4  
12 NO PARKING SIGN  
NO SCALE



- NOTES:
1. HOT DIP GALVANIZE AFTER FABRICATION STANDARD 2" WELDED STEEL PIPE, CONFORM TO THE ASTM SPECIFICATIONS FOR WELDED STEEL PIPE A120 AND A123 FOR GALVANIZING.
  2. ALL PIPE SHALL BE CAPPED AS APPROVED BY THE ENGINEER WHEN STREET NAME SIGNS ARE NOT REQUIRED.
  3. THE PIPE SUPPORTS ARE NOT CONSIDERED BREAK-AWAY AND ARE TO BE USED IN URBAN AREAS BEHIND A VERTICAL CURB.

5  
12 STOP SIGN  
NO SCALE

NO.	DATE	DESCRIPTION	BY

JETTY STREET, LLC - JETTY VIEW TOWNHOMES  
FOURTH AVENUE & JETTY STREET IMPROVEMENTS  
WATER NOTES & DETAILS

SHEET  
C12  
OF 14



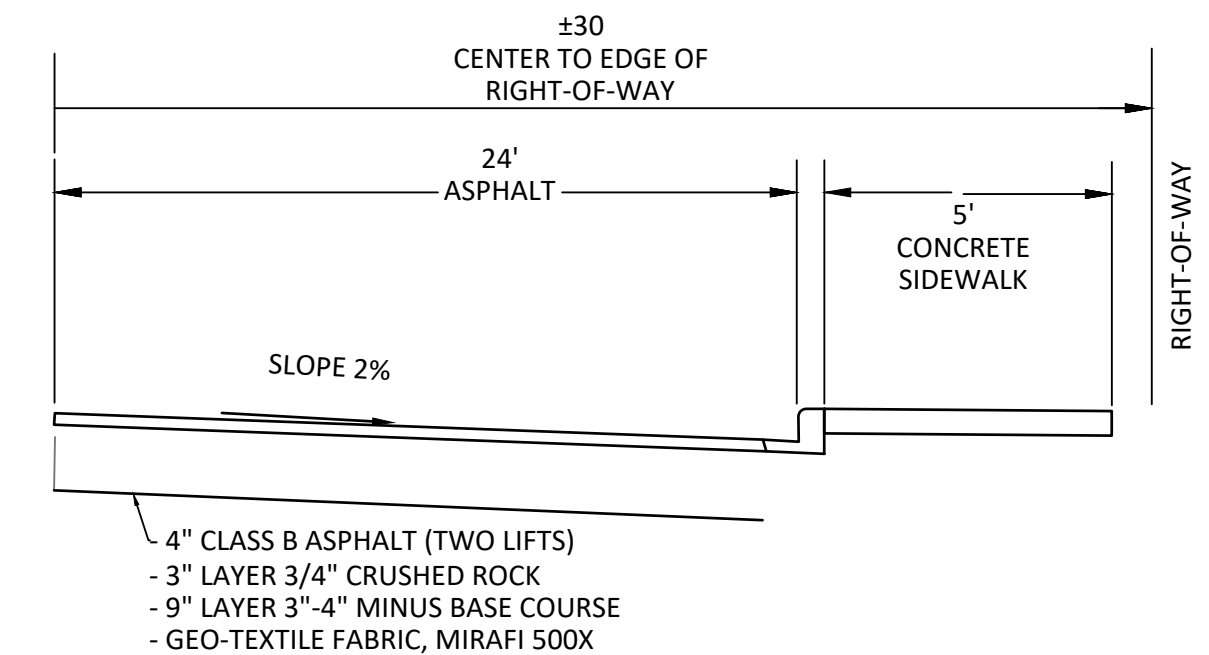
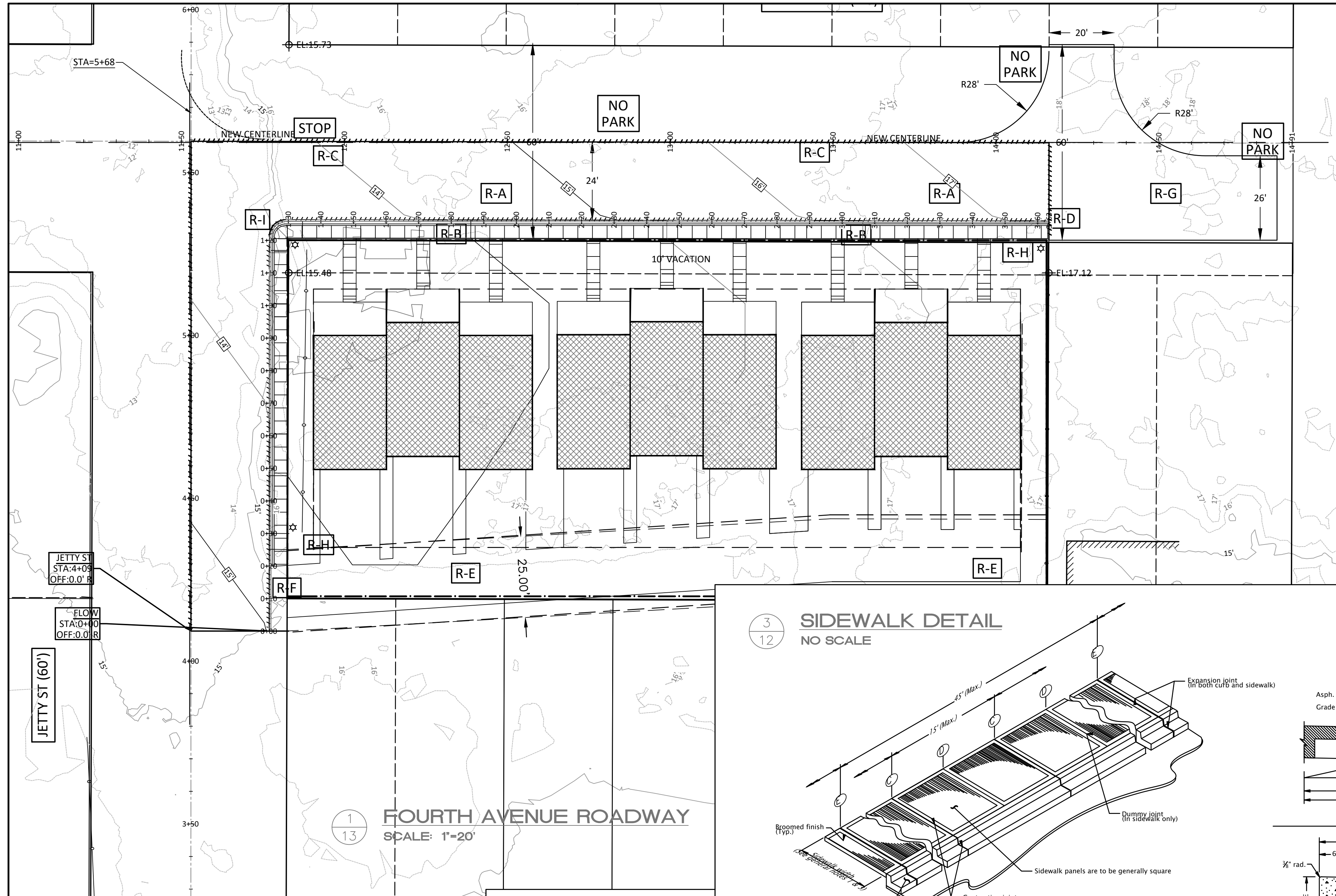
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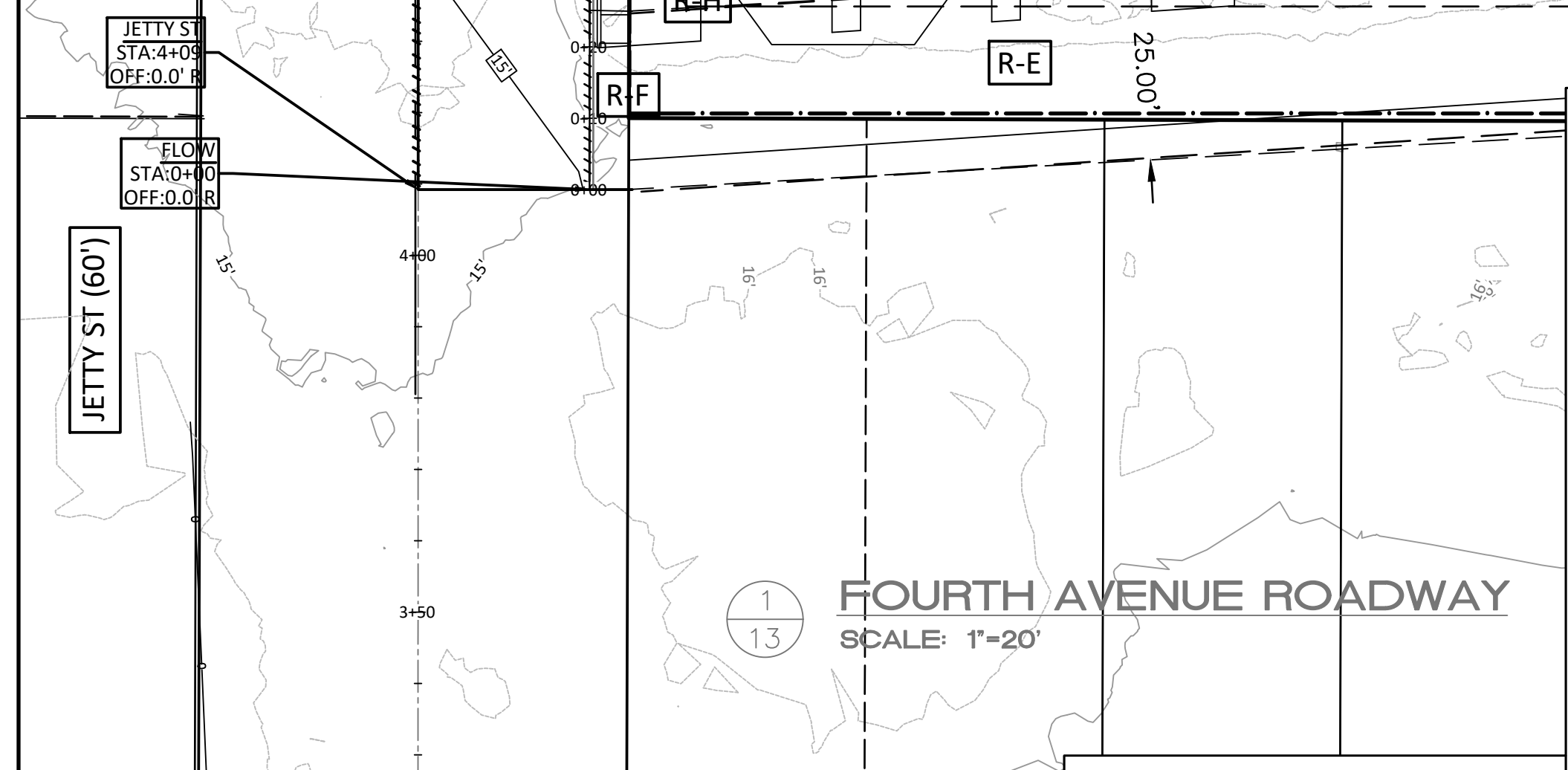
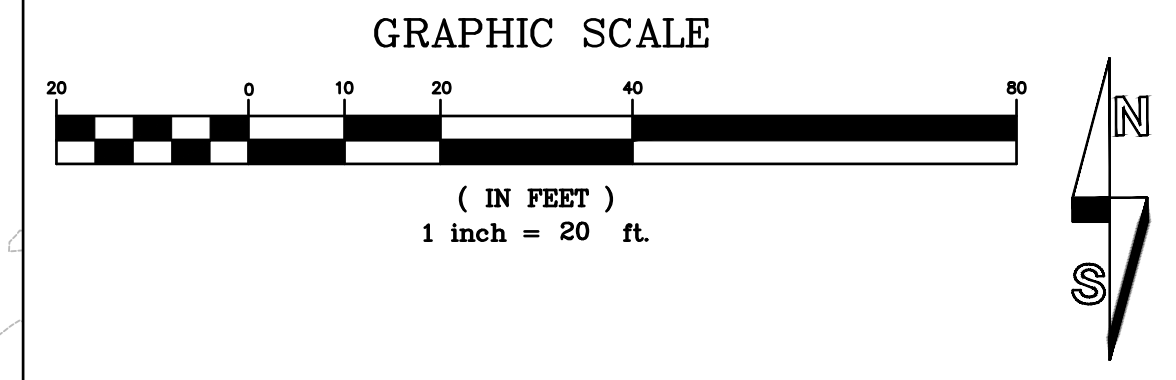
CIVIL ENGINEERING  
INSPECTION  
PLANNING

PROJ. NO. 442101-WIN  
DATE: JUNE 20, 2021

REGISTERED PROFESSIONAL  
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63055  
OREGON  
JASON R. MORGAN  
RENEWAL DATE: DECEMBER 31, 2022

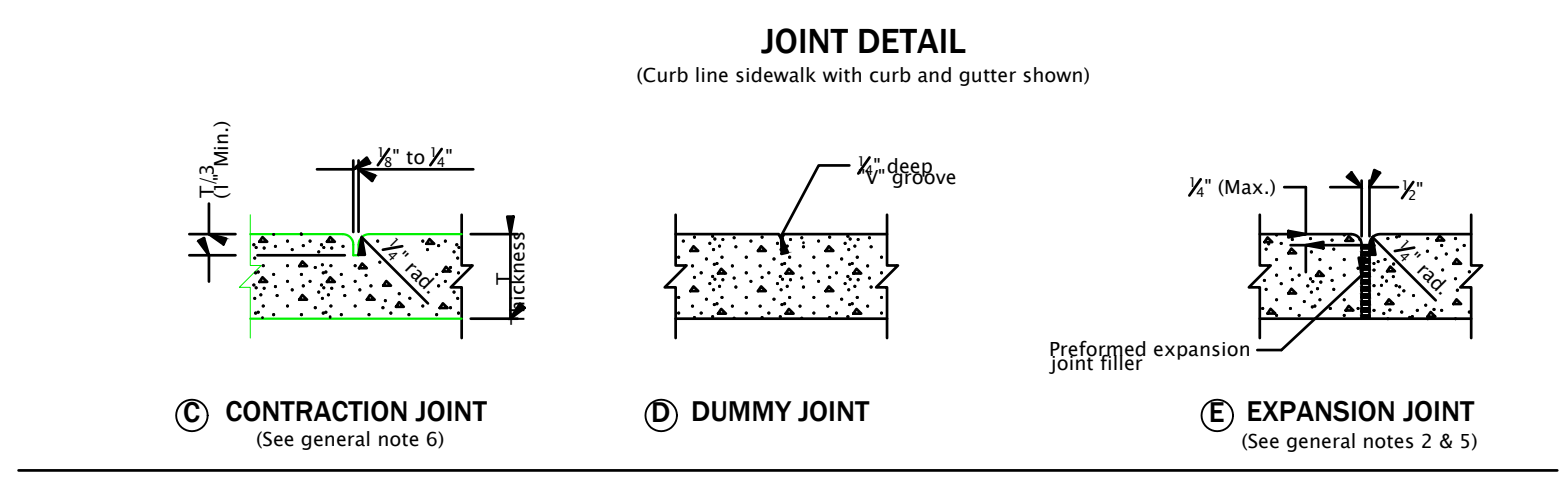
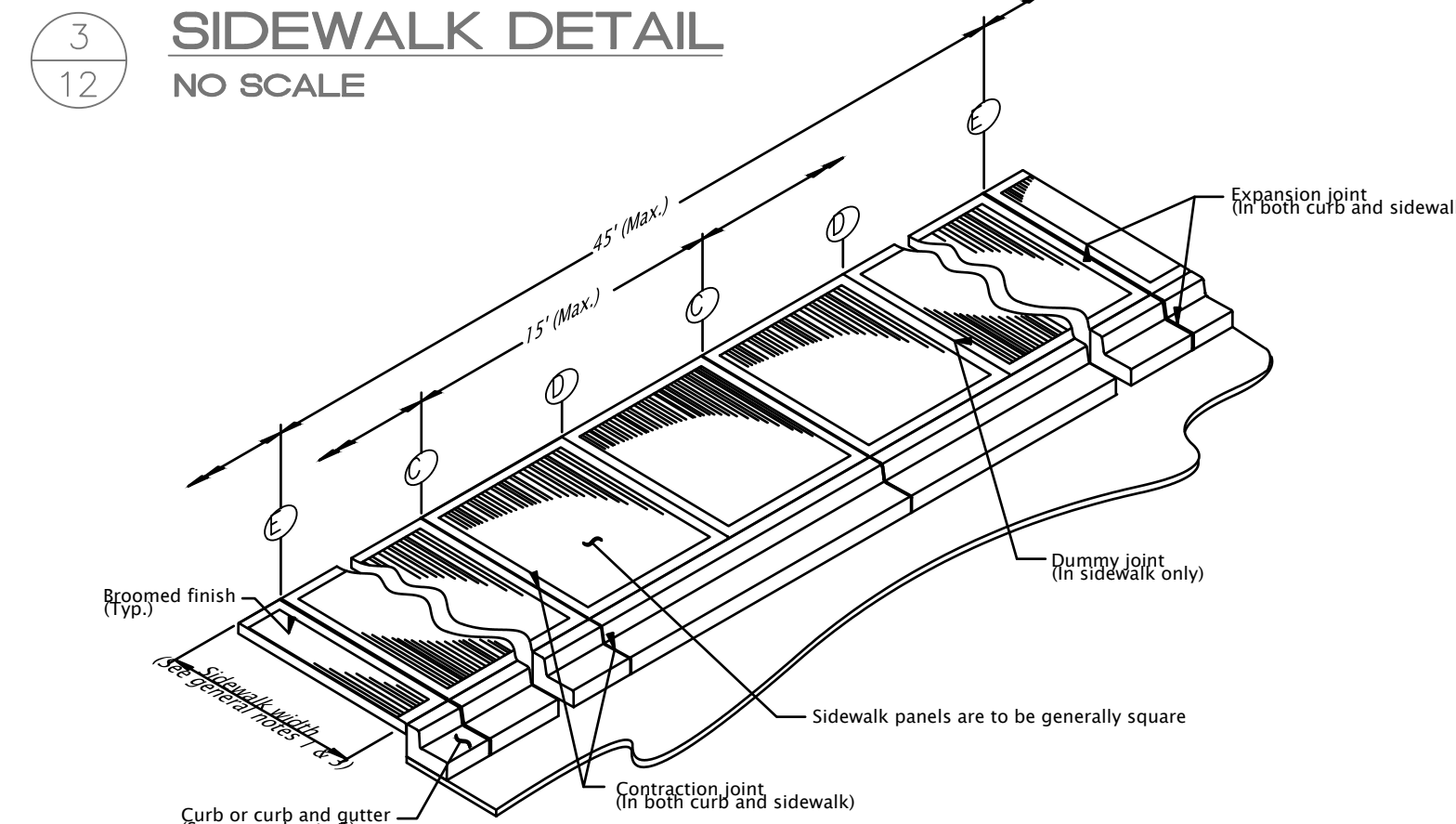


2 ROADWAY SECTION  
13 NO SCALE

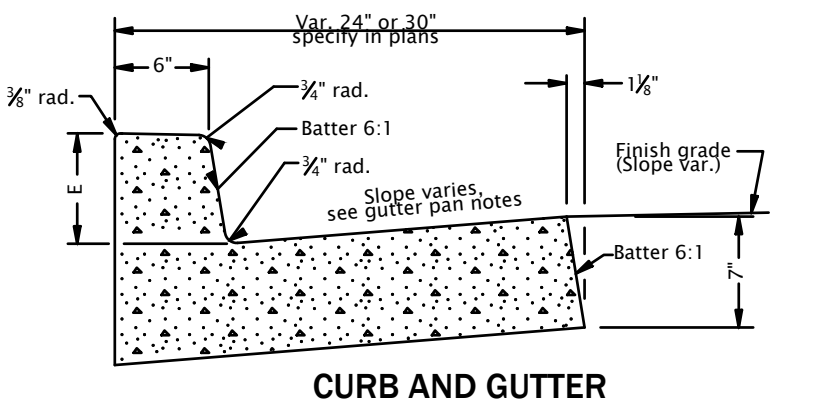
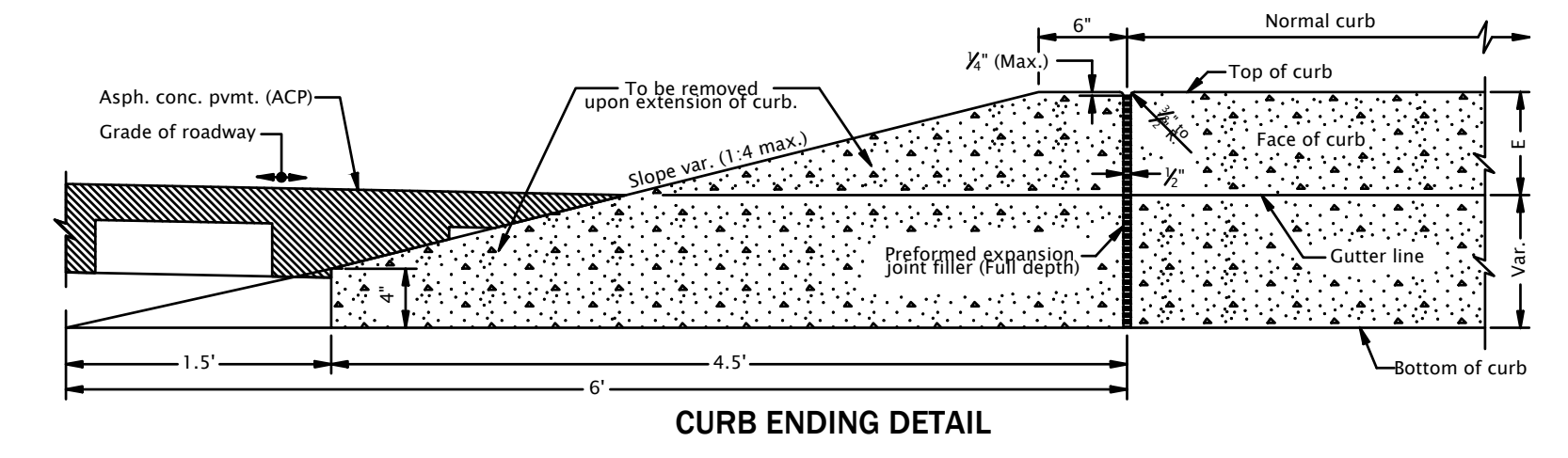


1 FOURTH AVENUE ROADWAY  
13 SCALE: 1"=20'

- ROAD NOTES**  
HALF-STREET CONSTRUCTION
- R-A. INSTALL 6" CURB WITH 18" GUTTER. SEE DETAIL 4/13.
  - B. INSTALL 5' SIDEWALK. SEE DETAIL 3/13.
  - C. INSTALL 24' ROADWAY - HMAC. PITCH TO CURB. SEE DETAIL 2/13.
  - D. INSTALL END OF WALK RAMP AND CURB. SEE DETAILS 4/13.
  - E. RAVEL DRIVEWAY - WIDTH VARIES. USE FABRIC, 9" BASE ROCK, 3" LEVELING COURSE. VALLEY GUTTER. DRAIN TO SEDIMENT BASIN.
  - F. DRIVEWAY CUTOUT - 25' WIDE. SEE DETAIL 1/14.
  - G. HAMMERHEAD TURNAROUND. GRAVEL CROWN AT ROW CENTERLINE.
  - H. LIGHTING LOCATIONS - DETAILS TO BE DETERMINED.
  - I. PEDESTRIAN CURB RAMP. SEE DETAIL 4/14.
- STOP. STOP SIGN. SEE DETAIL 5/12.  
NO PARK. NO PARKING SIGN. SEE DETAIL 4/12.

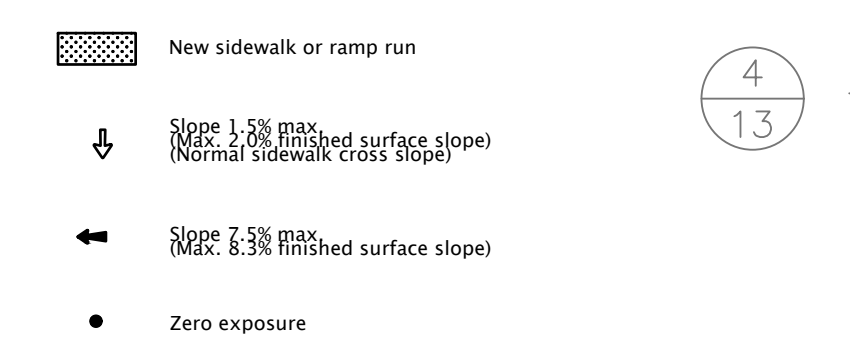


- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- See Std. Dwg. RD720 & RD721 for concrete sidewalk details. See project plans for sidewalk width, placement and design specified.
  - Provide expansion joints around poles, boxes, at ends of each driveway and other fixtures which protrude through or against the structures. For sidewalk, monolithic curb and sidewalk, construction expansion joints at 45' max. spacing.
  - On sidewalks 8' and wider, provide a longitudinal joint at the midpoint of sidewalk panel.
  - See Std. Dwg. RD700 & RD701 for concrete curb details. See project plans for the curb design specified.
  - For curb ramps, do not place expansion joints within the limits of curb ramps and between separate concrete pours.
  - Const. contraction joints at 15' max. spacing, and at each curb ramp, driveway, sidewalk and curb.



- GUTTER PAN NOTES:**  
Slope 5.0% normal.  
Slope 4.0% max. at curb ramps.  
Vary slope as req'd. for drainage.  
Vary where shown on plans, and allowed by jurisdiction.

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Curb exposure "E" = 6" to 9", as measured vertically from flowline to highest point on curb. Vary as shown on plans or as directed. O.D.O.T standard "E" = 7".
  - Const. curb expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveways.
  - Const. curb contraction joints at 15' maximum spacing, and at ends of each inlet and curb ramp.
  - Transitions shall be used to connect curbs of different exposures "E". ("E" is the total vertical dimension of those curb surfaces having a slope of 1:1 or steeper). Minimum desirable transition length shall be 20' for each 1" difference in "E".
  - Tops of all curbs shall slope toward the roadway at 1.5% max. (Max. 2.0% finished surface slope), unless otherwise shown, or as directed.
  - Dimensions are nominal, vary to conform with curb machine approved by the engineer.
  - Dimensions adjacent to radii are measured to the point of intersection of curb surfaces.
  - For sidewalk details, and monolithic curb & sidewalk, see Std. Dwg. RD720 & RD721.
  - For drainage curbs, see Std. Dwg. RD701.
  - For curb ramp details, see Std. Dwg. RD900 series.
  - On or along state highways, curb and gutter is required at curb ramp.



NO.	DATE	DESCRIPTION	BY



**MORGAN CIVIL ENGINEERING, INC.**  
CIVIL ENGINEERING  
INSPECTION  
PLANNING  
PO BOX 358  
MANZANITA, OR 97130  
(503) 801-6016  
www.morgancivil.com

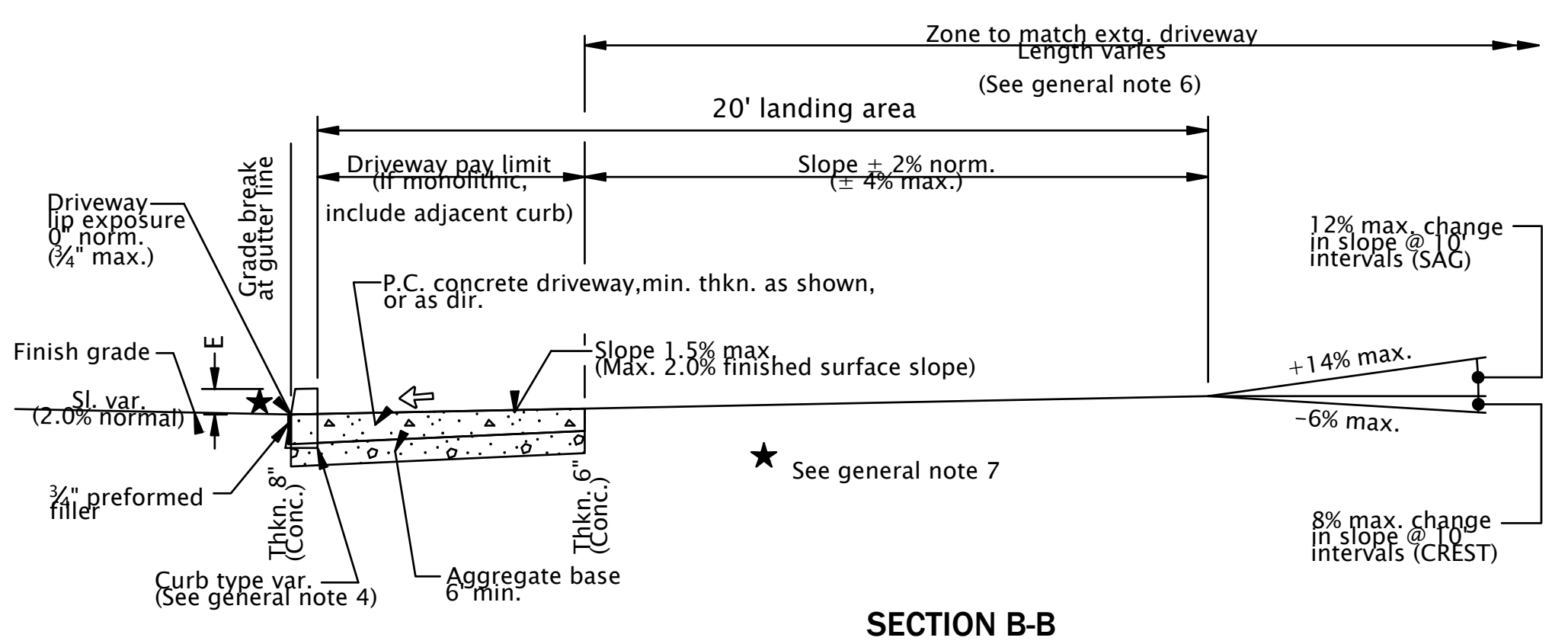
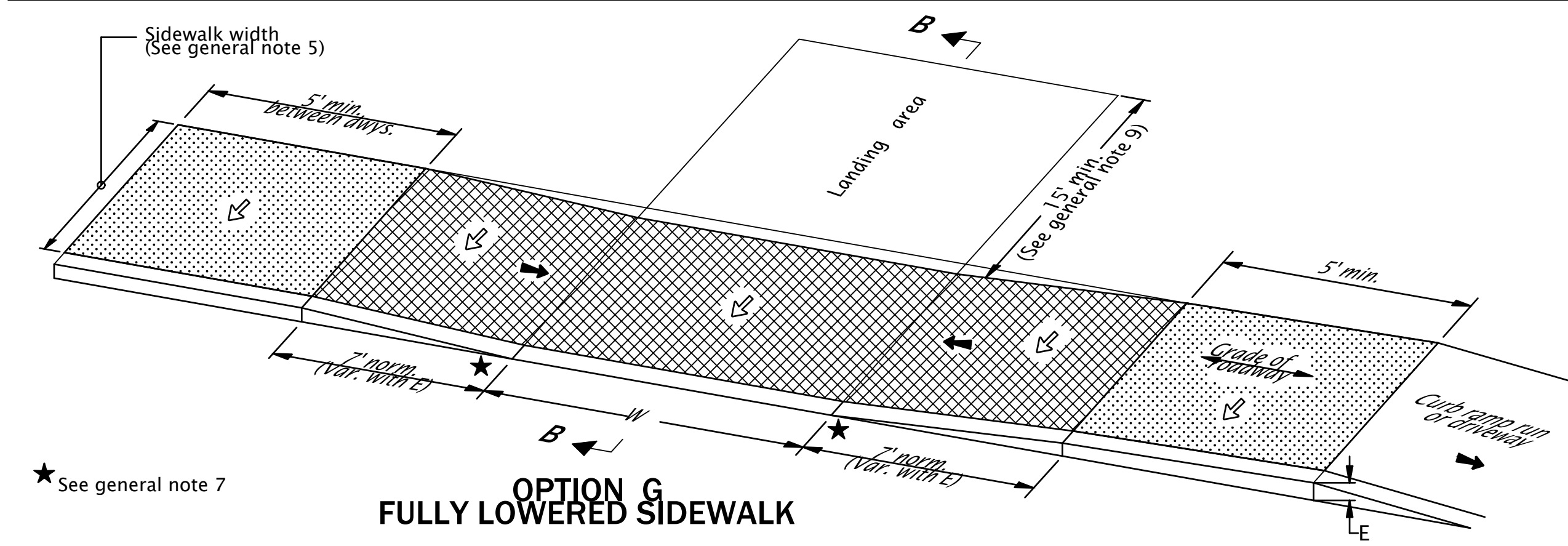
JOB NO. 421.01 WIN  
DATE JUNE 20, 2021  
REGISTERED PROFESSIONAL ENGINEER  
OREGON 63055  
JASON R. MORGAN  
RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
**FOURTH AVENUE & JETTY STREET IMPROVEMENTS**  
**ROADWAY DETAILS**

SHEET  
**C13**  
OF 14

HAMMOND





- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Details are based on applicable ODOT Standards.
  - Only use details allowed by jurisdiction.
  - The following dimensions are as shown on plans, or as directed: driveway width, driveway slope, sidewalk width, curb exposure, driveway lip exposure, landing area length and width. See project plans for details not shown.
  - Curb, gutter, and sidewalk types varies, see plans. See Std. Dwgs. RD700 & RD701 for curb details. See Std. Dwg. RD720 for sidewalk details. See Std. Dwg. RD722 for joint details.
  - A greater than or equal 4' unobstructed clear passage with cross slope 1.5% max. (Max. 2.0% finished surface slope) is required behind driveway apron.
  - Where existing driveway is in good condition, and meets slope requirements, construct only as much landing area as required for satisfactory connection with new work.
  - Check the gutter flow depth at driveway locations to assure that the design flood does not overtop the back of sidewalk at driveway. If overtopping occurs place an inlet at upstream side of driveway or perform other approved design mitigation.
  - Construct a full depth expansion joints with 1#2" (in) preformed joint filler at ends of each driveway.
  - Tooled joints are required at all driveway slope break lines.
  - 15' min. of the driveway behind the sidewalk should be surfaced to prevent tracking of gravel onto the sidewalk.
  - Monolithic curb & sidewalk shall retain thickened edge through lowered profile, to accommodate driveway use. See Std. Dwg. RD720 for details.

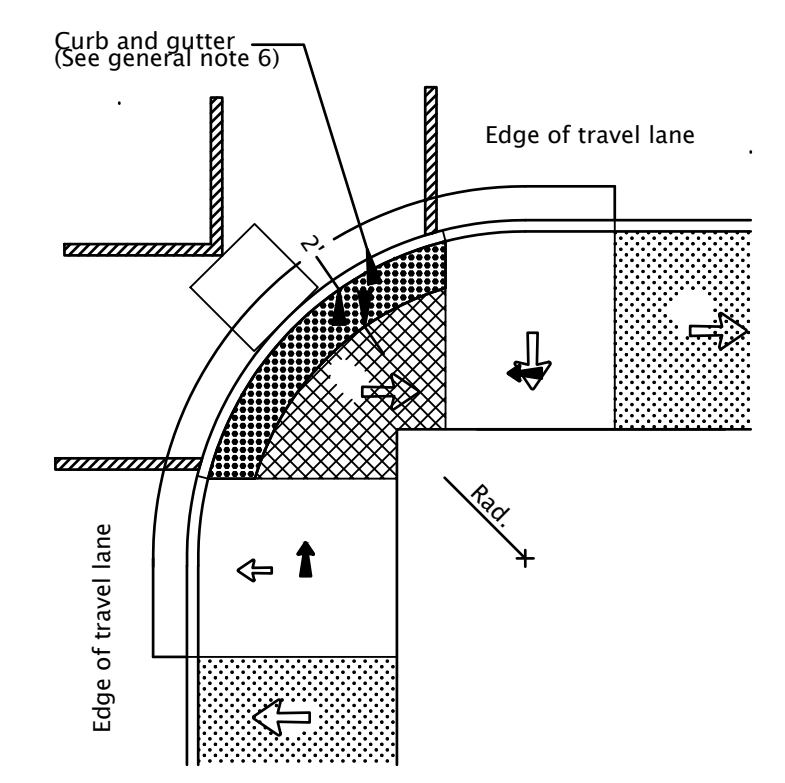
**LEGEND:**

- Sidewalk
- Driveway pay limit (if monolithic, include adjacent curb) (See project plans for details not shown)
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- W** Width of driveway
- E** Curb exposure

**CURB LINE SIDEWALK DRIVEWAYS OR ALLEYS (OPTIONS F & G) ODOT HIGHWAYS**

**DRIVEWAY DETAIL**  
NO SCALE

RD735



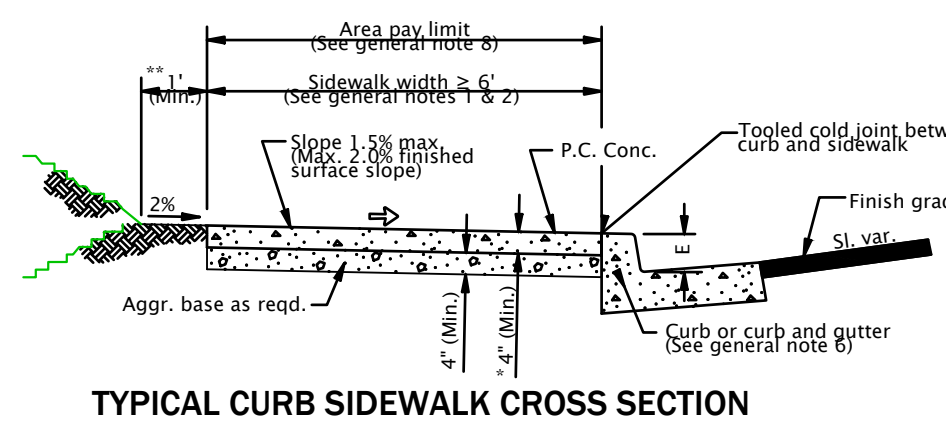
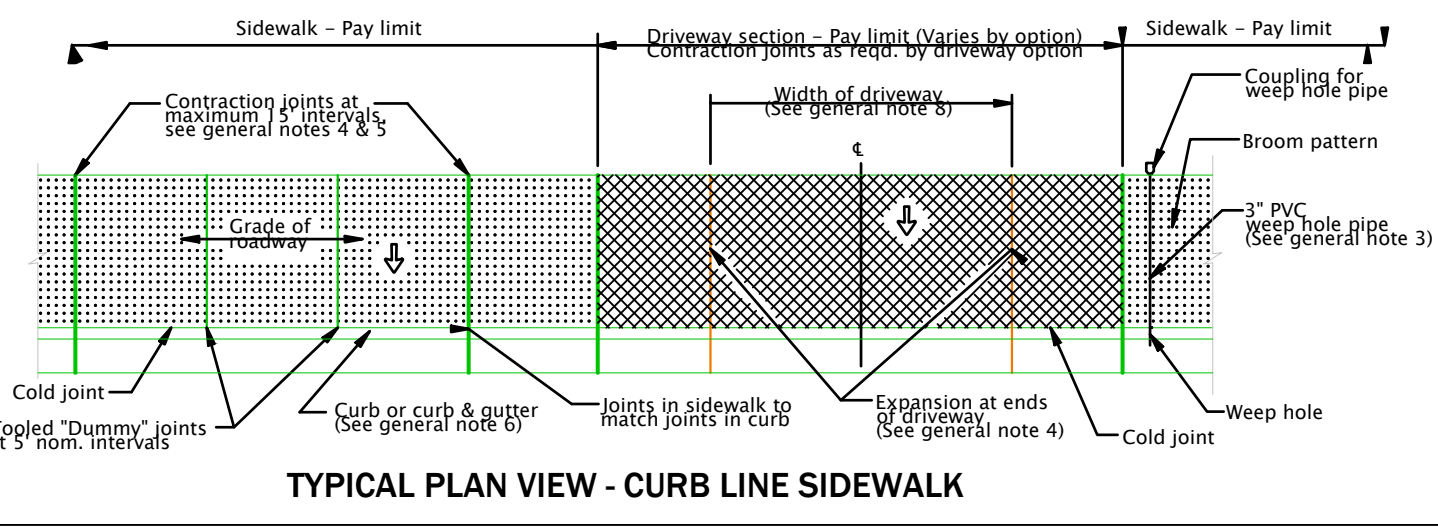
- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Curb ramp details are based on applicable ODOT Standards.
  - See project plans for details not shown. See Std. Dwgs. RD700 & RD701 for curbs. See Std. Dwgs. RD720 & RD721 for sidewalks. See Std. Dwgs. RD902 through RD908 for detectable warning surface installation details. See Std. Dwg. RD920 for parallel curb ramp details.
  - Tooled dummy joints are required at all curb ramp slope break lines, (see Std. Dwg. RD722).
  - Curb ramp slopes shown are relative to the true level horizon (zero bubble).
  - Place an inlet at upstream side of curb ramp or perform other approved design mitigation. Check the gutter flow depth at curb ramp locations to assure that the design flood does not overtop the back of sidewalk.
  - On or along state highways, curb and gutter is required at curb ramps.
  - Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.
  - Only use curb ramp options allowed by jurisdiction. Single ramps require design exceptions on or along state highways.

**LEGEND:**

- Marked or intended crossing location
- Sidewalk
- Detectable warning surface
- Level area (Turning space/landing) Unobstructed 4.5' x 4.5' With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing). For the purposes of this application, a max. 2.0% finished surface slope (for drainage) measured perpendicular in two directions is considered level.
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- 4'x4' clear space

**PARALLEL CURB RAMP SINGLE RAMP**

**CURB RAMP**  
NO SCALE



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Include additional paved or unpaved 2' shy distance to vertical faces higher than 5' such as retaining walls, sound walls, fences and buildings.
  - Curb type and sidewalk width as shown on plans or as directed. On sidewalks 8' and wider, provide a longitudinal joint at the midpoint.
  - Install 3" pvc weep hole pipes in sidewalks where shown on plans, and allowed by jurisdiction. Place contraction joint over top of pipe. See Std. Dwg. RD700 for weep hole details.
  - Provide expansion joints around poles, posts, boxes, at ends of each driveway, and other fixtures which protrude through or against the structures. For sidewalk, monolithic curb & sidewalk, const. expansion joints at 45' maximum spacing. See Std. Dwg. RD722 for expansion joints details.
  - Const. contraction joints at 15' maximum spacing, and at ends of each curb ramp. See Std. Dwg. RD722 for contraction joints details.
  - For curb details, see Std. Dwgs. RD700 & RD701. ODOT standard E-7.

- Sidewalk details are based on applicable ODOT standards.
- Fully lowered sidewalk shown; see project plans for the driveway design specified. For driveway details not shown, see Std. Dwgs. RD725, RD730, RD735, RD740, RD745 & RD750.
- See project plans for details not shown.

**LEGEND:**

- Sidewalk pay limit.
- Driveway pay limit, varies by option. (See general note 8).
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)

**SIDEWALK/CURB DETAIL**  
NO SCALE

NO.	DATE	DESCRIPTION	BY



**MORGAN CIVIL ENGINEERING, INC.**

CIVIL ENGINEERING  
INSPECTION  
PLANNING

PO BOX 358  
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(503) 801-6016  
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JOB NO. 42101WIN  
DATE JUNE 20, 2021

**REGISTERED PROFESSIONAL ENGINEER**  
OREGON  
63055

*Jason R. Morgan*  
JASON R. MORGAN

RENEWAL DATE: DECEMBER 31, 2022

**JETTY STREET, LLC - JETTY VIEW TOWNHOMES**  
FOURTH AVENUE & JETTY STREET IMPROVEMENTS  
ROADWAY NOTES & DETAILS

HAMMOND

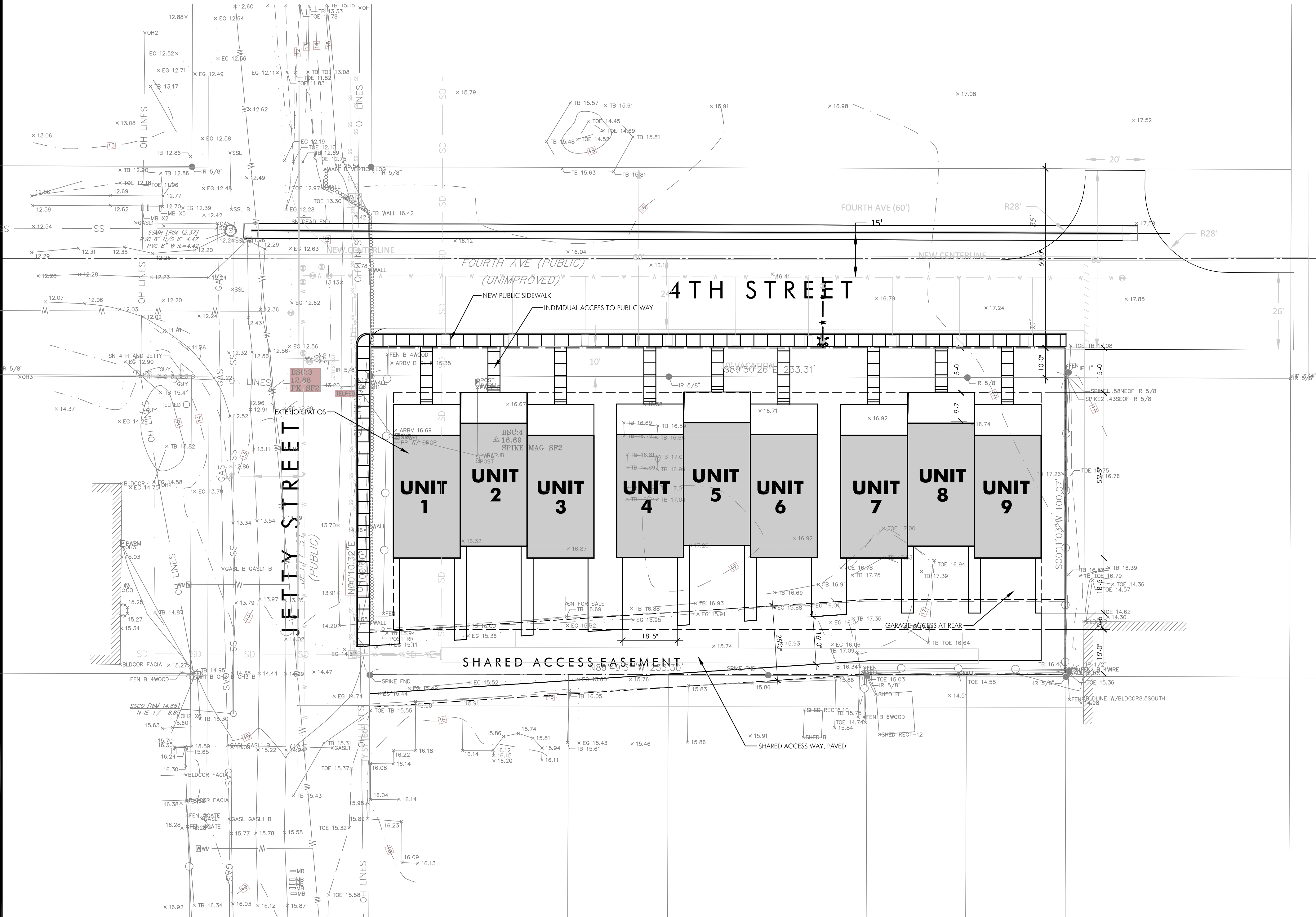
SHEET  
**C14**  
OF 14

IN THE EVENT CONFLICTS ARE DISCOVERED  
BETWEEN THE ORIGINAL SIGNED AND SEALED  
DOCUMENTS PREPARED BY THE ARCHITECTS  
AND/OR THEIR CONSULTANTS, AND ANY COPY OF  
THE DOCUMENTS TRANSMITTED BY MAIL, FAX,  
ELECTRONICALLY OR OTHERWISE, THE ORIGINAL  
SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2020-190  
DATE: 17 JUNE 2021  
REVISIONS

NEW MULTI FAMILY DEVELOPMENT:  
**JETTY VIEW TOWNHOMES**  
4th AVE WARRENTON, OREGON

SHEET  
**A1.1**

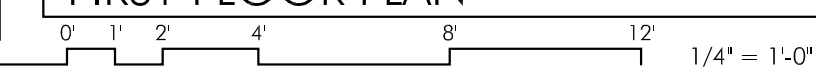


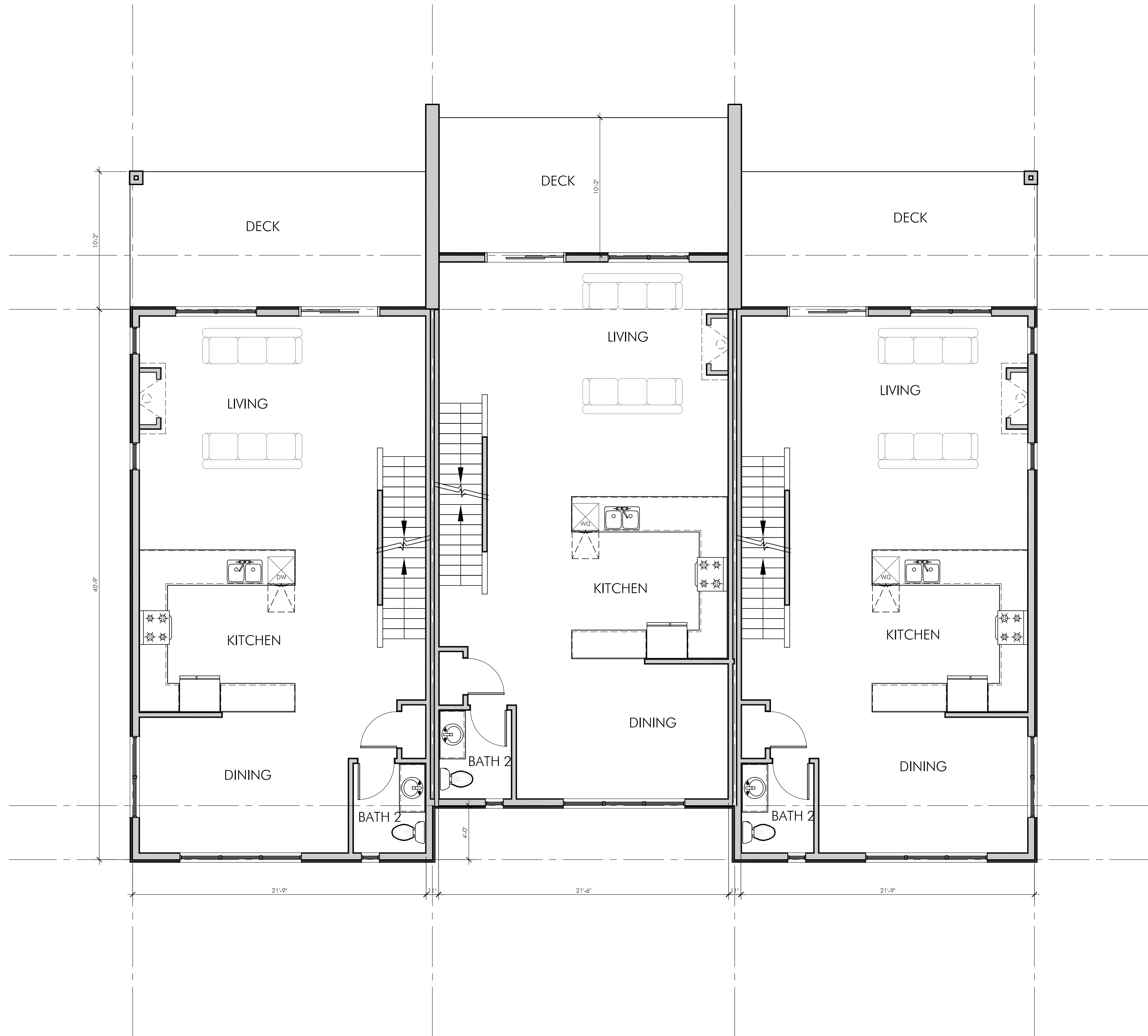
1 SITE PLAN  
0 5 10 20 40 60 1:20





**1** FIRST FLOOR PLAN

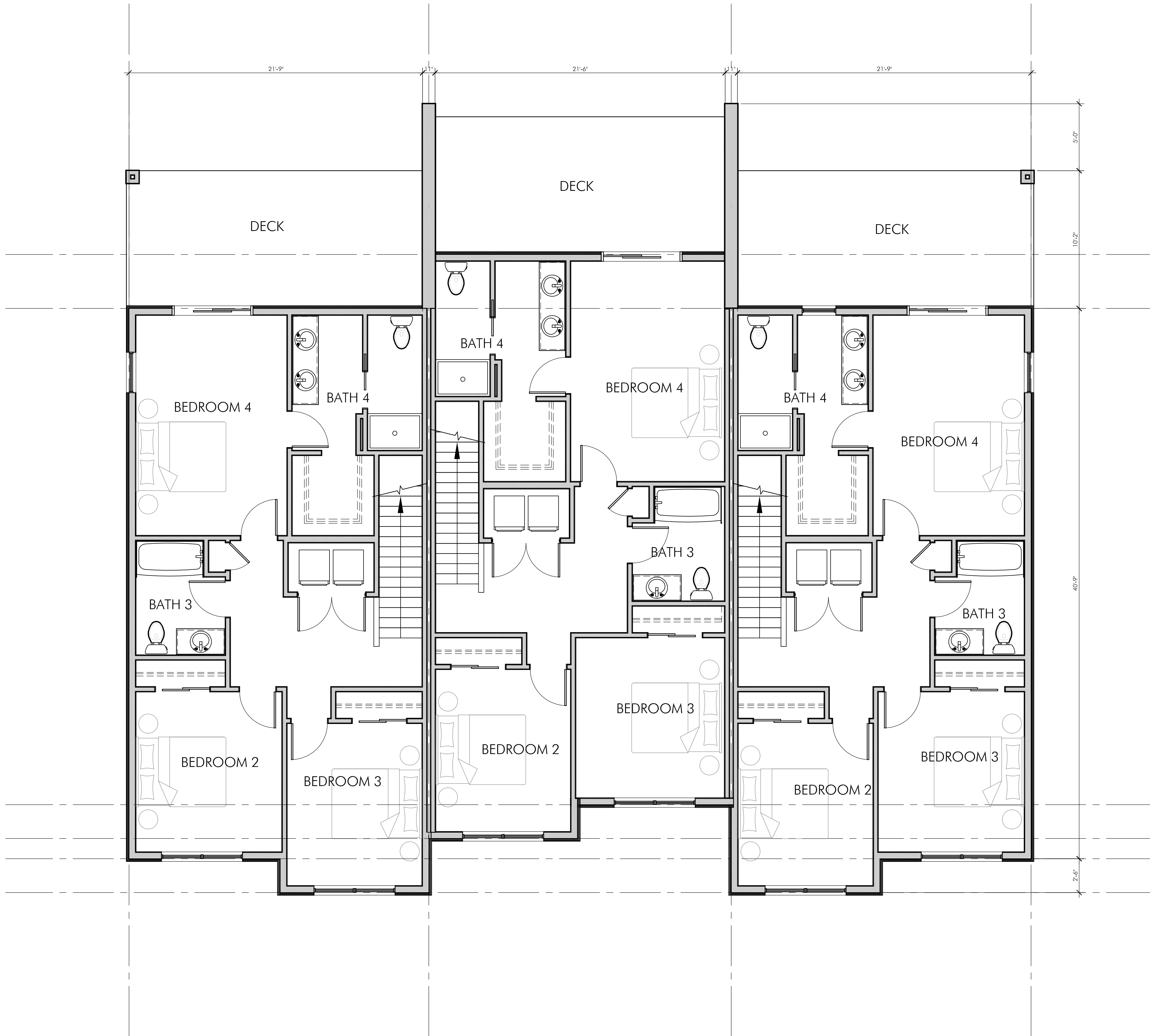




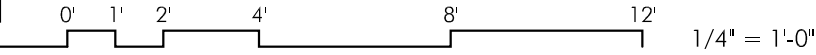
1 SECOND FLOOR PLAN

0 1 2 4 8 12 1/4" = 1'-0"





1 THIRD FLOOR PLAN





Recording Instrument #: 200503426  
Recorded By: Clatsop County Clerk  
# of Pages: 4 Fee: 41.00  
Transaction date: 3/24/2005 14:42:05  
Deputy: tromeyn

After recording return to:  
SNOW & SNOW ATTORNEYS  
P.O. Box 508  
Astoria, OR 97103  
Tax Acct #: Portions of 3004 81005CD 003500; 003700; 003800

### EASEMENT AND EASEMENT MAINTENANCE AGREEMENT

AN AGREEMENT, made and entered into this \_\_\_\_ day of March 2005, by KELLY INVESTMENTS, LTD., an Oregon Corporation, hereinafter referred to as "Declarant."

#### WITNESSETH:

WHEREAS, Declarant is the owner of certain real property, hereinafter referred to as "the Property," more particularly described as Lots 3 through 14, Block 9, First Addition to Kindred Park, in the City of Hammond, County of Clatsop, State of Oregon.

WHEREAS, Declarant intends to provide for a twenty-five foot (25') perpetual easement, being a part of Block 9, First Addition to Kindred Park, in the City of Hammond, County of Clatsop, State of Oregon, hereinafter referred to as "the Easement," and as shown on Exhibit A attached hereto, for the purposes of ingress, egress, and construction and maintenance of utilities over, across, and through the following described tract of land: Beginning at the northwest corner of Lot 10, Block 9, First Addition to Kindred Park, Clatsop County, Oregon; thence south along the west boundary of Lot 10 a distance of 10.00 feet; thence N86°34'E 166.97 feet to the southwest corner of Lot 4, Block 9; thence east 66.67 feet to the southeast corner of Lot 3, Block 9; thence north along the east boundary of Lot 3 a distance of 25.00 feet; thence west 66.67 feet to the west boundary of Lot 4; thence S86°34'W 166.97 feet to the west boundary of Lot 9, Block 9; thence south along the west boundary of Lot 9 a distance of 15 feet to the point of beginning.

WHEREAS, the Easement will serve as a common roadway and a utility right of way for the benefit of Lots 3 through 14, Block 9, First Addition to Kindred Park, in the City of Hammond, County of Clatsop, State of Oregon.

WHEREAS, Declarant intends to develop and in the future possibly sell certain portions of the Property, it therefore wishes to reserve an easement over the Property for the benefit of the Lots 3 through 14, Block 9 and any future owners, successors, heirs and assigns.

WHEREAS, Declarant is desirous of insuring that the Easement is adequately maintained and it is to its benefit and the benefit of the future owners, successors, heirs and assigns of the Property that it be so maintained,

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES, COVENANTS AND CONDITIONS CONTAINED HEREIN, it is agreed as follows:

1. Use. The Easement may be used for vehicular and pedestrian access and for a utility right of way for the installation, construction, maintenance and repair of a roadway and for utilities to the Property. Use of the Easement shall be on a regular, continuous, non-exclusive, non-priority basis, benefitting the Declarant and subsequent owners of the Property, their heirs, successors, assigns, lessees, mortgagees, grantees, invitees, guests, customers, agents and employees.
2. Maintenance. Declarant agrees that the road on the easement shall be maintained to applicable road standards, if any. In the event that any of the Property is conveyed, transferred or developed, Declarant declares that the owners of any of the Property, including those subsequently conveyed, transferred or developed, shall share equally in the costs of maintaining the Easement.
3. Improvements. In the event the owners of the Property agree to improve the Easement, payment of any costs for the improvement will be mutually agreed upon by the parties at that time.
4. Indemnification. Each party will defend, indemnify and hold harmless the other parties and any heirs, successors, assigns, lessees, mortgagees, grantees, lessees, invitees, guests, customers, agents and employees thereto, as to any property adjacent to or accessed by the easement from any claim, loss or liability arising out of or in any way connected with each party's exercise of their rights under this Agreement.
5. Successors. This Easement and Easement Maintenance Agreement shall be binding on the Declarant and any subsequent owners of the Property. It shall run with the land and shall benefit and bind the Declarant and any subsequent owners, their heirs, successors, assigns, lessees, mortgagees, grantees, lessees, invitees, guests, customers, agents and employees.
6. Attorney Fees. In the event suit or action is instituted to enforce any of the terms of this agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorney's fees at trial or on appeal of such suit or action, in addition to all other sums provided by law.

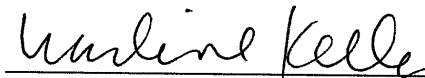
IN WITNESS WHEREOF, the parties have executed this Agreement the day and year first above written.

KELLY INVESTMENTS, LTD.,

By:



P.T. KELLY, President



NADINE KELLY, Secretary

STATE OF OREGON            )  
  ) ss.  
County of Clatsop            )

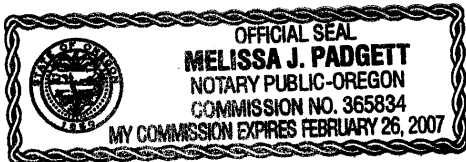
This instrument was acknowledged before me on March 24, 2005, by P.T. KELLY, as President of KELLY INVESTMENTS, LTD.



*Melissa J. Padgett*  
\_\_\_\_\_  
Notary Public for Oregon

STATE OF OREGON            )  
  ) ss.  
County of Clatsop            )

This instrument was acknowledged before me on March 24, 2005, by NADINE KELLY, as Secretary of KELLY INVESTMENTS, LTD.



*Melissa J. Padgett*  
\_\_\_\_\_  
Notary Public for Oregon



EXHIBIT SHOWING LOCATION OF PROPOSED 25 FOOT WIDE  
 EASEMENT IN BLOCK 9, FIRST ADDITION TO KINDRED PARK  
 CLATSOP COUNTY, OREGON

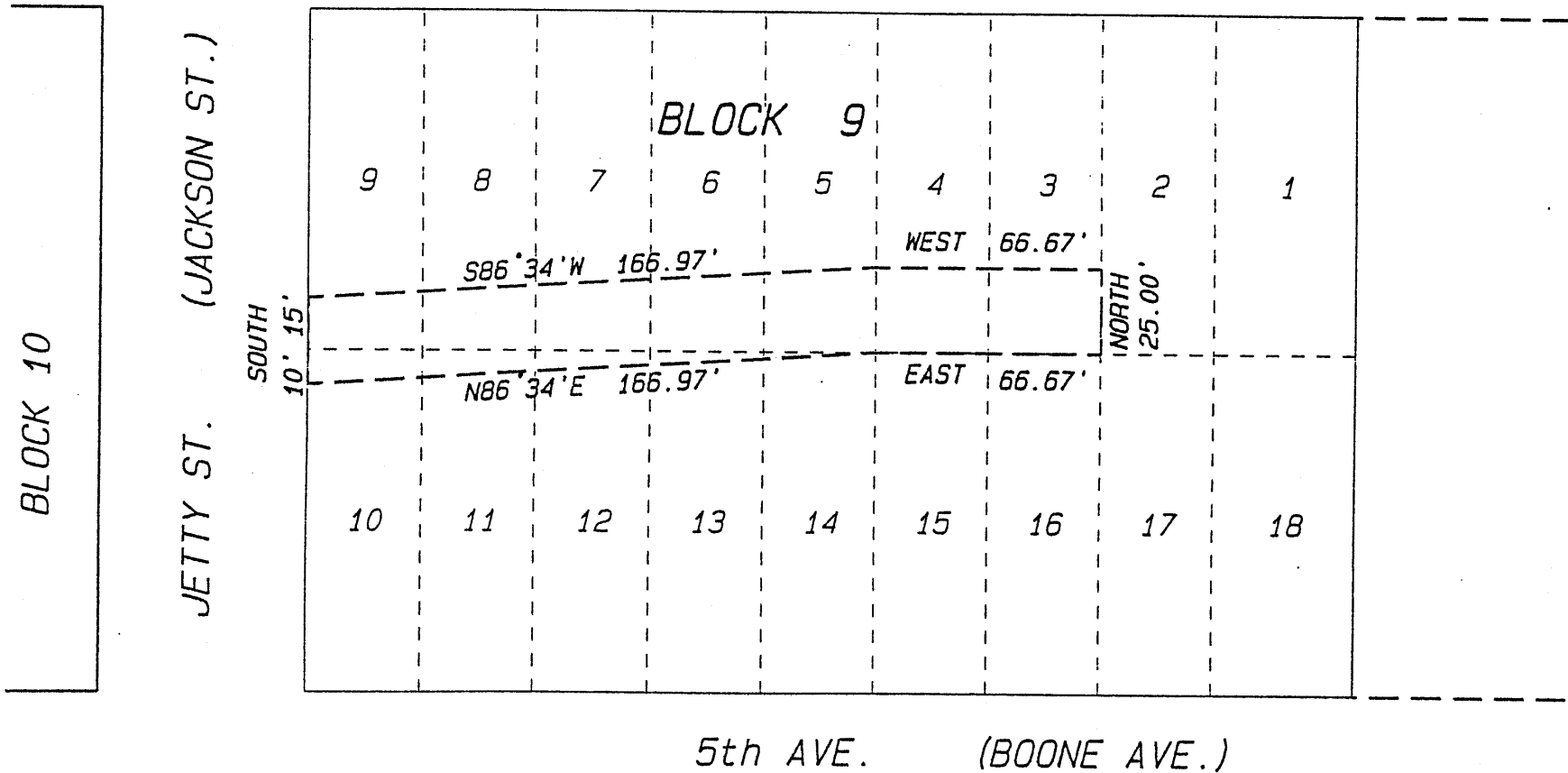
FOR: P.T. KELLY

DATE: 9/30/04



SCALE: 1" = 50'

4th AVE. (MYLER AVE.)



April 22, 2021

Jordan Winters  
Sante Development LLC

Request: 6954109  
444 SE Jetty Ave, Hammond

Dear Mr. Winters,

We at Pacific Power are pleased to hear about your plans to build a home at or near 444 SE Jetty Ave, Hammond, Oregon.

This property is within Pacific Powers Service Area and we will be able to provide permanent service under our usual guidelines as filed with the P.U.C. here in Oregon. **For temporary service you will need to supply your own meter pedestal/pole and we will bill you for a temporary service connection of \$164.00 on your first billing.**

**Our Estimator has your request to provide estimate for development of 9 townhomes with underground service. When it has been approved, we will email you the contract and advance amount that needs to be paid before we can schedule the installation of your permanent underground service.**

**The customer will provide at your expense: all trenching, backfilling, conduit, vaults and any other requirements to complete the construction for underground service.**

Sincerely,

Marilyn Brockey



Journeyman Estimator  
503-861-6005  
503-338-8386 mobile



January 5, 2021

To: Jordan Winters, Mark Hansen, Gene Bolante  
From: Scott Hess, Community Development Director, City of Warrenton  
Copy: Van Wilfinger, Building Official; Colin Stelzig, Public Works Director; Brian Alsbury, Fire Chief  
Re: December 16, 2020 Pre-application meeting

This memo outlines information identified during our preapplication meeting with you on Wednesday, December 16, 2020. You can use this memo as a checklist to help assure that your application is complete when submitted. Our comments are based on the discussion on December 16, 2020, and on a preliminary Site Plan provided by you via email on December 11, 2020.

The project is located 444 Jetty Street Tax Lot 81005CD03500. It is our understanding that the proposal is a residential development of approximately 9-10 units of townhomes that would be individually sold and privately owned. The subject property is zoned Commercial Mixed Use (CMU). The residential density and design standards are the same as the High Density Residential (RH) District. Maximum density for multifamily is one unit per 1,600 square feet of site area.

This project is considered a subdivision pursuant to WMC Chapter 16.216 and will require site design review per WMC 212.040. The application will be reviewed via a Type 3 process with a public hearing before the Planning Commission and notice described in WMC 16.208.050. The Community & Economic Development Department performance review time for a Type 3 application from “completeness” to “notice of decision” is 6-8 weeks. Application requirements are listed in WMC 16.216 & 16.220.

A site plan shall have calculations for building area (lots), landscaped area, and parking to streamline the review process. Provide calculations for lot size averaging if lots are below the minimum standard. A vicinity map shall be included with adjacent properties as well as an aerial map with contours to identify grade between properties.

**Planning/Zoning Comments:**

1. Warrenton Municipal Code 16.208.050 Type III Applications provides details needed to satisfy the public notice hearing posting and elements required leading up to Planning Commission [https://qcode.us/codes/warrenton/view.php?topic=16-4-16\\_208-16\\_208\\_050&frames=off](https://qcode.us/codes/warrenton/view.php?topic=16-4-16_208-16_208_050&frames=off)
2. WMC 16.121.020 establishes standards for Site Design review applicability. Residential developments 10 units and greater require a Type III review with public notice required per Chapter 16.208.040. [https://qcode.us/codes/warrenton/view.php?topic=16-4-16\\_208-16\\_208\\_040&frames=on](https://qcode.us/codes/warrenton/view.php?topic=16-4-16_208-16_208_040&frames=on)

3. WMC 16.212.040 explains Site Design elements.  
[https://qcode.us/codes/warrenton/view.php?topic=16-4-16\\_212-16\\_212\\_040&frames=on](https://qcode.us/codes/warrenton/view.php?topic=16-4-16_212-16_212_040&frames=on)
4. WMC 16.216.040 Preliminary Plat Submission Requirements provides guidance on the Preliminary Plat that will be required to subdivide the property into individually sellable condo or townhome lots.  
[https://qcode.us/codes/warrenton/view.php?topic=16-4-16\\_216-16\\_216\\_040&frames=off](https://qcode.us/codes/warrenton/view.php?topic=16-4-16_216-16_216_040&frames=off)
5. Planning has addressed a number of specific questions relating to zoning, lot sizes, access, and improvements in an email on 11/30/2020.
6. Development Standards for CMU match the RH Zone found at:  
[https://qcode.us/codes/warrenton/view.php?topic=16-2-16\\_36-16\\_36\\_040&frames=off](https://qcode.us/codes/warrenton/view.php?topic=16-2-16_36-16_36_040&frames=off)
7. The applicant has requested information on the Street Vacation process. That information can be found at:  
<https://www.ci.warrenton.or.us/sites/default/files/fileattachments/building/planning/page/86/street.vacation.packet2.pdf>

**Building Department Comments:**

1. The plans, as provided, are conceptual in nature and contain insufficient information to provide comprehensive Building Department comments at this time.
2. Please see attachment for minimum Residential Submittal documentation that will be required once all required approvals have been obtained from the Planning, Public Works, and Fire Departments.

**Public Works Comments:**

Public Works understands that a subdivision is proposed on Tax Lot 81005CD03500. With this information, staff at public works has provided the following items that will need to be addressed in your design and planning documents:

1. The developer is required to follow the City of Warrenton Development Standards. These standards can be found in Title 16 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet that standards set forth in the development code. Below is a link to the Development Code  
<http://qcode.us/codes/warrenton/view.php?topic=16&frames=on>
2. The developer must follow the City's Water and Sewer Regulations. These regulations are included under Title 13 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet that standards set forth in the development code. Below is a link to the Title 13 of our Code:  
<http://qcode.us/codes/warrenton/view.php?topic=13&frames=on>
3. The developer is required to follow the Engineering Standards & Design Criteria Manual. Please provide documentation showing how the development meets the standards set forth in this manual. This manual can be found at the

4. Half street improvements, a minimum of 24 feet, are required on Jetty Street
5. Half Street improvements, a minimum of 24 feet, are required on Fourth Avenue. If instead a private road is proposed in the shared easement, the roadway shall meet City street standards with a minimum width of 36 feet and sidewalks on both sides.
6. Drainage at the intersection Fourth Avenue and Jetty Street will need to be addressed with the road design work.
7. Water and service connections will be installed by the developer.
8. Sidewalks are required on both Jetty Street and Fourth Avenue and shall be a minimum of 5 feet wide and shall meet ODOT standards.
9. Street lights are required for all new developments. Show proposed street light locations and submit plan to Pacific Power & Light for circuit design.
10. Please work with the Fire Chief to determine appropriate Fire hydrant spacing for this development. Developers team is responsible for determining if fire flows are available at this location. This can include hydrant testing and/or water modeling.
11. All on-site driveways, parking areas, aisles and turn-a-rounds shall have on-site collection or infiltration of surface waters to eliminate sheet flow of such waters onto public rights-of-way and abutting property. Surface water facility plans shall be prepared by a qualified engineer and constructed in accordance with City standards. Stormwater report shall detail pre and post stormwater conditions, including the adjacent ROWs and flows from existing storm system.
12. The City has design standards for refuse enclosures that include the required turning radius and access standard.
13. New sewer and water mains will be required as part of this development.
14. Connections to existing watermain shall include three valves.
15. Watermains shall be a minimum of 8".

**Questions from The Applicant:**

Any offsite improvements required?

Street and Utility improvements will be required as part of this subdivision. Developer/Owner will confirm the availability of sufficient utilities the site. The City is aware that the stormwater systems in the vicinity are non-existent and will need to be provided as part of this development. In addition, the water system adjacent to this development may not be adequate to provide the necessary fire flows.

What would phasing the project (likely three phases for three structures) look like?

All utility infrastructure will be installed at the onset of the project. Jetty Street improvements will be necessary, Fourth Avenue will be improved to limits of construction with a turnaround for fire and garbage vehicles.

We assume we can defer certain site improvements that may be required as if the site was fully improved to the second and third phases if we go that route. Please confirm.

All utility infrastructure will be installed at the onset of the project. Jetty Street improvements will be necessary, Fourth Avenue will be improved to limits of construction with a turnaround for fire and garbage vehicles.

**Fire Department Comments:**

**ACCESS:**

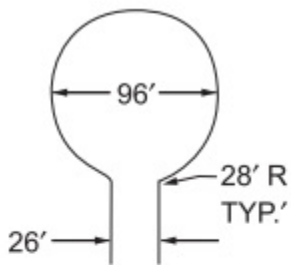
The proposed access road (shared access easement) is shown as a dead-end, Oregon Fire Code, table **D103.1** shows that any dead-end road that will be used for fire access will need to have a 120-foot hammerhead, 60 foot "Y" or a 96-foot cul-de-sac in accordance with figure **D103.1** (see 2<sup>nd</sup> page).

**WATER SUPPLY:**

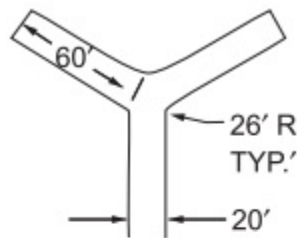
There is no available hydrant within the required 250 feet of furthest lot (Building C). Fire Department is requesting that a hydrant be installed at the SE corner of Jetty St and Shared Access Easement. Oregon Fire Code **D103.4**

**ADDRESS:**

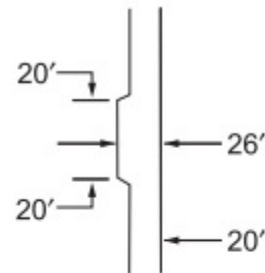
Home will be required to have address number visible from the street with opposing/contrasting number. i.e. black numbers with white background.



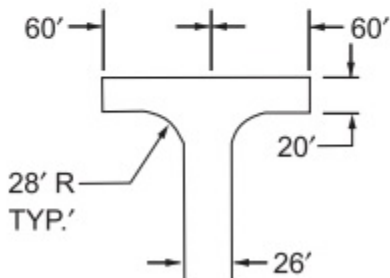
96' DIAMETER  
CUL-DE-SAC



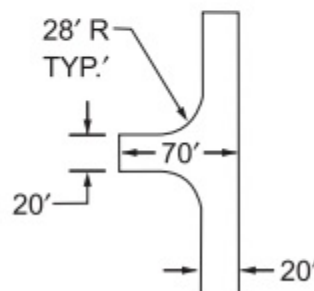
60-FOOT "Y"



MINIMUM CLEARANCE  
AROUND A FIRE  
HYDRANT



120' HAMMERHEAD



ACCEPTABLE ALTERNATIVE  
TO 120' HAMMERHEAD

REQUIREMENTS FOR DEAD-END

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0-150	20	None required
151-500	20	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1

**Estimated Permit Fees & SDCs**

Grading permits and engineering design are reviewed by a third-party consultant and requires a deposit and direct charge for services. This will be calculated at the time of submittal.

Site Design Review: \$ 750  
 Preliminary Subdivision Plat: \$ 750 + \$30 / lot + actual costs of engineering review

*The City will collect systems development charges when building permits are issued. Below is an estimate based on the submitted plan set:*

SDC	Cost	Factor	Dwelling Unit
Water Meter	\$ 3,296.00	2 x 1" meters	\$ 6,592.00
Wastewater	\$ 3,294.00	2 x 1" meters	\$ 6,588.00
Storm Water	\$ 157.00	12	\$ 1,884.00
Transportation Per PHPT	\$ 527.22	12	\$ 6,326.64
Parks	\$ 599.00	12	\$ 7,188.00
TOTAL			\$ 28,578.64

Final SDCs will be calculated per approved plans at building permit issuance.

**Please use this letter as a checklist for your land use submittal.**

If you have any questions about the requirements or any City related issues, please contact Scott Hess at [shess@ci.warrenton.or.us](mailto:shess@ci.warrenton.or.us) or 503-861-0920.

Month, Date Year  
Project Name  
Address, City, State, Zip  
Attn: Jordan Winters

Dear: Jordan,

This information is furnished in response to your request for a commitment for natural gas service to the proposed project located at tax lot 81005CD03500. Northwest Natural Gas (Company) will provide natural gas service for normal commercial/residential use in the above described site and such service will be available at the lot line at or prior to the time of sale or lease thereof.

Northwest Natural Gas Company operates under the jurisdiction and subject to the Rules and Regulations of the Public Utility Commissioner (PUC) of Oregon. Service is provided pursuant to the Tariff (rates, rules and regulations) of the Company on file with the PUC. Such Tariff is subject to change as provided by law. The Company installs, owns and maintains all facilities up to and including the meter pursuant to the provisions of such Tariff. Facilities beyond the meter are the responsibility of the builder or owner.

Copies of its rates, rules and regulations and additional information may be obtained by contacting the Company.

Respectfully,

Teresa Brownlie  
NW Natural  
Office: 503-741-0145  
Fax: 503-325-4253  
Email: tma@nwnatural.com





## REVISED NOTICE OF PUBLIC HEARING

The Warrenton Planning Commission will conduct a public hearing at 6:00 PM, August 12, 2021, at the Warrenton City Hall Commission Chambers to consider the following requests:

SUB 21-1/SDR-21-1, a consolidated request by Jetty Street, LLC to develop a 9-unit subdivision consisting of three standalone townhome structures containing three single-family dwelling units each at 444 Jetty Street, Tax Lot 81005CD03500, in the Commercial-Mixed Use (C-MU) Zone. Applicable criteria and standards specific to this request are contained in Warrenton Municipal Code (WMC) Chapters 16.44 Commercial-Mixed Use (C-MU) District, 16.116 Design Standards, 16.184 Single-Family Attached, Duplex, and Triplex Design Standards, and 16.216 Land Divisions and Lot Line Adjustments. The request is also subject to the criteria and standards listed below that apply to all three requests.

SDR 21-2, a site design review of a request by Kyle Langeliers on behalf of property owner Warrenton Property Investments, LLC to construct a new 27,550 sq. ft. building and associated site improvements for a new furniture store on an adjusted portion of Tax Lot 81027AB06400 in the General Commercial (C-1) Zone. Applicable criteria and standards specific to this request are contained in WMC Chapters 16.40 General Commercial (C-1) District, 16.156 Wetland and Riparian Corridor Development Standards, 16.88 Flood Hazard Overlay (FHO) District, and 16.192 Large Scale Developments. The request is also subject to the criteria and standards listed below that apply to all three requests.

SDR 21-3, a site design review of a request by Greta Holmstrom/Ardor Consulting LLC on behalf of property owner Fuiten West Partnership to construct a new 13,607 sq. ft. building and associated site improvements for the existing Medix ambulance dispatch facility at 2325 SE Dolphin Avenue, Tax Lot 81033AA01100, in the General Industrial (I1) Zone. Applicable criteria and standards specific to this request are contained in WMC Chapters 16.60 General Industrial (I1) Zone, and 16.192 Large Scale Developments. The request is also subject to the criteria and standards listed below that apply to all three requests.

These requests are also subject to the criteria and standards contained in WMC Chapters 16.116 Design Standards, 16.120 Access and Circulation, 16.124 Landscaping, Street Trees, Fences, and Walls, 16.128 Vehicle and Bicycle Parking, 16.136 Public Facilities Standards, 16.140 Stormwater and Surface Water Management, 16.144 Signs, 16.152 Grading, Excavating, and Erosion Control Plans, 16.208 Types of Applications and Review Procedures, and 16.212 Site Design Review.

Those wishing to testify on any of these proposals may attend the public hearing and sign a card to speak to the Planning Commission, or submit written materials, which must be received by the Warrenton Community and Economic Development Department no later than 4:00 P.M. on the day of the hearing. Written comments may be mailed to Rebecca Sprengeler, Deputy City Recorder, P.O. Box 250, Warrenton Oregon, 97146-0250; or emailed to Will Caplinger, Interim City Planner, at [cityplanner@ci.warrenton.or.us](mailto:cityplanner@ci.warrenton.or.us). At the public hearing, the Planning Commission chairperson will open the public hearing and describe the general conduct and procedure for providing public comment. A staff report will be given, followed by a statement from the applicant, followed by public testimony, discussion among the commissioners, and a decision on, or a continuation of, the request.

Failure to raise an issue in person, or by or by letter at the hearing, or failure to provide statements of evidence sufficient to afford the decision makers an opportunity to respond to the issue, means that an appeal based on that issue cannot be filed with the State Land Use Board of Appeals.

A copy of the application, all documents and evidence submitted by or for the applicant, and the applicable criteria and standards can be reviewed at Warrenton City Hall at no cost and copies shall be provided at a reasonable cost. A copy of the City's staff report and recommendation to the hearing body shall be available for review at least seven days before the hearing, and a copy shall be provided at a reasonable cost.

Anyone wishing to review and/or purchase copies of the proposals and/or staff report may do so at Warrenton City Hall, 225 South Main, or may contact Rebecca Sprengeler at 503-861-0823 or via email at [rsprengeler@ci.warrenton.or.us](mailto:rsprengeler@ci.warrenton.or.us).

Mailed July 29, 2021

## NOTICE OF PUBLIC HEARING

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Failure to raise an issue in person, or by or by letter at the hearing, or failure to provide statements of evidence sufficient to afford the decision makers an opportunity to respond to the issue, means that an appeal based on that issue cannot be filed with the State Land Use Board of Appeals.

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Published July 31, 2021



August 5, 2021

Will Caplinger  
City Planner, Interim  
City of Warrenton  
225 S Main Ave  
Warrenton, OR 97146

RE: Jetty View Townhomes – Preliminary Plat Submission (WMC 16.216.040)

Dear Mr. Caplinger,

The planning review submittal package has been provided to City of Warrenton Public Works. The drawing set and Pre-App Meeting notes have been reviewed. This letter summarizes our review comments of the information provided, by Morgan Civil Engineering, Inc, dated June 30, 2021. The site is located at the South East corner of Fourth Avenue and Jetty Street.

As submitted, the development consists of a 9-lot subdivision with street and utility improvements on Fourth Avenue and Jetty Street.

The submitted information has been reviewed for compliance with the City of Warrenton Municipal Code Site Design Review, Section 16.216.040 and additional referenced sections.

This is not a review of the engineering plans or construction details currently provided in the application documentation, but is a review of applicable code related to preliminary plat approval. Engineer review will take place after planning commission approves the development and once engineering plans have submitted to the City for review and comments.

**General Notes:**

- Construction Documents shall meet all requirements of federal, state, and local standards, codes, ordinances, guidelines and/or other legal requirements.
- The developer is required to follow the City of Warrenton Development Standards. These standards can be found in Title 16 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet the standards set forth in the development code.
- The developer must follow the City's Water and Sewer Regulations. These regulations are included under Title 13 of the Warrenton Municipal Code.
- The developer is required to follow the Engineering Standards & Design Criteria Manual. Please provide documentation showing how the development meets the standards set forth in this manual.
- Grading and Erosion Control activities shall adhere to the requirements of the Approved Oregon Department of Environmental Quality General Permit for Stormwater Discharge, 1200-C when applicable.
- Grading activities shall adhere to the recommendations provided in the project final Geotechnical report when applicable.

**Comments:**

1. Design plans shall include topographic information collected from field survey work.
2. Provide water model showing adequate fire flows at fire hydrant locations.
3. Provide stormwater report and calculations for new stormwater systems and capacity of existing stormwater system. This includes offsite stormwater systems associated with this development.
4. Current stormwater design appears to go under the existing marina restroom facility. Provide letter from Hammond Marina acknowledging approval of stormwater alignment and design.
5. Extend sidewalk beyond shared access.
6. Water design plans shall include abandonment of existing 4" waterline, water services and hydrants.
7. Provide detailed grading plan at intersection of Jetty Street and Fourth Avenue.
8. Provide detailed grading elevations of all sidewalks, ADA ramps and driveways.
9. Include design showing how existing improvements (utilities and surfaces) will tie into final design.
10. Clearly show public and private ownership of stormwater utilities.
11. Clearly show edge of existing roadways.
12. Clearly show stormwater drainage patterns.
13. The ADA ramp located at the SE corner of Jetty Street and Fourth Avenue is not an acceptable option. Please use an option not associated with "site constraints". An easement may be used to fit an ADA ramp at this location.
14. Water meters shall be located outside of the sidewalk will and require an easement if located outside the ROW.
15. Provide details of fire truck turnaround. Current design appears to show the turnaround outside of the ROW, this will not be acceptable.
16. Provide identification of slopes greater than 10%.
17. Please confirm there are no existing easements on the site.
18. Provide driveway entrance winged configuration per code.
19. The City of Warrenton utilizes ODOT standard drawings and details for public facilities construction. Coordinate, and modify as appropriate, any ODOT drawings with the City's Engineering Design Standards Adopted April 2020.
20. Provide Impact Study per 16.208.040
21. Provide a water and wastewater demand for this development.
22. Coordinate with the Fire chief for hydrant spacing and ensure compliance with the City code.

If there are any questions, please don't hesitate to call me.

Sincerely,



Collin Stelzig  
Public Works Director

Enclosures: None

**CITY OF WARRENTON  
PLANNING AND BUILDING DEPARTMENT**

**COMMERCIAL SITE DESIGN  
APPLICATION**

To be accompanied by a Site Plan Map, copy of property deed and if applicable, a Letter of Authorization.

OFFICE USE ONLY	
FILE # <u>SDR-21-1</u>	FEE \$ <u>500.<sup>00</sup></u>
ZONING DISTRICT _____	
RECEIPT # <u>8841642</u>	
DATE RECEIVED <u>4/23/21</u>	

The site plan review process is a method for assuring compliance with the City of Warrenton Comprehensive Plan and Development Code, and to ensure wise utilization of natural resources, and the proper integration of land uses utilizing appropriate landscaping or screening measures. A commercial enterprise must also consider traffic circulation patterns, off-street parking, refuse containers, safe exit and entrance to the business, building height, dust control, future widening of major thoroughfares, and signs. Please answer the questions as completely as possible.

.....

Legal Description of the Subject Property: Township 8N, Range 10W, Section(s) SE 1/4 and SW 1/4 of Section 5, Tax Lot(s) 3500

Property street address 444 Jetty Street

**I/WE, THE UNDERSIGNED APPLICANT(S) OR AUTHORIZED AGENT, AFFIRM BY MY/OUR SIGNATURE(S) THAT THE INFORMATION CONTINUED IN THE FOREGOING APPLICATION AND ASSOCIATED SUBMISSIONS IS TRUE AND CORRECT.**

**APPLICANT:**

Printed Name: Jetty Street, LLC

Signature:  Date: 05/24/2021

Address: 9879 Buena Vista Road Phone: 503-209-6034

City/State/Zip: Independence, OR 97351 Fax: \_\_\_\_\_

**PROPERTY OWNER (if different from Applicant):**

Printed Name: Same

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Fax: \_\_\_\_\_

1. In detail, please describe your proposal:

Development plans are for the design and construction of a 9 unit subdivision consisting of 3 standalone town home structures containing 3 SFR dwelling units each. Initially, site infrastructure, including half street improvements, utility connections, grading and drainage will be completed, followed immediately by construction of the first 3 unit town home.

2. Describe what type of business, commodity sold or manufactured, or service you are proposing.

N/A. Residential SFD Attached units will no have no operating businesses.

Current number of employees: \_\_\_\_\_  
Projected number of customers per day \_\_\_\_\_  
Days of operation \_\_\_\_\_ Hours of operation \_\_\_\_\_  
Number of shipments/deliveries per day \_\_\_\_\_ per week \_\_\_\_\_  
By what method will these be arriving/sent? \_\_\_\_\_

3. Does this property have an existing business or businesses? No.

If yes, please list the business names and their addresses, and note these businesses on your site plan map.

4. Is there a residence or residences on this property? No. Land is unimproved.

If yes, please list the number of residences and please show these structures on your site plan map.

5. Availability of services: City water Yes, City sewer Yes

6. If you are an existing business, are materials or merchandise currently being stored on site?

N/A.

Where and how do you propose to store materials or merchandise for sale or processing?

7. What percentage of the property is currently landscaped? Site is covered by native, wild vegetation. None is professionally landscaped.

What percentage of the property do you propose to landscape as part of this project? \_\_\_\_\_

8. How do you intend to irrigate the existing and proposed landscaping? We intend to use native dune and beach grasses as well as trees and shrubs native to this area that are drought tolerant, thus we would propose no irrigations system. Plants will be hand watered for the first year to get them established and then maintained by a professional landscape group under the management of the HOA.

9. Signs require the submittal of a separate application, which may be submitted in conjunction with this site plan application. N/A.

10. Please explain how you propose to provide for the drainage of this property, or explain why no additional drainage consideration is necessary. Water from the roadways will be collected and transmitted to the existing drainage system for disposal to Hammond Boat Basin. Water run-off from the buildings and private drive will be collected and disposed of through subsurface infiltration. Overflow from the infiltration system will be directed into the roadway drainage system.

11. Please provide the type of development on the neighboring properties.

North: Unimproved lot owned by city. Predominately used for boat trailer parking during boating season.  
South: SFR  
East: SFR  
West: SFR

12. Provide samples of the building materials for the exterior of the building with detail description of where each type and color will be used in the construction and finishing of the building. See attached elevations and narrative.

13. Will all parking for your business be provided on the property? Yes  No \_\_\_\_\_ All parking must be shown on your site plan map. If off-street parking is to be provided on another property, please attach a copy of the parking easement or agreement from the property owner; or will off-street parking be provided along the abutting street.

14. How does this request comply with the Warrenton Development Code Chapter 16, Section 16.40 (General Commercial)? \_\_\_\_\_  
This project is located with the CMU zone (Section 16.44). Townhome development is a outright permitted use. As demonstrated in the attached site plan, density, setback, height, parking and similar development standards comply with the standards set forth within the CMU zoning.

15. Orientation of proposed building(s) (see Section 16.116.030 in the Warrenton Development Code)  
Fronts of buildings will be oriented towards the to-be-improved 4th Avenue (North), with parking and garages accessed off a private easement located off of Jetty Street (South). See attached site plan.

16. Please address (on separate sheet of paper) all applicable sections of Design Standards (copy attached) out of the Warrenton Development Code.

\*\*\*\*\*

**PLEASE UNDERSTAND THAT THIS APPLICATION WILL NOT BE OFFICIALLY ACCEPTED UNTIL DEPARTMENT STAFF HAS DETERMINED THAT THE APPLICATION IS COMPLETELY FILLED OUT AND THE SITE PLAN MAP REQUIREMENTS HAVE BEEN COMPLETED.**

**Return Application To:**

City of Warrenton  
Planning and Building Department  
PO Box 250  
225 S. Main Street  
Warrenton, Oregon 97146

Phone: 503-861-0920  
Fax: 503-861-2351

\*\*\*\*\*

**MAP INSTRUCTIONS AND CHECKLIST**

\*\*\*\*\*

A Site Plan Map, which shows all existing and proposed structures and parking areas, must accompany this application. The following checklist identifies the specific information which should be included on this map.

- Title the map "Commercial Site Design".
- The map may be drawn on 8 ½ x 11 or 8 ½ x 14 inch white paper.
- Township, Range, Section and Tax Lot number of the subject property(ies) shall be included.
- North arrow, date, and map scale in one inch intervals (1" = 20') shall be noted.
- Shape, dimensions, and square footage of the parcel shall be shown. Draw the property line with a solid black line and label adjacent street(s), if any.
- Identify existing and proposed easements with a dotted line.
- N/A Identify the location and direction of all water courses and drainage ways, as well as the location of the 100-year floodplain, if applicable.
- N/A Illustrate all existing buildings and their sizes.
- Illustrate all proposed new construction with dashed lines (include dimensions).



- X Illustrate parking area with number of spaces and access drive areas. If off-street parking is to be provided, even in part, on another property, please show its location on your site plan map, and attach a copy of the parking easement or agreement from the adjoining property owner.
- X Illustrate the entrance and exit points to the property, pattern of traffic flow, loading and unloading area, sidewalks and bike paths.
- X Illustrate the existing or proposed location, height, and material of all fences and walls.
- X Illustrate existing or proposed trash and garbage container locations, including type of screening.
- X Name of the person who prepared the map.
- X Location, type and height of outdoor lighting.
- X Location of mailboxes if known.
- N/A Locations, sizes, and types of signs (shall comply with Chapter 16.144 of the Warrenton Development Code).
- X Map shall show entire tax lot plus surrounding properties.
- N/A Identification of slopes greater than 10%.
- X location, condition and width of all public and private streets, drives, sidewalks, pathways, right-of-ways, and easements on the site and adjoining the site.
- N/A Identify designated flood hazard area(s).
- N/A Show wetland and riparian areas, streams and/or wildlife areas.
- N/A Any designated historic and cultural resources areas on the site and/or adjacent parcels or lots.
- X Location, size and type of trees and other vegetation on the property.

## ELEVATION FINISH MATERIALS

Per elevations, the primary façade of the buildings will be made of a mixture of James Hardie Cementous siding material. The lower floors of the building will be wrapped with select Cedarmill 8.25” lap siding, separated by bellybands distinguishing each floor level. The upper floor will have a mixture of Hardie Board & Batt on the east and west elevations as well as architecture pop outs on the north elevations. We will also be incorporating Hardi Smooth Sand textured panels and straight edge shingle panels on select architectural areas as shown on the elevations. 4’ synthetic stone wainscot will be featured on the north (front) and south elevations as shown. Windows will receive full four way trim wraps on north, south, east and west elevations. Roofing materials will consist of 30 year composite shingles in black or dark grey. Architectural eyebrows at select eaves will be installed as shown. Paint colors per provided elevations.

**CITY OF WARRENTON  
PLANNING AND BUILDING DEPARTMENT**

**SUBDIVISION APPLICATION**

(To be accompanied by a Tentative Map, and copy of property deed, Letter of Authorization, if applicable.)

OFFICE USE ONLY	
FILE # <u>SUB-21-1</u>	FEE <u>\$1020.<sup>00</sup></u>
ZONING DISTRICT _____	
RECEIPT # <u>8861642</u>	
DATE RECEIVED <u>6/23/21</u>	

Legal Description of the Subject Property:


Township <u>8N</u>	Range <u>10W</u>	Section <u>SE 1/4 and SW 1/4 of Section 5</u>	Tax Lot <u>3500</u>
-----------------------	---------------------	--	------------------------

Street address of the property: 444 Jetty Street

**I/WE, THE UNDERSIGNED APPLICANT(S) OR AUTHORIZED AGENT, AFFIRM BY MY/OUR SIGNATURE(S) THAT THE INFORMATION CONTAINED IN THE FOREGOING APPLICATION AND ASSOCIATED SUBMISSIONS IS TRUE AND CORRECT.**

**APPLICANT:**

Printed Name: Jetty Street, LLC

Signature:  Date: 05/24/2021

Address: 9879 Buena Vista Road Phone: 503-209-6034

City/State/Zip: Independence, OR 97351 Fax: \_\_\_\_\_

**PROPERTY OWNER (if different from Applicant)**

Printed Name: Same

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Fax: \_\_\_\_\_

Is this a Planned Unit Development (PUD)? No  Yes \_\_\_\_\_

IS THIS A "PHASED DEVELOPMENT"? Yes \_\_\_\_\_ No

\*\*\*\*\*

a. Overall development plan, including phase or unit sequence.

Development plans are for the design and construction of a 9 unit subdivision consisting of 3 standalone town home units containing 3 SFR dwelling units each. Initially, site infrastructure, including half street improvements, utility connections, grading and drainage will be completed, followed immediately by construction of the first 3 unit town home.

b. Projected Timetable for sequence of development

Based on suggested time line from City, we plan to have preliminary plat, subdivision and land use approvals by the third quarter, 2021, with infrastructure improvements completed in 4th quarter 2021 and the first 3 unit town home completed in 2nd or 3rd quarter 2022.

c. Development plans for any common elements or facilities.

Landscaping will be commonly owned through its own separate tax parcel and will be governed and maintained as outlined in the to be established Home Owners Association (HOA).

d. If the proposed subdivision has an unknown impact upon adjacent lands or land within the general vicinity, the Planning Commission may require a potential street development pattern for adjoining lands to be submitted together with the tentative plan as part of the phased development plan for the subject subdivision.

We do not believe this to be applicable.

e. Show compliance with the Comprehensive Plan and applicable sections of the Development Code.

Site is zone for Commercial Mixed Use (CMU) for which single family attached townhome development is an outright permitted use. The project is also bound by the south, west and east to similar single family detached units. City of Warrenton's 2011 site the need for emphasis of increased housing demand and sites specifically attached single family dwellings as a means in which to accomplish this. In fact, it notes that CMU zone is only one of four potential zones that will allow for attached family dwellings.

f. Schedule of improvements and completion.

Assuming land use and site development approvals are given by the end of August, 2021, Construction on the subdivision improvements will begin in September of 2021 and should be completed by November of 2021. Final Platting should be completed in December 2021 with construction of the first 3 unit town home in January of 2022 and completion in July of 2022.

g. Overall transportation and traffic pattern.

Primary vehicular access will be through rear loaded private easement located off of Jetty Street. Half street improvements on Jetty Street and 4th Ave will be completed, although 4th Ave will not be connected to Iredale and will remain temporarily dead ended.

## PRELIMINARY SUBDIVISION PLAT REQUIREMENTS

\*\*\*\*\*

A "preliminary subdivision plat" shall be submitted with the following information depicted:

1. Proposed name of the subdivision;
2. Names, addresses, and phone numbers of property owner(s) (including mortgage holders if any), surveyor, and applicant if different from property owner, and assumed business name(s) filed or to be filed with the Corporation Commission by the applicant;
3. Proposed subdivision showing the parcel boundaries and dimensions, the area of each parcel, location of any and all easements (and what the easement is), right-of-way widths, existing roads;
4. Date of map preparation, north point, scale, property identification by township, range, section and tax lot numbers;
5. Location of all existing buildings, creeks, canals, ditches, any topographical features (ie., canyons, bluffs, wetlands, natural springs, floodplain);
6. Location, width, name, curve ratio, and approximate grade of all proposed right-of-ways;
7. Location of any existing features such as section lines, section corners, city and special district boundary lines, and survey monuments;
8. Existing sewer lines, water mains, culverts, and other underground and overhead utilities within and adjacent to the proposed subdivision together with pipe sizes, grades and locations;
9. Contour lines related to some established bench mark or other engineering acceptable datum;
10. Zoning of subject property, and adjacent tax lots to the proposed subdivision;
11. Location, names, width, typical improvements, cross sections, bridges, culverts, approximate grades, curve radii and centerline lengths and reserve strips of all proposed streets, and the relationship to all existing and projected streets;
12. Location, width and purpose of all proposed easements or right-of-ways, and relationship to all existing easements and right-of-ways;
13. Location of at least one temporary bench mark within the proposed subdivision boundary;
14. Location, approximate area and dimensions of each lot, and proposed lot and block numbers;
15. Location, approximate area and dimensions of any lot or area proposed for public use, the type of use proposed, and plans for improvements or development;
16. Proposed use, location, approximate area and dimensions of any lot intended for non-residential use;

17. Source, method, and preliminary plans for domestic and other water supplies, sewer lines, and all utilities;
18. Description and location of any proposed community facility;
19. Storm water and other drainage facility plans;
20. Proposed deed restrictions including access restrictions or protective covenants if such are proposed to be utilized for the proposed subdivision;

**ADDITIONAL SUBMITTALS**

21. Statement from each utility company proposed to serve the proposed subdivision stating that each company is able and willing to serve the proposed subdivision as set forth in the tentative plan, and the conditions and estimated costs of each service;
22. Proposed Fire protection system for the proposed subdivision and written approval thereof by the fire chief.
23. Statement from School District.

\*\*\*\*\*  
**REQUIREMENTS**  
 \*\*\*\*\*

1. A vicinity map must be submitted showing the proposed subdivision in relationship to the adjacent properties, roadways, and ownership patterns. This map must include names of all existing roadways.
2. Who will supply the water? City of Warrenton
3. Access will be taken from Jetty Street
4. What is the intended use of the parcels being created?  
Nine Single Family Attached residences through three town home structures.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
5. What is the current use of the parcel? Unimproved, vacant land.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. Proposal is in compliance with the City of Warrenton's Comprehensive Plan and Development Code.  
Site is zone for Commercial Mixed Use (CMU) for which single family attached townhome development is an outright permitted use. The project is also bound by the south, west and east to similar single family detached units. City of Warrenton's 2011 site the need for emphasis of increased housing demand and sites specifically attached single family dwellings as a means in which to accomplish this. In fact, it notes that CMU zone is only one of four potential zones that will allow for attached family dwellings.  
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7. Proposal does not conflict with acquired public access easements within or adjacent to the subdivision.

Confirmed

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8. All required public services and facilities are available and adequate or are proposed to be provided by the applicant.

Confirmed. Will Serves from Pacific Power and Northwest Natural Gas provided.

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9. The subdivision contributes to orderly development and land use patterns in the area, and provides for the preservation of natural features and resources such as streams, lakes, natural vegetation, and special terrain features.

The subdivision is consistent with the surrounding land uses and zoning criteria. Landscaping established through HOA will utilize plants, grasses and practices consistent with marine area landscaping and local nature. There are no streams, lakes or special terrain on the site.

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10. The subdivision will not create an excessive demand on public facilities and services required to serve the development.

Confirmed. The additional of 9 attached residential dwelling units will not create undo demand on public utilities. Developer has identified inadequate water flow to the site and as part of the improvement plans will upsize the sizing of the water facilities to compensate for the new units. Additionally, the city has identified additional surface water issues generated from neighboring structure's utilizing storm surface flow practices. Developer will also be extending public storm systems to correct this issues as well as install its own storm systems onsite to mitigate future concerns.

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11. The preliminary plat for the proposed subdivision meets the requirements of ORS 92.090.

Confirmed

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Return Application To: City of Warrenton  
Planning and Building Department  
PO Box 250  
225 SW Main Street  
Warrenton, Oregon 97146  
Phone: 503-861-0920  
Fax: 503-861-2351







IN THE EVENT CONFLICTS ARE DISCOVERED  
BETWEEN THE ORIGINAL SIGNED AND SEALED  
DOCUMENTS PREPARED BY THE ARCHITECTS  
AND/OR THEIR CONSULTANTS, AND ANY COPY OF  
THE DOCUMENTS TRANSMITTED BY MAIL, FAX,  
ELECTRONICALLY OR OTHERWISE, THE ORIGINAL  
SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2020-190  
DATE: 17 JUNE 2021  
REVISIONS

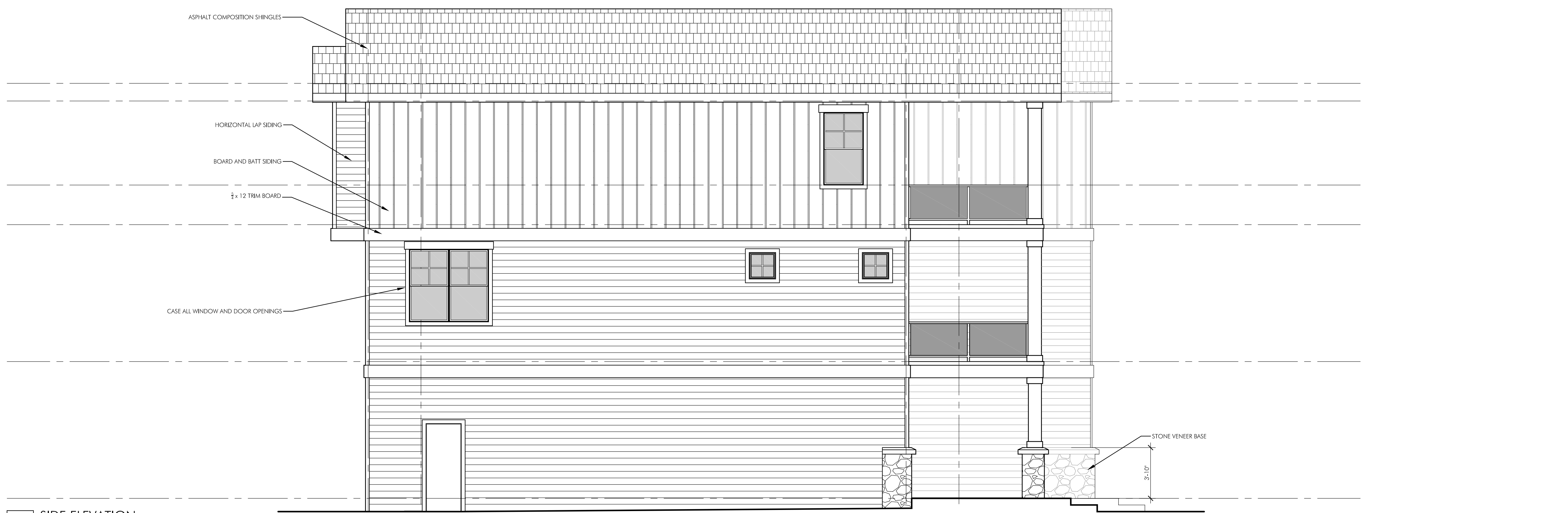
NEW MULTI FAMILY DEVELOPMENT:  
**JETTY VIEW TOWNHOMES**  
4th AVE WARRENTON, OREGON

SHEET

**A3.1**



**1** FRONT ELEVATION  
0 1 2 4 8 12  
1/4" = 1'-0"



**2** SIDE ELEVATION  
0 1 2 4 8 12  
1/4" = 1'-0"

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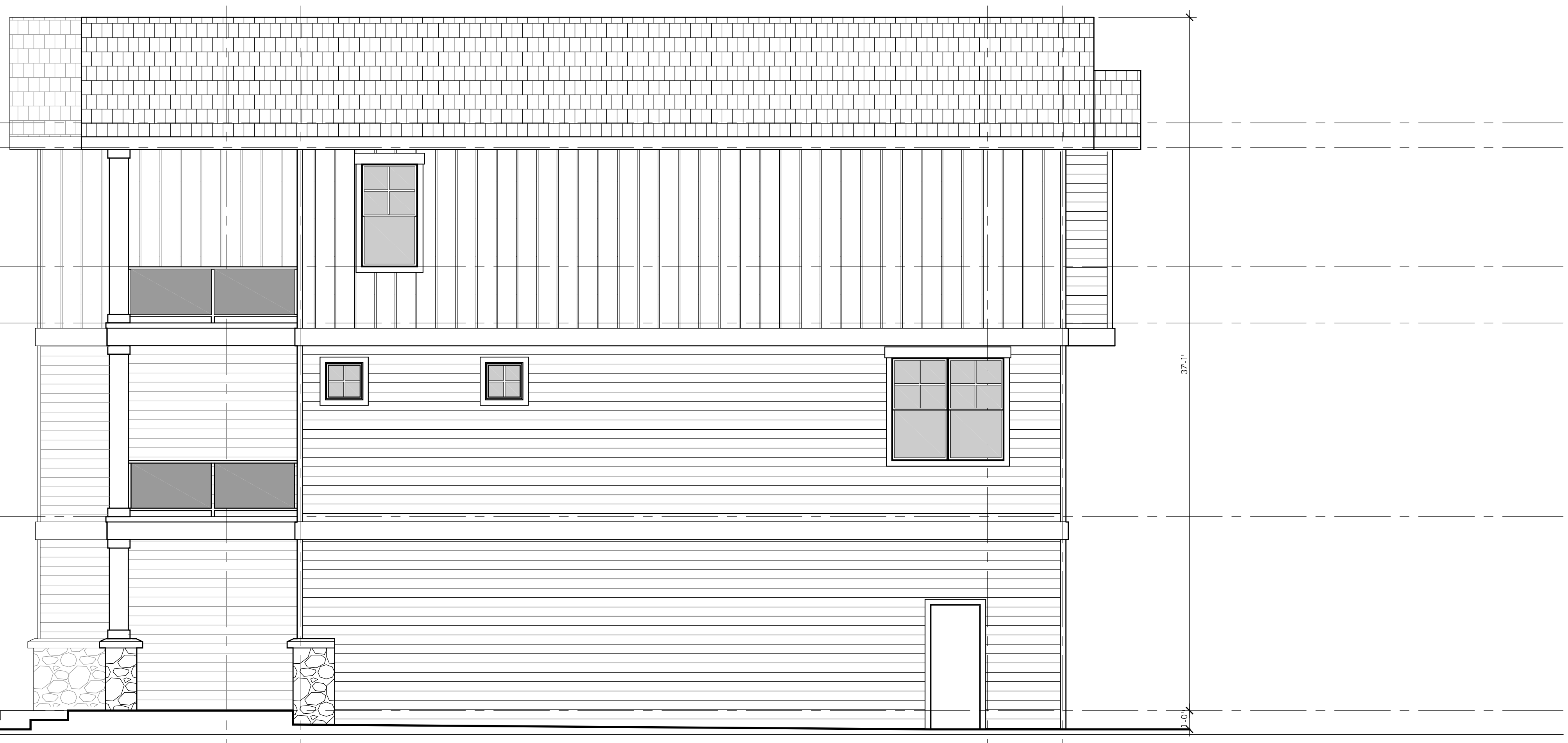
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NEW MULTI FAMILY DEVELOPMENT:  
**JETTY VIEW TOWNHOMES**  
4th AVE WARRENTON, OREGON

SHEET  
**A3.2**



**1** REAR ELEVATION  
0' 1' 2' 4' 8' 12' 1/4" = 1'-0"



**2** SIDE ELEVATION  
0' 1' 2' 4' 8' 12' 1/4" = 1'-0"



P.O. BOX 250 ■ WARRENTON, OR 97146 -0250 ■ OFFICE: 503.861.2233 ■ FAX: 503.861.2351

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August 4, 2021

To: Warrenton Planning Commission  
From: Will Caplinger, Interim City Planner  
Re: Site Design Review Application SDR-21-2

## BACKGROUND

On June 3, 2021, Kyle Langeliers submitted the application listed above on behalf of property owners Warrenton Fiber Company, David Nygaard, and John Nygaard. The project is a 27,550 square foot Roby's Furniture Store with associated site improvements on a portion of Tax Lot 81027AB06400, an undeveloped property located on the north side of Highway 101 Business, west of SE Marlin Avenue in the General Commercial (C-1) Zone.

The application was deemed complete on July 3, 2021. Notice for a Type III public hearing was mailed on July 23, 2021 and was published in the Astorian on July 31, 2021. No public comments have yet been received. Applicant's responses are included in the discussions following the Staff Finding as appropriate, and the application form with applicant's full responses is attached to the staff report for reference. The primary purpose and intent of the staff report is to make findings on whether the application satisfies criteria and standards specified in the Warrenton Municipal Code (WMC), in that the City maintains consistency with Comprehensive Plan provisions through the enactment and application of land use regulations. Hence, the staff report adheres to the WMC chapter order listed below.

## APPLICABLE CRITERIA AND STANDARDS

*Chapter 16.40 General Commercial (C-1) District*  
*Chapter 16.88 Flood Hazard Overlay District*  
*Chapter 16.116 Design Standards*  
*Chapter 16.120 Access and Circulation*  
*Chapter 16.124 Landscaping, Street Trees, Fences, and Walls*  
*Chapter 16.128 Vehicle and Bicycle Parking*  
*Chapter 16.136 Public Facilities Standards*  
*Chapter 16.140 Stormwater and Surface Water Management*  
*Chapter 16.144 Signs*  
*Chapter 16.152 Grading, Excavating, and Erosion Control Plans*  
*Chapter 16.156 Wetland and Riparian Corridor Development Standards*  
*Chapter 16.208 Types of Applications and Review Procedures*  
*Chapter 16.192 Large Scale Developments*  
*Chapter 16.212 Site Design Review*

## FINDINGS

### Chapter 16.40 General Commercial (C-1) District

#### **16.40.020 Permitted Uses.**

The following uses and their accessory uses are permitted in the C-1 zone if the uses conform to the standards in Sections 16.40.040 through 16.40.060, Chapters 16.124, 16.212 and other applicable Development Code standards, and other City laws:

A. Only the following uses and their accessory uses are permitted along Highway 101, SE Marlin, SE Ensign Drive, SE Discovery Lane, and SE Dolphin Avenues and shall comply with the above noted sections as well as Chapter 16.132:

3. Retail business establishments.

Staff Finding: This criterion is met.

- The proposed use is a retail business establishment.

#### **16.40.040 Development Standards.**

The following development standards are applicable in the C-1 zone:

A. Density Provisions.

1. Minimum lot size, commercial uses: none.
2. Minimum lot width, commercial uses: none.
3. Minimum lot depth, commercial uses: none.
4. Maximum building height: 45 feet.
5. Commercial uses, maximum lot coverage: none.

B. Setback Requirements.

1. Minimum front yard setback, commercial uses: none except where adjoining a residential zone, in which case it shall be 15 feet. See Section 16.40.050 for maximum front yard setback for commercial uses.
2. Minimum side and rear yard setbacks, commercial uses: none except where adjoining a residential zone in which case there shall be a visual buffer strip of at least 10 feet wide to provide a dense evergreen landscape buffer which attains a mature height of at least eight feet. Such buffers must conform to the standards in Chapter 16.124, Landscaping, Street Trees, Fences and Walls.

C. Landscaping requirements shall comply with Chapter 16.124 of the Development Code.

Staff Finding: These criteria are met.

- A. The only Density Provision that applies is #4 limiting building height to 45 feet. The highest elevation of the building will be 34 feet at the top of the main entrance parapet wall.
- B. The site adjoins General Commercial (C-1) zoning on all sides.
- C. Landscaping provisions are discussed below under Chapter 16.124

#### **16.40.050 Design Standards.**

The following design standards are applicable in the C-1 zone:

A. Any commercial development shall comply with Chapter 16.116 of the Development Code.

*B. Lots fronting onto U.S. Highway 101 shall have a setback of at least 50 feet between any part of the proposed building and the nearest right-of-way line of U.S. Highway 101.*

*E. Maximum front yard setback for commercial buildings in the C- 1 zone adjacent to existing or planned transit stops shall be 10 feet.*

Staff Finding: These criteria are met or do not apply.

- A. Chapter 16.116 Design Standards section is below.
- B. The lot does not front onto U.S. Highway 101. The development fronts on Highway 101 Business, which is geographically and functionally different than its namesake.
- E. The Sunset Empire Transit District does not have routes along Highway 101 Business.

### Chapter 16.88 Flood Hazard Overlay District

#### **16.88.030 Administration.**

*A. Establishment of Floodplain Development Permit. A floodplain development permit, in addition to any regular building permit and/or grading permit that may be required, shall be obtained before construction or development begins in any area of special flood hazard established in Section 16.88.010. The permit shall be for all structures including manufactured homes, as set forth in the “definitions,” and for all development including fill and other activities.*

*B. Application for a development permit shall be made on forms furnished by the Planning and Building Department and may include but not be limited to plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing.*

Staff Finding: This criterion will be met by a condition of approval.

- The project site is within the FEMA AE-100-year Flood Hazard Zone where an elevation certificate and a floodplain development permit are required. The applicant has obtained the elevation certificate but will need to submit a floodplain development permit to the City.
- The floodplain development permitting process ensures compliance with Section 16.88.040 Standards for Flood Hazard Reduction.

### Chapter 16.116 Design Standards

#### **16.116.030 Architectural and Site Design Standards.**

*The City’s development design standards are for the commercial district corridors along US Highway 101, Alternate Highway 101, SW & SE Dolphin, SE Marlin Avenue, E Harbor Drive, S Main Avenue, SE Ensign Lane, Pacific Drive, and SE Neptune. The standards in this section apply only to property in the commercial corridors listed above; lands outside of these commercial corridors are not subject to these standards.*

*A. Orientation of Buildings. Building(s) shall be located on the property with the principal building entrance oriented toward the primary focal point of the property/development. With the exception of US Hwy 101, all buildings located on a public street shall have the main entrance front onto said street.*

Staff Finding: This criterion is met.

- The main entrance of the building faces northwest towards Highway 101.

*B. Natural Features. The property owner/developer is encouraged to protect and incorporate areas of special interests and other natural features such as grade, trees, vegetation and*

*waterways, into the overall site plan. These areas may be calculated as part of the landscaping requirement if healthy and not damaged during construction.*

Staff Finding: This criterion is met.

- The project site does not contain areas of special interest and other natural features as described. The existing drainage ditch on the south side of the development, however, will be “dress-graded” and planted with native grasses.

C. *Building Requirements.*

1. *Customer Entrances.* *The customer entrance(s) shall be clearly defined and highly visible by using features such as canopies, porticos, overhangs, recesses/projections, raised corniced parapets, decorative awnings over the door, arcades, arches, wing walls, and integral planters are required. A combination of two features shall be incorporated at a minimum. Mixed use buildings that require two or more entrances are allowed but shall meet the standard.*

Staff Finding: This criterion is partially met and will be fully met by a condition of approval.

- The main entrance is defined by an angled parapet wall and a canopy. The south entrance is defined only by a canopy.

2. *Roof Design.* *Roofs should be designed to reduce the apparent exterior mass of a building, add visual interest and be appropriate to the architectural style of the building. Variations within one architectural style are highly encouraged. Visible roof lines and roofs that project over the exterior wall of a building enough to cast a shadow on the ground are highly encouraged. Architectural methods shall be used to conceal flat roof tops. Overhanging eaves, sloped roofs and multiple roof elements are highly encouraged. Mansard style roofs shall not be allowed.*

Staff Finding: This criterion is met.

- The roof design includes the large, angled parapet wall on the north elevation and contains a sloped roof.

3. *Materials.*

a. *The predominant exterior building materials shall be of high quality materials, including, but not limited to, brick, sandstone, wood, native stone and cultured stone as accents to distinguish specific architectural features, rusticated metal cladding, tinted/textured concrete masonry units and/or glass products. Simulated material may be substituted for any of the aforementioned building materials.*

b. *At least three different building materials shall be used for 100% construction of a building. The main entrance does not count towards this standard.*

c. *Exterior building materials shall not include smooth-faced concrete block, tilt-up concrete panels, EIFS, stucco, or T 1-11. Prefabricated steel panels are excluded unless the design and material meets the City’s design standards.*

d. *Metal roof may be allowed if compatible with the overall architectural design of the building.*

Staff Finding: These criteria are partially met and will be fully met with conditions of approval.

- a. The predominant exterior building material is wood. This criterion is met.
- b. The exterior building materials are limited to board & batt siding and lap siding. This criterion is not met.
- c. None of the exterior building materials listed are proposed. This criterion is met.
- d. A metal roof is specified, which seems to be compatible with the overall design of the building. This criterion is met.

4. *Architectural Vernacular and Features. Architectural features shall include, but are not limited to, the following: recesses, projections, wall insets, arcades, window display areas, awnings, balconies, window projections, landscape structures or other features that complement the design intent of the structure and are acceptable to the Community Development Director. Vernacular architecture referred to as “Northwest Regional” or “Arts & Crafts” design shall be required. This could include the combination of materials, form, and style. Wood in the form of timber, glulam, cross laminated timber, and other natural features are predominant on the exterior and main entrance.*

Staff Finding: This criterion is met.

- Architectural features include extensive use of awnings and window displays. The wooden siding mix appears to provide a reasonable rendering of vernacular architecture.

5. *Building Colors. Exterior colors shall be of low reflectance, subtle, neutral or muted earth tone colors. The use of high intensity colors such as black, neon, metallic or fluorescent colors for the façade and/or roof of the building are prohibited except as approved for building trim.*

Staff Finding: This criterion will be met with a condition of approval.

6. *Mechanical Equipment, Outdoor Storage and Service Areas. The location of loading docks, outdoor storage yards and all other service areas shall be located to the sides and/or rear of a building, except when a site abuts Highway 101, in which case the said areas shall be located to the sides of the building that do not face Highway 101.*

- a. *All outdoor storage yards, loading docks, service areas and mechanical equipment or vents larger than eight inches in diameter shall be concealed by screens at least as high as the equipment they hide, of a color and material matching or compatible with the dominant colors and materials found on the façades of the principal building. Chain link or cyclone fencing (with or without slats) shall not be used to satisfy this requirement.*
- b. *Equipment that would remain visible despite the screening, due to differences in topography (i.e., a site that is at a lower grade than surrounding roadways) shall be completely enclosed except for vents needed for air flow, in which event such vents shall occupy no more than 25% of the enclosure façade.*
- c. *The architectural design of the buildings shall incorporate design features which screen, contain and conceal all heating, ventilation, air conditioning units, trash enclosures, dumpsters, loading docks and service yards.*

Staff Finding: These criteria are met.



- a. The loading docks are built into a building extension with a lowered sloped roof so that they are compatible with the facades of the principal part of the building. The refuse dumpster area is enclosed.
- b. No equipment remains visible.
- c. The design of the building suitably screens or contains all of the equipment and auxiliary areas listed.

7. *Building Mass. Building mass shall be limited to 150 feet in length. If any portion of the building exceeds this length, a recess or variation in height shall be required.*

Staff Finding: This criterion is met.

- The building is 280 feet long. Variations in height are provided at the main entrance via the angled parapet wall and at the rear of the building by the increased height of the warehouse area.

D. *Community Amenities. Each building shall contribute to the establishment or enhancement of the community and public spaces by providing at least two community amenities such as: a patio/seating area, water feature, art work or sculpture, pedestrian plaza with park benches and landscaping, usable green spaces, or other features, such as a dedicated public park acceptable to the Parks Advisory Board and City Commission.*

Staff Finding: This criterion will be met with a condition of approval.

E. *Outdoor Lighting. The lighting for mixed use, residential, commercial and industrial zones shall be shielded and directed down into the site and shall not shine or glare onto adjacent property or streets. Light poles, light fixtures and flag poles shall not exceed 25 feet in height and shall be pedestrian scaled. Installation cost shall be borne by the developer. Decorative exterior lighting is required on the front elevation and at the main entrance. Decorative is defined as “gooseneck” or similar design that is pedestrian oriented.*

Staff Finding: These criteria will be met by conditions of approval.

#### Chapter 16.120 Access and Circulation

##### **16.120.020 Vehicular Access and Circulation.**

C. *Access Permit Required. Access to a street requires an access permit.*

D. *Traffic Study Requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements. (See also Chapter 16.136, Public Facilities Standards, and Chapter 16.256, Traffic Impact Study.)*

Staff Finding: The project does not have the potential to cause the conditions that require a traffic study.

- **16.256.030 When [a Traffic Study is] Required.**

*A traffic impact study will be required to be submitted to the City with a land use application, when the following conditions apply:*

A. *The development application involves a change in zoning or a plan amendment designation; or,*

*B. The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, crash history, Institute of Transportation Engineers Trip Generation Manual; and information and studies provided by the local reviewing jurisdiction and/or ODOT:*

- 1. An increase in site traffic volume generation by 300 average daily trips (ADT) or more; or*
- 2. An increase in ADT hour volume of a particular movement to and from the state highway by 20% or more; or*
- 3. An increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day; or*
- 4. The location of the access driveway does not meet minimum sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the state highway, creating a safety hazard; or*
- 5. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or traffic crashes in the approach area. (Ord. 1225 § 13, 2019)*

- A. N/A
- B. 1: According to the Customer/Traffic Analysis contained in Exhibit O, the six Roby's stores in Oregon averaged 14.6 customer trips per business day over the three-year period 2017-2019. The store will not have the potential to generate 300 average daily trips.
- B.2: Based on the ADT is B.1, the store does not have the potential to increase ADT hour volume on the state highway.
- B.3: The project narrative states that deliveries will generally be on a weekly basis.
- B.4: N/A
- B.5: The entrance to the private drive is more than 400 feet from the intersection of Highway 101 Business and SE Marlin Avenue, where traffic from SE Marlin is controlled by a stop sign. The customer parking lot entrance is 40 feet off the highway at a right angle to the private drive and the truck entrance route wraps completely around the building, so there is no potential for back up onto the highway and an insignificant potential for traffic crashes in the approach area.

*E. Conditions of Approval. The City or other agency with access permit jurisdiction may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system. Access to and from off-street parking areas (other than driveways that serve single-family, two-family, or three-family dwellings) shall not permit backing onto a public street.*

Staff Finding: Conditions of approval are applied in other sections. See Section F below

*F. Access Options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (a minimum of 10 feet per lane is required). These methods are "options" to the developer/subdivider, unless one method is specifically required under Division 2, or through conditions required by the hearings body.*

2. *Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., “shared driveway”). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.*

Staff Finding: This criterion will be met by a condition of approval if necessary.

- The Site Design Review Narrative Report (pg. 2, under Section 2.0, Subsection A) states that, “As part of the previous Tractor Supply project, a private access road loop was constructed that extends north off of Alternative Hwy 101 about 250 feet, then turns and connects with Marlin Avenue about 500 feet east. These two existing roads referred to herein as Private Drive (north-south) and Private Drive (east-west) define the westerly and northerly sides of the site...”
- If a public access easement covering the driveway in the Tractor Supply project was not required, then the condition to record an easement will be necessary for the Roby’s project.

I. *Shared Driveways. The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The City shall require shared driveways as a condition of land division, development review, or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:*

2. *Access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including pathways, at the time of final plat approval (Chapter 16.216) or as a condition of development review or site development approval (Chapter 16.212).*

Staff Finding: This criterion will be met with a condition of approval if necessary.

- See discussion points under Subsection F. *Access Options* above.

L. *Fire Access and Circulation. The City of Warrenton adopts the Uniform Fire Code, as amended, including administrative sections and all appendices and all the State of Oregon revisions. All development in the City of Warrenton is required to meet these minimum adopted standards.*

Staff Finding: This criterion is met.

- Fire access criteria along the Private Drive were met in the construction of the road for the Tractor Supply project, and the Roby’s development will provide minimum 20-foot-wide continuous travel lanes around the building.

### ***16.120.030 Pedestrian Access and Circulation.***

A. *Pedestrian Access and Circulation. To ensure safe, direct and convenient pedestrian circulation, all developments, except single-family detached housing, duplexes, or triplexes on individual lots, shall provide a continuous pedestrian and/or multi-use pathway system.*

Staff Finding: This criterion is met.

- The Site Design Review Narrative Report (pg. 5, under Subsection G) states that, “The existing site is surrounded on the west and north by new sidewalks...[and] new perimeter sidewalks are proposed around and directly against west and south sides of the new building...ADA sidewalk ramp access is provided at both the main northwest entrance and the south side entrance.”

### ***Chapter 16.124 Landscaping, Street Trees, Fences, and Walls***

**16.124.070 New Landscaping.**

- A. Applicability. *This section shall apply to all developments within the City of Warrenton.*
- B. Landscaping Plan Required. *For every new development in the City of Warrenton requiring a City permit, a landscape plan is required.*

Staff Finding: This criterion will be met by a condition of approval.

- The applicant has provided only a concept landscaping plan. In the Submittal Package, Appendix D/Landscaping and Lighting Plan, under “Construction Notes – Landscaping” states that, “Detailed landscape planting plan and planting to be provided by design/build (D/B) contractor, following city standards.” The condition will require a landscape plan that meets the standards in 16.124.070 B-G.

Chapter 16.128 Vehicle and Bicycle Parking

**16.128.030 Vehicle Parking Standards.**

*At the time a structure is erected or enlarged, or the use of a structure or parcel of land is changed within any zone in the City, off-street parking spaces shall be provided in accordance with requirements in this section, chapter, and Code, unless greater requirements are otherwise established. The minimum number of required off-street vehicle parking spaces (i.e., parking that is located in parking lots and garages and not in the street right-of-way) shall be determined based on the standards in Table 16.128.030.A.*

A. General Provisions.

1. *Groups of four or more off-street parking spaces shall be served by a driveway or aisle so that no backing movements or other maneuvering within a street or right-of-way, other than an alley, will be required. Section 16.120.020 contains driveway opening and width standards.*
2. *Service drives or aisles to off-street parking areas shall be designed and constructed to facilitate the flow of traffic and to provide maximum safety to pedestrian, bicycle, and vehicular traffic on the site.*
3. *Service drives or aisles shall be clearly and permanently marked and defined through the use of bumper rails, fences, buildings, walls, painting, or other appropriate markers.*
4. *Fractional space requirements shall be counted as a whole space.*
5. *All parking lots shall be designed and constructed to meet the City standards of Section 16.120.020, this chapter, Chapter 16.136, and this Code.*

Staff Finding: These criteria are met or will be met with conditions of approval.

- 1. The parking lot is served by the Private Drive. All maneuvering will occur within the parking lot.
- 2. The Private Drive was constructed to City standards for the Tractor Supply development.
- 3. Service drives and aisles will be defined by retaining walls or building walls and will be clearly and permanently marked.
- 4. The parking requirement for furniture stores in Table 16.128.030.A is one space per 750 square feet of area, which for the 27,550 square foot store results in a requirement of 36.7 spaces, which is rounded up to 37 spaces. The parking plan indicates 44 spaces, including two ADA-compliant spaces.
- 5. Compliance with City construction standards will be a condition of approval.

**16.128.040 Bicycle Parking Requirements.**

- A. *All uses shall provide bicycle parking in conformance with the following standards which are evaluated during development review or site design review.*
- B. *Number of Bicycle Parking Spaces. The minimum number of bicycle parking spaces required for uses is provided in Table 16.128.040.A.*

Staff Finding: This criterion will be met with a condition of approval.

- For commercial uses, Table 16.128.040.A requires 2 spaces per primary use or 1 space per 5 vehicle spaces. The 44 proposed parking spaces would require 8.8, rounded up to 9 bicycle spaces. 25% of the spaces must be long term and 75% must be short term. Short term spaces can be outdoors on lockable sheltered racks, as proposed on applicant's Landscape Plan (Appendix D). Long term spaces must be in a lockable enclosure, which may be a secure room inside the store. The percentage mix could be interpreted as either 2 long term/7 short term, or 3 long term/6 short term. Staff suggests that the choice be the prerogative of the applicant.

**Chapter 16.136 Public Facilities Standards**

**16.136.010 Purpose and Applicability.**

- C. *Standard Specifications. The City shall establish standard construction specifications consistent with the design standards of this chapter and application of engineering principles. They are incorporated in this Code by reference.*
- D. *Conditions of Development Approval. No development may occur unless required public facilities are in place or guaranteed, in conformance with the provisions of this Code. Improvements required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of development. Findings in the development approval shall indicate how the required improvements are roughly proportional to the impact.*

Staff Finding: These criteria are met.

- Although staff anticipates that the applicant will voluntarily accept the improvement requirements, the improvements are nonetheless roughly proportional to the impact of the development, in that the improvements are confined to the site and the public access areas adjacent to the site and are consistent with the Purpose of the chapter and established standard specifications.

**16.136.020 Transportation Standards.**

- A. *Development Standards. No development shall occur unless the lot or parcel abuts a public or private street, other than an alley, for at least 25 feet and is in conformance with the provisions of Chapter 16.120, Access and Circulation, and the following standards are met:*
  - 1. *Streets within or adjacent to a development shall be improved in accordance with the Comprehensive Plan, Transportation System Plan, and the provisions of this chapter;*

Staff Finding: Street improvements were not specifically noted as required in the pre-application conference memo and are not proposed in the application.

- J. *Sidewalks, Planter Strips, Bicycle Lanes. Sidewalks, planter strips, and bicycle lanes shall be installed in conformance with the standards in Table 16.136.010, applicable provisions of the*

*Transportation System Plan, the Comprehensive Plan, and adopted street plans. Sidewalks are required on both sides of all streets (including streets inside easements), except for alley ways and walking paths.*

Staff Finding: These criteria are met or will be met by conditions of approval.

- Existing sidewalks have been constructed on the Private Drive along the west side and north side of the site.
- Improvements along the south side of the development may be required by the Public Works Director in accordance with the standards in Table 16.136.010.

X. Street Light Standards. *Street lights shall be installed in accordance with City standards.*

Staff Finding: This criterion will be met by a condition of approval.

- The Site Design Review Narrative Report (page 6, Subsection J. Outdoor Lighting) states that, “Separate street lighting along the existing (east-west) Private Drive and (north-south) Private Drive was not included with original road construction or the recent Tractor Supply development and none is currently present...If additional street lighting should be required by the City, such will be coordinated with PP&L as part of planned lighting D/B construction.

#### Chapter 16.140 Stormwater and Surface Water Management

##### **16.140.020 Developments Must Drain Properly.**

A. *All developments must provide an adequate drainage system to prevent the undue detention or retention of stormwater or surface water on the development site.*

C. *Whenever practicable, the drainage system of a development must coordinate with and connect to the drainage systems or drainage ways on surrounding properties or streets.*

D. *All developments must be constructed and maintained so that adjacent properties are not unreasonably burdened with stormwater runoff as a result of the developments.*

##### **16.140.030 Surface Water Management.**

*All developments must be constructed and maintained so that impacts to natural and man-made drainage ways do not unreasonably burdened upstream or downstream properties with surface water flooding as a result of the developments.*

Staff Finding: These criteria are met in the submittal and will be ensured by conditions of approval.

- As required in the pre-application memo, the application includes the *Stormwater Management Plan, Technical Memorandum* (Stricker Engineering, May 2021) as well as engineered stormwater and surface water management system designs in the *Civil Site Design* plan set. The SWMP states on Page 1 that, “As part of the City approval process for the Tractor Supply development a Stormwater Management Plan (SWMP) was completed by A.M. Engineering, June 30, 2019, that addressed stormwater management interests for all of Lot 1, including the east portion. As this plan has been previously approved by the City and references Corps and Oregon DSL permitting that encompasses the entire 16.54 acre commercial development, stormwater system planning, site engineering and site specific stormwater system designs for the east portion of Lot 1 follow the findings and guidance outlined in the referenced 2019 SWMP.”

##### **16.140.040 Erosion and Sediment Control.**

B. *Erosion and sediment control plans are required by the City as a component of the site plan for all plats and all projects which require site plan review. Erosion control plans must be designed to the specifications as outlined in this chapter.*

C. *Development of the land may not begin (and no building permits may be issued) until the City-appointed engineer approves the erosion control plan.*

Staff Finding: These criteria will be met by conditions of approval.

- B. The *Stormwater Management Plan, Technical Memorandum* (Page 5, Subsection 2.4.5) states that, “The project will obtain an NPDES 1200-C Permit from DEQ...An ESCP is being proposed that follows the guidance outlined in the NPDES 1200-C permit and incorporates traditional BMP’s for erosion and sediment control throughout construction.” The SWMP contains a NPDES 1200-C permit application and ESCP drawings.
- C. Reflected in a condition of approval.

### Chapter 16.152 Grading, Excavating, and Erosion Control Plans

#### **16.152.060 Grading Permit Requirements.**

A. *Permits Required. Except as exempted in Section 16.152.040, no person shall do any grading without first obtaining a grading permit from the building official. A separate permit shall be obtained for each site, and may cover both excavations and fills.*

E. *Regular Grading Requirements. Each application for a grading permit shall be accompanied by a plan in sufficient clarity to indicate the nature and extent of the work.*

Staff Finding: These criteria will be met by conditions of approval.

- The application packet includes an *Excavation and Grading Plan, Technical Memorandum* (Stricker Engineering, May 2021) which will be subject to the approval of the City Engineer.

### Chapter 16.156 Wetland and Riparian Corridor Development Standards

#### **16.156.030 Wetland Area Development Standards.**

*Wetland areas in the City of Warrenton are identified on the 1" equals 400' feet maps entitled City of Warrenton Wetland Conservation Plan Inventory dated October 17, 1997. These maps show approximate wetland boundaries for wetland areas within the Warrenton Urban Growth Boundary.*

B. *Applications to the City of Warrenton for grading or building permits that would authorize development within a jurisdictional wetland boundary approved by the Oregon Department of State Lands shall contain the following:*

1. *A State of Oregon Wetland Removal-Fill Authorization.*

Staff Finding: This criterion is met.

- The project holds Department of State Lands Wetland Fill Permit No. 38988-FP.

### Chapter 16.192 Large Scale Developments

#### **16.192.010 Approval Process.**

A. *Large-Scale Development. A development which is:*

3. *A commercial, industrial, public or institutional development which within two calendar years will use two or more acres of land or will have buildings with 10,000 square feet or more of floor area;*

B. Review Type.

1. Type III: “1, 2, 3, or combined 1 and 4.”

Staff Finding: These criteria are met.

- The project meets the definition of a Large Scale Development, and is subject to a Type III review.

**16.192.020 General Provisions.**

A. *No permit shall be issued or conditional use application approved for a use defined as a large-scale development until the Community Development Director or hearings body (as applicable) determines that all applicable sections of this Code have been satisfied.*

Staff Finding: This criterion will be met by a condition of approval.

- The “permit” referenced above is not the Site Design Review approval. Site Design review is not a permit, per se, but is the mechanism by which the Community Development Director or the hearings body determines satisfaction of the Code requirements. The Site Design Review process described below ensures this satisfaction, but that process does not directly permit the development, which still needs, in this case, a Type I Permit (a Permitted Use application) as well as grading permits, building permits, etc.

**16.192.030 Soil Suitability.**

A. *Unless the Community Development Director (Type I or Type II) or hearings body (Type III) determines that an adequate detailed soil survey has already been undertaken for the entire portion of the site proposed for development, the owner or developer shall have a new soil survey of the site prepared to determine if construction on the site would be hazardous to facilities on the parcel or to nearby property due to the load bearing capacity of the soils, the potential for wind or water erosion, or the wetness or slope characteristics of the soil.*

Staff Finding: This criterion has been met.

- A geotechnical report which involved a soil survey was completed by Terra Associates, Inc.

**16.192.040 Stormwater Management.**

*The applicant shall submit a stormwater management plan, which shall meet the criteria of Chapter 16.140 of this Code, to the City of Warrenton Planning and Building Department for review for the proposed development that is prepared by a registered engineer currently licensed in the State of Oregon.*

Staff Finding: This criterion is met.

- The submittal includes a SWMP as described above under Chapter 16.140.

Chapter 16.208 Types of Applications and Review Procedures

**16.208.020 Description of Permit/Decision-Making Procedures.**

C. Type III Procedure (Quasi-Judicial). *Type III decisions are made by:*

1. *The Planning Commission after the mailing of a public notice and publication of notice of the hearing.*

Staff Finding: These criteria are met.

- The mailing and publication of public notices of the hearing are described on Page 1.



**16.208.050 Type III Procedure (Quasi-Judicial).**

A. Pre-application Conference. A pre-application conference is required for all Type III applications. The requirements and procedures for a pre-application conference are described in Section 16.208.070.

Staff Finding: This criterion is met.

- A pre-application conference was held on January 20, 2021. The pre-application conference memo is attached for reference.

B. Application Requirements.

2. Content. Type III applications shall:

e. Include an impact study for all Type III applications. The impact study shall quantify/assess the effect of the development on public facilities and services. The study shall address, at a minimum, the transportation system, including pedestrian ways and bikeways, the drainage system, the parks system, the water system, the sewer system, and the noise impacts of the development. For each public facility system and type of impact, the study shall propose improvements necessary to meet City standards and to minimize the impact of the development on the public at large, public facilities systems, and affected private property users.

Staff Finding: This criterion will be met by a condition of approval.

- The application packet does not contain an impact study as described by the code provision.

Chapter 16.212 Site Design Review

**16.212.020 Applicability.**

A. Site design review shall be required for all new developments and modifications of existing developments, except for regular maintenance, repair and replacement of materials (e.g., roof, siding, awnings, etc.), parking resurfacing, and similar maintenance and repair shall be exempt. This applies to all development within the city limits of Warrenton. Site design review ensures compliance with the basic development standards of the land use district (building setbacks, lot coverage, maximum building height, etc.), as well as the more detailed design standards and public improvement requirements in Divisions 2 and 3.

**16.212.040 Site Design Review.**

A. Application Review Procedure.

1. Site Design Review—Determination of Type II and Type III Applications. Applications for site design review shall be subject to Type II or Type III review, based on the following criteria:

b. Commercial, industrial, public/semi-public, and institutional buildings (including building additions) with:

ii. More than 10,000 square feet of gross floor area or developing two or more acres of land shall be reviewed as a Type III application.

Staff Finding: This criterion is met.

*B. Application Submission Requirements. All of the following information (subsections (B)(1) through (7) of this section) is required for site design review application submittal:*

- 1. Proposed Site Plan. The site plan shall contain the following information:*
  - a. The proposed development site, including boundaries, dimensions, and gross area.*
  - b. Natural land features identified which are proposed to be removed or modified by the development, including modifications to existing drainage patterns.*
  - c. The location and dimensions of all proposed public and private streets, drives, rights-of-way, and easements.*
  - d. The location and dimensions of all existing and proposed structures, utilities, pavement and other improvements on the site. Setback dimensions for all existing and proposed buildings shall be provided on the site plan.*
  - e. The location and dimensions of entrances and exits to the site for vehicular, pedestrian, and bicycle access.*
  - f. The location and dimensions of all parking and vehicle circulation areas (show striping for parking stalls and wheel stops, as applicable), and proposed paving materials.*
  - g. Pedestrian and bicycle circulation areas, including sidewalks, internal pathways, pathway connections to adjacent properties, and any bicycle lanes or trails.*
  - h. Loading and service areas for waste disposal, loading and delivery.*
  - i. Outdoor recreation spaces, common areas, plazas, outdoor seating, street furniture, and similar improvements.*
  - j. Location, type, and height of outdoor lighting.*
  - k. Location of mail boxes, if known.*
  - l. Locations, sizes, and types of signs (shall comply with Chapter 16.144).*
  - m. The Community Development Director may require studies or exhibits prepared by qualified professionals to address specific site features (e.g., traffic, noise, environmental features, site drainage, natural hazards, etc.).*
  - n. The applicant's entire tax lot and the surrounding property to a distance sufficient to determine the location of the development in the City, and the relationship between the proposed development site and adjacent property and development. The property boundaries, dimensions and gross area shall be identified.*
  - o. Identification of slopes greater than 10%.*
  - p. The location, condition (paved, gravel unimproved, etc.) and width of all public and private streets, drives, sidewalks, pathways, rights-of-way, and easements on the site and adjoining the site.*
  - q. Any areas identified as located in a designated floodplain and/or floodway.*
  - r. Depict any wetland and riparian areas, streams and/or wildlife habitat areas.*
  - s. Site features such as pavement, areas having unique views, and drainage ways, canals and ditches.*

- t. *Any designated historic and cultural resources areas on the site and/or adjacent parcels or lots.*
- u. *The location, size and type of trees and other vegetation on the property.*
- v. *North arrow, scale, names and addresses of all property owners.*
- w. *Name and address of applicant, project designer, engineer, architect, surveyor, and/or planner, if applicable.*

Staff Finding: These criteria are met or will be met with conditions of approval.

- Studies and exhibits related to the project as noted under item “m” are included in the Submittal Package Appendices.

2. *Architectural Drawings. Architectural drawings shall be submitted showing the following information from subparagraphs a through c of this paragraph 2, and shall comply with Division 3:*

- a. *Building elevations with building height and width dimensions.*
- b. *Building materials, color and type.*
- c. *The name of the architect or designer.*

Staff Finding: These criteria are met.

- The information under items a-c is contained in the submittals for the subdivision.

3. *Preliminary Grading Plan. A preliminary grading plan prepared by a registered engineer shall be required for developments which would result in the grading (cut or fill) of 1,000 cubic yards or greater. The preliminary grading plan shall show the location and extent to which grading will take place, indicating general changes to contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed. Surface water detention and treatment plans may also be required, in accordance with Chapter 16.140.*

Staff Finding: This criterion will be met by a condition of approval.

- The application includes an excavation and grading plan as described above under Section 16.152.060. The condition will require approval by Public Works.

4. *Landscape Plan. A landscape plan is required and shall comply with Chapter 16.124.*

Staff Finding: This criterion will be met by a condition of approval.

- The landscape plan requirement is discussed above under Section 16.124.070 New Landscaping.

7. *Letter or narrative report documenting compliance with the applicable approval criteria contained in subsection C of this section.*

Staff Finding: This criterion is met.

- See the attached *Site Design Review Narrative Report.*

C. *Review Criteria. The Community Development Director shall make written findings with respect to all of the following criteria...*

- 1. *The application is complete, as determined in accordance with Chapter 16.208 and subsection B of this section.*

Staff Finding: This criterion will be met with conditions of approval.

- The application was deemed sufficiently complete for the purpose of site design review on July 3, 2021.
2. *The application complies with all of the applicable provisions of the underlying land use district (Division 2), including building and yard setbacks, lot area and dimensions, density and floor area, lot coverage, building height, building orientation, architecture, and other special standards as may be required for certain land uses.*

Staff Finding: These criteria are met.

- The development standard provisions for commercial uses in the C-1 Zone are covered above under Section 16.40.040 and 16.40.050.
- Building orientation & architecture are covered above under Section 16.116.030 *Architectural and Site Design Standards*.

**16.212.060 Development in Accordance with Permit Approval.**

*Development shall not commence until the applicant has received all of the appropriate land use and development approvals (i.e., site design review approval) and building permits. Construction of public improvements shall not commence until the City has approved all required public improvement plans (e.g., utilities, streets, public land dedication, etc.). The City may require the applicant to enter into a development agreement (e.g., for phased developments and developments with required off-site public improvements), and may require bonding or other assurances for improvements, in accordance with Section 16.212.050.*

Staff Finding: These criteria are met.

**CONCLUSION, RECOMMENDATION, AND CONDITIONS OF APPROVAL**

**Conclusion and Recommendation**

The findings above demonstrate that the proposed design of the Roby’s Furniture Store development is generally consistent with the C-1 zoning district development standards and the design standards of the development code. Staff recommends the Planning Commission approve the site design review application subject to the following conditions.

**Conditions of Approval**

**Within 60 days of conditional approval of the site design review:**

1. Provide a landscape plan of street trees and the common areas as required by and compliant with Sections 16.124.070 and 16.124.080. The plan shall include planter strips as required by Section 16.136.020.J and Table 16.136.010.
2. Indicate locations of street lights on the site plan as required by Section 16.136.020.X.
3. Provide details on the site plan or on a separate plan the locations, type, and height of outdoor lighting to comply with Section 16.116.030.E.
4. Provide details on the site plan or on a separate plan the locations, sizes and types of signs.
5. Provide details on the exterior colors to be used, which shall be of low reflectance, subtle, neutral, or earth-toned colors.

6. Add an additional architectural feature to the south customer entrance to comply with Section 16.116030.C.
7. Incorporate at least two community amenities in the site plan as required by Section 16.116.030.D.
8. Designate a secure enclosure or room within the building for long-term bicycle parking, which shall accommodate roughly 25 percent of the bicycle space requirement.
9. Submit a Permitted Use/Type I application to the Community Development Department for the retail use.

Prior to issuance of grading or building permits:

10. Provide a copy of the recorded lot line adjustment between Tax Lots 81027AB06400A01 & 81027AB01600 approved on June 9, 2021.
11. Record a public access easement covering the driveway if such easement was not required and recorded as part of the Tractor Supply development.
12. Provide to and receive approval from the City Engineer of a grading plan as required by Section 16.152.060.E.
13. The City-appointed engineer or the Director of Public Works must approve an erosion and sediment control plan.
14. Obtain a grading permit from the Building Official.
15. Provide to and receive approval from the City Engineer of an erosion and sediment control plan as required by Section 16.140.040.
16. The project contractor shall secure a permit for work in the public right of way in accordance with Warrenton Municipal Code.
17. Ensure that all required public facilities are in place or are guaranteed as required by Section 136.010.D.

General conditions:

18. Developer shall comply with the comments and conditions contained in the Pre-Application Memo dated February 5, 2021, attached to this staff report and incorporated in the Conditions of Approval by reference.
19. Developer shall comply with the comments and conditions contained in the Warrenton Fire Department Pre-Application Memo dated February 5, 2021, attached to this staff report and incorporated in the Conditions of Approval by reference.
20. Developer shall comply with the General Notes and Comments provided by the Public Works Director in the *Roby's Furniture Planning Review Comments* dated August 5, 2021, attached to this staff report and incorporated in the Conditions of Approval by reference.

ATTACHMENTS

- Site Design Review Application packet (“Complete Book Revised”)
- Pre-Application Memo dated February 5, 2021
- Warrenton Fire Department Pre-Application Memo dated February 5, 2021
- Roby’s Furniture Planning Review Comments dated August 5, 2021

**CITY OF WARRENTON  
PLANNING AND BUILDING DEPARTMENT**

**COMMERCIAL SITE DESIGN  
APPLICATION**

<b>OFFICE USE ONLY</b>	
FILE # _____	FEE \$ _____
ZONING DISTRICT _____	
RECEIPT # _____	
DATE RECEIVED _____	

To be accompanied by a Site Plan Map, copy of property deed and if applicable, a Letter of Authorization.

The site plan review process is a method for assuring compliance with the City of Warrenton Comprehensive Plan and Development Code, and to ensure wise utilization of natural resources, and the proper integration of land uses utilizing appropriate landscaping or screening measures. A commercial enterprise must also consider traffic circulation patterns, off-street parking, refuse containers, safe exit and entrance to the business, building height, dust control, future widening of major thoroughfares, and signs. Please answer the questions as completely as possible.

.....

Legal Description of the Subject Property: Township 8N, Range 10W, Section(s) 27, Tax Lot(s): East Portion of Lot 1 Trondheim Acres

Property street address: East Portion Lot 1 Trondheim Acres, Warrenton, Oregon (Between Hwy 101 & Marlin Ave., on north side of Alt. Hwy 101) \_\_\_\_\_

**I/WE, THE UNDERSIGNED APPLICANT(S) OR AUTHORIZED AGENT, AFFIRM BY MY/OUR SIGNATURE(S) THAT THE INFORMATION CONTINED IN THE FOREGOING APPLICATION AND ASSOCIATED SUBMISSIONS IS TRUE AND CORRECT.**

**APPLICANT:**

Printed Name: Kyle Langeliers \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: 5111 N Coast Highway \_\_\_\_\_

Phone: \_\_\_\_\_ (503) 812-8267

City/State/Zip: Newport, OR 97365 \_\_\_\_\_

Fax: \_\_\_\_\_

**PROPERTY OWNER (if different from Applicant):**

Printed Name: Warrenton Property Investments, LLC

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: SAME AS APPLICANT

Phone: SAME AS APPLICANT

E-mail Address: kyle@robysfurniture.com

City/State/Zip:     SAME AS APPLICANT      
Fax: \_\_\_\_\_

1. In detail, please describe your proposal:  
*Site preparation, site development and new building improvements for a new furniture store on undeveloped property, in Trondheim Acres Commercial Development Subdivision. Site is located between Highway 101 and Marlin Avenue, on the north side of Alternate Hwy 101. See Narrative Report Attached.*

2. Describe what type of business, commodity sold or manufactured, or service you are proposing.  
*Retail sales of home furniture and appliances.*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Current number of employees:     9 Full time      
Projected number of customers per day     14 to 15      
Days of operation     Monday thru Saturday     Hours of operation     9am – 6pm      
Number of shipments/deliveries per day \_\_\_\_\_ per week     3      
By what method will these be arriving/sent?     Small Freight trucks    

3. Does this property have an existing business or businesses? *NO*

\_\_\_\_\_  
\_\_\_\_\_

If yes, please list the business names and their addresses, and note these businesses on your site plan map.  
*N/A*

\_\_\_\_\_

4. Is there a residence or residences on this property? *NO*

If yes, please list the number of residences and please show these structures on your site plan map. *N/A*

\_\_\_\_\_  
\_\_\_\_\_

5. Availability of services: City water: *YES*, City sewer: *YES*

6. If you are an existing business, are materials or merchandise currently being stored on site?

*NO* \_\_\_\_\_

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Where and how do you propose to store materials or merchandise for sale or processing?  
Materials and merchandise to be stored in WAREHOUSE built into rear of new store building.

7. What percentage of the property is currently landscaped? *Bare property...partially filled in preparation for development.*

What percentage of the property do you propose to landscape as part of this project? *15%*

8. How do you intend to irrigate the existing and proposed landscaping? *Manual methods by landscape contractor.*

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9. Signs require the submittal of a separate application, which may be submitted in conjunction with this site plan application. *ONLY BUILDING MOUNTED SIGNAGE IS PROPOSED.*

10. Please explain how you propose to provide for the drainage of this property, or explain why no additional drainage consideration is necessary. *On site stormwater management facilities are proposed including roof downspouts, foundation drains, surface water catch basins, on-site stormwater quality treatment facilities and piping, discharging to existing open drainage ditch on south side of property. Ditch banks and bottom will be improved with proposed development for improved stormwater conveyance, aesthetics and maintenance.*

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11. Please provide the type of development on the neighboring properties.

North: *IMMEDIATE LOT NORTH = VACANT. COMMERCIAL BUSINESSES FURTHER NORTH.*

South: *RESIDENTIAL*

East: *VACANT*

West: *COMMERCIAL RETAIL ("Tractor Supply")*

12. Provide samples of the building materials for the exterior of the building with detail description of where each type and color will be used in the construction and finishing of the building. *SEE ARCHITECTURAL ELEVATIONS SUBMITTED WITH NARRATIVE REPORT.*

13. Will all parking for your business be provided on the property? *Yes*  *No* \_\_\_\_\_ All parking must be shown on your site plan map. *If off-street parking is to be provided on another property, please attach a copy of the parking easement or agreement from the property owner; or will off-street parking be provided along the abutting street.*

14. How does this request comply with the Warrenton Development Code Chapter 16, Section 16.40 (General Commercial)? *Retail furniture and appliance sales is a permitted C-1 use. Proposed designs comply with all applicable City Development Standards, Design Standards and Other Applicable Standards. See attached site civil PLANS and Narrative Report.*

15. Orientation of proposed building(s) (see Section 16.116.030 in the Warrenton Development Code)

commercial site design application  
October 2018



*The proposed new building is situated with an EAST-WEST orientation parallel to Alt. Hwy 101, with an angled MAIN ENTRANCE FACING HWY 101 for optimal business exposure and visibility. A secondary side entrance is located on the south side of the building for easy accessibility to proposed parking facilities. The proposed main entrance faces inward toward the center of the developing Trondheim Acres Commercial Development, and at a 45-degree angle to the existing Tractor Supply store directly to the west.*

16. Please address (on separate sheet of paper) all applicable sections of Design Standards (copy attached) out of the Warrenton Development Code. **SEE ATTACHED NARRATIVE REPORT.**

\*\*\*\*\*

**PLEASE UNDERSTAND THAT THIS APPLICATION WILL NOT BE OFFICIALLY ACCEPTED UNTIL DEPARTMENT STAFF HAS DETERMINED THAT THE APPLICATION IS COMPLETELY FILLED OUT AND THE SITE PLAN MAP REQUIREMENTS HAVE BEEN COMPLETED.**

**Return Application To:**

**City of Warrenton  
Planning and Building Department  
PO Box 250  
225 S. Main Street  
Warrenton, Oregon 97146**

**Phone: 503-861-0920  
Fax: 503-861-2351**

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**MAP INSTRUCTIONS AND CHECKLIST**

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A Site Plan Map, which shows all existing and proposed structures and parking areas, must accompany this application. The following checklist identifies the specific information which should be included on this map.

- Title the map "Commercial Site Design".
- The map may be drawn on 8 ½ x 11 or 8 ½ x 14 inch white paper.
- Township, Range, Section and Tax Lot number of the subject property(ies) shall be included.
- North arrow, date, and map scale in one inch intervals (1" = 20') shall be noted.
- Shape, dimensions, and square footage of the parcel shall be shown. Draw the property line with a solid black line and label adjacent street(s), if any.
- Identify existing and proposed easements with a dotted line.
- Identify the location and direction of all water courses and drainage ways, as well as the location of the 100-year floodplain, if applicable.

N/A Illustrate all existing buildings and their sizes.

DISCLAIMER NOTICE:

DISCLAIMER/NOTICE

to  
RECIPIENTS OF ELECTRONIC/DIGITAL VERSION  
of  
ROBY'S FURNITURE & APPLIANCE STORE  
City of Warrenton, Oregon  
SITE DESIGN REVIEW APPLICATION  
Submittal Package  
June 3, 2021

Note: As required by the City of Warrenton, Roby's Furniture provided three (3) "hard" copies of required submittal materials, on June 3, 2021 via hand delivery by Kyle Langeliers. Each Submittal Package included, 1) a three ring binder with completed/signed forms, Narrative Report and other supporting reports and information, including reduced size copies of plans, and 2) a set of Full Size Plans. These hard copy documents included the correction of three minor typographical errors of plan drawing titles that were discovered after printing. Corrections of these typographical errors were made manually on the submitted "hard-copy" documents and may not be apparent in subsequent electronic/digital versions.

At the City's request, an electronic/digital version of submitted materials has been provided by the applicant, for City convenience of materials distribution. If you are a recipient of the electronic version, please be aware that the following discrepancies may exist between originally submitted "hard-copy" materials and the subsequent, electronic/digital version:

- 1) Signatures--Applicant signature on cover letter and forms may appear differently on electronic versions.
- 2) "EXISTING CONDITIONS AND TOPOGRAPHY" Drawing--Copy of drawing by Terra Calc Land Surveying should be labeled as "SHT C4.1".
- 3) "Drawing No: C6.1"--Title should read "SITE FILL, SURCHARGE & PRELOADING PLAN" (correction from "SITE EXCAVATION PLAN").
- 4) "ESCP BUILDING CONSTRUCTION" Drawing--Should be numbered as "Drawing No: C14.3" (Correction from C14.2).
- 5) Other potential formatting anomalies that might occur in electronic/digital file transfer, download or printing, beyond the control of the applicant.

If you should have any questions about the electronic/digital version you have received of the subject materials, please contact: Janice Weese, City of Warrenton, Building & Planning Department: e-mail, "[buildingclerk@ci.warrenton.or.us](mailto:buildingclerk@ci.warrenton.or.us)"; phone: (503) 861-0920.

**Proposed**  
**ROBY'S FURNITURE & APPLIANCE STORE**  
**Warrenton, Oregon**

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**City of Warrenton, Oregon**  
**SITE DESIGN REVIEW APPLICATION**  
**Submittal Package**  
**June 3, 2021**

**Owner: Warrenton Property Investments, LLC,  
Newberg, Oregon**

**Engineer: Stricker Engineering, Garibaldi,  
Oregon**

Roby's/Warrenton Property Investments, LLC  
LETTERHEAD

June 3, 2021

Mr. Will Caplinger  
Interim City Planner  
City of Warrenton Planning Department  
P.O. Box 250  
Warrenton, Oregon, 97146-0250

RE: Proposed Roby's Furniture Store, Trondheim  
Acres/Site Design Review Application

Dear Mr. Caplinger:

This letter is submitted to the City of Warrenton on behalf of Warrenton Property Investments, LLC in request of Site Design Review for the above referenced Roby's Furniture Store development. We initially presented project concepts at a project Pre-Application Meeting, January 20, 2021 and received comments from City staff February 5, 2021. This letter covers a comprehensive submittal package that includes informational materials supporting both, 1) a Site Design Review Application, and 2) a Grading/Removal/Fill Permit Application. Completed forms for both of these permit applications follow.

This site is part of the previously approved Trondheim Acres Commercial Development. It involves low-lying land that requires structural fill and site surcharge/preloading to pre-consolidate subsurface soils and raise grades in preparation for site development. The overall site property owner, Warrenton Fiber Company, has previously obtained US Army Corps of Engineers and Oregon DSL Permits allowing filling of the site. The site has been partially filled but additional fill is required to raise the site above the 12.0 FEMA Flood Hazard Elevation. As part of the recent Tractor Supply development approval process, A.M. Engineering previously completed a stormwater management plan that

addressed the stormwater/drainage interests of this site.

Engineering for this application references and builds on this prior site related documentation.

Roby's intends to construct initial earthwork for proposed site improvements in two phases. The first phase involves surcharging/preloading of proposed store building area and the second involves surcharging/preloading of the surrounding paved drive/parking areas. Proposed on-site stormwater treatment facilities incorporate Contech's StormFilter BMP technology, with flow-through drainage being routed into an existing open ditch at the south side of the property.

Complete engineering plans are being submitted as part of subject applications for the site civil design elements of the project. Designs for the proposed store building have also been completed with the intent that application for a Building Permit will be filed immediately upon City of approval of proposed site improvement designs. In completing project designs, our engineers (Stricker Engineering) have followed the City's site design standards for commercial developments in an attempt to meet all City requirements. As we will be constructing the project with sole source construction contractors, certain details of the project will be finalized by design/build process as the project progresses. Never the less, project designs have been developed to the level necessary to appropriately show intent and commitment to follow applicable City Codes and Standards.

One area our designers did struggle with is that associated with City waste management truck maneuvering. Because of our desire to construct a standardized Roby's Furniture Store floor plan we have essentially maximized the use of the site and our options for siting a fenced refuse area are limited. The area we are proposing is located in the southeast corner of the building and it requires a turning maneuver that is slightly beyond the City's standardized parameters. Normal delivery trucks will enter the property off of the northerly Private Drive via a truck entrance at the northeast corner of the site and they will depart through the main west entrance. To minimize undesirable

maneuvering. City waste hauling trucks will need to enter the site through the main west entrance and then swing wide to make a sharp 90-degree left turn to approach the Refuse Area. Our hope is that the City will recognize our site constraints and approve this location.

To our knowledge, all other aspects of the design fully comply with the City's established design standards. Our attached Site Design Review Narrative Report Submittal Package addresses all comments provided by City staff in above referenced Pre-Application Meeting response letters. Reduced-size project plans are included with this reporting. Full size project plans are also attached separately for your reference and use.

Thank you for your receipt and review of this application. Roby's Furniture is excited at the prospect of opening a new store in the City of Warrenton. We will anticipate your confirmation of completeness and will promptly address any deficiencies you may discover. Please let us know if we may provide any additional information to aid in your review. We look forward to your comments.

Respectfully submitted,

Kyle Langeleirs



Warrenton Property Investments, LLC  
Dbas Roby's Furniture & Appliance

**Roby's/Warrenton Property Investments, LLC LETTERHEAD**

June 3, 2021

Mr. Will Caplinger  
Interim City Planner  
City of Warrenton Planning Department  
P.O. Box 250  
Warrenton, Oregon, 97146-0250

RE: Proposed Roby's Furniture Store, Trondheim Acres/Site Design Review Application

Dear Mr. Caplinger:

This letter is submitted to the City of Warrenton on behalf of Warrenton Property Investments, LLC in request of Site Design Review for the above referenced Roby's Furniture Store development. We initially presented project concepts at a project Pre-Application Meeting, January 20, 2021 and received comments from City staff February 5, 2021. This letter covers a comprehensive submittal package that includes informational materials supporting both, 1) a Site Design Review Application, and 2) a Grading/Removal/Fill Permit Application. Completed forms for both of these permit applications follow.

This site is part of the previously approved Trondheim Acres Commercial Development. It involves low-lying land that requires structural fill and site surcharge/preloading to pre-consolidate subsurface soils and raise grades in preparation for site development. The overall site property owner, Warrenton Fiber Company, has previously obtained US Army Corps of Engineers and Oregon DSL Permits allowing filling of the site. The site has been partially filled but additional fill is required to raise the site above the 12.0 FEMA Flood Hazard Elevation. As part of the recent Tractor Supply development approval process, A.M. Engineering previously completed a stormwater management plan that addressed the stormwater/drainage interests of this site. Engineering for this application references and builds on this prior site related documentation.

Roby's intends to construct initial earthwork for proposed site improvements in two phases. The first phase involves surcharging/preloading of proposed store building area and the second involves surcharging/preloading of the surrounding paved drive/parking areas. Proposed on-site stormwater treatment facilities incorporate Contech's StormFilter BMP technology, with flow-through drainage being routed into an existing open ditch at the south side of the property.

Complete engineering plans are being submitted as part of subject applications for the site civil design elements of the project. Designs for the proposed store building

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To our knowledge, all other aspects of the design fully comply with the City's established design standards. Our attached Site Design Review Narrative Report Submittal Package addresses all comments provided by City staff in above referenced Pre-Application Meeting response letters. Reduced-size project plans are included with this reporting. Full size project plans are also attached separately for you reference and use.

Thank you for your receipt and review of this application. Roby's Furniture is excited at the prospect of opening a new store in the City of Warrenton. We will anticipate your confirmation of completeness and will promptly address any deficiencies you may discover. Please let us know if we may provide any additional information to aid in your review. We look forward to your comments.

Respectfully submitted,

*Kyle Langeleirs*

Warrenton Property Investments, LLC  
Dba Roby's Furniture & Appliance



## LIST OF CONTENTS

### Site Design Review Application and Excavation & Grading Permit Application Submittal Package, June 3, 2021

### PROPOSED ROBY'S FURNITURE & APPLIANCE STORE, Warrenton, Oregon (East Portion of Trondheim Acres Lot 1)

- I. Cover Letter (Precedes)
- II. LIST OF CONTENTS (This Page)
- III. Community & Economic Development Department, Permit Checklist
- IV. Site Design Review Application FORM
- V. Excavation and Grading Permit Application FORM
- VI. Site Design Review Narrative Report, Proposed Roby's Furniture & Appliance Store (Stricker Engineering, May 2021) with APPENDICES:
  - a. *Stormwater Management Plan, Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
  - b. *Utilities (Water, Sewer, Electrical, Communications, Natural Gas and Fire), Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
  - c. *Excavation & Grading Plan, Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
  - d. *Landscape Plan (Stricker Engineering, May 2021)*
  - e. *Architectural Drawing, Proposed Roby's Furniture & Appliance Store Technical Memorandum (Stricker Engineering, May 2021)*
  - f. *Geotechnical Report, Proposed Roby's Furniture & Appliance Store Technical Memorandum (Terra Associates, Inc., April 2021)*
  - g. *"Land Use Compatibility Statement for Roby's Furniture Project", City of Warrenton Letter to DEQ, May 12, 2021*
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  - j. *Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Letter, City of Warrenton, February 5, 2021, Scott Hess, Community Development Director*





**Community & Economic Development Department**

**Permit Checklist**

**June 2019**

The following is a general checklist that applies to all Community & Economic Development Department submittals. The checklist is intended to assist prospective applicants with navigating the permit process. In each case, there may be additional submittal requirements that are identified in the pre-application notes.

The burden of proof rests with the applicant to demonstrate compliance with applicable portions of the Development Code.

- Signed Application & Fee (Site Design Review, Conditional Use, Variance, etc)
- Site Plan (3 copies | 11 x 17 or larger to scale)
- Landscape & Parking Plan (if not indicated on site plan)
- Engineering Review Form & Deposit
- Self-addressed, stamped envelopes for public notice (Type 2 & Type 3)
- Impact Study (Type 2 & Type 3) *N/A*
- Pre-application Notes Response Letter
- Narrative of findings that addresses applicable criteria
- Preliminary utility and stormwater plan

After all materials have been verified, a completeness letter will be issued with a basic timeline for review. After completion, public notice will be published and mailed to the affected property owners and agencies.

**The checklist itself is a requirement and must be submitted and date stamped by city staff.**

**CITY OF WARRENTON  
PLANNING AND BUILDING DEPARTMENT**

COMMERCIAL USE DESIGN  
APPLICATION

To be accompanied by a Site Plan Map, copy of property deed and if applicable, a Letter of Authorization.

OFFICE USE ONLY
FILE # _____
DATE _____
ZONING DISTRICT _____
RECEIVED _____

DATE RECEIVED

The site plan review process is a method for assuring compliance with the City of Warrenton Comprehensive Plan and Development Code, and to ensure wise utilization of natural resources, and the proper integration of land uses utilizing appropriate landscaping or screening measures. A commercial enterprise must also consider traffic circulation patterns, off-street parking, refuse containers, safe exit and entrance to the business, building height, dust control, future widening of major thoroughfares, and signs. Please answer the questions as completely as possible.

Legal Description of the Subject Property: Township \_\_\_\_\_ 8N, Range 10W,  
Section \_\_\_\_\_ (s) 27, Tax Lot \_\_\_\_\_ (s) East Portion of Lot 1 Trondheim Acres

Property street address: East Portion Lot 1 Trondheim Acres, Warrenton, Oregon (Between Hwy 101 & Marlin Ave., on north side of Alt. Hwy 101)

**I/WE, THE UNDERSIGNED APPLICANT(S) OR AUTHORIZED AGENT, AFFIRM BY MY/OUR SIGNATURE(S) THAT THE INFORMATION CONTAINED IN THE FOREGOING APPLICATION AND ASSOCIATED SUBMISSIONS IS TRUE AND CORRECT.**

**APPLICANT:**

Printed Name: Kyle Langeliers

Signature: 


Date: 5/28/21

Address: 5111 N Coast Highway  
Phone: (503) 812-8267

City/State/Zip: Newport, OR 97365  
Fax: \_\_\_\_\_

**PROPERTY OWNER (if different from Applicant):**

Printed Name: Warrenton Property Investments, LLC

Signature: 

Date: 5/28/21

Address: SAME AS APPLICANT Phone: SAME AS APPLICANT

E-mail Address: kyle@robysfurniture.com

City/State/Zip: SAME AS APPLICANT

**CITY OF WARRENTON  
PLANNING AND BUILDING DEPARTMENT**

**COMMERCIAL SITE DESIGN  
APPLICATION**

<b>OFFICE USE ONLY</b>	
FILE # _____	FEE \$ _____
ZONING DISTRICT _____	
RECEIPT # _____	
DATE RECEIVED _____	

To be accompanied by a Site Plan Map, copy of property deed and if applicable, a Letter of Authorization.

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.....

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Printed Name: Warrenton Property Investments, LLC

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: SAME AS APPLICANT

Phone: SAME AS APPLICANT

E-mail Address: kyle@robysfurniture.com

City/State/Zip:     SAME AS APPLICANT      
Fax: \_\_\_\_\_

1. In detail, please describe your proposal:  
*Site preparation, site development and new building improvements for a new furniture store on undeveloped property, in Trondheim Acres Commercial Development Subdivision. Site is located between Highway 101 and Marlin Avenue, on the north side of Alternate Hwy 101. See Narrative Report Attached.*

2. Describe what type of business, commodity sold or manufactured, or service you are proposing.  
*Retail sales of home furniture and appliances.*

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Current number of employees:     9 Full time      
Projected number of customers per day     14 to 15      
Days of operation     Monday thru Saturday     Hours of operation     9am – 6pm      
Number of shipments/deliveries per day \_\_\_\_\_ per week     3      
By what method will these be arriving/sent?     Small Freight trucks    

3. Does this property have an existing business or businesses? *NO*

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If yes, please list the business names and their addresses, and note these businesses on your site plan map.  
*N/A*

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4. Is there a residence or residences on this property? *NO*

If yes, please list the number of residences and please show these structures on your site plan map. *N/A*

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5. Availability of services: City water: *YES*, City sewer: *YES*

6. If you are an existing business, are materials or merchandise currently being stored on site?

*NO* \_\_\_\_\_

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Where and how do you propose to store materials or merchandise for sale or processing?  
Materials and merchandise to be stored in WAREHOUSE built into rear of new store building.

7. What percentage of the property is currently landscaped? *Bare property...partially filled in preparation for development.*

What percentage of the property do you propose to landscape as part of this project? *15%*

8. How do you intend to irrigate the existing and proposed landscaping? *Manual methods by landscape contractor.*

---

9. Signs require the submittal of a separate application, which may be submitted in conjunction with this site plan application. *ONLY BUILDING MOUNTED SIGNAGE IS PROPOSED.*

10. Please explain how you propose to provide for the drainage of this property, or explain why no additional drainage consideration is necessary. *On site stormwater management facilities are proposed including roof downspouts, foundation drains, surface water catch basins, on-site stormwater quality treatment facilities and piping, discharging to existing open drainage ditch on south side of property. Ditch banks and bottom will be improved with proposed development for improved stormwater conveyance, aesthetics and maintenance.*

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11. Please provide the type of development on the neighboring properties.

North: *IMMEDIATE LOT NORTH = VACANT. COMMERCIAL BUSINESSES FURTHER NORTH.*

South: *RESIDENTIAL*

East: *VACANT*

West: *COMMERCIAL RETAIL ("Tractor Supply")*

12. Provide samples of the building materials for the exterior of the building with detail description of where each type and color will be used in the construction and finishing of the building. *SEE ARCHITECTURAL ELEVATIONS SUBMITTED WITH NARRATIVE REPORT.*

13. Will all parking for your business be provided on the property? Yes  No  All parking must be shown on your site plan map. If off-street parking is to be provided on another property, please attach a copy of the parking easement or agreement from the property owner; or will off-street parking be provided along the abutting street.

14. How does this request comply with the Warrenton Development Code Chapter 16, Section 16.40 (General Commercial)? *Retail furniture and appliance sales is a permitted C-1 use. Proposed designs comply with all applicable City Development Standards, Design Standards and Other Applicable Standards. See attached site civil PLANS and Narrative Report.*

15. Orientation of proposed building(s) (see Section 16.116.030 in the Warrenton Development Code)

commercial site design application  
October 2018

*The proposed new building is situated with an EAST-WEST orientation parallel to Alt. Hwy 101, with an angled MAIN ENTRANCE FACING HWY 101 for optimal business exposure and visibility. A secondary side entrance is located on the south side of the building for easy accessibility to proposed parking facilities. The proposed main entrance faces inward toward the center of the developing Trondheim Acres Commercial Development, and at a 45-degree angle to the existing Tractor Supply store directly to the west.*

16. Please address (on separate sheet of paper) all applicable sections of Design Standards (copy attached) out of the Warrenton Development Code. **SEE ATTACHED NARRATIVE REPORT.**

\*\*\*\*\*

**PLEASE UNDERSTAND THAT THIS APPLICATION WILL NOT BE OFFICIALLY ACCEPTED UNTIL DEPARTMENT STAFF HAS DETERMINED THAT THE APPLICATION IS COMPLETELY FILLED OUT AND THE SITE PLAN MAP REQUIREMENTS HAVE BEEN COMPLETED.**

**Return Application To:**

**City of Warrenton  
Planning and Building Department  
PO Box 250  
225 S. Main Street  
Warrenton, Oregon 97146**

**Phone: 503-861-0920  
Fax: 503-861-2351**

\*\*\*\*\*

**MAP INSTRUCTIONS AND CHECKLIST**

\*\*\*\*\*

A Site Plan Map, which shows all existing and proposed structures and parking areas, must accompany this application. The following checklist identifies the specific information which should be included on this map.

- Title the map "Commercial Site Design".
- The map may be drawn on 8 ½ x 11 or 8 ½ x 14 inch white paper.
- Township, Range, Section and Tax Lot number of the subject property(ies) shall be included.
- North arrow, date, and map scale in one inch intervals (1" = 20') shall be noted.
- Shape, dimensions, and square footage of the parcel shall be shown. Draw the property line with a solid black line and label adjacent street(s), if any.
- Identify existing and proposed easements with a dotted line.
- Identify the location and direction of all water courses and drainage ways, as well as the location of the 100-year floodplain, if applicable.

N/A Illustrate all existing buildings and their sizes.



- Illustrate all proposed new construction with dashed lines (include dimensions).
- Illustrate parking area with number of spaces and access drive areas. If off-street parking is to be provided, even in part, on another property, please show its location on your site plan map, and attach a copy of the parking easement or agreement from the adjoining property owner.
- Illustrate the entrance and exit points to the property, pattern of traffic flow, loading and unloading area, sidewalks and bike paths.
- Illustrate the existing or proposed location, height, and material of all fences and walls.
- Illustrate existing or proposed trash and garbage container locations, including type of screening.
- Name of the person who prepared the map.
- Location, type and height of outdoor lighting.
- Location of mailboxes if known.
- Locations, sizes, and types of signs (shall comply with Chapter 16.144 of the Warrenton Development Code).
- Map shall show entire tax lot plus surrounding properties.
- Identification of slopes greater than 10%.
- location, condition and width of all public and private streets, drives, sidewalks, pathways, right-of-ways, and easements on the site and adjoining the site.
- Identify designated flood hazard area(s).
- Show wetland and riparian areas, streams and/or wildlife areas.
- Any designated historic and cultural resources areas on the site and/or adjacent parcels or lots.
- Location, size and type of trees and other vegetation on the property.



GRADING/REMOVAL/FILL PERMIT

FOR DEPARTMENT USE ONLY

PLANNING & BUILDING DEPARTMENT
225 S MAIN AVE., PO Box 250
WARRENTON, OR 97146
PH (503) 861-0920 FAX (503) 861-2351

PERMIT #
Issued Date:
Issued By:

JOB SITE INFORMATION

OWNER INFORMATION

Address: Trondheim Acres
or Block 86, Portion of
Map/Tax Lot: No. 2019-04730

Name: Warrenton Property Investments, LLC
Address: 5111 N. Coast Hwy
City/St: Newport, OR 97365
Email: kyk@robysfurniture.com

APPLICANT INFORMATION

Applicant Signature:

Phone:

Existing Use: VACANT LOT

Proposed Use: New Furniture Store

Applicant Email: kyk@robysfurniture.com

Contractor: Big River Construction, Inc. CCB License: 147632

Please note ditches & swales on site map. If wetlands are on property, a DSL permit is required and must be attached to application. Additional data consisting of an approved soils engineering report and engineering geology report may be required by the building official. All grading in excess of 5000 cubic yards shall have an approved grading plan prepared by a registered civil engineer.

Upon issuance of a fill/grading permit, a pre work inspection shall be scheduled.

Upon completion of a fill/grading permit, a final inspection shall be scheduled.

Check all that applies: [x] Clearing [x] Fill [x] Excavation Total cubic yards to grade/remove/fill 18,500

Table with 3 columns: ZONING, FLOOD ZONE, WETLANDS. Zoning: C-1, Flood: 12.0, Yes: No: X

Authorized Planning Signature: Date:

Authorized Building Signature: Date:

APPROVAL TO ISSUE PERMIT ( ) DENIED ( )

This permit does not give allowance to trespass on adjacent property and does not relieve the owner of the property from liability for any damages caused by acts relative to this permit.

STAFF USE ONLY

TOTAL VALUATION OF JOB PERFORMED \$

Fee Paid: Date: Check: Recpt:

**Proposed**

**ROBY'S FURNITURE & APPLIANCE STORE**

**Warrenton, Oregon**

---

**SITE DESIGN REVIEW NARRATIVE REPORT**

**June 3, 2021**

**Owner: Warrenton Property Investments, LLC,  
Newberg, Oregon**

**Engineer: Stricker Engineering, Garibaldi,  
Oregon**



Stricker Engineering LLC  
 PO Box 366  
 Garibaldi, Oregon 97118  
 john@strickerengineering.com  
 503-322-2442

## SITE DESIGN REVIEW NARRATIVE REPORT

May 20, 2021

### PROPOSED ROBY'S FURNITURE & APPLIANCE STORE, Warrenton, Oregon (East Portion of Trondheim Acres Lot 1)

By: David Leibbrandt, P.E., Stricker Engineering

#### 1.0 General/Project Introduction

**1.1 Purpose--** Roby's Furniture is proposing to build a new retail furniture store on the east portion of Lot 1, Trondheim Acres, in the City of Warrenton, Oregon. As a Commercial Development involving more than 10,000 square feet of gross floor space, this development is submitted for approval as a Type III Application. This Narrative Report is prepared as the summarizing submittal document, applying for Site Design Review, under the requirements of the City of Warrenton, Municipal Development Code, 16.212.040.

**1.2 Supporting Documents—**Complete full-size civil site design plans are being submitted separately as part of this Site Design Review Application package. Other related documents required as part of the Site Design Review Application process are referenced herein and accompany this Report Narrative. These include:

- a. *Stormwater Management Plan, Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
- b. *Utilities (Water & Fire, Sewer, Electrical, Communications & Natural Gas), Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
- c. *Excavation & Grading Plan, Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
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- j. *Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Letter, City of Warrenton, February 5, 2021, Scott Hess, Community Development Director*
- k. *Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Memorandum, Warrenton Fire Department, February 5, 2021, Brian Alsbury, Fire Chief*
- l. *Reduced Sized Drawings, 11" X 17"—Abbreviated Set*

**1.3 Report Narrative Format**—This Narrative Report follows the outline included in 16.212.040.B. Application Submission Requirements, using the same lettered requirement designations for easy tracking.

## **2.0 Application Submittal Requirements**

As required by 16.212.040, the following information is provided for City Site Design Review:

**A. Proposed Development Site:** *"The proposed development site, including boundaries, dimensions, and gross area."*

Trondheim Acres, owned by Warrenton Fiber Company, is a 16.46 acre commercial property development located generally between US Highway 101 and Marlin Avenue, just north of Alternative Highway 101. The west portion of Lot 1 Trondheim Acres has been previously developed with the recent completion of the new Tractor Supply Store. The east portion of Lot 1 is vacant, cleared and mostly filled and leveled and has previously been approved for commercial development.

As part of the previous Tractor Supply project, a private access road loop was constructed that extends north off of Alternative Hwy 101 about 250 feet, then turns and connects into Marlin Avenue about 500 feet east. These two existing roads referred to herein as Private Drive (north-south) and Private Drive (east-west) define the westerly and northerly sides of the site and Alternative Hwy 101 defines the south side.

Existing sidewalks have been constructed on the east side of the (north-south) Private Drive and the south side of the (east-west) Private Drive. An existing north-south property line, approximately 334 ft east of the west-side "back-of-sidewalk", establishes the easterly boundary of the property. At the time of this writing, the legal partitioning of the subject east portion of Lot 1 is in process. It is expected that the west and north property boundaries of the subject property will be at or very near the current "back-of-sidewalk" described above.

Site dimensions: Approximately 334-ft (E-W) X 214 ft (N-S).

Site Gross Area: 71,500 square feet (1.64 acres)

SEE SITE PLAN IN APPENDIX I.

**B. Natural Land Features:** *"Natural land features which are proposed to be removed or modified by the development, including modifications to existing drainage patterns.*

The project site has previously been partially filled and leveled in accordance with terms of U.S. Army Corps of Engineers and Oregon Department of State Lands Wetlands and Removal/Fill permits secured by Warrenton Fiber Company. An existing drainage ditch occupies the south edge of the property fronting Alternative Highway 101. Existing site vegetation is limited primarily to grasses with some brush and small trees existing along the south drainage ditch.

The existing parcel has previously been partially filled and leveled with crushed rock. The existing surface of the property is fairly flat, with elevations generally ranging between 7.5 feet and 9.5 feet. Proposed development includes the addition of more granular structural fill material to bring grades to the level necessary to support a finished floor level of the proposed new building at 13.5 feet, a paved parking area ranging between about 12 feet and 13 feet elevation and a loading area ranging between about 9.5 feet and 10 feet.

Preloading of the entire site with additional temporary surcharge material is required for pre-consolidation of subsurface soils to achieve suitable foundation conditions for proposed new construction. Proposed structural fill will raise existing grades to match recently constructed sidewalk grades on the north and west sides of the property.

A low "Eco-Block" retaining wall is proposed along the easterly side of the property, and a dry-stacked large boulder retaining wall is proposed along the north bank of the existing drainage ditch. With the completion of this retaining wall, the existing ditch bottom will be regraded with native soil for improved drainage. For improved aesthetics and future maintenance, the sloped south bank of the existing drainage ditch will be "dress graded" and both the ditch bottom and south bank will be reseeded with native species grasses. The general alignment of the existing ditch will remain unchanged. Bottom regrading is designed with a uniform 6-foot width similar to existing conditions and a continuous slope of about 0.0025 ft/ft. Existing brush and small trees will be removed from the north bank as part of rock retaining wall construction.

SEE SITE PLAN, EXISTING CONDITIONS, SITE GRADING AND DRAINAGE PLAN EXCAVATION AND GRADING PLAN IN APPENDIX I AND PHOTO PLATES IN APPENDIX M.

**C. Proposed Public and Private Streets, Drives, Rights-of-way and Easements:** *"The location and dimensions of all proposed public and private streets, drives, rights-of-way, and easements."*

No new public or private streets or rights-of-way are included with the project. Two private drives will provide: 1) access for delivery trucks entering the site from

the northwest corner, and 2) access for customers entering the site from the west. SEE SITE PLAN IN APPENDIX I.

**D. Existing and Proposed Improvements:** *"The location and dimensions of all existing and proposed structures, utilities, pavement and other improvements on the site. Setback dimensions for all existing and proposed buildings shall be provided on the site plan."*

There are currently no existing structures or paved areas or other improvements on the site. The only existing utility on-site is a short sewer stub-out left into the subject property, as part of recently constructed (east-west) Private Drive street and utility improvements.

There are reportedly no minimum building setback requirements for the site per City Code. Provided setbacks are as follows:

North Property Line to Building--Approximately 5 feet

West Property Line to Building--Approximately 10 feet

East Property Line to Building (Loading Dock)--Approximately 20-feet

South Property Line to building--108-feet

SEE SITE PLAN AND SITE DRAINAGE AND GRADING PLAN IN APPENDIX I.

**E. Entrances and Exits:** *"The location and dimensions of entrances and exits to the site for vehicular, pedestrian, and bicycle access."*

Two new entrances/exits are proposed for the site, a one-way truck entrance off of the above noted (east-west) Private Drive and a two-way main customer entrance/exit off of the above noted (north-south) Private Drive. SEE SITE PLAN IN APPENDIX I.

**F. Parking and Vehicle Circulation:** *"The location and dimensions of all parking and vehicle circulation areas (show striping for parking stalls and wheel stops, as applicable), and proposed paving materials."*

An asphaltic concrete (A.C.) parking lot is proposed with the above noted one-way truck entrance oriented in the northwest corner and a main customer entrance oriented on the west side of the site. A loading dock is proposed at the back end (east end) of the new building.

Normal deliveries will be via small approximately 32-foot long delivery "box" trucks that will primarily access the north side of the loading dock. Occasional (estimated weekly) deliveries by larger tractor-trailer delivery trucks will be made at the south side of the loading dock. Two loading spaces are provided at each of the north and south side loading dock areas. The easterly loading area is graded lower than the westerly main parking area so as to provide trailer-level "dock-high" loading operations at the loading dock (dock level is 4-feet higher than the loading area driveway surface). Site geometry accommodates maneuvering needs of expected delivery trucks. Delivery trucks leaving the site will exit via the main west parking

lot entrance/exit. An immediate left turn will position departing trucks at an existing stop sign on Alternative Highway 101 for entry onto the adjacent highway.

City trash and recycling trucks will enter the site from the west main entrance and turn left at the far east end of the parking area to approach the refuse enclosure area at the southeast corner of the building. Trash trucks can then proceed around the back of the building to exit the site via the back truck entrance.

Customers will enter and exit the parking lot from the main west entrance. Two isles of parking are proposed with both standard and compact parking spaces being provided. Two Handicapped Parking spaces are provided on the north parking isle adjacent to the south-side store entrance. An ample-width central east-west oriented drive provides for safe vehicle maneuvering and parking and safe customer foot-traffic access to the building's south entrance.

SEE SITE PLAN AND TRUCK MANEUVERING/TRACKING DIAGRAM IN APPENDIX I.

G. Pedestrian and Bicycle Circulation Areas: *"Pedestrian and bicycle circulation areas, including sidewalks, internal pathways, pathway connections to adjacent properties, and any bicycle lanes or trails."*

The existing site is surrounded on the west and north by new sidewalks constructed as part of previous Trondheim Acres development improvements. So as to achieve optimal business exposure to U.S. Highway 101 to the west, the proposed new Roby's Furniture store is positioned closest to the northwest corner of the property, approximately five feet in from the northerly sidewalk and approximately 10-feet in from the westerly sidewalk. New perimeter sidewalks are proposed around and directly against, west and south sides of the new building, enabling free pedestrian movement around the new building and the site. An expanded sidewalk-level open plaza area is proposed outside the main northwest corner store entrance, where bicycle parking facilities will be provided. A short stretch of sidewalk/pedestrian landing is proposed on the north side of the building, primarily for employee and maintenance access. A step down is provided at the east end of the south sidewalk for employee access to south-side refuse receptacles. ADA sidewalk ramp access is provided at both the main northwest entrance and the south side entrance.

SEE SITE PLAN AND LANDSCAPE PLAN IN APPENDIX I.

H. Loading and Service Areas: *"Loading and service areas for waste disposal, loading and delivery."*

As noted above, a loading dock is proposed at the back end (east end) of the new building to facilitate normal small truck deliveries and occasional (estimated weekly) deliveries by larger tractor-trailer delivery trucks. Smaller trucks will normally stage at the north side of the loading dock, leaving the south side available for larger trucks. The easterly loading area is graded lower than the westerly main parking area so as to provide trailer-level "dock-high" loading operations at the loading dock. An enclosed refuse dumpster area is proposed at the southeast corner of the new building (outside the south wall), at the lower elevation level, just around



the corner from the loading dock. City waste and recycling trucks can use the main west entrance and the turn left to approach the refuse/dumpster area face on. They will likely depart continuing north around the back of the building, exiting through the northeast corner truck entrance. Large trucks will be required to enter the site from the northeast corner truck entrance and depart the site through the main west entrance/exit. SEE SITE PLAN AND TRUCK MANEUVERING/TRACKING DIAGRAM IN APPENDIX I.

I. Outdoor Common Areas *"Outdoor recreation spaces, common areas, plazas, outdoor seating, street furniture, and similar improvements."*

An expanded sidewalk-level open plaza area is proposed outside the main northwest corner store entrance, where bicycle parking facilities will be provided. SEE SITE PLAN AND LANDSCAPE PLAN IN APPENDIX I.

I. Outdoor Lighting: *"Location, type, and height of outdoor lighting."*

Exterior site lighting will be provided for site security, public safety, customer nighttime shopping convenience and loading dock area visibility. High-position exterior light fixtures will be provided on the north and south sides of the building. South facing building-mounted lights will light the south-side sidewalk and adjacent north parking isle. Because of the close proximity of the north side of the building to the existing northerly sidewalk, north-side building mounted lights will provide ample lighting out to that street frontage. Exterior recessed lighting under the front main building entrance awning will light the entrance plaza area. Overhead building-mounted lights will light the rear loading dock area.

Lighting from building-mounted light fixtures will be supplemented with an ample distribution of ground-level/pedestal supported exterior light standards. These standards will be situated in each of the site's ten west-side and south-side planter isles. South-side planter isle lights are expected to provide ample lighting across the existing open ditch for site security and public safety. Preliminary dimensions and proposed styling for these exterior light standards is shown on the drawings.

Proposed lighting layouts and preliminary details for planned exterior lighting features are shown on project plans. Electrical power sourcing and circuit protection is planned to be provided in load center equipment located in the new building's main electrical/mechanical room. It is proposed that detailed illumination design, meeting all requirements of the City Development Code be provided by Design/Build (D/B) electrical contractor as part of general construction.

Separate street lighting along the existing (east-west) Private Drive and (north-south) Private Drive was not included with original road construction or the recent Tractor Supply development and none is currently present. Street lighting separate from that described above is not contemplated at this time. If additional street lighting should be required by the City, such will be coordinated with PP&L as part of planned lighting D/B construction.

SEE SITE PLAN AND SITE LIGHTING PLAN IN APPENDIX I.

K. Mail Boxes Proposed: *"Location of mail boxes if known."*

TO BE DETERMINED

L. Signs: *"Locations, sizes, and types of signs (shall comply with Chapter 16.144)"*

All proposed store signage is planned to be building mounted, per Roby's Furniture Store company standard. Sample photos are provide for reference. SEE PHOTO PLATES IN APPENDIX M.

M. Special Studies *"The Community Director may require studies or exhibits prepared by qualified professionals to address specific site features (e.g., traffic, noise, environmental features, site drainage, natural hazards, etc.)"*

In accordance with January 20, 2021 project Pre-application Meeting discussions and related City comment letter (Scott Hess, February 5,2021), the following special studies have been provided as noted above:

*\* Stormwater Management Plan, Technical Memorandum, (Stricker Engineering, May 2021)-- SEE APPENDIX A.*

*\* Utilities (Water & Fire, Sewer, Electrical, Communications and Natural Gas), Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)-- SEE APPENDIX B.*

*\* Excavation and Grading Plan, Technical Memorandum (Stricker Engineering, May 2021)-- SEE APPENDIX C.*

*\* Landscape Plan, (Stricker Engineering, May 2021--SEE APPENDIX D.*

*\* Geotechnical Report (Terra Associates, Inc., April 2021)--SEE APPENDIX F.*

Environmental interests have been addressed as part of previous U.S. Army Corps of Engineers and Oregon Department of State Lands Wetlands and Removal/Fill permit application processes completed by overall site owner/developer, Warrenton Fiber Company. Copies of prior permits are included with the above referenced Site Excavation and Grading Plan. SEE APPENDIX H AND APPENDIX I.

Traffic impacts are expected to be nominal due to anticipated relatively low customer traffic volume. Thus, the demand for a special traffic impact study is not anticipated. SEE ROBY'S CUSTOMER/TRAFFIC COUNT ANALYSIS IN APPENDIX O.

N. Tax Lot and Surrounding Property. *"The applicants entire tax lot and the surrounding property to a distance sufficient to determine the location of the development in the City, and the relationship between the proposed development site and adjacent property and development. The property boundaries, dimensions and gross area shall be identified."*

The subject property is located in Warrenton, Oregon, Township 8 North, Range 10 West, Sections 27, Willamette Meridian at latitude, 46.153934 degrees north and longitude, 123.906084 degrees west Tax ID No. 81027AB06400. The subject property's lot partitioning process is currently underway, with the lot currently being referred to as the East Portion of Lot 1 Trondheim Acres.

As part of the recent Tractor Supply project, a private access road loop was constructed that extends north off of Alternative Hwy 101 about 250 ft, then turns and connects into Marlin Avenue about 500 ft east. These two existing roads referred to herein as Private Drive (north-south) and Private Drive (east-west) define the westerly and northerly sides of the site and Alternative Hwy 101 defines the south side. Existing sidewalks have been constructed on the east side of the (north-south) Private Drive and the south side of the (east-west) Private Drive. An existing north-south property line, approximately 334 ft east of the west-side "back-of-sidewalk", establishes the easterly boundary of the property. At the time of this writing, the legal partitioning of the subject east portion of Lot 1 is in process. It is assumed that the west and north property boundaries of the subject property will be at or very near the current "back-of-sidewalk".

As noted above, a new Tractor Supply retail store is located on the property parcel just to the west of the subject site (west portion of Lot 1 Trondheim Acres) with U.S. Highway 101 being just further to the west. The parcel just north is currently undeveloped, as is the parcel on the east side of the subject property. Single family homes currently occupy the south side of Alternative Hwy 101 at this location. L & D Race Tech, a motorsports business, is located just north of the currently vacant northerly lot, fronted by Marlin Avenue and Les Schwab Tire is located further north, next door to L & D.

SEE SITE PLAN APPENDIX L. SEE LOT LINE ADJUSTMENT APPL., FIGURE 1.

**Q. Slopes:** *"Identification of slopes greater than 10%."*

The majority of the existing site is currently fairly flat, having been previously filled and leveled. Exceptions are, 1) the existing sidewalk shoulders at the north and west edges of the lot where finished road/sidewalk grade is 3 to 4 feet higher than existing lot grade and current slopes are about 10% grade and, 2) the southerly drainage ditch bank area where existing slope grades vary up to 40% to 60%. At project completion, with additional fill added, finished site grades will match existing sidewalk grades at the north and west and retaining walls will make the grade transitions on the east and south sides of the site. Dress graded ditch bank slopes on the south side will vary from 2:1 to 4:1 (H:V).

SEE EXISTING CONDITIONS AND SITE GRADING AND DRAINAGE PLAN IN APPENDIX I.

**P. Adjoining Streets and Sidewalks:** *"The location, condition (paved, gravel, unimproved, etc.) and width of all public and private streets, drives, sidewalks, pathways, rights-of-way, and easements on the site and adjoining the site."*

As noted above, approximately 700-feet east of U.S. Highway 101, a private access road loop has been recently constructed that extends north off of Alternative Hwy 101 about 250 ft, then turns and connects into Marlin Avenue about 500 ft east. These two existing roads, referred to herein as Private Drive (north-south) and Private Drive (east-west), bound the site at the west and north, and Alternative Hwy 101 bounds the site at the south. Existing sidewalks have been constructed on the east side of the (north-south) Private Drive and the south side of the (east-west)

Private Drive. The existing private access roads are 24-feet wide and the sidewalks are 5-feet wide. SEE SITE PLAN IN APPENDIX I.

**Q. Floodplain and Floodway:** *“Any areas identified as located in a designated floodplain and/or floodway.”*

The entire site, except for the above mentioned higher elevation sidewalk shoulder/bank areas in the northwest corner, lies within the designated floodplain as defined by the 12.0 elevation FEMA Flood Hazard Elevation. Previous Corps & DSL Wetlands Removal/Fill Permitting has secured regulatory approvals to fill the site to levels suitable for building above the current flood level. At the completion of the project, the proposed building and main parking lot area will be above the mapped floodplain. The easterly lower elevation loading area will match the existing grade of the (east-west) Private Drive to the north and Alternative Hwy 101 to the south. SEE EXISTING CONDITIONS AND SITE GRADING AND DRAINAGE PLAN IN APPENDIX I.

**R. Wetland and Riparian Areas:** *“Depict any wetland and riparian areas, streams and/or wildlife habitat areas.”*

As noted above, the project site has been previously filled under provisions of Wetlands Removal/Fill Permits with the U.S. Army Corps of Engineers and the Oregon Department of State Lands. There is a current natural bottom drainage ditch at the south side of the property that conveys stormwater run-off entering the site from the west. With proposed construction, the north side of this ditch bank will be improved with a dry stacked large-boulder retaining wall. The ditch bottom will be regraded for improved drainage, but will remain with a natural bottom. Similarly, the south bank will be redressed for improved aesthetics and future maintenance ease, but will remain vegetated with grass. As drainage leaves the subject property to the east it appears to meander across the currently undeveloped and wooded lot to the east before entering a culvert under Marlin Avenue and draining further northeast into Holbrook Slough and Young’s Bay. SEE SITE GRADING PLAN AND SITE DRAINAGE PLAN IN APPENDIX I.

**S. Key Site Features:** *“Site features such as pavement, areas having unique views, and drainage ways, canals and ditches.”*

The site currently enjoys an open view westerly across the open parking lot area of the adjacent Tractor Supply store parking lot toward U.S. Hwy 101. The proposed store’s angled front façade is designed to take advantage of this current view exposure, with highly-positioned front entrance business signage. From the southerly side-entrance and parking area, there is a view across Alternative Hwy 101 to the south of the lightly developed forested hillside. As noted above the southerly ditch will be regraded with side slope enhancements as part of the project. SEE SITE PLAN IN APPENDIX I AND PHOTO PLATES IN APPENDIX M.

**T. Designated Historic and Cultural Resources:** *“Any designated historic and cultural resource areas on the site and/or adjacent parcels or lots.”*

The applicant is not aware of any designated historic and/or cultural resources on the site, believing the potential presence of any such resources would have become apparent with noted U.S. Army Corps of Engineers and Oregon Department of State Lands Wetlands Removal/Fill Permitting processes. The City of Warrenton has issued a Land Use Compatibility Statement (LUCS) for the project, acknowledging compatibility with the City's Comprehensive Plan and Commercial Lands designation. The LUCS also notes the proposed retail business establishment is a permitted use, subject to City Development Standards and that the development is subject to the Wetland Area Protection Standards in WMC 16.156.030. SEE LAND USE COMPATIBILITY STATEMENT (LUCS) IN APPENDIX N.

U. Trees and Vegetation: *"The location, size and type of trees and other vegetation on the property."*

There are currently no large trees on the site. Most of the existing vegetation is grass. A good portion of the site has been filled with rock material so existing grass coverage is sparse. Some willows, small diameter sapling deciduous trees (possibly alder), and Himalayan blackberries exist along the north side of the existing ditch bank. These will be removed as part of construction. SEE EXISTING CONDITIONS IN APPENDIX I.

V. North Arrow, Scale, Property Owner ID: *"North arrow, scale, names addresses of all property owners."*

SEE PLANS COVER SHEET AND SITE PLAN IN APPENDIX I.

W. Applicant and Professional Team: *"Name and address of applicant, project designer, engineer, architect, surveyor, and/or planner, if applicable."*

Applicant: Warrenton Property Investments, LLC, 5111 N Coast Highway, Newport Oregon 97365

Designer/Engineer: Stricker Engineering, P.O. Box 366, Garibaldi, Oregon, 97118

Surveyor: Terra Calc Land Surveying, Inc., 1615 N.E. Miller Street, McMinnville, OR 97128

Geotechnical Engineer: Terra Associates, Inc., 12220 113<sup>th</sup> NE, Ste. 130, Kirkland, Washington, 98034

Environmental Consultant: Bridgewater Group, Commerce Plaza, Suite 235, 7100 SW Hampton St., Tigard, OR 97223

### **3.0 Summary**

This Narrative Report, with referenced appendices and attachments, and other accompanying forms and checklists are believed to fulfill all the City of Warrenton's submittal requirements for a Site Design Review Application and an Excavation and Grading Permit Application. The project involves site preloading/surcharging for subsurface soil consolidation. Site surcharging is proposed to be constructed in two phases with the first phase involving surcharging of the proposed building area.

## END NARRATIVE REPORT

### **APPENDICES:**

- a. *Stormwater Management Plan, Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
- b. *Utilities (Water, Sewer, Electrical, Communications, Natural Gas and Fire), Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
- c. *Excavation & Grading Plan, Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*
- d. *Landscape Plan (Stricker Engineering, May 2021)*
- e. *Architectural Drawing, Proposed Roby's Furniture & Appliance Store Technical Memorandum (Stricker Engineering, May 2021)*
- f. *Geotechnical Report, Proposed Roby's Furniture & Appliance Store Technical Memorandum (Terra Associates, Inc., April 2021)*
- g. *"Land Use Compatibility Statement for Roby's Furniture Project", City of Warrenton Letter to DEQ, May 12, 2021*
- h. *U.S. Army Corps of Engineers, Permit No. NWP-2007-745, Warrenton Fiber Company, September 10, 2009*
- i. *Oregon DSL, Wetland Fill Permit, Permit No: 38988-FP Renewal, Expiration Date, August 7, 2021, Warrenton Fiber Company*
- j. *Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Letter, City of Warrenton, February 5, 2021, Scott Hess, Community Development Director*
- k. *Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Memorandum, Warrenton Fire Department, February 5, 2021, Brian Alsbury, Fire Chief*
- l. *Reduced Sized Drawings (11" X 17")—Abbreviated Set*
- m. *Photo Plates:*
  - a. *Existing Conditions*
  - b. *Sample Store Signage*
  - c. *Site Views (South and North)*
- n. *Land Use Compatibility Statement, City of Warrenton letter to Oregon DEQ, May 12, 2021.*
- o. *Roby's Customer/Traffic Analysis, 2017-2019*

## CITY OF WARRENTON PLANNING AND BUILDING DEPARTMENT

### LOT LINE ADJUSTMENT APPLICATION

(To be accompanied by a map showing the existing property lines and a map showing the adjusted line, a copy of property deeds, and Letter of Authorization, if applicable.)

OFFICE USE ONLY	
FEE = _____	FEE \$150.00
ZONING _____	RECEIPT # _____
DATE RECEIVED _____	

Legal Description of Subject Property:

	Township	Range	Section	Tax Lot
1.	<u>8N</u>	<u>10W</u>	<u>27</u>	<u>1600</u>
2.	<u>8N</u>	<u>10W</u>	<u>27</u>	<u>6400</u>

Street address of the properties: \_\_\_\_\_

**I/WE, THE UNDERSIGNED APPLICANT(S) OR AUTHORIZED AGENT, AFFIRM BY MY/OUR SIGNATURE(S) THAT THE INFORMATION CONTAINED IN THE FOREGOING APPLICATION AND ASSOCIATED SUBMISSIONS IS TRUE AND CORRECT.**

\*\*\*\*\*

**APPLICANT:**

Printed Name: JOHN NYGAARD David + Ingrid and Warrenton Fiber Company

Signature: [Signature] Date: 5/27/21

Address: PO Box 100 Phone: 503 861-3305

E-mail Address: john@oregonlawyerpc.com

City/State/Zip: Warrenton, OR 97146 Fax: 503 861-2025

**PROPERTY OWNER (if different from Applicant)**

Printed Name: Same, N/A

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Fax: \_\_\_\_\_

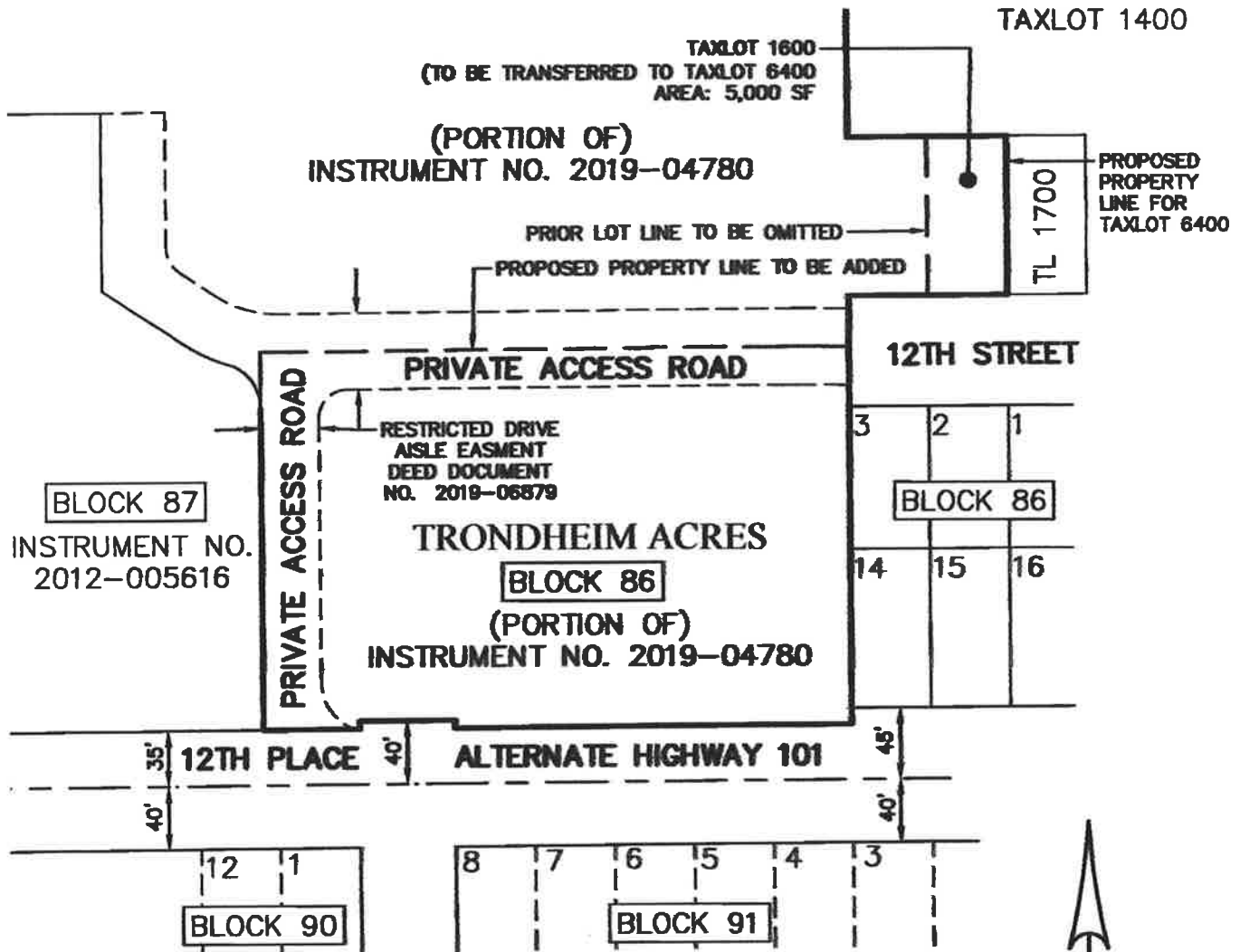
FIGURE 1 1/2  
143/2

# EXHIBIT MAP

## LOT LINE ADJUSTMENT

LOCATED IN THE NORTHEAST ONE-QUARTER OF SECTION 27,  
TOWNSHIP 8, NORTH, RANGE 10, WEST, W.M.  
CITY OF WARRENTON, CLATSOP COUNTY, OREGON

DATE: JUNE 1, 2021



PREPARED BY:

**TerraCalc**

Land Surveying Inc.

1615 N.E. Miller Street  
McMinnville, OR 97128  
(503) 857-0935  
www.Terra-calc.com

**WMC SECTION 16.40.040.B.2**  
C-1 ZONE HAS NO SIDE YARD SETBACKS  
UNLESS ADJACENT TO A RESIDENTIAL ZONE.

### TAXLOT 1600

OWNER: WARRENTON FIBER COMPANY,  
JOHN NYGAARD, DAVID NYGAARD  
INSTRUMENT NO.: 2019-04780

### TAXLOT 6400

OWNER: WARRENTON FIBER COMPANY,  
JOHN NYGAARD, DAVID NYGAARD  
INSTRUMENT NO.: 2019-04780



SCALE: 1" = 40'

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

OREGON  
JANUARY 11, 2005  
DARREN S. HARR  
56181

RENEWS: 6-30-21

FIGURE 1 144 2/2



## **APPENDIX A**

*Stormwater Management Plan, Proposed Roby's Furniture & Appliance Store,  
Technical Memorandum (Stricker Engineering, May 2021)*



Stricker Engineering LLC  
 PO Box 366  
 Garibaldi, Oregon 97118  
 john@strickerengineering.com  
 503-322-2442

## TECHNICAL MEMORANDUM

May 20, 2021

### **ROBY'S FURNITURE & APPLIANCE STORE, Warrenton, Oregon (East Portion of Trondheim Acres Lot 1)**

### **STORMWATER MANAGEMENT PLAN (SWMP)**

By: David Leibbrandt, P.E., Stricker Engineering

#### 1.0 Introduction and Background

**1.1 General**--This Stormwater Management Plan is prepared in support of City of Warrenton approval for a proposed new Roby's Furniture Store on the east portion of Lot 1, Trondheim Acres. Trondheim Acres, owned by Warrenton Fiber, is a 16.54 acre commercial property development located generally between US Highway 101 and Marlin Avenue, just north of Alternative Highway 101.

The west portion of Lot 1 has been previously developed with the recent completion of the new Tractor Supply store. As part of the City approval process for the Tractor Supply development a Stormwater Management Plan (SWMP) was completed by A.M. Engineering, June 30, 2019, that addressed stormwater management interests for all of Lot 1, including the east portion. As this plan has been previously approved by the City and references Corps and Oregon DSL permitting that encompasses the entire 16.54 acre commercial development, stormwater system planning, site engineering and site specific stormwater system designs for the east portion of Lot 1, follow the findings and guidance outlined in the referenced 2019 SWMP. This project accepts and refers to the 2019, Trondheim Acres Lot 1 SWMP and the current Warrenton Stormwater Management Plan (Final, HLB-Otak, February, 2008) as the applicable guidance for stormwater management and proposed stormwater system improvements associated with the proposed Roby's Store development on the east portion of Lot 1.

**1.2 US Army Corps of Engineers (Corps) and Oregon Department of State Lands (DSL) Permits**--As part of the original regulatory approval process for the development of the Trondheim Acres, Warrenton Fiber obtained Removal/Fill Permits from both the Corps and DSL. SEE COPIES ATTACHED IN NARRATIVE REPORT APPENDIX H & I.

*Department of the Army Permit, (Issuing Office: U.S. Army Corps of Engineers, Portland District), Permit No. NWP-2007-745, Warrenton Fiber Company, September 10, 2009.*

*Oregon Department of State Lands, Wetland Fill Permit, Marlin Avenue/Hwy 101 Commercial Development, Permit No: 38988-FP Renewal, Expiration Date, August 7, 2021, Warrenton Fiber Company*

These permits provide for the placement of up to 81,000 cubic yards and the removal of up to 26,000 cubic yards, impacting 14.9 acres of wetlands on the Trondheim Acres site complex.

As part of agreed mitigation, Warrenton Fiber Company completed a 142 acre off-site Compensatory Wetland Mitigation Plan involving multiple sites and established a \$48,000 financial endowment to the North Coast Land Conservancy.

At the time of this writing, it is understood that the various conditions of the above permits are being met and that the proposed development of the east portion of Lot 1 is an intended use of the property under the provisions of these permits.

**1.3 Existing Site Conditions--**As part of the recent Tractor Supply project, a private access road loop was constructed that extends north off of Alternative Hwy 101 about 250 ft, then turns and connects into Marlin Avenue about 500 ft east. These two existing roads referred to herein as Private Drive (north-south) and Private Drive (east-west) define the westerly and northerly sides of the site and Alternative Hwy 101 defines the south side. Existing sidewalks have been constructed on the east side of the (north-south) Private Drive and the south side of the (east-west) Private Drive. An existing north-south property line, approximately 334 ft east of the west-side "back-of-sidewalk", establishes the easterly boundary of the property. At the time of this writing, the legal partitioning of the subject east portion of Lot 1 is in process. It is assumed that the west and north property boundaries of the subject property will be at or very near the current "back-of-sidewalk". The existing 71,000 square feet (1.64-acre) parcel is mostly clear of trees and brush and has been partially filled and leveled with large crushed rock. An existing open drainage ditch is located along the south edge of the property, just outside the north right-of-way boundary of Alternative Hwy 101. A sanitary sewer stub-out has been provided into the site on the north side. **SEE SITE PLAN AND EXISTING CONDITIONS MAP IN APPENDIX 1, THIS TM.**

**1.4 Existing Topography--**On the north side of Alternative Hwy 101, the edge of pavement near the southeast corner of the subject site is at about 10 ft elevation and rises gradually to about 12 ft at the south end of the (north-south) Private Drive. The existing pavement surface in the Private Drive intersection at the northwest corner of the property is at about 12.5 ft elevation. The (east-west) Private drive slopes gently down at the east end to an elevation of about 8.5 ft. The subject site has been previously graded and partially filled with the surface elevation varying between about 7.5 ft to 9.5 ft. A 2 ft to 4 ft (vertically) sloped bank along the west and north sides of the site transition the existing undeveloped ground surface grade

to the finished grade of recently constructed new sidewalks. SEE EXISTING CONDITIONS MAP IN APPENDIX, THIS TM.

## 2.0 Site Location and Configuration

**2.1 Site Location**--The subject property is located in Warrenton, Oregon, Township 8 North, Range 10 West, Section 27, Willamette Meridian at latitude, 46.153934 degrees north and longitude, 123.906084 degrees west.

**2.2 Surrounding Conditions**--As noted above, a new Tractor Supply retail store is located on the property parcel just to the west of the subject site. The parcel just north is currently undeveloped, as is the parcel on the east side of the subject property. Older, single family homes currently occupy the south side of Alternative Hwy 101 at this location.

## 2.3 Existing Drainage Conditions

**2.3.1 South Ditch Drainage**--The above noted open ditch at the south side of the subject property conveys surface water entering the site from the west. An existing culvert under the south end of the (north-south) Private Drive carries stormwater that originates from a small lightly developed drainage basin lying southerly of Alternative Hwy 101. An existing culvert located westerly of the subject property, conveys drainage into piping constructed as part of the recent Tractor Supply project, where it is then routed east into the west end of the open ditch. The 18-inch diameter piping carrying this drainage is installed with a downstream discharge invert elevation of 7.44 ft. Bottom elevations in the irregularly graded open ditch vary from about 5.5 feet to about 6.5 feet. As the existing open drainage ditch enters the vacant property to the east, the bottom elevation is about 6.4 ft. This surface water crosses the easterly vacant lot and enters a newly replaced culvert that crosses under Marlin Avenue and discharges into an existing open ditch system eventually outfalling northerly into Holbrook Slough and Young's Bay through a tide gate. SEE FIGURE 1 AND EXISTING CONDITIONS PHOTOS IN APPENDIX 1, THIS TM.

**2.3.1 Private Drive Piped Drainage System**--The Private Drive loop improvements built as part of the Tractor Supply Project, included a new storm drainage piping system. This system collects surface run-off in catch basins and conveys drainage from the (north-south) Private Drive north then west along the (east-west) Private Drive to a bio-swale type stormwater quality facility located in the vacant lot just north of the subject site. This system also carries roof and drive/parking area drainage from the Tractor Supply site. An outfall structure at the downstream end of the water quality facility receives flow and conveys it to a short distance to a culvert crossing of Marlin Avenue, where stormwater enters the open drainage way mentioned above and makes its way north-easterly to Young's Bay by way of Holbrook Slough. Flow in this reach is reportedly tidally influenced, with existing tide gates at the Young's Bay outfall, checking back-flow up the drainage way. This piped drainage system collects roof and drive/parking lot run-off from the westerly Tractor Supply site and roadway run-off from the Private Drives surrounding the subject site. SEE SITE DRAINAGE AND GRADING PLAN IN APPENDIX 1, THIS TM.

## 2.4 Project Description

**2.4.1 Proposed Site Improvements**--The proposed development of the east portion of Lot 1, involves the construction of a 28,000 square foot (approximately) retail furniture and appliance store. The proposed 100' X 280' store is planned to be oriented close to the west and north property boundaries with a customer parking lot on the south side and a main customer entrance on the west side connecting to an existing (north-south) Private Drive. A one-way truck entrance off of an existing east-west Private Drive, is proposed in the northeast corner of the property and a 4-foot high trailer level loading dock is planned on the backside (east end) of the building. The proposed building finished floor, rear loading dock and the surrounding perimeter sidewalk is planned to be constructed at an elevation of 13.5 feet (ft) NAVD 88, 1.5-ft above the mapped 12.0 ft FEMA Flood Hazard Elevation. The existing sidewalk elevation at the northeast corner of the property sits at about 13.0 ft elevation. The majority of the proposed parking lot is planned for construction above the 12.0 ft flood elevation. It is planned that the rear (easterly) truck entrance extend south around the back of the building from the existing road elevation of about 9.5-ft, fairly flat, with minimal grading for proper drainage, before transition up about 2.5-feet to the level of the main parking lot. Proposed site drainage features are described below. SEE SITE PLAN AND SITE GRADING PLAN IN APPENDIX 1, THIS TM.

#### **2.4 Proposed Site Drainage Improvements**

**2.4.1 General**--Site grading and drainage system designs propose on-site collection and treatment facilities that route most of the improved-site's stormwater run-off south to the existing open ditch. Surface drainage from a very small localized area at the northeast truck entrance drive-way apron is proposed to drain directly into an existing curbside catch basin located adjacent to the entrance. This flow will be treated in the existing northerly water quality treatment facility as originally provided for per the Trondheim Acres Lot 1, SWMP. Referencing "5.1.5 Sub-catchment C, Treatment for SC-C shall be addressed on the sub-catchment B site during future development." Where Subcatchement C (SC-C), is defined as the subject Roby's site and sub-catchment B is defined as the northerly site containing the constructed bio-swale stormwater quality facility. SEE AM ENGINEERING TRONDHEIM ACRES LOT 1 SWMP INFO IN APPENDIX 3, THIS TM.

**2.4.2 Proposed Best Management Practices (BMP's)**—The proposed retail furniture store development will implement structural BMP's to treat stormwater run-off generated from site pavement parking lot and driveway surfaces. Structural BMP's will be incorporated into parking lot/drive area catch basins. These water quality treatment facilities will be sized to treat Water Quality (WQ) rainfall flow as calculated in the previously referenced A.M. Engineering, Trondheim Acres Lot 1, SWMP, with proportion based on respective contributing sub-catchment areas.

**2.4.3.0 Parking Lot and Driveway Drainage** -- All parking lot and driveway run-off is proposed to be routed to catch basin treatment features incorporating Contech's StormFilter technology. Two treatment units are being proposed, one treating lower (east and back) truck-loading area run-off and one treating upper level (west) parking area run-off combining treatment flow from the two westerly catchbasins.

Three parking area catch basins are proposed with each including low-flow routing for Water Quality Storm treatment and high-level flow by-pass piping, routing 100-Year Storm flows directly to the open ditch. Energy dissipation features will be included as part of north bank reconstruction at each outfall. SEE SITE DRAINAGE PLAN AND DETAILS—STORMWATER QUALITY FACILITIES IN APPENDIX 1, THIS TM.

**2.4.3.1 StormFilter Maintenance**—StormFilter facilities require periodic maintenance for continued treatment effectiveness. Each unit contains filter media canisters that require replacement approximately every 2 to 3 years. Roby’s will provide on-going maintenance of water quality facilities in accordance with the “StormFilter Inspection and Maintenance Procedures” included in APPENDIX 5. ALSO SEE “DETAILS—STORMWATER QUALITY FACILITIES” IN APPENDIX 1, THIS TM.

**2.4.3 Roof and Foundation Drainage**--As roof drainage and foundation drainage are not typically considered to be significant contributors to surface water pollution, this project’s roof and foundation drainage is proposed to be piped directly to the southerly open ditch without treatment, by-passing parking lot catch basins.

**2.4.4 Open Ditch Improvements**-- The existing southerly ditch is proposed to remain an open ditch with a regraded gradually sloped bottom for continuous flow drainage. It is proposed that the regraded bottom be finished with native soil and that the southerly bank be dressed and reseeded with native species grass. A dry stacked, large boulder bank treatment is proposed for the north bank. With a regraded, natural soil bottom and native grass vegetation, this ditch is expected to continue to provide some degree of unquantified supplemental stormwater treatment.

**2.4.5 Erosion and Sedimentation Control Plan (ESCP)**--The project will obtain an NPDES 1200-C Permit from DEQ. SEE APPLICATION INCLUDED IN APPENDIX 4, THIS TM. An ESCP is being proposed that follows the guidance outlined in the NPDES 1200-C permit and incorporates traditional BMP’s for erosion and sedimentation control throughout construction. SEE ESCP DRAWINGS IN APPENDIX 1, THIS TM.

### 3. Site Hydrologic Characteristics

**3.1 General**--This section addresses the various hydrologic considerations that are relevant to stormwater system planning and design.

**3.2 Rainfall**--As reported in the Trondheim Acres Lot 1 SWMP, 2019, A.M. Engineering...The site is located in Warrenton, Oregon within one (1) mile of the Astoria Airport where the rain gauge at the Astoria Airport (gauge 350328) has a recorded annual average rainfall of 68.55 inches, as reported by the Western Regional Climate Center. Noting that Northwest Oregon rainfall patterns follow a Type 1A precipitation pattern, the A.M. SWMP referenced the 2008, Warrenton Stormwater Master Plan and presented rainfall depths associated with a targeted “Water Quality (WQ) design storm and a 100-year design storm. Based on the

National Oceanic and Atmospheric Administration (NOAA) information this reporting established critical rainfall depths as follows:

Water Quality Storm	1.50 inches
100-Year Storm	6.10 inches

**3.3 Native Soils**--Site specific geotechnical engineering was completed for the subject site by Terra Associates, Inc., the same firm that provided geotechnical engineering for the Trondheim Acres Lot 1, Tractor Supply development project. According to this reporting (Geotechnical Report, Roby's Furniture, Fort Stevens Highway (Hwy 101 Business) and SE Marlin Drive, Warrenton, Oregon, Terra Associates, Inc., April 12, 2021), subsurface soils consist of between 45 ft and 62 ft of very soft, wet, alluvial soil classified as estuarine silt, fine sandy silt and soft to medium stiff peat, overlaying hard, moist residual elastic silt "interpreted to be the informally named Smuggler Cove formation." Terra further noted:

*"The Geologic Map of the Astoria Basin, Clatsop and Northernmost Tillamook Counties, Northwest Oregon, by A.R. Niem (1985) shows geology at the subject site mapped as Quaternary alluvium (Qal) that includes estuarine clay, silt, and fine sand in low-lying coastal areas in and along the Columbia River, Young's Bay and other major river mouths. The unconsolidated deposits observed in the subsurface explorations are consistent with the description of this geologic map unit."*

**3.4 Groundwater**—As reported in the site's Geotechnical Report (Terra Associates, Inc.), groundwater levels at the subject Roby's site were generally observed at about 2 to 3 feet below ground surface.

**3.5 On-site Fill**—The above referenced Terra Geotechnical Report noted, *"The eastern portion of the site has been filled with an unknown thickness of crushed rock. Much of the crushed rock visible on the ground surface consists of 6 to 18-inch diameter quarry spalls."*

**3.6 Structural Fill**--In accordance with the April 12, 2021, Terra Geotechnical Report, approximately 4 to 5 feet of imported granular structural fill material will be imported and placed over the existing surface in the proposed building area, and approximately 2 to 3 feet of imported granular structural fill will be placed in paved areas. This structural fill will then be surcharged with 4-feet of material over the building area and one foot of material over paved areas to pre-consolidate compressible subsurface soils prior to construction. Recommended specifications for imported structural fill are as follows:

- 100 Percent Passing 6-inch U.S. Sieve Size*
- 75 Percent Passing the No. 4 U.S. Sieve Size*
- 5 Percent Max. Passing the No. 200 Sieve Size*

**3.7 Existing Site Hydrology**—General drainage patterns are described above, *"South Ditch Drainage"* and *"Private Drive Piped Drainage System"*. A.M. Engineering, 2019,

SWMP reporting, further notes: “An 18” diameter culvert crossing SE Marlin Ave. near the SE 12<sup>th</sup> Street right-of-way conveys water to Holbrook Slough. The calculated capacity of the pipe is 26.13 cubic feet per second (cfs). And, “A culvert under Highway 101 Alternate east of King Avenue and roof drains from an adjacent property drain onto the site. Runoff from the culvert shall be re-routed to existing ditches along Alternate 101 and bypass the proposed (Tractor Supply) site drainage system. The 100-year storm event for the adjacent area is 2.02 cfs.”

**3.8 Stormwater Run-off**--Based on a total gross site area of 70,800 square feet and an estimated impervious area of 60,180 square feet and Applying the Type 1A rainfall distribution to the Santa Barbara Urban Hydrograph (SBUH) Method, A.M. Engineering’s 2019 SWMP reported run-off rates and volumes for the subject Roby’s site (referenced in SWMP reporting as Sub-catchment C) as follows:

*100-Yr Storm:*

*Rainfall- 6.10”, Run-off Volume = 0.565 af, Run-off Depth- 4.17”, Flow Rate-2.09 cfs*

*WQ Storm:*

*Rainfall-1.50”, Run-off Volume = 0.122 af, Run-off Depth- 1.50”, Flow Rate- 0.46 cfs*

*(24-hour storm, Tc = 5.0 minutes, CN=61/98)*

Proposed development is consistent with these impervious area estimations. Proposed facilities are sized to accommodate these calculated flows.

**3.9 Tidal Influence/Flood Level**--The mapped FEMA Flood Hazard Elevation at the proposed site is 12 ft, with it being reported that flood levels could possibly rise to 13 ft in the future. Almost all of the proposed site currently lies below the reported flood level. While much of the existing site has been previously filled, additional structural fill is proposed so that the proposed building finished floor can be built at an elevation of 13.5 ft. Imported structural fill will further more be placed in the proposed paved areas so that most of the planned parking lot area will be above the 12 ft flood level. The open drainage ditch is reported to be under tidal influence, with downstream tide gates limiting backflow upstream during high tide/high flood events. Because of these conditions, the City of Warrenton does not encourage or allow flow control associated with stormwater management programs in low lying area such as this site.

**4. Calculations**—Calculations for proposed stormwater facilities are included in Appendix 3. A summary of key design data is as follows:

**4.1 Site/Impervious Area**

Description	Area (square feet, sf)
Gross Site Area	71,000 sf
Proposed Landscaped Area	10,620 sf



Impervious Area	59,210 sf
Roof Area	28,000 sf
Net WQ Paved Area	31,210 sf

#### 4.2 Design Storms

Design Storm	Flow Rate (cubic feet per second, cfs)
100-Year Storm	2.09 cfs
Water Quality Storm	0.46 cfs <sup>1</sup>

1) Stormwater flow attributed to paved areas where treatment is to be provided = 0.46 cfs (0.53) = 0.24 cfs. See area based proration calculations in Tables SD.1 & 2.

#### 4.3 Flow Allocations

Catch Basins:	100-Year Flow Alloc. (cfs)	WQ Flow Alloc. (cfs)
CB-1	0.272	0.06
CB-2	0.251	0.06
CB-3	0.523	0.115
NE Trk Entr Exist CB	0.031	0.005
Roof Run-off	1.00	N/A
<b>TOTALS</b>	<b>2.09 cfs</b>	<b>0.24 cfs</b>

#### 5.0 Summary and Conclusions

Stormwater runoff from the proposed Roby's site (East Portion of Lot 1, Trondheim Acres) will be managed in accordance with the requirements of the City of Warrenton and the applicable provisions of the Trondheim Acres Lot 1, Stormwater Management Plan (SWMP), A.M. Engineering, June 30, 2019. Proposed treatment for paved surface areas involves the use of Contech's Catchbasin StormFilter structural BMP facilities. The large majority of the site's run-off will be routed for discharge into an existing open ditch at the south side of the property. Improvements are proposed for this ditch to improve stormwater conveyance, visual aesthetics and future maintenance ease.

As stated in A.M. Engineering's reference reporting: Flow control is not practical at the site due to; soil characteristics, ground water conditions and a tidally influenced watershed. Additionally, the City of Warrenton does not require flow control associated with stormwater management.

Roby's will provide on-going maintenance of proposed Catchbasin StormFilter facilities in full accordance with the manufacturer's recommendations so as to provide long-term treatment effectiveness.

**END TECHNICAL MEMORANDUM**

**APPENDICES:**

**1) Reduced Size Drawings for Reference:**

- i. PLAN COVER SHEET (Incl. Site Location & Vicinity Maps)**
- ii. SITE PLAN**
- iii. EXISTING CONDITIONS MAP**
- iv. EXISTING CONDITIONS PHOTOS**
- v. SITE DRAINAGE AND GRADING PLAN**
- vi. ESCP Sheets**
- vii. DETAILS—STORMWATER QUALITY FACILITIES**

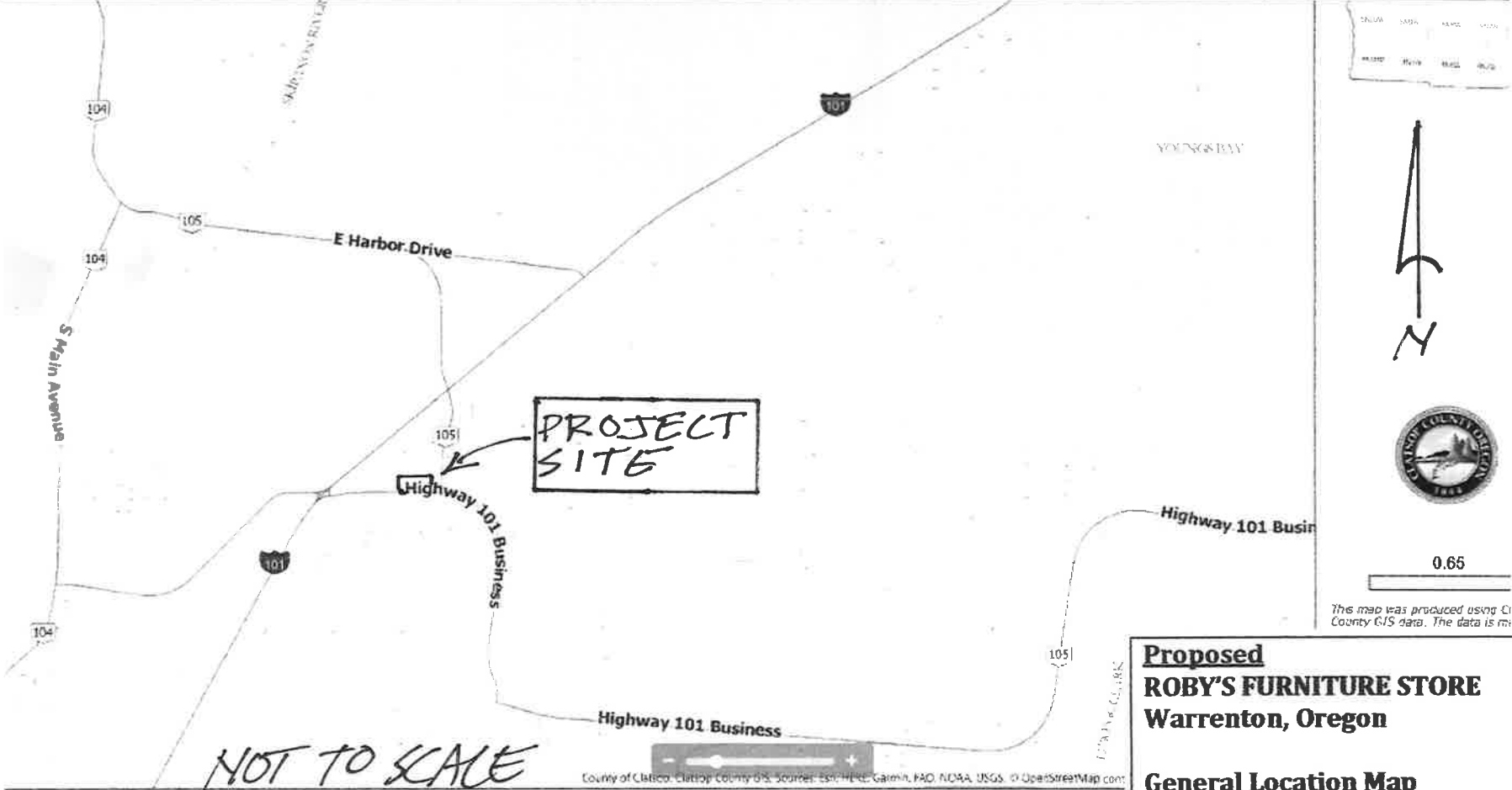
**2) A.M. Engineering, Trondheim Acres, Lot 1 SWMP Information:**

- a) Study Area Map**
- b) Alt 101 Culvert Sub-basin Map (Figure F3)**
- c) Hydrograph/Q Calcs for 100 yr and WQ storm**
  - i. Alt 101 Culvert Subcatchment**
  - ii. Lot 1 Subcatchment C (Proposed Roby's Site)**

**3) Storm Drainage Calculations**

**4) DEQ NPDES Permit Application**

**5) StormFilter Inspection and Maintenance Procedures**



**Proposed**  
**ROBY'S FURNITURE STORE**  
 Warrenton, Oregon

**General Location Map**  
 June 3, 2021 Fig.1

## **APPENDIX 1**

### **Plans--Abbreviated Set/Reduced Size**

(See 11 X 17 ½ size plans in Narrative Report Appendix and full-size plans bound separately)

**CIVIL DRAWING INDEX**

- C1.0 COVER SHEET
- C2.0 GENERAL PROJECT NOTES & ABBREVIATIONS
- C3.0 STANDARD CITY OF WARRENTON NOTES
- C4.0 COMMERCIAL SITE DESIGN
- C4.1 EXISTING CONDITIONS & TOPOGRAPHY
- C5.0 SITE DRAINAGE & GRADING PLAN
- C6.0 SITE FILL, SURCHARGE, & PRELOADING PLAN
- C6.1 SITE EXCAVATION PLAN
- C6.2 EXCAVATION/STRUCTURAL FILL/SURCHARGE CROSS SECTIONS & DETAILS
- C6.3 DETAILS - RETAINING WALLS & PAVEMENT CROSS-SECTIONS
- C7.0 DRIVE ENTRANCES AND SITE UTILITIES (WATER, SEWER AND CONDUITS)
- C7.1 DETAILS - UTILITIES
- C8.0 STORE ENTRANCES & ACCESS WAYS
- C8.1 TRUCK MANEUVERING/TRACKING DIAGRAM
- C9.0 LANDSCAPING & LIGHTING PLAN
- C10.0 DETAILS - WATER SERVICE, DOMESTIC AND FIRE
- C11.0 STORMWATER DRAINAGE--PLAN & PROFILES
- C11.1 DETAILS - STORMWATER WATER QUALITY TREATMENT FACILITIES
- C12.0 DETAILS - ROADS/SIDEWALKS & CURBS
- C13.0 DETAILS - ADA SIDEWALK & CURB RAMPS
- C14.0 ESCP - COVER
- C14.1 ESCP - GENERAL NOTES
- C14.2 ESCP - PHASE I & II
- C14.3 ESCP - BUILDING CONSTRUCTION
- C14.4 ESCP - ODOT DETAILS

**STRUCTURAL DRAWING INDEX**

- S1.0 SITE PLAN
- S2.0 SITE SURCHARGE PRELOADING PLAN
- S3.0 FOUNDATION PLAN
- S4.0 MEZZANINE & RESTROOM PLANS
- S5.0 ROOF PLAN & ROOF DIAPHRAGM SCHEMATIC
- S6.0 EXTERIOR ELEVATIONS
- S7.0 BUILDING SECTIONS & WEST WALL FRAMING
- S8.0 FOUNDATION/FRAMING SECTIONS & DETAILS
- S9.0 FOUNDATION & FRAMING DETAILS

**SUBMITTED SEPARATELY**

**ROBY'S FURNITURE**  
WARRENTON, OREGON



**STRICKER**  
Engineering

**UTILITY PROVIDERS:**

- CITY OF WARRENTON**  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-0917
- WATER & SANITARY SEWER**  
CITY OF WARRENTON  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-0917
- ELECTRICITY**  
PACIFIC POWER  
ATTN: MARILYN BROCKEY  
2340 SE DOLPHIN  
WARRENTON OREGON 97146  
503-861-6005
- CABLE TELEVISION**  
CHARTER SPECTRUM COMMUNICATIONS  
ATTN: VINNY BILLECI  
419 GATEWAY AVENUE  
ASTORIA OREGON 97103  
503-338-7710
- GAS**  
NW NATURAL GAS  
ATTN: RICH GIRARD  
220 NW 2ND AVE  
PORTLAND OREGON 97209  
503-225-4211 EXT. 2980  
503-281-6168 (CELL)
- TELEPHONE**  
CENTURY LINK  
ATTN: MIKE MEISNER  
481 INDUSTRY  
ASTORIA OREGON 97103  
503-242-7676
- ONE CALL CENTER**  
1-800-332-2344 OR 81



**PROJECT TEAM:**

- OWNER:**  
WARRENTON PROPERTY INVESTMENTS, LLC  
8111 N. COAST HIGHWAY, NEWPORT, OR 97385  
CONTACT: KYLE LANGLIERS, REGIONAL MANAGER  
PHONE: (503) 812-8267
- PROJECT ENGINEER:**  
STRICKER ENGINEERING  
PO BOX 386 GARIBALDI, OR 97118  
CONTACT: JOHN DOYLE, PRESIDENT  
PHONE: (503) 322-2442
- CIVIL DESIGN:**  
YOUNGS RIVER ENGINEERING, LLC  
91290 YOUNGS RIVER RD, ASTORIA, OR 97103  
CONTACT: GEOFFREY LILJENWALL, P.E.  
PHONE: (503) 791-3010
- GEOTECHNICAL ENGINEER:**  
TERRA ASSOCIATES, INC.  
12220 113TH AVE, STE 130, KIRKLAND, WA 98034  
CONTACT: JOHN SADLER, SENIOR ENGINEERING GEOLOGIST  
THEODORE SCHEPPER, P.E., PRINCIPAL  
PHONE: (425) 821-4334
- ENVIRONMENTAL CONSULTANT:**  
BRIDGEWATER GROUP  
COMMERCE PLAZA, SUITE 235, 7100 HAMPTON ST, TIGARD, OR 97223  
CONTACT: JUSTIN POLUNDS, RG  
PHONE: (503) 675-5252
- CONSTRUCTION CONTRACTOR (SITE WORK):**  
BIG RIVER CONSTRUCTION, INC.  
35064 HIGHWAY 101 BUSINESS ASTORIA, OR 97103  
CONTACT: PHIL GAFFNEY  
PHONE: (503) 338-3878

**GENERAL NOTES:**

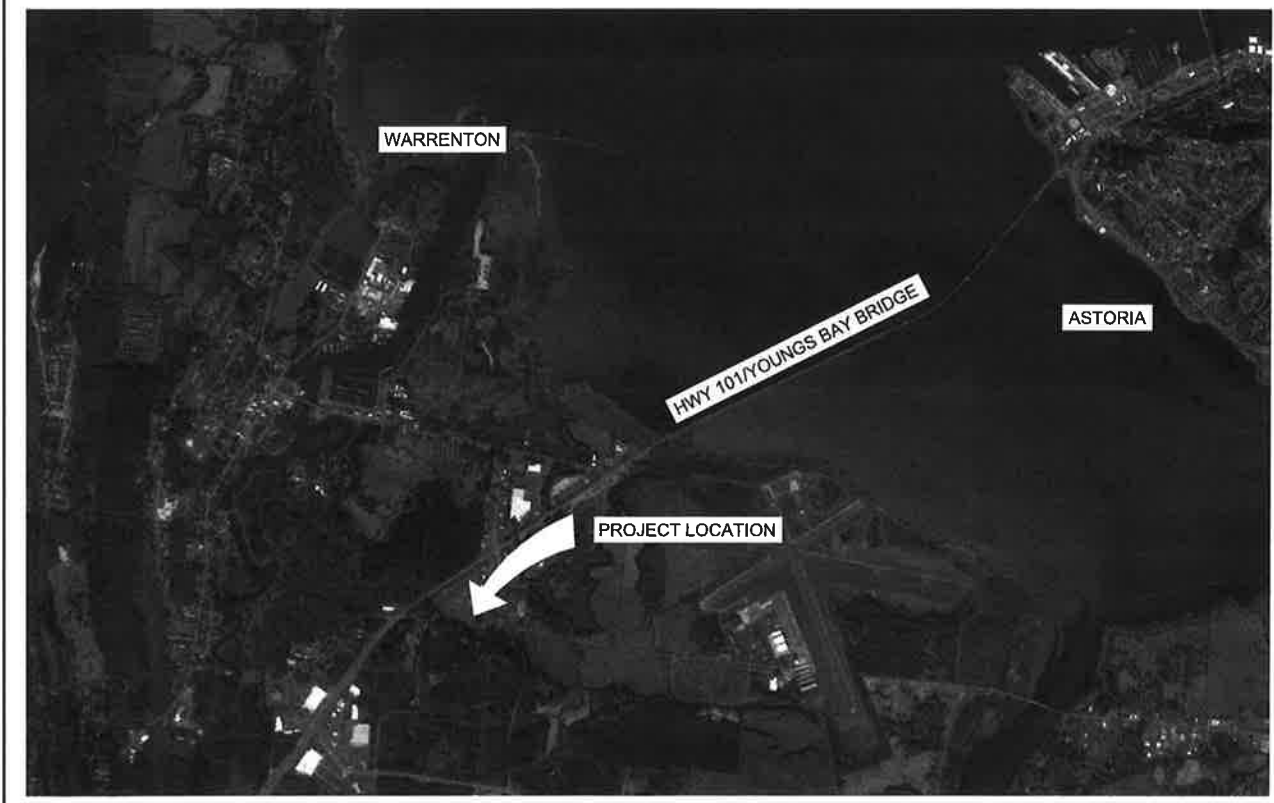
1. PROPOSED DEVELOPMENT: COMMERCIAL/RETAIL STORE, HOME FURNITURE & APPLIANCES
2. GENERAL LOCATION: WARRENTON, OREGON BETWEEN HIGHWAY 101 AND MARLINE AVE ON NORTH SIDE OF HIGHWAY 101 ALTERNATE.
3. PROPOSED BUILDING: 27,500 SQ. FT FABRICATED STEEL STRUCTURE WITH WOOD SIDING & METAL ROOF
4. SITE ZONING: COMMERCIAL, C-1

**REFERENCE DATUM:**

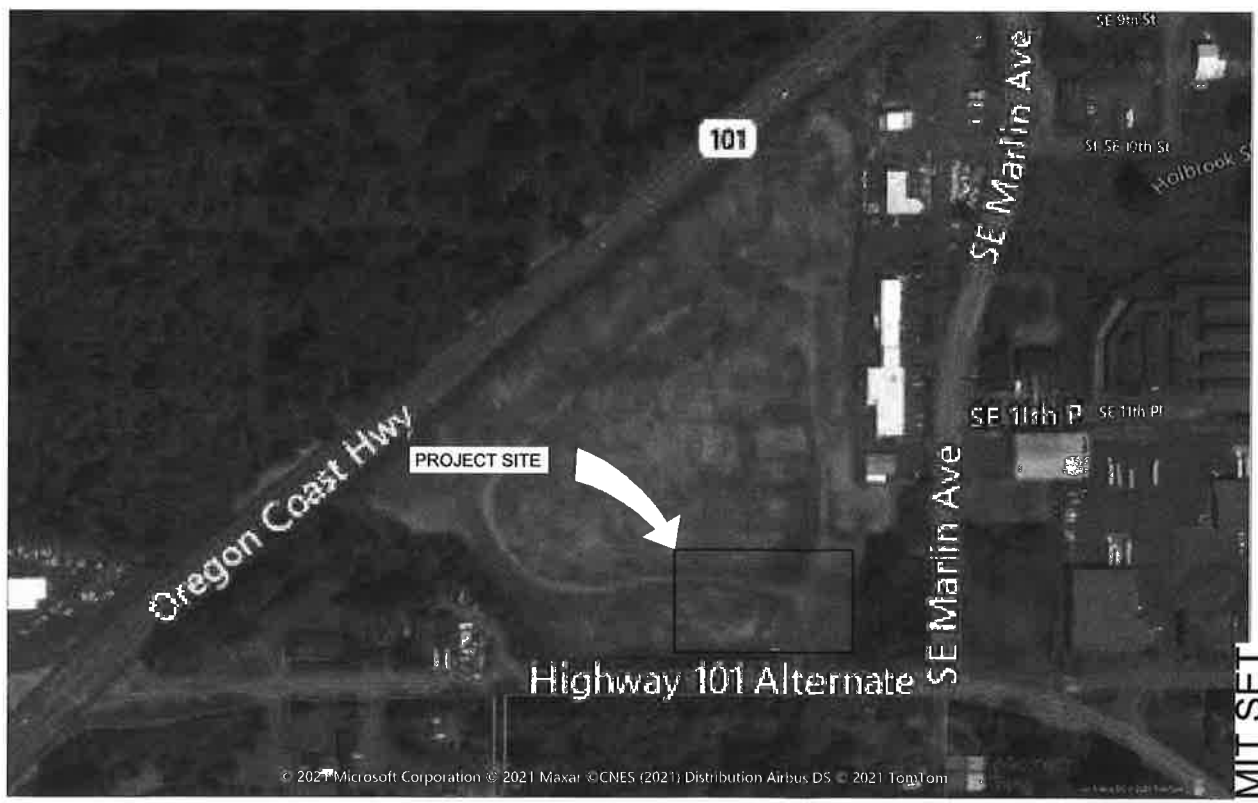
STATION INDEX ID: PID SC0559'

DATUM: NAVD 88  
ELEVATION: 8.36 FT

LOCATION: BETWEEN HIGHWAY 101 & MARLIN AVE. ON NORTH SIDE OF ALT. HIGHWAY 101. T.C. #81027 AB06900, T8N, R10W, SECTION 27  
LATITUDE 46.153934, LONGITUDE -123.906084



**SITE LOCATION MAP (NTS)**



**SITE VICINITY MAP (NTS)**



REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



ROBY'S FURNITURE  
COVER SHEET

WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB NO: 2012211249

Drawing N.O:

**C1.0**

D:\Warrenton Projects\Roby's Furniture\C1.0 - COVER SHEET.dwg Plotted: Jun 01, 2021 - 12:18pm By: Ceoff

TOTAL SITE AREA: APPROX. 70,500 SQ. FT (1.61 ACRES)  
 BUILDING AREA: 27,550 SQ. FT  
 LANDSCAPED AREA: 11,060 SQ. FT. (0.25 ACRES) (15.7% OF TOTAL SITE AREA)  
 PARKING SPACES: 43  
 TAX MAP: 81027AB06400  
 LOCATION DESCRIPTION: NE ¼ OF SECTION 27, T. 8 N., R. 10 W., LAT. 46.153934, LONGITUDE -123.906074 W.M. CITY OF WARRENTON, CLATSOP COUNTY, OREGON

L/A NO.	AREA (SQ. FT.)
L/A 1	2750
L/A 2	800
L/A 3	131
L/A 4	131
L/A 5	131
L/A 6	436
L/A 7	131
L/A 8	131
L/A 9	310
L/A 10	175
L/A 11	175
L/A 12	871
L/A 13	88
L/A 14	880
X-RETAINING WALL	3920
WEST-SIDEWALK	385
TOTAL	11060

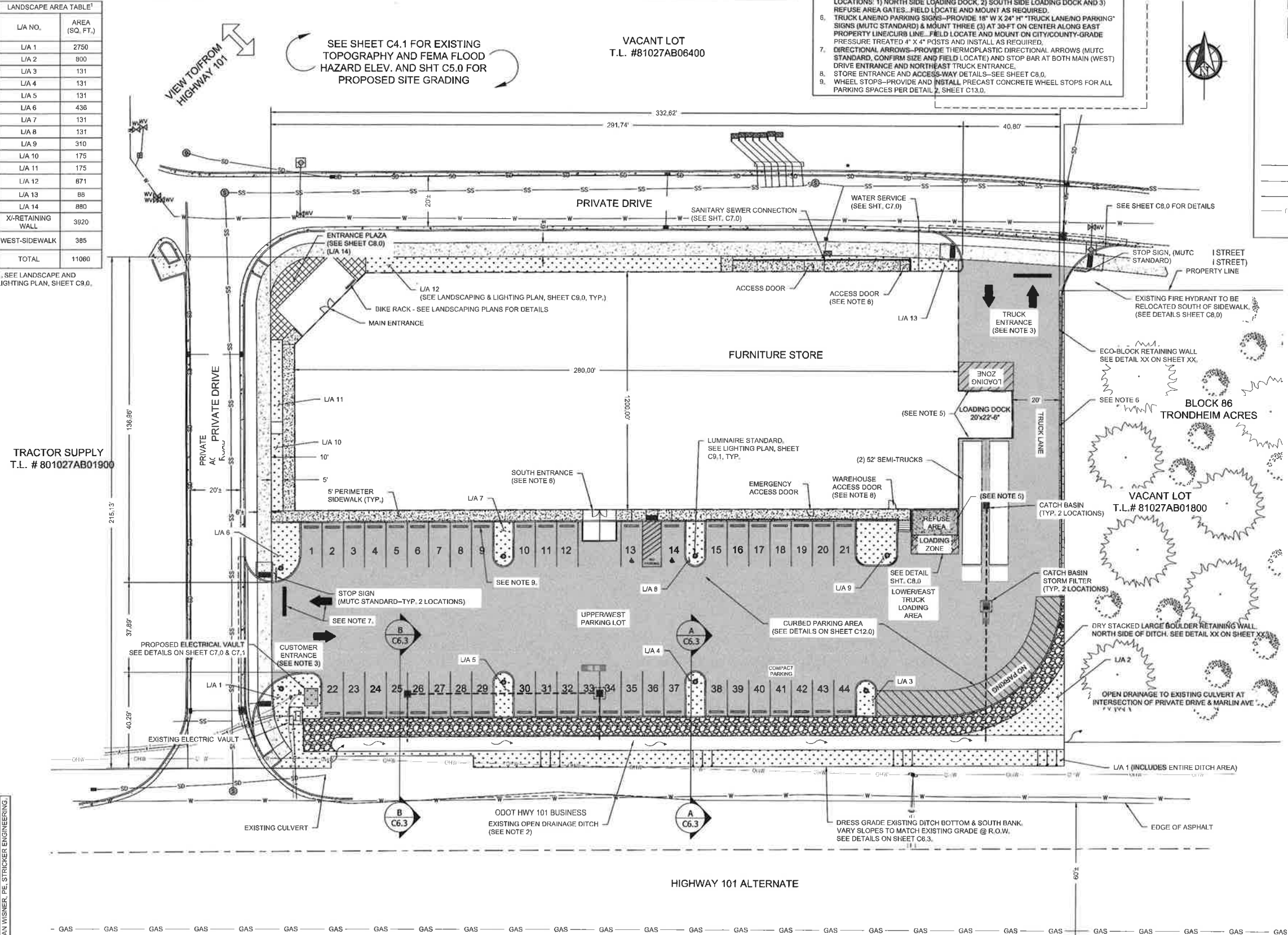
1. SEE LANDSCAPE AND LIGHTING PLAN, SHEET C9.0.

- NOTES:
- MAIL BOX LOCATION TO BE DETERMINED BY OWNER & DESIGNER/BUILD CONTRACTOR.
  - EXISTING DRAINAGE DITCH TO REMAIN OPEN, WITH DITCH BOTTOM AND SOUTH BANK TO BE RE-GRADED FOR IMPROVED STORM WATER CONVEYANCE, AESTHETIC APPEARANCE AND MAINTENANCE EASE. SEE SITE DRAINAGE AND GRADING PLAN, SHEET 5, DETAILS, SHEET 6.3 AND LANDSCAPE AND LIGHTING PLAN, SHEET C9.0.
  - DRIVE ENTRANCES AND UTILITIES - SEE SHEET C7.0.
  - STORE ENTRANCES & ACCESS WAYS - SEE SHEET C9.0.
  - LOADING ZONE/NO PARKING SIGNS - PROVIDE 18" W X 24" H "LOADING ZONE/NO PARKING" SIGNS (MUTC STANDARD) & MOUNT TWO (2) AT EACH OF THREE (3) LOCATIONS: 1) NORTH SIDE LOADING DOCK, 2) SOUTH SIDE LOADING DOCK AND 3) REFUSE AREA GATES. FIELD LOCATE AND MOUNT AS REQUIRED.
  - TRUCK LANE/NO PARKING SIGNS - PROVIDE 18" W X 24" H "TRUCK LANE/NO PARKING" SIGNS (MUTC STANDARD) & MOUNT THREE (3) AT 30-FT ON CENTER ALONG EAST PROPERTY LINE/CURB LINE. FIELD LOCATE AND MOUNT ON CITY/COUNTY-GRADE PAVEMENT TREATED 4" X 4" POSTS AND INSTALL AS REQUIRED.
  - DIRECTIONAL ARROWS - PROVIDE THERMOPLASTIC DIRECTIONAL ARROWS (MUTC STANDARD, CONFIRM SIZE AND FIELD LOCATE) AND STOP BAR AT BOTH MAIN (WEST) DRIVE ENTRANCE AND NORTHEAST TRUCK ENTRANCE.
  - STORE ENTRANCE AND ACCESS-WAY DETAILS - SEE SHEET C8.0.
  - WHEEL STOPS - PROVIDE AND INSTALL PRECAST CONCRETE WHEEL STOPS FOR ALL PARKING SPACES PER DETAIL 7, SHEET C13.0.

**LEGEND**

- CONCRETE AREA
- PLANTED AREA
- PAVERS
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC PEDESTAL
- CATCH BASIN
- CATCH BASIN STORM FILTER STRUCTURE
- SANITARY SEWER MANHOLE
- WATER
- SANITARY SEWER
- ELECTRIC
- TELEPHONE
- LIGHT POLE

REV	DATE	DESCRIPTION



**ADJACENT PROPERTIES**

**NORTHERLY PROPERTY:**  
 ACCT. NO: 60293  
 TAX MAP: 81027AB006400A01  
 OWNER/ADDRESS:  
 J.R. ZUKIN CORPORATION  
 DBA MEADOW OUTDOOR ADVERTISING  
 P.O. BOX 331  
 THE DALLES, OR 97058

**BLOCK 87, WEST PORTION OF LOT 1, TRONDHEIM ACRES:**  
 ACCT. NO: 31902  
 TAX MAP: 801027AB01900  
 OWNER/ADDRESS:  
 TKC CCLX, LLC  
 4500 CAMERON VALLEY PARKWAY, #400  
 CHARLOTTE, NC 28211

**BLOCK 88, LOT 14, TRONDHEIM ACRES:**  
 ACCT. NO: 31901  
 TAX MAP: 81027AB01800  
 OWNER/ADDRESS:  
 JIMMIE K. RICHARDS & DELORES M. RICHARDS  
 P.O. BOX 334  
 ASTORIA, OR 97103

**BLOCK 91, LOTS 3 & 4, TRONDHEIM ACRES:**  
 ACCT. NO: 31922  
 TAX MAP: 81027AB03601  
 OWNER/ADDRESS:  
 HAROLD MARK RAY & LORETTA JEAN RAY  
 1290 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOT 5, TRONDHEIM ACRES:**  
 ACCT. NO: 62263  
 TAX MAP: 81027AB03800  
 OWNER/ADDRESS:  
 STEVEN GOLDBERG & RAYLA GOLDBERG  
 1160 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOTS 6, 7, & 8, TRONDHEIM ACRES:**  
 ACCT. NO: 31924  
 TAX MAP: 81027AB03900  
 OWNER/ADDRESS:  
 HAROLD MARK RAY & LORETTA JEAN RAY  
 1290 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOT 11, TRONDHEIM ACRES:**  
 ACCT. NO: 31917  
 TAX MAP: 81027AB0331  
 OWNER/ADDRESS:  
 STEVEN GOLDBERG & RAYLA GOLDBERG  
 1160 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOT 12 TRONDHEIM ACRES:**  
 ACCT. NO: 31916  
 TAX MAP: 81027AB03300  
 OWNER/ADDRESS:  
 HAROLD MARK RAY & LORETTA JEAN RAY  
 1290 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 92, LOT 13, TRONDHEIM ACRES:**  
 ACCT. NO: 31918  
 TAX MAP: 81027AB03400  
 OWNER ADDRESS:  
 STEVE JORDAN & JUDY JORDAN  
 SWH PROPERTIES, LLC  
 91869 RIDGE ROAD  
 WARRENTON, OR 97146

105 East Cypress  
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 503-322-2442  
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DRAWING BY: BRIAN WISNER, PE, STRICKER ENGINEERING

PERMIT SET

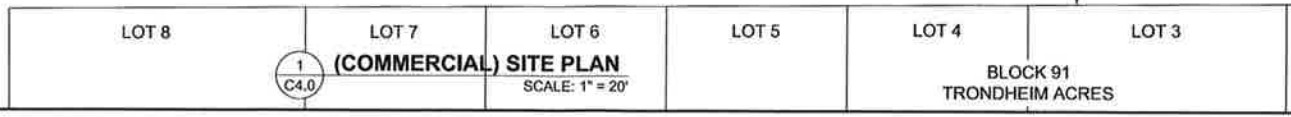
ROBY'S FURNITURE  
 COMMERCIAL SITE DESIGN

WARRENTON, OREGON

DRAWN: 06/25/2021  
 ISSUED: 5/28/2021  
 SCALE: AS SHOWN  
 JOB NO.: 2012211249

Drawing N.O:

**C4.0**



**1**  
 C4.0  
**(COMMERCIAL) SITE PLAN**  
 SCALE: 1" = 20'

- LEGEND:**
- DENOTES EXISTING ASPHALT PAVEMENT
  - DENOTES EXISTING CONCRETE PAVEMENT
  - DENOTES EXISTING GRAVEL
  - DENOTES EXISTING GRASS/LANDSCAPE
  - DENOTES EXISTING UNDERGROUND STORM DRAIN LINE
  - DENOTES EXISTING UNDERGROUND SANITARY SEWER LINE
  - DENOTES EXISTING UNDERGROUND COMMUNICATIONS/TELEPHONE LINE
  - DENOTES EXISTING UNDERGROUND POWER (ELECTRIC) LINE
  - DENOTES EXISTING UNDERGROUND WATER (H2O) LINE
  - DENOTES EXISTING OVERHEAD POWER LINE
  - DENOTES EXISTING BRUSH/VEGETATED LINE
  - DENOTES CATCH BASIN
  - DENOTES IRRIGATION/CONDUIT LINE
  - DENOTES COMMUNICATION RISER
  - DENOTES FIRE HYDRANT
  - DENOTES INVERT ELEVATION OF PIPE/OUTFALL
  - DENOTES MAILBOX
  - DENOTES POWER (ELECTRIC) VAULT
  - DENOTES SANITARY SEWER CLEANOUT
  - DENOTES SANITARY SEWER LATERAL BOARD
  - DENOTES SANITARY SEWER MANHOLE
  - DENOTES STORM DRAIN CLEANOUT
  - DENOTES STORM DRAIN MANHOLE
  - DENOTES UTILITY STAND PIPE/STUB UP
  - DENOTES POWER (ELECTRIC) TRANSFORMER
  - DENOTES POWER (ELECTRIC) POLE
  - DENOTES WATER METER
  - DENOTES WATER VALVE
  - DENOTES CONIFEROUS TREE + DIAMETER
  - DENOTES EDGE OF ASPHALT PAVEMENT [SPOT GRADE]
  - DENOTES EDGE OF CONCRETE [SPOT GRADE]
  - DENOTES EDGE OF GRAVEL [SPOT GRADE]
  - DENOTES GUTTER PAN/CURB FLOWLINE [SPOT GRADE]
  - DENOTES TOP FACE OF CURB [SPOT GRADE]

**VERTICAL DATUM:**  
REFER TO THE COVER PAGE OF THE CONSTRUCTION DOCUMENTS FOR TRONDHEIM LOT 1

**REFERENCE DATUM:**  
STATION INDEX ID: PID SC0558'

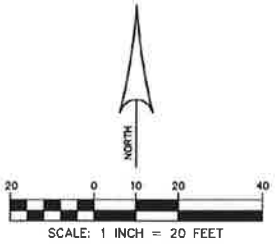
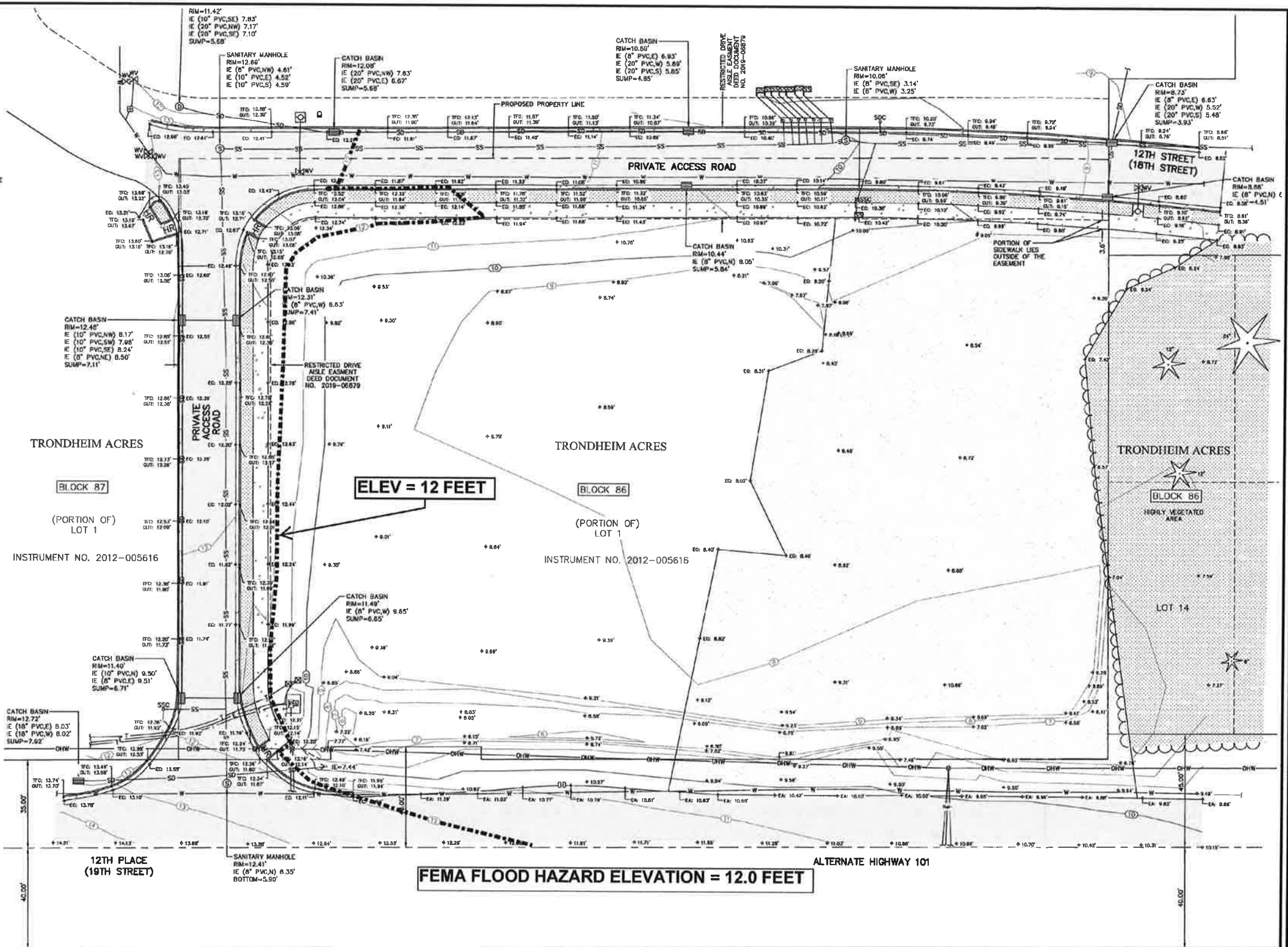
**DATUM:**  
NAVD 88  
ELEVATION: 8.38 FEET

**LOCATION:**  
ON THE EAST SIDE OF MARLIN AVENUE, ABOUT 85 TO 90 FEET NORTH OF THE INTERSECTION WITH S.E. 12TH PLACE.

**UTILITY STATEMENT:**  
THE UNDERGROUND UTILITIES HAVE BEEN LOCATED FROM LOCATE PAINT MARKINGS TIED IN THE FIELD SURVEY AND AS-BUILT DRAWINGS PROVIDED BY UTILITY COMPANIES. THIS SURVEY DOES NOT SHOW ANY PAINT MARKINGS PROVIDED AFTER THE FIELD SURVEY WAS COMPLETED. AS-BUILT DRAWING INFORMATION THAT WAS NOT PROVIDED IS NOT REFLECTED ON THIS SURVEY. AS-BUILT INFORMATION, IF PROVIDED, WAS USED TO IDENTIFY UNDERGROUND PIPE SIZE AND TYPE. IF NO LOCATE PAINT MARKINGS WERE PROVIDED, AS-BUILT INFORMATION WAS USED TO HORIZONTALLY LOCATE THE UNDERGROUND UTILITIES.

THIS SURVEY MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA. THE UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THIS SURVEY, BUT ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION PROVIDED. MANHOLES OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE LIDS AND MAY NOT BE LABELED CORRECTLY.

UTILITY LOCATIONS SHOULD BE VERIFIED BY OREGON UTILITIES NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.

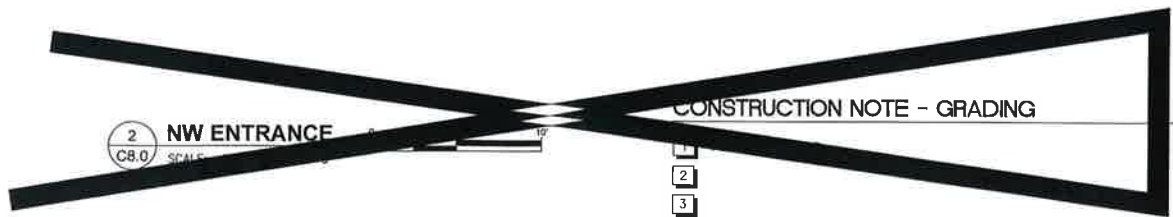
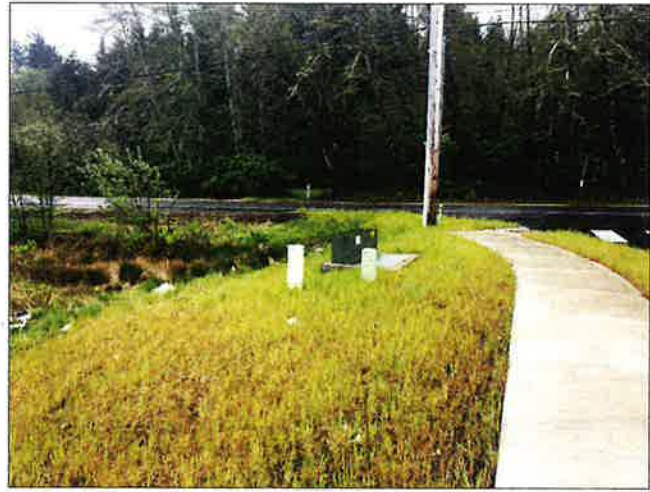


REGISTERED PROFESSIONAL LAND SURVEYOR  
OREGON  
JANUARY 11, 2005  
DARREN S. HARR  
56181  
RENEWS: 6-30-21

**ROBY'S - WARRENTON TOPOGRAPHIC SURVEY**  
IN THE NE 1/4 OF SECTION 27, T. 8 N., R. 10 W., W.M.  
CITY OF WARRENTON, CLATSOP COUNTY, OREGON  
FOR: I LEWIS HOME SOURCE, INC. | 1126 MAIN AVENUE | TILLAMOOK, OR 97141 |

REVISIONS	
REVISIONS	
INITIAL RELEASE	
0	
DATE:	3/25/2021
DRAWN:	CAJ
SURVEYOR:	DSH
CHECKED:	DSH
JOB NAME:	ROBY'S - WARRENTON
DRAWING NAME:	ROBY'S TOPO
SHEET NO.:	1 OF 1

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REDUCED DRAWING  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET,  
 ADJUST SCALES ACCORDINGLY

30% SCHEMATIC

DRAWN: 12/21/2020  
 ISSUED: 04/30/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:

C4.1  
160

ROBY'S FURNITURE  
 EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY  
 WARRENTON OREGON



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 John@strickerengineering.com



REV	DATE	DESCRIPTION

REVISIONS



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REV	DATE	DESCRIPTION

105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com



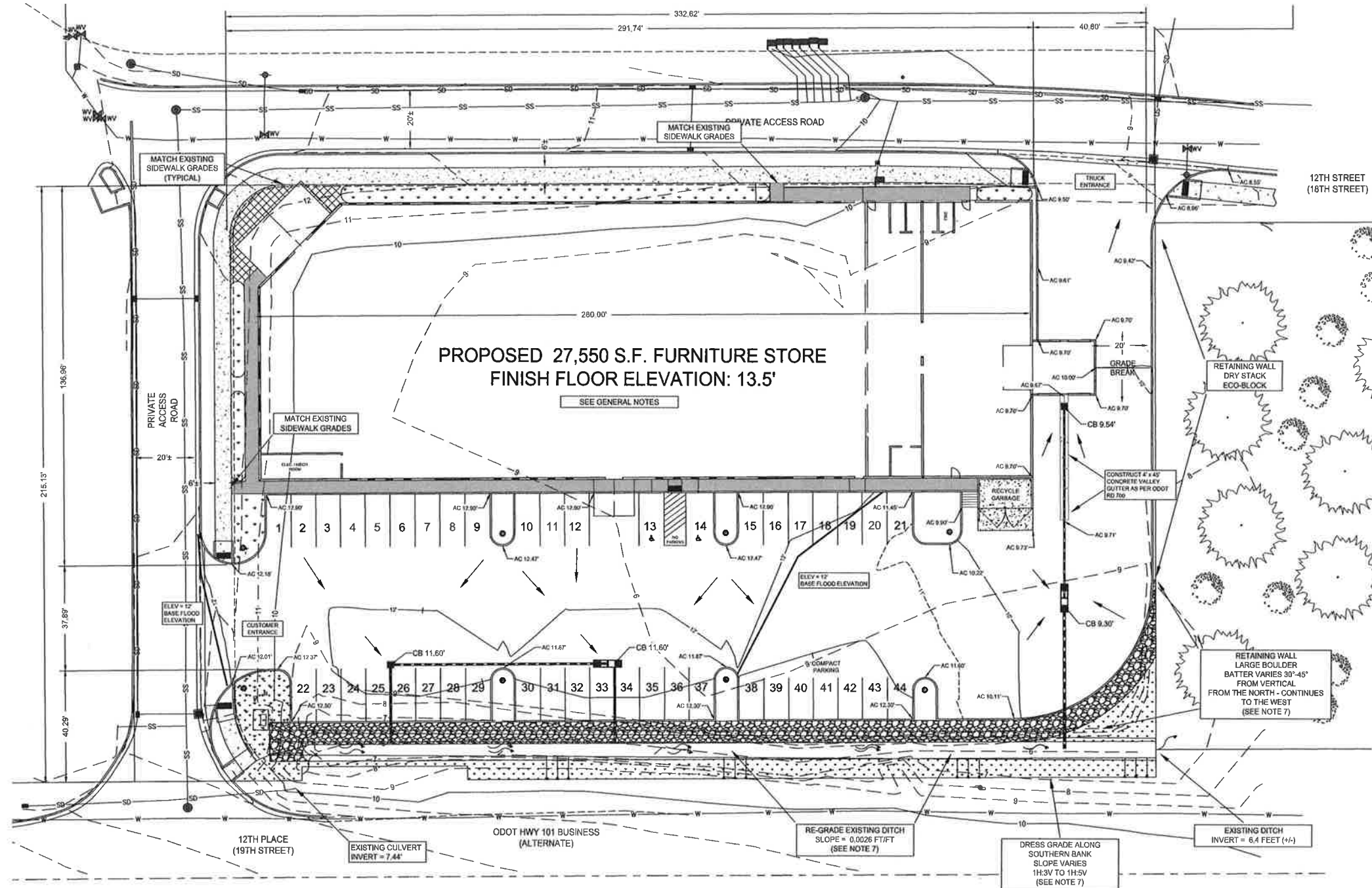
**ROBY'S FURNITURE**  
**SITE DRAINAGE AND GRADING PLAN**  
**GENERAL SHEET NOTES**  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:

**C5.0**

PERMIT SET



**1 SITE DRAINAGE AND GRADING**  
 C5.0 1" = 20'

**GENERAL SHEET NOTES:**

- EXISTING SITE IS PARTIALLY FILLED AND REQUIRES STRUCTURAL FILL AND SURCHARGE PRE-CONSOLIDATION TO ESTABLISH SUITABLE FOUNDATION CONDITIONS. A PHASED EARTH-WORK PROGRAM IS PROPOSED. SEE SHEETS C6.0, C6.1 & C6.2.
- ALL SITE EXCAVATION AND GRADING TO FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT, TERRA ASSOCIATES, INC., APRIL 12, 2021.
- SEE SHEET C6.2 FOR ESTIMATED EXCAVATION, STRUCTURAL FILL AND SURCHARGE MATERIAL QUANTITIES.
- NO STRUCTURES CURRENTLY OCCUPY THE SITE.
- FINISH GRADE OF MAIN PARKING LOT IS GRADED ABOVE FEMA FLOOD HAZARD ELEVATION OF 12.0'. TRUCK LOADING AREA IS LOWER...SIMILAR TO ELEVATION OF EXISTING PRIVATE DRIVE AT NORTH AND ALT. HWY 101 AT SOUTH.
- ROOF AND FOUNDATION DRAINS ROUTE DIRECTLY TO SOUTH DRAINAGE DITCH. PARKING AREA DRAINAGE ROUTES TO STORMFILTER WATER QUALITY TREATMENT FACILITIES PRIOR TO DISCHARGE SOUTH TO EXISTING DRAINAGE DITCH. NORTHWEST TRUCK ENTRANCE DRAINAGE ROUTES TO EXISTING CATCHBASIN NEAR ENTRANCE. SEE SHEET C11.0, STORMWATER DRAINAGE-PLAN AND PROFILES.
- EXISTING DRAINAGE DITCH: LARGE BOULDER RETAINING WALL ON NORTH SIDE. AND REGRADING OF DITCH BOTTOM AND SOUTH BANK FOR IMPROVED DRAINAGE FLOW, AESTHETICS AND MAINTENANCE.
- GRADING IS CLASSIFIED AS ENGINEERED GRADING PER CITY CODE AND REQUIRES ENGINEERING MONITORING DURING CONSTRUCTION. CONTRACTOR TO COORDINATE WITH ENGINEER AS REQUIRED.
- SEE DEQ NPDES 1200-C PERMIT AND ESCP SHEETS C14.0, C14.1, C14.2, C14.3 & C14.4 FOR EROSION AND SEDIMENTATION CONTROL REQUIREMENTS.





REV	DATE	DESCRIPTION

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John@strickerengineering.com



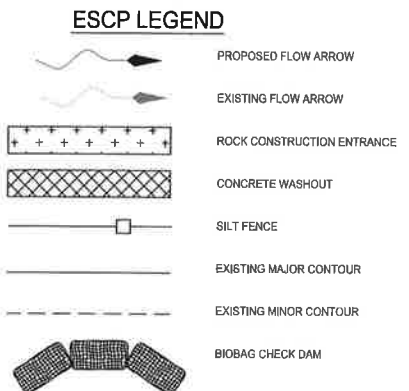
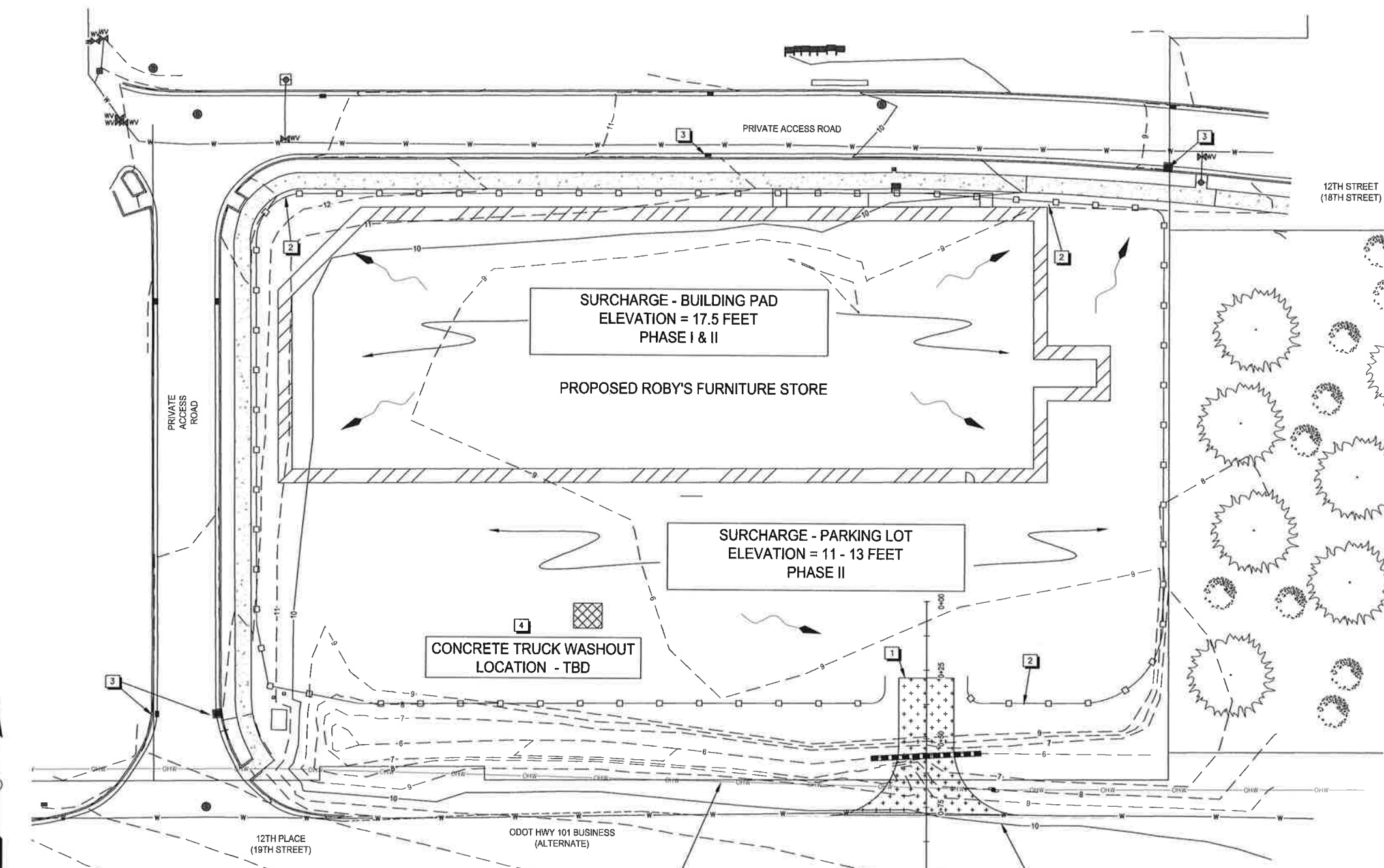
PENDING DEQ REVIEW

**ROBY'S FURNITURE  
ESCP PHASE I & II**

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

**C14.2**



**ESCP - PHASE I + II**  
SCALE: HORIZONTAL 1"=20'

**EROSION CONSTRUCTION NOTES**

- 1 INSTALL CONSTRUCTION ENTRANCE AS PER SHEET C14.4, ODOT RD1000
- 2 INSTALL SEDIMENT FENCE (TYP) AS PER SHEET C14.4, ODOT RD1040
- 3 INSTALL INLET PROTECTION AS PER SHEET C14.4, ODOT RD1010
- 4 INSTALL CONCRETE TRUCK WASHOUT AS PER SHEET C14.4, ODOT RD1070

**REDUCED DRAWING  
VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST  
SCALES ACCORDINGLY

**EXISTING SOUTHERN DITCH**

THIS EXISTING DITCH LINE WILL HAVE BANK MODIFICATION - RETAINING WALL CONSTRUCTION ALONG THE NORTHERN BANK - SEE SHEETS - C X SERIES FOR THE SPECIFIC CONSTRUCTION OF THESE STRUCTURES.

**TIME LINE:** THE CONSTRUCTION SEQUENCE WILL BE DETERMINED BY THE CONTRACTOR AND WEATHER/SEASON CONSIDERATIONS.

**ODOT TEMPORARY CULVERT:** WILL BE THE FIRST CONSTRUCTION IN THIS AREA. ACTUAL LOCATION TO BE DETERMINED AND APPROVED BY ODOT.

**ESCP - BMP:** BEST PRACTICES WILL BE USED IN THE CONSTRUCTION OF THE RETAINING WALLS AND DITCH SLOPE.

**TEMPORARY CONSTRUCTION ACCESS ROAD**

CONTRACTOR TO CONSTRUCT TEMPORARY ROAD ACROSS AN EXISTING DITCH. THIS ACCESS IS FOR THE HAULING OF THE STRUCTURAL FILL FOR THIS SITE - OVER 15,000 CY. THIS STRUCTURAL FILL WILL BE USED FOR SURCHARGING OF THE BUILDING AND PARKING SITE.

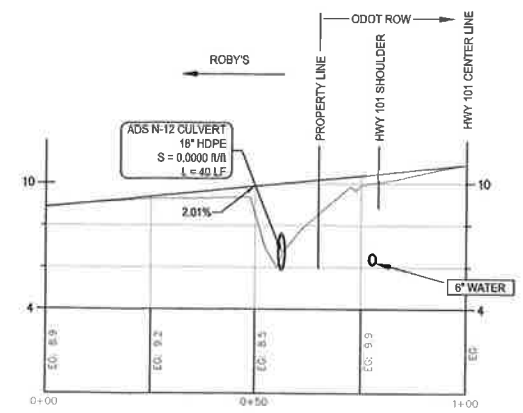
AN 18"Ø CULVERT WILL BE PLACED IN THE EXISTING DITCH LINE FOR THIS CROSSING. COMPACTED FILL WILL BE USED FOR BACKFILL AND PIPE ZONE MATERIAL. RIP RAP (4"-6") WILL BE USED FOR THE TWO PIPE ENDS.

**EXISTING STORM DRAINAGE:** STORM FLOWS WEST TO EAST - ALONG THIS EXISTING DITCH. AT THE WEST END - THERE IS AN EXISTING 18"Ø CULVERT DISCHARGING TO THIS DITCH LINE.

**BACKGROUND:** THIS CULVERT CROSSING SITE WAS USED BY THE OWNERS OF THIS SITE - FOR SITE DEVELOPMENT. THE CULVERT WAS REMOVED AFTER THE INITIAL CONSTRUCTION.

**ODOT TEMPORARY PERMIT - ACCESS:**

1. CONTRACTOR IS SUBMITTING FOR A PERMIT FOR THIS ACCESS.
2. ODOT SHALL APPROVE LOCATION. CONSTRUCTION RAMP COULD MOVE TO THE WEST DEPENDING ON ODOT DETERMINATION.



CONSTRUCTION ENTRANCE 101 PROFILE: 0+00-1+00  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft

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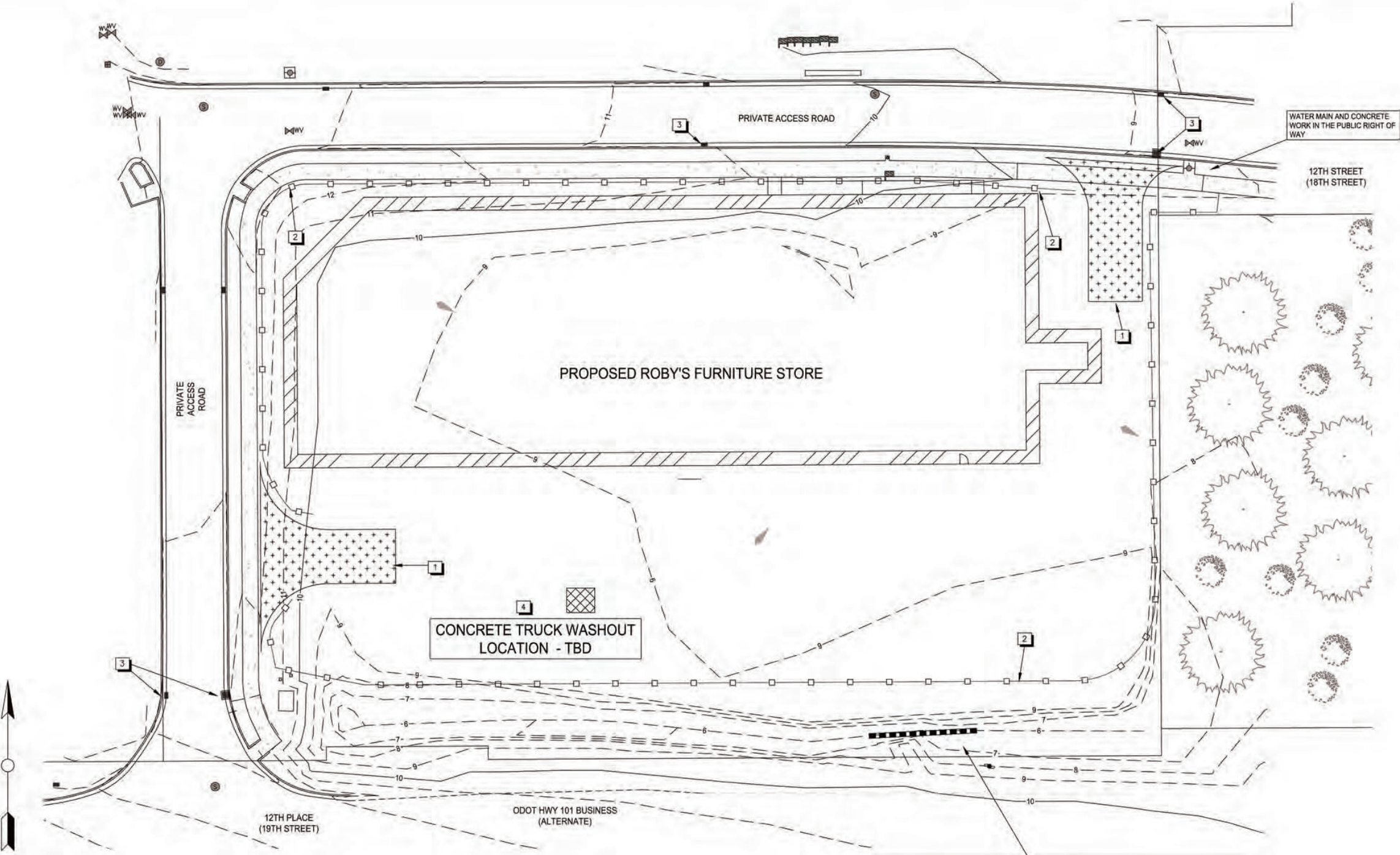
105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com



PENDING DEQ REVIEW  
 ROBY'S FURNITURE  
 ESCP BUILDING CONSTRUCTION  
 WAPRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:  
**C14.3**  
 164



**ESCP LEGEND**

- PROPOSED FLOW ARROW
- EXISTING FLOW ARROW
- ROCK CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- SILT FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- BIOBAG CHECK DAM

**ESCP - BUILDING CONSTRUCTION**  
 SCALE: HORIZONTAL 1"=20'



**EROSION CONSTRUCTION NOTES**

- 1** INSTALL CONSTRUCTION ENTRANCE AS PER SHEET C14.4, ODOT RD1000
- 2** INSTALL SEDIMENT FENCE (TYP) AS PER SHEET C14.4, ODOT RD1040
- 3** INSTALL INLET PROTECTION AS PER SHEET C14.4, ODOT RD1010
- 4** INSTALL CONCRETE TRUCK WASHOUT AS PER SHEET C14.4, ODOT RD1070

**TEMPORARY CONSTRUCTION ACCESS ROAD**

**PHASE II & BUILDING CONSTRUCTION - SURCHARGING OF PARKING LOT**  
 DURING THIS PHASE THE SURCHARGE STRUCTURAL FILL ROCK WILL BE MOVED AND PLACED ON THE PARKING LOT FOR SURCHARGING THIS AREA. ADDITIONALLY, THIS WILL BE THE CONSTRUCTION SURFACE FOR THE VERTICAL CONSTRUCTION.  
 PHASE III CONSTRUCTION ENTRANCE WILL BE REMOVED AT THE END OF PHASE II AND DURING THE BUILDING CONSTRUCTION.  
 ODOT TEMPORARY ACCESS (CULVERT) WILL BE REMOVED AS THE TWO (2) NEW ENTRANCES ARE CONSTRUCTED (CONCRETE CURB AND GUTTERS). THIS WILL BE COORDINATED WITH ODOT.

**REDUCED DRAWING  
 VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST  
 SCALES ACCORDINGLY

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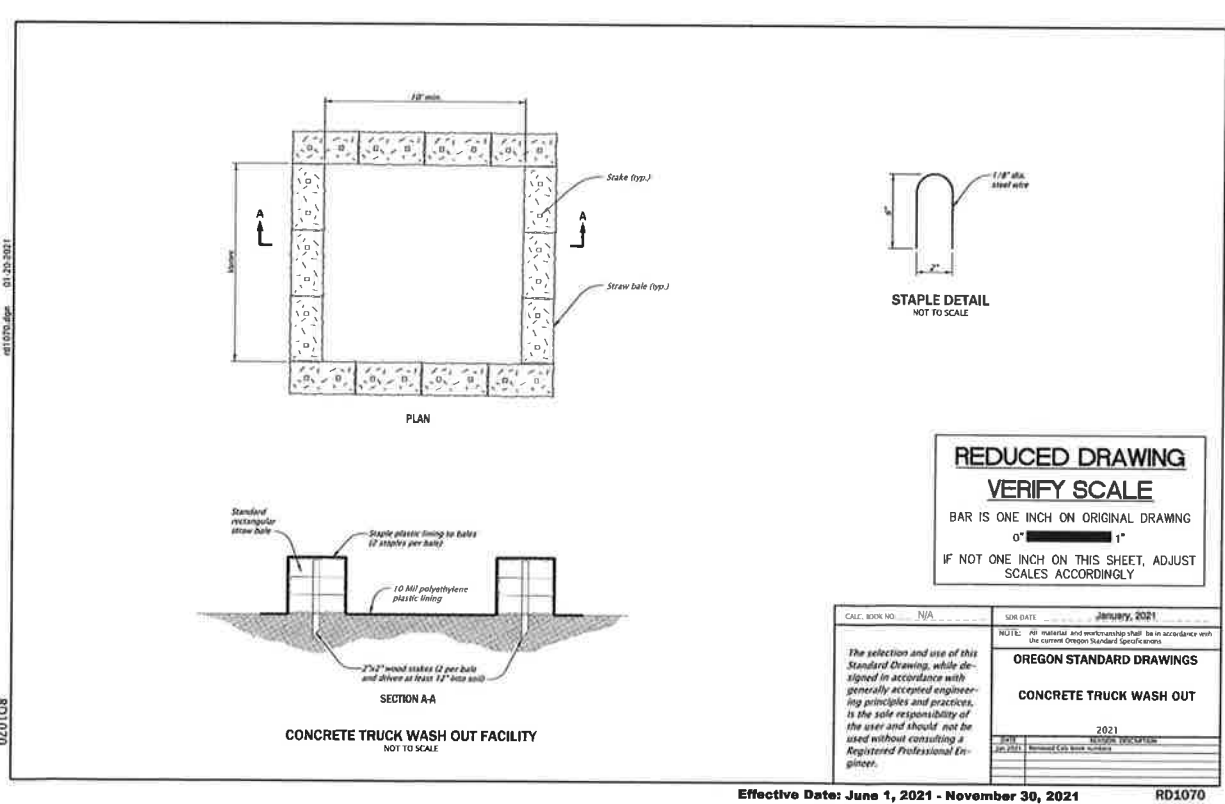
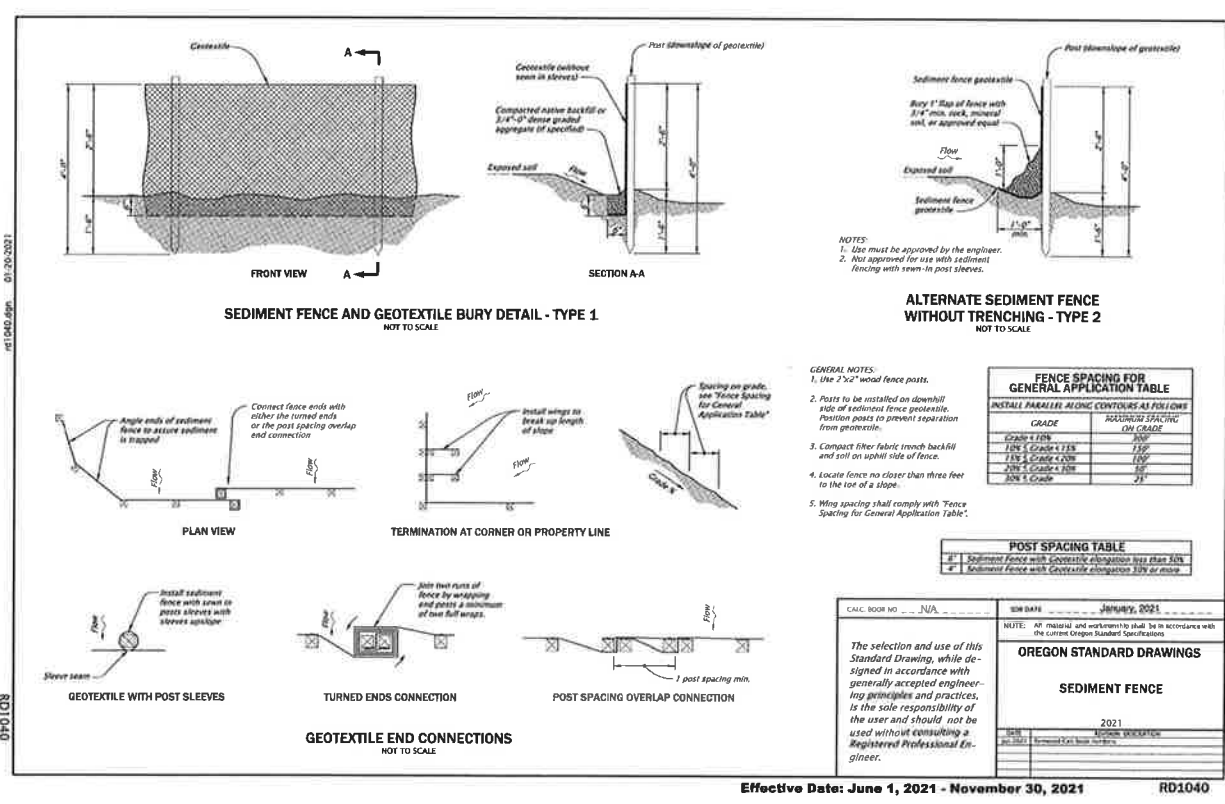
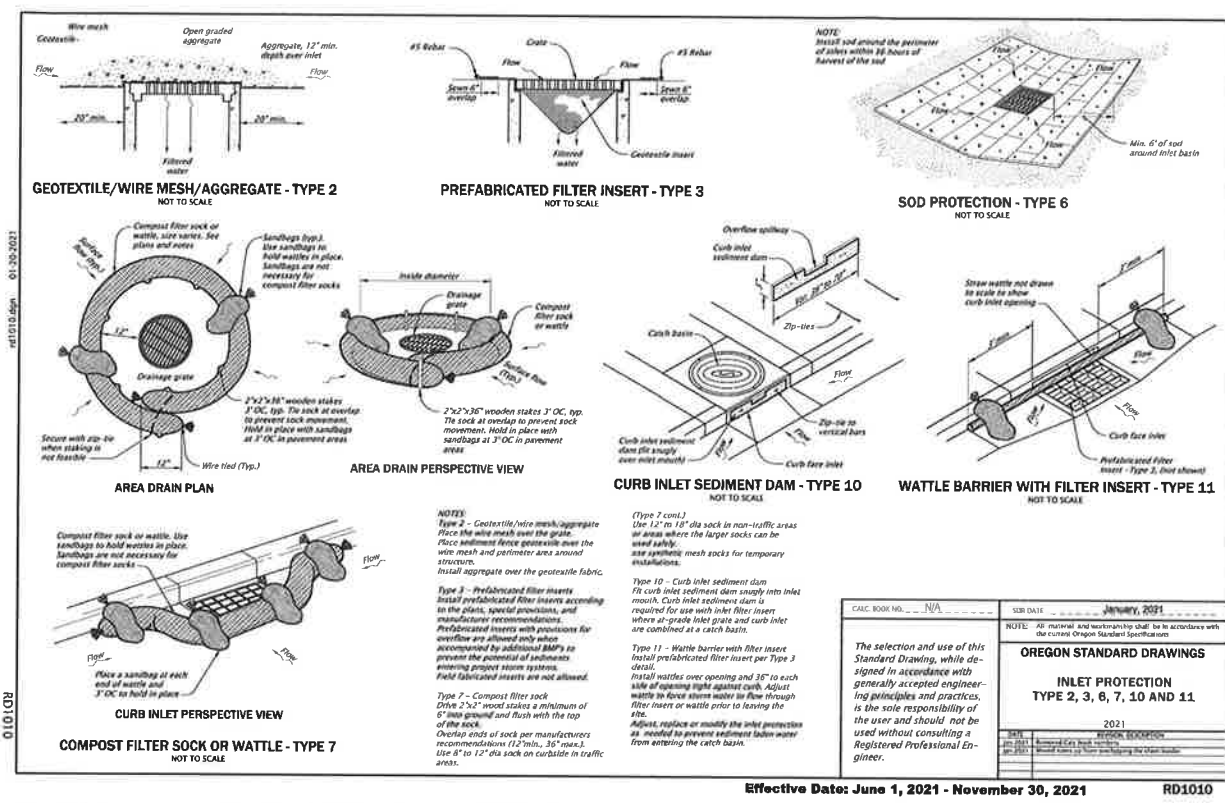
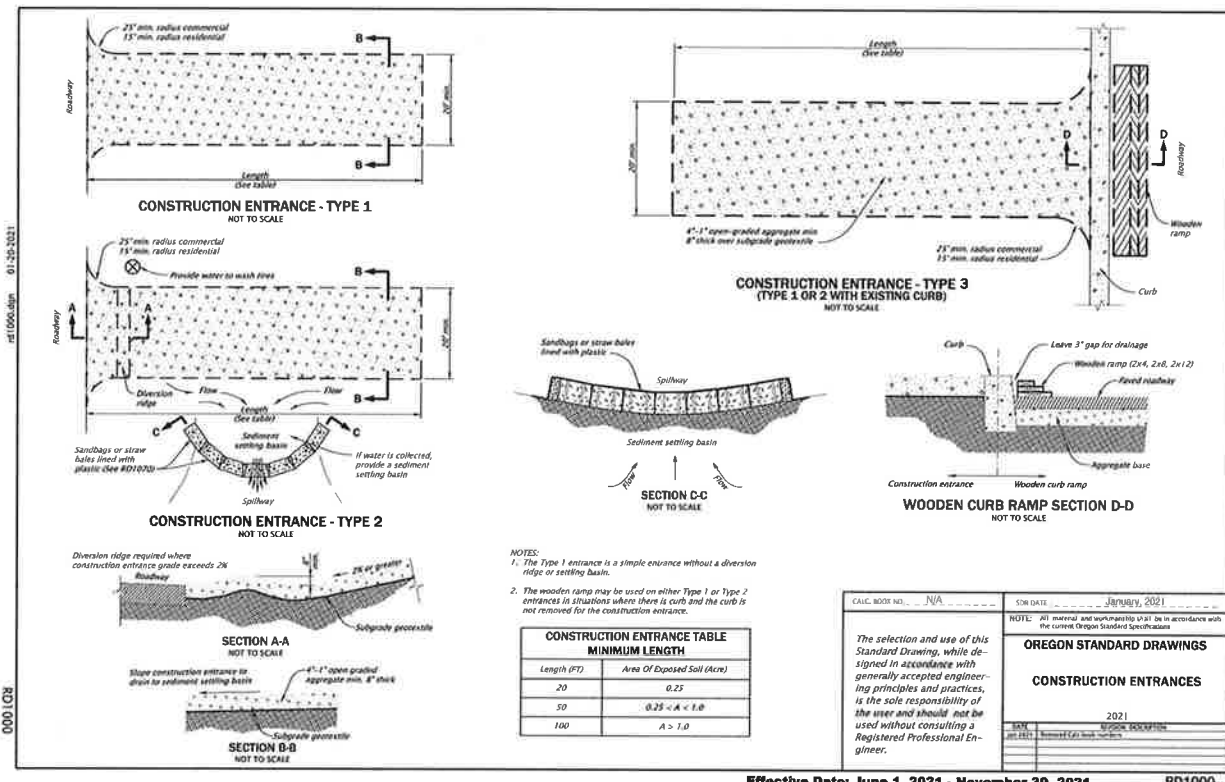
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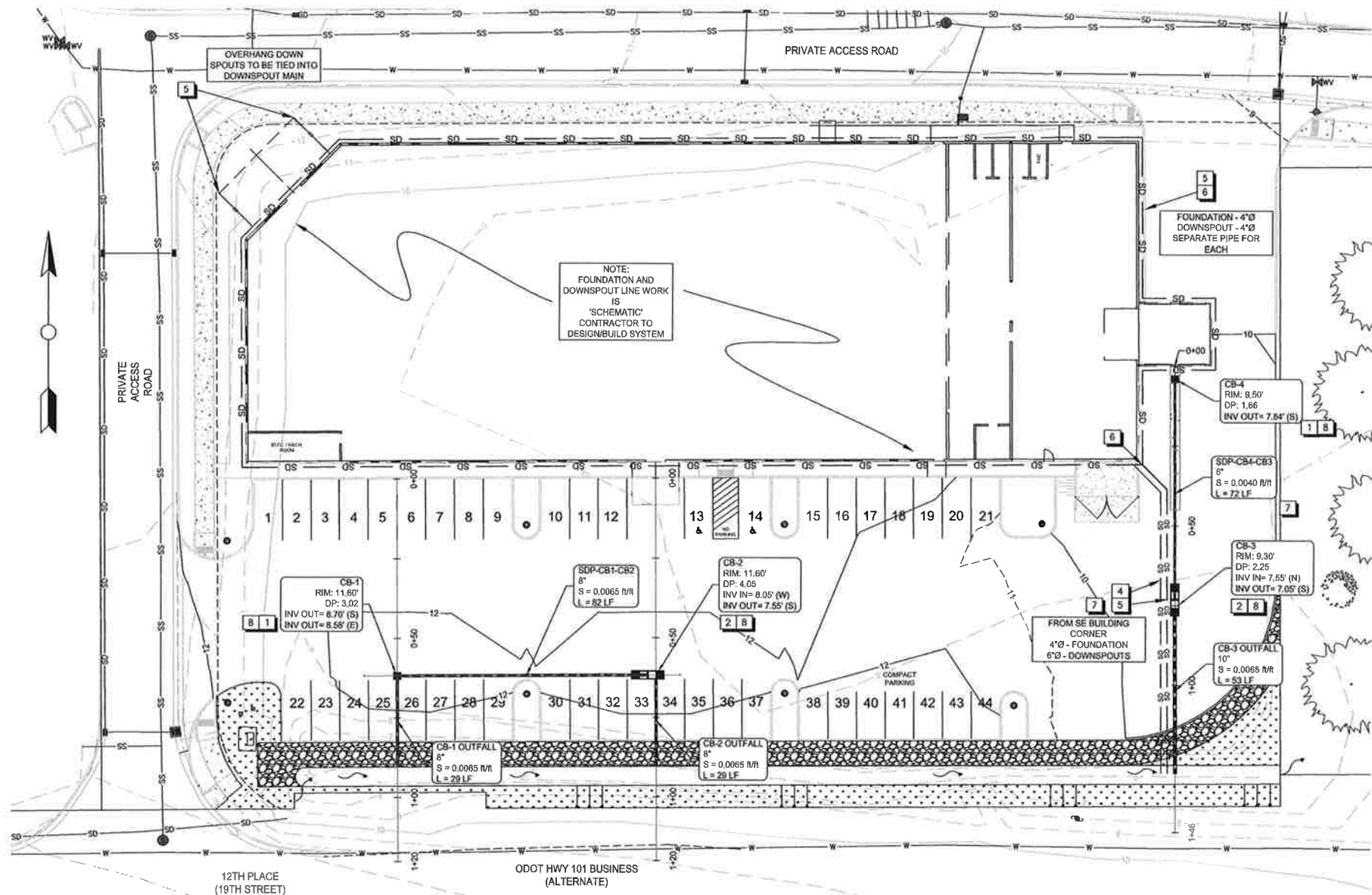
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 ROBY'S FURNITURE  
 ESCP ODOT Details  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249  
 Drawing N.O.:  
**C14.4**  
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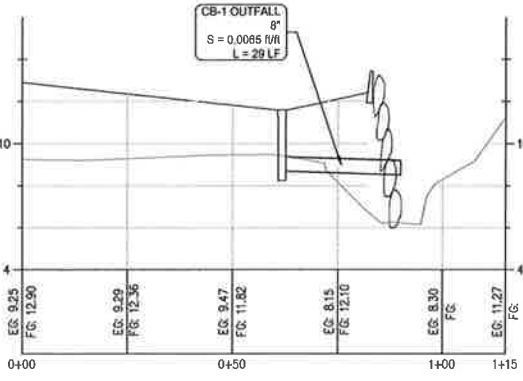


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 RD1040

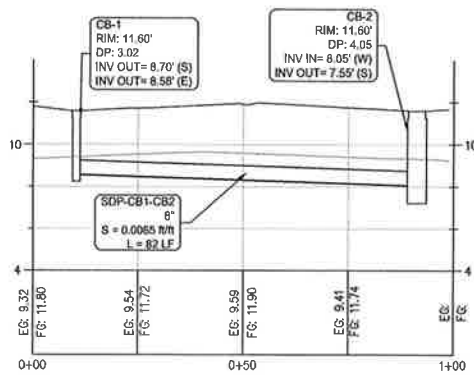
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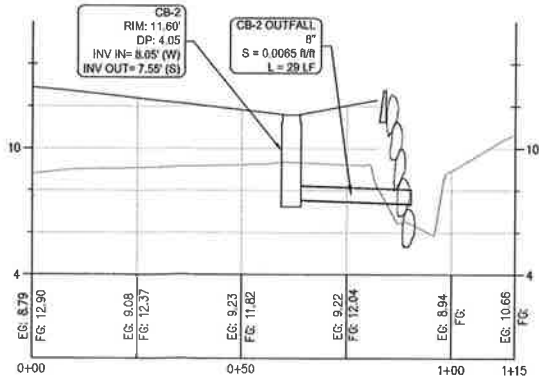
**1 STORM DRAINAGE**  
C11.0  
1" = 20'



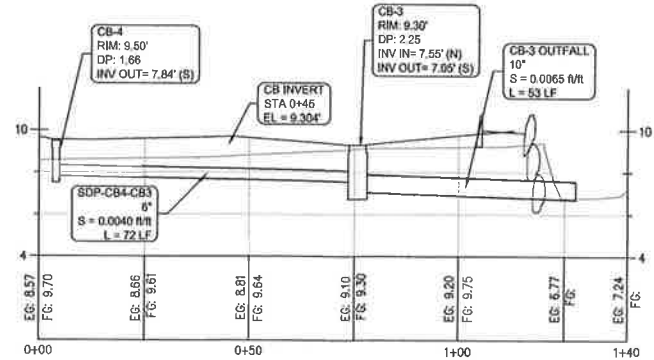
**CB-1 PROFILE: 0+00-1+15**  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft



**CB-1 TO CB-2 PROFILE: 0+00-1+00**  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft



**CB-2 PROFILE: 0+00-1+15**  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft



**CB-3 PROFILE: 0+00-1+40**  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft

**STORM DRAINAGE CONSTRUCTION NOTES**

- FURNISH AND INSTALL ODOT TYPE 3 CATCH BASIN WITH 6" RISER W/6" CONCRETE RISER. SEE DETAIL 2, SHEET C11.1 AND ODOT DETAIL RD 378.
- FURNISH AND INSTALL CONTECH CONCRETE CATCH BASIN STORMFILTER - DUAL UNIT. SEE SHEET C11.1, ALL CONTECH CATCH BASIN STORMFILTER UNITS TO BE PROVIDED WITH ANTI-BUOYANCY RINGS.
- FURNISH AND INSTALL 6" PVC ASTM 3034 PVC PIPE SHALL BE USED AS PER TRENCH DETAIL 1, SHEET C11.1
- FURNISH AND INSTALL 6" PVC ASTM 3034 PVC PIPE SHALL BE USED AS PER TRENCH DETAIL 1, SHEET C11.1
- FURNISH AND INSTALL 4" PVC ASTM 3034 PVC PIPE SHALL BE USED AS PER TRENCH DETAIL 1, SHEET C11.1
- FURNISH AND INSTALL CHECK VALVE FOR FOUNDATION DRAIN - LOCATION TO BE DETERMINED IN FIELD AND DESIGN/BUILD.
- FOR STORM PIPES (STORM, FOUNDATION, AND DOWNSPOUTS) - CONTROLLED DENSITY FILL (CDF - CONTROLLED LOW STRENGTH MATERIALS - ODOT SECTION 00442) SHALL BE USED WITH PIPES LESS THAN 24" OF COVER, THIS SHALL BE IN VEHICLE TRAVEL AREAS.
- PER GEOTECHNICAL REPORT, OVER-EXCAVATE BENEATH ALL CATCH BASINS AND PROVIDE 2 FT TO 4 FT OF STRUCTURAL FILL AS FOUNDATION SUPPORT. INSTALL MIRAFI 500X OR APPROVED EQUAL GEOTECHNICAL TEXTILE BETWEEN EXISTING GROUND SUB-BASE AND STRUCTURAL FILL.

Structure Table

Structure Name	Structure Details
CB-3	RIM = 9.30' SDP-CB4-CB3 INV IN = 7.55' CB-3 OUTFALL INV OUT = 7.05'
CB-4	RIM = 9.50' SDP-CB4-CB3 INV OUT = 7.84'
CB-1	RIM = 11.60' CB-1 OUTFALL INV OUT = 8.70' SDP-CB1-CB2 INV OUT = 8.58'
CB-2	RIM = 11.60' SDP-CB1-CB2 INV IN = 8.05' CB-2 OUTFALL INV OUT = 7.55'

PIPE TABLE - Storm

NAME	SIZE	START	END	LENGTH (ft)	SLOPE	START INV	END INV
SDP-CB4-CB3	6"	CB-3	CB-4	72'	0.40%	7.55'	7.84'
CB-3 OUTFALL	10"	CB-3		52'	0.85%	7.05'	6.71'
CB-2 OUTFALL	6"	CB-2		28'	0.65%	7.55'	7.38'
SDP-CB1-CB2	8"	CB-1	CB-2	81'	0.65%	8.58'	8.05'
CB-1 OUTFALL	8"	CB-1		28'	0.85%	8.70'	8.52'

**FOUNDATION AND DOWNSPOUT STORM DRAINAGE NOTES**

- DESIGN - BUILD: CONTRACTOR SHALL FURNISH AND INSTALL ALL DRAINAGE SYSTEMS.**
- COMMON DESIGN ELEMENTS:**
- 4" OR 6" ASTM 3034 SDR 35 PVC PIPE - GASKETED JOINTS
  - CLEANOUTS INSTALLED AS PER COMMON TRADE PRACTICE. CONTRACTOR TO PROVIDE DRAWING SHOWING LOCATIONS. CLEANOUTS TO BE BROUGHT TO THE SURFACE. CLEANOUTS IN CONCRETE OR ASPHALT SHALL BE CAST IRON.
  - TRACER WIRE INSTALLED AND BROUGHT UP BY CLEANOUTS.
  - PVC MAINS TO HAVE A MINIMUM OF 2 FEET OF COVER OVER PIPE - IN CONCRETE AND ASPHALT AREAS.
  - DRAINS TO HAVE A MINIMUM OF 1/4" PER 12" GRADE - ONCE PAST THE BUILDING - GOING TO THE DRAINAGE (SOUTH). CONTRACTOR TO VERIFY DEPTHS AND GRADES, PRIOR TO INSTALLATION.
  - NOTE: PLAN DRAWING IS SCHEMATIC ONLY** - CONTRACTOR TO PROVIDE DRAWING WITH GRADES AND DEPTHS PRIOR TO INSTALLATION.
- FOUNDATION DRAIN**
- SHALL DESIGN AND INSTALL AS PER GEO-TECH'S DETAIL 3, SHEET C11.1.
- DOWNSPOUTS**
- SHALL DESIGN AND BUILD.
  - 4" PIPE SHALL BE USED AROUND THE PERIMETER OF THE BUILDING. 6" WILL BE USED FOR THE OUTFALL PIPING.
  - CONTRACTOR TO PROVIDE:
    - LOCATION AND NUMBER OF DOWNSPOUTS
    - EACH DOWNSPOUT - SHALL HAVE WYE AND THREADED PLUG - CLEANOUT
    - SUBMITTAL ON DOWNSPOUTS (SQUARE OR ROUND)
    - SUBMITTAL ON PIPE FITTING - DOWNSPOUT (SQ. OR ROUND) TO WYE



NO.	DESCRIPTION	REV.	DATE

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**ROBY'S FURNITURE**  
STORMWATER DRAINAGE-PLAN & PROFILES

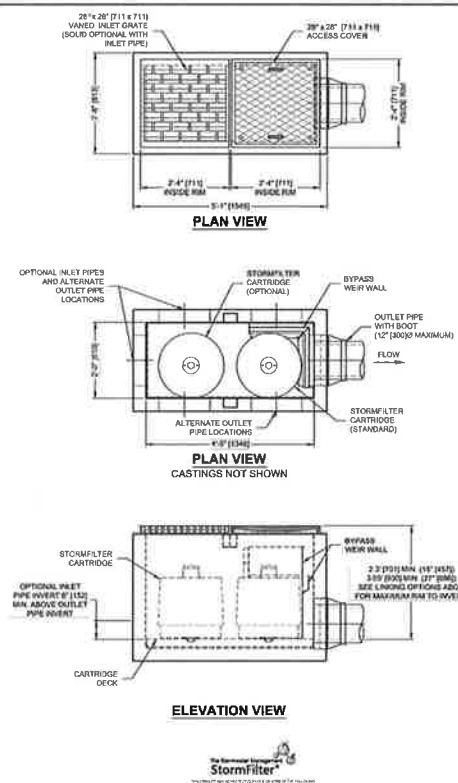
DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012111249

Drawing N.O.:

**C11.0**

PERMIT SET

WARRENTON, OREGON



### STORMFILTER DESIGN NOTES

- CONCRETE CATCHBASIN STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCAL APPROVALS
- PEAK CATCHBASIN CAPACITY IS 1.2 CFS
- CONCRETE CATCHBASIN STORMFILTER IS AVAILABLE WITH UP TO TWO (2), 18" (457) OR 24" (609) TALL CARTRIDGES
- UP TO 4 INDIVIDUAL UNITS MAY BE LINKED FOR AN ULTIMATE CAPACITY OF EIGHT (8) CARTRIDGES

CARTRIDGE SIZE (in. High)	27" (688)	36" (914)	45" (1143)	54" (1371)	63" (1600)	72" (1828)	81" (2057)	90" (2286)
TYPICAL FLOW RATE (GPM @ 2.0 FT)	2.1 (81)	2.8 (106)	3.5 (129)	4.2 (155)	4.9 (181)	5.6 (206)	6.3 (232)	7.0 (258)
CARTRIDGE FLOW RATE (GPM @ 2.0 FT)	0.53 (20)	0.70 (26)	0.88 (33)	1.05 (39)	1.22 (46)	1.40 (53)	1.58 (59)	1.75 (65)

1.57 GPM @ 1.33 FPM SPECIFIC FLOW RATE IS APPROVED WITH PREPAREDNESS PROGRAMS (SPECS) MEDIA ONLY

LINKAGE OPTIONS SHOWN BELOW. FLEXIBLE INLET PIPE, GRATED AND SOLID COVER PLACEMENT. MAXIMUM HEIGHT FOR LINKED UNITS VARIES. CONTACT YOUR CONTECH REPRESENTATIVE FOR MORE INFORMATION

QUAD UNIT      TRIPLE UNIT      DUAL UNIT      SINGLE UNIT

MAXIMUM RIM TO INVERT = 4'-0" (1219)      MAXIMUM RIM TO INVERT = 8'-0" (2438)      MAXIMUM RIM TO INVERT = 8'-0" (2438)      MAXIMUM RIM TO INVERT = 8'-0" (2438)

### GENERAL NOTES

- CONTACT US TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH (1) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- ALTERNATE CONNECTIONS AND WELL HEADS (H) UNLESS NOTED OTHERWISE.
- FOR FURNISHING DRAWINGS WITH EXACT (1) STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE: www.contechllc.com
- STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- FILTER CARTRIDGES SHALL BE MEDIA-FILTER PASSIVE, SPONGE-ACTIVATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DOPFN SHALL BE 7 INCHES (178) FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 18 SECONDS.
- SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF) (H).
- STRUCTURE SHALL MEET ASHTO HIGH LOAD RATING, ASSURANCE EARTH COVER OF 7'-0" (213) AND GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M300 AND BE CAST WITH THE CONTECH LOGO.

### INSTALLATION NOTES

- MIN. 6" (152) BACKFILL DEPTH AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC. DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
- CONTRACTOR TO PROVIDE AND INSTALL INVERT. MATCH PIPE INVERTS SHOWN ON PROJECT SPECIFIC DRAWINGS.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

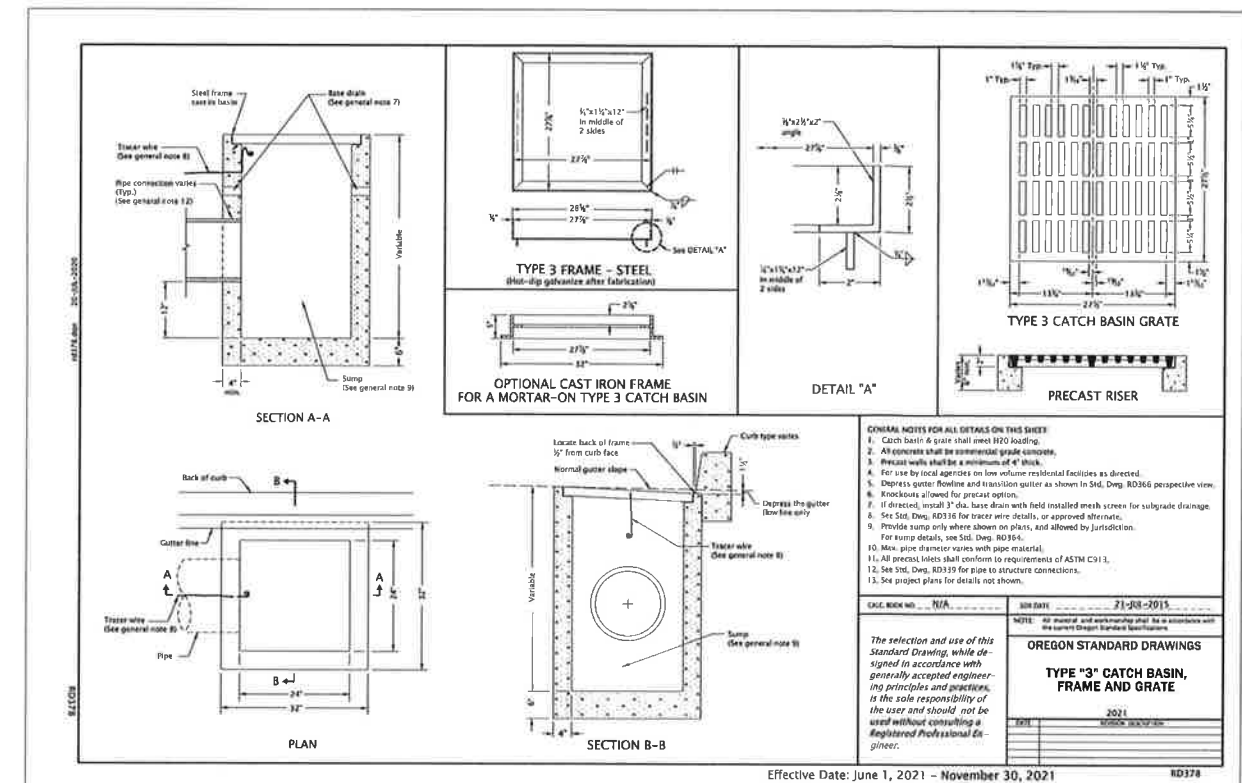
### SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE #	WATER QUALITY FLOW RATE (GAL/HR)	PEAK FLOW RATE (GAL/HR)	PEAK FLOW RATE (MGD)	PEAK FLOW RATE (MGD)	CARTRIDGE SIZE (in. High)	CARTRIDGE FLOW RATE (GPM @ 2.0 FT)	MEDIA TYPE (BRUNNLE, POLY FIBER)	NUMBER OF CARTRIDGES REQUIRED	FINISH ELEVATION	PIPE DATA	INVERT	MATERIAL	DIAMETER

NOTES/SPECIAL REQUIREMENTS:

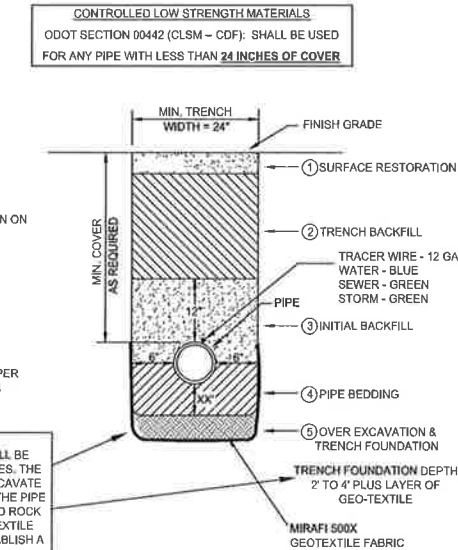
CONTECH ENGINEERED SOLUTIONS LLC  
11115 NE 61st Street, Vancouver, WA 98666-1111  
www.contechllc.com  
P: 503.251.1111      F: 503.251.1111      E: info@contechllc.com

MACARTHUR STUDIO - 682238-010  
CONCRETE CATCHBASIN STORMFILTER

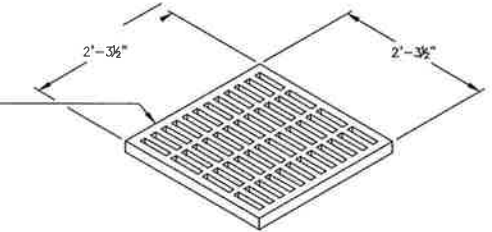


NOTE: CATCH BASIN STORMFILTER UNITS TO BE PROVIDED WITH CONCRETE BUOYANCY RINGS

- NOTES:
- \* ALL DIMENSIONS SHOWN ARE MINIMUM AND RELATIVE TO OUTSIDE OF PIPE BELL.
  - \* MINIMUM COVER:  
STORM MAIN = 24"  
WATER MAIN = 30"  
SEWER MAIN = 36"
- TRENCH MATERIAL:
- MATCH FINISH GRADE MATERIALS AS SHOWN ON PLANS.
  - COMPACTED 3/4"-0" CRUSHED ROCK
  - COMPACTED 3/4"-0" CRUSHED ROCK
  - COMPACTED 3/4"-0" CRUSHED ROCK
  - OVER EXCAVATE & INSTALL 1-1/2" MINUS COMPACTED CRUSHED ROCK IF TRENCH FOUNDATION STABILIZATION IS REQUIRED, PER GEOTECHNICAL REPORT, EXPECT 2'-4" OVER EXCAVATION REQUIREMENT.

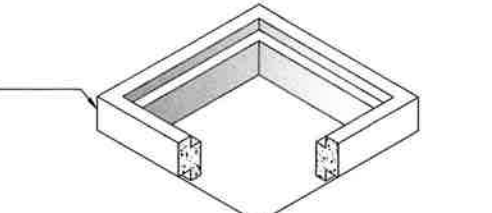


ODOT TYPE 3 GRATE  
215 lbs.

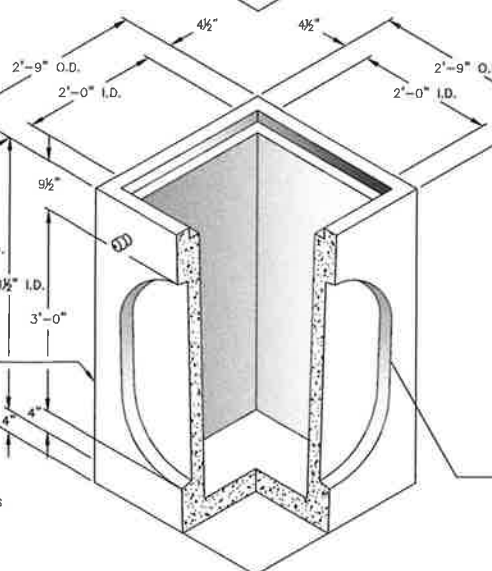


ODOT TYPE 3 RISER

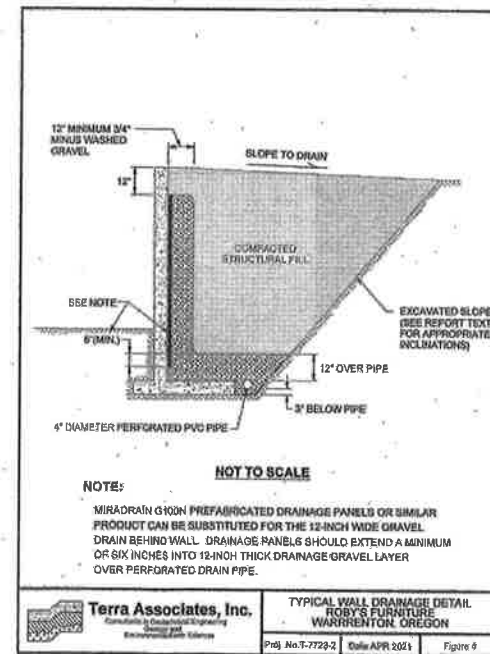
Height	Weight
4"	180 lbs.
6"	270 lbs.
12"	540 lbs.



ODOT TYPE 3 BASE  
2,030 lbs.



- NOTES:
- SIMILAR TO ODOT CATCH BASIN TYPE 3 SPECIFICATIONS STANDARD DRAWING NO. RD378.
  - FURNISH AND INSTALL 6" CONCRETE RISER



FOUNDATION DRAIN  
NOT TO SCALE

REDUCED DRAWING  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-822-2442  
strickerengineering.com  
John@strickerengineering.com



ROBY'S FURNITURE  
DETAILS - STORMWATER WATER QUALITY TREATMENT FACILITIES  
WARRENTON, OREGON

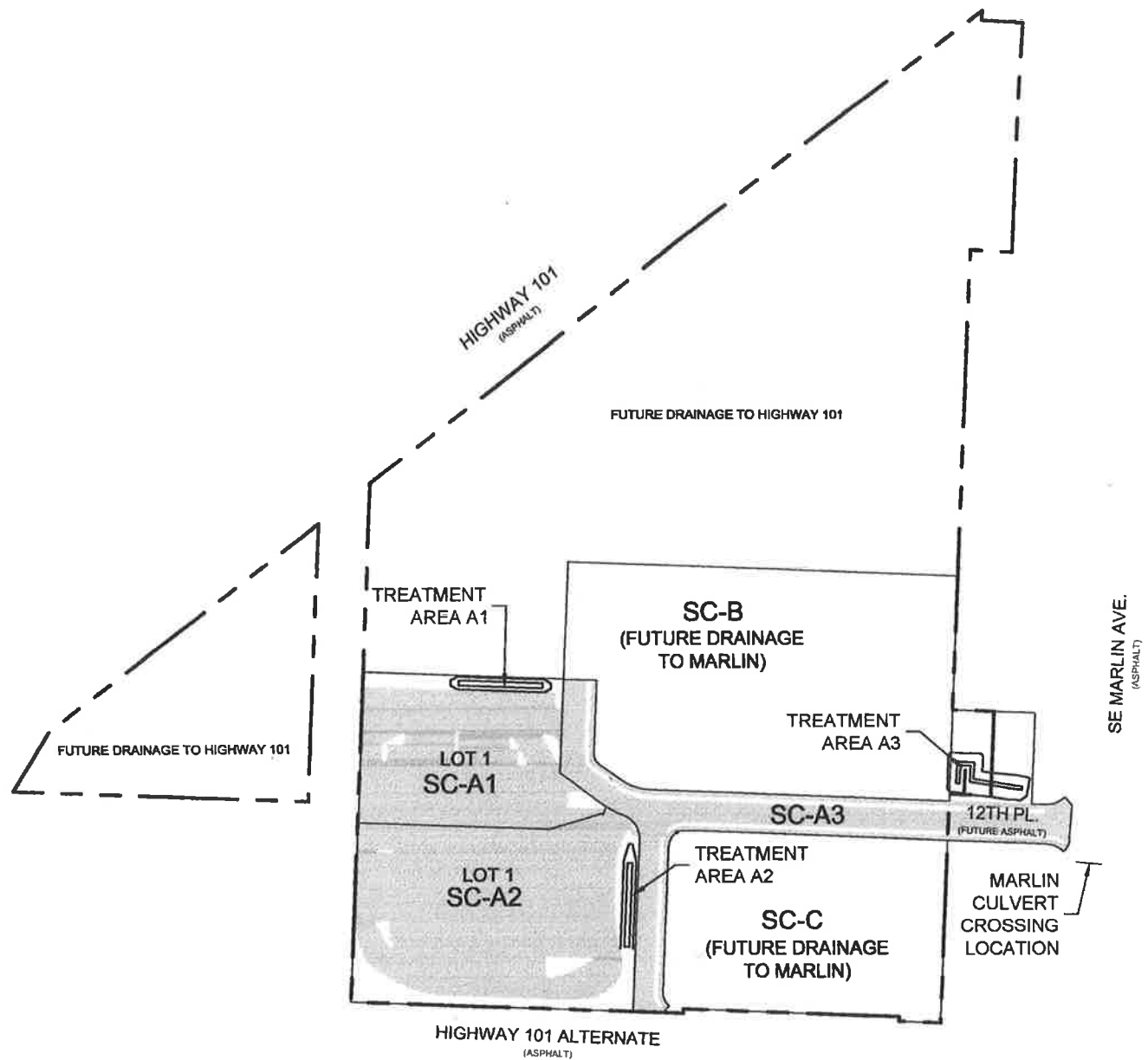
DRAWN: 05/28/2021  
ISSUED: 06/28/2021  
SCALE: AS SHOWN  
JOB NO.: 201211249  
Drawing N.O.:  
**C11.1**  
167

## **APPENDIX 2**

### **A.M. Engineering, Trondheim Acres, Lot 1 SWMP Information**



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## FIGURE 2

TRONDHEIM ACRES LOT 1  
STORMWATER MANAGEMENT PLAN

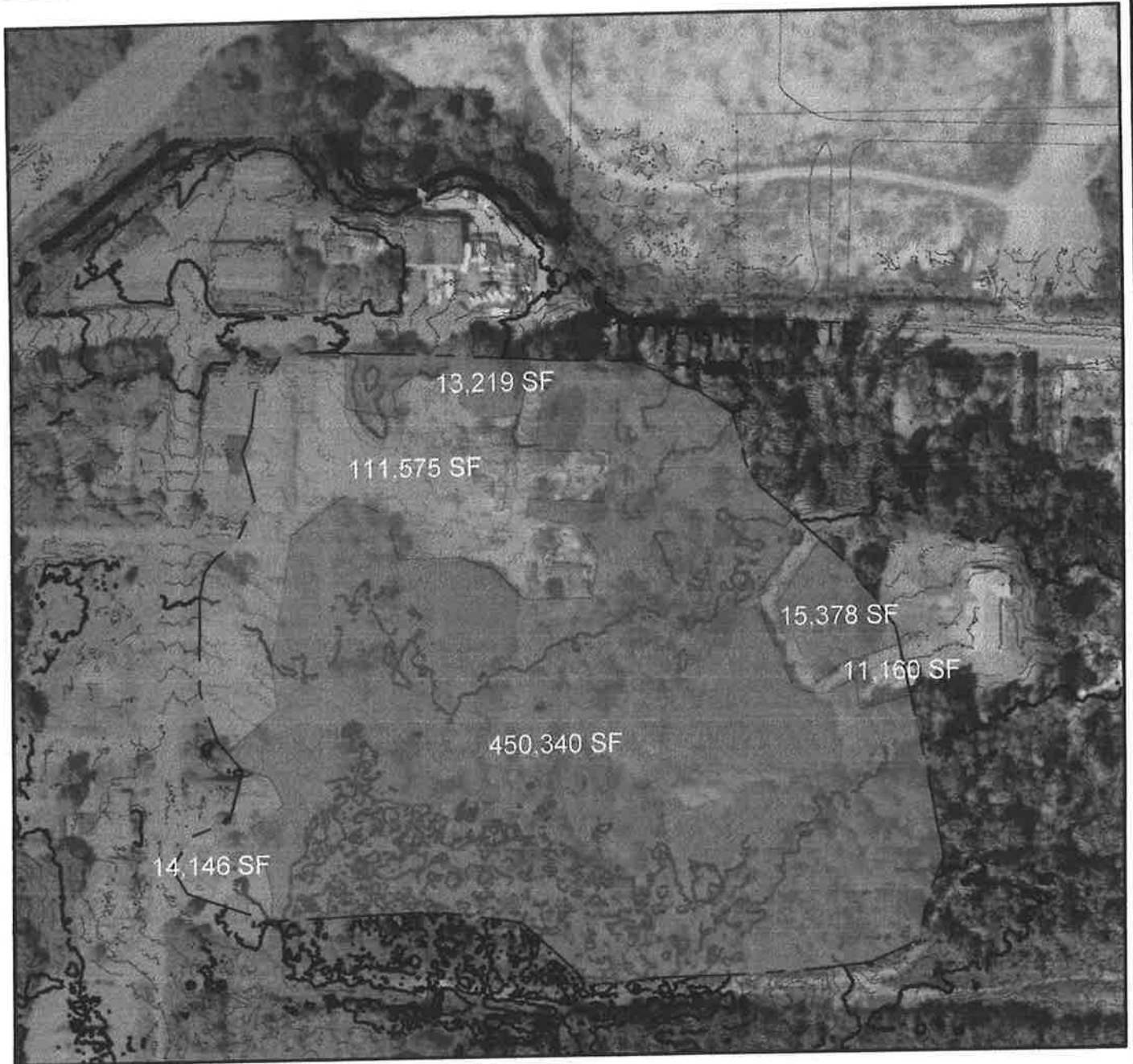
SUB-CATCHMENT AREAS

### INITIAL ISSUE

DESIGN:	DRAWN:
ADD	ADD
CHECKED:	DATE:
ADD	6/30/19

**A.M.**  
**Engineering**  
 2X 973 SEASIDE, OREGON 97138  
 3.468.8600 WWW.AMENGE.COM

07 Trondheim\ACAD\EXST DRAINAGE.dwg Plotted: By ame, 07/01/19 9:08:01 am



### FIGURE 3

TRONDHEIM ACRES LOT 1  
STORMWATER MANAGEMENT PLAN

ALT 101 CULVERT STORMWATER  
CONTRIBUTION

#### INITIAL ISSUE

DESIGN: ADD	DRAWN: ADD
CHECKED: ADD	DATE: 6/30/19

**F3**  
170 *B.*

E:\AME\\_Projects\18007 Trondheim\Stormwater\  
**Trondheim Lot 1 ALT 101 Culvert Storm**  
Prepared by A.M. Engineering  
HydroCAD® 10.00-24 s/n M15518 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 100 year Rainfall=6.10"  
Printed 06/22/19 9:19:01 pm  
Page 1

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SBUH method, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**SubcatchmentD: Alt 101 Exist Cond**

Runoff Area=602,599 sf 8.63% Impervious Runoff Depth>1.03"  
Tc=5.0 min CN=46/98 Runoff=2.02 cfs 1.183 af

**Total Runoff Area = 13.834 ac Runoff Volume = 1.183 af Average Runoff Depth = 1.03"**  
**91.37% Pervious = 12.640 ac 8.63% Impervious = 1.194 ac**

**Summary for Subcatchment D: Alt 101 Exist Cond**

Runoff = 2.02 cfs @ 8.01 hrs, Volume= 1.183 af, Depth> 1.03"

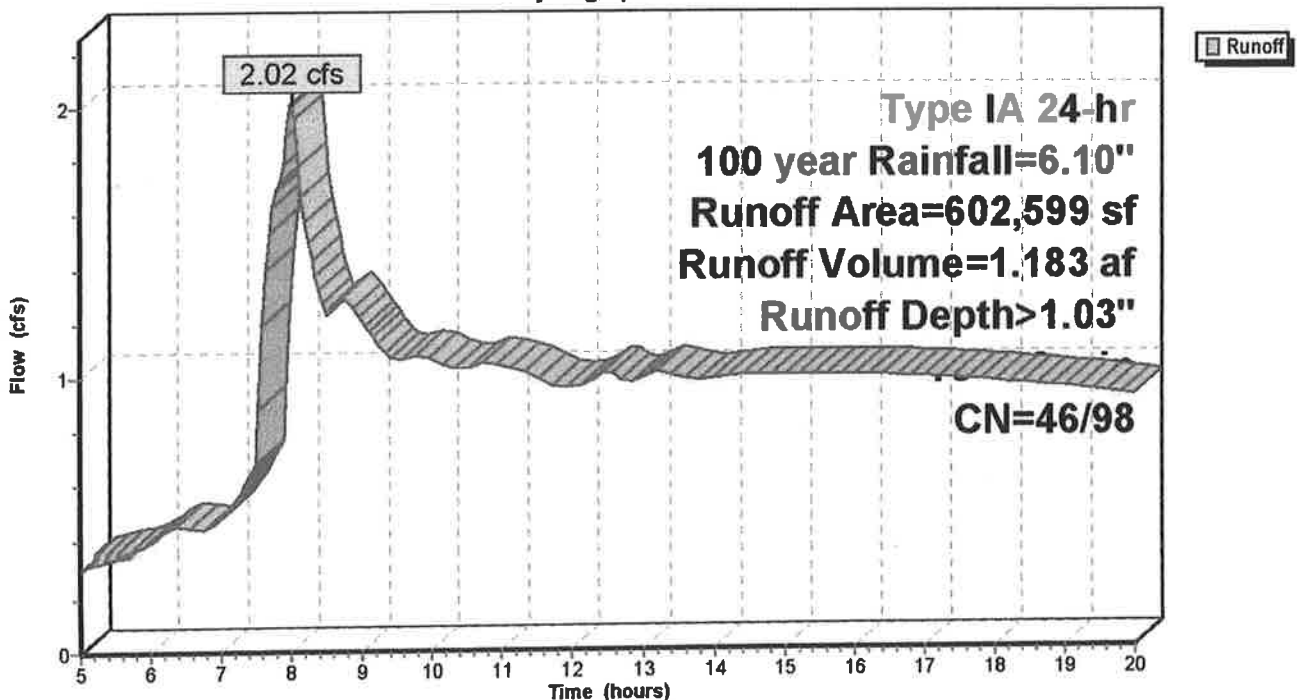
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type IA 24-hr 100 year Rainfall=6.10"

Area (sf)	CN	Description
136,881	75	1/4 acre lots, 38% imp, HSG B
465,718	43	Woods/grass comb., Fair, HSG A
602,599	50	Weighted Average
550,584		91.37% Pervious Area
52,015		8.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Subcatchment D: Alt 101 Exist Cond**

Hydrograph



**Trondheim Lot 1**

Prepared by A.M. Engineering

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

<b>SubcatchmentA1: Lot 1 North</b>	Runoff Area=44,860 sf 88.25% Impervious Runoff Depth>4.27" Tc=5.0 min CN=61/98 Runoff=1.36 cfs 0.366 af
<b>SubcatchmentA2: Lot 1 South</b>	Runoff Area=73,148 sf 83.54% Impervious Runoff Depth>4.13" Tc=5.0 min CN=61/98 Runoff=2.13 cfs 0.578 af
<b>SubcatchmentA3: Alternate and 12th</b>	Runoff Area=39,405 sf 82.14% Impervious Runoff Depth>4.09" Tc=5.0 min CN=61/98 Runoff=1.13 cfs 0.308 af
<b>SubcatchmentB: Future Development</b>	Runoff Area=118,863 sf 85.00% Impervious Runoff Depth>4.17" Tc=5.0 min CN=61/98 Runoff=3.51 cfs 0.949 af
<b>SubcatchmentC: Future Development</b>	Runoff Area=70,800 sf 85.00% Impervious Runoff Depth>4.17" Tc=5.0 min CN=61/98 Runoff=2.09 cfs 0.565 af

**Total Runoff Area = 7.968 ac Runoff Volume = 2.767 af Average Runoff Depth = 4.17"**  
**15.21% Pervious = 1.212 ac 84.79% Impervious = 6.756 ac**

**Trondheim Lot 1**

Prepared by A.M. Engineering

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Type IA 24-hr 100 year Rainfall=6.10"

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**Summary for Subcatchment C: Future Development**

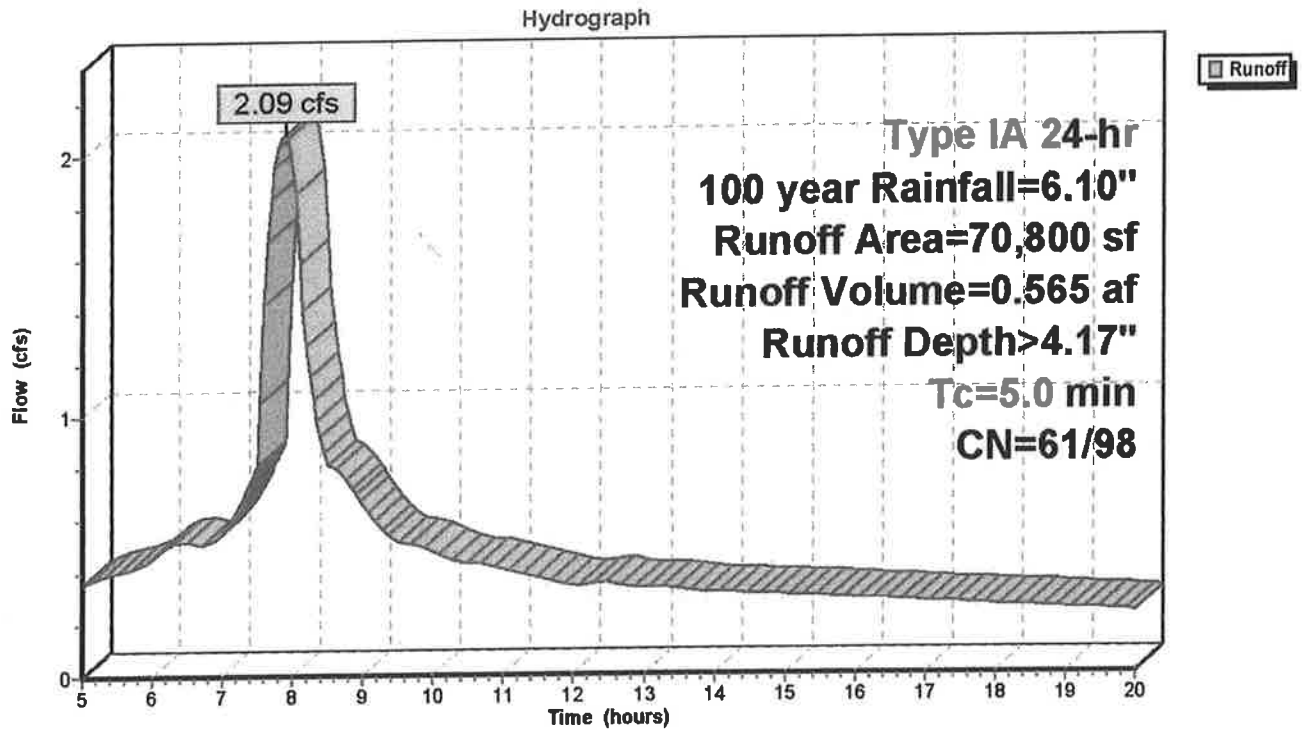
Runoff = 2.09 cfs @ 7.90 hrs, Volume= 0.565 af, Depth> 4.17"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 100 year Rainfall=6.10"

Area (sf)	CN	Description
60,180	98	Asphalt and building roof
10,620	61	>75% Grass cover, Good, HSG B
70,800	92	Weighted Average
10,620		15.00% Pervious Area
60,180		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Subcatchment C: Future Development**



**Trondheim Lot 1**

Prepared by A.M. Engineering

**Hydrograph for Subcatchment C: Future Development**

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
5.00	0.95	0.00	0.74	0.36
5.50	1.10	0.00	0.89	0.41
6.00	1.26	0.00	1.04	0.45
6.50	1.45	0.00	1.23	0.53
7.00	1.63	0.02	1.41	0.56
7.50	1.89	0.05	1.67	<b>0.81</b>
8.00	2.59	0.22	2.36	<b>2.04</b>
8.50	2.93	0.34	2.70	0.81
9.00	3.17	0.43	2.94	0.66
9.50	3.35	0.51	3.12	0.51
10.00	3.52	0.58	3.29	0.48
10.50	3.67	0.65	3.43	0.43
11.00	3.81	0.72	3.57	0.41
11.50	3.93	0.78	3.70	0.38
12.00	4.05	0.84	3.82	0.35
12.50	4.17	0.90	3.93	0.36
13.00	4.28	0.96	4.04	0.33
13.50	4.39	1.02	4.15	0.33
14.00	4.49	1.07	4.25	0.31
14.50	4.59	1.13	4.36	0.31
15.00	4.69	1.19	4.46	0.30
15.50	4.79	1.24	4.55	0.30
16.00	4.89	1.30	4.65	0.29
16.50	4.98	1.36	4.74	0.28
17.00	5.07	1.41	4.83	0.28
17.50	5.16	1.47	4.92	0.27
18.00	5.25	1.52	5.01	0.26
18.50	5.33	1.57	5.09	0.26
19.00	5.41	1.62	5.17	0.25
19.50	5.49	1.67	5.25	0.24
20.00	<b>5.57</b>	<b>1.72</b>	<b>5.33</b>	0.24

**Trondheim Lot 1**

Prepared by A.M. Engineering

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Type IA 24-hr WQ Rainfall=1.50"

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Page 21

**Summary for Subcatchment C: Future Development**

Runoff = 0.46 cfs @ 7.91 hrs, Volume= 0.122 af, Depth> 0.90"

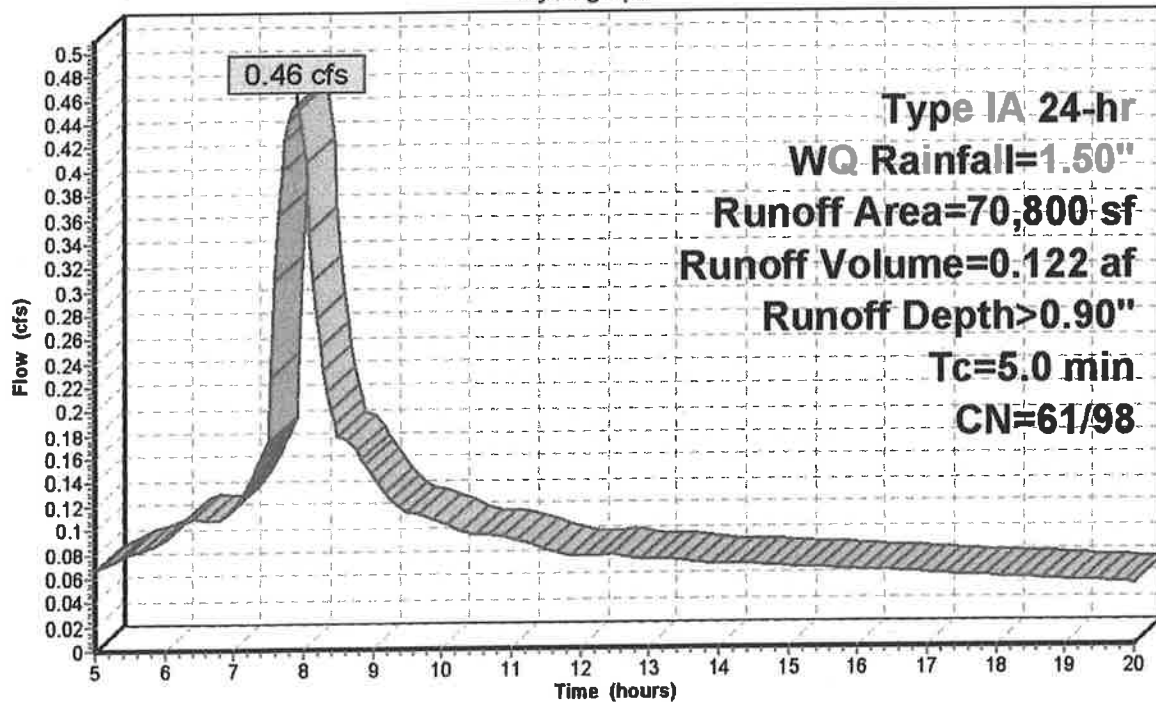
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type IA 24-hr WQ Rainfall=1.50"

	Area (sf)	CN	Description
*	60,180	98	Asphalt and building roof
	10,620	61	>75% Grass cover, Good, HSG B
	70,800	92	Weighted Average
	10,620		15.00% Pervious Area
	60,180		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Subcatchment C: Future Development**

Hydrograph





**Trondheim Lot 1**

Prepared by A.M. Engineering

Type IA 24-hr WQ Rainfall=1.50"

Printed 06/30/19 10:17:45 pm

**Hydrograph for Subcatchment C: Future Development**

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
5.00	0.23	0.00	0.09	0.07
5.50	0.27	0.00	0.12	0.08
6.00	0.31	0.00	0.15	0.09
6.50	0.36	0.00	0.19	0.11
7.00	0.40	0.00	0.23	0.12
7.50	0.47	0.00	0.29	<b>0.17</b>
8.00	0.64	0.00	0.44	<b>0.45</b>
8.50	0.72	0.00	0.52	0.18
9.00	0.78	0.00	0.58	0.15
9.50	0.82	0.00	0.62	0.11
10.00	0.87	0.00	0.66	0.10
10.50	0.90	0.00	0.70	0.09
11.00	0.94	0.00	0.73	0.09
11.50	0.97	0.00	0.76	0.08
12.00	1.00	0.00	0.79	0.08
12.50	1.02	0.00	0.81	0.08
13.00	1.05	0.00	0.84	0.07
13.50	1.08	0.00	0.87	0.07
14.00	1.10	0.00	0.89	0.07
14.50	1.13	0.00	0.92	0.07
15.00	1.15	0.00	0.94	0.07
15.50	1.18	0.00	0.96	0.07
16.00	1.20	0.00	0.99	0.06
16.50	1.22	0.00	1.01	0.06
17.00	1.25	0.00	1.03	0.06
17.50	1.27	0.00	1.05	0.06
18.00	1.29	0.00	1.07	0.06
18.50	1.31	0.00	1.09	0.06
19.00	1.33	0.00	1.11	0.05
19.50	1.35	0.00	1.13	0.05
20.00	<b>1.37</b>	<b>0.00</b>	<b>1.15</b>	0.05

## **APPENDIX 3**

### **Storm Drainage Calculations**

DATE: 5/20/21 (Revised 5/20/21, DWL)

Project No. 2012211249

By: David Leibbrandt, P.E., Stricker Engineering

**PROJECT:** ROBY'S FURNITURE AND APPLIANCE, Proposed Store, Warrenton, Oregon

**PROJECT LOCATION:** East Portion of Lot 1, Trondheim Acres

**TASK:** Storm Drainage System/SWMP Calculations

**GIVEN:**

General--Proposed 28,000 SF store building on 71,000 SF lot with open drainage ditch at south side and existing piped stormdrainage system, draining south to north on west side and west to east on north side. Open ditch conveys upstream flow routed across Alt. Hwy 101 from the south and discharges across undeveloped forested lot to the east (appears as wetlands). Northside system drains into bio-swale treatment facility located on vacant lot to north, reportedly sized to accept Water Quality flow from subject site. Previously completed stormwater management plan completed as part of Tractor Supply Development, addressed stormwater considerations of subject site (Referencing: Trondheim Acres Lot 1, SWMP, A.M. Engineering, June 30, 2019).

Proposed Design Concepts--Reference attached Site Drainage & Grading Plan.  
Proposed concepts provide for:

- 1) Roof Drainage—Collect and route directly south to open ditch.
- 2) South Parking Lot and SE Loading Area—Collect all run-off in catch basins:
  - a. CB-1—Route WQ flow east into CB-2 treatment catchbasin. By-pass 100-yr storm flow directly to south ditch.
  - b. CB-2—Treat CB-1 and CB-2 catchment area WQ flow and route south to existing open ditch. By-pass CB-2 100-yr storm flow directly to south ditch.
  - c. CB-3—Treat CB-3 catchment area WQ flow and route south to existing open ditch. By-pass CB-3 100-yr storm flow directly to south ditch.
- 3) NE Truck Entrance Drainage—Collect and route northeast directly into existing CB.
- 4) Regrading of South Ditch—6-ft bottom width trapezoidal channel with slope at 0.0026 FT/FT

**REQUIRED:** 1) Check/confirm hydraulic capacity of regraded ditch relative to estimated flows, 2) Calculate flow allocations to each catchbasin and confirm adequate StormFilter treatment capacity, 3) estimate NE Truck Entrance flow allocation and check against planned contribution to northerly WQ bio-swale facility and 4) Establish minimum pipe sizes, design invert elevations and pipe slopes and confirm pipeline capacities for 100-year storm event.

**SOLUTION:**

**1. Ditch/Channel Capacity:**

**A) Estimate 100-year storm flow and check ditch hydraulic capacity:**

- From A.M. Engineering, Trondheim Acres Lot 1 SDMP (SEE APPENDIX 2):

-100-yr Storm flow contribution from subcatchment south of Alt. Hwy 101 = 2.02 cfs

-100-yr Storm flow contribution from Subcatchment C (East Portion of Lot 1)=2.09 cfs, based on:

Total Gross Area = 70,800 SF

15% Imperv Area = 10,620 SF

Net Impervious Area = 60,180 SF

Total  $Q_{100-yr}$  = 2.02 cfs + 2.09 cfs = 4.11 cfs

**B) Applying Chezy-Manning Equation, with 1:1 sideslopes for calculation simplicity...see attached calculation:**

For a flow of 4.1 cfs:

Flow Depth = 1.25 ft

Velocity = 0.449 ft/s

Note: Average channel depth = 3 ft, therefore, say, OK.

And, 0.449 ft/s is well below 2 fps scour velocity, therefore, say, OK.

Plus, actual flow in from site will enter the ditch at approximately 1/3 points along the ditch, so noted total flow will only be evident at lower end of ditch.

2.1 Calculate net flow allocation to catchbasins:

Per above ref'd A.M. SWMP, for Subcatchment C (East Portion of Lot 1):

Total  $Q_{100-yr}$  = 2.09 cfs, and

Total  $Q_{WQ}$  = 0.46 cfs

(Based on a total lot area of 70,800 sf and a total impervious area of 60,180 sf, with a 15% allocation to landscaped areas.)

And from Tables SD.1 & 2, net WQ flow associated with paved areas where SW is to be treated:

$Q_{WQnet}$  = 0.46 cfs X .53 = 0.24 cfs

Attached Tables SD.1 and SD.2 show estimated drainage allocations, for both the 100-year Storm and the determined Water Quality Storm, to key stormwater facilities based on area prorations of individual element sub-catchments. Note, the difference between A.M. Engineering's reported 60,180 sf and the 59,210 sf shown in Table SD.1, is attributed to NW corner entrance plaza and west-side sidewalks that will drain into local vicinity planters.

For stormwater treatment associated with paved areas, flow allocations to key features are as follows:

CB-1: 0.06 cfs

CB-2: 0.07 cfs

CB-3: 0.10 cfs

NE Truck Entr. 0.005 cfs

WQ flow attributed to CB-1 & CB-2 will be combined via side piping and treated at CB-2 StormFilter facilities.

WQ attributed to the NE Truck Entr. will be treated in the northerly off-site WQ treatment facility, reportedly sized to accept this project site's full WQ flow.

**2.2 Check estimated 100-Year Storm and WQ storm flow allocations with respect to proposed StormFilter treatment capacities.**

Per Contech design criteria StormFilter 18" treatment cartridge capacity = 15 gpm (0.033cfs), with a DUAL UNIT (4-18" cartridges) model providing, 4 X 0.033 cfs = 0.132 cfs capacity.

And,  
Overflow Capacity = 1.0 cfs

Referencing, Table SD.2 , with CB-1 WQ flow combined at CB-2, we see flow allocations to CB-2 and CB-3, where StormFilter treatment facilities are, as follows:

$CB-2_{WQ\ Flow} = CB-1_{WQ\ Alloc.} + CB-2_{WQ\ Alloc.} = 0.06 + 0.07 = 0.13\ cfs$

And at CB-3, we have:

$CB-3_{WQ\ Flow} = 0.10\ cfs$

Both flow allocations are less than or equal to the allowable 0.13 cfs StormFilter design capacity, therefore, say OK.

**Checking high-flow hydraulic capacity:**

$CB-1_{100-Yr\ Q} = 0.272\ cfs$

$CB-2_{100-Yr\ Q} = 0.334\ cfs$

$CB-3_{100-Yr\ Q} = 0.449\ cfs$

All flow allocations < 1.0 cfs design capacity, therefore, say OK.

**3. In checking estimated stormwater conditions at the NE Truck Entrance, we can compare the 100-Yr Storm allocation here, with the total site WQ Storm flow, reportedly expected at the northerly off-site WQ treatment facility and find:**

$NE\ Trk\ Entr.\ 100-Yr\ Q = 0.031$

This flow is much less than (about 1/10<sup>th</sup>) the total site WQ Storm flow estimate of 0.24 cfs, therefore we can safely say, we are OK routing this small portion of site flow north into this facility.

**4) As to pipe sizes and pipe slopes, the City of Warrenton has establishes minimum stormdrain pipe size of 8-inches diameter.**

Referring to Figure 4, nomograph, showing FLOW FOR CIRCULAR PIPE FLOWING FULL, Based on Manning's Equation and n=0.012, we see that for 8-inch diameter pipe, flowing at minimum full flow velocity of 3 fps for scour, we find we need a minimum pipe slope of 0.0065 ft/ft and a full-pipe flow capacity of 5.3 cfs. Looking at the Q<sub>100-Yr</sub> at CB-3, where we have our highest sub-catchment flow allocation, we have:

**Ratio:**

$Q\ Actual/Q\ Full-Pipe = 0.523\ cfs/5.3cfs = 0.10$

Referencing, Figure 20, **RELATIVE VELOCITY AND FLOW IN CIRCULAR PIPE FOR ANY DEPTH OF FLOW**, we find:

For "Portion of Value for Full Flow" = 0.10, we have Depth of Flow = 0.21 (Pipe Diameter)=0.21 (8-inches) = 1.68-inches flow depth.

Therefore, we can generally conclude that the City's minimum pipe size of 8-inches diameter, will be more than adequate from a capacity standpoint for all site's stormwater piping.

Starting with the CB-1 & CB-2 interconnected system...At CB-1 we have:

CB-1 Rim Elevation = 11.6 ft  
(See Plans)

If we set the top of the overflow outlet pipe at 2-ft, minimum cover, we have top of outfall pipe elevation @ CB-1:

CB-1 Top Outfall OF Pipe Elev = 11.6ft - 2.0ft  
= 9.6ft

With the approx. OD of 8-inch ID pipe being 9", or 0.75', we have then,

Outfall Pipe I.E. = 9.6ft - 0.75ft = 8.85ft  
And, if we use minimum grade, we have:

I.E. CB-1 OF/Outfall = 8.85ft - (13ft X 0.0065ft/ft) = 8.05ft

Checking the bottom of ditch elevation at the CB-1 location we find:

Bottom Ditch @ CB-1 = 6.4 ft + 278 ft X 0.0025 ft/ft = 7.22 ft

And, CB-1 outfall clearance above ditch bottom = 8.05 ft - 7.22 ft = 0.83 ft  
Therefore, OK.

As we want flow to only enter the outfall overflow pipe after the max WQ rate has been reached, with the WQ flow being by-passed to CB-1 for treatment, we find the required WQ By-pass I.E. as follows:

Assume 8-inch Diameter WQ By-pass pipe, at minimum slope, for 3 fps velocity at full flow, then, similar to above, we have from attached Figure 4:

$V_{Full\ Pipe} = 0.65\ ft/100ft$

And,

$Q_{Full} = 1.1\ cfs$

Since CB-1 WQ Flow from Table SD is 0.06 cfs, we have;

$Q\ WQ/Q\ Full\ Pipe = 0.06\ cfs/1.1\ cfs = 0.05$

And, from Figure 20, we have, then,

$D_{actual}/D_{full} = 0.15$

And, then,  $D_{actual} = 0.15 (0.75\ ft) = 0.11\ ft$

Therefore, at CB-1, we want to set the invert elevation of the WQ By-pass, 0.11 feet below the invert-out elevation of the Overflow/Outfall Pipe, or:

I.E. By-pass Out = 8.85 ft - 0.11 ft  
= 8.74 ft

And then, at CB-2, we have:

I.E. CB-1 By-pass In = 8.74 ft - 78 ft X 0.0065 ft/ft = 8.74 ft - 0.51 ft = 8.23 ft

And, with Contech's spec'd minimum 6-inch drop between I.E. in and I.E. out in the Catch Basin StormFilter (See attached Mfr's cut-sheet), we have:

$$\text{I.E. Out}_{\text{CB-2 SF}} = 8.23 \text{ ft} - 0.50 \text{ ft} \\ = 7.73 \text{ ft}$$

And, then, finally, we have for the CB-2 Overflow Outfall:

$$\text{I.E.}_{\text{CB-2 OF/Outfall}} = 7.73 \text{ ft} - 13.5 \text{ ft} \times \\ 0.0065 \text{ ft/ft} = 7.64 \text{ ft}$$

Checking the ditch bottom elevation at this location, we have:

$$6.4 \text{ ft} + 196 \text{ ft} ( 0.0025 \text{ ft/ft} ) = 6.89 \text{ ft}$$

And, at CB-2 the outfall clearance above ditch bottom =  $7.64 \text{ ft} - 6.89 \text{ ft} = 0.75 \text{ ft}$   
Therefore, OK.

Now, then focusing on CB-3, starting with the controlling downstream elevation ditch elevation, we have:

$$\text{Ditch Bottom Elevation @ CB-3} = \\ 6.41 \text{ ft} + 35 \text{ ft} \times 0.0025 \text{ ft/ft} = 6.41 \text{ ft} + \\ 0.09 = 6.5 \text{ ft}$$

Adding a minimum 0.10 ft, lift we have:

$$\text{I.E.}_{\text{CB-3 OF/Outfall}} = 6.50 \text{ ft} + 0.10 \text{ ft} = 6.60 \text{ ft}$$

Now, we know that we are grade limited here, so we try a 10-inch pipe at a slightly flatter grade than we can have with an 8-inch pipe:

From Figure 4, for 10-inch diameter pipe we have at a minimum velocity,  $V = 3 \text{ fps}$ :

$$\text{Slope} = 0.50 \text{ ft}/100\text{ft}, \text{ or } 0.005 \text{ ft/ft} \\ Q_{\text{full}} = 1.6 \text{ cfs}$$

From Table SD.2:

$$\text{CB-3 WQ Flow} = 0.10 \text{ cfs} \\ \text{CB-3 100-Yr Q} = 0.449 \text{ cfs}$$

So, we confirm this pipe will not be expected to flow full, so capacity is OK.

Calculating the upstream invert elevation at CB-3, we have:

$$\text{I.E.}_{\text{Out CB-3}} = 6.60 \text{ ft} + 45 \text{ ft} \times 0.005 \text{ ft/ft} \\ = 6.60 \text{ ft} + 0.23 = 6.83 \text{ ft}$$

Referencing Contech's mfr's cut-sheet, attached, the allowable minimum depth from CB-Rim to I.E. out is 2.3 ft.

Checking the designed CB-3 Rim Elevation:

$$\text{CB-3 Rim Elevation} = 9.3 \text{ ft}$$

And the difference of  $9.3 \text{ ft} - 6.83 \text{ ft} = 2.47 \text{ ft}$ , which is greater than 2.3 ft, therefore, OK.

(Revised 5/20/21, DWL)

PROPOSED ROBY'S FURNITURE STORE

WARRENTON, OREGON

TABLE SD.1

SITE SUB-CATCHMENT AREAS

FLOW ALLOCATION PRORATIONS

Sub-Catchment Designation	Sub-Catchment Impervious Area (sf)	100-Year Storm % of Total Impervious Area <sup>1</sup>	Water Qual. Storm % of Net Impervious Area <sup>2</sup>
CB-1	7,920	13%	25.5%
CB-2	9,680	16%	31%
CB-3	12,676	21%	40.5%
NE Truck Entr	915	1.5%	3%
Roof	28,000	48%	N/A
<b>Total</b>	<b>59,210 sf</b>	<b>100%</b>	<b>100%</b>

1) Applies to all site impervious area.

2) Water Quality Net Area = Total Impervious Area – Roof Area= 31,210 sf...

Resulting in the portion of Water Quality Flow attributed to paved area treatment facilities being =  $31,210/59,210 = 0.53$  (53%)

TABLE SD.2

SITE SUBCATCHMENTS/FLOW PRORATIONS

Description	100-Yr Storm		Water Quality Storm	
	Allocation Proration	Flow, Q (cfs)	Allocation Proration	Flow, Q (cfs)
SubCatchment Area				
CB-1	13%	0.272	25.5%	.06
CB-2	16%	0.334	31%	.07
CB-3	21%	0.449	40.5%	.11
NE Truck Entr	1.5%	0.031	3%	.005
Roof	48%	1.00	N/A	N/A
<b>Totals</b>	<b>100%</b>	<b>2.09 cfs</b>	<b>100%</b>	<b>0.24 cfs<sup>1</sup></b>

1) Net WQ Storm Flow attributed to paved area treatment facilities = 0.46 cfs (0.53) = 0.24 cfs, where 0.46 cfs is the total calculated WQ Flow for the site and 53% is that portion of the flow associated with paved areas.



## Other Calculators

- [Air Flow Conversion Calculator](#)
- [Atmospheric Calculator](#)
- [Block Wall Calculator](#)
- [Concrete Column Calculator](#)
- [Concrete Volume Calculator](#)
- [Energy Conversion Calculator](#)
- [Isentropic Flow Relations Calculator](#)
- [Laser Real Time Unit Converter](#)
- [Normal Flow Relations Calculator](#)
- [Oblique Flow Relations Calculator](#)
- [Open-channel Flow Calculator](#)
- [Properties of Welds Treated as Lines Calculator](#)
- [Shaft Speed Calculator](#)
- [Torque Transmitted by Clutch Calculator](#)
- [Water Pump Engineering](#)
- [Back to ENGINEERING.com](#)

## Open-Channel Flow

This calculator uses Chézy and Manning's formula to calculate the wetted perimeter, hydraulic radius, flow area, Chézy coefficient and flow velocity.

For experimental values of Manning's  $n$  factor, [click here](#)

### Required Information

Enter the Slope:  Enter the Channel Top Width (ft):   
Enter the Channel Bottom Width (ft):  Enter the Channel Height (ft):   
Enter the Flow Depth (ft):  Enter the  $n$  value:

### Results

The wetted perimeter is  ft      The flow is  ft<sup>3</sup>/s  
The flow area is  ft<sup>2</sup>      The flow is  gal/min  
The hydraulic radius is  ft      The velocity is  ft/s  
The C value is

FIGURE 4

**FLOW FOR CIRCULAR PIPE FLOWING FULL**  
BASED ON MANNING'S EQUATION  $n=0.012$

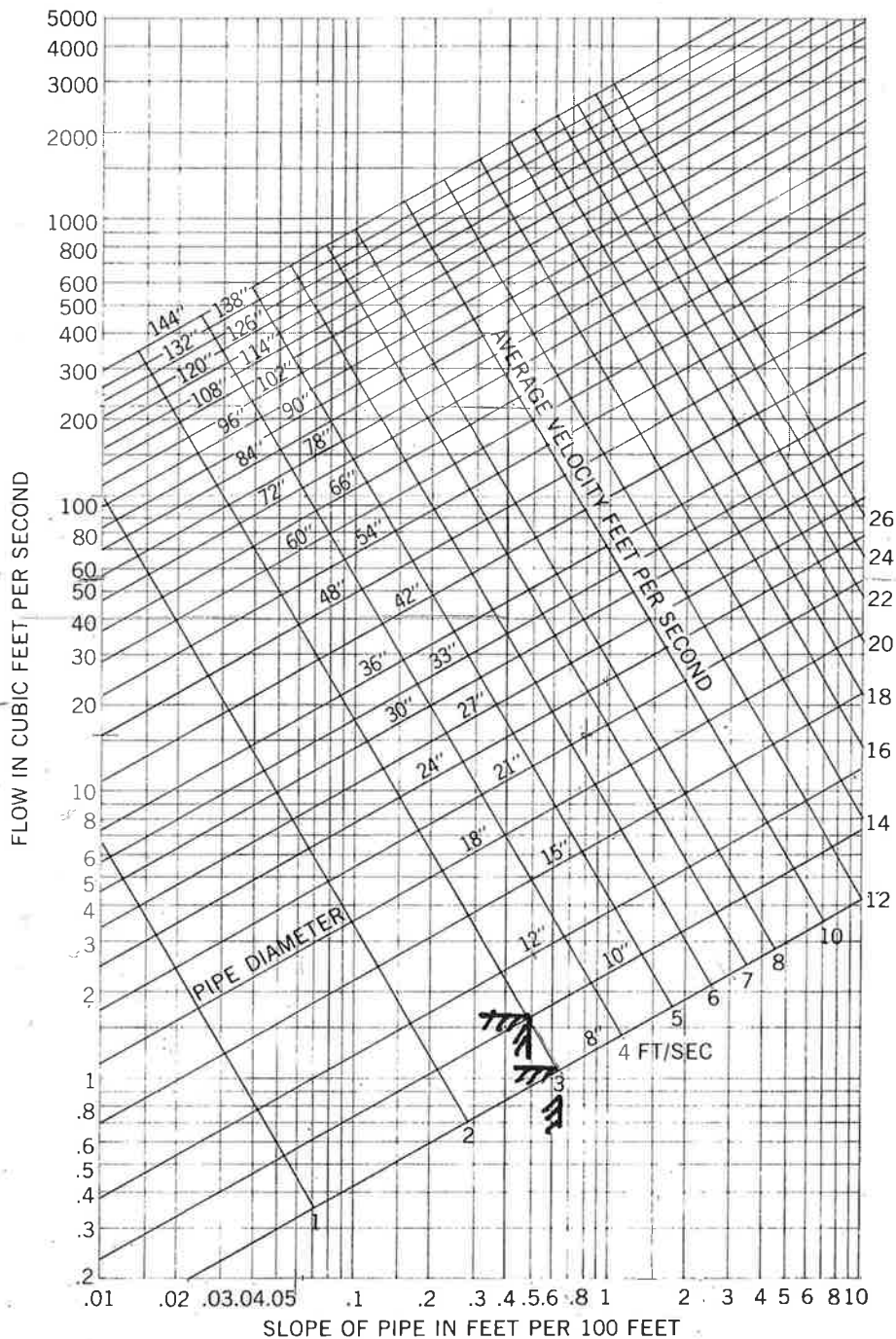
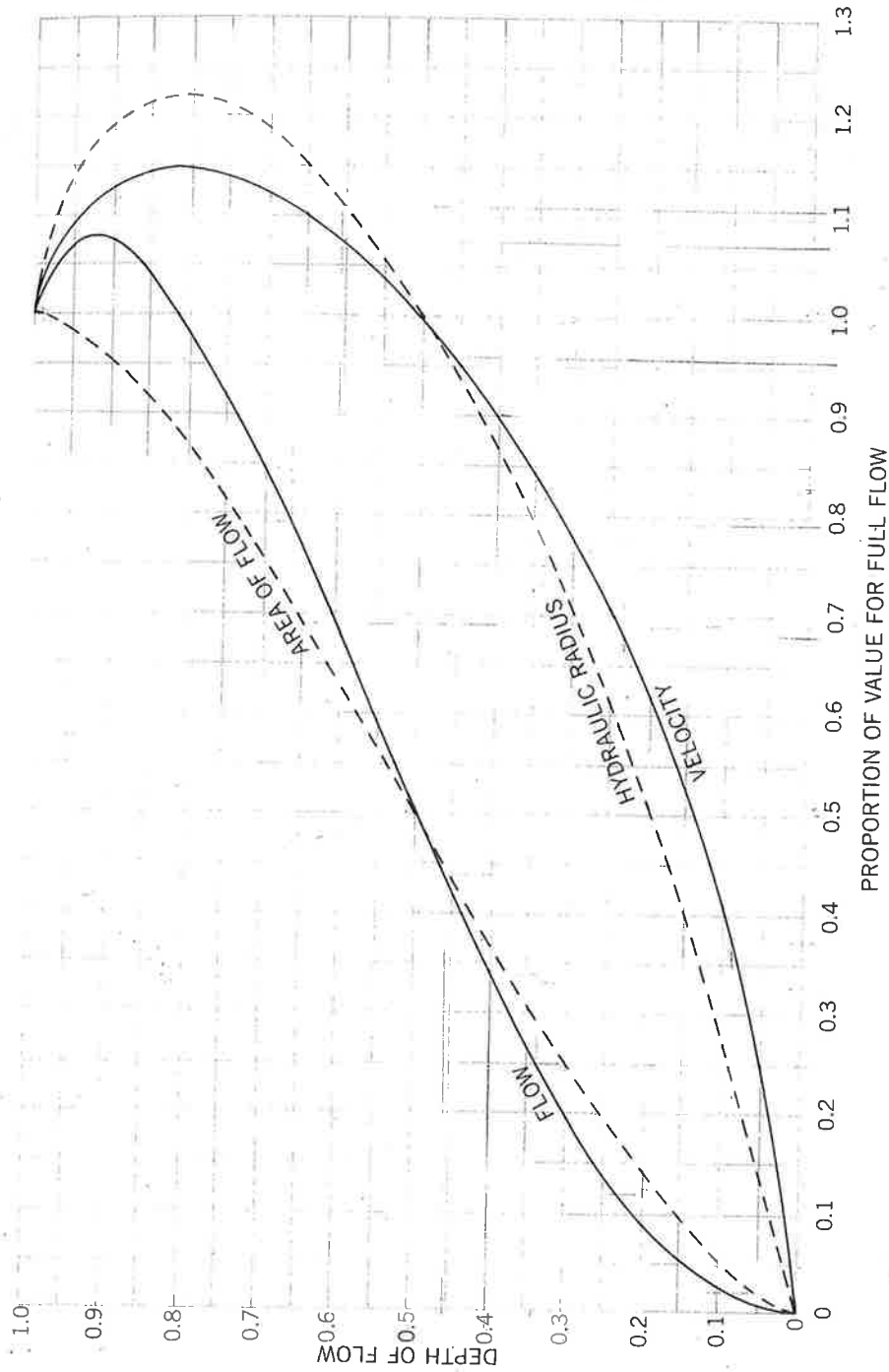


FIGURE 20

RELATIVE VELOCITY AND FLOW IN  
CIRCULAR PIPE FOR ANY DEPTH OF FLOW



5 10

**APPENDIX 4**

**DEQ NPDES 1200-C PERMIT APPLICATION**



# Application For New NPDES General Permit 1200-C Coverage

**Instructions for Completion of 1200-C Construction Stormwater Application:** For stormwater discharges to surface waters from construction activities, disturbing one acre or more, or less than an acre but is part of a common plan of development or sale that do not meet automatic coverage requirements (see page 3 for additional information).

## A. PROJECT INFORMATION

1. Enter the legal name of the responsible person (i.e. applicant). This must be the legal Oregon name (i.e., Acme Products, Inc.) or the legal representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752, ( ) unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.
  - Permit coverage may be transferred from one party to another. For example, a developer may apply for a permit and then transfer the permit to a contractor. Transfer forms:
2. Provide invoice contact information for billing of DEQ annual permit fee if different from the applicant in #1 above. This is the person or entity legally responsible for payment of the annual fee invoice. This must be the same company as the applicant, not a third party independent of the applicant.
3. Provide contact information for the Architect or Consulting Engineer who designed the Erosion and Sediment Control Plan (ESCP) and Dewatering Plan, if applicable.
4. Provide information on the Erosion and Sediment Control Visual Monitoring Inspector. This is not a DEQ or DEQ Agent inspector; this is an inspector employed by the applicant. Include the inspectors' qualification program, certification number and expiration date
5. Provide the common name of the project (for example, the name of the subdivision), the location of the site, and, if available, a street address.
6. Check the box that best describes the nature of the construction activity. If "other" is selected, describe the use and include a Standard Industrial Classification Code (visit [http://www.census.gov/sa/sic.html](#) for codes). For projects that have submitted a joint permit application, please provide the US Army Corps of Engineers assigned number.
7. Enter latitude and longitude for the approximate center of the site, to the nearest 15 seconds. Latitude and longitude can be obtained from DEQ's location finder web site at [http://deq.state.or.us/npdes/locationfinder.html](#). To get the longitude and latitude to appear you can also zoom in and re-center until you find the area. You may want to turn off DEQ interests to eliminate the yellow dots and you may want to turn on the Aerial Photos to help you locate the site (note that the aerial photos are over ten years old). The latitude and longitude will be indicated on the left side of the page once you have checked the locate place at the top of the page and clicked on a location.
8. If known, specify approximate start date. Provide information on the project size as indicated (based on the total project and not just a single phase). If the project is less than an acre and part of a common plan of development there is no annual fee.
9. If a proposed construction site has a DEQ assigned Environmental Cleanup Site Information (ECSI) number associated with the property, an Environmental Management Plan must be submitted to DEQ. DEQ maintains the ECSI database to track sites in Oregon with known or potential contamination from hazardous substances, and to document sites where DEQ has determined that no further action is required. For projects that anticipate contaminated soils, contaminated groundwater, or hazardous materials will or have the potential to be encountered during construction activities or the need for active treatment system, an Environmental Management Plan is required. This includes a plan review fee (Table 70F) for treatment of contaminants beyond sediment (See Appendix A and at: [http://deq.state.or.us/npdes/emsplan.htm](#)).
10. Indicate the name(s) of the receiving water(s) (i.e., indicate where stormwater runoff during construction will flow). Request information from local authority or other resource to determine the name of the receiving waterbody. The receiving water may be a lake, stream, river, wetland or other waterbody, and may or may not be located adjacent to the site. Stormwater from the project site may discharge directly to the receiving water or indirectly via a storm sewer system, an open drain or ditch, or other conveyance structure. Do NOT list a human-made conveyance, such as a storm sewer system, as the receiving water. If the site discharges to an irrigation channel or ditch, the applicant must also indicate the owner or operator of the irrigation channel or ditch.

*For example, if the project site discharge enters a storm sewer system, that empties into Trout Creek, which flows into Pine River, the receiving water is Trout Creek, because it is the first natural waterbody the project site discharge will reach. Similarly, a discharge into a ditch that feeds Spring Creek should be identified as "Spring Creek" since the ditch is a human-made conveyance. If your site discharges into a municipal separate storm sewer system (MS4), the applicant must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.*

11. Indicate whether stormwater runoff during construction will discharge directly to or through a storm sewer or drainage system that discharges to a Total Maximum Daily Load (TMDL) or 303(d) listed waterbody for turbidity or sedimentation. To make this determination, the following tools are available on DEQ's website:
- WQ Assessment page: <http://www.wqassessment.com> to search criteria: waterbody and listing status Category 5 (303d) and Category 4a (TMDL approved).

#### B. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

##### DEFINITION OF LEGALLY AUTHORIZED REPRESENTATIVE:

Please also provide the information requested in brackets [ ]

- Corporation - president, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities that is authorized in accordance to corporate procedure to sign such documents.
- Partnership - General partner [list of general partners, their addresses, and telephone numbers].
- Sole Proprietorship - Owner.
- City, County, State, Federal, or other Public Facility - Principal executive officer or ranking elected official.
- Limited Liability Company - Member [articles of organization].
- Trusts - Acting trustee [list of trustees, their addresses, and telephone numbers].

(please see 40 CFR §122.22 for more detail, if needed)

#### APPLICATION AND FEE SUBMITTAL

To authorize permit registration, the following must be completed and submitted to the appropriate DEQ regional office or DEQ Agent

- Complete and accurate DEQ application form signed by the Legally Authorized Representative. DEQ LUCS and associated Findings.
- Erosion and Sediment Control Plan Narrative, if applicable.
- Environmental Management Plan, if applicable.
- Dewatering Plan, if applicable.
- Stormwater Erosion and Sediment Control Plan Drawings; full-sized hard copy and electronic file.
- Applicable permit fee. Appropriate fees are available at

. Please make check payable to DEQ. All stormwater permits charge an application fee and an annual fee upon registration. DEQ will invoice the annual fee amount if your project coverage extends more than a year. Please note: if submitting an Environmental Management Plan to address contaminants or operate an Active Treatment System, a review fee will be charged as indicated in Table 70H.

#### APPLICATION AND FEE SUBMITTAL

Submit this application, Narrative Parts I, II & III (if applicable), LUCS, Erosion and Sediment Control Plan (full-sized hard copies and electronic copy), Dewatering and/or Environmental Management Plan and the applicable fee to the appropriate DEQ regional office or DEQ Agent listed below. Please send electronic copy (CD or thumbdrive) of ESCP with permit application submission package.

**AGENTS AND REGIONAL OFFICES CONTACTS**

<p align="center"><b>City of Eugene</b>                  99 W. 10th Avenue, Eugene, OR 97401                  541-682-2706</p>		<p align="center"><b>City of Troutdale</b>                  342 SW 4th Street, Troutdale, OR 97060                  503-674-3300</p>			
<p align="center"><b>Clean Water Services</b>                  2550 SW Hillsboro Highway, Hillsboro, OR 97123                  503-681-5101  <i>Includes Banks, Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, North Plains, Sherwood, Tigard, Tualatin, and portions of Washington Co.</i></p>		<p align="center"><b>Regne Valley Sewer Services</b>                  138 West Vilas Road,                  P.O. Box 3130                  Central Point, OR 97502                  541-664-6300</p>			
<p align="center">DEQ Northwest Region</p>		<p align="center">DEQ Western Region</p>		<p align="center">DEQ Eastern Region</p>	
<p align="center">700 Lloyd Building                  700 NE Multnomah St., Suite 600                  Portland, OR 97232                  503-229-5263 or 1-800-452-4011</p>		<p align="center">165 East 7th Avenue, Suite 100                  Eugene, OR 97401                  541-686-7930 or                  1-800-844-8467</p>		<p align="center">800 SE Emigrant Avenue, Suite 330                  Pendleton, OR 97801                  541-278-4605 or                  1-800-304-3513</p>	
Clackamas		Lane		Hood River	Sherman
Clatsop		Lincoln		Jefferson	Umatilla
Columbia		Linn		Klamath	Union
Multnomah		Marion		Lake	Wallowa
		Josephine	Jackson	Deschutes	Crook
Tillamook		Polk		Malheur	Wasco
Washington		Yamhill		Marrow	Wheeler
		Benton	Douglas	Grant	Gilliam
		Coos	Curry	Baker	Harney

**DEQ USE ONLY**

File #:

---

Application #: \_\_\_\_\_

LLID/RM: \_\_\_\_\_

River Mile: \_\_\_\_\_

Legal Name Confirmed:

Notes: \_\_\_\_\_

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State of Oregon  
 Department of Environmental Quality

## APPLICATION FOR NEW NPDES GENERAL PERMIT 1200-C

For stormwater discharges to surface waters from construction activities disturbing one acre or more that do not meet automatic coverage requirements.\*

**DEQ USE ONLY**

Date Received: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

Check #: \_\_\_\_\_

Check Number: \_\_\_\_\_

Deposit #: \_\_\_\_\_

Receipt #: \_\_\_\_\_

Notes: \_\_\_\_\_

---


\*A project *may* be eligible for "automatic coverage" under NPDES general permit 1200-CN if stormwater *does not* discharge to a waterbody with a TMDL or 303(d) listing for sediment or turbidity *and* it meets one of the following criteria (see 1200-CN at

1. Disturbs less than one acre and is located in Gresham, Troutdale, or Wood Village.
2. Disturbs less than five acres and is located in Albany, Corvallis, Eugene, Milwaukie, Multnomah Co. (unincorporated areas), Springfield, West Linn, or Wilsonville.
3. Disturbs less than five acres and is within the jurisdictions of Clackamas Co. Water Environment Services [Gladstone, areas within Clackamas Co. Service Dist. #1 (excluding Happy Valley), and areas within the Surface Water Management Agency of Clackamas Co. (including Rivergrove)], Clean Water Services (Banks, Beaverton, Cornelius, Durham, Forest Grove, Hillsboro, King City, North Plains, Sherwood, Tigard, Tualatin, and Washington Co. within Urban Growth Boundary), or Rogue Valley Sewer Services.

A. PROJECT INFORMATION					
<b>1. Applicant (Responsible Person or entity legally responsible for permit)</b> <b>Warrenton Property Investments, LLC</b>			<b>2. Invoicing information (person or entity legally responsible for payment of annual fee invoice; not a third party independent of the applicant)</b> <b>Warrenton Property Investments, LLC</b>		
Contact Name			Invoice Contact Name (if different from applicant)		
Kyle Langeliers			Kyle Langeliers		
Address			Address		
5111 North Coast Highway			5111 North Coast Highway		
City	State	ZIP Code	City	State	ZIP Code
Newport	Oregon	97365	Newport	Oregon	97365
Telephone		Email Address		Telephone	
503-812-8267		Kyle@robysfurniture.com		503-812-8267	
<b>3. Architect/Engineering Firm (Erosion and Sediment Control Plan)</b> <b>Stricker Engineering</b>			<b>4. Applicant's Designated Erosion and Sediment Control Inspector</b> <b>Justin Pounds</b>		
Project Manager			Company Name		
David Leibbrandt			Bridgewater Group		
Telephone		Email Address		Telephone	
		leibbrandtdw@yahoo.com		503-410-4763	
				Email Address	
				jpounds@bridgeh2o.com	
			Qualification program, certification number and expiration date <b>CESCL #CWT21-1011, Expiration: 1/21/2024</b>		



5. Name of Project Roby's Furniture			6. Nature of Construction Activity		
Address or Cross Street NW Corner of Fort Stephens Hwy and SE Marlin Dr			<input type="checkbox"/> Single Family (SIC Code 1521) <input type="checkbox"/> Multi-Family Residential (SIC Code 1522) <input checked="" type="checkbox"/> Commercial (SIC Code 1542) <input type="checkbox"/> Industrial (SIC Code 1541) <input type="checkbox"/> Highway (SIC Code 1611) <input type="checkbox"/> Restoration (SIC Code 1629) <input type="checkbox"/> Utilities (SIC Code 1623): <input type="checkbox"/> Other (SIC Code required): <input type="checkbox"/> Army Corps No. (if any):		
City Warrenton	State Oregon	ZIP Code 97146			
County Clatsop County					
7. Approximate location of center of site.			8. Approximate start date:		August 1, 2021
Latitude: 46.153934			Total Site Acreage (acres): 1.38		
Longitude: -123.906084			If less than 1-acre, is site part of a common plan of development? <input type="checkbox"/> Yes <input type="checkbox"/> No		
**For assistance:			Total Disturbed Area (acres): 1.38		
9. Is there soil or groundwater contamination located within the site boundary			<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Will you be dewatering during construction (plan review fee may apply)?			<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Has an ESCI Number been assigned to the site by DEQ?			<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Will construction activities impact the contaminated media?			<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Depth to Groundwater:	3-5 ft bgs		Data Source:	ODOT Phase II Report	
10. Receiving waterbody - Must identify final discharge location of construction stormwater flows.					
Waters of the State (name or description):					
Municipal storm sewer or drainage system (include downstream receiving waterbody):					
Ditch (include downstream receiving waterbody): Ditch along north side of Fort Stevens Highway, receiving waterbody: Holbrook Slough					
Irrigation channel or ditch (include owner or operator):					
Infiltration device(s) (construction stormwater discharge to underground injection control/dry well is prohibited):					
Other:					
11. Stormwater runoff during construction discharges directly to or through a storm sewer or drainage system that discharges to a waterbody with a Total Maximum Daily Load (TMDL) or 303(d) listing for turbidity or sedimentation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
**For assistance: DEQ assessment database page at <a href="http://www.deq.state.or.us/assess/assess.htm">www.deq.state.or.us/assess/assess.htm</a>					
B. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE					
The legally authorized representative <i>must</i> sign the application (see instructions - Section C).					
I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-045. This includes a compliance determination fee invoiced annually by DEQ to maintain the permit.					
Kyle Langeliers					
Name of Legally Authorized Representative (Type or Print)			Title		
Signature of Legally Authorized Representative			Date		

5. Name of Project <b>Roby's Furniture</b>			6. Nature of Construction Activity		
Address or Cross Street NW Corner of Fort Stephens Hwy and SE Marin Dr			<input type="checkbox"/> Single Family (SIC Code 1521) <input type="checkbox"/> Multi-Family Residential (SIC Code 1522) <input checked="" type="checkbox"/> Commercial (SIC Code 1542) <input type="checkbox"/> Industrial (SIC Code 1541) <input type="checkbox"/> Highway (SIC Code 1611) <input type="checkbox"/> Restoration (SIC Code 1629) <input type="checkbox"/> Utilities (SIC Code 1623) <input type="checkbox"/> Other (SIC Code required): <input type="checkbox"/> Army Corps No. (if any):		
City	State	ZIP Code			
Warrenton	Oregon	97146			
County Clatsop County					
7. Approximate location of center of site.			8. Approximate start date:		August 1, 2021
Latitude: 46.153934			Total Site Acreage (acres): 1.38		
Longitude: -123.906084			If less than 1-acre, is site part of a common plan of development? <input type="checkbox"/> Yes <input type="checkbox"/> No		
**For assistance:			Total Disturbed Area (acres): 1.38		
			Total Number of Lots: 1		
9. Is there soil or groundwater contamination located within the site boundary			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Will you be dewatering during construction (plan review fee may apply)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Has an ESCI Number been assigned to the site by DEQ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Will construction activities impact the contaminated media?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Depth to Groundwater: 3-5 ft bgs			Data Source: ODOT Phase II Report		
10. Receiving waterbody - Must identify final discharge location of construction stormwater flows.					
Waters of the State (name or description):					
Municipal storm sewer or drainage system (include downstream receiving waterbody):					
Ditch (include downstream receiving waterbody): Ditch along north side of Fort Stevens Highway, receiving waterbody: Holbrook Slough					
Irrigation channel or ditch (include owner or operator):					
Infiltration device(s) (construction stormwater discharge to underground injection control dry well is prohibited):					
Other:					
11. Stormwater runoff during construction discharges directly to or through a storm sewer or drainage system that discharges to a waterbody with a Total Maximum Daily Load (TMDL) or 303(d) listing for turbidity or sedimentation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
**For assistance: DEQ assessment database page at					
The legally authorized representative <i>must</i> sign the application (see instructions - Section C).					
I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-045. This includes a compliance determination fee invoiced annually by DEQ to maintain the permit.					
Kyle Langeliers			DME		
Name of Legally Authorized Representative (Type or Print)			Title		
			5/17/21		
Signature of Legally Authorized Representative			Date		

## **APPENDIX 5**

### **StormFilter Inspection and Maintenance Procedures**

## StormFilter Inspection and Maintenance Procedures



## Maintenance Guidelines

The primary purpose of the Stormwater Management StormFilter® is to filter and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site. Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is a good practice to inspect the system after major storm events.

## Maintenance Procedures

Although there are many effective maintenance options, we believe the following procedure to be efficient, using common equipment and existing maintenance protocols. The following two-step procedure is recommended::

### 1. Inspection

- Inspection of the vault interior to determine the need for maintenance.

### 2. Maintenance

- Cartridge replacement
- Sediment removal

## Inspection and Maintenance Timing

At least one scheduled inspection should take place per year with maintenance following as warranted.

First, an inspection should be done before the winter season. During the inspection the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, a maintenance (replacement of the filter cartridges and removal of accumulated sediments) should be performed during periods of dry weather.



In addition to these two activities, it is important to check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the inspection/maintenance schedule depending on the actual operating conditions encountered by the system. In general, inspection activities can be conducted at any time, and maintenance should occur, if warranted, during dryer months in late summer to early fall.

## Maintenance Frequency

The primary factor for determining frequency of maintenance for the StormFilter is sediment loading.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media inside the cartridges. The flow through the system will naturally decrease as more and more particulates are trapped. Eventually the flow through the cartridges will be low enough to require replacement. It may be possible to extend the usable span of the cartridges by removing sediment from upstream trapping devices on a routine as-needed basis, in order to prevent material from being re-suspended and discharged to the StormFilter treatment system.

The average maintenance lifecycle is approximately 1-5 years. Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction may need to be inspected and maintained more often than those with fully stabilized surface conditions.

Regulatory requirements or a chemical spill can shift maintenance timing as well. The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after major storms. Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system or site. It is recommended that the site owner develop a database to properly manage StormFilter inspection and maintenance programs..



## Inspection Procedures

The primary goal of an inspection is to assess the condition of the cartridges relative to the level of visual sediment loading as it relates to decreased treatment capacity. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

**Warning:** In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct an inspection:

**Important:** Inspection should be performed by a person who is familiar with the operation and configuration of the StormFilter treatment unit and the unit's role, relative to detention or retention facilities onsite.

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

## Maintenance Decision Tree

The need for maintenance is typically based on results of the inspection. The following Maintenance Decision Tree should be used as a general guide. (Other factors, such as Regulatory Requirements, may need to be considered).

Please note Stormwater Management StormFilter devices installed downstream of, or integrated within, a stormwater storage facility typically have different operational parameters (i.e. draindown time). In these cases, the inspector must understand the relationship between the retention/detention facility and the treatment system by evaluating site specific civil engineering plans, or contacting the engineer of record, and make adjustments to the below guidance as necessary. Sediment deposition depths and patterns within the StormFilter are likely to be quite different compared to systems without upstream storage and therefore shouldn't be used exclusively to evaluate a need for maintenance.

1. Sediment loading on the vault floor.
  - a. If  $>4''$  of accumulated sediment, maintenance is required.
2. Sediment loading on top of the cartridge.
  - a. If  $>1/4''$  of accumulation, maintenance is required.
3. Submerged cartridges.
  - a. If  $>4''$  of static water above cartridge bottom for more than 24 hours after end of rain event, maintenance is required. (Catch basins have standing water in the cartridge bay.)
4. Plugged media.
  - a. While not required in all cases, inspection of the media within the cartridge may provide valuable additional information.
  - b. If pore space between media granules is absent, maintenance is required.
5. Bypass condition.
  - a. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), maintenance is required.
6. Hazardous material release.
  - a. If hazardous material release (automotive fluids or other) is reported, maintenance is required.
7. Pronounced scum line.
  - a. If pronounced scum line (say  $\geq 1/4''$  thick) is present above top cap, maintenance is required.

## Maintenance

Depending on the configuration of the particular system, maintenance personnel will be required to enter the vault to perform the maintenance.

**Important:** If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows is occurring.

Replacement cartridges can be delivered to the site or customers facility. Information concerning how to obtain the replacement cartridges is available from Contech Engineered Solutions.

**Warning:** In the case of a spill, the maintenance personnel should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct cartridge replacement and sediment removal maintenance:

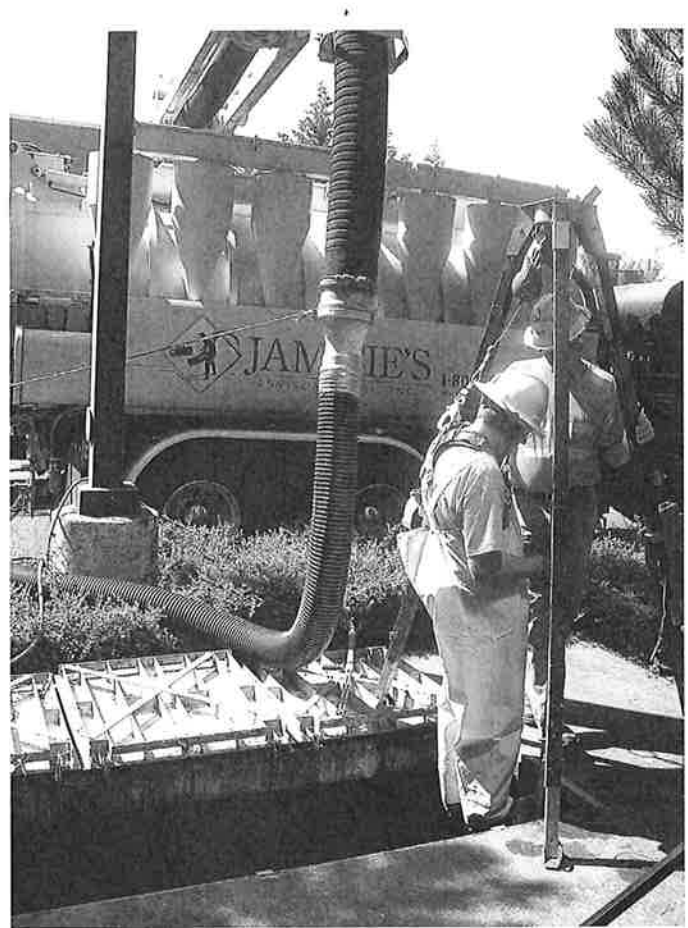
1. If applicable, set up safety equipment to protect maintenance personnel and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

### Method 1:

- A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact Contech Engineered Solutions for suggested attachment devices.

- B. Remove the used cartridges (up to 250 lbs. each) from the vault.



**Important:** Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner.

- C. Set the used cartridge aside or load onto the hauling truck.
- D. Continue steps a through c until all cartridges have been removed.

### Method 2:

- A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.
- B. Unscrew the cartridge cap.
- C. Remove the cartridge hood and float.
- D. At location under structure access, tip the cartridge on its side.
- E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.
- F. Set the empty, used cartridge aside or load onto the hauling truck.
- G. Continue steps a through e until all cartridges have been removed.

8. Remove accumulated sediment from the floor of the vault and from the forebay. This can most effectively be accomplished by use of a vacuum truck.
9. Once the sediments are removed, assess the condition of the vault and the condition of the connectors.
10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Once again, take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used **empty** cartridges to Contech Engineered Solutions.

## Related Maintenance Activities - Performed on an as-needed basis

StormFilter units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the StormFilter to be successful, it is imperative that all other components be properly maintained. The maintenance/repair of upstream facilities should be carried out prior to StormFilter maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

## Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.





# Inspection Report

Date: \_\_\_\_\_ Personnel: \_\_\_\_\_

Location: \_\_\_\_\_ System Size: \_\_\_\_\_ Months in Service: \_\_\_\_\_

System Type: Vault  Cast-In-Place  Linear Catch Basin  Manhole  Other: \_\_\_\_\_

Sediment Thickness in Forebay: \_\_\_\_\_ Date: \_\_\_\_\_

Sediment Depth on Vault Floor: \_\_\_\_\_

Sediment Depth on Cartridge Top(s): \_\_\_\_\_

Structural Damage: \_\_\_\_\_

Estimated Flow from Drainage Pipes (if available): \_\_\_\_\_

Cartridges Submerged: Yes  No  Depth of Standing Water: \_\_\_\_\_

Storm Filter Maintenance Activities (check off if done and give description)

Trash and Debris Removal: \_\_\_\_\_

Minor Structural Repairs: \_\_\_\_\_

Drainage Area Report \_\_\_\_\_

Excessive Oil Loading: Yes  No  Source: \_\_\_\_\_

Sediment Accumulation on Pavement: Yes  No  Source: \_\_\_\_\_

Erosion of Landscaped Areas: Yes  No  Source: \_\_\_\_\_

Items Needing Further Work: \_\_\_\_\_

Owners should contact the local public works department and inquire about how the department disposes of their street waste residuals.

Other Comments:

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Review the condition reports from the previous inspection visits:

# StormFilter Maintenance Report

Date: \_\_\_\_\_ Personnel: \_\_\_\_\_

Location: \_\_\_\_\_ System Size: \_\_\_\_\_

System Type: Vault  Cast-In-Place  Linear Catch Basin  Manhole  Other: \_\_\_\_\_

List Safety Procedures and Equipment Used: \_\_\_\_\_

## System Observations

Months in Service: \_\_\_\_\_

Oil in Forebay (if present): Yes  No

Sediment Depth in Forebay (if present): \_\_\_\_\_

Sediment Depth on Vault Floor: \_\_\_\_\_

Sediment Depth on Cartridge Top(s): \_\_\_\_\_

Structural Damage: \_\_\_\_\_

## Drainage Area Report

Excessive Oil Loading: Yes  No  Source: \_\_\_\_\_

Sediment Accumulation on Pavement: Yes  No  Source: \_\_\_\_\_

Erosion of Landscaped Areas: Yes  No  Source: \_\_\_\_\_

## StormFilter Cartridge Replacement Maintenance Activities

Remove Trash and Debris: Yes  No  Details: \_\_\_\_\_

Replace Cartridges: Yes  No  Details: \_\_\_\_\_

Sediment Removed: Yes  No  Details: \_\_\_\_\_

Quantity of Sediment Removed (estimate?): \_\_\_\_\_

Minor Structural Repairs: Yes  No  Details: \_\_\_\_\_

Residuals (debris, sediment) Disposal Methods: \_\_\_\_\_

Notes:

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## **APPENDIX B**

*Utilities (Water, Sewer, Electrical, Communications, Natural Gas and Fire), Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*



Stricker Engineering LLC  
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 Garibaldi, Oregon 97118  
 john@strickerengineering.com  
 503-322-2442

## TECHNICAL MEMORANDUM

May 20, 2021

### PROPOSED ROBY'S FURNITURE & APPLIANCE STORE, Warrenton, Oregon (East Portion of Trondheim Acres Lot 1)

### UTILITIES (Water & Fire, Sewer, Electrical, Communications & Natural Gas)

By: David Leibbrandt, P.E., Stricker Engineering

#### 1.0 Introduction and Background

The proposed Roby's Warrenton Furniture Store site in the Trondheim Acres Industrial Subdivision (east portion of Lot 1), located on the north side of Alternative Highway (Hwy) 101, just westerly of Marlin Avenue is provided water and sewer service by the City of Warrenton. Electrical power service is provide by Pacific Power & Light (PP&L/Pacific Power) and natural gas service is provided by NW Natural. CenturyLink and Charter/Spectrum Communications are available to provide telephone, cable and data services to the proposed new building.

This technical memorandum presents key utility service information relative to the proposed development. SEE "SITE PLAN" AND "SITE UTILITIES (WATER, SEWER & CONDUITS)" IN APPENDIX 1, THIS TM.

#### 2.0 Water Service

**2.1 General**--This existing public water system is described in the City of Warrenton, Oregon, Water Master Plan (WMP), July, 2018 (MurraySmith), and provides for all public uses, including, drinking water, fire suppression and landscape irrigation.

**2.2 Water Source**--The City delivers drinking water by way of pipelines, pumping stations and storage facilities that convey treated Young's River source water from facilities situated up-river easterly of Gearhart.

**2.3 Pressure Zones**--The subject Roby's site lies within the City's "Town Zone" pressure zone, which operates at a maximum hydraulic grade line (HGL) elevation of 225 feet. This elevation is the overflow elevation of the City's 3.5 million gallon

pressure zone. With the proposed Roby's store finished floor elevation being 13.5 feet, resultant static pressure during non-demand periods will be 91.5 pounds per square inch (psi). This pressure is calculated by taking the difference between the static HGL and the subject "ground elevation" (225-feet minus 13.5 feet = 211.5 feet) and dividing the result by 2.31 (one psi is equivalent to 2.31 feet or head of water). Actual pressures will vary below this level depending on system demand.

**2.4 Water Master Plan**--Based on a review of the City's active/current Water Master Plan, the subject site is appropriately and adequately served. A robust piping system surrounds the site, with relatively large 18-inch diameter piping being in place on Marlin Avenue, just 150-feet east and in Alternative Hwy 101 fronting the south side of the property. The result is ample fire flow capacity in the local water distribution system. The WMP reports no deficiencies relative to this project's water service needs. The City' South Reservoir is reported as having more than adequate capacity through the 20 year planning period. The fire suppression storage component, for Commercial Zone areas, provides for 3,500 gallons per minute (gpm) for a duration of 4-hours.

**2.5 Hydraulic Modeling/Water System Pressures**--The City's WMP, hydraulic modeling tested system performance under normal average day demand, maximum day demand plus fire flow, and peak hour demand conditions, with no service deficiencies being reported at this location. This site, being zoned commercial, was tested under a 3,500 gpm fire flow demand. Resultant residual pressures reported that the large distribution piping system surrounding the Roby's site location, under various flow conditions, are as follows:

*Residual Pressure, Average Day Demand (ADD): 90-100 psi*

*Residual Pressure, MDD plus Fire Flow (MDD): 80-90 psi*

*Residual Pressure, Peak Hour Demand (PHD): 90-100 psi*

*("psi" = pound per square inch)*

Per industry standards, residual pressure evaluation criterion were as follows:

*Minimum During MDD + Fire Flow: 20 psi*

*Minimum During PHD: 40psi*

*Normal Maximum: 80-100psi*

The above flows are provided by the normal water distribution system. As a further emergency back-up to this system, the City continues to maintains the 0.25 million gallon Harbor Street Reservoir and Harbor Street Booster Pumping Station (two-1,400 gpm pumps). These facilities are located just northerly of the subject project site.

**2.6 Previous Improvements**--A 6-inch diameter water main was extended westerly from Marlin Avenue piping to the recently constructed Tractor Supply store, as part of previous Trondheim Acres Lot 1 development improvements. This C-900 PVC pipeline is located on the north side of the E-W Private Drive built along the north

side of the subject Roby's store site. As part of this construction, a new fire hydrant was installed at the northeast corner of the property and another new hydrant was installed near the northwest corner of the site, just across the north-west oriented Private Drive on the west side of the property.

**2.7 Fire Hydrant Flow Testing**--As required by the City Fire Marshall, fire hydrant testing (by private contractor) was completed in support of this project's Site Plan Review process. SEE APPENDIX 2, THIS TM FOR RESULTS.

**2.8 Proposed Water Service Connection**--This project proposes to extend the existing hydrant located at the northwest corner of the property so as to optimize truck entrance conditions. With such an extension, it is proposed that the site's fire and domestic service connection be made via a 6-inch diameter valved tee off this proposed extension, with piping being routed in the planter strip westerly to a location near the northeast corner of the new building. By connecting to the original 6-inch fire hydrant stub-out, a new street cut can be avoided, as would otherwise be required to access the 8-inch diameter water main in the middle of the new paved street for the building fire main and domestic supply. This new water main, in a designated public utility easement, will provide the fire sprinkler system for the building and domestic supply for the minimal requirements for the new building. The new City water meter will be located near the end of the 6-inch water main, so as to prevent "dead water" from occurring in the static fire main section. Since this is a commercial use and a backflow device will be installed after the water meter, a Double Detector Check Valve (DDCV) is proposed for the new building.

Fire Department Connection (FDC) will be provided for the proposed building, which will consist of a Fire Department Connection (FDC Standpipe) with locking caps. There will also be a FDC Post Indicator Valve installed between the FDC and the building. This FDC, from near the existing fire hydrant to the building, will consist of approximately 90-feet of 4" fire main. This proposed FDC line will be 'dry' and will have a ball check valve in a small concrete vault for drainage.

Please note that the Post Indicator Valve will be alarmed into the new fire panel in the proposed building.

SEE "SITE UTILITIES (WATER, SEWER & CONDUITS)" IN APPENDIX 1, THIS TM.

### **3.0 Sanitary Sewer Service**

**3.1 Wastewater Facilities Plan**— The existing public sewer system is described in the City of Warrenton, Oregon, Wastewater Facilities Plan, Final Report, November, 2002 (HLB & Associates, Inc./H. B. Esvelt Engineering).

**3.2 Existing Facilities**--Existing gravity sewer, pumping station and pressure (force) main facilities collect and convey raw sewage from the City's developed areas to the City's wastewater treatment facilities. Treated wastewater outfalls downstream into Young's Bay. Wastewater from Trondheim Acres passes through five pumping

stations enroute to the City's wastewater treatment facility. As part of the Trondheim Acres Lot 1 (Tractor Supply) development, a 10-inch diameter gravity sewer was extended westerly along the development's east-west Private Drive (north side of proposed Roby's site), from existing gravity sewer piping in Marlin Avenue. The existing Marlin Avenue gravity sewer drains north to the City's SE Marlin/101 Pump Station. From there, flow is routed under Hwy 101 and north to the City's 2<sup>nd</sup> Marlin Pump Station and then westerly and north again through three additional pumping stations to the City's wastewater treatment facility.

**3.3 Proposed Service Connection**--Previous Trondheim Acres development improvements constructed a 6" sewer service lateral into the subject property per City of Warrenton standards. Existing Trondheim Acres sanitary sewer piping is D3034/SDR 35 PVC. This project proposes to connect at this pre-established connection point on the north side of the property where close proximity to interior facilities will minimize lateral sewer lengths. Construction will be completed with required cleanouts, all in accordance with current City of Warrenton design and construction standards.

**3.4 Proposed Sewage Contribution and Characteristics**--The proposed Roby's Furniture Store building has three restroom facilities and a mop room on the main floor and an employee break room on the second floor mezzanine. These facilities combined, are expected to generate about the same or less flow, of traditional/normal domestic wastewater character, than one single family home.

SEE "SITE PLAN" AND "SITE UTILITIES (WATER, SEWER & CONDUITS)" IN APPENDIX 1, THIS TM.

#### **4.0 Electrical Power Service**

**4.1 General**--Electrical power service will be provided by local provider, Pacific Power (PP&L). PP&L currently operates in the vicinity of the project with overhead electrical power lines extending along Marlin Avenue to the east of the site, and Alternative Highway 101, on the south side of the site. Electrical power service lines into the Trondheim Acres commercial subdivision are planned as underground facilities and underground power supply currently connects the recently constructed Tractor Supply store. This project furthermore proposes to be served via underground electrical facilities.

**4.2 Proposed Service Connection**—Preliminary consultations with Pacific Power have established that service connections to their system will be made at the southwest corner of the site where an existing high voltage sectionalizing cabinet/vault is located.

**4.2 On-site Facilities**— An on-site ground-level pad mounted transformer will be located in a planter area near the southwest corner of the building. Underground conduits will be constructed between the existing junction box at the southwest corner of the site and the new transformer. Conduits will then further extend between the new transformer and the service entrance equipment mounted outside



the southwest corner of the building. The project's contractor will construct all underground conduits in accordance with requirements established by Pacific Power (size, number, general location and materials) and will set entrance equipment at the building. Pacific Power will install the transformer and pull conductors to the new electrical power meter mounted on the exterior of the building. The building's electrical circuit breaker panel/load center will be located just inside the building in a designated electrical/mechanical room.

**4.3 Conduit Layouts**— General routing of proposed underground electrical power supply conduits is shown on the plans.

**4.4 Detailed Electrical Supply System Design and Construction**—All electrical supply facility details will be established by the project's Design/Build (D/B) electrical contractor in coordination with Pacific Power, following all applicable Pacific Power and City standards and in accordance with all applicable electrical codes.

SEE "SITE PLAN" AND "SITE UTILITIES (WATER, SEWER & CONDUITS)" IN APPENDIX 1, THIS TM.

## **5.0 Gas Service**

Natural gas service will be provided by local provider, NW Natural. NW Natural currently operates in the vicinity of the project with existing distribution pipelines being located in the Alternative Highway 101 right-of-way to the south of the property. A gas service connection is desired to serve the new building and Roby's Furniture is, at the time of this writing, consulting with NW Natural on service connection details. It is anticipated that service pipeline extension construction will be coordinated with other on-site underground utility work.

SEE "SITE PLAN" IN APPENDIX 1, THIS TM.

## **6.0 Telephone & Cable Television Communications Service**

Telephone and cable television services will be provided by local providers Century Link and Charter/Spectrum. Both companies also offer high-speed internet service. These providers operate with franchise agreements with both the City of Warrenton and Pacific Power that enables their low voltage communications cables to be strung overhead on Pacific Power's utility poles. Similar to the above described provisions for electrical service, communications connections will be made at the southwest corner of the site and on-site service cables will extend underground through conduits installed parallel to the above describe electrical conduits. Conduit requirements will be coordinated with the communications service providers and will be constructed by the project's general contractor as electrical conduits are being installed.

Note: There are currently two (2) existing pedestals for CenturyLink and Charter/Spectrum.

SEE "SITE PLAN" AND "SITE UTILITIES (WATER, SEWER & CONDUITS)" IN APPENDIX 1, THIS TM.

## **7.0 Summary**

Previous commercial development site improvements provided water (including fire protection), sewer and stormwater utilities for this site's access. Plans show proposed connection locations. No off-site improvements are anticipated other than short service connections to existing facilities. Plans reflect electric power service connection requirements per PP&L service consultations. Underground electrical and communications system conduits will be provided with site construction work. The project owner is coordinating natural gas service requirements with Northwest Natural.

**END TECHNICAL MEMORANDUM**

## **APPENDICES:**

1. Reduced Size Plans (Also, see Narrative Report Appendix I for larger 11" X 17" plans and separately attached Full Size Plans)
  - a. Site Plan
  - b. Site Utilities (Water, Sewer & Conduits)
2. Fire Hydrant Flow Test Report

## **APPENDIX 1**

**Reduced Size Plans (Also, see Narrative Report Appendix I for larger 11" X 17" plans and separately attached Full Size Plans)**

- a. Site Plan

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- C1.0 GENERAL PROJECT NOTES & ABBREVIATIONS
- C1.0 STANDARD CITY OF WARRENTON NOTES
- C1.0 COMMERCIAL SITE DESIGN
- C1.0 EXISTING CONDITIONS & TOPOGRAPHY
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- S1.0 SITE PLAN
  - S2.0 SITE SURCHARGE PRELOADING PLAN
  - S3.0 FOUNDATION PLAN
  - S4.0 MEZZANINE & RESTROOM PLANS
  - S5.0 ROOF PLAN & ROOF DIAPHRAGM SCHEMATIC
  - S6.0 EXTERIOR ELEVATIONS
  - S7.0 BUILDING SECTIONS & WEST WALL FRAMING
  - S8.0 FOUNDATION FRAMING SECTIONS & DETAILS
  - S9.0 FOUNDATION & FRAMING DETAILS
- SUBMITTED SEPARATELY**

**ROBY'S FURNITURE**  
WARRENTON, OREGON



**STRICKER**  
Engineering

**UTILITY PROVIDERS:**

- CITY OF WARRENTON**  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-6093
- WATER & SANITARY SEWER**  
CITY OF WARRENTON  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-6093
- ELECTRICITY**  
PACIFIC POWER  
ATTN: MARLYN BROOKEY  
2340 SE OOLY HWY  
WARRENTON OREGON 97146  
503-861-6005
- CABLE TELEVISION**  
CHARTER SPECTRUM COMMUNICATIONS  
ATTN: WANNY BELLEGG  
419 GATEWAY AVENUE  
ASTORIA OREGON 97103  
503-336-7710
- GAS**  
NW NATURAL GAS  
ATTN: RICH GUARD  
225 NW 2ND AVE  
PORTLAND OREGON 97209  
503-284-2111 EXT: 2950  
503-281-6169 (CELL)
- TELEPHONE**  
CENTURY LINK  
ATTN: MIKE MESNER  
481 INDUSTRY  
ASTORIA OREGON 97103  
503-342-7676
- ONE CALL CENTER**  
1-800-333-2344 OR 31

**PROJECT TEAM:**

- OWNER**  
WARRENTON PROPERTY INVESTMENTS, LLC  
1111 N. COAST HIGHWAY - NEAPORT, OR 97136  
CONTACT: AYLEE LANDOLERS, REGIONAL MANAGER  
PHONE: (503) 872-8267
- PROJECT ENGINEER**  
STRICKER ENGINEERING  
PO BOX 386 GAMBELLA, OR 97118  
CONTACT: JOHN DOYLE, PRESIDENT  
PHONE: (503) 322-2442
- SOIL DESIGN**  
YOUNG & RUBICAM ENGINEERING, LLC  
14200 YOUNGS RIVER RD ASTORIA, OR 97103  
CONTACT: GEOFFREY LILLENWALL, P.E.  
PHONE: (503) 791-3010
- GEOTECHNICAL ENGINEER**  
TERMA ASSOCIATES, INC.  
13222 113TH AVE, STE 110, NEBOLA, WA 98158  
CONTACT: JOHN SAULIER, SENIOR ENGINEERING GEOLOGIST  
THEODORE SCHEPPER, P.E., PRINCIPAL  
PHONE: (425) 671-4334
- ENVIRONMENTAL CONSULTANT**  
BROOKVIEW GROUP  
COMMERCE PLAZA, SUITE 215, 7105 HAMPTON ST, TIGARD, OR 97223  
CONTACT: JUSTIN BOURDAS, BS  
PHONE: (503) 675-4352
- CONSTRUCTION CONTRACTOR (SITE WORK)**  
BIG RIVER CONSTRUCTION, INC.  
3064 HIGHWAY 101 BUSINESS ASTORIA, OR 97103  
CONTACT: PHIL CAMPNEY  
PHONE: (503) 334-5478

**GENERAL NOTES:**

1. PROPOSED DEVELOPMENT: COMMERCIAL/RETAIL STORE, HOME FURNITURE & APPLIANCES
2. GENERAL LOCATION: WARRENTON, OREGON BETWEEN HIGHWAY 101 AND MARLINE AVE ON NORTH SIDE OF HIGHWAY 101 ALTERNATE
3. PROPOSED BUILDING: 27,500 SQ. FT FABRICATED STEEL STRUCTURE WITH WOOD SIDING & METAL ROOF
4. SITE ZONING: COMMERCIAL, C-1

**REFERENCE DATUM:**

STATION INDEX ID: PID SC0559'

DATUM: NAVD 88  
ELEVATION: 9.36 FT

LOCATION: BETWEEN HIGHWAY 101 & MARLIN AVE. ON NORTH SIDE OF  
ALT. HIGHWAY 101, T.C. #81027 AB06900, T8N, R10W, SECTION 27  
LATITUDE 46.153934, LONGITUDE -123.906084



NO.	DATE	REVISIONS

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
john@strickerengineering.com



**SITE LOCATION MAP (NTS)**



**SITE VICINITY MAP (NTS)**

**PERMIT SET**

**ROBY'S FURNITURE**  
COVER SHEET  
WARRENTON, OREGON

DRAWN: 05/21/2021  
SCHED: 05/28/2021  
SCALE: AS SHOWN  
JOB NO.: 201211242

Drawing N.O.:

**C1.0**

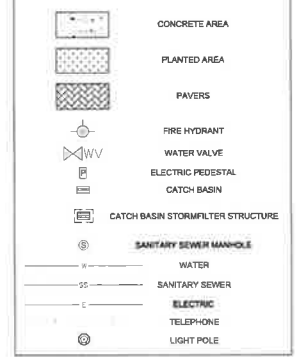
TOTAL SITE AREA: APPROX. 70,500 SQ. FT (1.61 ACRES)  
 BUILDING AREA: 27,550 SQ. FT  
 LANDSCAPED AREA: 11,060 SQ. FT. (0.25 ACRES) (15.7% OF TOTAL SITE AREA)  
 PARKING SPACES: 43  
 TAX MAP: 81027AB06400  
 LOCATION DESCRIPTION: NE 1/4 OF SECTION 27, T. 8 N., R. 10 W., LAT. 46.159394, LONGITUDE -123.906074W.M. CITY OF WARRENTON, CLATSOP COUNTY, OREGON

LANDSCAPE AREA TABLE	LA NO.	AREA (SQ. FT.)
	LA 1	2790
	LA 2	800
	LA 3	121
	LA 4	131
	LA 5	131
	LA 6	438
	LA 7	151
	LA 8	151
	LA 9	310
	LA 10	175
	LA 11	175
	LA 12	874
	LA 13	88
	LA 14	690
	REMAINING WALL	3920
	WEST-SIDEWALK	385
	TOTAL	11060

1. SEE LANDSCAPE AND LIGHTING PLAN, SHEET C8.0.

- NOTES:
- MAIL BOX LOCATION TO BE DETERMINED BY OWNER & DESIGNER/BUILD CONTRACTOR.
  - EXISTING DRAINAGE DITCH TO REMAIN OPEN WITH DITCH BOTTOM AND SOUTH BANK TO BE RE-GRADED FOR IMPROVED STORM WATER CONVEYANCE. AESTHETIC APPEARANCE AND MAINTENANCE BASE. SEE SITE DRAINAGE AND GRADING PLAN, SHEET S, DETAILS, SHEET S.3 AND LANDSCAPE AND LIGHTING PLAN, SHEET C8.0.
  - DRIVE ENTRANCES AND UTILITIES - SEE SHEET C7.0.
  - STORE ENTRANCES & ACCESSWAYS - SEE SHEET C8.0.
  - LOADING ZONE NO PARKING SIGNS- PROVIDE 18" W X 24" H "LOADING ZONE NO PARKING" SIGNS (MUTC STANDARD) & MOUNT TWO (2) AT EACH OF THREE (3) LOCATIONS: (1) NORTH SIDE (LOADING DOCK), (2) SOUTH SIDE (LOADING DOCK AND TR) REFUSE AREA GATES, FIELD LOCATE AND MOUNT AS REQUIRED.
  - TRUCK LANEWAY PARKING SIGNS- PROVIDE 18" W X 24" H "TRUCK LANEWAY PARKING" SIGNS (MUTC STANDARD) & MOUNT THREE (3) AT 30-FT ON CENTER ALONG EAST PROPERTY LINE/ CURB LINE. FIELD LOCATE AND MOUNT ON CITY/COUNTY-GRADE PRESSURE TREATED 4" X 4" POSTS AND INSTALL AS REQUIRED.
  - DIRECTIONAL ARROWS- PROVIDE THERMOPLASTIC DIRECTIONAL ARROWS (MUTC STANDARD, CONFIRM SIZE AND FIELD LOCATE) AND STOP BAR AT BOTH MAIN (WEST) DRIVE ENTRANCE AND NORTHWEST TRUCK ENTRANCE.
  - STORE ENTRANCE AND ACCESSWAY DETAILS- SEE SHEET C8.0.
  - WHEEL STOPS- PROVIDE AND INSTALL PRECAST CONCRETE WHEEL STOPS FOR ALL PARKING SPACES PER DETAIL 3, SHEET C13.0.

**LEGEND**



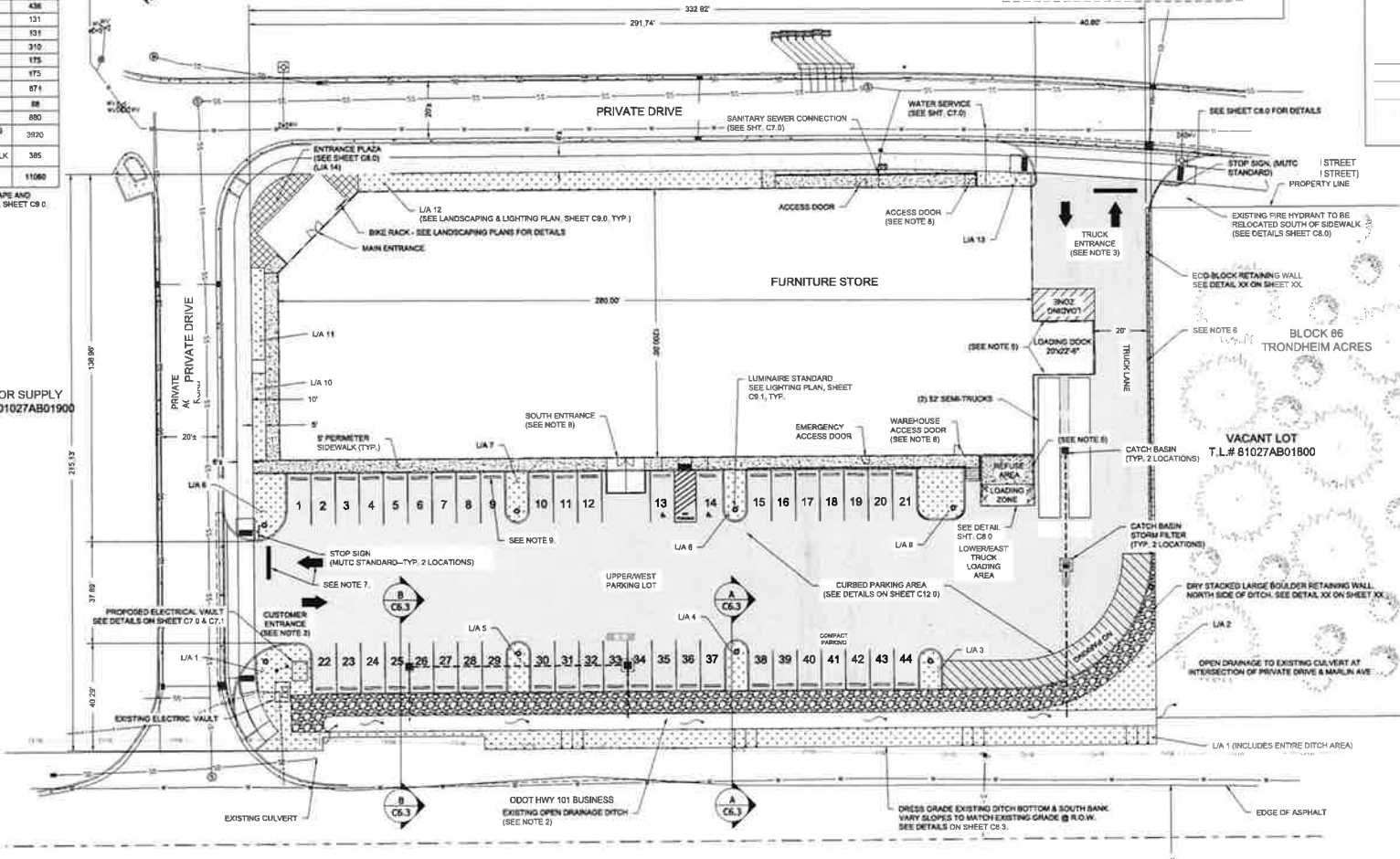
VIEW TOWARD HIGHWAY 101

SEE SHEET C4.1 FOR EXISTING TOPOGRAPHY AND FEMA FLOOD HAZARD ELEV. AND SHT C5.0 FOR PROPOSED SITE GRADING

VACANT LOT T.L.# 81027AB06400



TRACTOR SUPPLY T.L.# 801027AB01900



**ADJACENT PROPERTIES**

**BLOCK 67, WEST PORTION OF LOT 1, TRONDHEIM ACRES**  
 ACCT. NO. 31902  
 TAX MAP: 81027AB01900  
 OWNER/ADDRESS: J.R. ZUMIN CORPORATION DBA MEADOW OUTDOOR ADVERTISING P.O. BOX 331 THE DALLES, OR 97058

**BLOCK 67, EAST PORTION OF LOT 1, TRONDHEIM ACRES**  
 ACCT. NO. 31903  
 TAX MAP: 81027AB01900  
 OWNER/ADDRESS: TRC COLL. LLC 4500 CAMERON VALLEY PARKWAY, #400 CHARLOTTE, NC 28211

**BLOCK 66, LOT 14, TRONDHEIM ACRES**  
 ACCT. NO. 31961  
 TAX MAP: 81027AB01800  
 OWNER/ADDRESS: JIM & K. RICHARDS & DELORES M. RICHARDS P.O. BOX 334 ASTORIA, OR 97103

**BLOCK 81, LOTS 3 & 4, TRONDHEIM ACRES**  
 ACCT. NO. 31922  
 TAX MAP: 81027AB03801  
 OWNER/ADDRESS: HAROLD MARK RAY & LOUETTA JEAN RAY 1290 ALT. HIGHWAY 101 WARRENTON, OR 97146

**BLOCK 81, LOT 5, TRONDHEIM ACRES**  
 ACCT. NO. 32263  
 TAX MAP: 81027AB03806  
 OWNER/ADDRESS: STEVEN GOLDBERG & RAYLA GOLDBERG 1180 ALT. HIGHWAY 101 WARRENTON, OR 97146

**BLOCK 81, LOTS 6, 7, & 8, TRONDHEIM ACRES**  
 ACCT. NO. 31924  
 TAX MAP: 81027AB03800  
 OWNER/ADDRESS: HAROLD MARK RAY & LOUETTA JEAN RAY 1290 ALT. HIGHWAY 101 WARRENTON, OR 97146

**BLOCK 81, LOT 11, TRONDHEIM ACRES**  
 ACCT. NO. 31917  
 TAX MAP: 81027AB03803  
 OWNER/ADDRESS: STEVEN GOLDBERG & RAYLA GOLDBERG 1180 ALT. HIGHWAY 101 WARRENTON, OR 97146

**BLOCK 81, LOT 12, TRONDHEIM ACRES**  
 ACCT. NO. 31918  
 TAX MAP: 81027AB03800  
 OWNER/ADDRESS: HAROLD MARK RAY & LOUETTA JEAN RAY 1290 ALT. HIGHWAY 101 WARRENTON, OR 97146

**BLOCK 81, LOT 13, TRONDHEIM ACRES**  
 ACCT. NO. 31919  
 TAX MAP: 81027AB03800  
 OWNER/ADDRESS: STEVE JORDAN & JUDY JORDAN SWH PROPERTIES, LLC 5196 RIDGE ROAD WARRENTON, OR 97146



DRAWING NO. 213

**(COMMERCIAL) SITE PLAN**

SCALE: 1" = 20'

REVISIONS  
 DATE  
 DESCRIPTION  
 105 East Cypress  
 Gresham, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com  
  
**ROBY'S FURNITURE COMMERCIAL SITE DESIGN**  
 WARRENTON, OREGON  
 PERMIT SET  
 Drawing N.O:  
**C4.0**

- LEGEND:**
- DENOTES EXISTING ASPHALT PAVEMENT
  - DENOTES EXISTING CONCRETE PAVEMENT
  - DENOTES EXISTING GRAVEL
  - DENOTES EXISTING GRASS/LANDSCAPE
  - DENOTES EXISTING UNDERGROUND STORM DRAIN LINE
  - DENOTES EXISTING UNDERGROUND SANITARY SEWER LINE
  - DENOTES EXISTING UNDERGROUND COMMUNICATIONS/TELEPHONE LINE
  - DENOTES EXISTING UNDERGROUND POWER (ELECTRIC) LINE
  - DENOTES EXISTING UNDERGROUND WATER (Drip) LINE
  - DENOTES EXISTING OVERHEAD POWER LINE
  - DENOTES EXISTING BRUSH/DECIDUOUS LINE
  - DENOTES CATCH BASIN
  - DENOTES IRRIGATION/CONDUIT LINE
  - DENOTES COMMUNICATION RISER
  - DENOTES FIRE HYDRANT
  - DENOTES INVERT ELEVATION OF PIPE/OUTFALL
  - DENOTES MANHOLE
  - DENOTES POWER (ELECTRIC) VAULT
  - DENOTES SANITARY SEWER CLEANOUT
  - DENOTES SANITARY SEWER LATERAL BOARD
  - DENOTES SANITARY SEWER MANHOLE
  - DENOTES STORM DRAIN CLEANOUT
  - DENOTES STORM DRAIN MANHOLE
  - DENOTES UTILITY STAND PIPE/STUB UP
  - DENOTES POWER (ELECTRIC) TRANSFORMER
  - DENOTES POWER (ELECTRIC) POLE
  - DENOTES WATER METER
  - DENOTES WATCH VALVE
  - DENOTES CONTINUOUS TREE + DIAMETER
  - DENOTES EDGE OF ASPHALT PAVEMENT (SPOT GRADE)
  - DENOTES EDGE OF CONCRETE (SPOT GRADE)
  - DENOTES CURB OF GRADE (SPOT GRADE)
  - DENOTES OUTER MAN/CURB FLUMLINE (SPOT GRADE)
  - DENOTES TOP FACE OF CURB (SPOT GRADE)

**VERTICAL DATUM:**  
 REFER TO THE COVER PAGE OF THE CONSTRUCTION DOCUMENTS FOR TRONDHEIM LOT 1

**REFERENCE DATUM:**  
 STATION ROCK (S) - HD 500296'

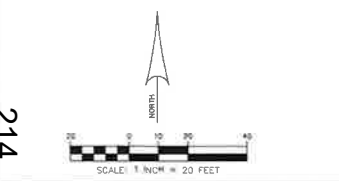
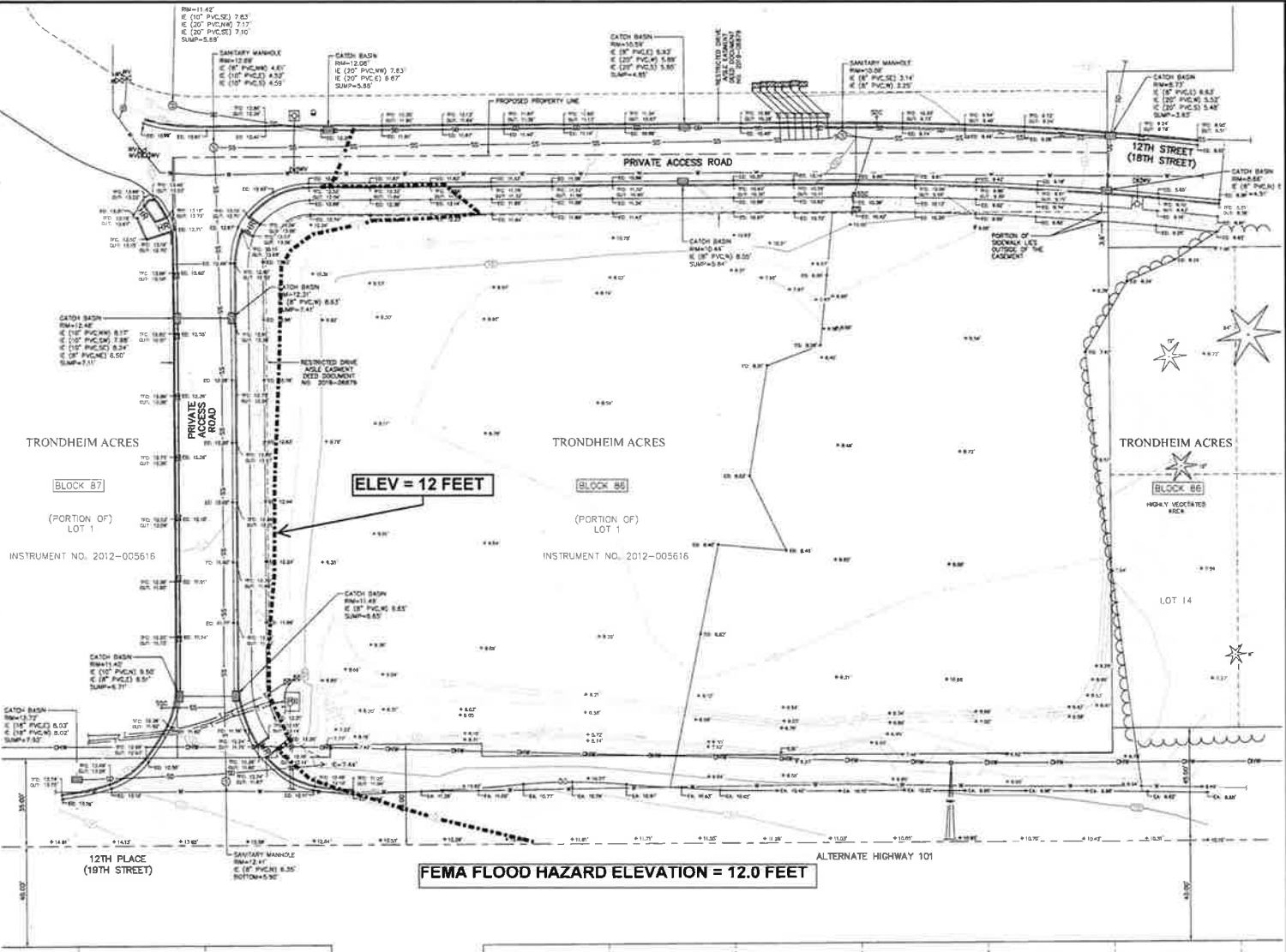
**DATUM:**  
 NAVD 83  
 ELEVATION: 8.36 FEET

**LOCATION:**  
 ON THE EAST SIDE OF MARLIN AVENUE, ABOUT 85 TO 90 FEET NORTH OF THE INTERSECTION WITH S.E. 12TH PLACE.

**UTILITY STATEMENT:**  
 THE UNDERGROUND UTILITIES HAVE BEEN LOCATED FROM LOCATE PAINT MARKINGS TIED IN THE FIELD SURVEY AND AS-BUILT DRAWINGS PROVIDED BY UTILITY COMPANIES. THIS SURVEY DOES NOT SHOW ANY PAINT MARKINGS PROVIDED AFTER THE FIELD SURVEY WAS COMPLETED. AS-BUILT DRAWING INFORMATION THAT WAS NOT PROVIDED IS NOT REFLECTED ON THIS SURVEY. AS-BUILT INFORMATION, IF PROVIDED, WAS USED TO IDENTIFY UNDERGROUND PIPE SIZE AND TYPE. IF NO LOCATE PAINT MARKINGS WERE PROVIDED, AS-BUILT INFORMATION WAS USED TO HORIZONTALLY LOCATE THE UNDERGROUND UTILITIES.

THIS SURVEY MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN CONFORM TO ALL SUCH UTILITIES IN THE AREA. THE UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THIS SURVEY, BUT ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION PROVIDED. MANHOLES OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE SIGNS AND MAY NOT BE LABELED CORRECTLY.

UTILITY LOCATIONS SHOULD BE VERIFIED BY OREGON UTILITIES NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.



214



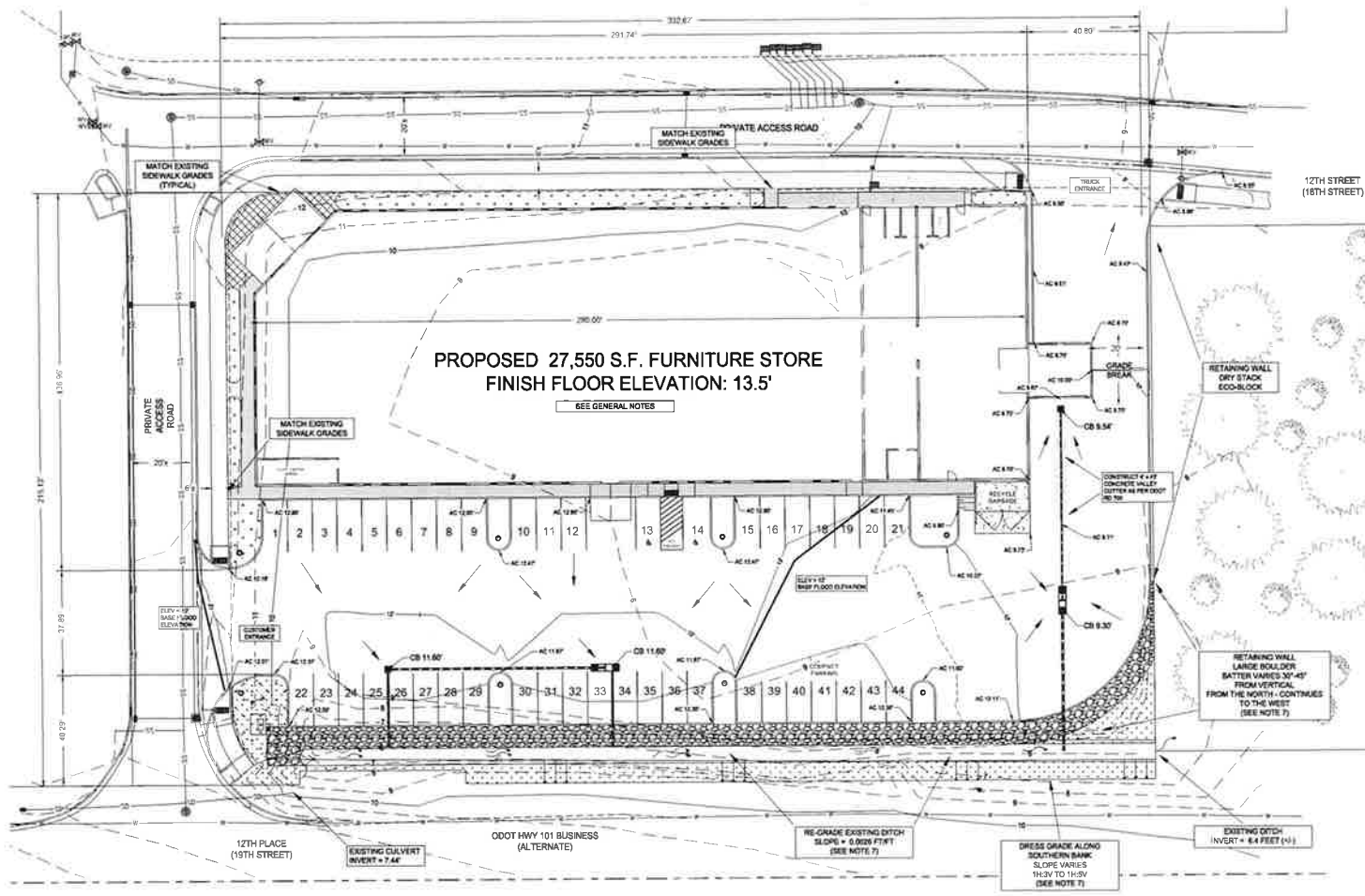
REGISTERED PROFESSIONAL LAND SURVEYOR  
 OREGON  
 JANUARY 11, 2009  
 DARRIN S. HARRIS  
 00101  
 REVIEWS 6-30-21

ROBY'S - WARRENTON TOPOGRAPHIC SURVEY  
 IN THE NE 1/4 OF SECTION 27, T. 8 N., R. 10 W., W.M.  
 CITY OF WARRENTON, CLATSOP COUNTY, OREGON  
 FOR: I. LEWIS HOPE SOURCE, INC. 11726 MAIN AVENUE, TILLAMOOK, OR 97141

REVISIONS	
REVISIONS	
INITIAL	RELEASE

DATE:	3/20/2021
DRAWN:	CAJ
SURVEYOR:	DSH
CHECKED:	DSH
JOB NAME:	ROBY'S - WARRENTON
DRAWING NAME:	ROBY'S TOPO
SHEET NO.:	1 OF 1

**ROBY'S FURNITURE  
 WARRENTON, OREGON  
 EXISTING CONDITIONS AND  
 TOPOGRAPHY**



**1 SITE DRAINAGE AND GRADING**  
C5.0  
1" = 20'



**GENERAL SHEET NOTES:**

1. EXISTING SITE IS PARTIALLY FILLED AND REQUIRES STRUCTURAL FILL AND SURCHARGE FREE CONSOLIDATION TO ESTABLISH SUITABLE FOUNDATION CONDITIONS. A PHASED EARTHWORK PROGRAM IS PROPOSED. SEE SHEETS C8 0, C8 1 & C8 2.
2. ALL SITE EXCAVATION AND GRADING TO FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT, TERRA ASSOCIATES, INC., APRIL 12, 2021.
3. SEE SHEET C8.2 FOR ESTIMATED EXCAVATION, STRUCTURAL FILL AND SURCHARGE MATERIAL QUANTITIES.
4. NO STRUCTURES CURRENTLY OCCUPY THE SITE.
5. FINISH GRADE OF MAIN PARKING LOT IS GRADED ABOVE FEMA FLOOD HAZARD ELEVATION OF 12.0'. TRUCK LOADING AREA IS LOWER, SIMILAR TO ELEVATION OF EXISTING PRIVATE DRIVE AT NORTH AND ALT. HWY 101 AT SOUTH.
6. ROOF AND FOUNDATION DRAINS ROUTE DIRECTLY TO SOUTH DRAINAGE DITCH. PARKING AREA DRAINAGE ROUTES TO STORMFILTER WATER QUALITY TREATMENT FACILITIES PRIOR TO ONSHORE SOUTH TO EXISTING DRAINAGE DITCH. NORTHWEST TRUCK ENTRANCE DRAINAGE ROUTES TO EXISTING CATCHBASIN NEAR ENTRANCE. SEE SHEET C11.5, STORMWATER DRAINAGE-PLAN AND PROFILES.
7. EXISTING DRAINAGE DITCH, LARGE BOULDER RETAINING WALL ON NORTH SIDE, AND REGRADING OF DITCH BOTTOM AND SOUTH BANK FOR IMPROVED DRAINAGE FLOW, AESTHETICS AND MAINTENANCE.
8. GRADING IS CLASSIFIED AS ENGINEERED GRADING PER CITY CODE AND REQUIRES ENGINEERING MONITORING DURING CONSTRUCTION. CONTRACTOR TO COORDINATE WITH ENGINEER AS REQUIRED.
9. SEE DEC. NPDES 1260-C PERMIT AND ESCP SHEETS C14.0, C14.1, C14.2, C14.3 & C14.4 FOR EROSION AND SEDIMENTATION CONTROL REQUIREMENTS.



NO.	DATE	DESCRIPTION

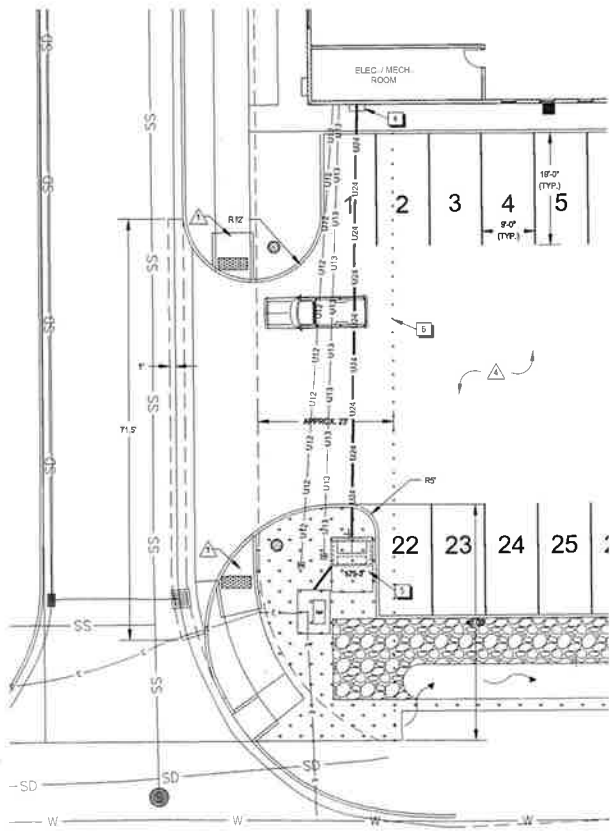
105 East Cypress Street  
 Garbada, OR 97118  
 503.322.2442  
 strickerengineering.com  
 John@strickerengineering.com



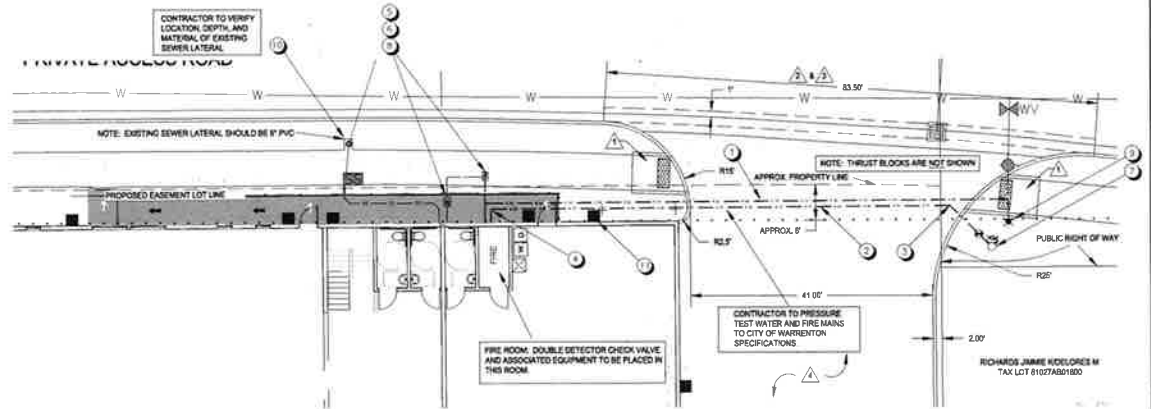
**ROBY'S FURNITURE**  
 SITE DRAINAGE AND GRADING PLAN  
 GENERAL SHEET NOTES  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 DESIGNED: 05/28/2021  
 SCALE: AS SHOWN  
 SHEET NO.: 20210729R

PERMIT SET  
 Drawing N.O:  
**C5.0**



**2 MAIN (WEST) ENTRANCE UTILITIES**  
SCALE: HORIZONTAL 1"=10'



**1 NORTH ENTRANCE UTILITIES**  
SCALE: HORIZONTAL 1"=10'

**CONSTRUCTION NOTES - WATER AND SEWER**

- 1 FURNISH AND INSTALL 8" Ø C-900 PVC SDH-15 WATER MAIN WITH TRACER WIRE - ALL JOINTS SHALL BE RESTRAINED.
- 2 FURNISH AND INSTALL 4" Ø C-900 PVC SDR-18 FDC MAIN WITH TRACER WIRE - ALL JOINTS SHALL BE RESTRAINED.
- 3 FURNISH AND INSTALL 4" 45° DUCTILE IRON BEND - MJ X MJ WITH GRIP RINGS. CONSTRUCT THRUST BLOCK AS PER DETAIL 4, SHEET C10.0
- 4 FURNISH AND INSTALL 4" 90° DUCTILE IRON BEND - MJ X MJ WITH GRIP RINGS. CONSTRUCT THRUST BLOCK AS PER DETAIL 4, SHEET C10.0
- 5 FURNISH AND INSTALL 1" CONNECTION FIRE MAIN. DETAILS BY DBS CONTRACTOR.
- 6 FURNISH AND INSTALL WATER METER AND DOUBLE DETECTOR CHECK VALVE. WATER METER TO BE IN PUBLIC RIGHT OF WAY (SIDEWALK). DOUBLE DETECTOR CHECK VALVE TO BE IN PUBLIC UTILITY EASEMENT (PRIVATE PROPERTY). COORDINATE WITH CITY FIRE MARSHAL. SEE DETAIL SHEET C10.0 DETAIL 2
- 7 DESIGN/BUILD CONTRACTOR TO FURNISH AND INSTALL FIRE DEPARTMENT CONNECTION (FDC) MAIN INTO BUILDING. SEE MEP PLANS FOR CONNECTION DETAILS. SEE DETAIL 2 SHEET C10.0
- 8 FIELD LOCATE/FURNISH AND INSTALL LOCKING INDICATOR POST VALVE FOR THE FDC MAIN. SEE DETAIL SHEET C10.0 DETAIL 3
- 9 FIELD LOCATE, FURNISH AND INSTALL 1" Ø PIPE MAIN CONNECTION AS PER SHEET C10.0 DETAIL 3. MOVE EXISTING FIRE HYDRANT AND RE-INSTALL EXISTING FIRE HYDRANT AS PER DETAILS SHEET C10.0 DETAIL 7. CONTRACTOR SHALL VERIFY BURRY DEPTH OF EXISTING FIRE HYDRANT AND MAKE CORRECTIONS AS NEEDED FOR NEW LOCATION.
- 10 CONTRACTOR SHALL VERIFY DEPTH AND MATERIAL OF THE EXISTING SEWER LATERAL. CONTRACTOR SHALL FIELD VERIFY SANITARY SEWER CONNECTION AT BUILDING & CONNECT TO THE EXISTING SEWER LATERAL AS PER APPLICABLE CODE AND SUB-CONTRACTOR PLANS.
- 11 OWNER TO PROVIDE EASEMENT FOR FRONTAGE WATER MAIN PER CITY REQUIREMENTS.

**CONSTRUCTION NOTES - CURBS, SIDEWALKS, AND ROADS**

- ▲ ADA CURB RAMPS—CONSTRUCT ADA CURB RAMPS PER ODOT STANDARD DRAWING, RD 808. SEE SHEET C12.0
- ▲ EXISTING CURB REMOVAL—SAN CUT AND REMOVE EXISTING MONOLITHIC CURB & GUTTER. SAN CUT EXISTING A.C. 12-INCHES INTO ROADWAY THE FULL LENGTH OF THE NEW DRIVEWAY AND CONSTRUCT NEW 36-INCH WIDE VALLEY GUTTER PER ODOT STANDARD DETAIL, RD 700, SHEET C13.0
- ▲ GRIND EXISTING A.C. 1/2 DEPTH, BACK 1' FROM EXISTING GUTTER LINE AND EXTEND NEW A.C. PAVING OVER LOWER LAYER TO FORM "TEE-OUT".
- ▲ FINISH A.C. GRADING—PREPARE FINISH GRADE FOR NEW A.C. DRIVEWAYS AND PARKING AREAS PER SITE DRAINAGE AND GRADING PLAN, SHEET C5.3 AND PREPARE ROAD SECTION AND PAVE PER DETAIL, DETAIL 1, SHEET C5.6

**CONSTRUCTION NOTES - UTILITIES**

- 1 INSTALL PP 8 L 575 TRANS-POOR VAULT. LOCATION AND FINISHED ELEVATION TO BE DETERMINED IN FIELD BY ENGINEER AND PPAL.
- 2 FURNISH AND INSTALL CONDUIT, AS PER PPL, FROM SECTIONALIZING CABINET TO PPL 575 VAULT. CONDUIT SHALL HAVE LONG SWEEPS COORDINATE WITH POWER COMPANY TYPE - PVC OR FIBERGLASS SWEEPS.
- 3 FURNISH AND INSTALL SCHEDULE 40 PVC CONDUIT AS PER SCHEDULE FOR ELECTRICAL, TELEPHONE, AND CABLE.
- 4 ELECTRICAL SERVICE ENTRANCE - FIELD LOCATE BY DESIGN/BUILD (DB) CONTRACTOR AND COORDINATE W/PPAL.
- 5 DBS CONTRACTOR TO INSTALL/PROVIDE ALL PRIMARY AND SECONDARY CONDUIT AND VAULTS AND COORDINATE WITH PPAL.
- 6 OWNER TO PROVIDE EASEMENT FOR FRONTAGE ELECTRICAL & COMMUNICATIONS CONDUITS PER CITY REQUIREMENTS.

SLOPE 1.5% MAX.  
 (MAX. 3.0% FINISHED SURFACE SLOPE)  
 (NORMAL SIDEWALK CROSS SLOPE)  

 SLOPE 1.5% MAX.  
 (MAX. 3.0% FINISHED SURFACE SLOPE)  

 DETECTABLE WARNING SURFACE

**REDUCED DRAWING**  
**VERIFY SCALE**  
 BAR IS ONE INCH (IN ORIGINAL DRAWING)  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



NO.	DATE	DESCRIPTION	REVISIONS

105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 john@strickerengineering.com



**ROBYS FURNITURE**  
**DRIVE ENTRANCES & SITE UTILITIES**  
**(WATER, SEWER, CONDUITS)**  
 WARRENTON, OREGON

DRAWING: 19/2021/01  
 ISSUED: 05/26/2021  
 SCALE: AS SHOWN  
 JOB NO.: 201201/194

Drawing N.O.:

**C7.0**

PERMIT SET



## **APPENDIX 2**

### **Fire Hydrant Flow Tests**

# **PLACEHOLDER SHEET**

**<<REPLACE WITH FIRE HYDRANT TEST  
REPORT>>**



14795 S.W. 72nd AVENUE  
 PORTLAND, OR 97224  
 PHONE 503-620-4020  
 FAX 503-620-1058  
 CCB# 64174

## FORWARD FLOW TEST

Date: 05/10/2021

Test Number: \_\_\_\_\_

Time: 11:00am

Location: Marlin & Fort Steven's Hwy  
Warrenton, OR., 97146

Weather: \_\_\_\_\_

### Attending Personnel:

1. Marc Bottorff-Delta Fire

3. Warrenton Fire Chief

2. Brian Crouter-City of Warrenton

4. Warrenton Fire Div. Chief

### (LOCATION SKETCH ON BACK)

NOZZLE SIZE	HYDRANT #1		HYDRANT #2	
	2-1/2"	4"	2-1/2"	4"
STATIC PRESSURE AND GAUGE NUMBER	86			
RESIDUAL PRESSURE AND GAUGE NUMBER	76			
PITOT PRESSURE AND GAUGE NUMBER			42	
FLOW G.P.M			1087	
COMPUTED FLOW AT 20 P.S.I. RESIDUAL			3013	
WATER COLOR DESCRIPTION			Clear	

### REMARKS:

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## **APPENDIX C**

*Excavation & Grading Plan, Proposed Roby's Furniture & Appliance Store, Technical Memorandum (Stricker Engineering, May 2021)*



Stricker Engineering LLC  
 PO Box 366  
 Garibaldi, Oregon 97118  
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 503-322-2442

## TECHNICAL MEMORANDUM

May 20, 2021

### ROBY'S FURNITURE & APPLIANCE STORE, Warrenton, Oregon (East Portion of Trondheim Acres Lot 1)

### EXCAVATION AND GRADING PLAN

By: David Leibbrandt, P.E., Stricker Engineering

#### 1.0 Introduction and Background

**1.1 Identification and Description of Work**--This excavation and grading plan is prepared in support of City of Warrenton approval for site excavation, grading and surcharge preloading in preparation for construction of a proposed new Roby's Furniture Store on the east portion of Lot 1, Trondheim Acres. Trondheim Acres, owned by Warrenton Fiber, is a 16.54 acre commercial property development located generally between US Highway 101 and Marlin Avenue, just north of Alternative Highway 101. The west portion of Lot 1 has been previously developed with the recent completion of the new Tractor Supply store.

**1.2 Excavation and Grading Permit Requirements**—This excavation and grading plan narrative is submitted, along with project excavation and grading drawings (attached), to fulfill the requirements of City of Warrenton Municipal Building Code 16.152.060, Grading Permit Requirements. The project involves commercial development and exceeds the 5,000 cubic yard threshold that demands a grading plan and permit.

#### 2.0 Description of Land

**2.1 General Site Location**--The subject property is located in Warrenton, Oregon, Township 8 North, Range 10 West, Section 27, Willamette Meridian at latitude, 46.153934 degrees north and longitude, 123.906084 degrees west. The City's currently assigned Tax I.D. number for the lot is 81027AB06400. The site is situated on the north side of Alternate Highway 101, between US Highway 101 and Marlin Avenue.

north off of Alternative Hwy 101 about 250 ft, then turns and connects into Marlin Avenue about 500 ft east. These two existing roads referred to herein as Private Drive (north-south) and Private Drive (east-west) define the westerly and northerly sides of the site and Alternative Hwy 101 defines the south side. Existing sidewalks have been constructed on the east side of the (north-south) Private Drive and the south side of the (east-west) Private Drive. An existing north-south property line, approximately 334 ft east of the west-side “back-of-sidewalk”, establishes the easterly boundary of the property. At the time of this writing, the legal partitioning of the subject east portion of Lot 1 is in process. It is assumed that the west and north property boundaries of the subject property will be at or very near the current “back-of-sidewalk”. The existing 71,500 square feet (1.64-acre) parcel is clear of trees and brush and has been partially filled and leveled with large crushed rock. An existing open drainage ditch is located along the south edge of the property, just outside the north right-of-way boundary of Alternative Hwy 101. A sanitary sewer stub-out has been provided into the site on the north side.

**2.3 Surrounding Conditions--**As noted above, a new Tractor Supply retail store is located on the property parcel just to the west of the subject site. The parcel just north is currently undeveloped, as is the parcel on the east side of the subject property. Older, single family homes on large lots currently occupy the south side of Alternative Hwy 101 at this location.

**2.4 Existing Topography--**On the north side of Alternative Hwy 101, the edge of pavement near the southeast corner of the subject site is at about 10 ft elevation and rises gradually to about 12 ft at the south end of the (north-south) Private Drive. The existing pavement surface in the Private Drive intersection at the northwest corner of the property is at about 12.5 ft elevation. The (east-west) Private drive slopes gently down at the east end to an elevation of about 8.5 ft. The subject site has been previously graded and partially filled with the surface elevation varying between about 7.5 ft to 9.5 ft. A 2 ft to 4 ft (vertically) sloped bank along the west and north sides of the site transition the existing undeveloped ground surface grade to the finished grade of recently constructed new sidewalks. SEE APPENDIX 1 THIS TM, EXISTING CONDITIONS.

## **2.5 Existing Soil Characteristics**

**2.5.1 Native Soils--**Site specific geotechnical engineering was completed for the subject site by Terra Associates, Inc., the same firm that provided geotechnical engineering for the Trondheim Acres Lot 1, Tractor Supply development project. According to this reporting (Geotechnical Report, Roby’s Furniture, Fort Stevens Highway (Hwy 101 Business—SEE NARRATIVE REPORT APPENDIX F) and SE Marlin Drive, Warrenton, Oregon, Terra Associates, Inc., April 12, 2021), subsurface soils consist of between 45 ft and 62 ft of very soft, wet, alluvial soil classified as estuarine silt, fine sandy silt and soft to medium stiff peat, overlaying hard, moist residual elastic silt “interpreted to be the informally named Smuggler Cove formation.” Terra further noted:

*“The Geologic Map of the Astoria Basin, Clatsop and Northernmost Tillamook Counties, Northwest Oregon, by A.R. Niem (1985) shows geology at the subject site mapped as Quaternary alluvium (Qal) that includes estuarine clay, silt, and fine sand in low-lying coastal areas in and along the Columbia River, Young’s Bay and other major river mouths. The unconsolidated deposits observed in the subsurface explorations are consistent with the description of this geologic map unit.”*

**2.5.2 On-site Fill**—The above referenced Terra Geotechnical Report noted, *“The eastern portion of the site has been filled with and unknown thickness of crushed rock. Much of the crushed rock visible on the ground surface consists of 6 to 18-inch diameter quarry spalls.”*

**2.6 Groundwater**—As reported in the site’s Geotechnical Report (Terra Associates, Inc.), groundwater levels at the subject Roby’s site were generally observed at about 2 to 3 feet below ground surface.

**2.7 Tidal Influence/Flood Level**--The mapped <<maximum flood level>> at the proposed site is 12 ft, with it being reported that flood levels could possibly rise to 13 ft in the future. Almost all of the proposed site currently lies below the reported flood level. While much of the existing site has been previously filled, additional structural fill is proposed so that the proposed building finished floor can be built at an elevation of 13.5 ft. Imported structural fill will further more be placed in the proposed paved areas so that most of the planned parking lot area will be above the 12 ft flood level.

**2.8 US Army Corps of Engineers (Corps) and Oregon Department of State Lands (DSL) Permits**--As part of the original regulatory approval process for the development of the Trondheim Acres, Warrenton Fiber obtained Removal/Fill Permits from both the Corps and DSL (SEE NARRATIVE REPORT APPENDIX F:

*Department of the Army Permit, (Issuing Office: U.S. Army Corps of Engineers, Portland District), Permit No. NWP-2007-745, Warrenton Fiber Company, September 10, 2009 (expiration date not confirmed)*

*Oregon Department of State Lands, Wetland Fill Permit, Marlin Avenue/Hwy 101 Commercial Development, Permit No: 38988-FP Renewal, Expiration Date, August 7, 2021, Warrenton Fiber Company*

These permits provide for the placement of up to 81,000 cubic yards and the removal of up to 26,000 cubic yards, impacting 14.9 acres of wetlands on the Trondheim Acres site complex.

As part of agreed mitigation, Warrenton Fiber Company completed a 142 acre off-site Compensatory Wetland Mitigation Plan involving multiple sites and established a \$48,000 financial endowment to the North Coast Land Conservancy.

At the time of this writing, it is understood that the various conditions of the above permits are being met and that the proposed development of the east portion of Lot 1 is an intended use of the property under the provisions of these permits.



### **3. Proposed Use**

The proposed development provides for the construction of a new retail furniture and appliance store. The property is zoned Commercial and the proposed use is a specific listed use.

### **4. Project Description**

**4.1 Proposed Site Improvements--**The proposed development of the east portion of Lot 1, involves the construction of an 28,000 square foot (approximately) retail furniture and appliance store. The proposed 100' X 280' store is planned to be oriented close to the west and north property boundaries with a customer parking lot on the south side and a main customer entrance on the west side connecting to an existing (north-south) Private Drive. A one-way truck entrance off of an existing east-west Private Drive, is proposed in the northeast corner of the property and a 4-foot high trailer level loading dock is planned on the backside (east end) of the building. SEE SITE PLAN IN APPENDIX 1, THIS TM.

**4.2 Proposed Finished Grades--**The proposed building finished floor, rear loading dock and the surrounding perimeter sidewalk is planned to be constructed at an elevation of 13.5 feet (ft) NAVD 88, 1.5-ft above the mapped 12.0 ft Flood Elevation. The existing sidewalk elevation at the northeast corner of the property sits at about 13.0 ft elevation. The majority of the proposed parking lot is planned for construction above the 12.0 ft flood elevation. It is planned that the rear (easterly) truck entrance extend south around the back of the building from the existing road elevation of about 9.5-ft, fairly flat, with minimal grading for proper drainage, before transition up about 2.5-feet to the level of the main parking lot. This grading scheme provides for a 4-ft high loading dock relative the proposed pavement surface for traditional "dock-high" truck loading operations. SEE SITE DRAINAGE AND GRADING PLAN IN APPENDIX 1 THIS TM.

**4.3 Proposed Site Grading for Drainage--**Site grading is proposed so as to collect and route most of the improved-site's stormwater run-off south to the existing open ditch. Surface drainage from a very small localized area at the northeast truck entrance drive-way apron is proposed to drain directly into an existing curbside catch basin located adjacent to the entrance. Pavement surface grading at the northeast truck entrance is designed to route this localized north into existing facilities planned to receive water quality treatment flows from the subject site. SEE SITE DRAINAGE AND GRADING PLAN IN APPENDIX 1 THIS TM.

**4.4 Open Ditch Improvements--** The existing southerly ditch is proposed to remain an open ditch with a regraded gradually sloped bottom for continuous flow drainage. It is proposed that the regraded bottom be finished with native soil and that the southerly bank be dressed and reseeded with native species grass. A dry stacked, large boulder bank treatment is proposed for the north bank. SEE SITE DRAINAGE AND GRADING PLAN IN APPENDIX 1 THIS TM.

**4.5 Site Preparation for Structural Fill**—Project geotechnical engineering (Terra, April 12, 2021) reports: *“In general, it will not be necessary to strip the organic layer where structural fill thicknesses above existing grade are a minimum of three feet and two feet in building areas and pavement areas, respectively...Where structural fill thicknesses are less than the recommended minimums, both organic and surface soil and vegetation should be stripped from below building areas and pavement areas...surface stripping depths of about two to four inches should be expected...If excessively soft and yielding subgrade is observed and cannot be stabilized in place by aeration, and compaction, the unstable soils should be excavated to a depth of 18 inches and replaced with clean granular structural fill.”* The construction contractor will be required to follow these recommendations. All excavated native material not stockpiled for later reuse in project landscaping will be required to be hauled off-site and properly disposed of. SEE SITE EXCAVATION PLAN IN APPENDIX 1 THIS TM.

**4.6 Structural Fill**--In accordance with the April 12, 2021, Terra Geotechnical Report, approximately 4 to 5 ft of clean granular structural fill material will be imported and placed over the existing surface in the proposed building area, and approximately 2 to 3 feet of imported granular structural fill will be placed in paved areas. This structural fill will then be surcharged with 4 ft of material over the building area and one foot of material over paved areas to pre-consolidate compressible subsurface soils prior to construction. Recommended specifications for imported structural fill are as follows:

*100 Percent Passing 6-inch U.S. Sieve Size*

*75 Percent Passing the No. 4 U.S. Sieve Size*

*5 Percent Max. Passing the No. 200 Sieve Size*

These specifications meet and exceed the *City of Warrenton Municipal Code, 16.152.110, Fills* requirement with a specifications requiring 12-inch maximum depths lifts and 95 percent compaction (ASTM Test Designation D-698, Standard Proctor). SEE SITE SURCHARGE/PRELOADING PLAN IN APPENDIX 1 THIS TM.

**4.7 Phased Grading Program**--Roby's proposes to construct the project site grading in two phases, as follows:

**Phase 1:** Phase 1 involves perimeter excavations around the proposed building footprint, beneath the footing zone and the placement of at least 3-feet of compacted granular structural fill to a level of the designed bottom of footings, then the placement of approximately another 5-ft thickness of specified compacted granular structural fill up to the finished floor elevation. This fill will extend beyond the building footprint so as to support another 4-ft of surcharge material, with the top of the surcharge material extending at least 5-ft beyond the building perimeter. It is proposed that surcharging material over the building area be of the same material specification as for structural fill, so that after settlement, excess surcharging material can be removed and re-used as structural fill in Phase 2. Total settlement under the building area of about 10 to 14-inches is expected, with 90 percent of this consolidation occurring over about 3 to 4 months.

**Phase 2:** In Phase 2, excess surcharge material will be removed from the new building area and graded onto parking and drive areas as structural fill. Excavations for retaining wall foundations along the east property line and at the south side of the site, along the north bank of the existing open ditch will be made and refilled with compacted granular structural fill. Retaining walls will then be constructed as parking lot and driveway area structural fill is placed and compacted to approximate surface finish grades. Approximately one-foot of surcharge material will then be placed over proposed paved surface areas. Total settlement of paved surface areas is expected to be in the range of 4 to 6 inches and expected to take a similar 3 to 4 months to reach 90 percent compaction. While consolidation of Phase 2 fill areas is occurring, staging and construction of the proposed new building will get underway. After the consolidation period, as exterior building work is complete and interior work gets underway, excess surcharge material will be removed from the site, underground utilities will be constructed, final site grading will be completed and other exterior sitework will be constructed.

An uncertain depth and quality of rock fill material has previously been placed on the easterly side of the site. In advance of Phase 2 work, the construction contractor will pothole this filled area in several locations, under the observation and guidance of the geotechnical engineer, so as to facilitate a field assessment of the potential suitability of this material for either in-situ use as structural fill or regarding, compacting and re-use elsewhere on the site as structural fill. Where existing rock fill is judged to be inadequate for structural fill purposes, the contractor will then excavate, remove and replace such material with specified compacted structural fill as required to achieve minimum structural fill depths.

SEE SITE EXCAVATION PLAN, SITE SURCHARGE/PRELOADING PLAN AND EXCAVATION/STRUCTURAL FILL/SURCHARGE X-SECTIONS IN APPENDIX 1 THIS TM.

## **5.0 Cuts, Fills and Excavations**

All fill work, including both, 1) permanent structural fill and 2) temporary surcharge fill placement will follow the guidance and requirements of the project's Geotechnical Report (Terra, April 12, 2021) and the requirements of City of Warrenton Municipal Code 16.152.100 & 110. SEE GEOTECHNICAL REPORT IN NARRATIVE REPORT APPENDIX F.

**5.1 Cuts--**This project will involve no permanent cuts. Only temporary cuts are required, 1) for building footing support over-excavation and structural fill replacement and 2) for retaining wall base over-excavation and structural fill replacement. Preliminary excavation quantity calculations are based on 1:1 cut slopes for noted footing/foundation support over-excavations, with the expectation that these cuts will be very short term, with the contractor replacing these excavations immediately with compacted structural fill. It is not expected that such excavations will require worker entry as all work will be conducted from above grade using heavy machinery. Furthermore, no open excavations will be left

unattended so as to present a public safety hazard or concern. Never the less, the construction contractor will be required to follow all applicable regulatory requirements and standard practices to ensure continuous worker safety and safety of the public.

**5.2 Fills**—This project will involve no permanent exposed fill slopes. Because of the close proximity of the proposed new building to existing sidewalks to the north and the west, temporary dry-stacked “Eco-Block” retaining walls are proposed to contain lower level structural fill and surcharge material. These temporary retaining walls will be removed after the required surcharging period and finished site grades will match existing sidewalk grades. At the south and the east, permanent retaining walls will be built as part of Phase 2 work, to raise the finished surface grade and to contain surcharge preloading material. On the south and east side of the building foundation area, compacted granular structural fill and granular surcharge material will be temporarily sloped away from the flat-graded surcharge surface. Preliminary quantity calculations for structural fill and surcharge material assumed temporary side slopes at 1:1 assuming the construction contractor will elect to install temporary security fencing, for public exclusion and protection during the surcharging period. Alternatively, the contractor will be required to provide 2:1 (Horizontal:Vertical) side slopes in accordance with geotechnical engineering recommendations and other applicable OSHA and City Code requirements.

**5.3 Utility Trenches**—No deep utility trenches are anticipated on the project. All utility work will be confined to on-site and all required utility trenches are expected to be less than about 5-feet deep. Where required for worker safety and regulatory and City Code compliance, side slopes will be laid back at required 2:1 H:V grade or appropriate sheeting and shoring trench protection will be provided. All utility trenching will follow applicable industry standards for worker and public safety, including: OSHA, City of Warrenton Municipal Codes, Oregon Department of Transportation (ODOT)/American Public Works Association (APWA) and the American Water Works Association (AWWA).

**SEE SITE DRAINAGE AND GRADING PLAN, SITE EXCAVATION PLAN, SITE SURCHARGE/PRELOADING PLAN AND EXCAVATION/STRUCTURAL FILL/SURCHARGE X-SECTIONS IN APPENDIX 1 THIS TM.**

## **6. Plans, Diagrams, Computations, Specifications and Other Data**

Attached design drawings show the extent of planned excavations, structural fill placement and site preloading with surcharge material. A copy of the project’s April 12, 2021, Geotechnical Report, by Terra Associates, Inc. accompanies this Excavation and Grading Plan and Permit Application package.

Summaries of estimated excavation, structural fill and surcharge material quantities are shown on attached drawings. **SEE EXCAVATION/STRUCTURAL FILL/SURCHARGE CROSS SECTIONS & DETAILS IN APPENDIX 1 THIS TM.**

## **7. Grading Designation/Engineered Grading Requirements/Regulatory Compliance**

The quantity of estimated excavation, structural fill and surcharge material constitutes designation as “engineered grading”. As required, by City Municipal Code, this excavation and grading plan and associated design drawings have been prepared by licensed engineers, in accordance with the City Code and other adopted provisions of the Oregon Structural Specialty Code, Appendix J.

## **8. Erosion and Sedimentation Control Plan (ESCP)**

The project will follow Best Management Practices (BMP’s) for erosion and sedimentation control through out construction. The project will obtain an NPDES 1200-C Permit from DEQ. SEE DEQ 1200-C PERMIT APPLICATION IN APPENDIX 2, THIS TM. An ESCP is being proposed that follows the guidance outlined in the NPDES 1200-C permit and incorporates both, 1) temporary BMP’s for erosion and sedimentation control during both planned construction phases (Phase 1 and Phase 2) of excavation, structural fill placement and surcharge material placement and 2) longer term BMP’s that will remain in place and monitored and maintained throughout the duration of construction. Covering of Phase 1 surcharge material is not expected to be required as this material is expected to be clean granular structural-fill-grade material that can be reused in the Phase 2 grading program. Should Phase 2 involve any surcharge topping material that is not clean granular material, appropriate ESCP protection treatments will be applied to the top surface and temporary side slopes. Truck entrance points will incorporate appropriate provisions for ensuring soil sediments are not tracked onto existing paved roads. SEE ECSP DRAWINGS IN APPENDIX 1 THIS TM.

## **9. Regular Grading Requirements**

Other specifically required information per City of Warrenton Municipal Code, 16.152.060, E. is provided below:

*9.1 Excavation and Grading Plan*—This Technical Memorandum and the attached design drawings constitute this project’s proposed Excavation and Grading Plan.

*9.2 Location of Work*--See herein presented and above described project site location description and attached plans/drawings.

*9.3 Name of Owner:* Roby’s Furniture & Appliance Store, Kyle Langeliers, Owner Representative

*9.4 Name of Person Who Prepared Plan:* David Leibbrandt, P.E., Stricker Engineering, LLC

*9.5 General Vicinity of the Proposed Site*--East Portion of Lot 1, Trondheim Acres, located between U.S. Highway 101 and Marlin Avenue, on the north side of Alternate Highway 101.

*9.6 Limiting Dimensions and Depth of Cut and Fill*—SEE EXCAVATION PLAN, SITE FILL & SURCHARGE/PRELOADING PLAN AND EXCAVATION/STRUCTURAL FILL/SURCHARGE CROSS SECTIONS & DETAILS IN APPENDIX 1 THIS TM. Table EG.1 presents dimensions of cuts and fills and shows the basis of calculations for estimated quantities. The project involves no permanent exposed cuts or fills. Cuts are limited to cuts required for the over-excavation under footings for structural fill placement and the back slope grading supporting structural fill and retaining walls.

*9.7 Location of Any Buildings or Structure*--No existing buildings are within 15-feet of proposed grading. Existing sidewalks on the north and west sides of the project site are within 15-feet of proposed excavation. Please see attached project drawings.

## **10.0 Grading Inspection**

As required by City of Warrenton Municipal Code, 16.152.070, professional inspections will be provided throughout the construction process. For the excavation and grading phase of the project, design team members will provide the required services as follows:

*10.1 Construction Surveying/Field Staking*--By: *Terra Calc Land Surveying, Inc., 1615, N.E. Miller Street, McMinnville OR, 97128; Phone: (503) 857-0935; e-mail: www.Terra-calc.com.* Responsibilities: Establishing and monitoring lines and grades for construction in accordance with project design plans.

*10.2 Civil Engineering*--By: *Stricker Engineering, P.O. Box 366, Garibaldi, OR 97118; Phone: (503) 322-2442;* Responsibilities: General civil engineering observation during construction to ensure work quality and compliance with project plans and specifications and to assist with and record all approved changes relative to design plans, preparation of "as-built" grading plan.

*10.3 Geotechnical Engineering*--By: *Terra Associates, Inc., 12220 113<sup>th</sup> NE, Ste. 130 Kirkland, Washington, 98034; Phone: (425) 821-7777; FAX: (425) 821-4334;* Responsibilities: Soils and fill materials evaluations, compaction testing, updated recommendations relative to observed subsurface conditions, rock materials evaluations, required reporting of field density tests, recording and presentation of field and laboratory test results, documentation of notable changes in observed field conditions relative to project designs and plans and recommendations for any required revisions relative to geotechnical/geological factors.

## **11. Completion of Work**

Documentation of the completion of work will be provided in accordance with provisions of City of Warrenton Municipal Code, 16.152.150:

**11.1 As-Built Grading Plan**—By Civil Engineer, including statement: *“To the best of our knowledge, the work within the specified area of responsibility was completed in accordance with the final approved grading plan.”*

**11.2 Geotechnical Field Data Report**—By Geotechnical Engineer, including statement: *“To the best of our knowledge the work within the specified area of responsibility was completed in accordance with the approved soils engineering report and applicable provisions of City of Warrenton Municipal Code 16.152.”*

## **12. Summary**

This Technical Memorandum and the attached project design drawings constitute the project’s proposed Excavation and Grading Plan. The Plan complies with all requirements of the City of Warrenton Municipal Code, 16.152 and reflects recommendations of site specific geotechnical engineering performed for the project by Terra Associates, Inc.: Geotechnical Report, Roby’s Furniture, Fort Stevens Highway (Hwy 101 Business) and SE Marlin Drive, Warrenton, Oregon, April 12, 2021, a copy of which is submitted herewith. The project involves site surcharge/preloading for the pre-consolidation of subsurface soils. A two-phase excavation/structural fill/surcharge program is proposed.

**END REPORT**

**APPENDICES:**

- 1) Plans (Abbreviated Set/Reduced Size)
  - a. Cover Sheet
  - b. Site Plan
  - c. Site Drainage & Grading Plan
  - d. Site Excavation Plan
  - e. Site Fill & Surcharge/Preloading Plan
  - f. Excavation/Structural Fill/Surcharge X-Sections & Details
  - g. ESCP Sheets
- 2) 1200-C Permit

## **APPENDIX 1**

### **Plans--Abbreviated Set/Reduced Size**

(See 11 X 17 ½ size plans in Narrative Report Appendix and full-size plans bound separately)



**CIVIL DRAWING INDEX**

- C1.0 COVER SHEET
- C2.0 GENERAL PROJECT NOTES & ABBREVIATIONS
- C3.0 STANDARD CITY OF WARRENTON NOTES
- C4.0 COMMERCIAL SITE DESIGN
- C4.1 EXISTING CONDITIONS & TOPOGRAPHY
- C4.2 SITE DRAINAGE & GRADING PLAN
- C4.3 SITE FILL, SURFPAVING, & PRELOADING PLAN
- C4.4 SITE EXCAVATION PLAN
- C4.5 EXCAVATION/STRUCTURAL FILL/SURCHARGE CROSS SECTIONS & DETAILS
- C4.6 DETAILS - RETAINING WALLS & PAVEMENT CROSS-SECTIONS
- C7.0 DRIVE ENTRANCES AND SITE UTILITIES (WATER, SEWER AND CONDUITS)
- C7.1 DETAILS - UTILITIES
- C8.0 STORE ENTRANCES & ACCESS WAYS
- C8.1 TRUCK MANEUVERING/STORAGE DIAGRAM
- C8.2 LANDSCAPING & LIGHTING PLAN
- C10.0 DETAILS - WATER SERVICE, DOMESTIC AND FIRE
- C11.0 STORMWATER DRAINAGE-PLAN & PROFILES
- C11.1 DETAILS - STORMWATER WATER QUALITY TREATMENT FACILITIES
- C13.0 DETAILS - SIDEWALKS/BIKEWAYS & CURBS
- C13.0 DETAILS - ADA SIDEWALK & CURB RAMPS
- C14.0 ESCP - COVER
- C14.1 ESCP - GENERAL NOTES
- C14.2 ESCP - PHASE I & II
- C14.3 ESCP - BUILDING CONSTRUCTION/14.4 ESCP - DDOT DETAILS

**STRUCTURAL DRAWING INDEX**

- S1.0 SITE PLAN
- S2.0 SITE SURCHARGE PRELOADING PLAN
- S3.0 FOUNDATION PLAN
- S4.0 MEZZANINE & RESTROOM PLANS
- S5.0 ROOF PLAN & ROOF DIAPHRAGM SCHEMATIC
- S6.0 EXTERIOR ELEVATIONS
- S7.0 BUILDING SECTIONS & WEST WALL FRAMING
- S8.0 FOUNDATION/FRAMING SECTIONS & DETAILS
- S9.0 FOUNDATION & FRAMING DETAILS

SUBMITTED SEPARATELY

# ROBY'S FURNITURE

## WARRENTON, OREGON



**STRICKER**  
Engineering

**GENERAL NOTES:**

1. PROPOSED DEVELOPMENT: COMMERCIAL/RETAIL STORE, HOME FURNITURE & APPLIANCES
2. GENERAL LOCATION: WARRENTON, OREGON BETWEEN HIGHWAY 101 AND MARLINE AVE ON NORTH SIDE OF HIGHWAY 101 ALTERNATE
3. PROPOSED BUILDING: 27,500 SQ. FT FABRICATED STEEL STRUCTURE WITH WOOD SIDING & METAL ROOF
4. SITE ZONING: COMMERCIAL, C-1

**REFERENCE DATUM:**

STATION INDEX ID: PID SC0559'

DATUM: NAVD 88  
ELEVATION: 8.36 FT

LOCATION: BETWEEN HIGHWAY 101 & MARLIN AVE, ON NORTH SIDE OF  
ALT. HIGHWAY 101, T.C.#81027 AB06900, T8N, R10W, SECTION 27  
LATITUDE 46.159334, LONGITUDE -123.906084

**UTILITY PROVIDERS:**

CITY OF WARRENTON  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-867-3917

WATER & SANITARY SEWER  
CITY OF WARRENTON  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-867-3917

ELECTRICITY  
PACIFIC POWER  
ATTN: MASHUM BROCKEY  
2340 SE DOLPHIN  
WARRENTON OREGON 97146  
503-867-4000

CABLE TELEVISION  
CHARTER SPECTRUM COMMUNICATIONS  
ATTN: VINNY BELLEO  
878 GATEWAY AVENUE  
ASTORIA OREGON 97103  
503-328-7710

GAS  
NW NATURAL GAS  
ATTN: RICH GRAPD  
220 NW 2ND AVE.  
PORTLAND OREGON 97209  
503-228-4211 EXT. 2580  
503-381-4109 (CELL)

TELEPHONE  
CENTURY LINK  
ATTN: MENE MILDNER  
481 INDUSTRY  
ASTORIA OREGON 97103  
503-342-7878

ONE CALL CENTER  
1-800-333-2344 OR 51



**PROJECT TEAM:**

OWNER:  
WARRENTON PROPERTY INVESTMENTS, LLC  
3111 N. COAST HIGHWAY, NEWPORT, OR 97365  
CONTACT: KYLE LANGAEGHE, REGIONAL MANAGER  
PHONE: (503) 813-6267

PROJECT ENGINEER:  
ETROKER ENGINEERING  
PO BOX 366 GARFIELD, OR 97118  
CONTACT: JOHN DOYLE, PRESIDENT  
PHONE: (503) 303-2442

PAV. DESIGN:  
YOUNGS RIVER ENGINEERING, LLC  
31296 YOUNGS RIVER RD, ASTORIA, OR 97103  
CONTACT: GEOFFREY LILJEWALL, P.E.  
PHONE: (503) 791-3016

GEOTECHNICAL ENGINEER:  
TERRA ASSOCIATES, INC.  
12200 117TH AVE, STE 100, IRVINGLAND, WA 98348  
CONTACT: JOHN SAULIER, SENIOR ENGINEERING GEOLOGIST  
PHONE: (253) 921-4534

ENVIRONMENTAL CONSULTANT:  
BROOKWATER GROUP  
COMMERCIAL PLAZA, SUITE 220, 7108 HAMPTON ST, SEASIDE, OR 97138  
CONTACT: JUSTIN FOUNDS, P.E.  
PHONE: (503) 475-8252

CONSTRUCTION CONTRACTOR (SITE WORK):  
METSBER CONSTRUCTION, INC.  
3504 HIGHWAY 101 BUSINESS, ASTORIA, OR 97103  
CONTACT: PHIL GAFFNEY  
PHONE: (503) 328-3878

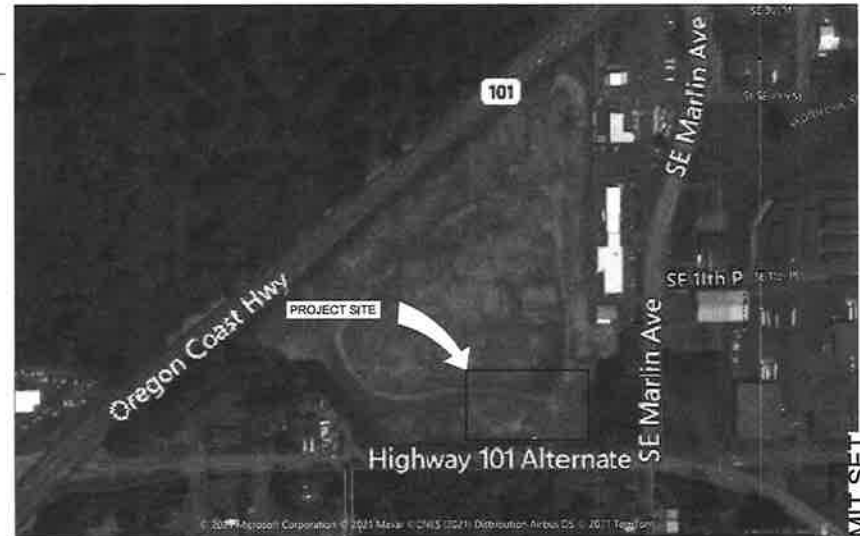


NO.	DATE	REVISIONS

105 East Cypress  
Garfield, OR 97118  
503-322-2442  
dstricker@strickereng.com  
Joining@strickereng.com



**SITE LOCATION MAP (NTS)**



**SITE VICINITY MAP (NTS)**

**PERMIT SET**  
 ROBYS FURNITURE  
 COVER SHEET  
 WARRENTON, OREGON  
 DRAWN: 00787021  
 REVISION: 00/00/00  
 SCALE: AS SHOWN  
 JOB NO.: 20221248  
 Drawing N.O.:  
**C1.0**

TOTAL SITE AREA: APPROX. 70,500 SQ. FT (1.61 ACRES)  
 BUILDING AREA: 27,550 SQ. FT  
 LANDSCAPED AREA: 11,060 SQ. FT. (0.25 ACRES) (15.7% OF TOTAL SITE AREA)  
 PARKING SPACES: 43  
 TAX MAP: 81027AB06400  
 LOCATION DESCRIPTION: NE 1/4 OF SECTION 27, T. 8 N., R. 10 W., LAT. 46.153934, LONGITUDE -123.906074 W. CITY OF WARRENTON, CLATSOP COUNTY, OREGON

LANDSCAPE AREA TABLE	
LANDSCAPE AREA TABLE	
LANDSCAPE AREA TABLE	
L/A 1	2750
L/A 2	800
L/A 3	131
L/A 4	151
L/A 5	131
L/A 6	438
L/A 7	131
L/A 8	131
L/A 9	310
L/A 10	975
L/A 11	178
L/A 12	871
L/A 13	88
L/A 14	860
40' BRETANNING WALL	3920
WEST-SIDEWALK	345
TOTAL	11090

1. SEE LANDSCAPE AND LIGHTING PLAN, SHEET C3.0

TRACTOR SUPPLY  
 T.L. # 801027AB01900

VACANT LOT  
 T.L. #81027AB06400

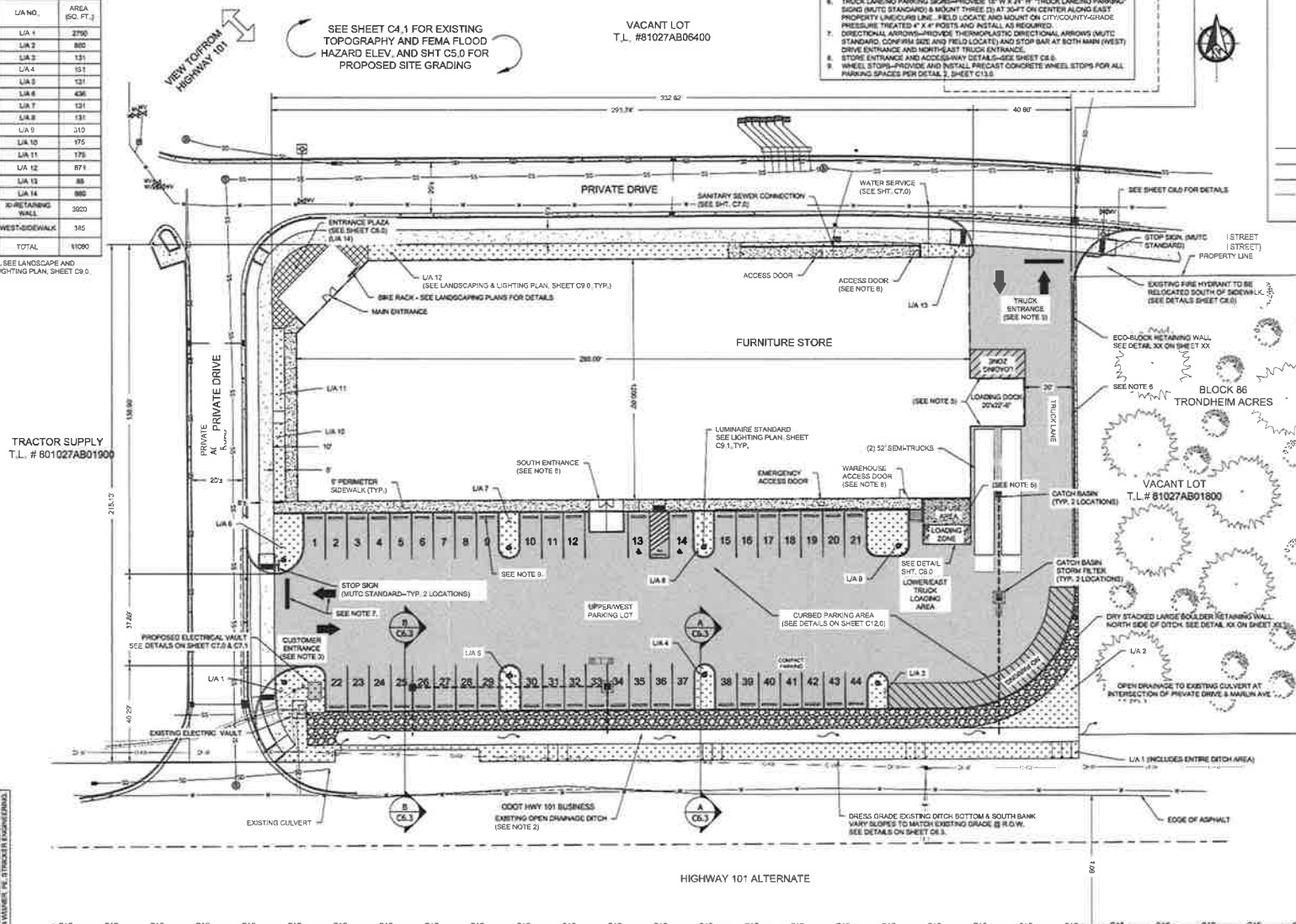
- NOTES:
1. MAILBOX LOCATION TO BE DETERMINED BY OWNER & DESIGNER/BUILD CONTRACTOR.
  2. EXISTING DRAINAGE DITCH TO REMAIN OPEN WITH DITCH BOTTOM AND SOUTH BANK TO BE RE-CRAVED FOR IMPROVED STORM WATER CONVEYANCE, AESTHETIC APPEARANCE AND MAINTENANCE EASE. SEE SITE DRAINAGE AND GRADING PLAN, SHEET 5. DETAILS: SHEET 6.3 AND LANDSCAPE AND LIGHTING PLAN, SHEET C6.0.
  3. DRIVE ENTRANCES AND UTILITIES - SEE SHEET C7.0.
  4. STORE ENTRANCES & ACCESS WAYS - SEE SHEET C6.0.
  5. LOADING ZONING PARKING SIGNS-PROVIDE 18" W X 24" H "TRUCK LANING PARKING" SIGN (MULTI STANDARD) & MOUNT TWO (2) AT EACH OF THREE (3) LOCATIONS: (1) NORTH SIDE LOADING DOCK; (2) SOUTH SIDE LOADING DOCK AND (3) REFUSE AREA GATES. FIELD LOCATE AND MOUNT AS REQUIRED.
  6. TRUCK LANING PARKING SIGNS-PROVIDE 18" W X 24" H "TRUCK LANING PARKING" SIGN (MULTI STANDARD) & MOUNT THREE (3) AT SHUT ON CENTER ALONG EAST PROPERTY LINE/CLUB LINE. FIELD LOCATE AND MOUNT ON CITY/COUNTY-GRADE PRESERVE TREATED 4" X 4" POLES AND INSTALL AS REQUIRED.
  7. DIRECTIONAL ARROWS-PROVIDE THERMOPLASTIC DIRECTIONAL ARROWS (MULTI STANDARD. CONFIRM SIZE AND FIELD LOCATE) AND STOP BAR AT BOTH MAIN (WEST) DRIVE ENTRANCE AND NORTHEAST TRUCK ENTRANCE.
  8. STORE ENTRANCE AND ACCESS-WAY DETAILS-SEE SHEET C6.0.
  9. WHEEL STOPS-PROVIDE AND INSTALL PRECAST CONCRETE WHEEL STOPS FOR ALL PARKING SPACES FOR DETAIL 1, SHEET C13.0.

LEGEND

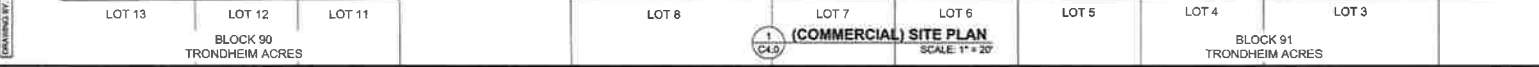
- CONCRETE AREA
- PLANTED AREA
- PAVERS
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC PEDESTAL
- CATCH BASIN
- CATCH BASIN STORM FILTER STRUCTURE
- SANITARY SEWER MANHOLE
- WATER
- SANITARY SEWER
- ELECTRIC
- TELEPHONE
- LIGHT POLE

ADJACENT PROPERTIES

- NORTHERLY PROPERTY  
 ACCT. NO. 6209  
 TAX MAP: 81027AB0630A1  
 OWNER/ADDRESS:  
 J.R. ELLIN CORPORATION  
 604 MADISON OUTDOOR ADVERTISING  
 P.O. BOX 331  
 THE DALLES, OR 97105
- BLOCK 87, WEST PORTION OF LOT 1, TRONDHEIM ACRES  
 ACCT. NO. 3180  
 TAX MAP: 81027AB01900  
 OWNER/ADDRESS:  
 TRC COLX, LLC  
 4000 CAMERON VALLEY PARKWAY, #400  
 CHARLETTE, NC 28211
- BLOCK 88, LOT 14, TRONDHEIM ACRES  
 ACCT. NO. 3180  
 TAX MAP: 81027AB01800  
 OWNER/ADDRESS:  
 JIMMIE K. RICHARDS & DELores M. RICHARDS  
 P.O. BOX 224  
 ASTORIA, OR 97103
- BLOCK 91, LOTS 3 & 4, TRONDHEIM ACRES  
 ACCT. NO. 3182  
 TAX MAP: 81027AB03601  
 OWNER/ADDRESS:  
 HAROLD MARK RAY & LORETTA JEAN RAY  
 1200 ALT. HIGHWAY 101  
 WARRENTON, OR 97146
- BLOCK 91, LOT 5, TRONDHEIM ACRES  
 ACCT. NO. 3203  
 TAX MAP: 81027AB03800  
 OWNER/ADDRESS:  
 STEVEN GOLDBERG & RAYLA GOLDBERG  
 1180 ALT. HIGHWAY 101  
 WARRENTON, OR 97146
- BLOCK 91, LOTS 6, 7, & 8, TRONDHEIM ACRES  
 ACCT. NO. 3188  
 TAX MAP: 81027AB03600  
 OWNER/ADDRESS:  
 HAROLD MARK RAY & LORETTA JEAN RAY  
 1200 ALT. HIGHWAY 101  
 WARRENTON, OR 97146
- BLOCK 91, LOT 11, TRONDHEIM ACRES  
 ACCT. NO. 3181  
 TAX MAP: 81027AB0331  
 OWNER/ADDRESS:  
 STEVEN GOLDBERG & RAYLA GOLDBERG  
 1180 ALT. HIGHWAY 101  
 WARRENTON, OR 97146
- BLOCK 91, LOT 12, TRONDHEIM ACRES  
 ACCT. NO. 3181  
 TAX MAP: 81027AB03300  
 OWNER/ADDRESS:  
 HAROLD MARK RAY & LORETTA JEAN RAY  
 1200 ALT. HIGHWAY 101  
 WARRENTON, OR 97146
- BLOCK 92, LOT 13, TRONDHEIM ACRES  
 ACCT. NO. 3191  
 TAX MAP: 81027AB03400  
 OWNER/ADDRESS:  
 STEVE JORDAN & JUDY JORDAN  
 BSN PROPERTIES, LLC  
 91569 RIDGE ROAD  
 WARRENTON, OR 97146



HIGHWAY 101 ALTERNATE



(COMMERCIAL) SITE PLAN  
 SCALE: 1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION

105 East Cypress  
 Gairbardi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com



STRICKER  
 Engineering

ROBYS FURNITURE  
 COMMERCIAL SITE DESIGN

WARRENTON, OREGON

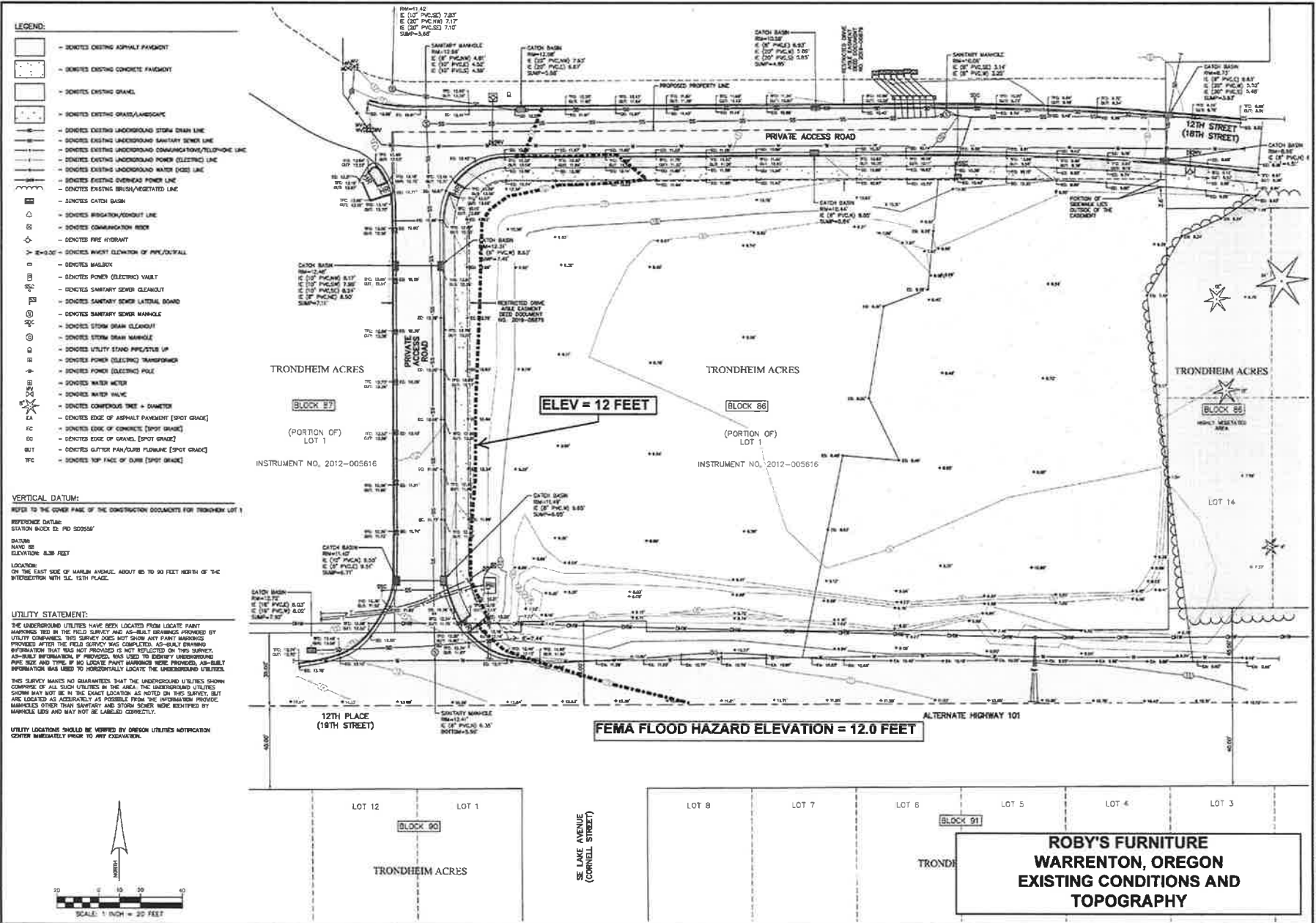
PERMIT SET

DRAWN: 8/28/2021  
 ISSUED: 9/28/2021  
 SCALE: AS SHOWN  
 JOB NO: 210211049

Drawing N.O:  
**C4.0**

234

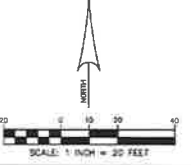
DRAWING BY: BRUNN WARDER, PE, STRICKER ENGINEERING



- LEGEND:**
- DENOTES EXISTING ASPHALT PAVEMENT
  - DENOTES EXISTING CONCRETE PAVEMENT
  - DENOTES EXISTING GRASS
  - DENOTES EXISTING GRASS/LANDSCAPE
  - DENOTES EXISTING UNDERGROUND STORM DRAIN LINE
  - DENOTES EXISTING UNDERGROUND SANITARY SEWER LINE
  - DENOTES EXISTING UNDERGROUND COMMUNICATIONS/TELEPHONE LINE
  - DENOTES EXISTING UNDERGROUND POWER (ELECTRIC) LINE
  - DENOTES EXISTING UNDERGROUND WATER (GSD) LINE
  - DENOTES EXISTING OVERHEAD POWER LINE
  - DENOTES EXISTING BRUSH/VEGETATED LINE
  - DENOTES CATCH BASIN
  - DENOTES BRUSH/VEGETATION LINE
  - DENOTES COMMUNICATION RIGID
  - DENOTES PIPE HYDRANT
  - DENOTES INVERT ELEVATION OF PIPE/CONCRETE
  - DENOTES MANHOLE
  - DENOTES POWER (ELECTRIC) VAULT
  - DENOTES SANITARY SEWER CLEANOUT
  - DENOTES SANITARY SEWER LATERAL BOARD
  - DENOTES SANITARY SEWER MANHOLE
  - DENOTES STORM DRAIN CLEANOUT
  - DENOTES STORM DRAIN MANHOLE
  - DENOTES UTILITY STAND PIPE/STUB UP
  - DENOTES POWER (ELECTRIC) TRANSFORMER
  - DENOTES POWER (ELECTRIC) POLE
  - DENOTES WATER METER
  - DENOTES WATER VALVE
  - DENOTES CONCRETE TREE + DIAMETER
  - DENOTES EDGE OF ASPHALT PAVEMENT (SPOT GRADE)
  - DENOTES EDGE OF CONCRETE (SPOT GRADE)
  - DENOTES EDGE OF GRASS (SPOT GRADE)
  - DENOTES GUTTER FIN/POUR FLUMASK (SPOT GRADE)
  - DENOTES TOP FACE OF CURB (SPOT GRADE)

**VERTICAL DATUM:**  
 REFER TO THE COVER PAGE OF THE CONSTRUCTION DOCUMENTS FOR TRONDHEIM LOT 1  
 REFERENCE DATUM:  
 STATION BLOCK ID: RD 502000'  
 DATUM:  
 NAVD 83  
 ELEVATION: 6.39 FEET  
 LOCATION:  
 ON THE EAST SIDE OF MARLIN AVENUE, ABOUT 80 TO 90 FEET NORTH OF THE INTERSECTION WITH 15TH PLACE.

**UTILITY STATEMENT:**  
 THE UNDERGROUND UTILITIES HAVE BEEN LOCATED FROM LOCATE PAINT MARKINGS TIED IN THE FIELD SURVEY AND AS-BUILT DRAWINGS PROVIDED BY UTILITY COMPANIES. THIS SURVEY DOES NOT SHOW ANY PAINT MARKINGS PROVIDED AFTER THE FIELD SURVEY WAS COMPLETED. AS-BUILT DRAWING INFORMATION THAT WAS NOT PROVIDED IS NOT REFLECTED ON THIS SURVEY. AS-BUILT INFORMATION, IF PROVIDED, WAS USED TO IDENTIFY UNDERGROUND PIPE SIZE AND TYPE. IF NO LOCATE PAINT MARKINGS WERE PROVIDED, AS-BUILT INFORMATION WAS USED TO HORIZONTALY LOCATE THE UNDERGROUND UTILITIES. THIS SURVEY MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA. THE UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THIS SURVEY, BUT ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION PROVIDED. MARKINGS OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE LEGS AND MAY NOT BE LABELED CORRECTLY.  
 UTILITY LOCATIONS SHOULD BE VERIFIED BY OREGON UTILITIES NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.

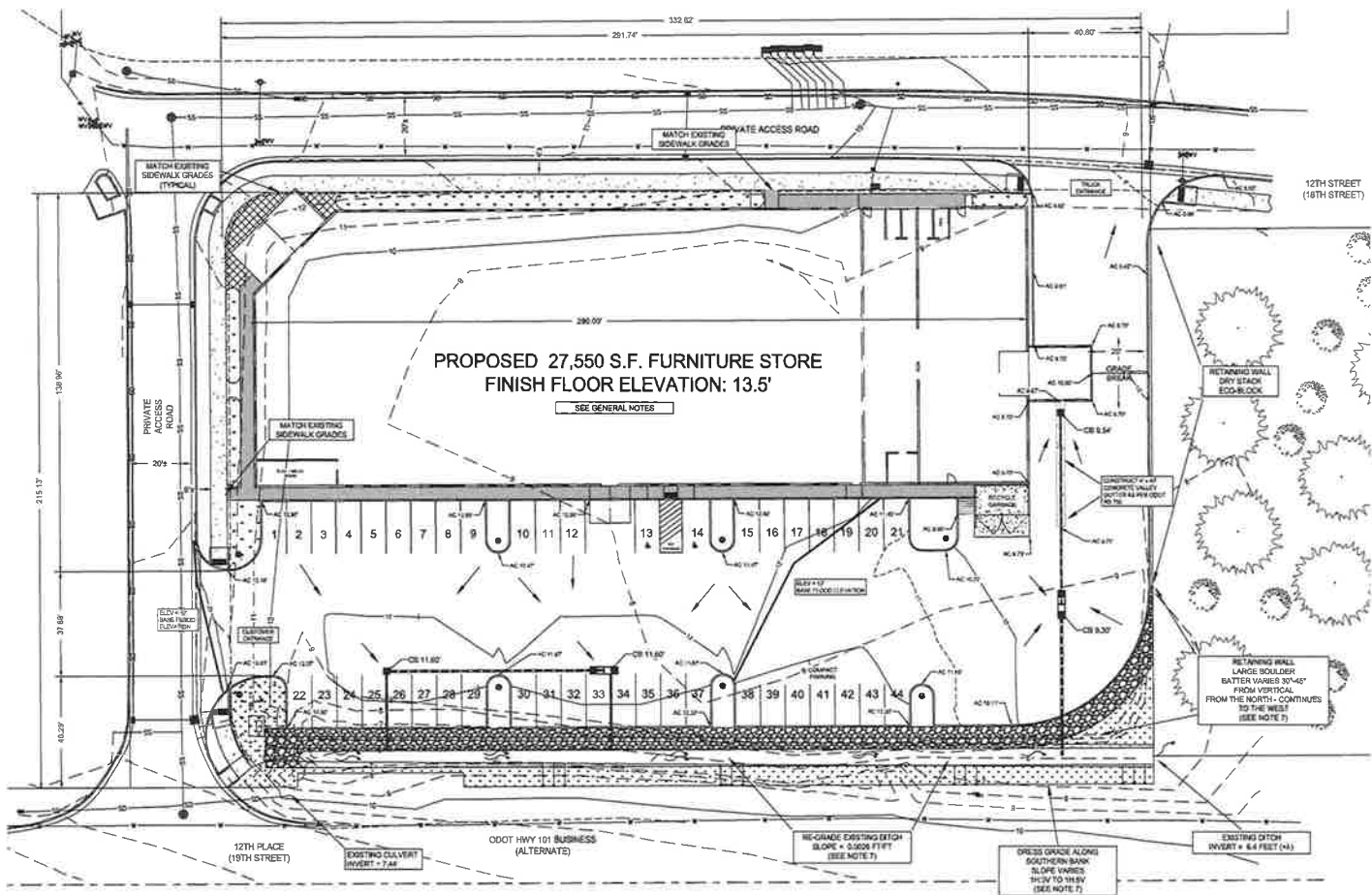


REGISTERED PROFESSIONAL LAND SURVEYOR  
 OREGON  
 JANUARY 11, 2005  
 CHARLES S. WARR  
 #DENO 8-30-2

ROBY'S - WARRENTON  
 TOPOGRAPHIC SURVEY  
 IN THE NE 1/4 OF SECTION 27, T. 8 N., R. 10 W., W.M.  
 CITY OF WARRENTON, CLATSOP COUNTY, OREGON  
 FOR: I. LEWIS HOME SOURCE, INC. 1178 MARL AVENUE 1 TILLAMOOK, OR 97141

REVISIONS	DATE	BY	REASON

DATE	3/23/2021
DRAWN	CAJ
SURVEYOR	CSW
CHECKED	DSH
JOB NAME	ROBY'S - WARRENTON
DRAWING NAME	ROBY'S TOPO
SHEET NO.	1 OF 1



**1 SITE DRAINAGE AND GRADING**  
C5.0 1" = 20'

**GENERAL SHEET NOTES:**

1. EXISTING SITE IS PARTIALLY FILLED AND REQUIRES STRUCTURAL FILL AND SURCHARGE PRE-CONSOLIDATION TO ESTABLISH SUITABLE FOUNDATION CONDITIONS. A PHASED EARTHWORK PROGRAM IS PROPOSED. SEE SHEETS C5.0 C6.1 & C6.2.
2. ALL SITE EXCAVATION AND GRADING TO FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT, TERRA ASSOCIATES, INC., APRIL 12, 2021.
3. SEE SHEET C6.2 FOR ESTIMATED EXCAVATION, STRUCTURAL FILL AND SURCHARGE MATERIAL QUANTITIES.
4. NO STRUCTURES CURRENTLY OCCUPY THE SITE.
5. FINISH GRADE OF MAIN PARKING LOT IS GRADED ABOVE FEMA FLOOD HAZARD ELEVATION OF 13.0'. TRUCK LOADING AREAS LOWER, SIMILAR TO ELEVATION OF EXISTING PRIVATE DRIVE AT NORTH AND ALT. HWY 101 AT SOUTH.
6. ROOF AND FOUNDATION DRAINAGE ROUTE DIRECTLY TO SOUTH DRAINAGE DITCH. PARKING AREA DRAINAGE ROUTES TO STORMWATER QUALITY TREATMENT FACILITIES PRIOR TO DISCHARGE SOUTH TO EXISTING DRAINAGE DITCH. NORTHWEST TRUCK ENTRANCE DRAINAGE ROUTES TO EXISTING CATCH-BASIN NEAR ENTRANCE. SEE SHEET C11.0, STORMWATER DRAINAGE-PLAN AND PROFILES.
7. EXISTING DRAINAGE DITCH: LARGE BOULDER RETAINING WALL ON NORTH SIDE, AND REGRADING OF DITCH BOTTOM AND SOUTH BANK FOR IMPROVED DRAINAGE FLOW, AESTHETICS AND MAINTENANCE.
8. GRADING IS CLASSIFIED AS ENGINEERED GRADING PER CITY CODE AND REQUIRES ENGINEERING MONITORING DURING CONSTRUCTION. CONTRACTOR TO COORDINATE WITH ENGINEER AS REQUIRED.
9. SEE DEQ NPDES 1000-C PERMIT AND ESDP SHEETS C14.0, C14.1, C14.2, C14.3 & C14.4 FOR EROSION AND SEDIMENTATION CONTROL REQUIREMENTS.



NO.	DATE	REVISION

105 East Cypress  
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**ROBYS FURNITURE**  
**SITE DRAINAGE AND GRADING PLAN**  
**GENERAL SHEET NOTES**  
WARRENTON, OREGON

DRAWN: 05/08/21  
ESD: 05/23/21  
SCALE: AS SHOWN  
JOB NO: 201211249

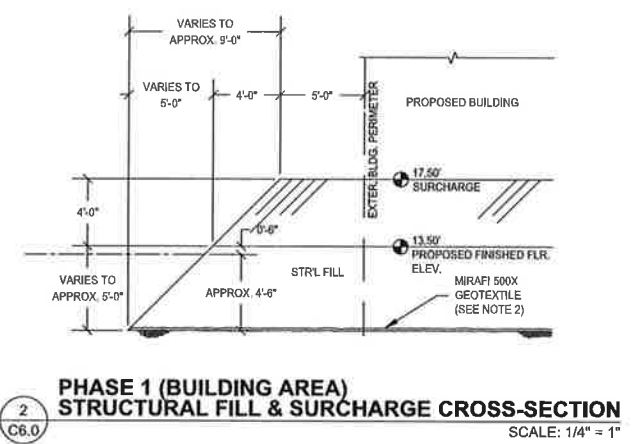
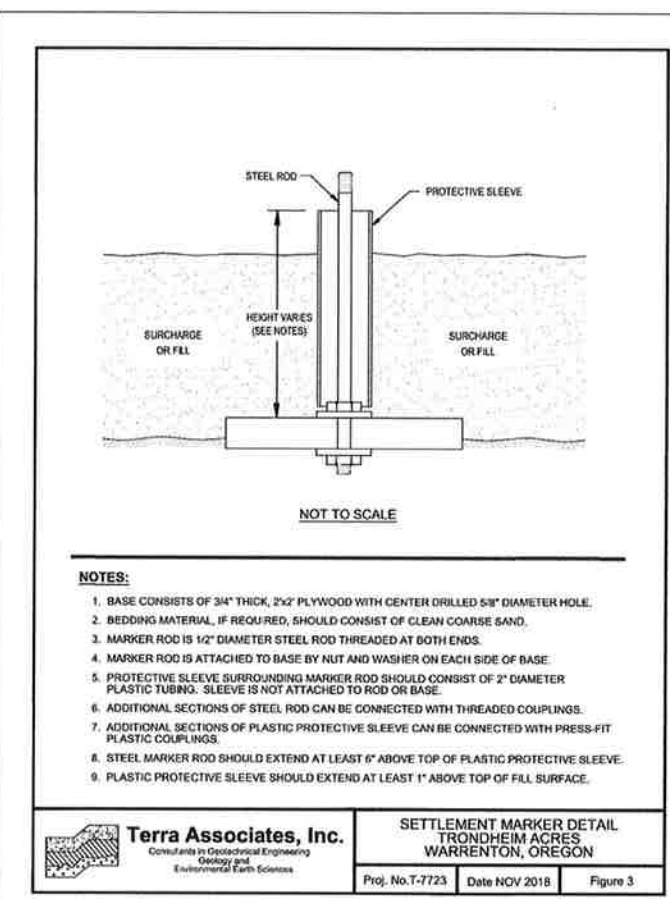
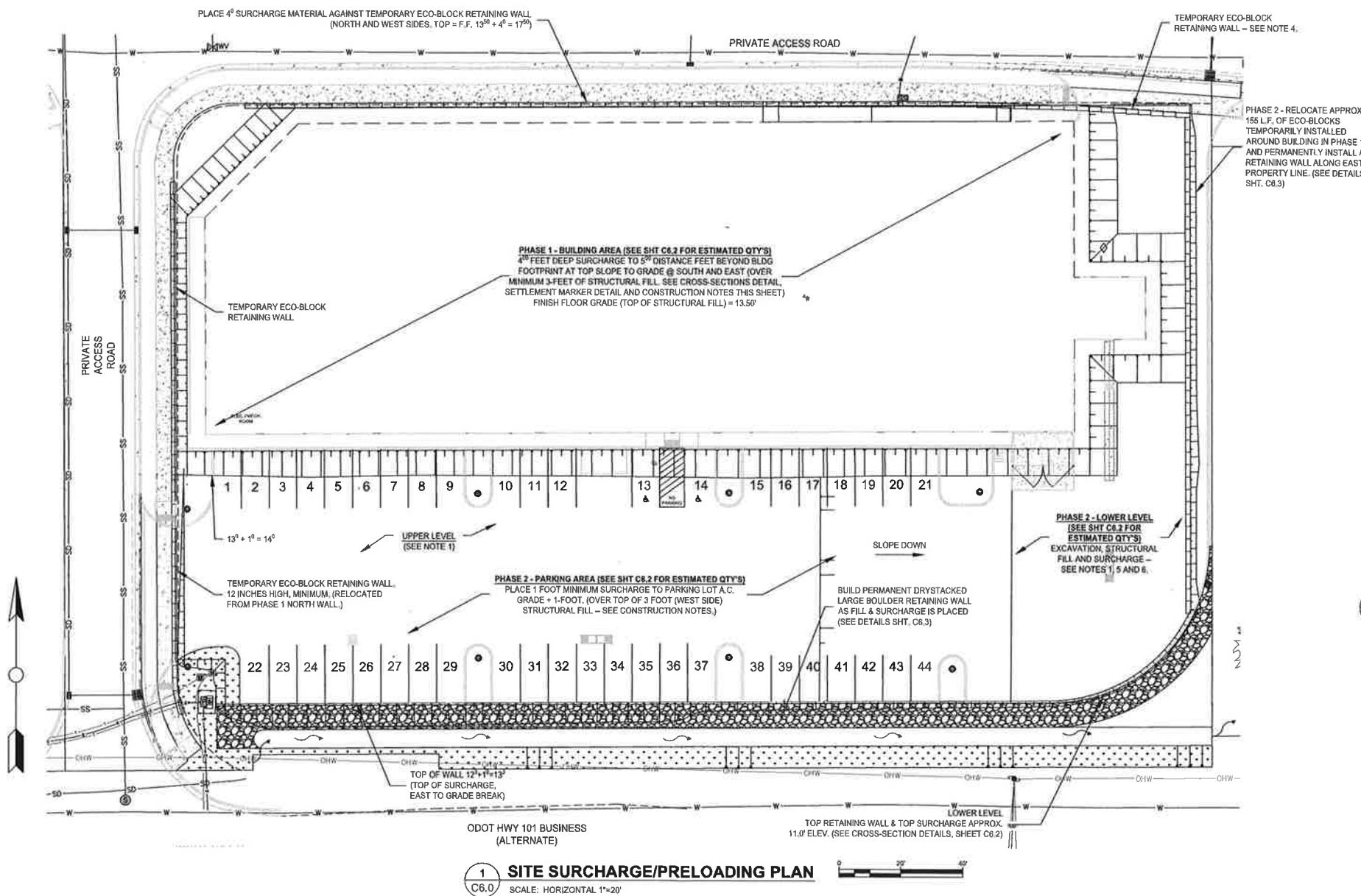
Drawing N.O:

**C5.0**

PERMIT SET

**CONSTRUCTION NOTES**

- SEE "SITE DRAINAGE AND GRADING PLAN" SHEET C.4.0 FOR FINISH GRADE ELEVATIONS. SEE SITE EXCAVATION PLAN, SHEET C6.1 FOR PRE-FILL EXCAVATION REQUIREMENTS. SEE EXCAVATION/STRUCTURAL FILL/SURCHARGE CROSS SECTIONS & DETAILS, SHEET C6.2, FOR EXPECTED FILL THICKNESSES. SEE DETAILS-RETAINING WALLS, SHEET C6.3 FOR CONCURRENT RETAINING WALL CONSTRUCTION REQUIRED FOR FILL AND SURCHARGE CONTAINMENT. FOLLOW RECOMMENDATIONS AND GUIDANCE PER GEOTECHNICAL REPORT (ROBY'S FURNITURE, TERRA ASSOCIATES, INC., APRIL 12, 2021).
- INSTALL MIRAFI 500X GEOTEXTILE, OR APPROVED EQUAL, OVER EXISTING GROUND BEFORE PLACING STRUCTURAL FILL IN BUILDING AREA.
- FIELD LOCATE AND INSTALL SETTLEMENT MARKERS PER DETAIL THIS SHEET, IN QUANTITIES AND LOCATIONS PER GEOTECHNICAL ENGINEER RECOMMENDATIONS, AND MONITOR OVER TIME, AS REQUIRED.
- EXISTING SIDEWALKS-TEMPORARY "ECO-BLOCK" RETAINING WALL PLACEMENT AND SURCHARGING IN THE IMMEDIATE VICINITY OF EXISTING SIDEWALKS ON THE NORTH AND WEST SIDES OF THE PROPOSED BUILDING IS EXPECTED TO CAUSE SETTLEMENT OF ADJACENT SIDEWALKS. CONTRACTOR TO REPLACE OR RESTORE SIDEWALKS TO PRE-CONSTRUCTION GRADES AND CONDITION AFTER SURCHARGING PERIOD AS MAY BE REQUIRED.
- PROVIDE EROSION AND SEDIMENTATION CONTROL THROUGHOUT CONSTRUCTION PER ESCP.
- POT HOLE AND FIELD VERIFY SUITABILITY OF EXISTING FILL ON EASTERLY SIDE OF PROPERTY, PER GEOTECHNICAL ENGINEER RECOMMENDATIONS, PRIOR TO PROCEEDING WITH FILL AND SURCHARGE OPERATIONS. IT IS ANTICIPATED THAT SURCHARGE MATERIAL USED FOR THE PHASE 1 BUILDING AREA WILL MEET MATERIAL SPECIFICATION REQUIREMENTS FOR ON-SITE RE-USE AS PHASE-2 STRUCTURAL FILL.



REGULATED PROFESSIONAL ENGINEER  
11855  
DAVID W. LEIBMAN  
OCT 16, 1987  
DAVID W. LEIBMAN  
EXPIRES 12/31/2022

PERMIT SET

REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



ROBY'S FURNITURE  
FILL SURCHARGE & PRELOADING  
SITE EXCAVATION PLAN

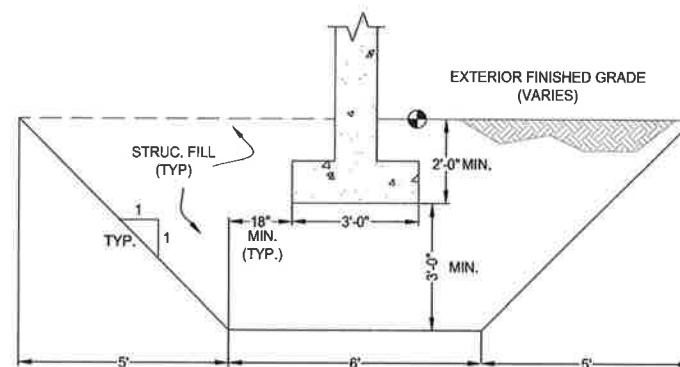
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ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB NO.: 201211249

Drawing N.O.:

C6.0

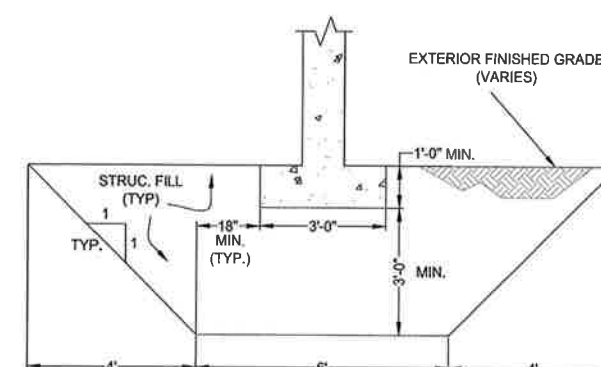
**EXCAVATION PLAN NOTES**

1. EXCAVATION TO FOLLOW GEOTECHNICAL REPORT GUIDANCE (TERRA ASSOCIATES, INC., APRIL 12, 2021, ROBY'S FURNITURE, WARRENTON, OR);
2. SURFACE LAYER STRIPPING GENERALLY NOT REQUIRED WHERE PLANNED STRUCTURAL FILL DEPTHS ABOVE EXISTING GRADES ARE:
  - 2.1. MORE THAN THREE (3) FEET IN BUILDING AREAS
  - 2.2. MORE THAN TWO (2) FEET IN PAVEMENT AREAS
- A. EXCEPTION TO "A." ABOVE, WHERE EXCESSIVELY SOFT AND YIELDING SUB-GRADE IS OBSERVED, UNSTABLE SOILS SHOULD BE REMOVED TO A DEPTH OF 18-INCHES AND REPLACED WITH STRUCTURAL FILL.
- B. EXCAVATION AREAS INCLUDE ALLOWANCE FOR SIDE SLOPE CUTBACKS.
- C. EXCAVATION AREAS SHOWN ARE BASED ON REPORT GUIDANCE FOR FOUNDATION SUPPORT.
3. STRUCTURAL FILL:
  - 3.1. BENEATH CONVENTIONAL SPREAD FOOTINGS—PROVIDE A MINIMUM OF 3-FEET STRUCTURAL FILL EXTENDING A MINIMUM OF 12-INCHES LATERALLY BEYOND FOOTING EDGES.
  - 3.2. BENEATH PAVED AREAS, PROVIDE A MINIMUM OF 18 TO 24-INCHES BELOW FINISHED GRADE.
  - 3.3. PHASED EXCAVATION: 2-PHASE EXCAVATION IS ANTICIPATED WITH THE FIRST PHASE INVOLVING FOOTING EXCAVATIONS FOR THE PROPOSED BUILDING AREA AND THE SECOND PHASE INVOLVING PARKING AREAS.
4. AN UNCERTAIN DEPTH AND QUALITY OF ROCK-FILL HAS BEEN PREVIOUSLY PLACED ON THE EASTERLY SIDE OF THE SITE. CONTRACTOR TO POT-HOLE AT SEVERAL LOCATIONS UNDER THE OBSERVATION AND GUIDANCE OF THE GEOTECHNICAL ENGINEER SO AS TO FACILITATE A FIELD ASSESSMENT OF POTENTIAL SUITABILITY AS STRUCTURAL FILL. WHERE EXISTING ROCK FILL IS JUDGED TO BE INADEQUATE FOR STRUCTURAL FILL PURPOSES, CONTRACTOR TO EXCAVATE AS REQUIRED TO ACHIEVE MINIMUM STRUCTURAL FILL DEPTHS. TABULATED QUANTITY ESTIMATIONS ASSUME FULL DEPTH EXCAVATION IN EASTERLY LOW-LEVEL PARKING LOT AREA.
5. OVER-EXCAVATION BENEATH UTILITIES—PER GEOTECHNICAL REPORT, CONTRACTOR TO OVER-EXCAVATE BENEATH ALL UTILITY STRUCTURES, PIPELINES AND CONDUITS A DEPTH OF APPROXIMATELY 2-FT TO 4-FT, AND INSTALL COMPACTED STRUCTURAL FILL, AS REQUIRED TO ESTABLISH SOUND FOUNDATION CONDITIONS. PROVIDE MIRAFI 500X GEOTEXTILE FABRIC BETWEEN EXCAVATED GROUND SUB-BASE AND FOUNDATION STRUCTURAL FILL.



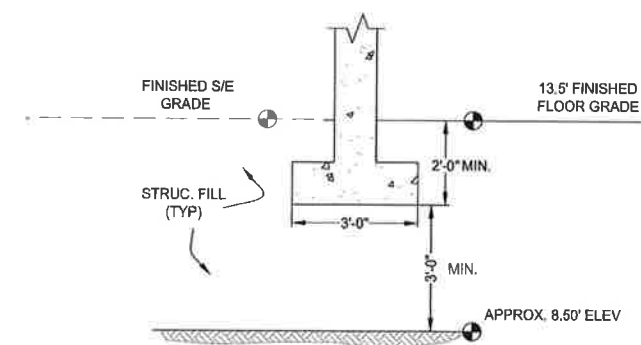
**CASE 1 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'



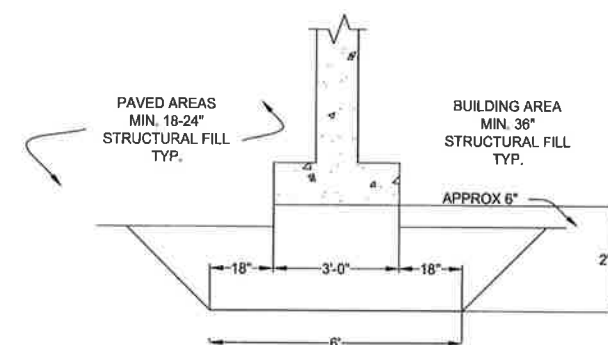
**CASE 2 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'



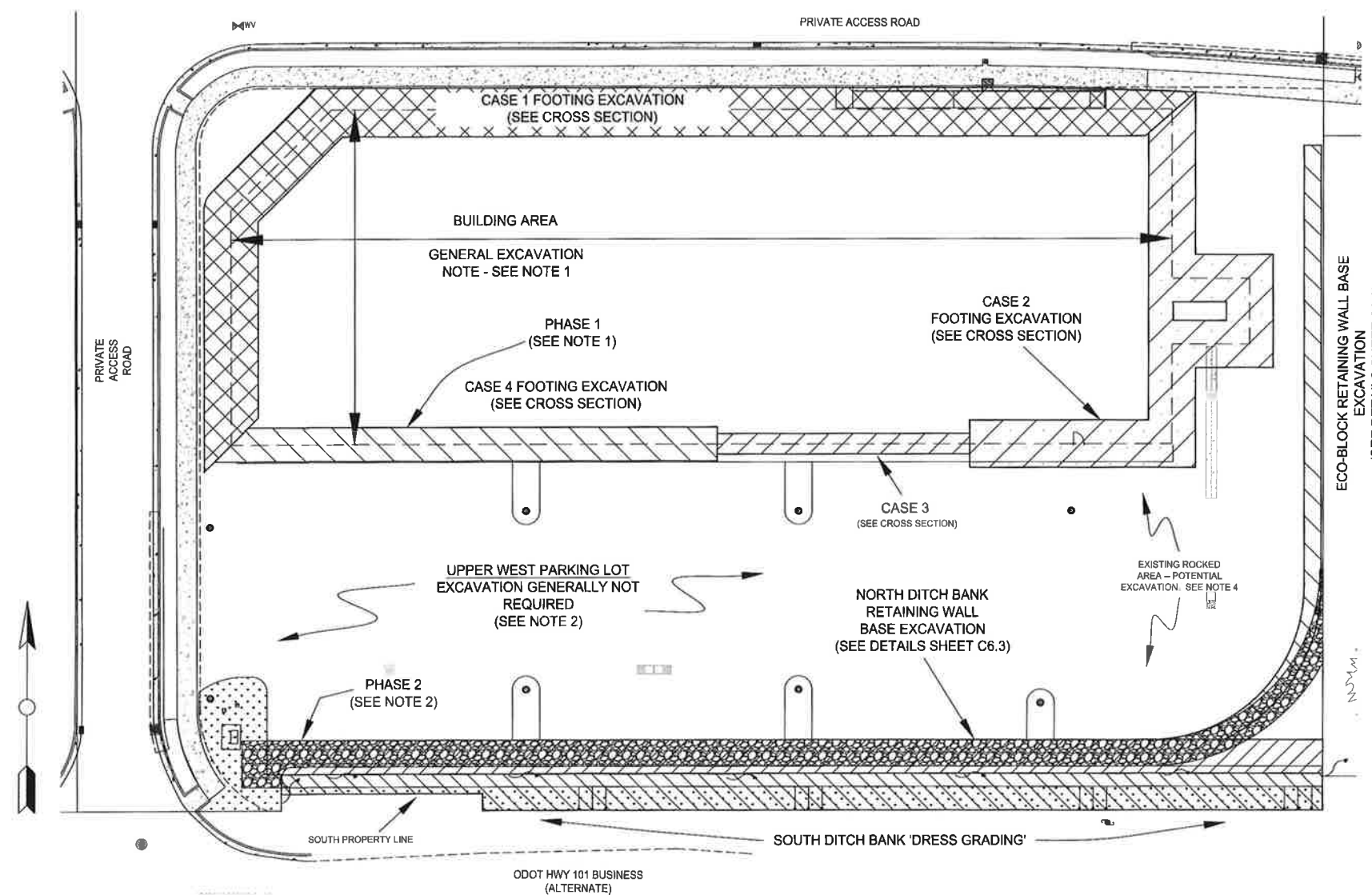
**CASE 3 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'



**CASE 4 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'



**1 SITE EXCAVATION PLAN**  
C6.1 SCALE: HORIZONTAL 1"=20'



REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



**ROBY'S FURNITURE**  
**SITE EXCAVATION PLAN**  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 06/21/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

**C6.1**

238



**PERMIT SET**

**EARTHWORK (EXCAVATION/STRUCTURAL**

**FILL/SURCHARGE) NOTES:**

- EXCAVATION, STRUCTURAL FILL PLACEMENT AND SITE SURCHARGING TO FOLLOW GEOTECHNICAL REPORT GUIDANCE (TERRA ASSOCIATES, INC., APRIL 12, 2021, ROBY'S FURNITURE, WARRENTON, OR):
  - SURFACE LAYER STRIPPING GENERALLY NOT REQUIRED WHERE PLANNED STRUCTURAL FILL DEPTHS ABOVE EXISTING GRADES ARE:
    - MORE THAN THREE (3) FEET IN BUILDING AREAS
    - MORE THAN TWO (2) FEET IN PAVEMENT AREAS
  - EXCEPTION TO "A." ABOVE, WHERE EXCESSIVELY SOFT AND YIELDING SUBGRADE IS OBSERVED, UNSTABLE SOILS SHOULD BE REMOVED TO A DEPTH OF 18-INCHES AND REPLACED WITH STRUCTURAL FILL.
  - EXCAVATION AREAS INCLUDE ALLOWANCE FOR SIDE SLOPE CUT BACKS.
  - EXCAVATION AREAS SHOWN ARE BASED ON REPORT GUIDANCE FOR FOUNDATION SUPPORT:
    - BENEATH CONVENTIONAL SPREAD FOOTINGS--PROVIDE A MINIMUM OF 3- FEET STRUCTURAL FILL EXTENDING A MINIMUM OF 12-INCHES Laterally BEYOND FOOTING EDGES.
    - BENEATH PAVED AREAS, PROVIDE A MINIMUM OF 18 TO 24-INCHES BELOW FINISHED GRADE.
- PHASED EARTHWORK PROGRAM--A TWO PHASE EARTHWORK PROGRAM IS PLANNED AS FOLLOWS:
  - PHASE 1--BUILDING AREA:
    - OVER EXCAVATE EXISTING AREAS AND PLACE STRUCTURAL FILL FOUNDATION MATERIAL.
    - CONSTRUCT TEMPORARY ECO-BLOCK RETAINING WALLS...NORTH AND WEST SIDE.
    - INSTALL STRUCTURAL FILL TO FINISHED FLOOR ELEVATION (13.5)
    - INSTALL 4" THICK SURCHARGE MATERIAL
    - PRECONSOLIDATE SUBSURFACE--MONITOR SUBSURFACE CONSOLIDATION OVER 3-4 MONTH PERIOD, WITH PRECONSOLIDATION COMPLETE, PROCEED TO PHASE 2.
  - PHASE 2--PAVED AREAS:
    - EXCAVATE "SURFACE SOFT SPOTS" AND EXCAVATE RETAINING WALL FOOTING AREAS AND PLACE STRUCTURAL FILL. BEGIN RETAINING WALL CONSTRUCTION.
    - POTHOLE AND ASSESS EAST SIDE ROCK-FILL AREA PER NOTE 3 BELOW. OVEREXCAVATE "SHALLOW AREAS" AS REQUIRED AND PLACE STRUCTURAL FILL AT REQUIRED DEPTHS TO FINISH GRADES PER SITE DRAINAGE AND GRADING PLAN.
    - CONSTRUCT RETAINING WALLS AS STRUCTURAL FILL IS PLACED.
    - INSTALL SURCHARGE MATERIAL AND FINAL RETAINING WALL "TOP-OUT"
- AN UNCERTAIN DEPTH AND QUALITY OF ROCK-FILL HAS BEEN PREVIOUSLY PLACED ON THE EASTERLY SIDE OF THE SITE. CONTRACTOR TO POT-HOLE AT SEVERAL LOCATIONS UNDER THE OBSERVATION AND GUIDANCE OF THE GEOTECHNICAL ENGINEER SO AS TO FACILITATE A FIELD ASSESSMENT OF POTENTIAL SUITABILITY AS STRUCTURAL FILL. WHERE EXISTING ROCK FILL IS JUDGED TO BE INADEQUATE FOR STRUCTURAL FILL PURPOSES, CONTRACTOR TO EXCAVATE AS REQUIRED TO ACHIEVE MINIMUM STRUCTURAL FILL DEPTHS. TABULATED QUANTITY ESTIMATIONS ASSUME FULL DEPTH EXCAVATION IN EASTERLY LOW-LEVEL PARKING LOT AREA.

**SUMMARY TABLE--ESTIMATED VOLUME QUANTITIES**

**EXCAVATION/STRUCTURAL FILL/SURCHARGE MATERIALS**

ITEM DESCRIPTION	ESTIMATED QUANTITY	
<b>EXCAVATION:</b>	<b>CUBIC FEET (C.F.)</b>	<b>CUBIC YARDS (C.Y.)</b>
*Phase 1 Building Footings	27,000	1,000
*Retaining Walls	20,000	800
*Phase 2 Parking & Access Areas	8,600	320
<b>TOTAL ESTIMATED EXCAVATION:</b>	<b>55,600 CF</b>	<b>2,120 CY</b>
<b>STRUCTURAL FILL:</b>		
*Phase 1 Building Area		
-Footing Support	24,500	900
-Main Building Area (2)	172,000	6,400
*Phase 2 Parking Access Areas		
-Upper/Westerly Parking Area	57,000	2,100
-Lower Easterly Area (3)	14,000	525
-Retaining Walls	20,000	750
<b>TOTAL ESTIMATED SURCHARGE MATERIAL</b>	<b>287,500 CF</b>	<b>10,675 CY</b>
<b>SURCHARGE MATERIAL:</b>		
*Phase 1 Building Area	130,000	4,820
*Phase 2 Parking & Access Areas	25,000	930
<b>TOTAL ESTIMATED SURCHARGE MATERIAL</b>	<b>155,000 C.F.</b>	<b>5,750 CY</b>

**PHASE 1 BUILDING AREA SURCHARGE ESTIMATED QUANTITIES**

Sub-Area Description	Area (sf)	Depth or Length (ft)	Volume (cf)	Volume (cy)
Bldg + S (Expt ret. walls)	31,668	4	126,672	4,692
Sloped Shldrs	442	8	3,536	130
<b>Subtotals:</b>			<b>129,808</b>	<b>4,822</b>
<b>Round-offs</b>			<b>(130,000)</b>	<b>(4,820)</b>

**PHASE 2 PAVED AREAS-EXCAVATION ESTIMATED QUANTITIES**

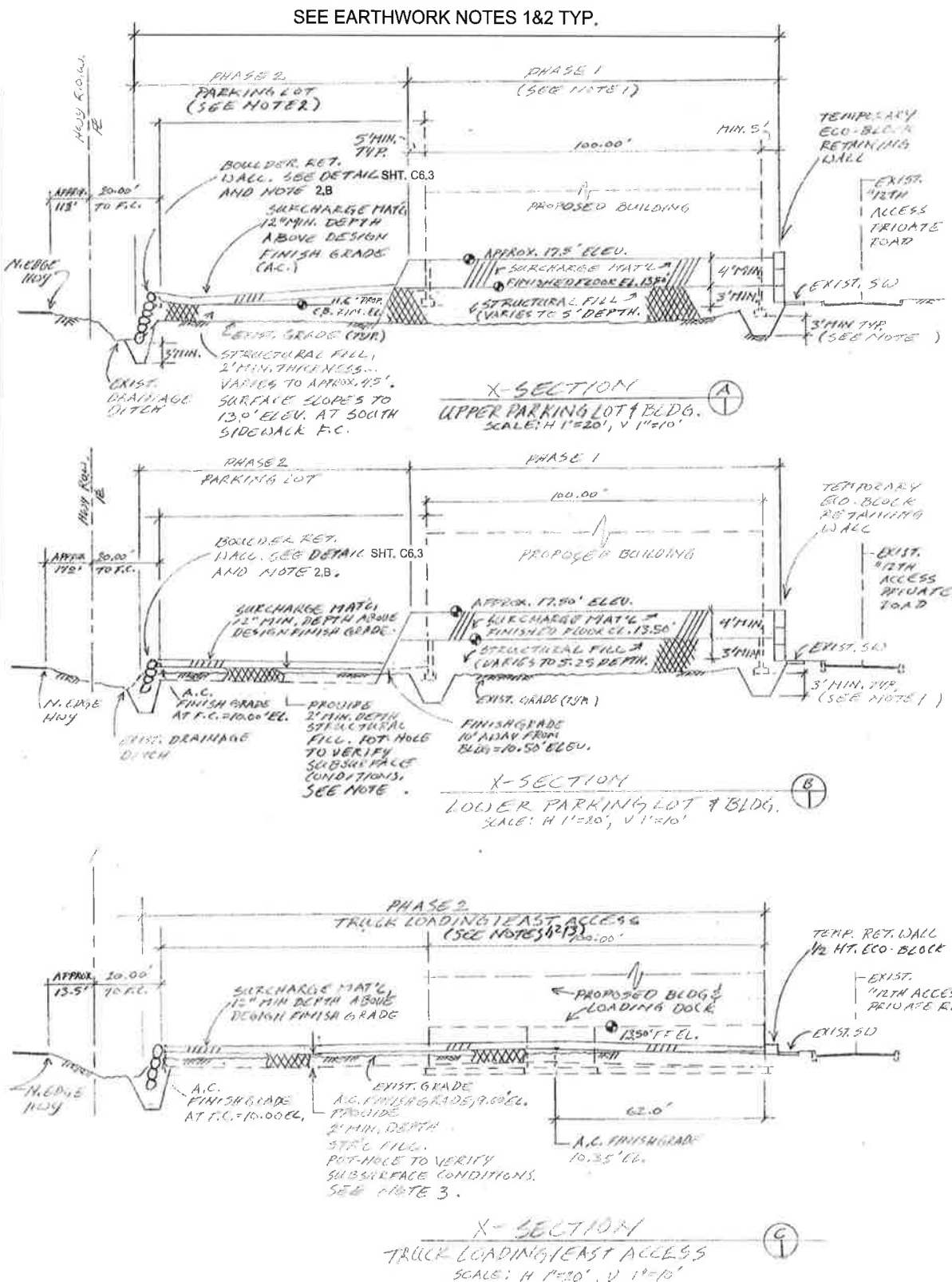
Sub-Area ID	Sub-Area Description	Area (sf)	Ave. Depth (ft)	Volume (cf)	Volume (cy)
A1	W/Upr PL	16,060	-0-	-0-	-0-
A2	SE PL	4,408	1.25	5,500	204
A3	NE PL	1,012	2	2,024	75
A4	Uppr WR	N/A	-0-	-0-	-0-
A4'	Lwr WR	14	73	1,049	38
<b>Subtotals:</b>			<b>8,573</b>	<b>317</b>	
<b>Round-offs</b>			<b>(8,600)</b>	<b>(320)</b>	

**PHASE 2 PAVED AREAS-STRUCTURAL FILL ESTIMATED QUANTITIES**

Sub-Area ID	Sub-Area Description	Area (sf)	Ave. Depth (ft)	Volume (cf)	Volume (cy)
A1	W/Upr PL	16,060	3.22	51,713	1,915
A2	SE PL Top	4,408	0.75	3,306	122
A2	SE PL Pr1	4,408	1.25	5,500	204
A3	NE PL Top	1,012	-0-	-0-	-0-
A3	NE PL Pot1	1,012	2	2,024	75
A4	Uppr WR	72	74	5,328	197
A4'	Lwr ER Top	31	73	2,263	84
A4'	Lwr BR Pr1	14	73	1,049	38
<b>SubTotl Top:</b>				<b>62,610</b>	<b>2,318</b>
<b>SubTI Pot1:</b>				<b>8,573</b>	<b>317</b>
<b>Total</b>				<b>71,183</b>	<b>2,635</b>

**PHASE 2 PAVED AREAS-SURCHARGE ESTIMATED QUANTITIES**

Sub-Area ID	Sub-Area Description	Area (sf)	Ave. Depth (ft)	Volume (cf)	Volume (cy)
A1	W/Upr PL	16,060	1	16,060	595
A2	SE Park LT	4,408	1	4,408	16
A3	NE Park LT	1,012	1	1,012	37
A4&A4'	Ramp Area	3,700	1	3,700	137
<b>SubTotal</b>				<b>25,180</b>	<b>932</b>
<b>Round-offs</b>				<b>(25,000)</b>	<b>(930)</b>



**PHASE 1 BUILDING FOOTING EXCAVATION & STRUCTURAL FILL ESTIMATED QUANTITIES**

Sub-Area Description	Length (ft)	Excav. X-Section Area (ft²)	Excav. Volume (cf)	Excav. Volume (cy)	Str1 Fill X-Section (ft²)	Str1 Fill Volume (cf)	Str1 Fill Volume (cy)
<b>Bldg Footings:</b>							
*Case 1	362	45	16,290	603	40	14,460	536
*Case 2	231	33	7,623	282	30	6,930	256
*Case 3	75	-0-	-0-	-0-	-0-	-0-	-0-
*Case 4	140	21.5	3,010	111	21	3,010	111
<b>Subtotals:</b>			<b>26,923</b>	<b>997</b>		<b>24,400</b>	<b>904</b>
<b>SubTI Rnd-offs:</b>			<b>(27,000)</b>	<b>(1,000)</b>		<b>(24,500)</b>	<b>(900)</b>
<b>Retaining Walls:</b>							
*E. Pl Ret Wall	155	20	3,100	115	20	3,100	115
*N. Ditch Bank	315	52.5	16,538	612.5	48.5	15,278	565
*SE Planter	20	25	1,250	65	25	1,250	65
<b>Subtotals:</b>			<b>17,450</b>	<b>646</b>		<b>16,190</b>	<b>745</b>
<b>SubTI Rnd-offs:</b>			<b>(17,500)</b>	<b>(650)</b>		<b>(16,200)</b>	<b>(750)</b>

**PHASE 1 BUILDING AREA STRUCTURAL FILL ESTIMATED QUANTITIES**

Sub-Area Description	Area (sf)	Depth or Length (ft)	Volume (cf)	Volume (cy)
Bldg Footprint	27,550	5	137,750	5,102
Loading Dock	460	5	2,300	85
Perim. Shldr				
*N. Wall	750	2.5	1,875	69
*NW Entry	430	1	430	16
*West Wall	4,200	1	4,200	155
*South Wall	2,610	5	13,050	483
*East Wall	1,323	5	6,615	245
*Slope Shldrs	12.5	437	5,463	202
<b>Subtotals:</b>			<b>171,683</b>	<b>6,357</b>
<b>SubTI Rnd-offs:</b>			<b>(172,000)</b>	<b>(6,400)</b>

SEE EARTHWORK NOTES 1&2 TYP.

REV	DATE	DESCRIPTION

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Garibaldi, OR 97118  
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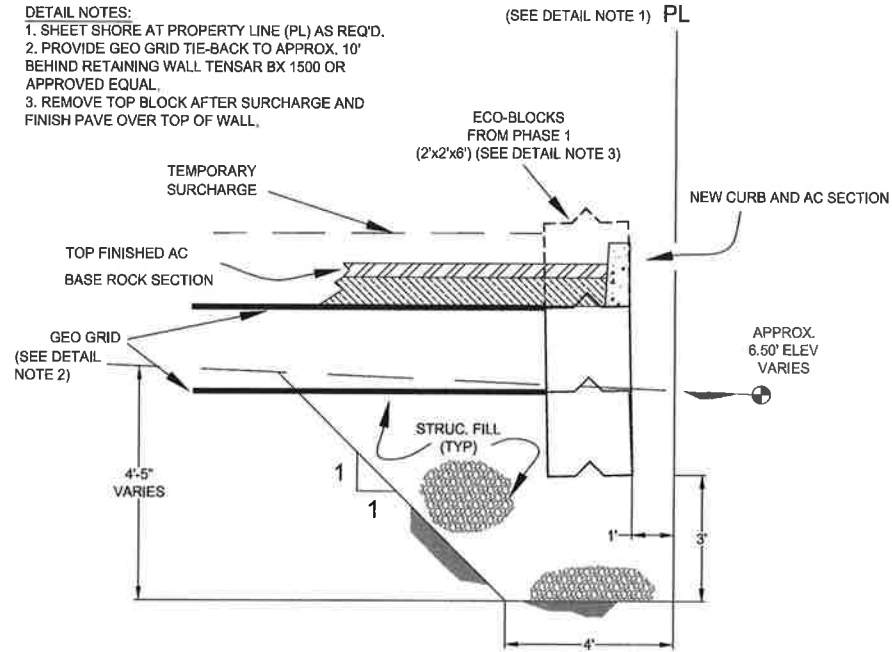
**ROBY'S FURNITURE**  
EXCAVATION/STRUCTURAL FILL/SURCHARGE  
CROSS SECTIONS & DETAILS  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB NO.: 2012211249

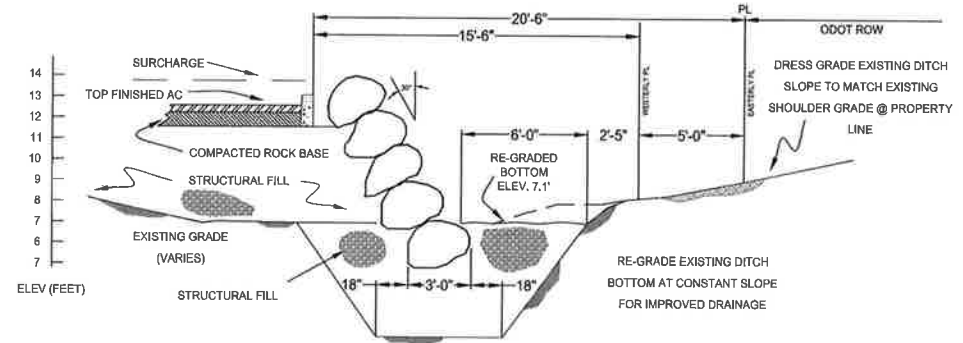
PERMIT SET  
Drawing N.O.:  
**C6.2**  
239



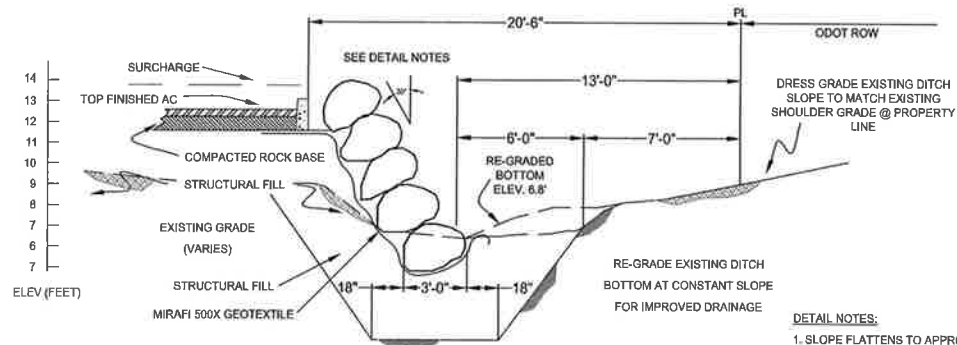
**DETAIL NOTES:**  
 1. SHEET SHORE AT PROPERTY LINE (PL) AS REQ'D.  
 2. PROVIDE GEO GRID TIE-BACK TO APPROX. 10' BEHIND RETAINING WALL TENSAR BX 1500 OR APPROVED EQUAL.  
 3. REMOVE TOP BLOCK AFTER SURCHARGE AND FINISH PAVE OVER TOP OF WALL.



**ECO-BLOCK RETAINING WALL**

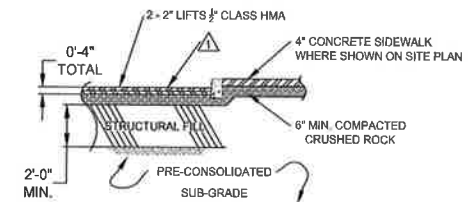


**SOUTH DITCH RETAINING WALL B**  
 CROSS SECTION B - B  
 SCALE: 1/4" = 1'



**SOUTH DITCH RETAINING WALL A**  
 CROSS SECTION A - A  
 SCALE: 1/4" = 1'

**DETAIL NOTES:**  
 1. SLOPE FLATTENS TO APPROX. 45° FROM VERTICAL AT EAST END AS TOP CURB DROPS TO APPROX. ELEV. 10.5'



**PAVEMENT CROSS-SECTION C**  
 SCALE: 1/4" = 1'

▲ FINISH GRADE HMA SURFACING TO GRADES SHOWN ON SHEET C5.0, SLOPE TO DRAIN.  
 ▲ SEE GEOTECHNICAL REPORT FOR SUB-BASE PRE-CONSOLIDATION AND PROOF-ROLL PROCEDURES.

NO.	DATE	DESCRIPTION

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 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com



**ROBY'S FURNITURE**  
**DETAILS--RETAINING WALLS & PAVEMENT**  
**CROSS-SECTIONS**  
 WARRENTON, OREGON

DRAWN: 05/26/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:

**C6.3**

240

*David W. LeBram*  
 DAVID W. LEBRAM  
 ENGINEER  
 EXPIRES 12/31/2022

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**PERMIT SET**



SITE DESCRIPTION

Table with columns: DATE, CONSTRUCTION ACTIVITY, and COMMENTS. Contains details about site preparation, grading, and foundation work.

STORM MANAGEMENT PLAN

BEFORE ANY SIGNIFICANT EXCAVATION

- 1. INSTALL BEST MANAGEMENT PRACTICE (BMP) FOR EROSION PREVENTION
2. INSTALL CONSTRUCTION ENTRANCE
3. MAINTAIN AS MUCH EXISTING VEGETATION AS POSSIBLE

URING CONSTRUCTION

- 1. IF THE CONSTRUCTION ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, ALTERNATIVE MEASURES TO KEEP STREETS FREE OF SEDIMENT MUST BE USED...
2. REMOVE ANY SOIL THAT LEAVES THE SITE AND ENTERS DOWNSTREAM DRAINAGE SYSTEM
3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION, SEDIMENT AND POLLUTANT CONTROL MEASURES, TEMPORARY AND PERMANENT...

AFTER COMPLETION OF EXCAVATION

RE-SEED ALL DISTURBED SOILS. SEED SHALL BE FROM BLUE TAG STOCK AND FROM THE LATEST CROP AVAILABLE... ARE APPROPRIATE FOR THE OREGON NORTH COAST:

SOIL CONSERVATION MIX

Table listing soil conservation mix components: HYBRID RYE (3 LBS/ACR 6%), TALL FESCUE (1 LBS/ACR 22%), CRIMPER RED FESCUE (1 LBS/ACR 34%), BENT GRASS (1 LBS/ACR 2%), and BLY THEORIAL (4 LBS/ACR 12%).

VISUAL MONITORING PROGRAM

Table with columns: DATE, SITE CONDITION, and NOTES. Contains monitoring logs for site conditions and any required remediation.

OREGON STANDARD ESCP NOTES

- 1. ONE INDIVIDUAL INCLUDE A LIST OF ALL CONTRACTORS THAT WILL ENGAGE IN CONSTRUCTION ACTIVITIES ON SITE AND THE AREAS OF THE SITE WHERE THE CONTRACTORS WILL ENGAGE IN CONSTRUCTION ACTIVITIES...
2. VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS...
3. INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS...
4. RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY...
5. THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP, FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT...
6. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED, SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS...
7. EROSIONS CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL, TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION...
8. IDENTIFY, MARK, AND PROTECT ANY CONSTRUCTION FENCING OR OTHER MEANS CRITICAL REPAIR AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES...
9. VEGETATION AREAS TO BE PRESERVED, IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS) AND OTHER AREAS TO BE PRESERVED...
10. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION...
11. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 40 FEET OF WATERS OF THE STATE...
12. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE...
13. CONTROL SOIL REAK-FLOW RATES AND TOTAL STORMWATER VOLUME TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAM BANKS...
14. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL, INTERIOR, STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION...
15. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK...
16. APPLY TEMPORARY ANCHOR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROCESSES...
17. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-TEMPORARY CONTROLS...
18. KEEP WASTE CONTAINER LIDS CLOSED WHEN NOT IN USE AND CLOSE LIDS AT THE END OF THE BUSINESS DAY...
19. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING MATS SUCH AS CONSTRUCTION ENTRANCE, GRAVELLED (OR PAVED) EXITS AND PARKING AREAS...
20. ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED...
21. PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED...
22. USE MATS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS, VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE...
23. PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER...
24. PROVIDE A COUNTERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE...
25. IMPLEMENT THE FOLLOWING MATS WHEN APPLICABLE...
26. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE...
27. IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPONCEMENT MUST BE INSTALLED...
28. PROVIDE A COUNTERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE...
29. IMPLEMENT THE FOLLOWING MATS WHEN APPLICABLE...
30. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE...
31. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL...
32. IF AN ACTIVE TREATMENT SYSTEM FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED...
33. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOURS AND WEEKENDS...
34. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED...
35. SEDIMENT FENCE REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT...
36. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS) REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT...
37. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT...
38. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE MUST BE REMEDIATED...
39. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGEWAYS MUST NOT OCCUR...
40. DOCUMENT ANY PORTIONS OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY PRACTICE FOR 14 OR MORE CALENDAR DAYS...
41. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BROWN STRAW AND A TOPDRESSER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE...
42. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED...

Professional Engineer seal for Robb's Furniture ESCP General Notes, License No. 05/02/2021, and various review stamps including 'PENDING DEQ REVIEW' and 'REDUCED DRAWING VERIFY SCALE'.

REDUCED DRAWING VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



NO.	DATE	REVISIONS

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**ROBY'S FURNITURE  
 ESCP PHASE I & II**

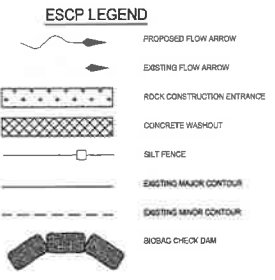
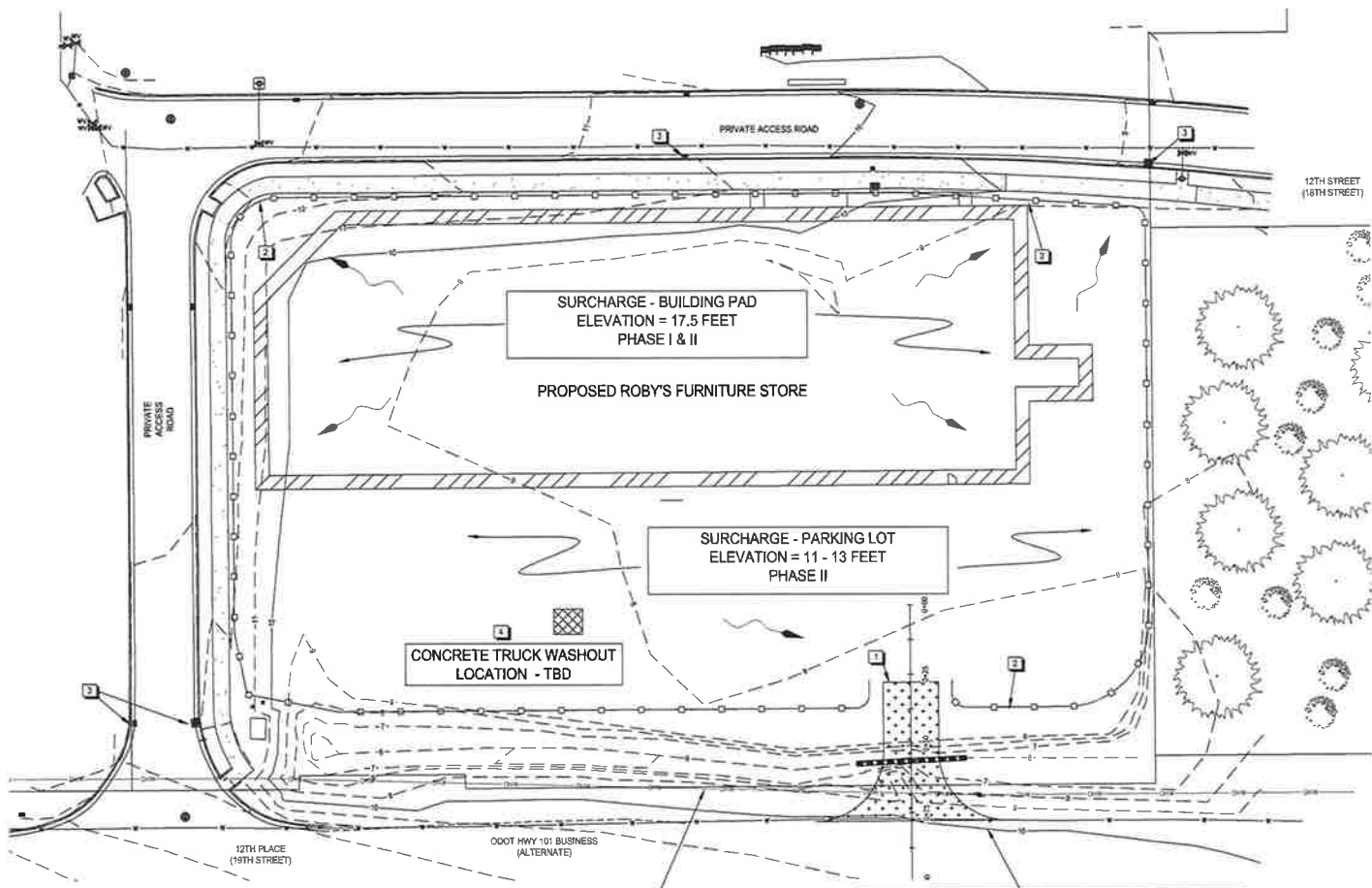
DRAWN: 05/28/2011  
 DESIGNED: 05/28/2011  
 SCALE: AS SHOWN  
 JOB N.O.: 201011044

Drawing N.O.:

**C14.2**

PENDING DEQ REVIEW

WARRENTON, OREGON



**ESCP - PHASE I + II**  
 SCALE: HORIZONTAL 1"=20'

- #### EROSION CONSTRUCTION NOTES
- INSTALL CONSTRUCTION ENTRANCE AS PER SHEET C14.4, ODOT RD1000
  - INSTALL SEDIMENT FENCE (TYP) AS PER SHEET C14.4, ODOT RD1040
  - INSTALL PILET PROTECTION AS PER SHEET C14.4, ODOT RD1010
  - INSTALL CONCRETE TRUCK WASHOUT AS PER SHEET C14.4, ODOT RD1010

**REDUCED DRAWING  
 VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 IF NOT ONE INCH ON THIS SHEET, ADJUST  
 SCALES ACCORDINGLY.

#### EXISTING SOUTHERN DITCH

THIS EXISTING DITCH LINE WILL HAVE BANK REVEGETATION-RETAINING WALL CONSTRUCTION ALONG THE NORTHERN BANK-SEE SHEETS C-14 SERIES FOR THE SPECIFIC CONSTRUCTION OF THESE STRUCTURES.

**TIME LINE:** THE CONSTRUCTION SEQUENCE WILL BE DETERMINED BY THE CONTRACTOR AND WEATHER/SEASON CONSIDERATIONS.

**ODOT TEMPORARY CULVERT:** WILL BE THE FIRST CONSTRUCTION IN THIS AREA. ACTUAL LOCATION TO BE DETERMINED AND APPROVED BY ODOT.

**ESCP - BMP:** BEST PRACTICES WILL BE USED IN THE CONSTRUCTION OF THE RETAINING WALLS AND DITCH SLOPE.

#### TEMPORARY CONSTRUCTION ACCESS ROAD

CONTRACTOR TO CONSTRUCT TEMPORARY ROAD ACROSS AN EXISTING DITCH. THIS ACCESS IS FOR THE HAULING OF THE STRUCTURAL FILL FOR THIS SITE - OVER 15,000 CY. THIS STRUCTURAL FILL WILL BE USED FOR SURCHARGING OF THE BUILDING AND PARKING SITE.

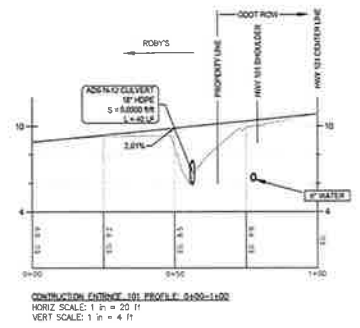
AN 18" VSD CULVERT WILL BE PLACED IN THE EXISTING DITCH LINE FOR THIS CROSSING. COMPACTED FILL WILL BE USED FOR BACKFILL AND PIPE ZONE MATERIAL. RIF PAF (14") WILL BE USED FOR THE TWO PIPE ENDS.

**EXISTING STORM DRAINAGE:** STORM FLOWS WEST TO EAST - ALONG THE EXISTING DITCH. AT THE WEST END - THERE IS AN EXISTING VSD CULVERT DISCHARGING TO THIS DITCH LINE.

**BACKGROUND:** THIS CULVERT CROSSING SITE WAS USED BY THE OWNERS OF THIS SITE - FOR SITE DEVELOPMENT. THE CULVERT WAS REMOVED AFTER THE INITIAL CONSTRUCTION.

**ODOT TEMPORARY PERMIT ACCESS:**

- CONTRACTOR IS SUBMITTING FOR A PERMIT FOR THIS ACCESS.
- ODOT SHALL APPROVE LOCATION. CONSTRUCTION RAMP COULD MOVE TO THE WEST DEPENDS ON ODOT DETERMINATION.





REVISIONS

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ROBY'S FURNITURE  
ESCP BUILDING CONSTRUCTION

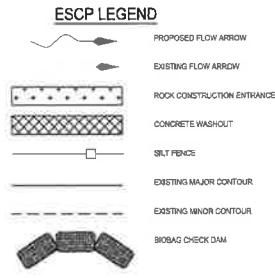
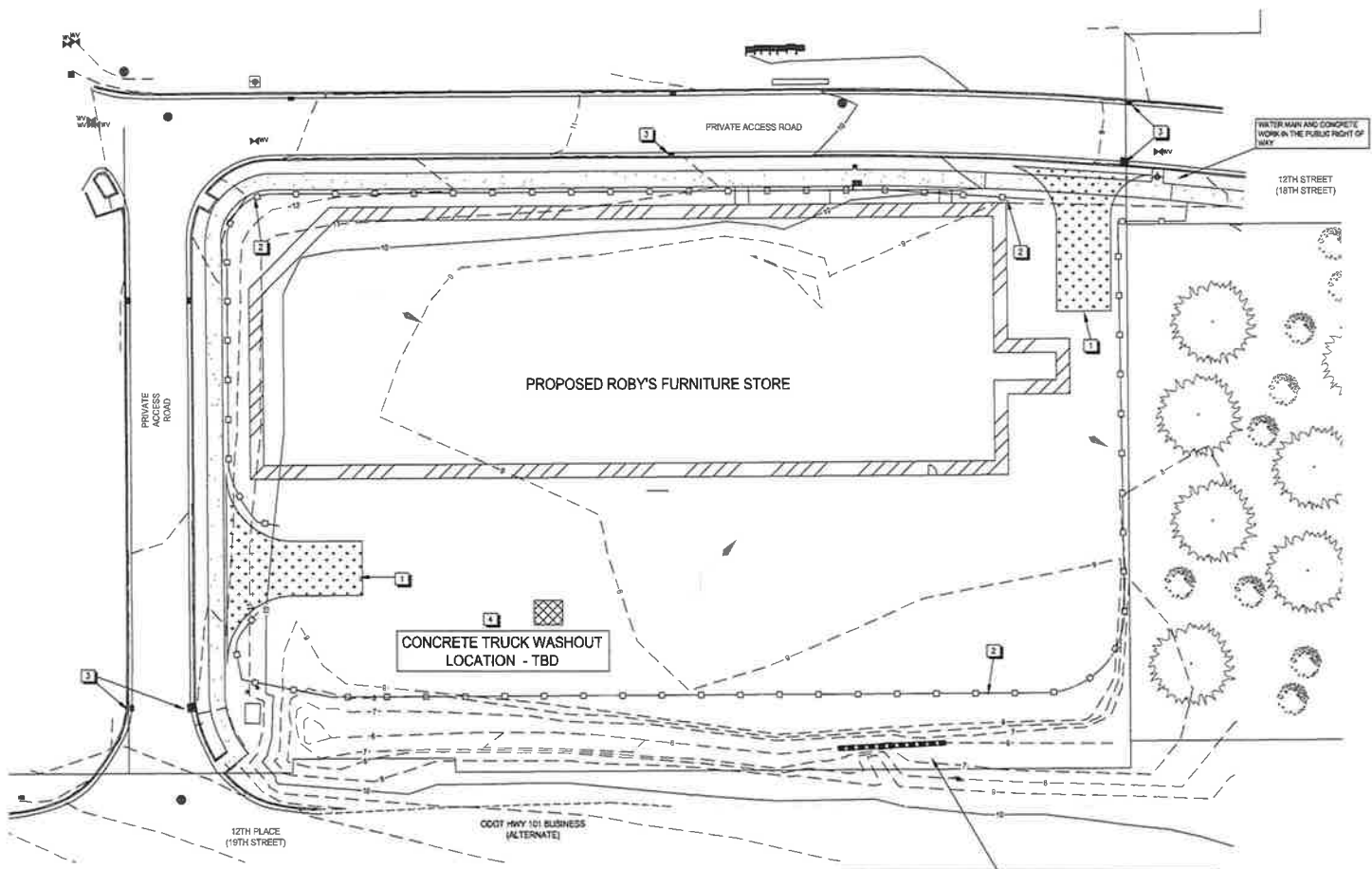
WARRENTON, OREGON

PENDING DEQ REVIEW

DRAWN: 05/09/2021  
ISSUED: 08/02/2021  
SCALE: AS SHOWN  
JOB NO.: 201211248

Drawing N.O.:

C14.3



**ESCP - BUILDING CONSTRUCTION**  
SCALE: HORIZONTAL 1"=20'

- EROSION CONSTRUCTION NOTES**
1. INSTALL CONSTRUCTION ENTRANCE AS PER SHEET C14.4, ODOT RD1000
  2. INSTALL SEDIMENT FENCE (TYP) AS PER SHEET C14.4, ODOT RD1040
  3. INSTALL INLET PROTECTION AS PER SHEET C14.4, ODOT RD1010
  4. INSTALL CONCRETE TRUCK WASHOUT AS PER SHEET C14.4, ODOT RD4010

**TEMPORARY CONSTRUCTION ACCESS ROAD**

PHASE II - BUILDING CONSTRUCTION - SURCHARGING OF PARKING LOT

DURING THIS PHASE THE SURCHARGE STRUCTURAL FILL ROCK WILL BE MOVED AND PLACED ON THE PARKING LOT FOR SURCHARGING THIS AREA. ADDITIONALLY, THIS WILL BE THE CONSTRUCTION SURFACE FOR THE VERTICAL CONSTRUCTION.

PHASE III CONSTRUCTION ENTRANCE WILL BE REMOVED AT THE END OF PHASE II AND DURING THE BUILDING CONSTRUCTION.

ODOT TEMPORARY ACCESS (CULVERT) WILL BE REMOVED AS THE TWO (2) NEW ENTRANCES ARE CONSTRUCTED (CONCRETE CURB AND GUTTERS). THIS WILL BE COORDINATED WITH ODOT.

**REDUCED DRAWING  
VERIFY SCALE**

BAR IS ONE INCH ON ORIGINAL DRAWING

0' 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

D:\Work\Warrenton\Roby's Furniture\Drawings\Roby's ESCP.dwg - Plotted: Jun 01, 2024 - 3:13pm - R. Gao

**CONSTRUCTION ENTRANCE - TYPE 1**  
NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 2**  
NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 3  
(TYPE 1 OR 2 WITH EXISTING CURB)**  
NOT TO SCALE

**WOODEN CURB RAMP SECTION D-D**  
NOT TO SCALE

SECTION	MINIMUM LENGTH
SECTION A-A	20'
SECTION B-B	10'
SECTION C-C	10'

DATE WITH NO. 000	NO. 000	DATE	DESCRIPTION
		JANUARY 2021	ISSUED FOR REVIEW

**OREGON STANDARD DRAWINGS**  
CONSTRUCTION ENTRANCES  
2021

Effective Date: June 1, 2021 - November 30, 2021 RD1000

**GEOTEXTILE/WIRE MESH/AGGREGATE - TYPE 2**  
NOT TO SCALE

**PREFABRICATED FILTER INSERT - TYPE 3**  
NOT TO SCALE

**SOD PROTECTION - TYPE 6**  
NOT TO SCALE

**AREA DRAIN PLAN**  
NOT TO SCALE

**AREA DRAIN PERSPECTIVE VIEW**  
NOT TO SCALE

**CURB INLET SEDIMENT DAM - TYPE 10**  
NOT TO SCALE

**WATTLE BARRIER WITH FILTER INSERT - TYPE 11**  
NOT TO SCALE

**COMPOST FILTER SOCK OR WATTLE - TYPE 7**  
NOT TO SCALE

DATE WITH NO. 000	NO. 000	DATE	DESCRIPTION
		JANUARY 2021	ISSUED FOR REVIEW

**OREGON STANDARD DRAWINGS**  
INLET PROTECTION  
TYPE 2, 3, 6, 7, 10 AND 11  
2021

Effective Date: June 1, 2021 - November 30, 2021 RD1010

**SEDIMENT FENCE AND GEOTEXTILE BURY DETAIL - TYPE 1**  
NOT TO SCALE

**ALTERNATE SEDIMENT FENCE WITHOUT TRENCHING - TYPE 2**  
NOT TO SCALE

FENCE SPACING	MINIMUM LENGTH
20'	20'
10'	10'
5'	5'

DATE WITH NO. 000	NO. 000	DATE	DESCRIPTION
		JANUARY 2021	ISSUED FOR REVIEW

**OREGON STANDARD DRAWINGS**  
SEDIMENT FENCE  
2021

Effective Date: June 1, 2021 - November 30, 2021 RD1040

**CONCRETE TRUCK WASH OUT FACILITY**  
NOT TO SCALE

**STAPLE DETAIL**  
NOT TO SCALE

DATE WITH NO. 000	NO. 000	DATE	DESCRIPTION
		JANUARY 2021	ISSUED FOR REVIEW

**OREGON STANDARD DRAWINGS**  
CONCRETE TRUCK WASH OUT  
2021

Effective Date: June 1, 2021 - November 30, 2021 RD1070



DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97116  
503-332-2442  
jo@robbsfurniture.com  
robbsfurniture.com



PENDING DEQ REVIEW

ROBB'S FURNITURE  
ESCP ODOT Details

WARRENTON, OREGON

DRAWN: 05/28/2021  
CHECKED: 05/28/2021  
SCALE: AS SHOWN  
JOB NO.: 20211249

Drawing No. C:  
**C14.4**

**APPENDIX 1**

**DEQ 1200-C PERMIT APPLICATION**



# Application For New NPDES General Permit 1200-C Coverage

**Instructions for Completion of 1200-C Construction Stormwater Application:** For stormwater discharges to surface waters from construction activities, disturbing one acre or more, or less than an acre but is part of a common plan of development or sale that do not meet automatic coverage requirements (see page 3 for additional information).

## A. PROJECT INFORMATION

1. Enter the legal name of the responsible person (i.e. applicant). This must be the legal Oregon name (i.e., Acme Products, Inc.) or the legal representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752,( \_\_\_\_\_ ), unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.
  - Permit coverage may be transferred from one party to another. For example, a developer may apply for a permit and then transfer the permit to a contractor. Transfer forms:
2. Provide invoice contact information for billing of DEQ annual permit fee if different from the applicant in #1 above. This is the person or entity legally responsible for payment of the annual fee invoice. This must be the same company as the applicant, not a third party independent of the applicant.
3. Provide contact information for the Architect or Consulting Engineer who designed the Erosion and Sediment Control Plan (ESCP) and Dewatering Plan, if applicable.
4. Provide information on the Erosion and Sediment Control Visual Monitoring Inspector. This is not a DEQ or DEQ Agent inspector, this is an inspector employed by the applicant. Include the inspectors' qualification program, certification number and expiration date
5. Provide the common name of the project (for example, the name of the subdivision), the location of the site, and, if available, a street address.
6. Check the box that best describes the nature of the construction activity. If "other" is selected, describe the use and include a Standard Industrial Classification Code (visit \_\_\_\_\_ for codes). For projects that have submitted a joint permit application, please provide the US Army Corps of Engineers assigned number.
7. Enter latitude and longitude for the approximate center of the site, to the nearest 15 seconds. Latitude and longitude can be obtained from DEQ's location finder web site at \_\_\_\_\_. To get the longitude and latitude to appear you can also zoom in and re-center until you find the area. You may want to turn off DEQ interests to eliminate the yellow dots and you may want to turn on the Aerial Photos to help you locate the site (note that the aerial photos are over ten years old). The latitude and longitude will be indicated on the left side of the page once you have checked the locate place at the top of the page and clicked on a location.
8. If known, specify approximate start date. Provide information on the project size as indicated (based on the total project and not just a single phase). If the project is less than an acre and part of a common plan of development there is no annual fee.
9. If a proposed construction site has a DEQ assigned Environmental Cleanup Site Information (ECSI) number associated with the property, an Environmental Management Plan must be submitted to DEQ. DEQ maintains the ECSI database to track sites in Oregon with known or potential contamination from hazardous substances, and to document sites where DEQ has determined that no further action is required. For projects that anticipate contaminated soils, contaminated groundwater, or hazardous materials will or have the potential to be encountered during construction activities or the need for active treatment system, an Environmental Management Plan is required. This includes a plan review fee (Table 70F) for treatment of contaminants beyond sediment (See Appendix A and at: \_\_\_\_\_).
10. Indicate the name(s) of the receiving water(s) (i.e., indicate where stormwater runoff during construction will flow). Request information from local authority or other resource to determine the name of the receiving waterbody. The receiving water may be a lake, stream, river, wetland or other waterbody, and may or may not be located adjacent to the site. Stormwater from the project site may discharge directly to the receiving water or indirectly via a storm sewer system, an open drain or ditch, or other conveyance structure. Do NOT list a human-made conveyance, such as a storm sewer system, as the receiving water. If the site discharges to an irrigation channel or ditch, the applicant must also indicate the owner or operator of the irrigation channel or ditch. Indicate the first natural receiving water the stormwater discharge from the project site enters.

*For example, if the project site discharge enters a storm sewer system, that empties into Trout Creek, which flows into Pine River, the receiving water is Trout Creek, because it is the first natural waterbody the project site discharge will reach. Similarly, a discharge into a ditch that feeds Spring Creek should be identified as "Spring Creek" since the ditch is a human-made conveyance. If your site discharges into a municipal separate storm sewer system (MS4), the applicant must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.*

11. Indicate whether stormwater runoff during construction will discharge directly to or through a storm sewer or drainage system that discharges to a Total Maximum Daily Load (TMDL) or 303(d) listed waterbody for turbidity or sedimentation. To make this determination, the following tools are available on DEQ's website:

- WQ Assessment page: [http://www.deq.state.md.us/wq/assessment.html](#) to search criteria: waterbody and listing status Category 5 (303d) and Category 4a (TMDL approved).

## B. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

### DEFINITION OF LEGALLY AUTHORIZED REPRESENTATIVE:

Please also provide the information requested in brackets [ ]

- **Corporation** - president, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities that is authorized in accordance to corporate procedure to sign such documents.
- **Partnership** - General partner [list of general partners, their addresses, and telephone numbers].
- **Sole Proprietorship** - Owner.
- **City, County, State, Federal, or other Public Facility** - Principal executive officer or ranking elected official.
- **Limited Liability Company** - Member [articles of organization].
- **Trusts** - Acting trustee [list of trustees, their addresses, and telephone numbers].

(please see 40 CFR §122.22 for more detail, if needed)

## APPLICATION AND FEE SUBMITTAL

To authorize permit registration, the following must be completed and submitted to the appropriate DEQ regional office or DEQ Agent

- Complete and accurate DEQ application form signed by the Legally Authorized Representative. DEQ LUCS and associated Findings.
- Erosion and Sediment Control Plan Narrative, if applicable.
- Environmental Management Plan, if applicable.
- Dewatering Plan, if applicable.
- Stormwater Erosion and Sediment Control Plan Drawings; full-sized hard copy and electronic file.
- Applicable permit fee. Appropriate fees are available at [http://www.deq.state.md.us/permits/fees.html](#). Please make check payable to DEQ. All stormwater permits charge an application fee and an annual fee upon registration. DEQ will invoice the annual fee amount if your project coverage extends more than a year. Please note: if submitting an Environmental Management Plan to address contaminants or operate an Active Treatment System, a review fee will be charged as indicated in Table 70H.

## APPLICATION AND FEE SUBMITTAL

Submit this application, Narrative Parts I, II & III (if applicable), LUCS, Erosion and Sediment Control Plan (full-sized hard copies and electronic copy), Dewatering and/or Environmental Management Plan and the applicable fee to the appropriate DEQ regional office or DEQ Agent listed below. Please send electronic copy (CD or thumbdrive) of ESCP with permit application submission package.

**AGENTS AND REGIONAL OFFICES CONTACTS**

<p align="center"><b>City of Eugene</b> 99 W. 10th Avenue, Eugene, OR 97401 541-682-2706</p>		<p align="center"><b>City of Troutdale</b> 342 SW 4th Street, Troutdale, OR 97060 503-674-3300</p>			
<p align="center"><b>Clean Water Services</b> 2550 SW Hillsboro Highway, Hillsboro, OR 97123 503-681-5101 <i>Includes Banks, Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, North Plains, Sherwood, Tigard, Tualatin, and portions of Washington Co.</i></p>		<p align="center"><b>Rogue Valley Sewer Services</b> 138 West Vilas Road, P.O. Box 3130 Central Point, OR 97502 541-664-6300</p>			
DEQ Northwest Region		DEQ Western Region		DEQ Eastern Region	
<p align="center">700 Lloyd Building 700 NE Multnomah St., Suite 600 Portland, OR 97232 503-229-5263 or 1-800-452-4011</p>		<p align="center">165 East 7th Avenue, Suite 100 Eugene, OR 97401 541-686-7930 or 1-800-844-8467</p>		<p align="center">800 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801 541-278-4605 or 1-800-304-3513</p>	
Clackamas		Lane		Hood River	Sherman
Clatsop		Lincoln		Jefferson	Umatilla
Columbia		Linn		Klamath	Union
Multnomah		Marion		Lake	Wallowa
		Josephine	Jackson	Deschutes	Crook
Tillamook		Polk		Malheur	Wasco
Washington		Yamhill		Marrow	Wheeler
		Benton	Douglas	Grant	Gilliam
		Coos	Curry	Baker	Harney



**DEQ USE ONLY**

File #:

---

Application #: \_\_\_\_\_

LLID/RM: \_\_\_\_\_

River Mile: \_\_\_\_\_

Legal Name Confirmed:

Notes: \_\_\_\_\_

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**APPLICATION FOR NEW NPDES  
 GENERAL PERMIT 1200-C**

For stormwater discharges to surface waters from construction activities disturbing one acre or more that do not meet automatic coverage requirements.\*

**DEQ USE ONLY**

Date Received: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

Check #: \_\_\_\_\_

Check Name: \_\_\_\_\_

Deposit #: \_\_\_\_\_

Receipt #: \_\_\_\_\_

Notes: \_\_\_\_\_

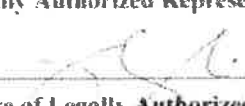
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\*A project *may* be eligible for "automatic coverage" under NPDES general permit 1200-CN if stormwater *does not* discharge to a waterbody with a TMDL or 303(d) listing for sediment or turbidity *and* it meets one of the following criteria (see 1200-CN at

1. Disturbs less than one acre and is located in Gresham, Troutdale, or Wood Village.
2. Disturbs less than five acres and is located in Albany, Corvallis, Eugene, Milwaukie, Multnomah Co. (unincorporated areas), Springfield, West Linn, or Wilsonville.
3. Disturbs less than five acres and is within the jurisdictions of Clackamas Co. Water Environment Services [Gladstone, areas within Clackamas Co. Service Dist. #1 (excluding Happy Valley), and areas within the Surface Water Management Agency of Clackamas Co. (including Rivergrove)], Clean Water Services (Banks, Beaverton, Cornelius, Durham, Forest Grove, Hillsboro, King City, North Plains, Sherwood, Tigard, Tualatin, and Washington Co. within Urban Growth Boundary), or Rogue Valley Sewer Services.

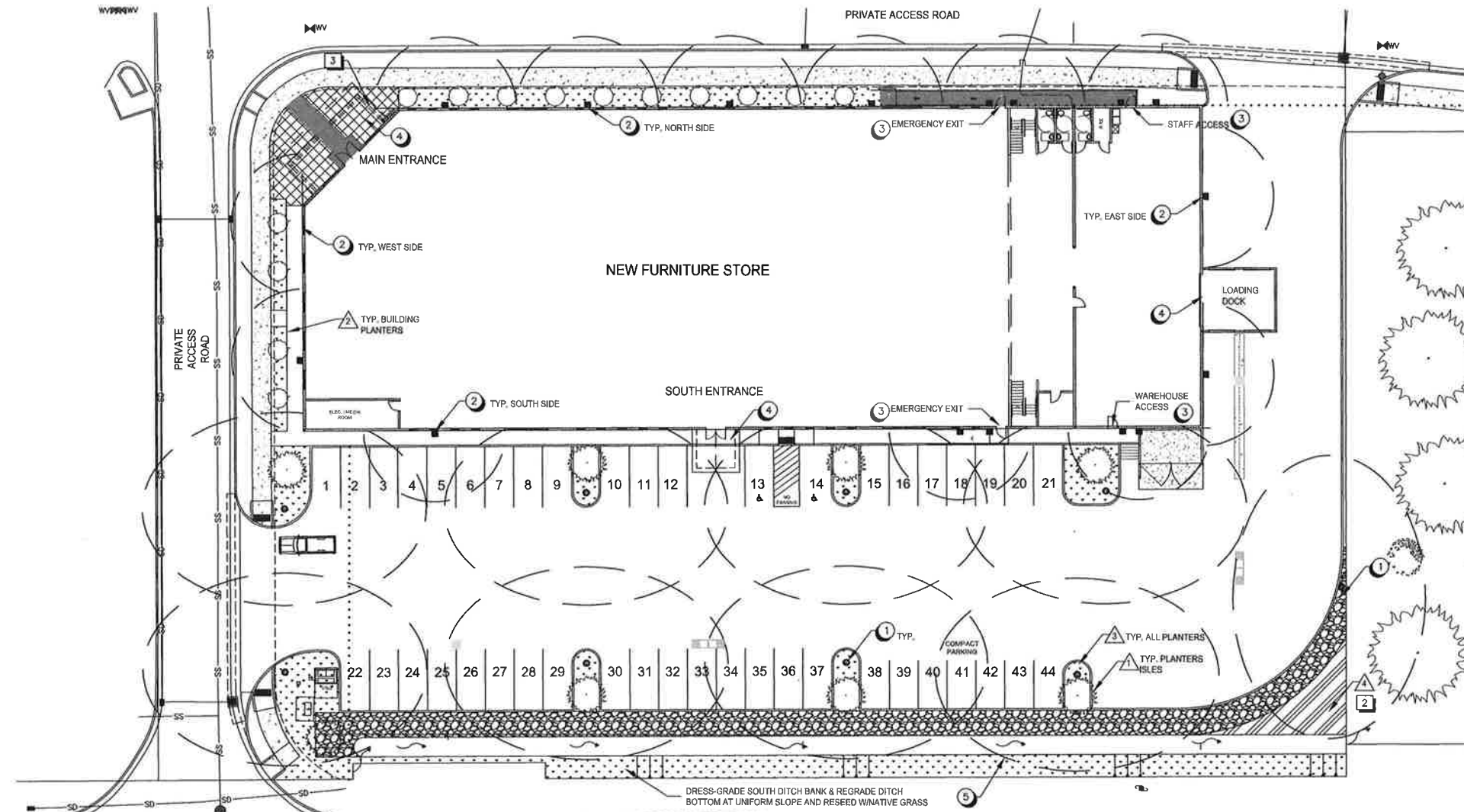
A. PROJECT INFORMATION					
1. Applicant (Responsible Person or entity legally responsible for permit) <b>Warrenton Property Investments, LLC</b>			2. Invoicing information (person or entity legally responsible for payment of annual fee invoice; not a third party independent of the applicant) <b>Warrenton Property Investments, LLC</b>		
Contact Name			Invoice Contact Name (if different from applicant)		
Kyle Langeliers			Kyle Langeliers		
Address			Address		
5111 North Coast Highway			5111 North Coast Highway		
City	State	ZIP Code	City	State	ZIP Code
Newport	Oregon	97365	Newport	Oregon	97365
Telephone		Email Address		Email Address	
503-812-8267		Kyle@robysfurniture.com		Kyle@robysfurniture.com	
3. Architect/Engineering Firm (Erosion and Sediment Control Plan) <b>Stricker Engineering</b>			4. Applicant's Designated Erosion and Sediment Control Inspector <b>Justin Pounds</b>		
Project Manager			Company Name		
David Leibbrandt			Bridgewater Group		
Telephone		Email Address		Email Address	
		leibbrandtdw@yahoo.com		jpounds@bridgeh2o.com	
			Qualification program, certification number and expiration date <b>CESCL #CWT21-1011, Expiration: 1/21/2024</b>		

5. Name of Project <b>Roby's Furniture</b>			6. Nature of Construction Activity		
Address or Cross Street NW Corner of Fort Stephens Hwy and SE Marfin Dr			<input type="checkbox"/> Single Family (SIC Code 1521) <input type="checkbox"/> Multi-Family Residential (SIC Code 1522) <input checked="" type="checkbox"/> Commercial (SIC Code 1542) <input type="checkbox"/> Industrial (SIC Code 1541) <input type="checkbox"/> Highway (SIC Code 1611) <input type="checkbox"/> Restoration (SIC Code 1629) <input type="checkbox"/> Utilities (SIC Code 1623): <input type="checkbox"/> Other (SIC Code required): <input type="checkbox"/> Army Corps No. (if any):		
City <b>Warrenton</b>	State <b>Oregon</b>	ZIP Code <b>97146</b>			
County <b>Clatsop County</b>					
7. Approximate location of center of site.			8. Approximate start date:		<b>August 1, 2021</b>
Latitude: 46.153934			Total Site Acreage (acres): 1.38		
Longitude: -123.906084			If less than 1-acre, is site part of a common plan of development? <input type="checkbox"/> Yes <input type="checkbox"/> No		
**For assistance:			Total Disturbed Area (acres): 1.38		
			Total Number of Lots: 1		
9. Is there soil or groundwater contamination located within the site boundary			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Will you be dewatering during construction (plan review fee may apply)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Has an ESCI Number been assigned to the site by DEQ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Will construction activities impact the contaminated media?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Depth to Groundwater: <b>3-5 ft bgs</b>		Data Source: <b>ODOT Phase II Report</b>			
10. Receiving waterbody - Must identify final discharge location of construction stormwater flows.					
Waters of the State (name or description):					
Municipal storm sewer or drainage system (include downstream receiving waterbody):					
Ditch (include downstream receiving waterbody): <b>Ditch along north side of Fort Stevens Highway, receiving waterbody: Holbrook Slough</b>					
Irrigation channel or ditch (include owner or operator):					
Infiltration device(s) (construction stormwater discharge to underground injection control/dry well is prohibited):					
Other:					
11. Stormwater runoff during construction discharges directly to or through a storm sewer or drainage system that discharges to a waterbody with a Total Maximum Daily Load (TMDL) or 303(d) listing for turbidity or sedimentation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
**For assistance: DEQ assessment database page at <a href="#">http://www.deq.state.or.us/assessments/assessment_database.htm</a>					
<b>B. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE</b>					
The legally authorized representative <i>must</i> sign the application (see instructions – Section C).					
I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-045. This includes a compliance determination fee invoiced annually by DEQ to maintain the permit.					
<b>Kyle Langeliers</b>					
Name of Legally Authorized Representative (Type or Print)				Title	
Signature of Legally Authorized Representative				Date	

5. Name of Project <b>Roby's Furniture</b>			6. Nature of Construction Activity		
Address or Cross Street NW Corner of Fort Stephens Hwy and SE Marin Dr			<input type="checkbox"/> Single Family (SIC Code 1521) <input type="checkbox"/> Multi-Family Residential (SIC Code 1522) <input checked="" type="checkbox"/> Commercial (SIC Code 1542) <input type="checkbox"/> Industrial (SIC Code 1541) <input type="checkbox"/> Highway (SIC Code 1611) <input type="checkbox"/> Restoration (SIC Code 1629) <input type="checkbox"/> Utilities (SIC Code 1623) <input type="checkbox"/> Other (SIC Code required): <input type="checkbox"/> Army Corps No. (if any):		
City	State	ZIP Code			
Warrenton	Oregon	97146			
County Clatsop County					
7. Approximate location of center of site.			8. Approximate start date:		August 1, 2021
Latitude: 46.153934			Total Site Acreage (acres): 1.38		
Longitude: -123.906084			If less than 1-acre, is site part of a common plan of development? <input type="checkbox"/> Yes <input type="checkbox"/> No		
**For assistance:			Total Disturbed Area (acres): 1.38		
			Total Number of Lots: 1		
9. Is there soil or groundwater contamination located within the site boundary			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Will you be dewatering during construction (plan review fee may apply)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Has an ESCI Number been assigned to the site by DEQ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Will construction activities impact the contaminated media?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Depth to Groundwater: 3-5 ft bgs		Data Source: ODOT Phase II Report			
10. Receiving waterbody - Must identify final discharge location of construction stormwater flows.					
Waters of the State (name or description):					
Municipal storm sewer or drainage system (include downstream receiving waterbody):					
Ditch (include downstream receiving waterbody): Ditch along north side of Fort Stevens Highway, receiving waterbody: Holbrook Slough					
Irrigation channel or ditch (include owner or operator):					
Infiltration device(s) (construction stormwater discharge to underground injection control drywell is prohibited):					
Other:					
11. Stormwater runoff during construction discharges directly to or through a storm sewer or drainage system that discharges to a waterbody with a Total Maximum Daily Load (TMDL) or 303(d) listing for turbidity or sedimentation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
**For assistance: DEQ assessment database page at					
The legally authorized representative <i>must</i> sign the application (see instructions – Section C).					
I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-045. This includes a compliance determination fee invoiced annually by DEQ to maintain the permit.					
Kyle Langeliers			DML		
Name of Legally Authorized Representative (Type or Print)			Title		
			5/17/21		
Signature of Legally Authorized Representative			Date		

## **APPENDIX D**

*Landscape Plan (Stricker Engineering, May 2021)*



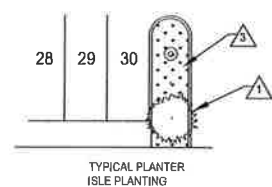
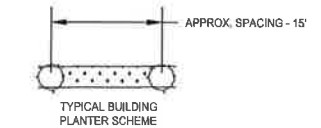
**1 LANDSCAPING AND LIGHTING PLAN**  
 SCALE: HORIZONTAL 1"=20'

**CONSTRUCTION NOTES - LANDSCAPING**

- 1 LANDSCAPE PLANTING AND IRRIGATION—DETAILED LANDSCAPE PLANTING PLAN AND PLANTING TO BE PROVIDED BY DESIGN/BUILD (DB) CONTRACTOR, FOLLOWING CITY STANDARDS. SEE "GENERAL PLANTING THEME" TABLE, THIS SHEET. DROUGHT TOLERANT PLANTINGS ARE PLANNED WITH TEMPORARY/INITIAL IRRIGATION TO BE PROVIDED BY LANDSCAPE CONTRACT UNTIL ALL PLANTS BECOME WELL ESTABLISHED.
- 2 SOUTHWEST CORNER PLANTER—GRADE SOUTHWEST CORNER PLANTER AREA TO MATCH EXISTING GRADES TO EAST AT PROPERTY LINE AND DITCH GRADE TO SOUTH. PLANT WITH NATURAL WETLANDS PLANTINGS, PER DB CONTRACTOR PLANTING PLAN.
- 3 BICYCLE PARKING—PROVIDE MINIMUM 9 SPACES WITH TWO SPACES BEING LONG TERM, PER CITY CODE STANDARDS/REQUIREMENTS. BICYCLE RACK STYLE, LOCATION AND INSTALLATION PER DB CONTRACTOR.

**CONSTRUCTION NOTES - LIGHTING**

- 1 PLANTER ISLE LIGHT STANDARDS—PROVIDE CAST-IN-PLACE CONCRETE LIGHT STANDARD FOUNDATION BASE PER STRUCTURAL PLANS, DETAILED LUMINAIRE DESIGN AND LIGHTING CONSTRUCTION BY DB CONTRACTOR.
- 2 BUILDING MOUNTED LIGHTING—PROVIDE HIGH MOUNTED LUMINAIRES ON BUILDING FOR SUPPLEMENTARY LIGHTING. DESIGN AND INSTALLATION BY DB CONTRACTOR. SEE STRUCTURAL PLANS.
- 3 EXTERIOR DOOR LEVEL LIGHTING—FIELD LOCATE AND INSTALL EXTERIOR DOOR-LEVEL LIGHTING AT ALL SIDE ACCESS DOORS PER DB CONTRACTOR.
- 4 STORE ENTRANCE LIGHTING—OVERHEAD RECESSED LIGHTING TO BE PROVIDED AT BOTH MAIN NORTHWEST AND SOUTH CUSTOMER ENTRANCES UNDER AWNINGS AND AT REAR LOADING DOCK. DETAILED DESIGN AND INSTALLATION BY DB CONTRACTOR. SEE STRUCTURAL PLANS.
- 5 EXTERIOR SITE LIGHTING—GENERAL LIGHT FIXTURE LOCATIONS AND INTENDED LIGHTING COVERS ARE SHOWN ON PLANS. DETAILED LUMINAIRE DESIGN (INCLUDING STANDARD STYLE AND HEIGHT) TO BE PERFORMED BY DB CONTRACTOR TO PROVIDE AMPLE LIGHTING FOR CUSTOMER CONVENIENCE, PUBLIC SAFETY AND SITE SECURITY.



**TYPICAL WETLANDS PLANT LIST:**

- SP - Shore Pine
- C - Cascara
- E - Elderberry
- 9B - Pacific Bark
- SD - Spirea Douglasii
- RT - Red Twig Dogwood
- SB - Snowberry
- BW - Bog Willow
- AW - Arctic Willow

**GENERAL PLANTER THEME**

- 1 SIGNATURE TREE
- 2 TALL COLUMNAR TREE
- 3 MIXED BED PLANTING: ORNAMENTAL GRASSES/SHRUBS/GROUNDCOVER... VARYING SHAPE, SIZE & COLOR
- 4 WETLANDS PLANTINGS

**REDUCED DRAWING**  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**LANDSCAPE PLAN - GENERAL NOTES**

1. LANDSCAPING PLAN: DESIGN COMPLIES WITH ALL REQUIREMENTS OF CITY OF WARRENTON DEVELOPMENT CODE 16.124.070.
2. LANDSCAPED AREA: TOTAL EXCEEDS MINIMUM 15% OF GROSS AREA REQUIREMENT. (71,500 SF X 15% = 10,725 SF)
3. LANDSCAPE MATERIALS:
  - 3.1. NATURAL VEGETATION PRESERVED—SOUTH SIDE OPEN DRAINAGE DITCH TO BE PRESERVED AS NATURAL VEGETATION.
  - 3.2. PLANT SELECTION—ALL NEW PLANTINGS TO BE "LOCAL CLIMATE" HARDY NATIVE SPECIES.
  - 3.3. NON-NATIVE, INVASIVE PLANTS PROHIBITED—ALL INVASIVE HIMALAYAN BLACKBERRIES ON-SITE TO BE REMOVED.
  - 3.4. HARDSCAPE FEATURES—COVER LESS THAN 90% MAX. OF LANDSCAPED AREA.
  - 3.5. NON-PLANT GROUND COVERS—BARK DUST, CHIPS, AGGREGATE, ETC. SHALL BE LESS THAN 90% OF TOTAL LANDSCAPED AREA.
  - 3.6. TREE SIZE—NEW TREES TO HAVE A MINIMUM CALIPER SIZE OF 1.5-INCHES.
  - 3.7. SHRUB SIZE—ALL NEW SHRUBS TO BE BALLED AND BURLAPPED TO FIT IN MULTI-GALLON CONTAINERS.
  - 3.8. GROUND COVER SIZE—SIZE AND SPACING SO AS TO COVER A MINIMUM OF 30% OF UNDERLYING SOIL WITHIN TWO YEARS.
  - 3.9. SIGNIFICANT VEGETATION PRESERVED—PRESERVED NATURAL VEGETATION IS INCLUDED IN LANDSCAPED AREA TOTAL.
  - 3.10. STORMWATER FACILITIES—NATIVE SOILS (UNDISTURBED PLANTS AND EMBEDDED PLANT ROOTS & SEEDS) OF EXISTING OPEN DRAINAGE DITCH BOTTOM AND SOUTH-SIDE BANK TO BE PRESERVED AND WATER TOLERANT NATIVE PLANTING TO BE RESTORED WITH PROPOSED RE-GRADING.
4. LANDSCAPE DESIGN STANDARDS—DESIGNS COMPLY WITH ALL REQUIREMENTS OF CITY DEVELOPMENT CODE 16.124.070.E.
  - 4.1. SET BACK LANDSCAPING:
    - 4.1.1. VISUAL SCREENING FOR PRIVACY, OPEN ENTRANCES FOR SECURITY.
    - 4.1.2. TREES AND SHRUBS AS WIND BREAKS.
    - 4.1.3. RETAINAGE OF NATURAL VEGETATION WHERE PRACTICABLE.
    - 4.1.4. DEFINITION OF PEDESTRIAN PATHWAYS AND OPEN SPACES WITH LANDSCAPE MATERIALS.
    - 4.1.5. USE OF SIGNATURE TREES, HEDGES, FLOWERING PLANTS AS FOCAL POINTS.
    - 4.1.6. USE OF TREES FOR SUMMER SHADING IN COMMON AREAS.
    - 4.1.7. USE OF COMBINATION PLANTINGS FOR YEAR-LONG COLOR AND INTEREST.
    - 4.1.8. SCREENAGE OF OUTDOOR STORAGE AND MECHANICAL AREAS.
  - 4.2. BUFFERING AND SCREENING:
    - 4.2.1. PARKING/MANEUVERING AREA ADJACENT TO STREETS AND DRIVES—EVERGREEN HEDGE (GREATER THAN MINIMUM 36-INCH HEIGHT) SCREENING TO BE PROVIDED IN BUFFER PLANTER SOUTH OF MAIN PARKING LOT ENTRANCE.
    - 4.2.2. PARKING/MANEUVERING AREA ADJACENT TO BUILDING—AS REQUIRED, 5-FOOT WIDE (GREATER THAN 4-FT MIN.) RAISED SIDEWALK PATHWAY IS PROVIDED AT THE SOUTH SIDES OF THE NEW BUILDING AS A BUFFER BETWEEN THE BUILDING AND THE PARKING AREA.
    - 4.2.3. SCREENING OF MECHANICAL EQUIPMENT, OUTDOOR STORAGE, SERVICE AND DELIVERY AREAS—A NON-SEE-THROUGH GATED/FENCED ENCLOSURE IS PROVIDED AT THE SOUTHWEST CORNER OF THE BUILDING, SCREENING RECYCLING AND REFUSE BINS.
  5. MAINTENANCE AND IRRIGATION—AS ENCOURAGED, DROUGHT-TOLERANT PLANT SPECIES WILL BE USED AS PLANT MATERIALS TO THE EXTENT AVAILABLE AND PRACTICABLE. UNDERGROUND IRRIGATION IS NOT PLANNED TO BE INCLUDED. LANDSCAPE CONTRACTOR TO PROVIDE TEMPORARY WATERING SERVICE AND MAINTENANCE WARRANTY.
  6. DETAILED LANDSCAPE PLANTING PLAN, PLANT SELECTION, MATERIALS SUPPLY, PLANTING AND MAINTENANCE CONFORMING TO ABOVE REQUIREMENTS TO BE PROVIDED BY DESIGN/BUILD LANDSCAPING CONTRACTOR.



REV#	DATE	DESCRIPTION

105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 john@strickerengineering.com



**ROBY'S FURNITURE  
 LANDSCAPING AND LIGHTING PLAN**

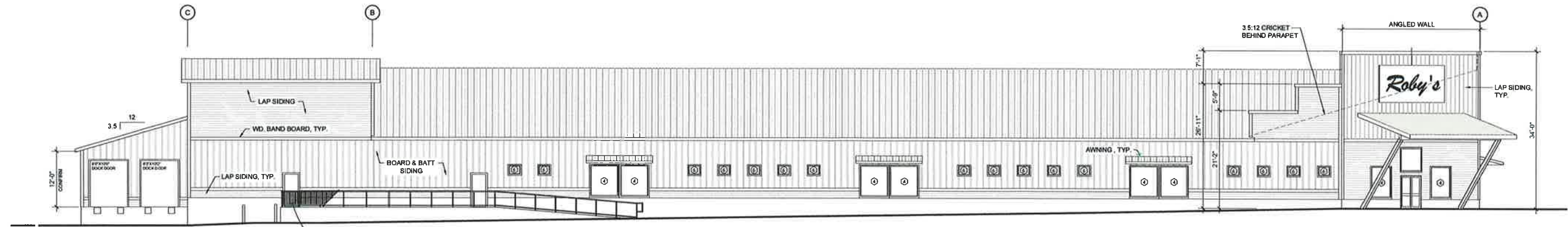
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**PERMIT SET**  
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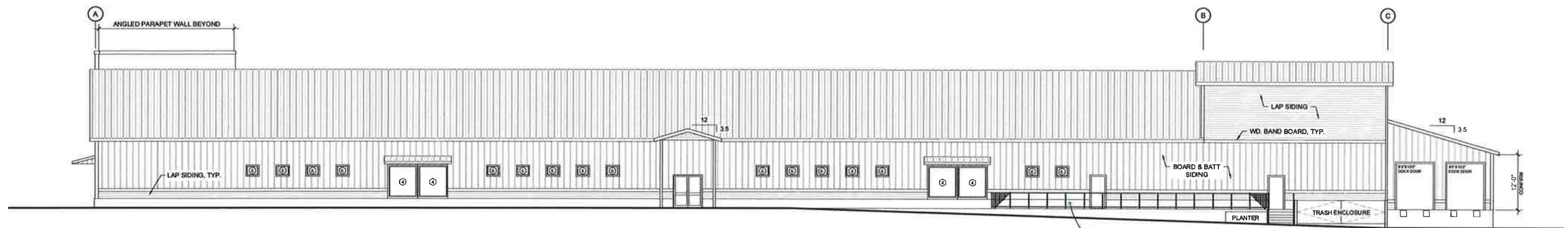
## **APPENDIX E**

*Architectural Drawing, Proposed Roby's Furniture & Appliance Store Technical Memorandum (Stricker Engineering, May 2021)*



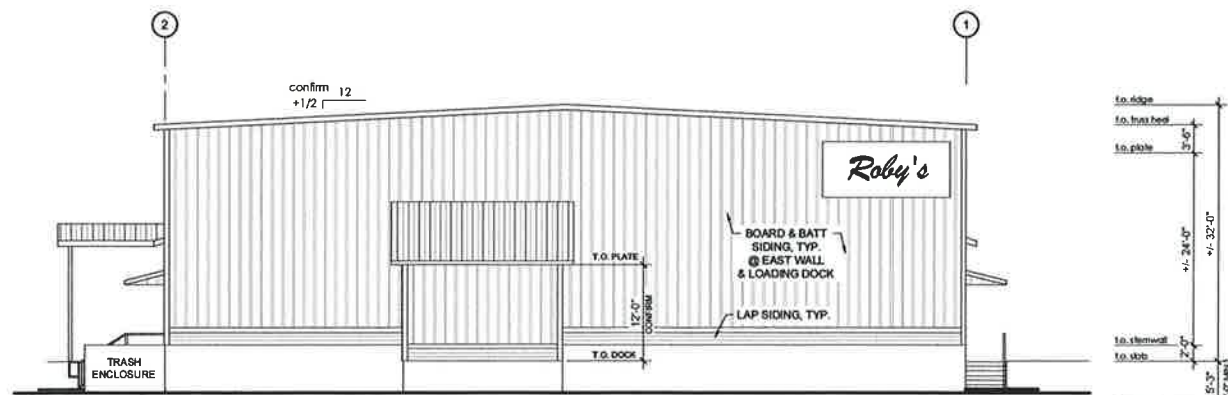
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NOTE:  
SEE 1/S8 0 NORTH WALL  
FRAMING ELEVATION  
FOR MORE INFORMATION

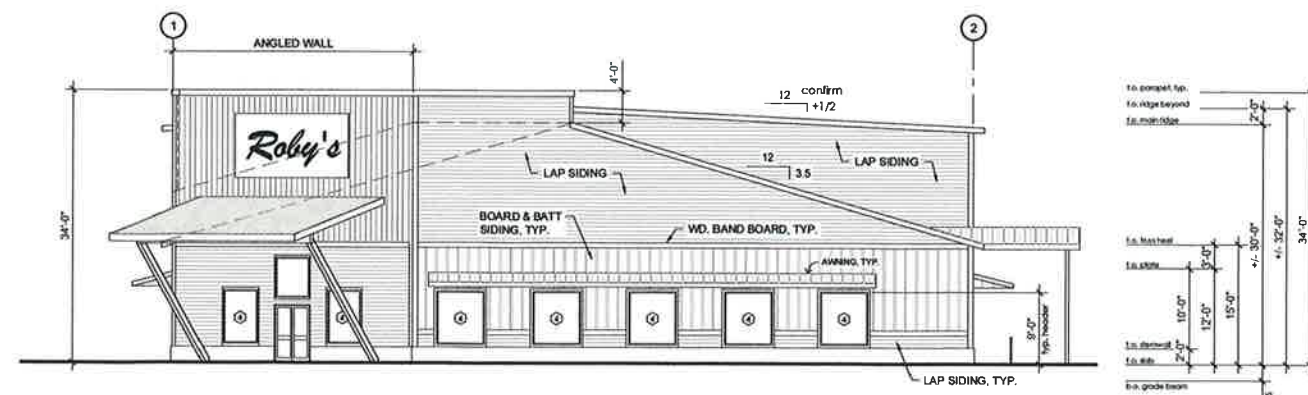


2 SOUTH ELEVATION  
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NOTE:  
Provide 42\"/>



4 EAST ELEVATION  
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3 WEST ELEVATION  
S7.0 3/32'-1'-0"

NOTE:  
SEE 3/S9 0 WEST WALL  
FRAMING ELEVATION  
FOR MORE INFORMATION



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ROBY'S FURNITURE  
WARRENTON  
WARRENTON, OREGON 97148  
ELEVATIONS

DRAWN: 05/19/2021  
ISSUED:  
SCALE: AS SHOWN  
JOB N.O.:

Drawing N.O.:

S7.0

PRELIMINARY

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## **APPENDIX F**

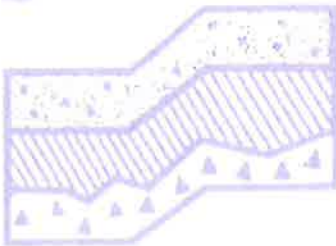
*Geotechnical Report, Proposed Roby's Furniture & Appliance Store Technical Memorandum (Terra Associates, Inc., April 2021)*



# **GEOTECHNICAL REPORT**

**Roby's Furniture  
Fort Stevens Highway (Hwy 101 Business) and  
SE Marlin Drive  
Warrenton, Oregon**

**Project No. T-7723-2**



**Terra Associates, Inc.**

**Prepared for:**

**Warrenton Property Investment, LLC  
Newport, Oregon**

**April 12, 2021**

# TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology  
and  
Environmental Earth Sciences

April 12, 2021  
Project No. T-7723-2

Mr. Kyle Langeliers  
Warrenton Property Investment, LLC  
5111 North Coast Highway  
Newport, Oregon 97365

Subject: Geotechnical Report  
Roby's Furniture  
Fort Stevens Highway (Hwy 101 Business) and SE Marlin Drive  
Warrenton, Oregon

Dear Mr. Langeliers:

As requested, we have completed a geotechnical report for the Roby's Furniture project in Warrenton, Oregon. The purpose of our study was to further explore the subsurface soil and groundwater conditions in the planned development area and to develop geotechnical engineering recommendations for project design and construction.

Our field exploration indicates the site is generally underlain by about 32 to 62 feet of very soft, wet, compressible silt. Groundwater levels observed in our subsurface explorations are generally about 2 to 3 feet below ground surface.

In our opinion, building support using standard spread footing foundations will be feasible. However, in order to gain suitable support, all foundations will need to bear on a minimum of three feet of granular structural fill. Also, to avoid unacceptable building and pavement settlements, all of the planned development area will require surcharging to consolidate the compressible soils prior to construction.

The attached report presents our recommendations regarding these, issues along with other geotechnical aspects of project design and construction. We trust the information presented in this report is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,  
**TERRA ASSOCIATES, INC.**

John Sadler, R.G.  
Senior Engineering Geologist

Theodore J. Schepper, P.E.  
Principal



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Liquefaction Analysis .....	Appendix B
Site-Specific Seismic Design Report .....	Appendix C

# **Geotechnical Report Roby's Furniture Fort Stevens Highway (Hwy 101 Business) and SE Marlin Drive Warrenton, Oregon**

## **1.0 PROJECT DESCRIPTION**

A conceptual development plan by Stricker Engineering dated December 21, 2020, shows the project consisting of a new retail building and associated paved parking located in the southeastern portion of the 16.8-acre Trondheim Acres site. The proposed building will be a 28,000-square-foot fabricated steel structure with metal siding and a metal roof. Paved passenger vehicle parking and truck access/loading dock areas are located on the south and east sides of the building, respectively. We understand that structural loading will be light with columns carrying 32 kips and continuous bearing walls carrying 0.875 kips per foot.

The recommendations contained in the following sections of this report are based on the above design features. If actual features vary or changes are made, we should review them in order to modify our recommendations, as required. We should review the final design drawings and specifications to verify our recommendations have been properly interpreted and incorporated into project design and construction.

## **2.0 SCOPE OF WORK**

Our scope of work for this project included a review of our previous subsurface explorations, laboratory testing, and engineering analyses conducted as part of a geotechnical engineering study for the Trondheim Acres property in 2017, completion of a supplemental subsurface exploration within the planned development area, engineering analysis, and preparation of this report. The supplemental subsurface explorations conducted for this study consisted of two cone penetration tests (CPTs) advanced to depths about 37 and 42 feet below ground surface.

Using the results of our field explorations and laboratory testing, analyses were undertaken to develop geotechnical recommendations for project design and construction. Specifically, this report addresses the following:

- Soil and groundwater conditions.
- Seismic per ASCE 7-16.
- Site preparation and grading.
- Excavations
- Foundations
- Slab-on-grade floors.
- Lateral earth pressures for wall design.
- Subsurface drainage.
- Utilities
- Pavements

### **3.0 SITE CONDITIONS**

#### **3.1 Surface**

The planned site development area consists of approximately 1.5 acres of undeveloped land located north of and adjacent to Fort Stevens Highway (Hwy 101 Business) and approximately 160 feet to 500 feet west of SE Marlin Drive in Warrenton, Oregon. The site location is shown on Figure 1.

Site topography is relatively flat and elevations are generally several feet lower than existing roadways bordering the southern, western, and northern site margins. The eastern portion of the site has been filled with an unknown thickness of crushed rock. Much of the crushed rock visible on the ground surface consists of 6- to 18-inch diameter quarry spalls. Site vegetation generally consists of grasses.

A roadside ditch parallels the southern site margin along Fort Stevens Highway. The ditch contained a moderate volume of static or very slow flowing water during a February 4, 2021, site visit.

#### **3.2 Soils**

The subsurface conditions observed in Boring B-1, located about 25 feet north of the proposed building area, consist of about 62 feet of very soft, wet, estuarine silt, fine sandy silt, and slightly clayey to clayey silt, with occasional layers of loose to medium dense fine sand to silty fine sand and soft to medium stiff peat. These alluvial soils overly hard, moist, residual elastic silt interpreted to be the informally named Smuggler Cove formation. The soil conditions indicated by the CPT data are generally consistent with the conditions observed in Boring B-1, with the exception of the depth to the Smuggler Cove formation, which decreases to about 32 feet below ground surface approximately 45 feet south of the proposed building.

The *Geologic Map of the Astoria Basin, Clatsop and Northernmost Tillamook Counties, Northwest Oregon* by A. R. Niem and W. A. Niem (1985) shows geology at the subject site mapped as Quaternary alluvium (Qal) that includes estuarine clay, silt, and fine sand in low-lying coastal areas in and along the Columbia River, Youngs Bay, and other major river mouths. The unconsolidated deposits observed in the subsurface explorations are consistent with the description of this geologic map unit. The lower member of the informally named Smuggler Cove formation (TSC<sub>1</sub>), described as thick-bedded tuffaceous silty claystone, is mapped about one mile south-southeast from the subject site.

The log of Boring B-1 and the CPT data are presented in Appendix A. The approximate boring and CPT locations are shown on Figure 2.

#### **3.3 Groundwater**

Groundwater was encountered between depths of about 2.5 feet and 62 feet during drilling of Boring B-1. Hydrostatic levels determined from pore pressure dissipation testing conducted at CPT-1 (September 13, 2017) and CPT-102 (February 19, 2021) were at depths of 2.80 feet and 1.97 feet, respectively. Considering dissipation tests were performed in both the relatively dry late summer and the relatively wet late winter, it appears the shallow groundwater conditions beneath the site exist year-round.

### **3.4 Geologic Hazards**

We evaluated site conditions for potential geologic hazards related to the occurrence of a severe seismic event including soil liquefaction, ground shake amplification, and tsunami inundation. A review of the Oregon Department of Geology and Mineral Industries (DOGAMI) Interpretive Map Series IMS-10 (*Relative Earthquake Hazard Maps for Selected Urban Areas in Western Oregon*) indicates the subject site is located within an area identified as Relative Earthquake Hazard Zone A, which is the highest potential hazard zone with respect to ground shaking amplification, soil liquefaction, and seismically-induced landsliding. Based on our study, it is our opinion that subsurface conditions beneath the site are susceptible to ground shaking amplification and soil liquefaction. The flat site conditions are not susceptible to landsliding.

#### ***Liquefaction***

Liquefaction is a phenomenon where there is a reduction or complete loss of soil strength due to an increase in water pressure induced by vibrations. Liquefaction mainly affects cohesionless soils of low density below the groundwater table. Soils of this nature derive their strength from intergranular friction. The generated water pressure, or pore pressure, essentially separates the soil grains and eliminates this intergranular friction, thus eliminating the soil's strength. Because the fine-grained soils (silt and clay) underlying the site exhibit cohesive strength, they are not significantly affected by the liquefaction phenomenon.

We completed a liquefaction analysis using the computer program LiquefyPro published by CivilTech Corporation. The analysis was completed using a site-modified peak ground acceleration (PGAM) of 0.726g representing the peak horizontal acceleration for the maximum considered earthquake (MCE) having a 2 percent probability of exceedance in 50 years. The value was obtained for Latitude 46.15429118°N and Longitude -123.90683408°W using the Structural Engineers Association of California (SEAOC) U.S. Seismic Design Maps website (<https://seismicmaps.org/>). The results of the liquefaction analysis are attached in Appendix B.

The results of our analysis indicate that soil liquefaction could occur at the site during a design earthquake event resulting in total settlements ranging between about 0.5 to 6.7 inches, with about one-half of this settlement likely being differential in nature. In our opinion, this amount of settlement would not structurally impair the building. However, cosmetic damage to the structure in the form of misaligned doors and windows, cracking, and floor settlement could occur. Some utility connections may also be impacted. If the owner is not willing to accept the risk of building damage requiring repair should liquefaction-induced settlements occur, foundations should be supported on ground improved using stone columns designed to mitigate soil liquefaction settlements below the building foundations.

#### ***Seismic Design Parameters***

Based on soil conditions noted in the CPT logs, the test boring log, and our knowledge of the area geology, per Chapter 16 of the current International Building Code (IBC), site class "F" should be used in structural design. Because of this site class, per the current IBC which references ASCE 7-16, a site-specific seismic study is required to determine the design spectrum. The site-specific seismic design report is included in Appendix C.

## ***Tsunami***

Review of Plates 1 and 2 of the DOGAMI *Tsunami Inundation Maps for Warrenton South – Rilea, Clatsop County, Oregon* (2013) indicates the vast majority of the site area is located within areas of tsunami inundation for both local source (Cascadia Subduction Zone [CSZ]) and distant source (Alaska-Aleutian Subduction Zone) seismic events.

## **4.0 DISCUSSION AND RECOMMENDATIONS**

### **4.1 General**

Based on our study, it is our opinion that development of the site as proposed is feasible from a geotechnical engineering standpoint. The primary geotechnical concerns for the planned development are the presence of low-strength, compressible native soils that are susceptible to consolidation when loaded, and the presence of relatively shallow groundwater that may impact deeper utility excavations.

In our opinion, the potential for post-construction settlement due to consolidation can be mitigated by surcharging the planned development area. In our opinion, surcharging in building area should be accomplished by raising grades to the planned floor elevations, then placing an additional 4-foot surcharge fill above the floor elevation, and allowing settlements to occur under this load before building construction is initiated. In our opinion, surcharging of paved parking and driveway areas will also be necessary. Surcharging of paved areas should consist of a minimum 12-inch surcharge fill placed above finished grade.

Following successful completion of the surcharge program, the proposed building can be supported on conventional spread footings bearing on a minimum of three feet of compacted granular structural fill. In our opinion, the native silt soils will not be suitable for use as structural fill. The contractor should be prepared to import clean granular material for use as structural fill and backfill.

The following sections provide detailed recommendations regarding the above issues and other geotechnical design considerations. These recommendations should be incorporated into the final design drawings and construction specifications.

### **4.2 Site Preparation and Grading**

In general, it will not be necessary to strip the organic surface layer where structural fill thicknesses above existing grade are a minimum of three feet and two feet in building and pavement areas, respectively. Clearing of trees should include removal of the entire tree root ball. Where structural fill thicknesses are less than the recommended minimums, both the organic surface soil and vegetation should be stripped from below building and pavement areas. Based on our field observations, surface stripping depths of about two to four inches should be expected. Stripped vegetation debris should be removed from the site. Organic topsoil will not be suitable for use as structural fill, but may be used for limited thicknesses in nonstructural areas.

Once clearing and grubbing operations are complete, grading to establish the desired building grade can be initiated. In order to achieve proper compaction of the building fill, the existing subgrade should be in a relatively stable condition. If excessively soft and yielding subgrade is observed and it cannot be stabilized in place by aeration and compaction, the unstable soils should be excavated to a depth of 18 inches and replaced with clean granular structural fill.

As noted, we recommend that spread footing foundations obtain support on a minimum of three feet of compacted granular structural fill. The structural fill should extend laterally from the edge of the footing a minimum distance of 18 inches. If grading occurs during wet weather, the structural fill used for this purpose should consist of wet-weather structural fill or equivalent granular material as outlined later in this section.

If grading activities are planned during the wet winter months and the onsite soils become too wet to achieve adequate compaction, the contractor should be prepared to treat soils with cement or lime, or import wet-weather structural fill. If an additive is used, additional Best Management Practices (BMPs) for its use will need to be incorporated into the Temporary Erosion and Sedimentation Control plan (TESC) for the project. For wet weather structural fill, we recommend importing a granular soil that meets the following grading requirements:

U.S. Sieve Size	Percent Passing
6 inches	100
No. 4	75 maximum
No. 200	5 maximum*

\*Based on the 3/4-inch fraction.

Prior to use, Terra Associates, Inc. should examine and test all materials imported to the site for use as structural fill. If the building subgrade is constructed using native soils and will be exposed during wet weather, it would be advisable to place 12 inches of this granular structural fill on the building pad to prevent deterioration of the floor subgrade.

Structural fill should be placed in uniform loose layers not exceeding 12 inches and compacted to a minimum of 95 percent of the soil's maximum dry density, as determined by American Society for Testing and Materials (ASTM) Test Designation D-698 (Standard Proctor). The moisture content of the soil at the time of compaction should be within two percent of its optimum, as determined by this ASTM standard. In nonstructural areas, or for backfill in utility trenches below a depth of 4 feet, the degree of compaction can be reduced to 90 percent.

#### **4.3 Surcharge**

As discussed, we recommend surcharging the building pad and paved parking and driveway areas and allowing settlements to occur under these loads prior to construction. For this procedure, we recommend placing structural fill in the building areas to the design finish floor elevation, then placing an additional 4-foot surcharge fill above finished floor elevation. Paved parking and driveway areas should be surcharged with a minimum 12-inch fill placed above the finished elevation. The top of the surcharge fill in building areas should extend a minimum of five feet beyond the edge of the building.



Total settlement under the pavement surcharge fill is estimated to be in the range of four to six inches. Total settlement under the building surcharge is estimated at 10 to 14 inches. It is estimated that 90 percent of the consolidation settlement will occur in about 3 to 4 months following full application of the building fill.

To verify the amount of settlement and the time rate of movement, the preload program should be monitored by installing settlement markers. A typical settlement marker detail is shown on Figure 3. The settlement markers should be installed on the existing grade prior to placing any building or surcharge fills. Once installed, elevations of both the fill height and marker should be taken twice a week until the full height of the surcharge is in place. Once fully surcharged, readings should continue weekly until the anticipated settlements have occurred or monitoring indicates settlements have stopped. Monitoring data should be forwarded to us for review when obtained.

It is critical that the grading contractor recognize the importance of the settlement marker installations. All efforts must be made to protect the markers from damage during fill placement. It is difficult, if not impossible, to evaluate the progress of the preload program if the markers are damaged or destroyed by construction equipment. If the markers are impacted, it may be necessary to install new markers and extend the surcharging time period in order to ensure that settlements have ceased and building construction can begin.

#### **4.4 Excavations**

All excavations at the site associated with confined spaces must be completed in accordance with local, state, and federal requirements. Based on regulations outlined by the Occupational Safety and Health Administration (OSHA), all existing fill materials and native soils would typically be classified as Type C soils.

For properly dewatered excavations deeper than 4 feet, but less than 20 feet, the side slopes should be laid back at a minimum slope inclination of 2:1 (Horizontal:Vertical). If there is insufficient room to complete the excavations in this manner, or if excavations greater than 20 feet in depth are planned, temporary shoring to support the excavations will be required. Properly designed and installed shoring trench boxes can be used to support utility trench excavations where required.

Based on our study, excavations extending below a depth of about two feet will encounter the groundwater table. Excavations extending below this depth will encounter groundwater seepage with volumes and flow rates sufficient to require some level of dewatering. Shallow excavations that do not extend more than two to three feet below the groundwater table can likely be dewatered by conventional sump-pumping procedures along with a system of collection trenches. Deeper excavations will require dewatering by well points. The utility subcontractor should be prepared to implement excavation dewatering using a well point system, as needed. This will be an especially critical consideration for any deep utility excavations.

The above information is provided solely for the benefit of the owner and other design consultants, and should not be construed to imply that Terra Associates, Inc. assumes responsibility for job site safety. It is understood that job site safety is the sole responsibility of the project contractor.

#### **4.5 Foundation Support**

The proposed building may be supported on conventional spread footing foundations bearing on a minimum of 3 feet of structural fill that extends at least 12 inches laterally beyond the edges of the footing. Perimeter foundations exposed to the weather should bear at a minimum depth of 1.5 feet below final exterior grades for frost protection. Interior foundations can be constructed at any convenient depth below the floor slab.

We recommend designing foundations for a net allowable bearing capacity of 2,000 psf. For short-term loads, such as wind and seismic, a one-third increase in this allowable capacity can be used. With the expected building loads and this bearing stress applied, and following successful completion of the surcharge program, total and differential settlements should not exceed one-inch and one-half inch, respectively. The differential settlement is expected to occur between perimeter wall and interior column locations. Long-term secondary consolidation of the soft alluvium should also be expected over the life of the structures. Estimated secondary settlements approach 2 inches in a 30-year time span. This settlement will occur slowly, but could result in some level of cosmetic damage to the buildings that would require some maintenance and repair.

For designing foundations to resist lateral loads, a base friction coefficient of 0.35 can be used. Passive earth pressures acting on the sides of the footings can also be considered. We recommend calculating this lateral resistance using an equivalent fluid weight of 300 pounds per cubic foot (pcf). We do not recommend including the upper 12 inches of soil in this computation because it can be affected by weather or disturbed by future grading activity. This value assumes the foundation will be backfilled with structural fill, as described in Section 4.2 of this report. The values recommended include a safety factor of 1.5.

#### **4.6 Slab-on-Grade Floors**

Slab-on-grade floors may be supported on a subgrade prepared as recommended in Section 4.2 of this report. Immediately below the floor slab, we recommend placing a four-inch thick capillary break layer composed of clean, coarse sand or fine gravel that has less than three percent passing the No. 200 sieve. This material will reduce the potential for upward capillary movement of water through the underlying soil and subsequent wetting of the floor slab.

The capillary break layer will not prevent moisture intrusion through the slab caused by water vapor transmission. Where moisture by vapor transmission is undesirable, such as covered floor areas, a common practice is to place a durable plastic membrane on the capillary break layer, then cover the membrane with a layer of clean sand or fine gravel to protect it from damage during construction and to aid in uniform curing of the concrete slab. It should be noted, if the sand or gravel layer overlying the membrane is saturated prior to pouring the slab, it will not be effective in assisting uniform curing of the slab and can actually serve as a water supply for moisture bleeding through the slab, potentially affecting floor coverings. Therefore, in our opinion, covering the membrane with a layer of sand or gravel should be avoided if floor slab construction occurs during the wet winter months and the layer cannot be effectively drained. We recommend floor designers and contractors refer to the 2003 American Concrete Institute (ACI) Manual of Concrete Practice, Part 2, 302.1R-96, for further information regarding vapor barrier installation below slab-on-grade floors.

#### **4.7 Lateral Earth Pressures for Wall Design**

The magnitude of earth pressure development on retaining/below-grade walls will partly depend on the quality of the wall backfill. We recommend placing and compacting wall backfill as structural fill as described in Section 4.2 of this report. To guard against hydrostatic pressure development, wall drainage must also be installed. A typical recommended wall drainage detail is shown on Figure 4.

With wall backfill placed and compacted as recommended, and drainage properly installed, we recommend designing unrestrained walls for an active earth pressure equivalent to a fluid weighing 35 pounds per cubic foot (pcf). For restrained walls, an additional uniform load of 100 psf should be added to the 35 pcf. To account for typical traffic surcharge loading, the walls can be designed for an additional imaginary height of two feet (two-foot soil surcharge). For evaluation of wall performance under seismic loading, a uniform pressure equivalent to  $8H$  psf, where  $H$  is the height of the below-grade portion of the wall should be applied in addition to the static lateral earth pressure. These values assume a horizontal backfill condition and that no other surcharge loading, sloping embankments, or adjacent buildings will act on the wall. If such conditions exist, then the imposed loading must be included in the wall design. Friction at the base of foundations and passive earth pressure will provide resistance to these lateral loads. Values for these parameters are provided in Section 4.5 of this report.

#### **4.8 Drainage**

##### ***Surface***

Final exterior grades should promote free and positive drainage away from the building at all times. Water must not be allowed to pond or collect adjacent to foundations or within the immediate building area. We recommend providing a positive drainage gradient away from the building perimeter. If this gradient cannot be provided, surface water should be collected at the point of accumulation and conveyed to an appropriate stormwater discharge location.

##### ***Subsurface***

We recommend installing perimeter foundation drains adjacent to shallow foundations where paved surfaces do not extend to the building perimeter and positive drainage away from the structure is not provided. The drains can be laid to grade at an invert elevation equivalent to the bottom of footing grade. The drains can consist of four-inch diameter perforated PVC pipe enveloped in washed pea gravel-sized drainage aggregate. The aggregate should extend six inches above and to the sides of the pipe. Roof and foundation drains should be tightlined separately to the storm drains. All drains should be provided with cleanouts at easily accessible locations.

#### **4.9 Utilities**

The very soft, fine-grained native soils will be unsuitable for support of buried utility pipes. The contractor should be prepared to over excavate two to four feet of native soil from below the pipe invert elevation and replace it with crushed rock or bedding aggregate placed over a geotextile separation fabric such as Mirafi 500X to establish a stable pipe foundation.

Utility pipes should be bedded and backfilled in accordance with American Public Works Association (APWA), or local jurisdictional specifications. At a minimum, trench backfill should be placed and compacted as structural fill as described in Section 4.2 of this report. In our opinion, the fine-grained native soils will not be suitable for use as utility trench backfill. Material used for utility trench backfilling should consist of an imported fill material that meets the recommended gradation for wet-weather fill given in Section 4.2.

It should be noted, the native silt alluvium has a low in-place wet unit weight and imported granular aggregates used to support the pipes and backfill the trenches unit weight will likely be 25 to 50 pounds per cubic foot heavier. This heavier bedding and backfill material can cause the utilities to settle due to consolidation of the deeper unconsolidated deposits. This will not likely be an issue for shallow utilities less than four to five feet below finish site grades, but can be an issue for deeper utilities. The potential for settlement to occur can be mitigated by using a lightweight material such as geofoam to backfill a portion of the utility trench. Typically, the geofoam would be placed just above the pipe bedding to a height equal to about two feet below final grade. We should review grading and utility plans when they become available to determine where such mitigation may be needed.

#### **4.10 Pavements**

Pavement subgrades should be prepared as described in Section 4.2 of this report. Regardless of the degree of relative compaction achieved, the subgrade must be firm and relatively unyielding before paving. The subgrade should be proofrolled with heavy rubber-tired construction equipment such as a loaded 10 yard dump truck to verify this condition.

The pavement design section is dependent upon the supporting capability of the subgrade soils and the traffic conditions to which it will be subjected. We expect traffic at the facility will consist of cars and light trucks, along with heavy traffic in the form of tractor-trailer rigs. For design considerations, we have assumed traffic in parking and in car/light truck access pavement areas can be represented by an 18-kip Equivalent Single Axle Loading (ESAL) of 50,000 over a 20-year design life. For heavy traffic pavement areas, we have assumed an ESAL of 300,000 would be representative of the expected loading. This heavy traffic loading includes a tractor-trailer rig carrying generators with a total payload and vehicle weight of 105,500 lbs. As we understand, this vehicle would access the site about once a week.

With a stable subgrade composed of a minimum of 18 inches of granular structural fill prepared as recommended, we recommend the following pavement sections:

##### Light Traffic and Parking:

- Three inches of hot mix asphalt (HMA) over four inches of crushed rock base (CRB).
- Four and one-half inches full depth HMA.

##### Heavy Traffic:

- Four inches of HMA over six inches of CRB.
- Six inches full depth HMA.

The paving materials used should conform to the Washington State Department of Transportation (WSDOT) specifications for half-inch class HMA and CRB.

Long-term pavement performance will depend on surface drainage. A poorly-drained pavement section will be subject to premature failure as a result of surface water infiltrating into the subgrade soils and reducing their supporting capability. For optimum pavement performance, we recommend surface drainage gradients of at least two percent. Some degree of longitudinal and transverse cracking of the pavement surface should be expected over time. Regular maintenance should be planned to seal cracks when they occur.

## **5.0 ADDITIONAL SERVICES**

Terra Associates, Inc. should review the final design and specifications in order to verify earthwork recommendations have been properly interpreted and incorporated into project design and construction. We should also provide geotechnical services during construction in order to observe compliance with the design concepts, specifications, and recommendations. This will allow for design changes if subsurface conditions differ from those anticipated prior to the start of construction.

## **6.0 LIMITATIONS**

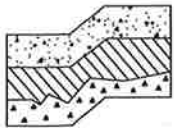
We prepared this report in accordance with generally accepted geotechnical engineering practices. This report is the property of Terra Associates, Inc. and is intended for specific application to the Roby's Furniture project in Warrenton, Oregon. This report is for the exclusive use of Warrenton Property Investment, LLC and its authorized representatives.

The analyses and recommendations presented in this report are based upon data obtained from the onsite test boring and CPT explorations. Variations in soil conditions can occur, the nature and extent of which may not become evident until construction. If variations appear evident, Terra Associates, Inc. should be requested to reevaluate the recommendations in this report prior to proceeding with construction.



REFERENCE: ODOT TRANSGIS

NOT TO SCALE



**Terra Associates, Inc.**

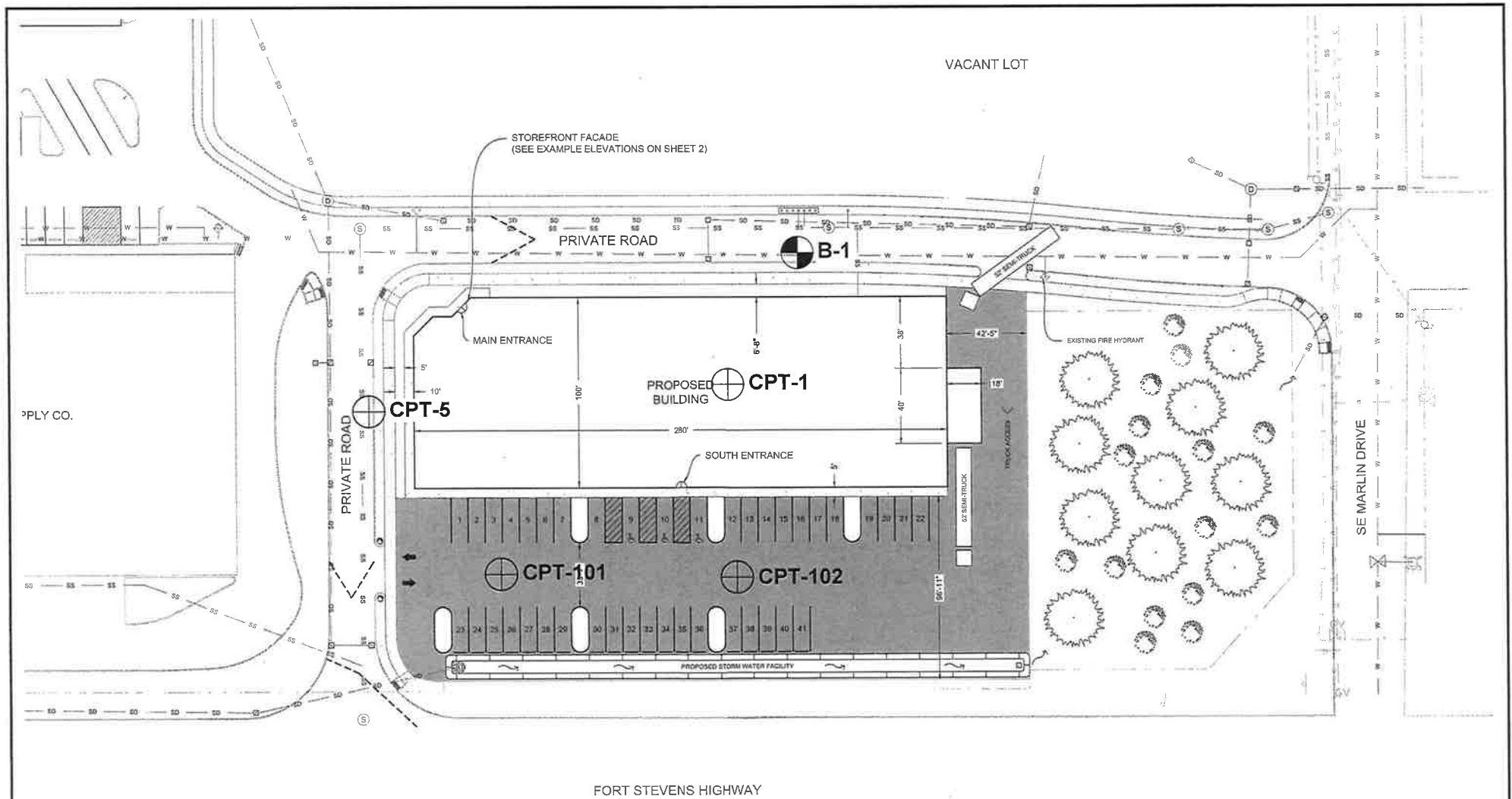
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Environmental Earth Sciences

VICINITY MAP  
ROBY'S FURNITURE  
WARRENTON, OREGON

Proj. No. T-7723-2

Date APR 2021



Figure 1

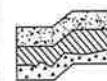


**NOTE:**  
THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

**REFERENCE:**  
STRICKER ENGINEERING (21-DEC-20)

**LEGEND:**

-  APPROXIMATE BORING LOCATION
-  APPROXIMATE CPT LOCATION



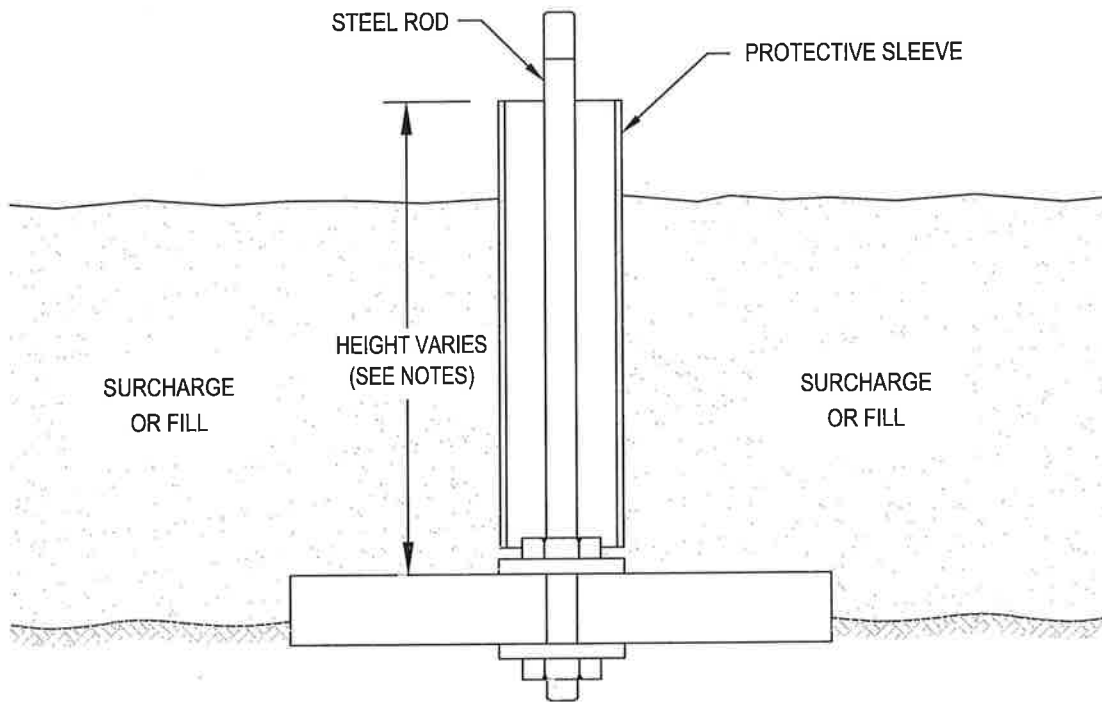
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Environmental Earth Sciences

**EXPLORATION LOCATION PLAN  
ROBY'S FURNITURE  
WARRENTON, OREGON**

Proj. No. T-7723-2

Date APR 2021

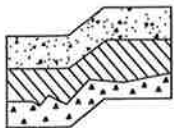
Figure 2



NOT TO SCALE

**NOTES:**

1. BASE CONSISTS OF 3/4" THICK, 2'x2' PLYWOOD WITH CENTER DRILLED 5/8" DIAMETER HOLE.
2. BEDDING MATERIAL, IF REQUIRED, SHOULD CONSIST OF CLEAN COARSE SAND.
3. MARKER ROD IS 1/2" DIAMETER STEEL ROD THREADED AT BOTH ENDS.
4. MARKER ROD IS ATTACHED TO BASE BY NUT AND WASHER ON EACH SIDE OF BASE.
5. PROTECTIVE SLEEVE SURROUNDING MARKER ROD SHOULD CONSIST OF 2" DIAMETER PLASTIC TUBING. SLEEVE IS NOT ATTACHED TO ROD OR BASE.
6. ADDITIONAL SECTIONS OF STEEL ROD CAN BE CONNECTED WITH THREADED COUPLINGS.
7. ADDITIONAL SECTIONS OF PLASTIC PROTECTIVE SLEEVE CAN BE CONNECTED WITH PRESS-FIT PLASTIC COUPLINGS.
8. STEEL MARKER ROD SHOULD EXTEND AT LEAST 6" ABOVE TOP OF PLASTIC PROTECTIVE SLEEVE.
9. PLASTIC PROTECTIVE SLEEVE SHOULD EXTEND AT LEAST 1" ABOVE TOP OF FILL SURFACE.



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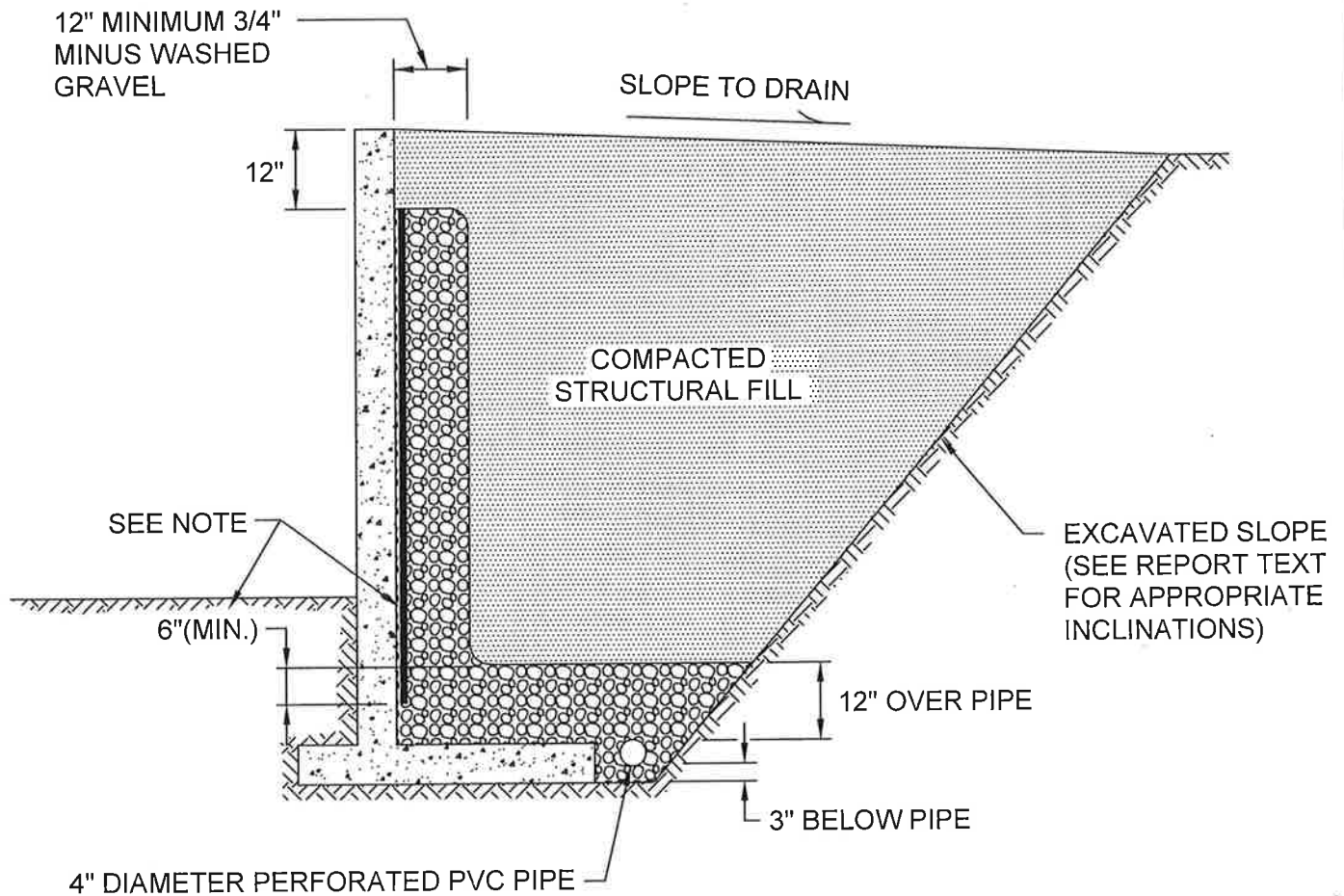
**SETTLEMENT MARKER DETAIL  
 ROBY'S FURNITURE  
 WARRENTON, OREGON**

Proj. No. T-7723-2

Date APR 2021

Figure 3

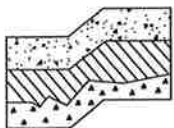




**NOT TO SCALE**

**NOTE:**

MIRADRAIN G100N PREFABRICATED DRAINAGE PANELS OR SIMILAR PRODUCT CAN BE SUBSTITUTED FOR THE 12-INCH WIDE GRAVEL DRAIN BEHIND WALL. DRAINAGE PANELS SHOULD EXTEND A MINIMUM OF SIX INCHES INTO 12-INCH THICK DRAINAGE GRAVEL LAYER OVER PERFORATED DRAIN PIPE.



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TYPICAL WALL DRAINAGE DETAIL  
ROBY'S FURNITURE  
WARRENTON, OREGON

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Date APR 2021

Figure 4

## **APPENDIX A**

### **FIELD EXPLORATION AND LABORATORY TESTING**

#### **Roby's Furniture Warrenton, Oregon**

Subsurface exploration at the site included drilling one approximately 70-foot deep test boring and advancing four cone penetration tests (CPTs) to maximum depths ranging from about 37 to 47 feet below ground surface. The test boring and CPT locations were approximately determined in the field by pacing and sighting from existing site features. The test boring and CPT locations are shown on Figure 2.




An engineering geologist from our office conducted the field exploration, classified the soils observed in the test boring, maintained a written log of the test boring, collected representative soil samples, and performed a visual site reconnaissance. All soil samples were visually classified in accordance with the Unified Soil Classification System (USCS) described on Figure A-1. The Boring Log is presented as Figure A-2.

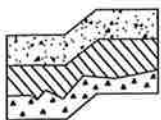
Representative soil samples collected from the boring were placed in closed containers and taken to our laboratory for further examination and testing. Laboratory testing consisted of determining the soil moisture content of all samples. The moisture contents are reported on the Boring Log.

Oregon Geotechnical Explorations, under subcontract to Terra Associates, Inc., performed the CPT explorations at locations selected by Terra Associates, Inc. The CPT consists of pushing an instrumented, approximately 1.5-inch diameter cone into the ground at a constant rate. During advancement, continuous measurements are made of the resistance to penetration of the cone and the friction of the outer surface of a sleeve. The cone is also equipped with a porous filter and a pressure transducer for measuring groundwater or pore water pressure generated. Measurements of tip and sleeve frictional resistance, pore pressure, and interpreted soil conditions are summarized in graphical form on the attached CPT Logs.

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTION
<b>COARSE GRAINED SOILS</b> More than 50% material larger than No. 200 sieve size	<b>GRAVELS</b> More than 50% of coarse fraction is larger than No. 4 sieve	Clean Gravels (less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.
		Gravels with fines	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	<b>SANDS</b> More than 50% of coarse fraction is smaller than No. 4 sieve	Clean Sands (less than 5% fines)	SW	Well-graded sands, sands with gravel, little or no fines.
			SP	Poorly-graded sands, sands with gravel, little or no fines.
		Sands with fines	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
<b>FINE GRAINED SOILS</b> More than 50% material smaller than No. 200 sieve size	<b>SILTS AND CLAYS</b> Liquid Limit is less than 50%		ML	Inorganic silts, rock flour, clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity. (Lean clay)
			OL	Organic silts and organic clays of low plasticity.
	<b>SILTS AND CLAYS</b> Liquid Limit is greater than 50%		MH	Inorganic silts, elastic.
			CH	Inorganic clays of high plasticity. (Fat clay)
			OH	Organic clays of high plasticity.
<b>HIGHLY ORGANIC SOILS</b>			PT	Peat.

### DEFINITION OF TERMS AND SYMBOLS

<b>COHESIONLESS</b>	<u>Density</u>	<u>Standard Penetration Resistance in Blows/Foot</u>	 2" OUTSIDE DIAMETER SPILT SPOON SAMPLER
	Very Loose	0-4	 2.4" INSIDE DIAMETER RING SAMPLER OR SHELBY TUBE SAMPLER
	Loose	4-10	 WATER LEVEL (Date)
	Medium Dense	10-30	Tr TORVANE READINGS, tsf
	Dense	30-50	Pp PENETROMETER READING, tsf
	Very Dense	>50	DD DRY DENSITY, pounds per cubic foot
<b>COHESIVE</b>	<u>Consistency</u>	<u>Standard Penetration Resistance in Blows/Foot</u>	LL LIQUID LIMIT, percent
	Very Soft	0-2	PI PLASTIC INDEX
	Soft	2-4	N STANDARD PENETRATION, blows per foot
	Medium Stiff	4-8	
	Stiff	8-16	
	Very Stiff	16-32	
	Hard	>32	



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UNIFIED SOIL CLASSIFICATION SYSTEM  
 ROBY'S FURNITURE  
 WARRENTON, OREGON

Proj. No. T-7723-2

Date APR 2021

Figure A-1

# LOG OF BORING NO. 1

Project: Trondheim Acres Project No: T-7723 Date Drilled: September 18, 2017

Client: Warrenton Fiber Company Driller: Holocene Drilling Logged By: JCS

Location: Warrenton, Oregon Depth to Groundwater: ~ 2.5 ft Approx. Elev: NA

Depth (ft)	Sample Interval	Soil Description	Consistency/ Relative Density	SPT (N) Blows/foot			Moisture Content (%)	
				10	30	50		
0		Approx. 2 feet of fine sand fill.					2	70.9
5		Gray to gray-brown slightly clayey SILT, wet, scattered to numerous organics. (ML)	Very Soft				1	134.0
10		No Recovery 7.5' - 9.5'					Push	
15		Gray to gray-brown SILT to slightly sandy SILT, fine sand, wet. (ML)					0	110.1
20		- Trace of fine sand seams below 15 feet.	Medium Dense				0	63.3
25		Gray SAND, fine grained, wet, trace of fine organics. (SP)					11	33.2
30		Gray-brown slightly clayey SILT, wet, numerous fibrous organics. (ML)	Very Soft				0	108.0
35		Gray-brown SILT to sandy SILT, fine sand, wet, scattered fine sand seams below 30 feet, trace of organics. (ML)					2	53.0
40		Dark gray sandy SILT, fine sand, wet, trace of shell fragments. (ML)					1	51.2
45		Dark brown PEAT, moist to wet. (PT)	Soft				1	27.3
50		Dark gray sandy SILT, fine sand, wet, trace of organics. (ML)					3	154.8
55		Dark brown PEAT, moist to wet. (PT)	Medium Stiff				4	78.9
60		Gray silty SAND to SAND with silt, fine grained, wet, trace of fine organics below 60 feet. (SM/SP-SM)					7	149.5
65		- Drills harder below about 62 feet.	Hard				5	42.0
70		Gray elastic SILT, moist. (MH) (Smuggler Cove formation [informal]) LL=63, PI=28					50/5"	20.6
75		Boring terminated at 70.8 feet. Groundwater encountered between about 2.5 feet and 62 feet.					50/3"	21.8

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpreted as being indicative of other areas of the site

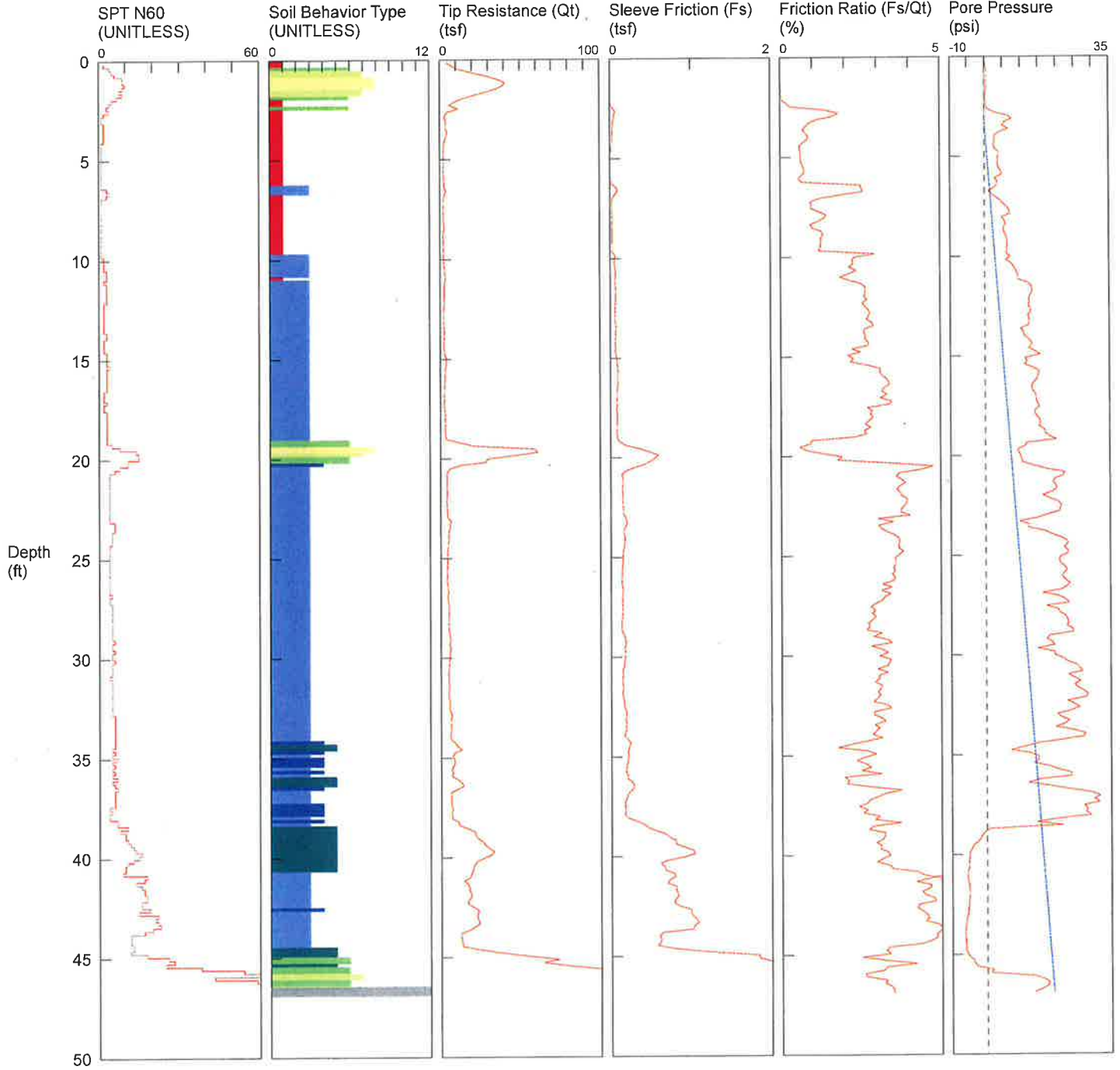


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## CPT LOGS

# Terra Assoc. / CPT-1 / Trondheim Acres Warrenton

OPERATOR: OGE BB  
 CONE ID: DDG1415  
 HOLE NUMBER: CPT-1  
 TEST DATE: 9/13/2017 3:28:38 PM  
 TOTAL DEPTH: 46.916 ft

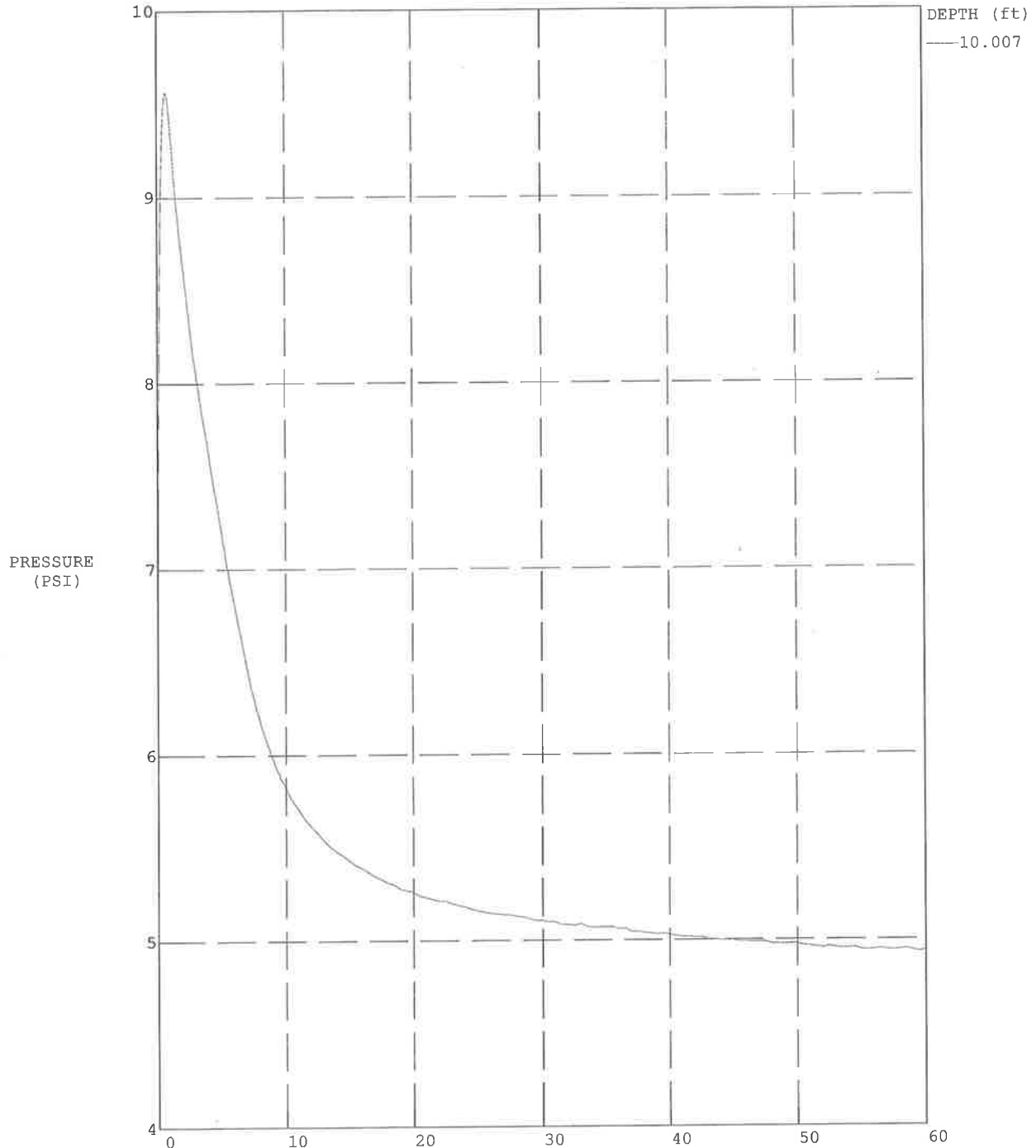


- |   |   |   |   |
|---|---|---|---|
| <ul style="list-style-type: none"> <li><span style="color: red;">■</span> 1 sensitive fine grained</li> <li><span style="color: pink;">■</span> 2 organic material</li> <li><span style="color: blue;">■</span> 3 clay</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: darkblue;">■</span> 4 silty clay to clay</li> <li><span style="color: teal;">■</span> 5 clayey silt to silty clay</li> <li><span style="color: green;">■</span> 6 sandy silt to clayey silt</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: lightgreen;">■</span> 7 silty sand to sandy silt</li> <li><span style="color: yellow;">■</span> 8 sand to silty sand</li> <li><span style="color: tan;">■</span> 9 sand</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: orange;">■</span> 10 gravelly sand to sand</li> <li><span style="color: lightgrey;">■</span> 11 very stiff fine grained (*)</li> <li><span style="color: darkgrey;">■</span> 12 sand to clayey sand (*)</li> </ul> |
|---|---|---|---|

\*SBT/SPT CORRELATION: UBC-1983

COMMENT: 17143 / Terra Assoc. / CPT-1 / Warrenton

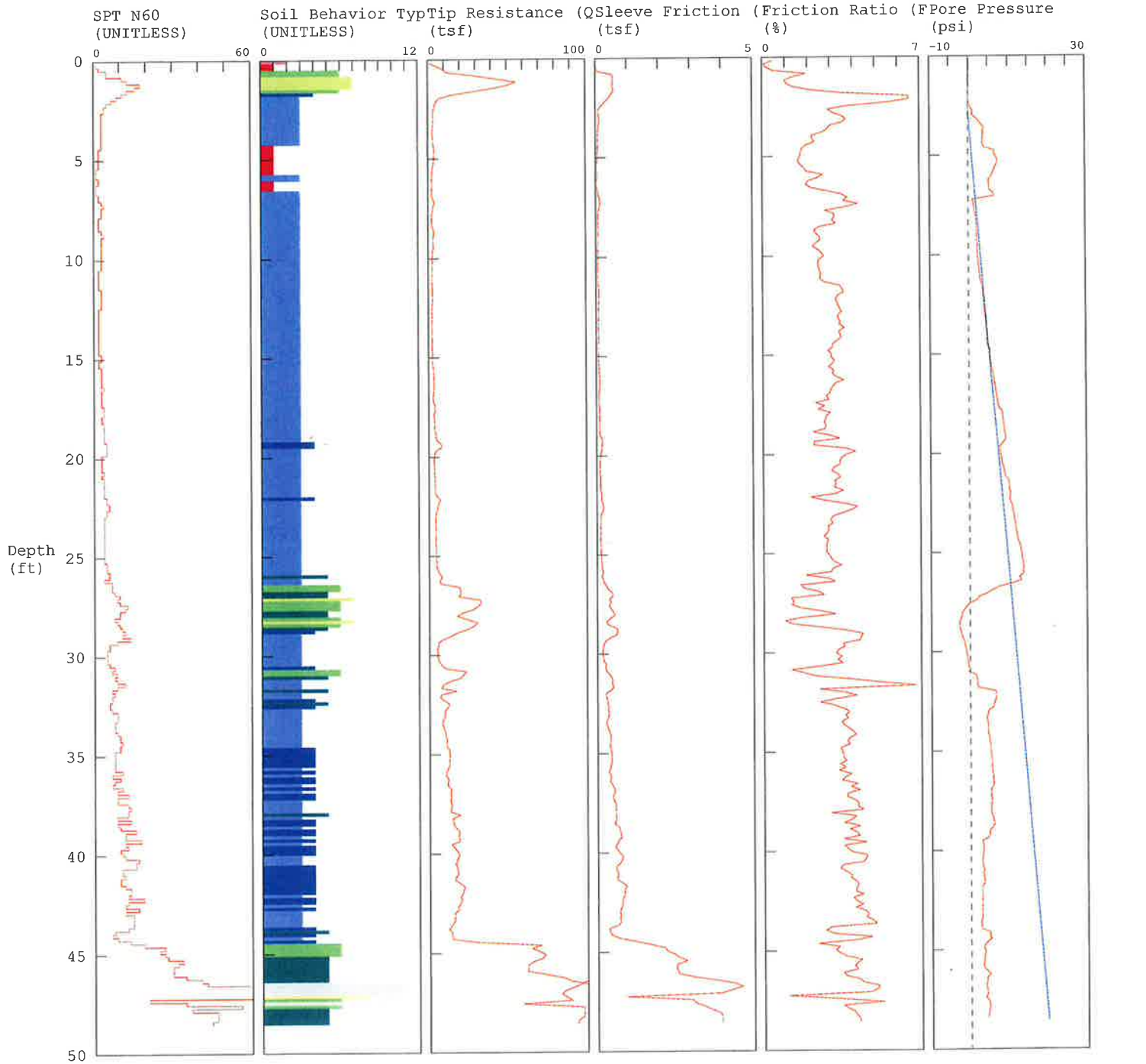
T DATE: 9/13/2017 3:28:38 PM



MAXIMUM PRESSURE = 9.564 (PSI) TIME: (MINUTES)  
HYDROSTATIC PRESSURE = 3.123 (PSI), WATER TABLE: 2.80 ft

# Terra Assoc. / CPT-5 / Trondheim Acres Warrenton

OPERATOR: OGE BB  
 CONE ID: DDG1415  
 HOLE NUMBER: CPT-5  
 TEST DATE: 9/13/2017 2:32:50 PM  
 TOTAL DEPTH: 48.556 ft

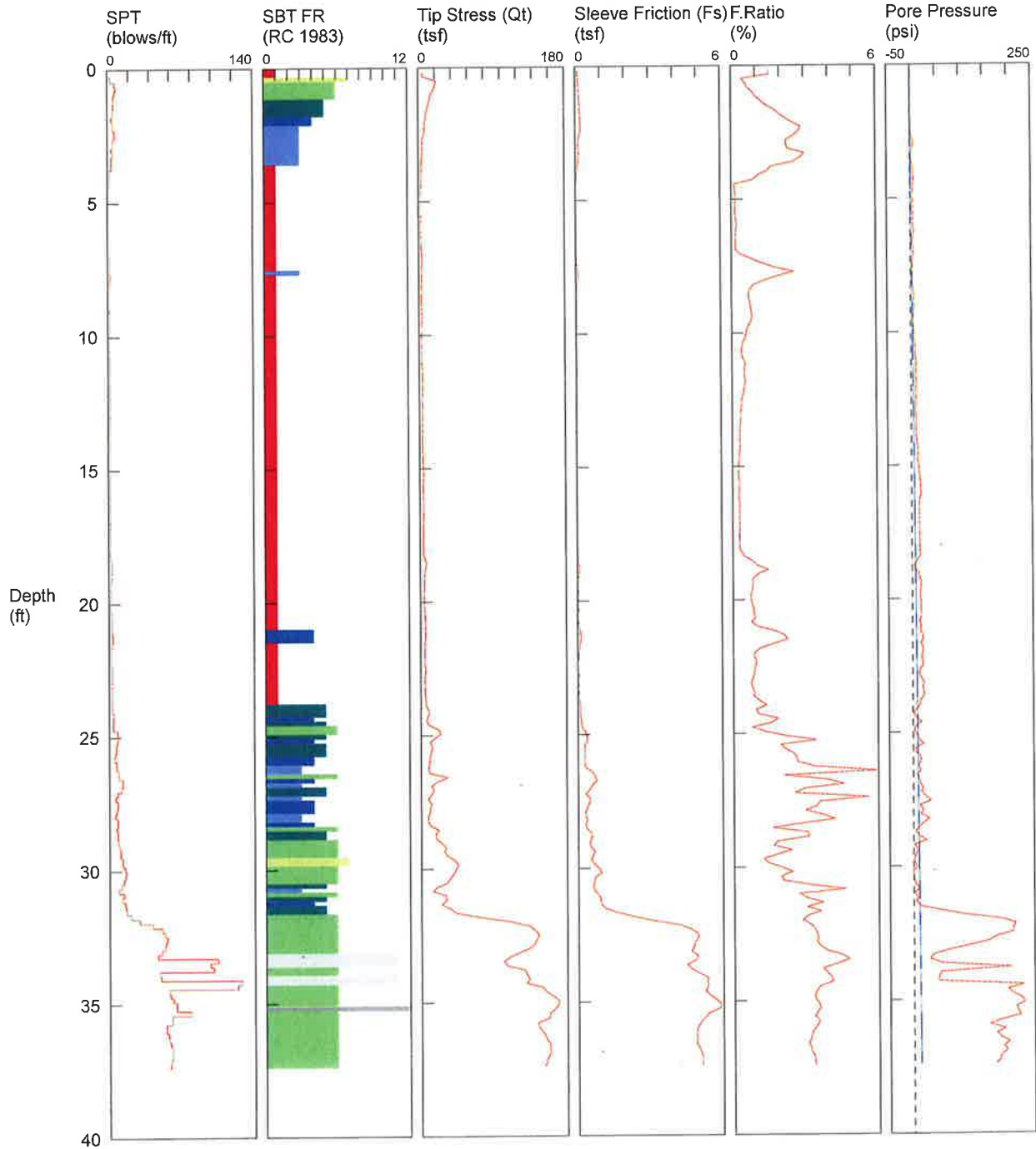


- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li>1 sensitive fine grained</li> <li>2 organic material</li> <li>3 clay</li> </ul> | <ul style="list-style-type: none"> <li>4 silty clay to clay</li> <li>5 clayey silt to silty cl</li> <li>6 sandy silt to clayey si</li> </ul> | <ul style="list-style-type: none"> <li>7 silty sand to sandy sil</li> <li>8 sand to silty sand</li> <li>9 sand</li> </ul> | <ul style="list-style-type: none"> <li>10 gravelly sand to sand</li> <li>11 very stiff fine grained (*)</li> <li>12 sand to clayey sand (*)</li> </ul> |
|--|--|---|--|
- \*SBT/SPT CORRELATION: UBC-1983



# Terra Associates / CPT-101 / 1168 SE Marlin Ave Warrenton

OPERATOR: OGE DMM  
 CONE ID: DPG1211  
 HOLE NUMBER: CPT-101  
 TEST DATE: 2/19/2021 12:00:36 PM  
 TOTAL DEPTH: 37.402 ft

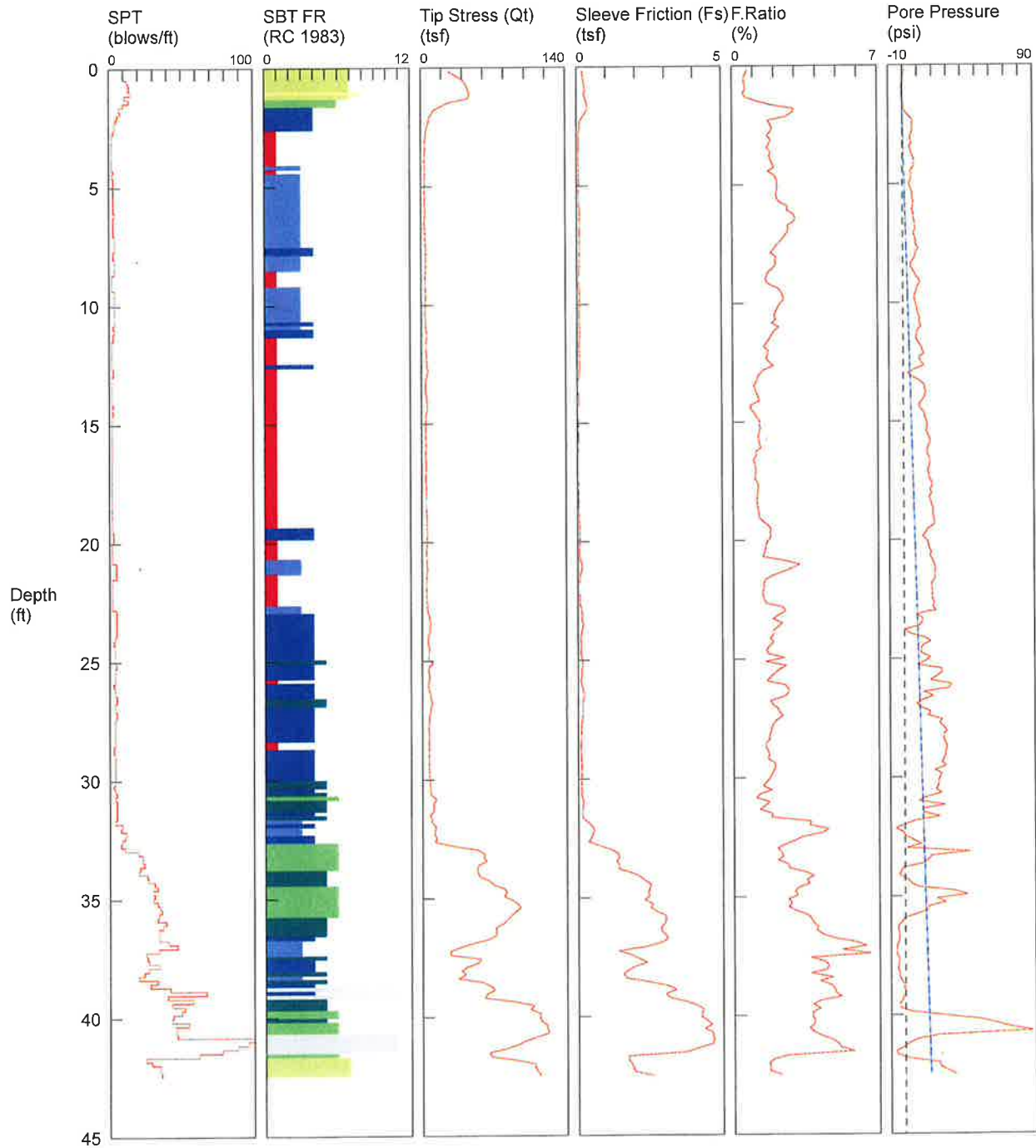


- |                          |                             |                            |                                |
|--------------------------|-----------------------------|----------------------------|--------------------------------|
| 1 sensitive fine grained | 4 silty clay to clay        | 7 silty sand to sandy silt | 10 gravelly sand to sand       |
| 2 organic material       | 5 clayey silt to silty clay | 8 sand to silty sand       | 11 very stiff fine grained (*) |
| 3 clay                   | 6 sandy silt to clayey silt | 9 sand                     | 12 sand to clayey sand (*)     |

\*SBT/SPT CORRELATION: UBC-1983

# Terra Associates / CPT-102 / 1168 SE Marlin Ave Warrenton

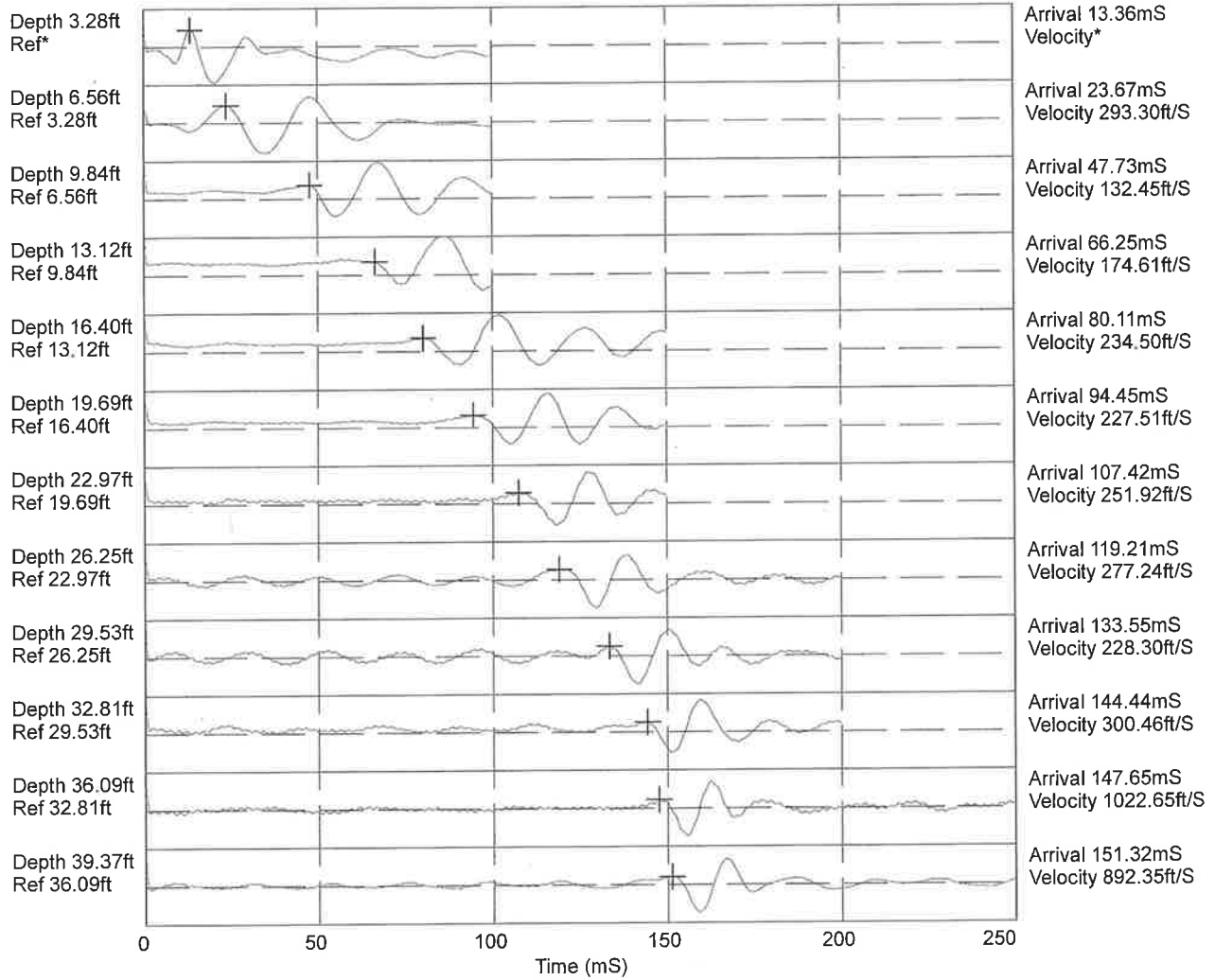
OPERATOR: OGE DMM  
 CONE ID: DPG1211  
 HOLE NUMBER: CPT-102  
 TEST DATE: 2/19/2021 10:16:56 AM  
 TOTAL DEPTH: 42.487 ft



- |                          |                             |                            |                                |
|--------------------------|-----------------------------|----------------------------|--------------------------------|
| 1 sensitive fine grained | 4 silty clay to clay        | 7 silty sand to sandy silt | 10 gravelly sand to sand       |
| 2 organic material       | 5 clayey silt to silty clay | 8 sand to silty sand       | 11 very stiff fine grained (*) |
| 3 clay                   | 6 sandy silt to clayey silt | 9 sand                     | 12 sand to clayey sand (*)     |

\*SBT/SPT CORRELATION: UBC-1983

COMMENT: Terra Associates / CPT-102 / 1168 SE Marlin Ave Warrenton

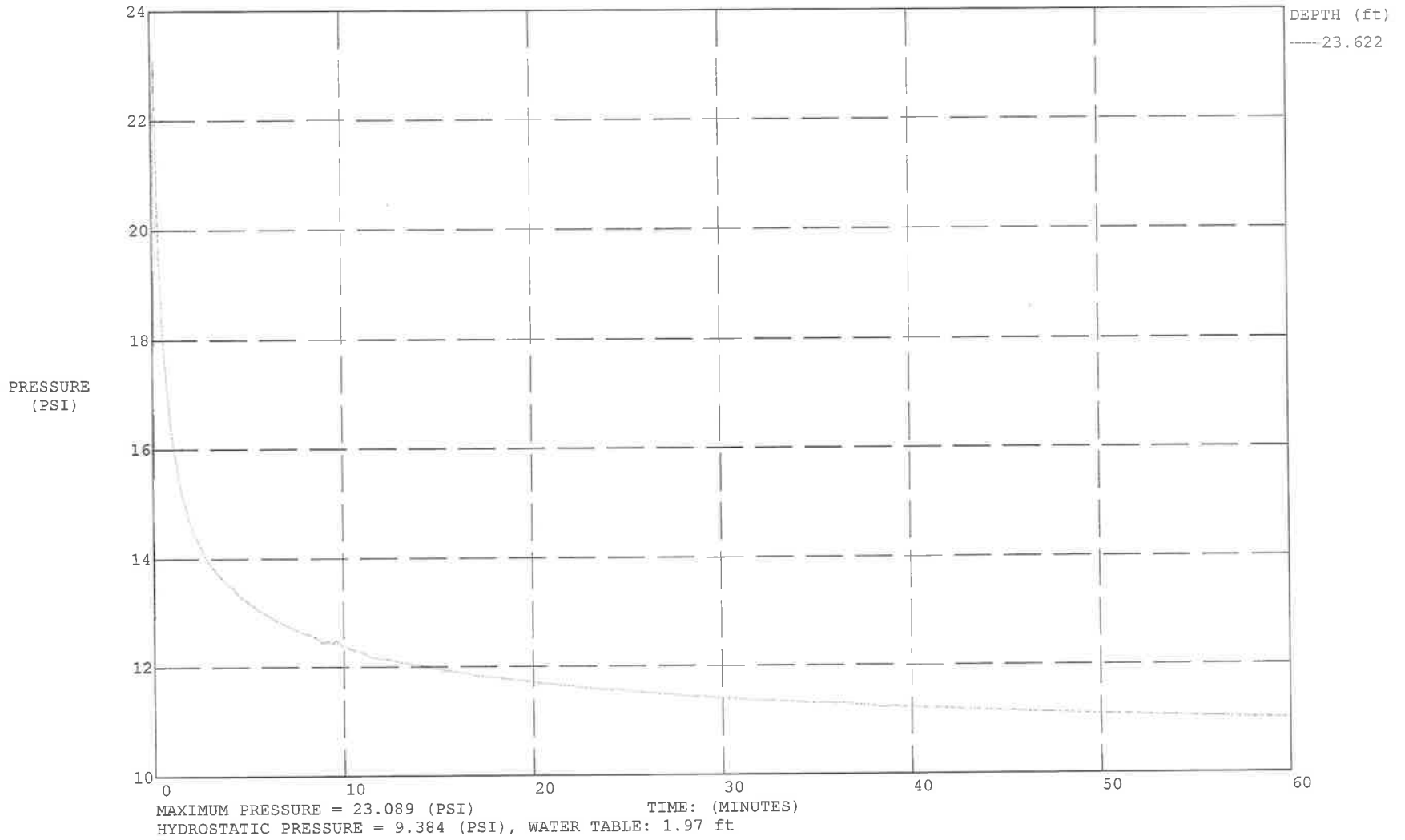


Hammer to Rod String Distance (ft): 1.97

\* = Not Determined

COMMENT: Terra Associates / CPT-102 / 1168 SE Marlin Ave Warrenton

ST DATE: 2/19/2021 10:16:56 AM



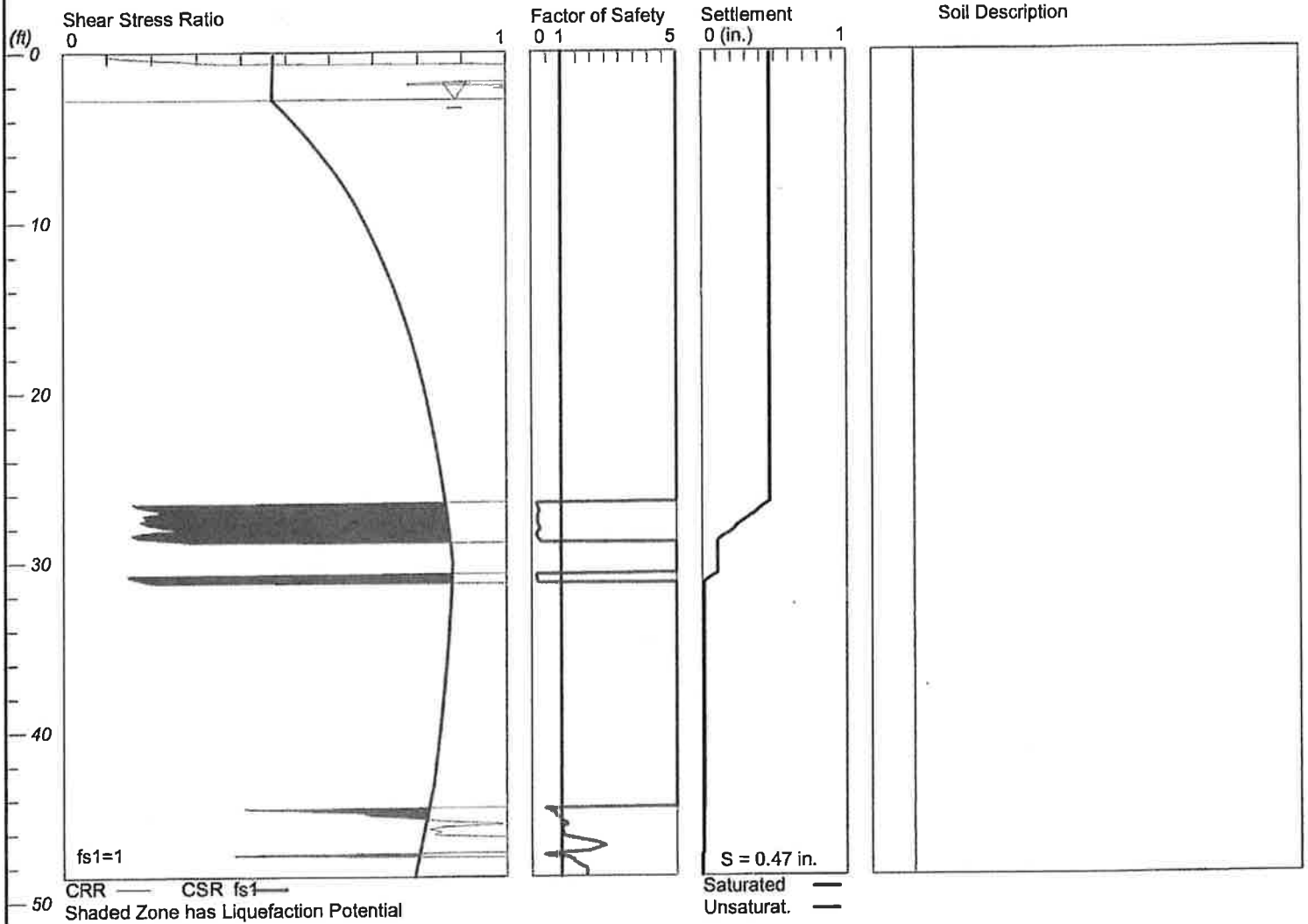
**APPENDIX B**  
**LIQUEFACTION ANALYSIS**

# LIQUEFACTION ANALYSIS

## Roby's Furniture

Hole No.=CPT-5 Water Depth=2.8 ft Surface Elev.=0  
Ground Improvement of Fill=3 ft

Magnitude=7  
Acceleration=0.726g



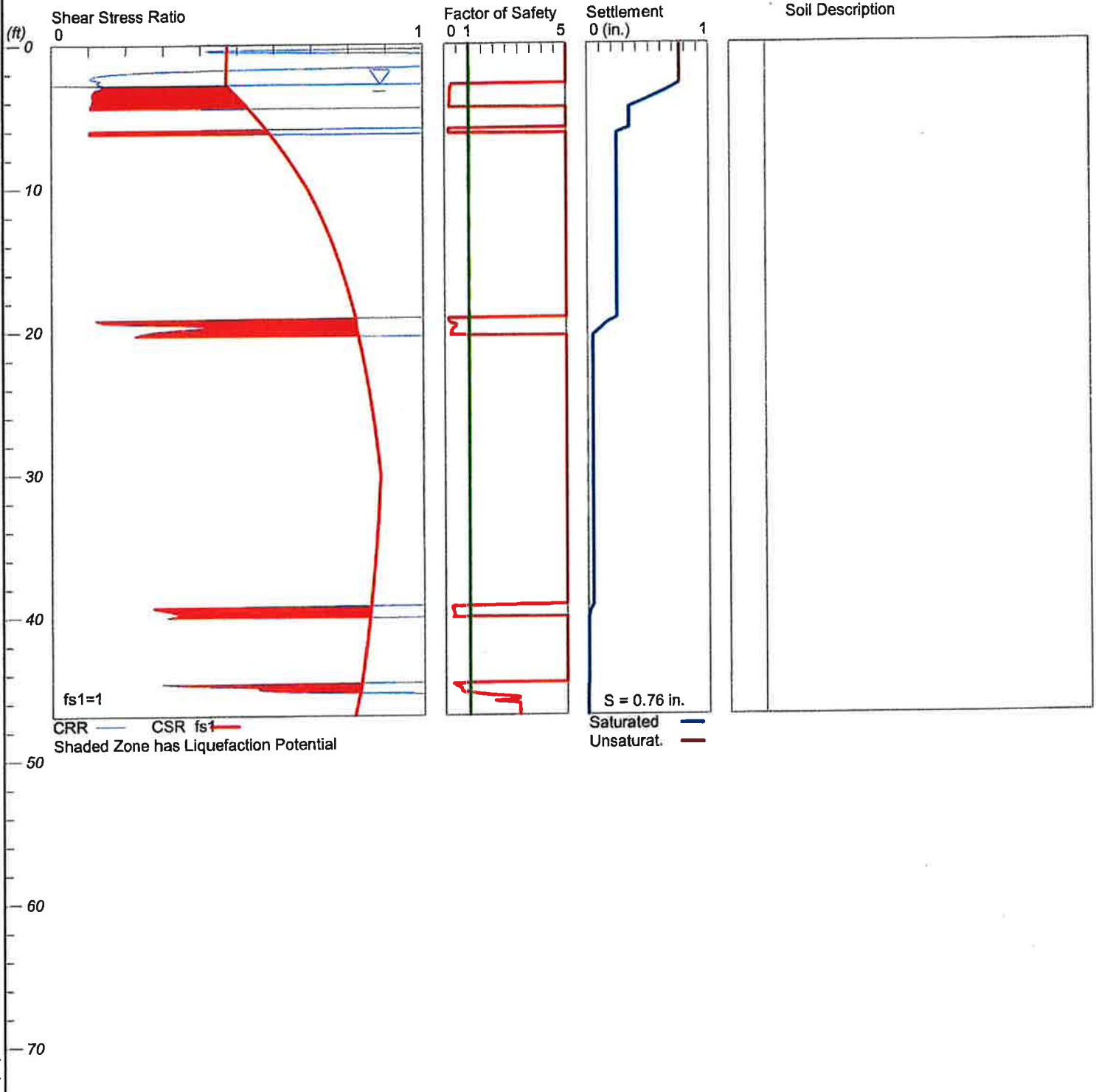
LiquefyPro CivilTech Software USA www.civiltech.com

# LIQUEFACTION ANALYSIS

## Roby's Furniture

Hole No.=CPT-1 Water Depth=2.8 ft Surface Elev.=0  
Ground Improvement of Fill=3 ft

Magnitude=7  
Acceleration=0.726g

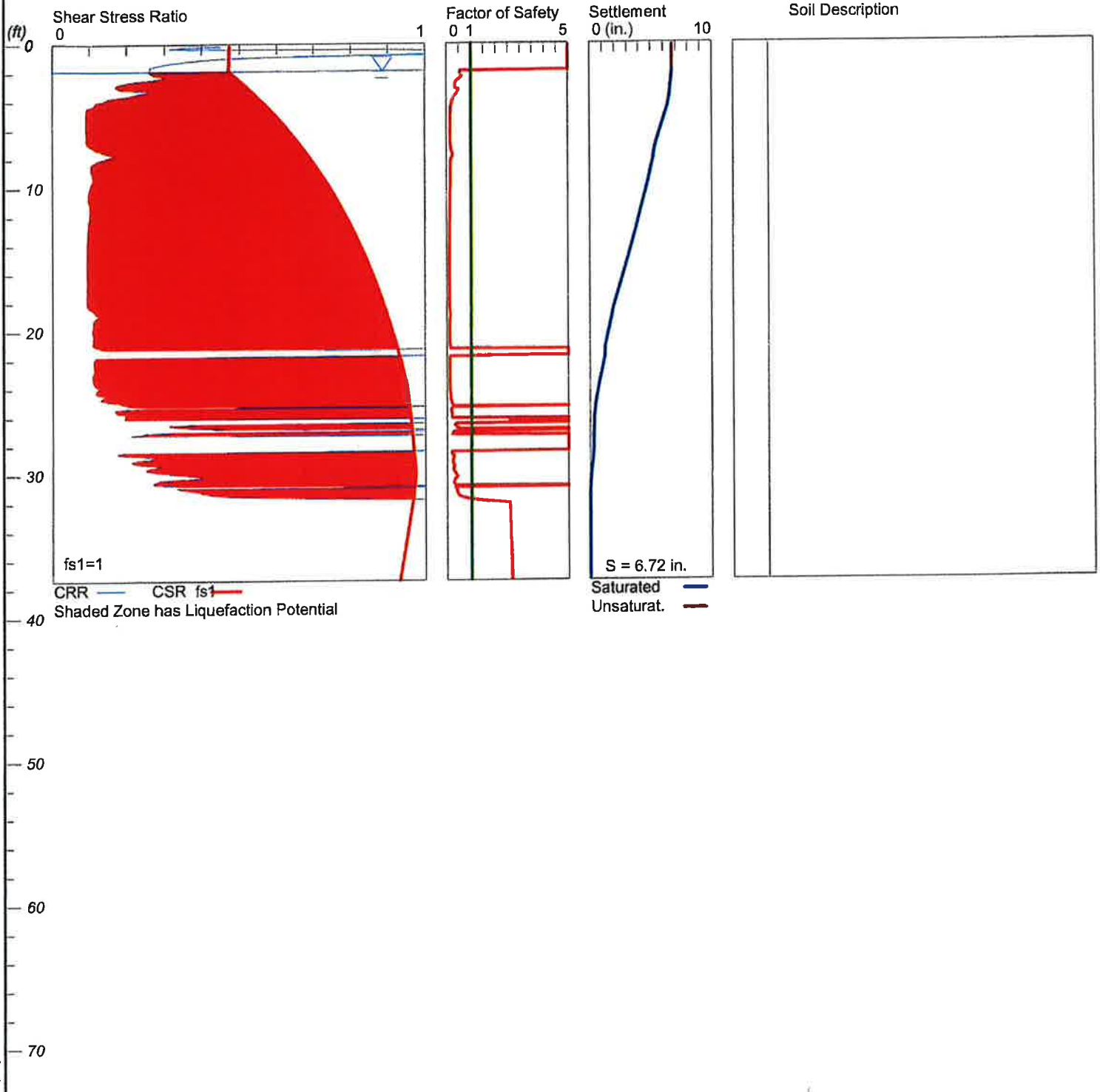


# LIQUEFACTION ANALYSIS

## Roby's Furniture

Hole No.=CPT-101 Water Depth=1.9 ft Surface Elev.=0  
Ground Improvement of Fill=3 ft

Magnitude=7  
Acceleration=0.726g



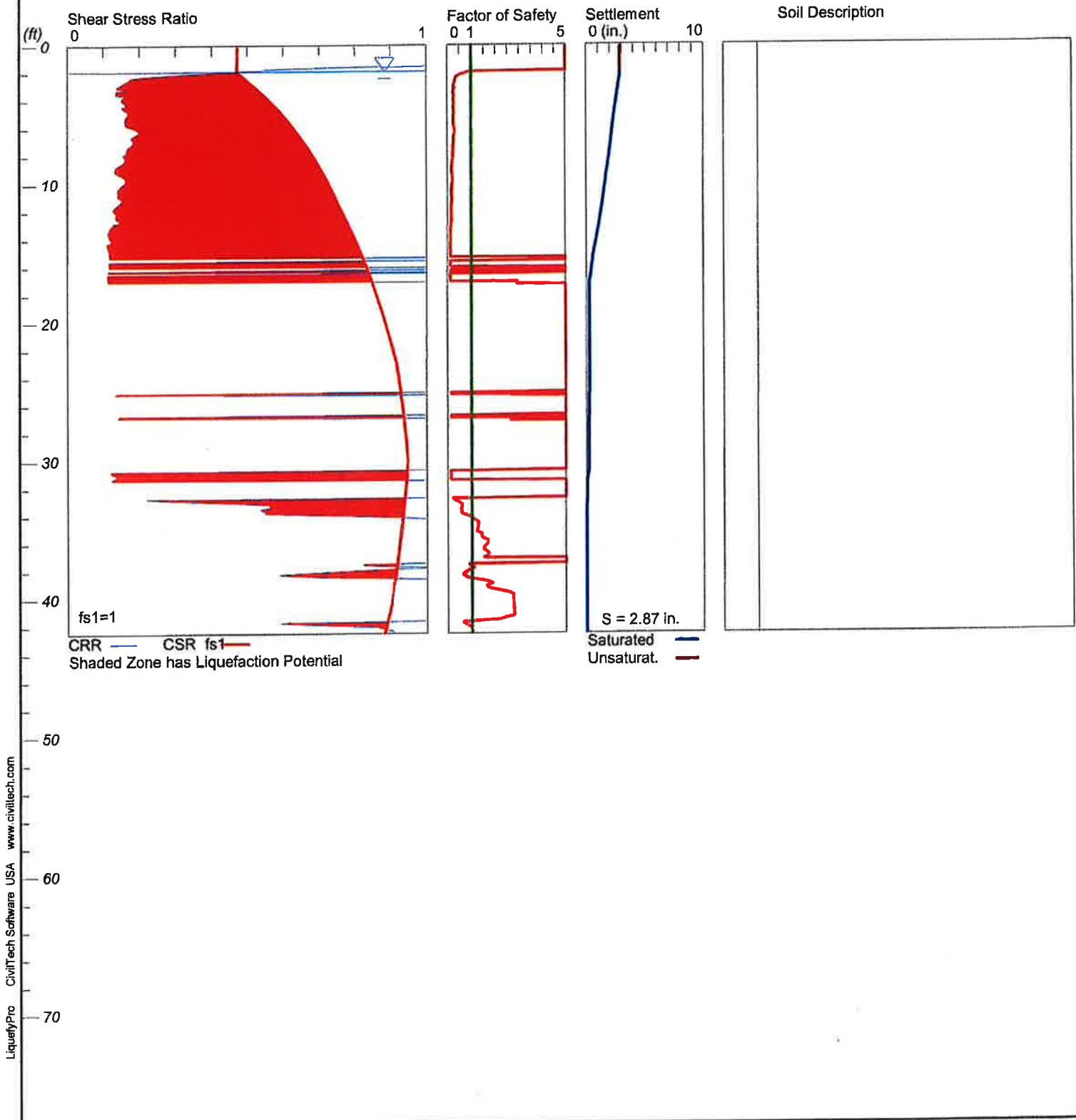


# LIQUEFACTION ANALYSIS

## Roby's Furniture

Hole No.=CPT-102 Water Depth=1.9 ft Surface Elev.=0  
Ground Improvement of Fill=3 ft

Magnitude=7  
Acceleration=0.726g



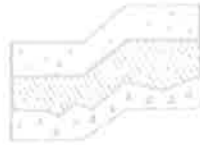
**APPENDIX C**  
**SITE-SPECIFIC SEISMIC DESIGN REPORT**

# Site-Specific Seismic Design Parameters

Roby's Furniture Oregon Coast Highway 101 and SE Marlin Avenue, Warrenton,  
Oregon.

A Report Prepared for

**Terra Associates, Inc.**



Project No. T-7723-2

By

**AS Consulting Engineering Services LLC**



APRIL 09, 2020

# AS Consulting Engineering Services, LLC



April 09, 2021

Mr. Ted Schepper, PE  
President  
Terra Associates  
12220 113<sup>th</sup> Avenue NE, Suite 130  
Kirkland, Washington 98034

Subject: Site Specific Design Response Spectrum  
Roby's Furniture  
Oregon Coast Highway 101 and SE Marlin Avenue  
Portland, Oregon

Dear Mr. Schepper,

Per your request I conducted site specific seismic hazard analysis for the site and developed a design response spectrum. The attached report summarizes the analysis and findings.

The site subject this study is characterized by layers of about 30 feet of very soft silt, fine sandy silt, and clayey to clayey silt overlying very stiff to hard elastic silt interpreted to be the Smuggler Cove formation. The site is classified E according to ASCE/SEI 7-16.

The probabilistic site-specific seismic hazard analysis included all potential seismic sources and used state-of-practice ground motion prediction equations. The design response spectrum was evaluated following Chapter 21 of ASCE/SEI 7-16.

I trust the information presented in the report will meet your satisfaction. Please don't hesitate to call me if you have any questions.

Sincerely,

Ayman Shama, PE, PhD  
Principal



3 School House LN Princeton NJ 08540  
Phone (732) 799-4822

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## 1. Introduction

This report summarizes the steps involved in developing the design response spectrum for the Roby's Furniture site located between Oregon Coast Highway 101 and SE Marlin Avenue, Warrenton, Oregon. We followed Section 1613 of the 2018 International Building Code (IBC) "Earthquake Loads", which defines the site-specific seismic ground motion values. IBC refers to the procedures of Chapter 11 of ASCE Standard "*Minimum Design Loads and Associated Criteria for Buildings and Other Structures*" (ASCE/SEI 7-16).

The site subject of this study is characterized by layers of about 30 feet of very soft silt, fine sandy silt, and clayey to clayey silt overlying very stiff to hard elastic silt interpreted to be the Smuggler Cove formation. Based on the site soil conditions, it is characterized according to Chapter 20 of ASCE/SEI 7-16 as site class E.

The mapped risk-targeted maximum considered earthquake ( $MCE_R$ ) acceleration parameters at short and long periods for the site ( $S_S$  and  $S_1$ ) were determined according to Chapter 22 of ASCE/SEI 7-16 as 1.314 and 0.686 respectively. Section 11.4.8 of ASCE/SEI 7-16 requires the design spectrum, for structures on Site Class E with  $S_S$  greater than or equal to 1.0 and  $S_1$  greater than or equal to 0.2, to be evaluated using a site-specific probabilistic ground motion hazard analysis for site class E. This analysis is conducted directly using attenuation relationships for a site of average shear wave velocity ( $V_{S30}$ ) less than 600 ft/s. The design response spectrum was established following this method and the steps involved in this process are summarized in the following sections.

## 2. Risk Targeted $MCE_R$ Ground Motion Hazard Analysis

ASCE/SEI 7-16 requires evaluation of the site-specific  $MCE_R$  response spectrum by a probabilistic approach and deterministic approach. The spectral response acceleration at any period ( $S_{aM}$ ) shall be taken as the lesser of the two methods. site-specific  $MCE_R$  response spectrum is evaluated and compared using the two approaches in the following sub-sections.

### 2.1 Probabilistic $MCE_R$ Ground Motion Hazard Analysis

Following Chapter 11 of ASCE/SEI 7-16 Standards, the first step in developing the design response spectrum of a site is to determine the mapped  $MCE_R$  short period spectral acceleration  $S_S$  and the mapped  $MCE_R$  1 s period spectral acceleration  $S_1$ . Chapter 22 maps were accessed electronically and revealed values of 1.314 for  $S_S$  and 0.686 for  $S_1$ . The  $MCE_R$ , 5% damped, spectral response acceleration parameter at short and long periods  $SM_S$  and  $SM_1$  adjusted for site class E effects are usually obtained in terms of  $S_S$ ,  $S_1$ , and their site coefficients  $F_a$  and  $F_v$  as indicated in Section 11.4.4 of the Guidelines. Section 11.4.8 requires that a ground motion hazard analysis

shall be performed in accordance with Section 21.2 if the site is characterized Class E with  $S_s$  greater than or equal to 1.0 and  $S_1$  greater than or equal to 0.2, which is valid for the site subject of this study. Chapter 21 of ASCE/SEI 7-16 requires that the site-specific seismic hazard analysis accounts for the regional tectonic setting, geology, and seismicity; the maximum magnitudes of earthquakes on the seismic sources; and the effects of subsurface site conditions on ground motions.

The main elements of a PSHA are shown in Figure 1 (Earthquake Engineering Research Institute, 1989). The seismic source characterization (SSC) model and the ground motion characterization (GMC) model establish the input to the PSHA. The SSC model describes the earthquake source seismicity and geometry while the GMC model defines the ground-motion scaling as a function of the earthquake source parameters, propagation parameters, and local site conditions. The main output of a PSHA are a set of seismic hazard curves for the ground motion parameters of interest from which uniform hazard spectra (UHS) can be developed. Deaggregation of the seismic hazard is used to define controlling events.

### ***2.1.1 Seismic Source Characterization***

Earthquakes may occur due to different seismic sources. Plate tectonics is a major seismic source for the State of Oregon. The basic hypothesis of plate tectonics is that the earth's surface consists of a number of plates, which move with respect to each other. Subduction zone boundaries exist where the relative movement of two plates is toward each other. The Cascadia Subduction Zone off the coast of Oregon, Washington and British Columbia is concerning to the site subject of this study. Shallow faults are also major seismic sources, where crustal earthquakes within the North American plate are probable on faults indicated as active or potentially active. An active fault poses a current earthquake threat and an inactive fault is a one on which past earthquake activity is unlikely to be repeated. According to United States Geological Survey (USGS), faults are commonly considered to be active if they have moved at least one time in the last 10,000 years. The location of the site with respect to Cascadia Subduction Zone is illustrated in Figure (2). The seismic sources considered in the analysis are displayed in Figure (3) and outlined in the following subsections.

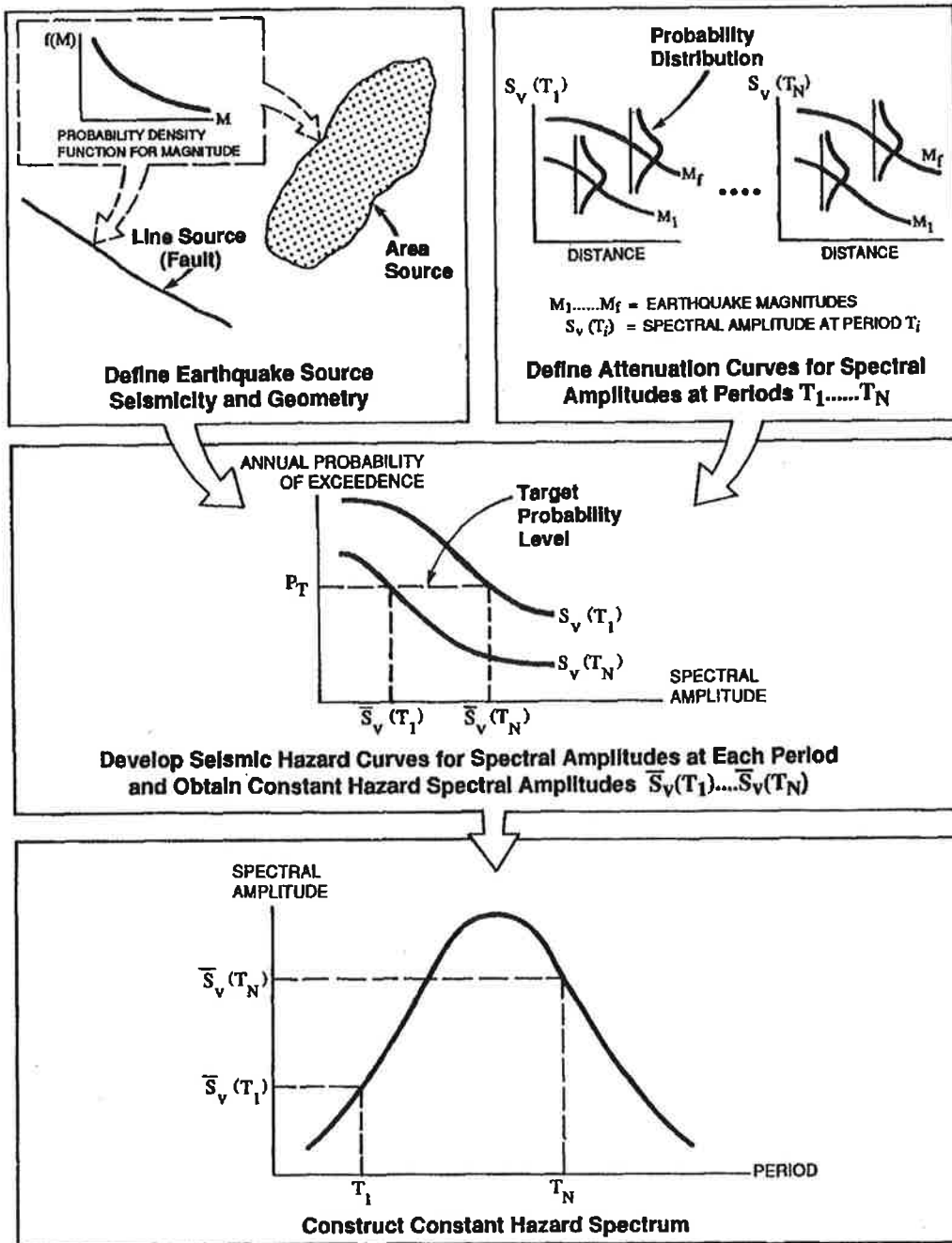


Figure (1) Elements of Probabilistic Seismic Hazard Analysis-Source Earthquake Engineering Research Institute-1989



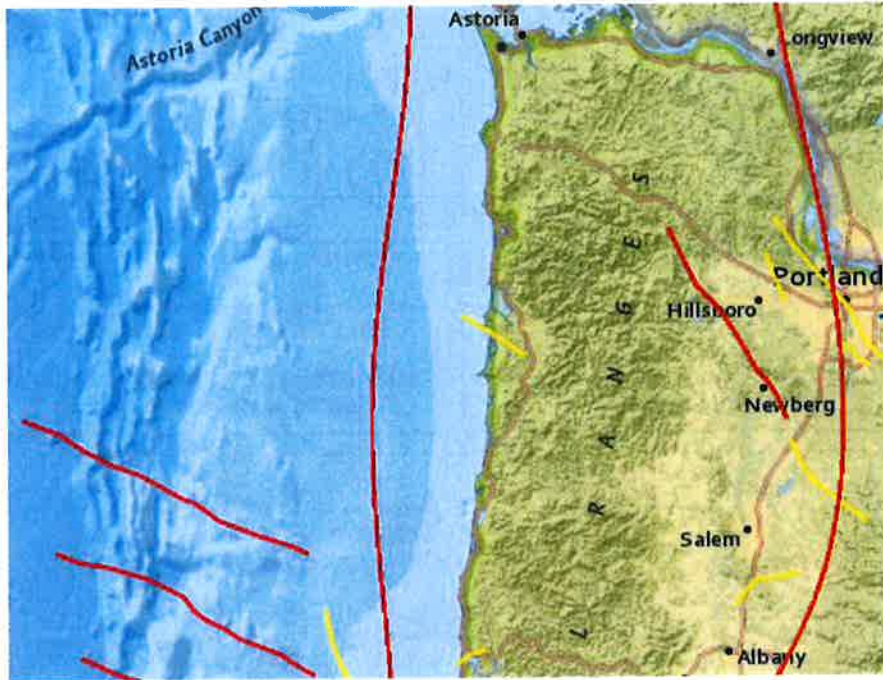


Figure (2) General view of the site with respect to Cascadia Subduction Zone

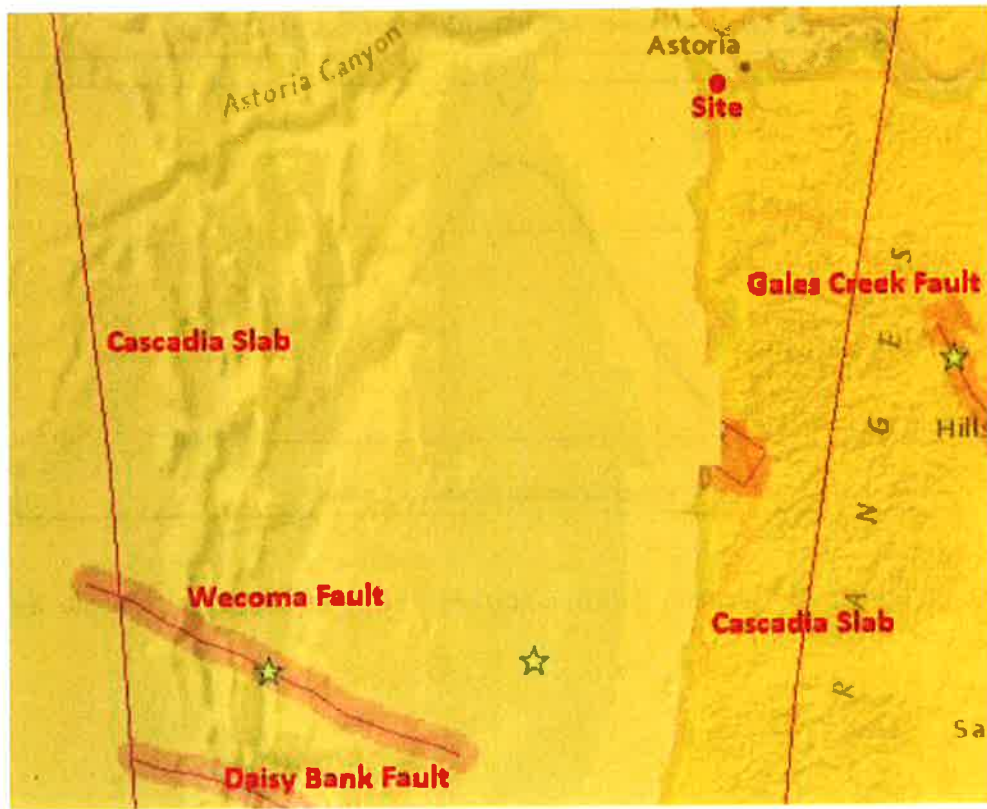


Figure (3) Potential Seismic Sources for the Site

### **2.1.2 The Cascadia Subduction Zone (CSZ)**

The CSZ is a "megathrust" 1,000 km long dipping plate boundary that stretches the north west of US and is about 70-180 km off the Pacific coast shoreline. The zone varies in width beginning near Cape Mendocino Northern California, passing through Oregon and Washington, and terminating at about Vancouver Island in British Columbia. The CSZ separates the Explorer, the Juan de Fuca, and Gorda plates from the North America plate as illustrated in Figure (4 A). The three plates move toward the North American plate, and eventually are pushed underneath it. The CSZ is locked by friction and strain slowly builds up as the subduction forces act, until the fault's frictional strength is exceeded, and the rocks slip past each other along the fault in a "megathrust" earthquake.

There are two potential rupture scenarios that may occur along a subduction zone according to the part of the subduction zone where the rupture occurs. Therefore, subduction zones can generate interface earthquake ruptures at the contact of the two plates and intra-slab ruptures within the slab as illustrated in Figure (4 B). These two rupture scenarios are considered independently in the current PSHA. The "interface" earthquakes on the Cascadia Subduction Zone may have magnitudes of up to 9.0 or perhaps 9.2, with probable recurrence intervals of 500 to 800 years. These earthquakes occur about 20 to 60 kilometers (12 to 40 miles) offshore from the Pacific Ocean coastline. The "intraplate" earthquakes occur within the subducting oceanic plate. These earthquakes may have magnitudes up to about 7.5, with probable recurrence intervals of about 500 to 1000 years. These earthquakes occur quite deep in the earth, about 30 or 40 kilometers (18 to 25 miles) below the surface with epicenters that would likely range from near the Pacific Ocean coast to about 50 kilometers (30 miles) inland.

There have been 41 earthquakes in the last 10,000 years within the CSZ that have occurred as few as 190 years or as much as 1200 years apart. The last earthquake that occurred was on January 26, 1700, with an estimated magnitude  $M_L 9$ . The CSZ may be unique among the world's subduction zones in that it did not produce any large earthquake since 1700 on the plate interface. Therefore, the CSZ must be much more strongly locked than other subduction zones, which may bring a conclusion that the entire CSZ may rupture in another great  $M_W 9$  earthquake, or perhaps smaller  $M_W 8$  or  $M_W 8.5$ -sized events also can break parts of the zone in between the full rupture events.

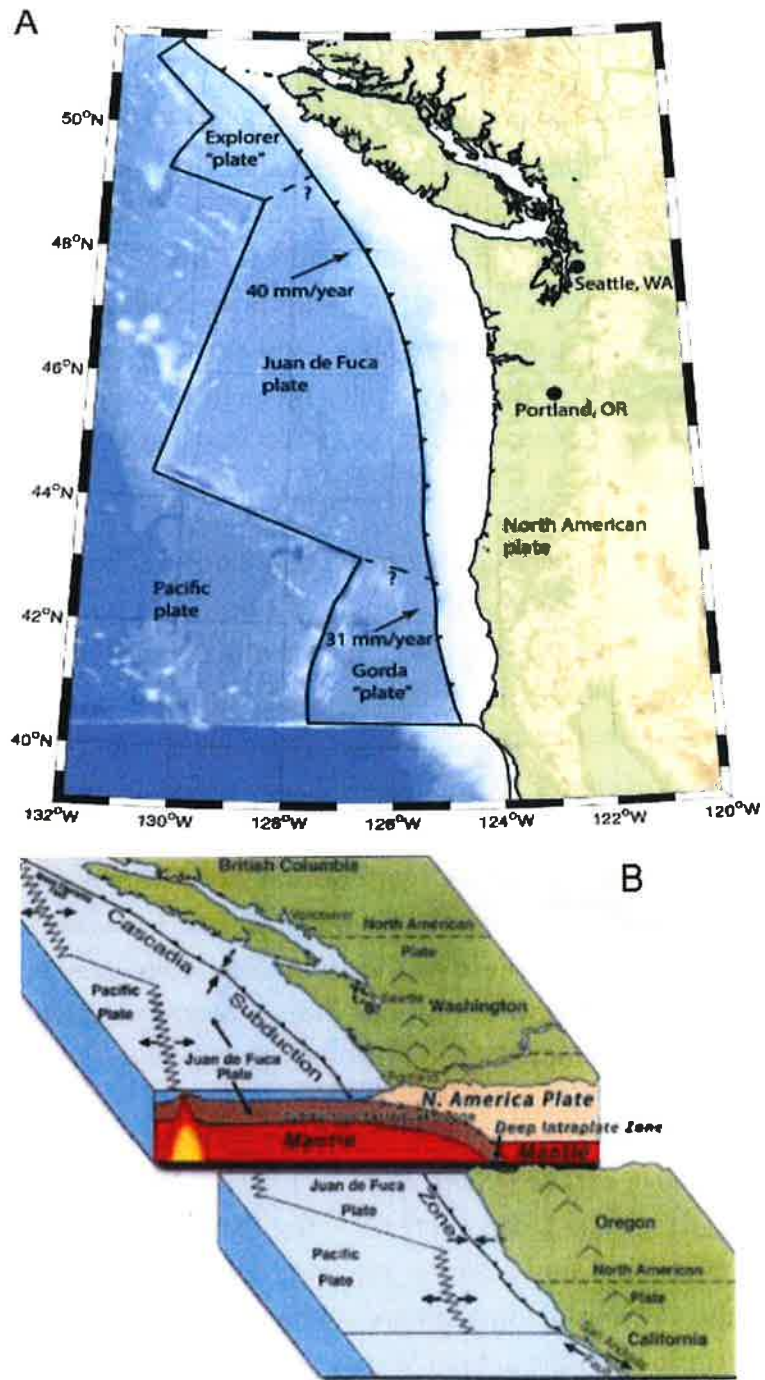


Figure (4) CSZ- Rupture Scenarios

A recent study (Bartlow, 2020) revealed that the that the Juan de Fuca and North American plates are moving toward each other at 40 millimeters per year in the northern part of the subduction zone near Seattle, and 31 millimeters per year in the southern part near Cape Mendocino, CA.

### **2.1.3 Shallow Faults**

The faults included in the present study are all included in the 2014 version catalog of the USGS national seismic hazard maps.

#### **The Daisy Bank fault**

The Daisy Bank fault zone cuts the sediments and basaltic basement of the subducting Juan de Fuca plate, and the overriding North American plate, extending from the abyssal plain to the upper slope-outer shelf region. According to USGS, The Daisy Bank fault is a near-vertical left-lateral strike slip fault. the fault is about 93 km and the slip rate is estimated in the range of 3 to 5 mm/yr. Figure (5) illustrates contours of earthquake intensities with respect to epicenter of a potential earthquake on the Daisy Bank fault. It is shown that a Modified Mercalli Intensity (MMI) of about 4.5, i.e., moderate shaking , is expected at the site due to Daisy Bank excitation.

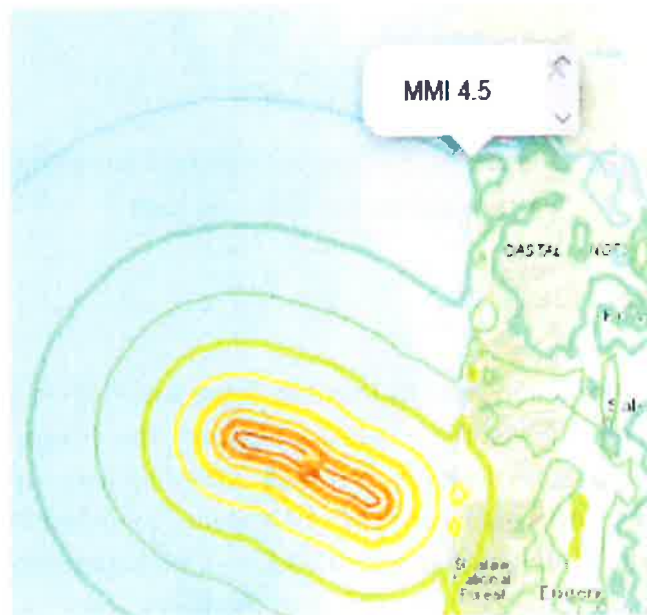


Figure (5) Contours of earthquake intensities with respect to epicenter of a potential earthquake on the Daisy Bank fault

#### **The Wecoma fault**

The northwest-striking, left-lateral Wecoma fault offsets accretionary wedge sediments that underlie the continental shelf and slope in the forearc of the Cascadia subduction zone. The fault extends across the active deformation front of the subduction zone, offsetting the overlying sedimentary section and the underlying oceanic basalts of the subducting Juan de Fuca Plate.

According to USGS, the fault is left lateral strike slip of about 96 km. The slip rate is 5 mm/yr. Figure (6) illustrates contours of earthquake intensities with respect to epicenter of a potential earthquake on the Wecoma fault. It is shown that a Modified Mercalli Intensity (MMI) of about 4.5, i.e., moderate shaking, is expected at the site due to Wecoma excitation.

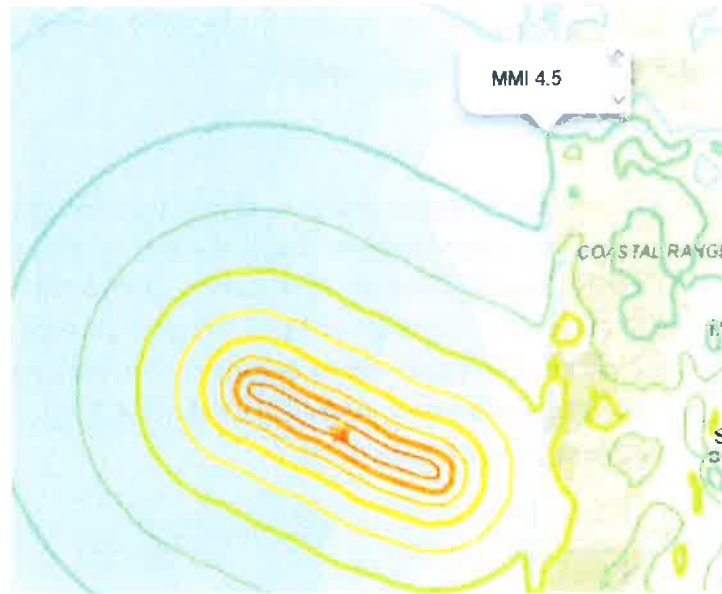


Figure (6) Contours of earthquake intensities with respect to epicenter of a potential earthquake on the Wecoma fault

### **The Gales Creek Fault**

The Gales Creek fault zone is named after its location in the valley of Gales Creek west of Forest Grove in northwestern, and it forms the boundary between the Oregon Coast Range and the Willamette Valley in northwestern Oregon. The fault zone has been active at least since the Miocene, when it controlled the emplacement of Miocene Columbia River Basalt Group lava flows. The fault has an estimated length of about 73 km and is categorized as right lateral strike slip. USGS assigned slip rates of 0.005–0.02 mm/yr to the Gales Creek fault. Figure (7) illustrates contours of earthquake intensities with respect to epicenter of a potential earthquake on the Gales Creek fault. It is shown that a Modified Mercalli Intensity (MMI) of about 5, i.e., moderate shaking, is expected at the site due to Gales Creek excitation.

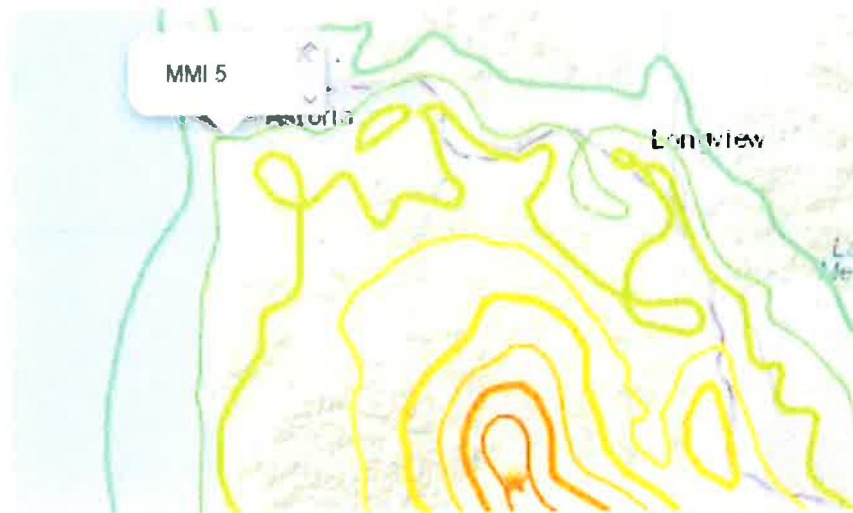


Figure (7) Contours of earthquake intensities with respect to epicenter of a potential earthquake on the Gales Creek fault

#### **2.1.4 Gridded Seismicity**

Gridded seismic sources are used to model the variable seismicity background sources. This source is used to represent seismicity that is not associated with known faults. These sources are modeled by a set of points located on an evenly spaced grid. Typically, the grid spacing is 0.1 degrees of latitude and longitude intervals. The hypocenter of each event is presumed to be located at the grid point. The rupture profile is presumed to be vertical.

#### **2.1.5 Ground Motion Characterization**

Four equally-weighted Next Generation Attenuation for Western US (NGA-West2) ground motion predictive equations (GMPE) were used to estimate the Peak ground accelerations as well as the spectral accelerations corresponding to periods of interest to represent the seismicity at the shallow faults and the Gridded Sources for the purpose of the PSHA study. These GMPEs are Abrahamson et al. (2014), Boore et al. (2014), Campbell and Bozorgnia (2014), and Chiou and Youngs (2014). The Cascadia Subduction Seismic Source used the following GMPEs: Atkinson and Boore (2003), Youngs (1997), and the predictive equation developed by BC Hydro, the major dam owner in British Columbia, Canada (BC Hydro 2012). These three GMPEs are applicable to subduction zone boundaries but are not updated as part of NGA-West2 project, which was limited to shallow crustal seismic sources. A  $V_{s30}$  of 150 m/s (site class E) was used in conjunction with all the GMPEs. A summary of all the seismic sources with basic assumptions is presented in Table (1).

Table (1) Seismic Source Summary

Seismic Source	Region	Closest Distance	Deterministic Magnitude	Fault Mechanism	Dip Angle	Dips To	Site Lies
Cascadia Interface Composite - Full Rupture	USGS 2014 Cascadia	27.69	9.34	Interface	13-Jul	E,SE	Above
Cascadia Interface Composite - Partial Rupture	USGS 2014 Cascadia	27.69	9.34	Interface	13-Jul	E,SE	Above
Deep - Pacific NW Gridded	USGS 2014 WUS Gridded Source	0	8	Intraslab	90	--	Above
Shallow - Nonextensional Gridded	USGS 2014 WUS Gridded Source	0	8	SS R	90	--	Above
Daisy Bank fault [798]	USGS 2014 Oregon	178.86	7.3	Strike Slip	90	--	NE
Gales Creek fault zone [OR1]	USGS 2014 Oregon	68.53	6.75	Strike Slip	90	--	NW
Wecoma fault [799]	USGS 2014 Oregon	152.48	7.34	Strike Slip	90	--	NE

### 2.1.6 PSHA and Results

The PSHA was performed for the full range of spectral periods up to 5 sec (peak ground acceleration PGA, 0.1, 0.2, 0.3, 0.5, 0.75, 1.0, 2.0, 3.0, 4.0, and 5.0 sec) for the horizontal component of motion. Figures 8 through 17 illustrate contribution of different seismic sources to the hazard for PGA and spectral accelerations corresponding to  $T=0.1$  s through  $t=5.0$  s. It is observed that gridded seismicity dominates the hazard up to 0.1g for all periods with major contribution from the CSZ slab rupture model (modeled in this study as deep gridded zone). The contribution of interface rupture sources at CSZ contribute substantially to the hazard at high spectral accelerations. As periods increase, the CSZ interface rupture sources dominate. In general, the contribution from shallow faults to the total hazard is minimal.

To illustrate the contributions of events in various magnitude and distance intervals, Figure (18) displays de-aggregation plots of the hazard by magnitude, distance, for PGA at 0.5 g. It is observed that earthquakes of magnitudes 8.76 at relatively short distances of 35.62 km, in average, dominate the hazard. These events are mostly due to slab rupture at the Cascadia subduction zone or due to gridded seismicity.

De-aggregation of the total hazard for 0.2 s spectral acceleration at 0.5 g, as illustrated in Figure (19), presents the same results. It can be observed that earthquakes of magnitudes 8.20 at relatively short distances of 52.42 km in average dominate the hazard. These events are due to gridded seismicity and Cascadia Subduction zone slab rupture.

The observation that the CSZ interface rupture sources are dominating the hazard at high periods is corroborated by observing the results of de-aggregating the total hazard for 3s spectral acceleration at 0.5 g, which is illustrated in Figure (20). It is observed that earthquakes of magnitudes 8 and higher at distances of 31 km, in average, dominate the hazard.

De-aggregation plots of the hazard by  $\varepsilon$  at 0.5 g for PGA, 0.2s spectral acceleration and 3s spectral acceleration are displayed in Figures 21 through 23.  $\varepsilon$  is a variable that expresses the fluctuation of the dominant ground motion from the median value. It can be observed from the plots that  $\varepsilon$  is in the range of -1.5 to 1.5 indicating that the dominant ground motions are within 1 standard deviation ( $\sigma$ ) of the median.



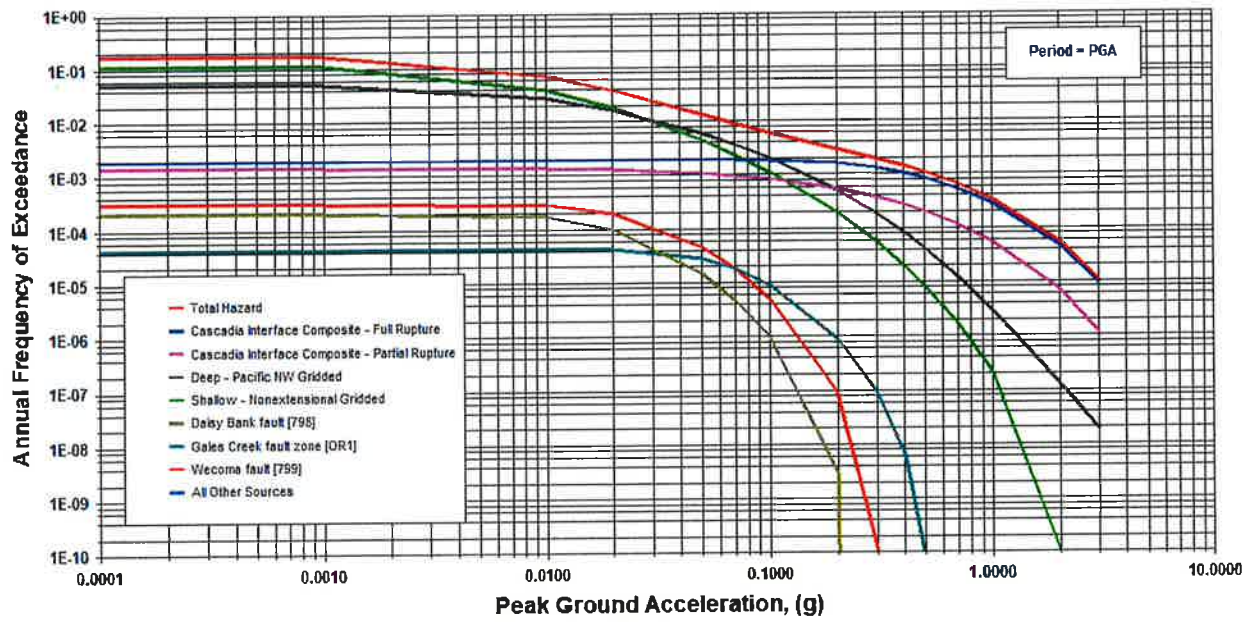


Figure (8) Hazard Contribution from Individual Seismic Sources at PGA

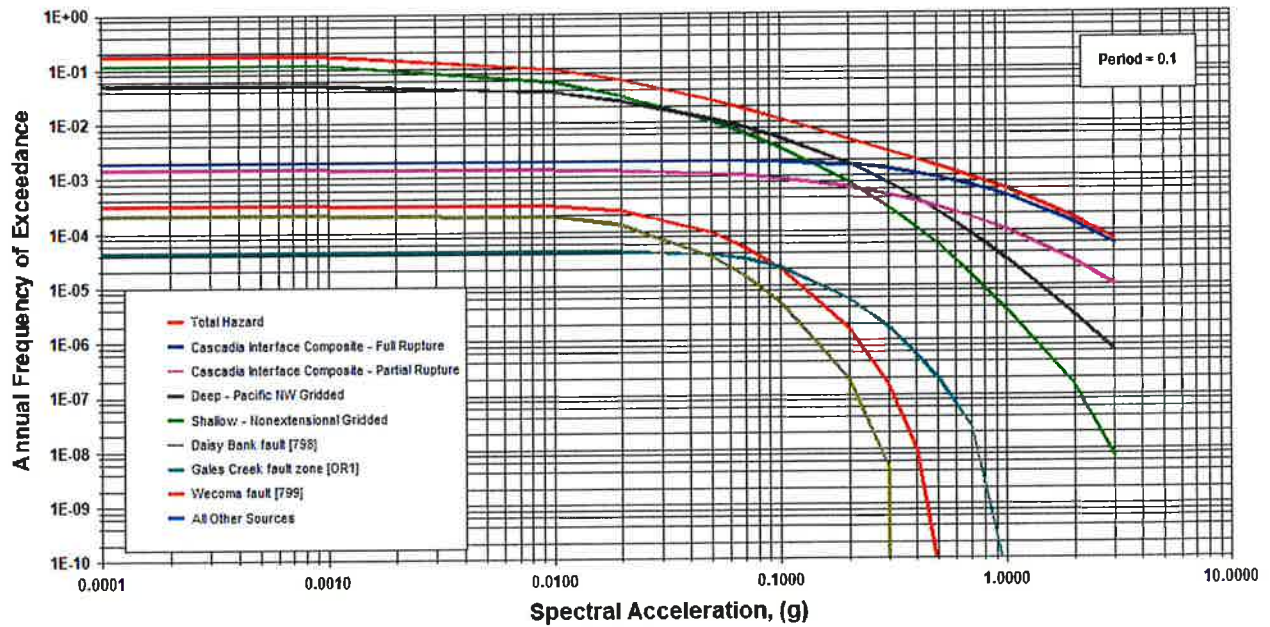


Figure (9) Hazard Contribution from Individual Seismic Sources for 0.1 s Spectral acceleration

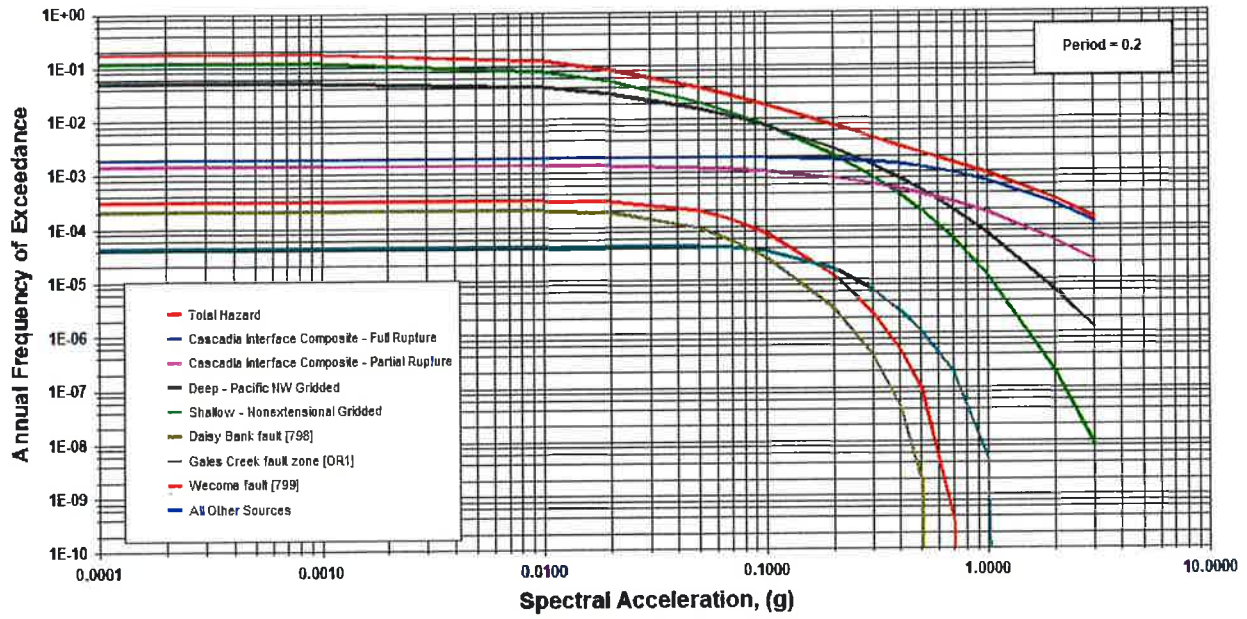


Figure (10) Hazard Contribution from Individual Seismic Sources for 0.2 s Spectral acceleration

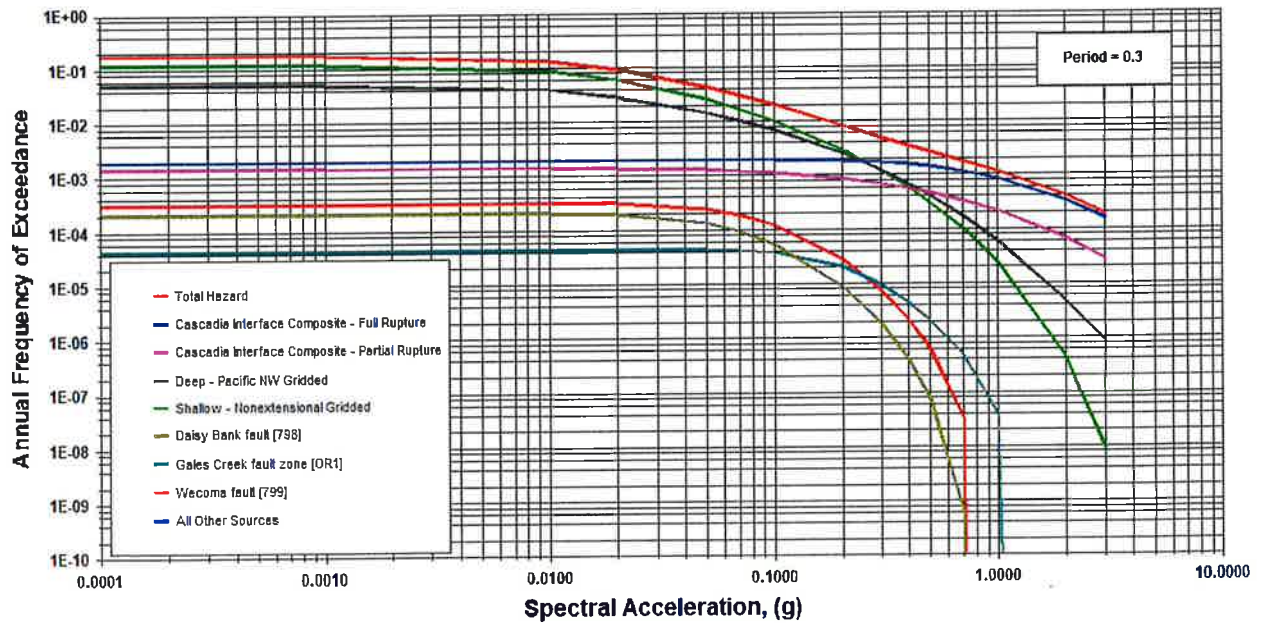


Figure (11) Hazard Contribution from Individual Seismic Sources for 0.3 s Spectral acceleration

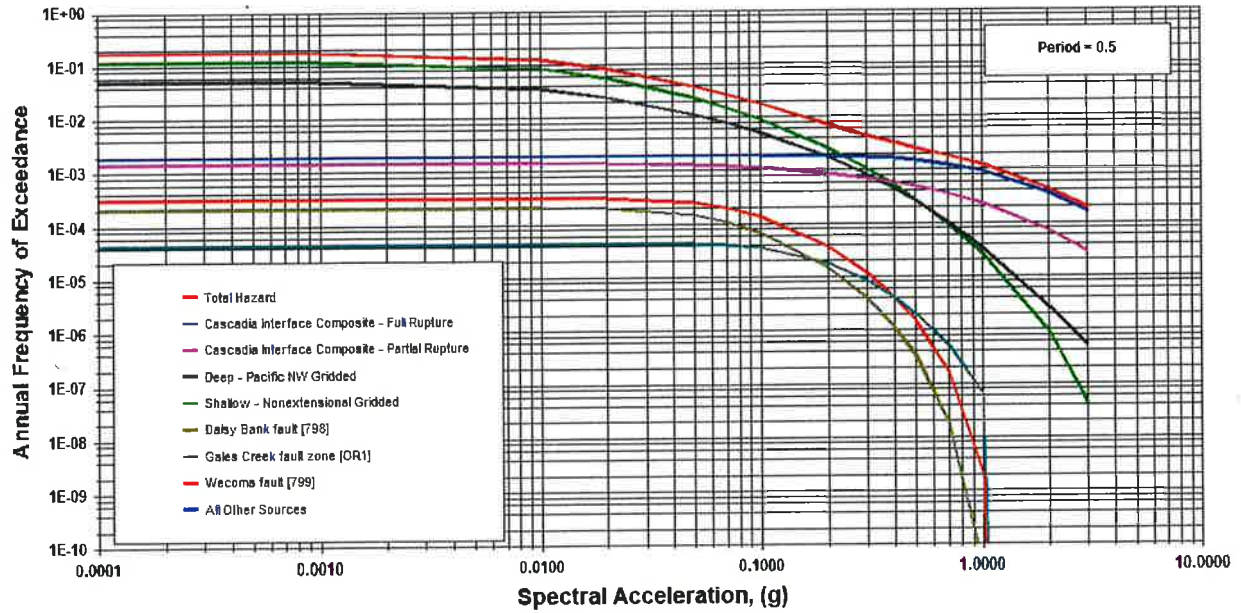


Figure (12) Hazard Contribution from Individual Seismic Sources for 0.5 s Spectral acceleration

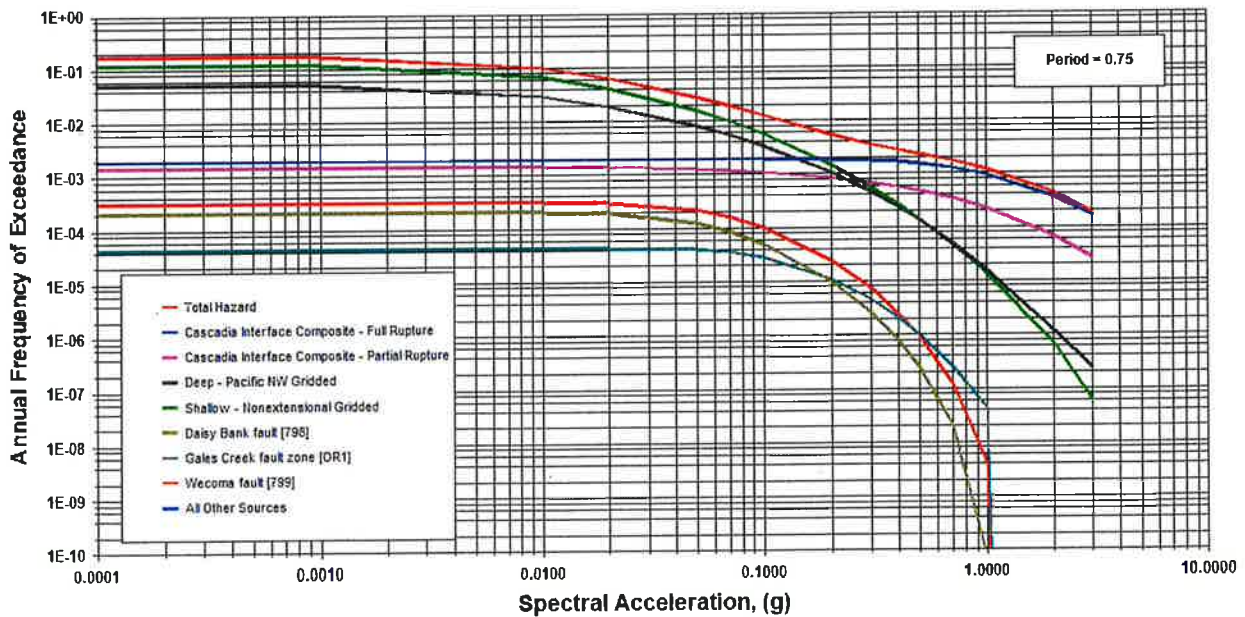


Figure (13) Hazard Contribution from Individual Seismic Sources for 0.75 s Spectral acceleration

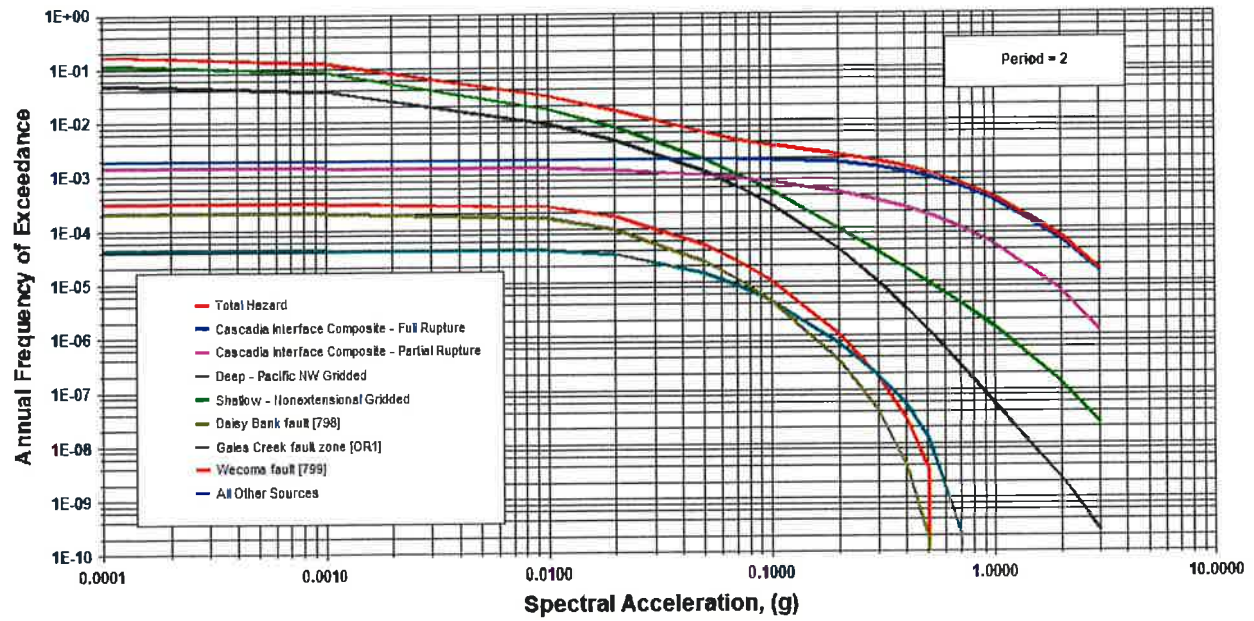


Figure (14) Hazard Contribution from Individual Seismic Sources for 2.0 s Spectral acceleration

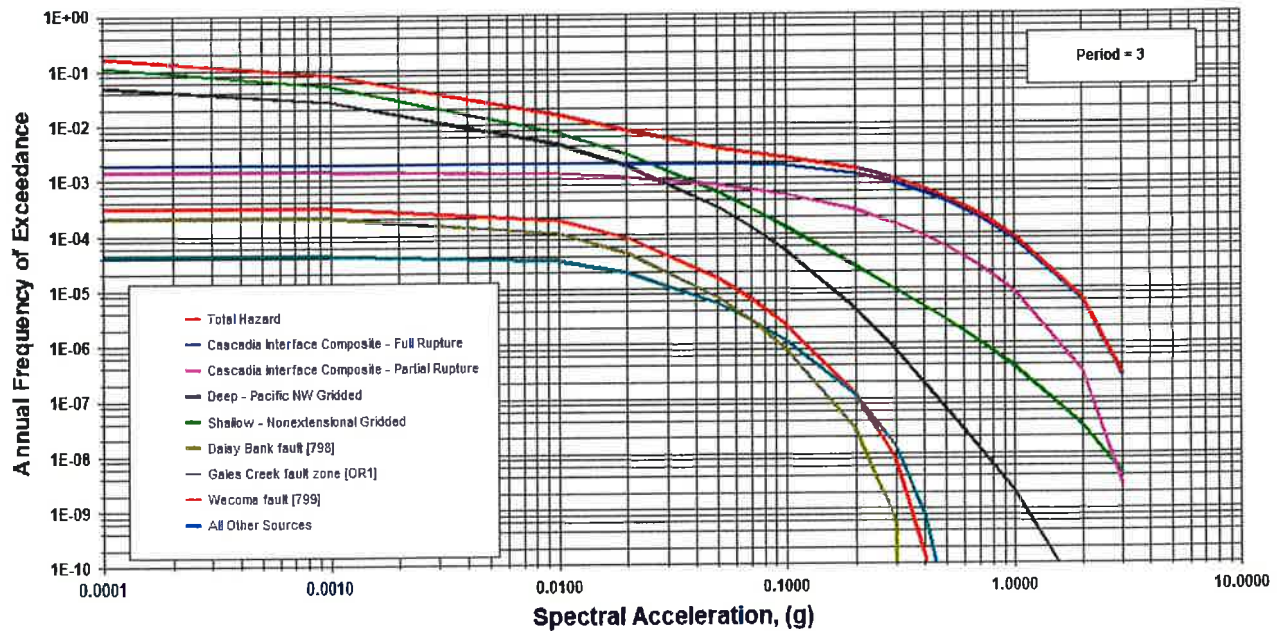


Figure (15) Hazard Contribution from Individual Seismic Sources for 3.0 s Spectral acceleration

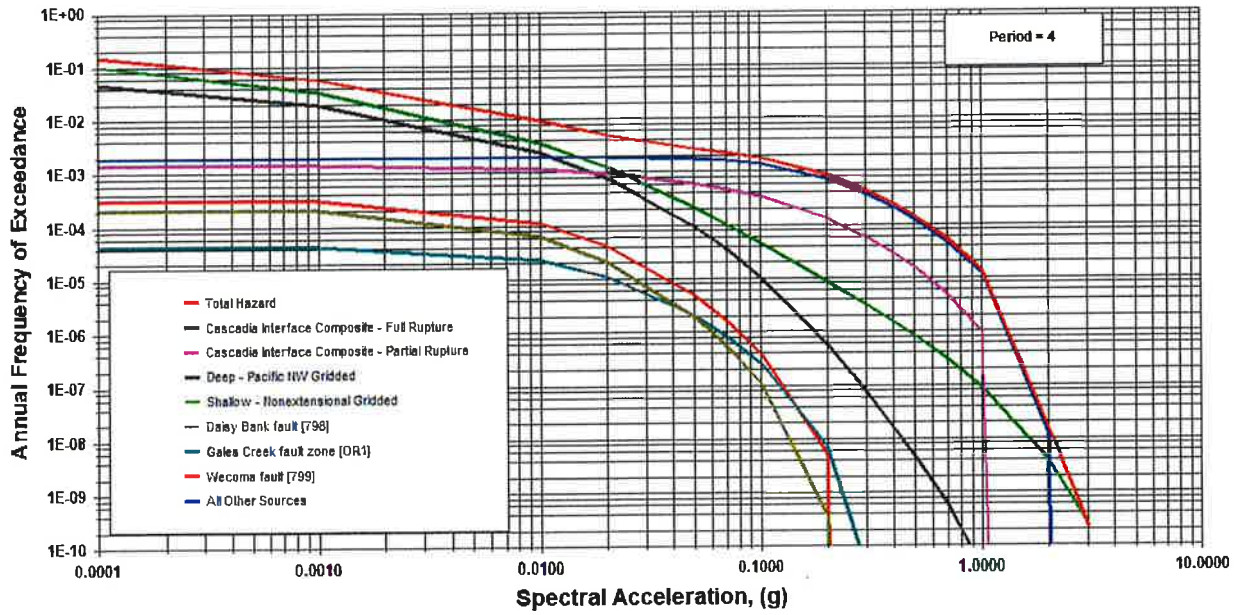


Figure (16) Hazard Contribution from Individual Seismic Sources for 4.0 s Spectral acceleration

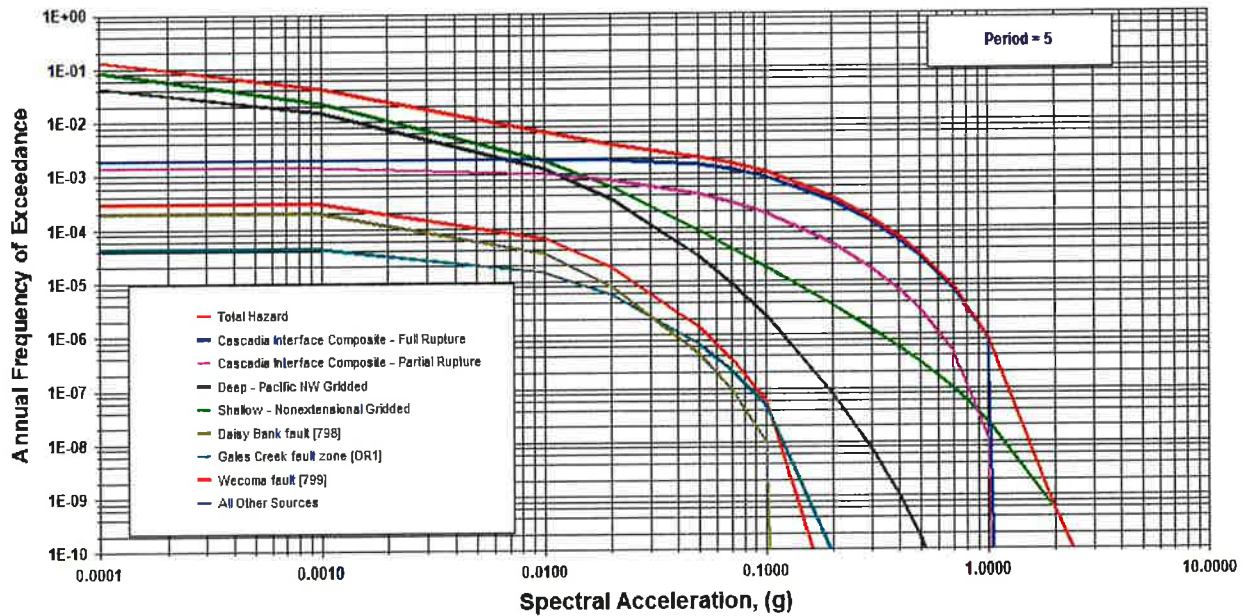


Figure (17) Hazard Contribution from Individual Seismic Sources for 5.0 s Spectral acceleration

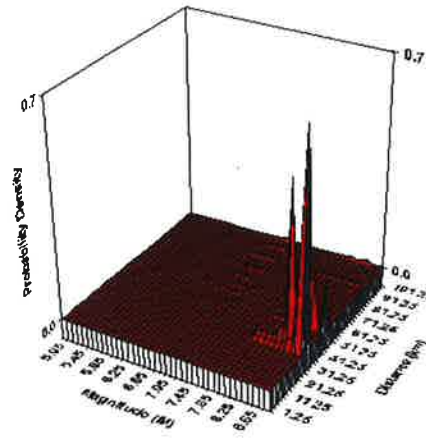


Figure (18) De-aggregation of Total Hazard at 0.5g PGA by Magnitude-Distance

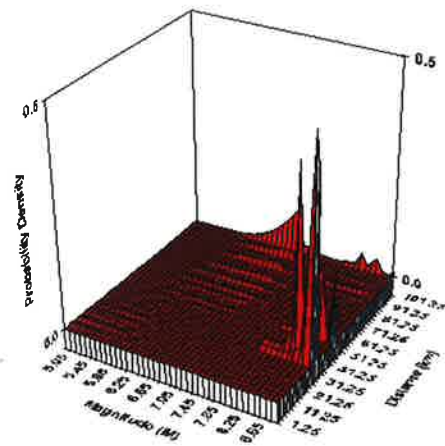


Figure (19) 0.2 s De-aggregation at 0.5g of Total Hazard by Magnitude-Distance

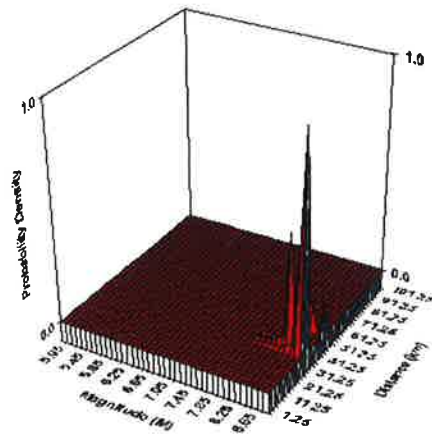


Figure (20) 3.0 s De-aggregation at 0.5g of Total Hazard by Magnitude-Distance

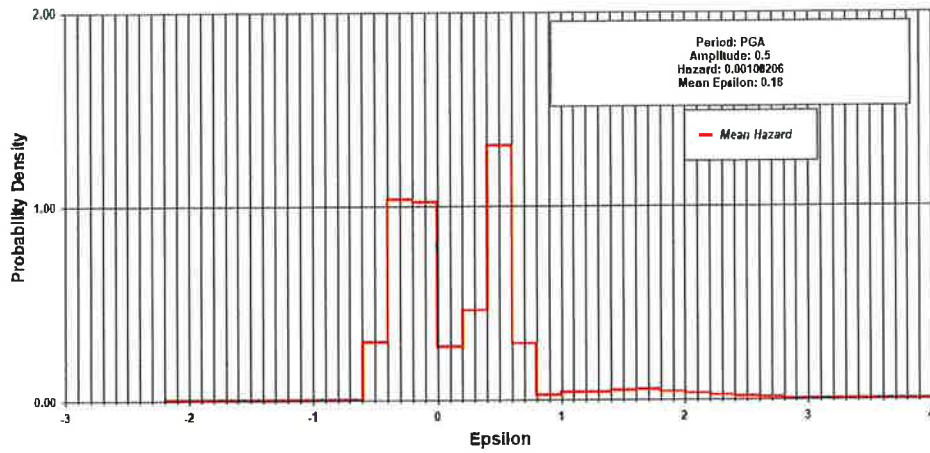


Figure (21) De-aggregation of Total Hazard at 0.5g PGA by epsilon

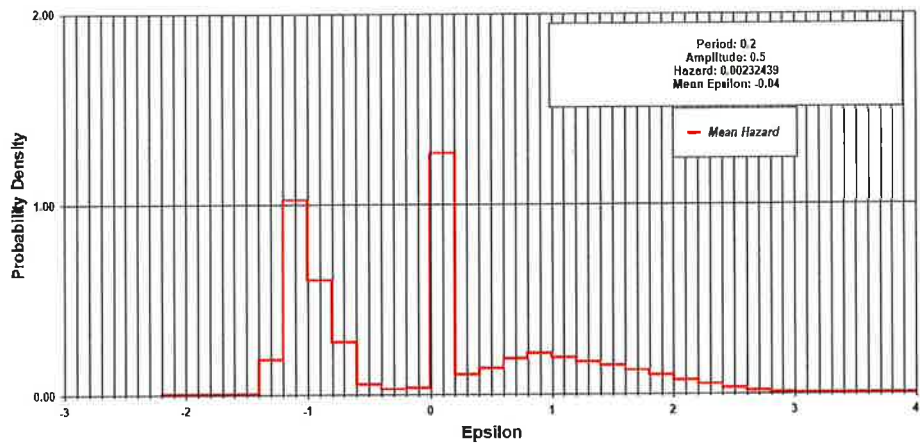


Figure (22) 0.2 s De-aggregation at 0.5g of Total Hazard by epsilon

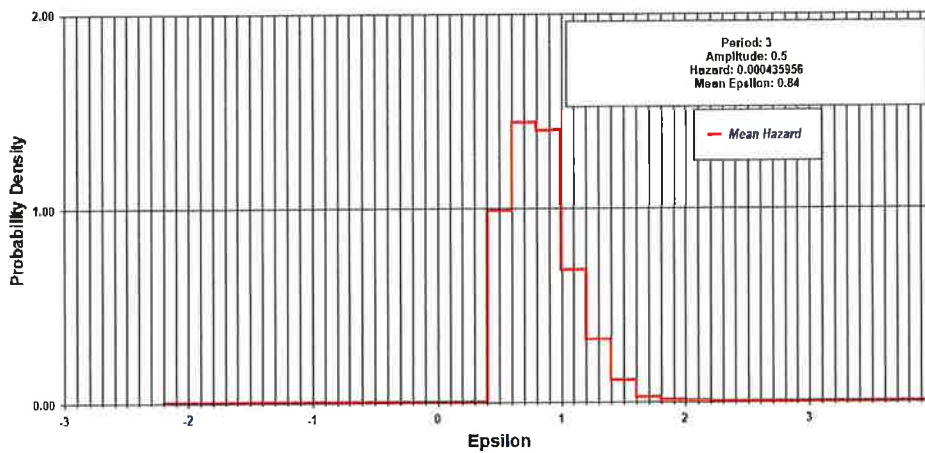


Figure (23) 3 s De-aggregation at 0.5g of Total Hazard by epsilon

Figure (24) displays the geometric mean hazard curves for PGA and for 5 percent-damped spectral ordinates at the selected periods of vibrations for the site. These curves are converted to maximum considered curves by scaling them according to section 21.2 of ASCE/SEI 7-16 and illustrated in Figure (25). The 2500-yr return period time horizon is also illustrated in the two figures. Intersections of this line with the hazard curves in Figure (25) provide the ordinates of the 5-percent damped acceleration response spectrum that has a 2% probability of exceedance within a 50-year. The geometric mean spectrum as well as the maximum considered earthquake spectrum are portrayed in Figure (26).

### **2.1.7 Risk Targeted Probabilistic $MCE_R$**

According to Method 1, per Section 21.2.1.1 of ASCE/SEI 7-16, the ordinates of the PSH response spectrum of Figure (22) have to be factored by the risk coefficient  $C_R$  to obtain the Probabilistic Risk Targeted Maximum Considered ( $MCE_R$ ) Hazard Spectrum. The values of the risk coefficient,  $C_R$ , were determined for short and long period spectral accelerations as  $C_{RS}$  and  $C_{RL}$  from figures 22-18 and 22-19, respectively as 0.861 and 0.853. These values were multiplied by the ordinates of the maximum considered PSH response spectrum of Figure (26) to obtain the Risk Targeted Probabilistic  $MCE_R$  response spectrum, which is depicted in Figure (27).

### **2.4 Deterministic Response Spectrum**

ASCE/SEI 7-16 standards specifies that the deterministic spectral acceleration at each period shall be calculated as an 84-th percentile 5% damped spectral response acceleration in the direction of maximum horizontal response computed at that period for characteristic earthquakes on all known active faults within the region. This analysis included all seismic sources up to a distance of 200 km. All the shallow faults and Cascadia Subduction zone in Table (1) were included in the analysis according to their characteristic magnitudes and closest distance to site as indicated in the table.

Each deterministic analysis provided for each fault a weighted average over attenuation equations for the 84-th percentile 5% damped spectral response spectrum for this seismic source. The 84-th percentile 5% damped deterministic response spectra for all the seismic sources are displayed in Figure (28). ASCE/SEI 7-16 requires using the largest calculated for all the spectral accelerations at all the faults i.e., envelope of maximums, for the 84<sup>th</sup> percentile 5% damped deterministic response spectrum. Also, the ordinates of the deterministic response spectrum shall not be above the corresponding ordinates of the lower limit response spectrum determined in accordance with section 21.2.2.



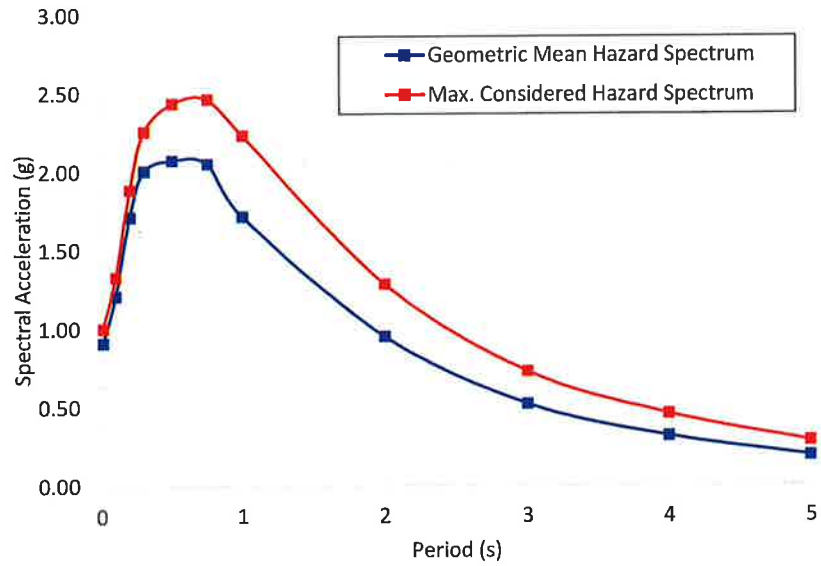


Figure (26) Probabilistic Geometric mean hazard spectra and the maximum considered spectrum

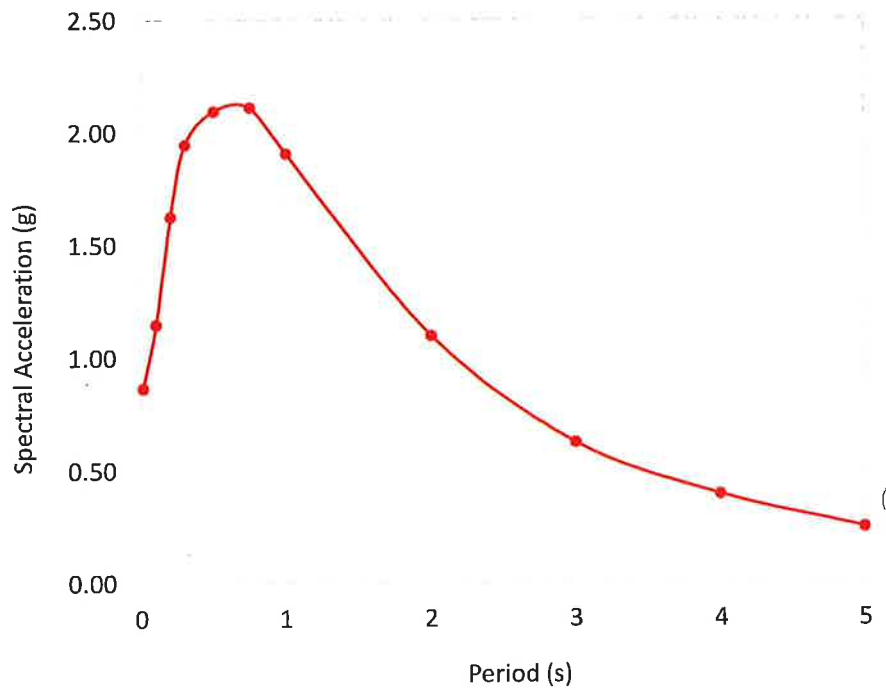


Figure (27) 5% damped Probabilistic  $MCE_R$  Response Spectrum-2% Probability in 50-yr

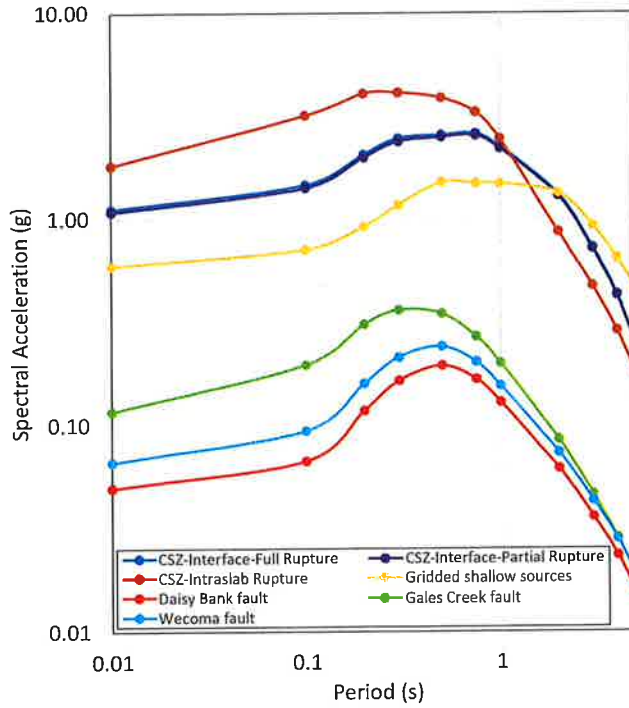


Figure (28) 84<sup>th</sup> Percentile 5% Damped Deterministic Response Spectra for Seismic Sources

The deterministic response spectrum is scaled according to Section 21.2 to convert to 84<sup>th</sup> percentile 5% damped  $MCE_R$  response spectrum, which is compared to the lower limit deterministic response spectrum in Figure (29).

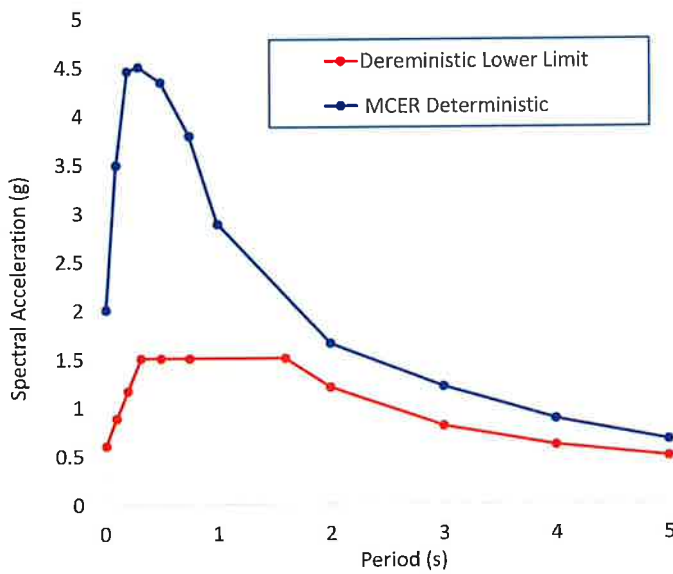


Figure (29) 84<sup>th</sup> Percentile  $MCE_R$  5% Damped Deterministic Response Spectrum Compared to Lower Limit Deterministic Response Spectrum

## 2.5 Site Specific MCE<sub>R</sub>

According to Section 21.2.3 of ASCE/SET 7-16 Standards, the site-specific MCE<sub>R</sub> spectral acceleration at any period shall be taken as the lesser of the spectral response accelerations from the probabilistic and the deterministic response spectra. The two spectra are compared in Figure (30), which clearly shows that the probabilistic Risk Targeted MCE<sub>R</sub> Spectrum represents the site specific MCE<sub>R</sub> Response Spectrum.

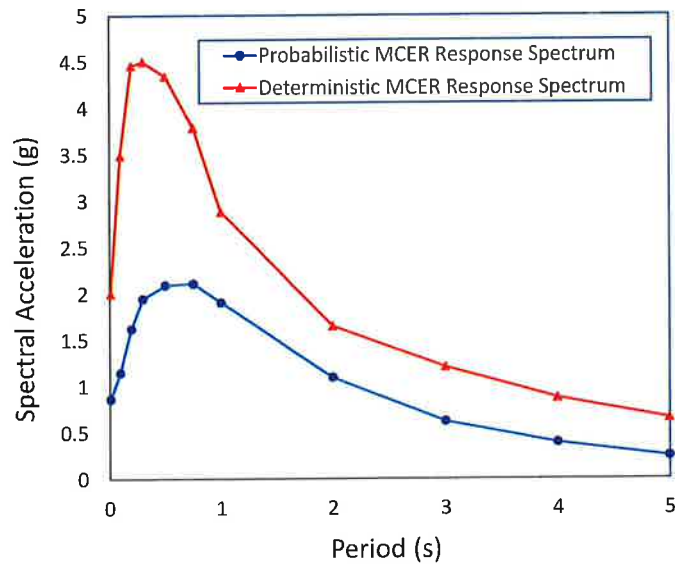


Figure (30) Comparison of Probabilistic and Deterministic Response Spectra

## 2.6 Design Response Spectrum

The design response spectrum is evaluated by multiplying the ordinates of the site probabilistic specific MCE<sub>R</sub> response spectrum by 2/3. ASCE/SEI 7-16 stipulates that the design spectrum should not be taken less than 80% of the spectrum determined in accordance with section 11.4.6. The three spectra are depicted in Figure (31). The design response spectrum is taken as the envelope of maxima and depicted in Figure (32). The design spectrum is also listed in Table (2). This spectrum is representative of Soil Class E with average shear wave velocity of 150 m/s.

Table (2) Design Response Spectrum Soil Class E

Period (s)	PGA	0.1	0.20	0.30	0.50	0.75	1.00	2.00	3.00	4.00	5.00
Sa (g)	0.58	0.765	1.084	1.298	1.397	1.408	1.271	0.730	0.488	0.366	0.293

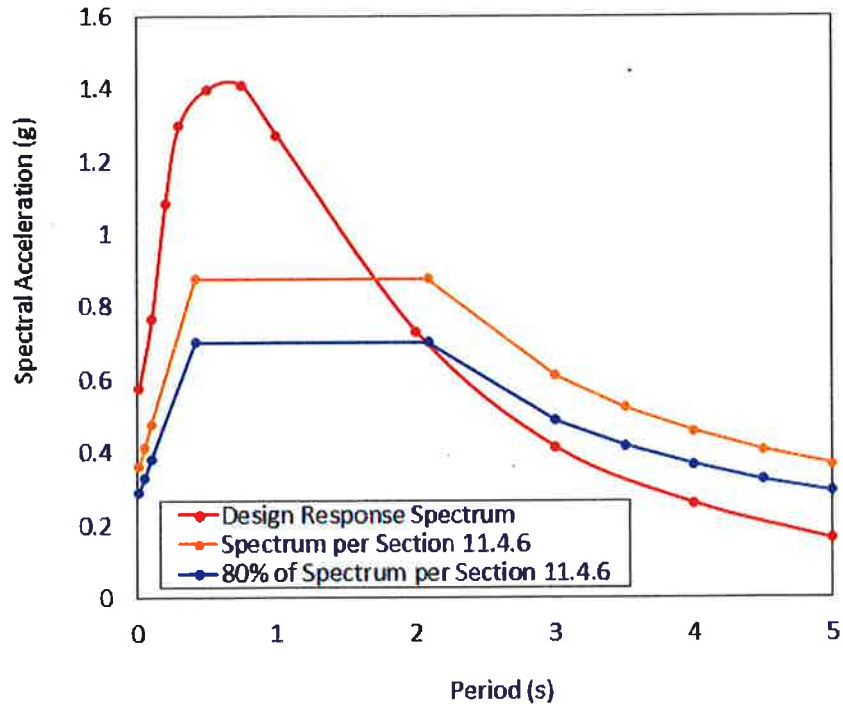


Figure (31) Comparison of Design Response Spectrum to Spectrum developed in accordance with Section 11.4.6

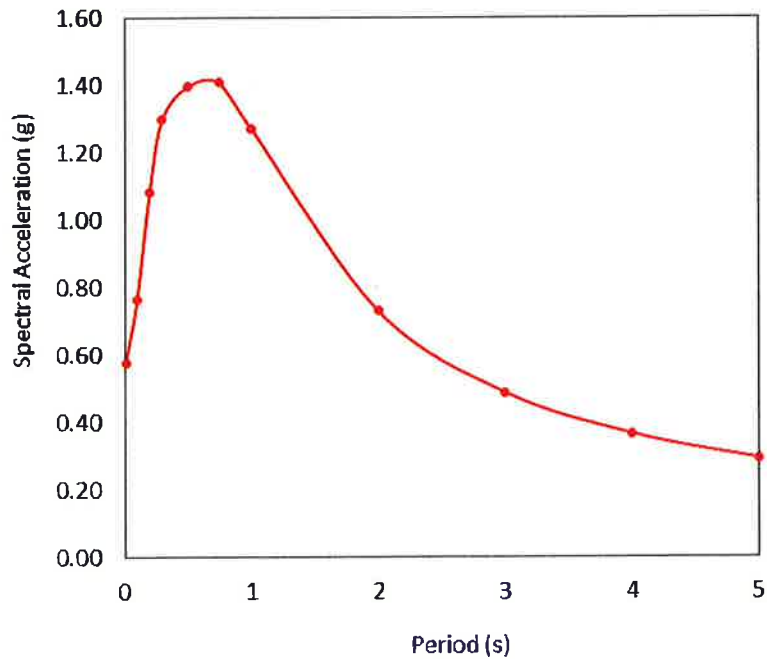


Figure (32) Design Response Spectrum for the Site

## 2.7 Design Acceleration Parameters

The design acceleration parameters are derived from the design spectrum in accordance with Section 21.4 of ASCE/SEI 7-16.  $S_{DS}$  was determined as 0.90 of the maximum spectral acceleration of the design spectrum at any period within the range 0.2 to 5 s. The parameter  $S_{D1}$  was determined as the maximum value of the product  $T S_a$  for periods from 1 to 5 s. These values shall not be less than 80% of those calculated in accordance with section 11.4. This verification is illustrated in Table (3). The design spectrum is reconstructed using the design acceleration parameters as indicated in section 21.4 of ASCE/SEI 7-16 and the procedure of Section 11.4.6 with  $F_a$  and  $F_v$  of 1.24 and 2.78 respectively as obtained from the MCER spectrum. The value of  $F_a$  should be used if IBC calls for the simplified design procedure of ASCE 7-16 Section 12.14. The two spectra are depicted in Figure (33) for comparison. It should be noted that  $S_{DS}$  and  $S_{D1}$  are corresponding to periods 0.23 s and 1.16 s respectively.

Table (3) Design Acceleration Parameters Verification

Spectrum	$S_{DS}$ (g)	$S_{D1}$ (g)	$S_{MS}$ (g)	$S_{M1}$ (g)
Design Spectrum	1.267	1.463	1.901	2.195
minimum Limiting value	0.867	1.017	1.301	1.525

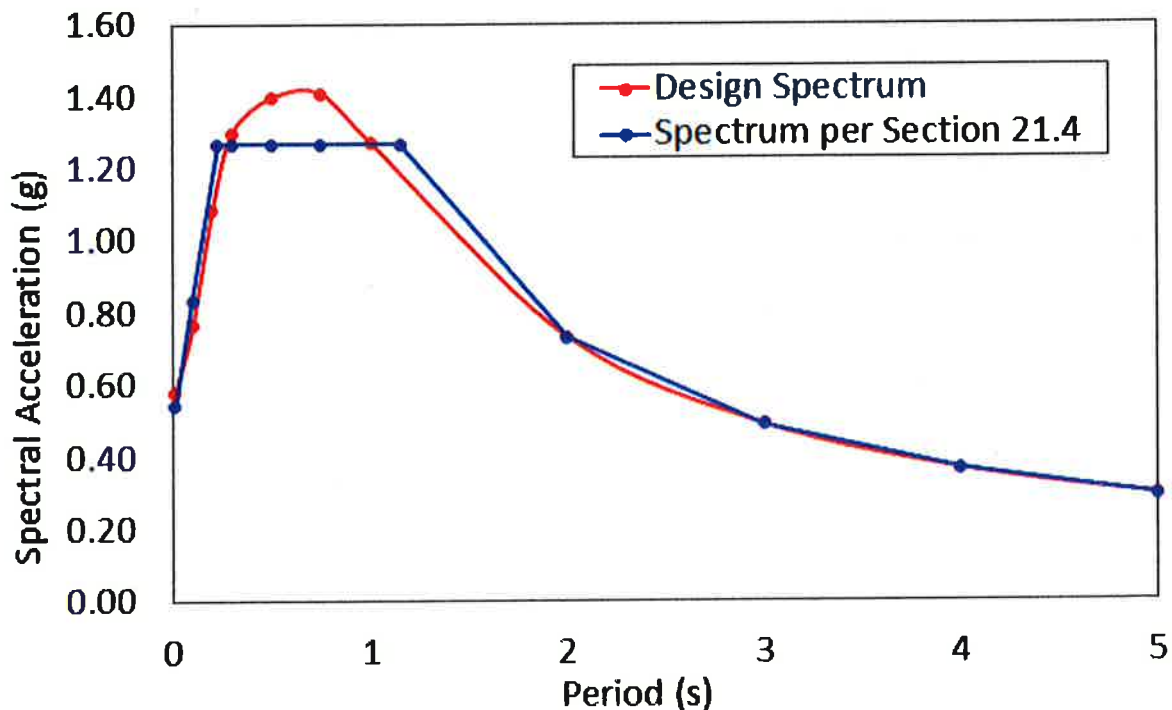


Figure (33) Design Spectrum following Sections 21.3 & 21.4 of ASCE/SEI 7-16

### 3. Epilogue

This report outlined the study to develop the design response spectrum for the Roby's Furniture site located between Oregon Coast Highway 101 and SE Marlin Avenue, Warrenton, Oregon. The site is characterized by soil Class E. Section 1613 of the 2018 International Building Code (IBC) "Earthquake Loads", which defines the site-specific seismic ground motion values. IBC refers to the procedures of Chapter 11 of ASCE Standard "*Minimum Design Loads and Associated Criteria for Buildings and Other Structures*" (ASCE/SEI 7-16). ASCE/SEI 7-16 requires site-specific seismic hazard analysis to develop the design response spectrum for this site and evaluate design acceleration parameters.

The probabilistic site-specific seismic hazard analysis included all three local shallow faults that are within 200 km distance from the site. The Cascadia Subduction Zone (CSZ) as well as gridded seismicity were also included. The study accounted for two rupture scenarios for the CSZ, interface rupture and slab rupture. The study employed 4 universal ground motion predictive equations that are based on the Next Generation Attenuation for Western US (NGA-West2) research project to represent the seismicity at the shallow fault sources and the shallow gridded sources. The PSHA study also used 3 state-of-practice GMPEs for CSZ.

The 5% damped probabilistic MCER response spectrum that is expected to achieve a 1% probability of collapse within a 50-year period was evaluated in accordance with Section 21.2.1 of ASCE/SEI 7-16. A deterministic  $MCE_R$  response spectrum was also established. First, the 84<sup>th</sup>-percentile 5% damped spectral response spectrum for each seismic source was calculated. Next, the largest of all the calculated spectral accelerations from all analyses was used to construct the deterministic response spectrum. Finally, the deterministic response spectrum was compared to the probabilistic response spectrum and the site-specific response spectrum was taken as the lesser of the two spectra, which is the probabilistic response spectrum. The design response spectrum was then calculated following the requirements of Section 21.3. Design acceleration parameters were also established following Section 21.4 and indicated on the design response spectrum.

### 4. References

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Mayne, P. W. and Rix, G. J., "G~q~ Relationships for Clays," *Geotechnical Testing Journal*, GTJODJ, Vol. 16, No. 1, March 1993, pp. 54-60.

Rix, G. J. and Stokoe, K. H., 1991, "Correlation of Initial Tangent Modulus and Cone Penetration Resistance," *Calibration Chamber Testing, Proceedings, ISOCCT-1*, A. B. Huang, Ed., Elsevier Publishing, New York, pp. 351-362.

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# Appendix A

## Verification of the Uniform Hazard Spectrum



The uniform hazard spectrum (UHS) (geometric mean), which is the geometric mean spectrum and the basis of the design spectrum was developed according to site specific seismic hazard analysis that employed attenuation equations for site class E. This spectrum is depicted along with the MCER spectrum in Figure (26). We employ in this section site response analysis using four bore logs from the site as means of verification of the UHS.

The soil profiles indicated in the CPT logs 1, 2, 5, 101, and 102 were used to establish 5 site response models as means of preparation of the one-dimensional site response analyses. The distribution of Shear wave velocities at all the bore logs were inferred from the tip resistances using empirical equations by Mayne and Rix (1993) for clay and Rix and Stokoe (1991) for cohesionless soil. It was noticed that all soil bore holes were terminated where the soils stiffnesses are classified stiff soil. Therefore, the input response spectrum that was used as a basis for the ground response analyses was taken equivalent to Class C. This spectrum was developed using a site-specific seismic hazard analysis for site Class C with  $VS30 = 1600$  ft/s.

Five recorded horizontal ground motion accelerograms were selected for the site response analyses and their properties are listed in Table (A-1). The ground motions are consistent in terms of magnitude and distance with an earthquake scenario at the site. The ground motions were then scaled in time and frequency to be compatible with the input spectrum of soil class D developed for the site. Every scaled ground acceleration was applied to the soil profile at each of the five CPT Logs and the SHAKE approach (Schnabel et al. 1972) was used in a one-dimensional equivalent linear analysis to evaluate the response of the site. This approach assumes the ground motion a seismic shear wave that propagates in the vertical direction to shear the soil in a horizontal direction. The analysis is performed in the frequency domain.

25 analyses were performed in total and for each case the response spectrum of the ground acceleration at the surface was determined. These response spectra for the five ground motions at the five CPT Logs are displayed in Figures A-1 through A-5 along with their averages. In a subsequent step, mean spectra for the five holes are compared to the UHS (Site Class E) in Figure A-6 and the mean spectrum for the five bore holes is depicted against the UHS in Figure A-7. It can be observed that the UHS enveloped the mean site response spectrum for the majority of the periods.

Table (A-1) Properties of ground motions used in ground response analyses

Earthquake	Station	Date	Magnitude M <sub>w</sub>	Hypocentral Distance (km)
Hector Mine	Morongo Valley, CA	10/16/1999	7.1	67
Landers	Elizabeth Lake, CA	6/28/1992	7.3	186.1
Loma Prieta/Santa Cruz Mountains	Hollister, CA	10/18/1989	7	13.9
Big Bear	San Bernardino, CA	6/28/1992	6.6	44.5
Northridge	Los Angeles-Hollywood Storage Bldg	1/17/1994	6.7	29.7

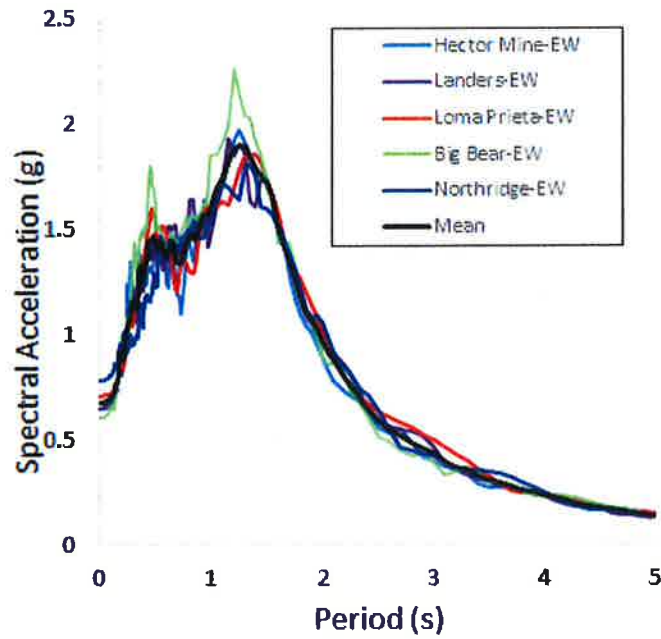


Figure (A-1) Response spectra at the Surface and their mean due to vertical propagation of the scaled ground motion through Bore LOG CPT1

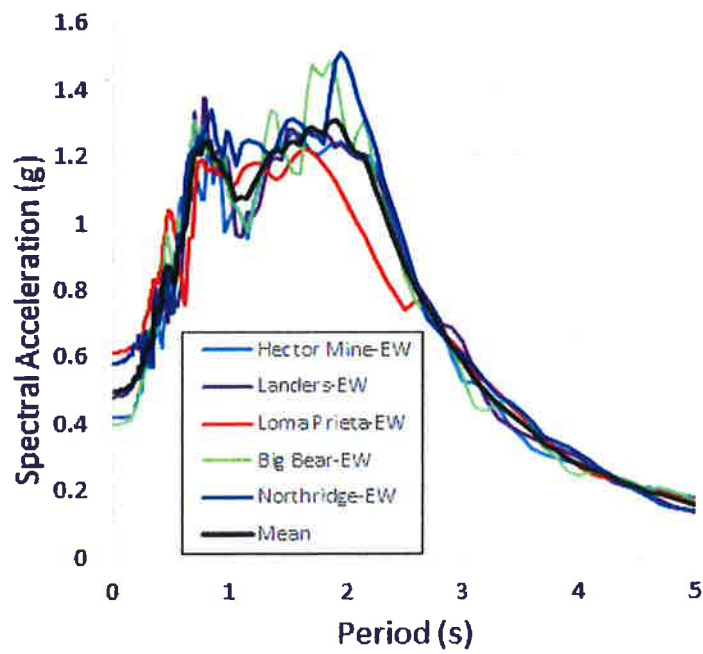


Figure (A-2) Response spectra at the Surface and their mean due to vertical propagation of the scaled ground motion through Bore LOG CPT2

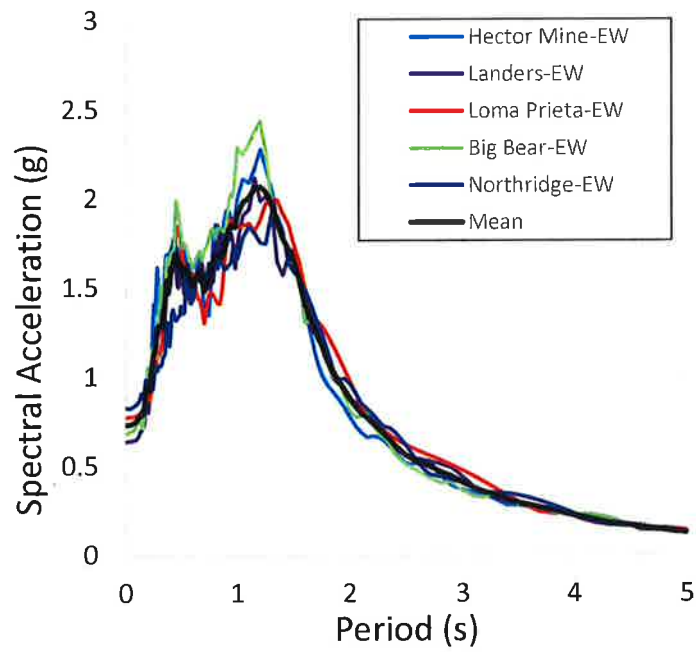


Figure (A-3) Response spectra at the Surface and their mean due to vertical propagation of the scaled ground motion through Bore LOG CPT5

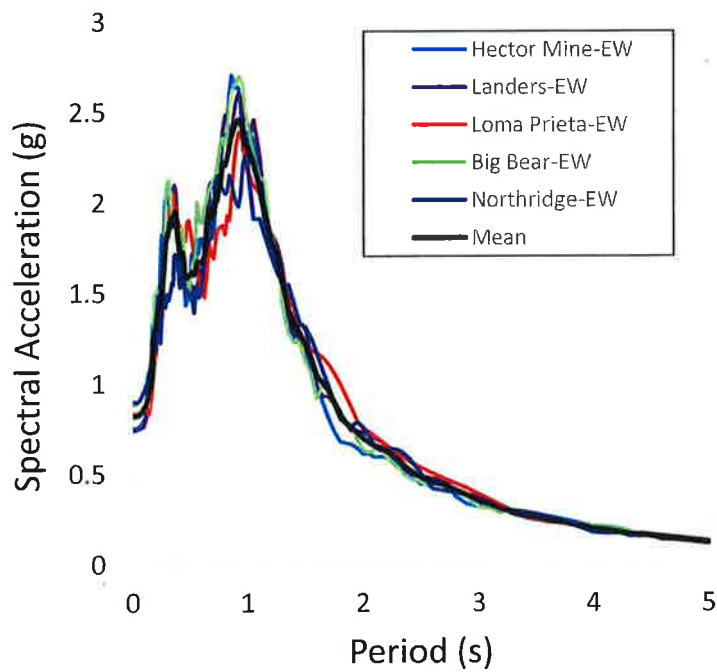


Figure (A-4) Response spectra at the Surface and their mean due to vertical propagation of the scaled ground motion through Bore LOG CPT101

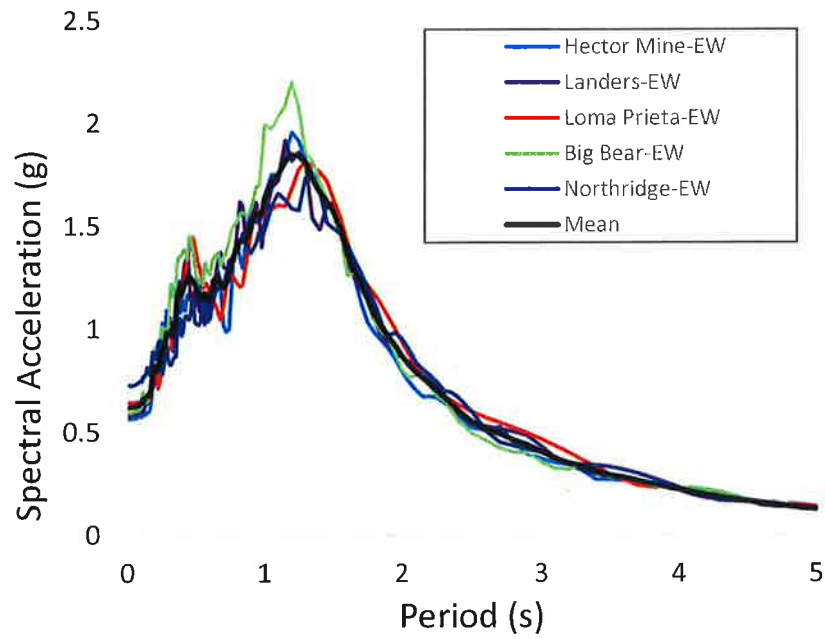


Figure (A-5) Response spectra at the Surface and their mean due to vertical propagation of the scaled ground motion through Bore LOG CPT102

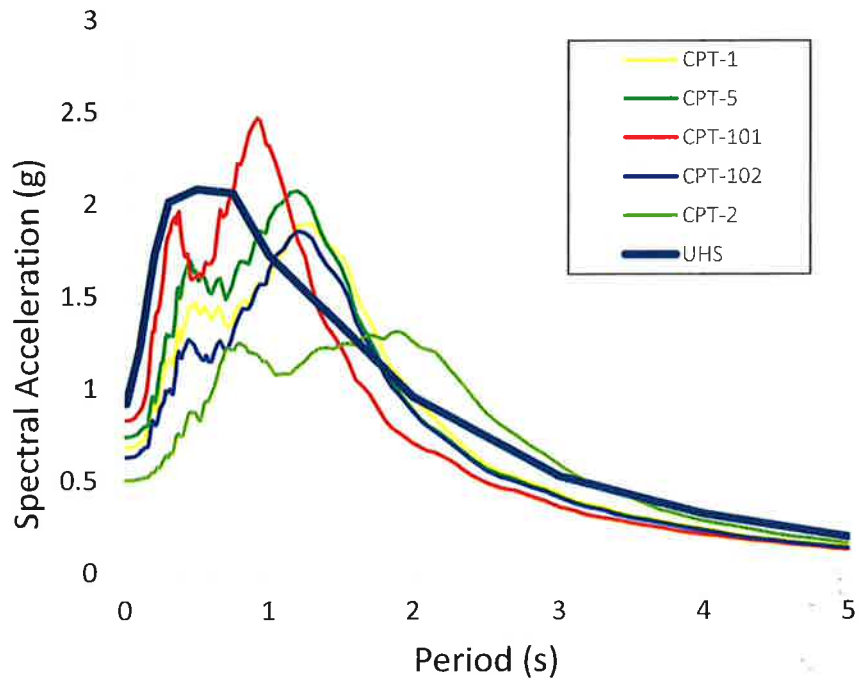


Figure (A-6) Mean spectra of the five bore logs depicted against the UHS

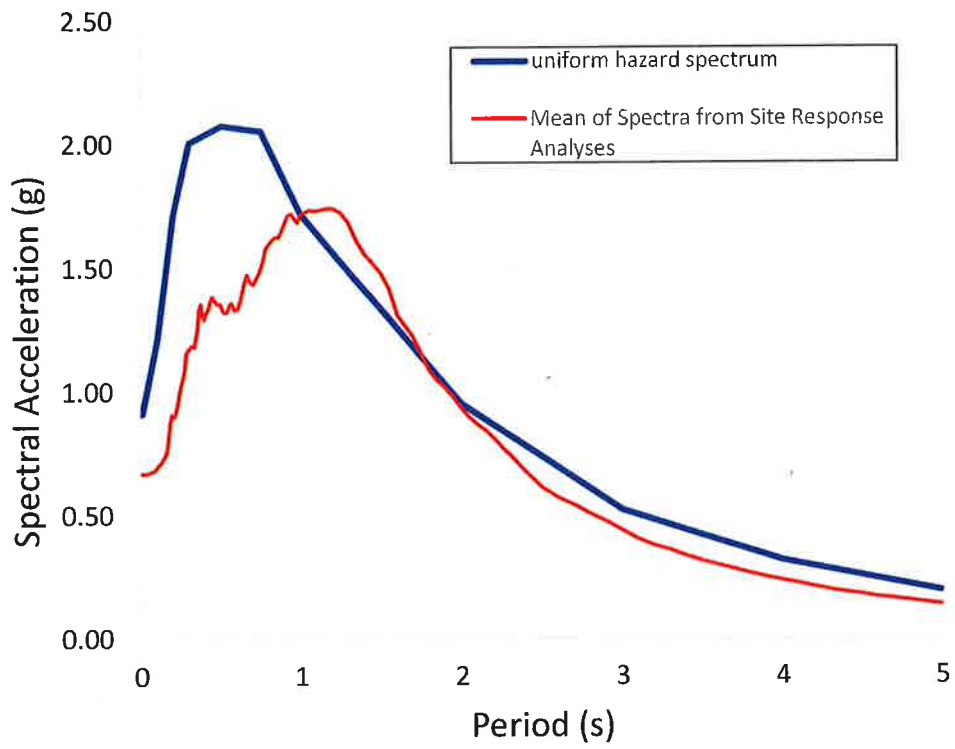


Figure (A-6) Mean spectrum of the five bore logs compared to the UHS

## **APPENDIX G**

*"Land Use Compatibility Statement for Roby's Furniture Project", City of Warrenton  
Letter to DEQ, May 12, 2021*



May 12, 2021

To: Oregon Department of Environmental Quality  
From: Will Caplinger, Interim City Planner, City of Warrenton  
Re: Land Use Compatibility Statement for Roby's Furniture project

Findings under Section 2.E.:

1. The project is compatible with the acknowledged City of Warrenton Comprehensive Plan. The project area is within the Commercial Lands designation. Section 3.320(1)(c) of the Comprehensive Plan states that, "the purpose of the General Commercial Zone is to allow a broad range of commercial uses..."
2. The project area is within the General Commercial (C-1) District. Warrenton Municipal Code (WMC) Section 16.40.020.A.2 states that "Retail business establishments" are a permitted use.
  - a. The project is subject to WMC Sections 16.40.040 Development Standards and 16.40.060 Other Applicable Standards.
  - b. The project area contains Locally Significant Wetlands. Development is subject to the Wetland Area Protection Standards in WMC 16.156.030.



# Land Use Compatibility Statement

## Section 1 – To be completed by the applicant

1A. Applicant Name: **Warrenton Property Investments, L**

1B. Project Name: **Roby's Furniture**

Contact Name: **Kyle Langeliers**

Physical Address: **NW Corner of Fort Stephens Hwy**

Mailing Address: **5111 N Coast Highway**

City, State, Zip: **Warrenton, Oregon**

City, State, Zip: **Newport, Oregon 97365**

Tax Lot #: **81027AB06400**

Telephone: **503-812-8267**

Township: **8N** Range: **10W** Section: **27**

Tax Account #:

Latitude: **46.153934**

**86-1391915**

Longitude: **-123.906084**

1C. Describe the project, include the type of development, business, or facility and services or products provided (attach additional information if necessary):

**Proposed new commercial/retail development: Roby's Furniture Store.**

1D. Check the type of DEQ permit(s) or approval(s) being applied for at this time.

- |   |  |
|---|--|
| <input type="checkbox"/> Air Quality Notice of Construction                                   | <input type="checkbox"/> Clean Water State Revolving Fund Loan Request   |
| <input type="checkbox"/> Air Contaminant Discharge Permit                                     | <input type="checkbox"/> Wastewater/Sewer Construction Plan/ Specifications (includes review of plan changes that require use of new land) |
| <input type="checkbox"/> Air Quality Title V Permit   | <input type="checkbox"/> Water Quality NPDES Individual Permit   |
| <input type="checkbox"/> Air Quality Indirect Source Permit                                   | <input type="checkbox"/> Water Quality WPCF Individual Permit (for onsite construction-installation permits use the DEQ Onsite LUCS form)  |
| <input type="checkbox"/> Parking/Traffic Circulation Plan                                     | <input checked="" type="checkbox"/> Water Quality NPDES Stormwater General Permit (1200-A, 1200-C, 1200-CA, 1200-COLS, and 1200-Z)         |
| <input type="checkbox"/> Solid Waste Land Disposal Site Permit                                | <input type="checkbox"/> Water Quality General Permit (all general permits, except 600, 700-PM, 1700-A, and 1700-B when they are mobile)   |
| <input type="checkbox"/> Solid Waste Treatment Facility Permit                                | <input type="checkbox"/> Water Quality 401 Certification for federal permit or license   |
| <input type="checkbox"/> Solid Waste Composting Facility Permit (includes Anaerobic Digester) |  |
| <input type="checkbox"/> Conversion Technology Facility Permit                                |  |
| <input type="checkbox"/> Solid Waste Letter Authorization Permit                              |  |
| <input type="checkbox"/> Solid Waste Material Recovery Facility Permit                        |  |
| <input type="checkbox"/> Solid Waste Energy Recovery Facility Permit                          |  |
| <input type="checkbox"/> Solid Waste Transfer Station Permit                                  |  |
| <input type="checkbox"/> Waste Tire Storage Site Permit                                       |  |
| <input type="checkbox"/> Pollution Control Bond Request                                       |  |
| <input type="checkbox"/> Hazardous Waste Treatment, Storage or Disposal Permit                |  |

This application is for:  Permit Renewal  New Permit  Permit Modification  Other.

**Section 2 – To be completed by city or county planning official**

Applicant name: **Warrenton Property Investments, LLC** Project name: **Roby's Furniture**

Instructions: **Written findings of fact for all local decisions are required; written findings from previous actions are acceptable. For uses allowed outright by the acknowledged comprehensive plan, DEQ will accept written findings in the form of a reference to the specific plan policies, criteria, or standards that were relied upon in rendering the decision with an indication of why the decision is justified based on the plan policies, criteria, or standards.**

2A. The project proposal is located:  Inside city limits  Inside UGB  Outside UGB

2B. Name of the city or county that has land use jurisdiction (the legal entity responsible for land use decisions for the subject property or land use): **City of Warrenton**

2C.  This project is not within the jurisdiction of any other land use, zoning, or planning entity  
 This project is also within the jurisdiction of the following land use, zoning, or planning entity \_\_\_\_\_

2D. Is the activity allowed under Measure 49 (2007)?  No, Measure 49 is not applicable  Yes, if yes, then check one:

Express; approved by DLCD order #:

Conditional; approved by DLCD order #:

Vested; approved by local government decision or court judgment docket or order #:

2E. Is the activity a composting facility?  
 No  Yes; Senate Bill 462 (2013) notification requirements have been met.

2F. Is the activity or use compatible with your acknowledged comprehensive plan as required by OAR 660-031? Please complete this form to address the activity or use for which the applicant is seeking approval (see 1.C on the previous page). If the activity or use is to occur in multiple phases, please ensure that your approval addresses the phases described in 1C. For example, if the applicant's project is described in 1C. as a subdivision and the LUCS indicates that only clearing and grading are allowed outright but does not indicate whether the subdivision is approved, DEQ will delay permit issuance until approval for the subdivision is obtained from the local planning official.

The activity or use is specifically exempt by the acknowledged comprehensive plan; explain:

Yes, the activity or use is pre-existing nonconforming use allowed outright by (provide reference for local ordinance):

Yes, the activity or use is allowed outright by (provide reference for local ordinance):

Yes, the activity or use received preliminary approval that includes requirements to fully comply with local requirements; findings are attached.

Yes, the activity or use is allowed; findings are attached.

No, see 2D. above, activity or use allowed under Measure 49; findings are attached.

No, (complete below or attach findings for noncompliance and identify requirements the applicant must comply with before compatibility can be determined):  
 Relevant specific plan policies, criteria, or standards:

Provide the reasons for the decision:

Additional comments (attach additional information as needed):

Planning Official Signature: \_\_\_\_\_ Title: **Interim City Planner**

Print Name: **Will Coplinger** Telephone #: **(503) 468-1015** Date: **5/12/21**

If necessary, depending upon city/county agreement on jurisdiction outside city limits but within UGB:

Planning Official Signature: \_\_\_\_\_ Title: \_\_\_\_\_

Print Name: \_\_\_\_\_ Telephone #: **(503) 468-1015** Date: \_\_\_\_\_

**Alternative formats**



# State of Oregon Department of Environmental Quality Land Use Compatibility Statement

## What is a Land Use Compatibility Statement?

A LUCS is a form developed by DEQ to determine whether a DEQ permit or approval will be consistent with local government comprehensive plans and land use regulations.

## Why is a LUCS required?

DEQ and other state agencies with permitting or approval activities that affect land use are required by Oregon law to be consistent with local comprehensive plans and have a process for determining consistency. DEQ activities affecting land use and the requirement for a LUCS may be found in Oregon Administrative Rules (OAR) Chapter 340, Division 18.

## When is a LUCS required?

A LUCS is required for nearly all DEQ permits and certain approvals of plans or related activities that affect land use prior to issuance of a DEQ permit or approval. These permits and activities are listed in section 1.D on p. 2 of this form. A single LUCS can be used if more than one DEQ permit or approval is being applied for concurrently.

Permit modifications or renewals also require a LUCS when any of the following applies:

1. Physical expansion on the property or proposed use of additional land;
2. Alterations, expansions, improvements or changes in method or type of disposal at a solid waste disposal site as described in OAR 340-093-0070(4)(b);
3. A significant increase in discharges to water;
4. A relocation of an outfall outside of the source property; or
5. Any physical change or change of operation of an air pollutant source that results in a net significant emission rate increase as defined in OAR 340-200-0020.

## How to complete a LUCS:

Step	Who does it?	What happens?
1.	Applicant	Applicant completes Section 1 of the LUCS and submits it to the appropriate city or county planning office.
2.	City or County Planning Office	City or county planning office completes Section 2 of the LUCS to indicate whether the activity or use is compatible with the acknowledged comprehensive plan and land use regulations, attaches written findings supporting the decision of compatibility, and returns the signed and dated LUCS to the applicant.
3.	Applicant	Applicant submits the completed LUCS and any supporting information provided by the city or county to DEQ along with the DEQ permit application or approval request.

## Where to get help:

For questions about the LUCS process, contact the DEQ staff responsible for processing the permit or approval. DEQ staff may be reached at 1-800-452-4011 (toll-free, inside Oregon) or 503-229-5630. For general questions, please contact DEQ land use staff listed on our [Land Use Compatibility Statement page](#) online.

## Cultural resources protection laws:

Applicants involved in ground-disturbing activities should be aware of federal and state cultural resources protection laws. ORS 358.920 prohibits the excavation, injury, destruction, or alteration of an archeological site or object or removal of archeological objects from public and private lands without an archeological permit issued by the State Historic Preservation Office. 16 USC 470, Section 106, National Historic Preservation Act of 1966 requires a federal agency, prior to any undertaking, to take into account the effect of the undertaking that is included on or eligible for inclusion in the National Register. For further information, contact the State Historic Preservation Office at 503-378-4168, ext. 232.

## **APPENDIX H**

*U.S. Army Corps of Engineers, Permit No. NWP-2007-745, Warrenton Fiber Company,  
September 10, 2009*

## DEPARTMENT OF THE ARMY PERMIT

Permittee: Warrenton Fiber Company

Permit No: NWP-2007-745

Issuing Office: U.S. Army Corps of Engineers, Portland District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

*Project Description:* The project consists of construction of approximately 153,239 square feet of retail space, approximately 656 parking spaces, and associated infrastructure. The project involves filling approximately 14.9 acres of wetlands in a 17.15-acre site. The total fill includes 81,000 cubic yards of rock and sand. Approximately 21,000 cubic yards of topsoil will be removed from the site for upland disposal.

To compensate for unavoidable impacts to waters of the United States, the permittee will preserve 131 acres of wetlands in the Warrenton and Seaside areas, including creation, enhancement, and restoration of 5.9 acres of wetlands in the Seaside area.

*Purpose:* Commercial retail development in Warrenton.

*Project Location:* The proposed project is located in wetlands along Marlin Ave., behind the existing Les Schwab store, Sections 22 and 27, Township 8 North, Range 10 West, Warrenton, Clatsop County, Oregon.

*Drawings:* There are sixteen (16) drawings labeled Corps ID NWP-2007-745 (Enclosure 1).

### General Conditions:

1. The time limit for completing the work authorized ends on September 30, 2014. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions (Enclosure 2).
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. You shall notify the Regulatory Branch with the start date when the activities authorized in waters of the U.S. are scheduled to begin. Notification shall be sent by email to [cenwp.notify@usace.army.mil](mailto:cenwp.notify@usace.army.mil) or mailed to the following address:

U.S. Army Corps of Engineers  
CENWP-OD-GC  
Permit Compliance, Clatsop County  
P.O. Box 2946  
Portland, Oregon 97208-2946

The subject line of the message shall contain the name of the county in which the project is located followed by the Corps of Engineers permit number.

2. You shall submit a signed certification regarding the completed work and any required mitigation. A "Compliance Certification" is provided (Enclosure 3).
3. The permittee shall fully implement the enclosed *Initial Stormwater Management Plan for Removal/Fill Permits: Warrenton Fiber – Retail Development*, dated August 2008 (Enclosure 4).
4. The permittee shall fully implement the enclosed *Marlin Avenue Mitigation Plan: Warrenton Fiber Company (CWM Plan)*, revised March 2009 (Enclosure 5). The CWM Plan shall be started prior to or concurrently with the first discharge of dredge or fill material into Waters of the U.S. The planting components of the plan shall be completed by Fall 2010.
5. The permittee shall maintain and monitor the site for a five-year period following start of construction to ensure performance criteria are met. The performance criteria are described on pages 30 through 32 of the CWM Plan.
6. The permittee shall submit an "as-built" report to the Corps by December 30, 2010. The contents of the report shall include a narrative summary of the completed actions to date and photographic documentation of site conditions before, during, and after construction of the wetland mitigation site. The photographs shall be dated and labeled on a site map showing location and orientation.
7. The permittee shall submit annual monitoring reports to the Corps by December 30 of each year for the five-year monitoring period. The contents of the report shall include the information detailed in the enclosed *Compensatory Mitigation Monitoring Reports* guidance dated November 2008 (Enclosure 6).
8. Prior to the first discharge of dredge or fill material into wetlands or waterways, the permittee shall provide the Corps documentation of final transfer of a 48,000 U.S. dollar financial endowment to the North Coast Land Conservancy. Proof of endowment shall be provided to the Corps a minimum 30 days prior to placement of fill in Waters of the U.S.
9. The permittee's responsibility to complete the required compensatory mitigation as set forth in Special Conditions 3-8 will not be considered fulfilled until you have demonstrated mitigation success and have received written verification from the U.S. Army Corps of Engineers.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
  - ( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
  - (x) Section 404 of the Clean Water Act (33 U.S.C. 1344).
  - ( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization.

NWP-2007-745

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
  - b. This permit does not grant any property rights or exclusive privileges.
  - c. This permit does not authorize any injury to the property or rights of others.
  - d. This permit does not authorize interference with any existing or proposed Federal project.
3. **Limits of Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following:
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
  - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
  - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
  - d. Design or construction deficiencies associated with the permitted work.
  - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
  - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (Sec 4 above).
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. **Extensions.** General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



(PERMITTEE SIGNATURE)

9/10/09

(DATE)

David Nygaard

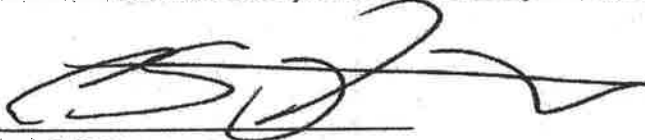
(PRINTED NAME)

Soc/Tues

(TITLE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

FOR THE COMMANDER, STEVEN R. MILES, P.E., COLONEL, CORPS OF ENGINEERS, DISTRICT COMMANDER



Erik S. Petersen  
Chief, Regulatory Branch

10 SEP 2009

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEE)

\_\_\_\_\_  
(DATE)



## **APPENDIX I**

*Oregon DSL, Wetland Fill Permit, Permit No: 38988-FP Renewal, Expiration Date, August 7, 2021, Warrenton Fiber Company*

775 Summer Street NE, Suite 100  
Salem, OR 97301-1279  
☎ 503-986-5200

Permit Type:	Fill
Waterway:	Wetland
County:	Clatsop
Expiration Date:	August 7, 2021

**WARRENTON FIBER COMPANY**

**IS AUTHORIZED IN ACCORDANCE WITH ORS 196.800 TO 196.990 TO PERFORM THE OPERATIONS DESCRIBED IN THE REFERENCED COPY OF THE APPLICATION, SUBJECT TO THE SPECIAL CONDITIONS LISTED ON ATTACHMENT A AND TO THE FOLLOWING GENERAL CONDITIONS:**

1. This permit does not authorize trespass on the lands of others. The permit holder shall obtain all necessary access permits or rights-of-way before entering lands owned by another.
2. This permit does not authorize any work that is not in compliance with local zoning or other local, state, or federal regulation pertaining to the operations authorized by this permit. The permit holder is responsible for obtaining the necessary approvals and permits before proceeding under this permit.
3. All work done under this permit must comply with Oregon Administrative Rules, Chapter 340; Standards of Quality for Public Waters of Oregon. Specific water quality provisions for this project are set forth on Attachment A.
4. Violations of the terms and conditions of this permit are subject to administrative and/or legal action, which may result in revocation of the permit or damages. The permit holder is responsible for the activities of all contractors or other operators involved in work done at the site or under this permit.
5. Employees of the Department of State Lands and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this permit.
6. Any permit holder who objects to the conditions of this permit may request a hearing from the Director, in writing, within twenty-one (21) calendar days of the date this permit was issued.
7. In issuing this permit, the Department of State Lands makes no representation regarding the quality or adequacy of the permitted project design, materials, construction, or maintenance, except to approve the project's design and materials, as set forth in the permit application, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapters 196, 390, and related administrative rules.
8. Permittee shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the permitted improvements.
9. Authorization from the U.S. Army Corps of Engineers may also be required.

**NOTICE:** If removal is from state-owned submerged and submersible land, the applicant must comply with leasing and royalty provisions of ORS 274.530. If the project involves creation of new lands by filling on state-owned submerged or submersible lands, you must comply with ORS 274.905 to 274.940. This permit does not relieve the permittee of an obligation to secure appropriate leases from the Department of State Lands, to conduct activities on state-owned submerged or submersible lands. Failure to comply with these requirements may result in civil or criminal liability. For more information about these requirements, please contact the Department of State Lands, 503-986-5200.

Dan Cary, Aquatic Resource Coordinator  
Aquatic Resource Management  
Oregon Department of State Lands

  
\_\_\_\_\_  
**Authorized Signature**

August 7, 2020  
\_\_\_\_\_  
**Date**

## ATTACHMENT A

**Permittee: Warrenton Fiber Company**

**Project: Marlin Avenue/Hwy 101 Commercial Development**

**Special Conditions for Removal/Fill Permit No. 38988-FP**

### **READ AND BECOME FAMILIAR WITH CONDITIONS OF YOUR PERMIT.**

**The project site may be inspected by the Department of State Lands (DSL) as part of our monitoring program. DSL has the right to stop or modify the project at any time if you are not in compliance with these conditions. A copy of this permit shall be available at the work site whenever authorized operations are being conducted.**

- 1. Responsible Party:** By signature of the application, David Nygaard is acting as the representative of Warrenton Fiber Company. By proceeding under this permit, Warrenton Fiber Company agrees to comply with and fulfill all terms and conditions of this permit. Warrenton Fiber Company is responsible for carrying out the terms and conditions of this permit unless the permit is officially transferred to another party as approved by DSL.
- 2. Authorization to Conduct Removal and/or Fill:** This permit authorizes the placement of up to 81,000 cubic yards and removal of up to 26,000 cubic yards (14.9 acres of wetland impact) of material in T8N R10W Section 22, Tax Lots 5700, 6000, 4900, 5800, 6100, 5000, 5900, and Section 27, Tax Lots 200, 700, 1300, 1900, 2200, 2500, 300, 1100, 1600, 2000, 2300, 600, 1200, 1601, 2100, 2400, Wetland, Clatsop County, as described in the referenced permit application, map and drawings, received April 10 and May 1, 2009; renewal application received on June 29, 2012; and the revised Compensatory Mitigation Plan, received October 1, 2012. In the event information in the application conflicts with these permit conditions, the permit conditions prevail.
- 3. Authorization to Conduct Compensatory Mitigation:** This permit also authorizes removal and fill activities necessary to complete the required compensatory mitigation.
- 4. Changes to the Project or Inconsistent Requirements from Other Permits:** It is the permittee's responsibility to ensure that all state, federal and local permits are consistent and compatible with the final approved project plans and the project as executed. Any changes made in project design, implementation and/or operating conditions to comply with conditions imposed by other permits must be approved by DSL prior to implementation.
- 5. DSL May Halt or Modify:** DSL retains the authority to temporarily halt or modify the project in case of unforeseen damage to natural resources.
- 6. DSL May Modify Conditions Upon Permit Renewal:** DSL retains the authority to modify conditions upon renewal, as appropriate, pursuant to the applicable rules in effect at the time of the request for renewal or to protect waters of this state.

### **Pre-Construction**

- 7. Stormwater Management Approval Required Before Beginning Work:** Issuance of the permit is contingent upon acquisition of a National Pollution Discharge Elimination System (NPDES) permit from the Oregon Department of Environmental Quality.

### General Construction Conditions

8. **Water Quality Certification:** The Department of Environmental Quality (DEQ) may evaluate this project for a Clean Water Act Section 401 Water Quality Certification (WQC). If the evaluation results in issuance of a Section 401 WQC, that turbidity condition will govern any allowable turbidity exceedance and monitoring requirements.
9. **Erosion Control Methods:** The following erosion control measures (and others as appropriate) shall be installed prior to construction and maintained during and after construction as appropriate, to prevent erosion and minimize movement of soil into waters of this state.
  - a. All exposed soils shall be stabilized during and after construction in order to prevent erosion and sedimentation.
  - b. Filter bags, sediment fences, sediment traps or catch basins, leave strips or berms, or other measures shall be used to prevent movement of soil into waterways and wetlands.
  - c. To prevent erosion, use of compost berms, impervious materials or other equally effective methods, shall be used to protect soil stockpiled during rain events or when the stockpile site is not moved or reshaped for more than 48 hours.
  - d. Unless part of the authorized permanent fill, all construction access points through, and staging areas in, riparian and wetland areas shall use removable pads or mats to prevent soil compaction. However, in some wetland areas under dry summer conditions, this requirement may be waived upon approval by DSL. At project completion, disturbed areas with soil exposed by construction activities shall be stabilized by mulching and native vegetative plantings/seeding. Sterile grass may be used instead of native vegetation for temporary sediment control. If soils are to remain exposed more than seven days after completion of the permitted work, they shall be covered with erosion control pads, mats or similar erosion control devices until vegetative stabilization is installed.
  - e. Where vegetation is used for erosion control on slopes steeper than 2:1, tackified seed mulch shall be used so the seed does not wash away before germination and rooting.
  - f. Dredged or other excavated material shall be placed on upland areas having stable slopes and shall be prevented from eroding back into waterways and wetlands.
  - g. Erosion control measures shall be inspected and maintained as necessary to ensure their continued effectiveness until soils become stabilized.
  - h. All erosion control structures shall be removed when the project is complete and soils are stabilized and vegetated.
10. **Hazardous, Toxic, and Waste Material Handling:** Petroleum products, chemicals, fresh cement, sandblasted material and chipped paint, wood treated with leachable preservatives or other deleterious waste materials shall not be allowed to enter waters of this state. Machinery refueling is to occur at least 150 feet from waters of this state and confined in a designated area to prevent spillage into waters of this state. Barges shall have containment system to effectively prevent petroleum products or other deleterious material from entering waters of this state. Project-related spills into waters of this state or onto land with a potential to enter waters of this state shall be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.
11. **Federally Listed Endangered or Threatened Species:** When listed species are present, the authorization holder must comply with the Federal Endangered Species Act. If previously

unknown listed species are encountered during construction, all construction activity shall immediately cease and the permit holder must contact DSL.

12. **Archaeological Resources:** If any archaeological resources and/or artifacts are encountered during construction, all construction activity shall immediately cease. The State Historic Preservation Office shall be contacted at 503-986-0674. You may be contacted by a Tribal representative if it is determined by an affected Tribe that the project could affect Tribal cultural or archeological resources.

**Compensatory Wetland Mitigation**

The following conditions apply to the compensatory wetland mitigation actions proposed in the application Mitigation Plan dated March 2009, updated October 1, 2012, and Mitigation Bank Credits withdrawn in 2014.

13. **Acreage and Type of Compensatory Mitigation:** Mitigation shall be conducted according to the acreages and methods described in the table below.

<u>Acres</u>	<u>Cowardin/HGM Class</u>	<u>Method</u>
<b>Authorized Impacts</b>		
14.9 acres	PEM/PSS; Flats	
<b>Required Mitigation</b>		
106.4 acres <b>Skipanon Forest</b>	R1/E2FO/PFO; Riverine flow-through/estuarine fringe/riverine	Conservation
15.2 acres <b>Sand Creek</b>	PFOF/PSSF; Depressional outflow non-permanently flooded	Conservation
5.2 acres <b>Scott Wetlands</b>	PFOF; Depressional outflow non-permanently flooded	Conservation
<b>Claremont Wetland Mitigation Bank</b>	PFO/PEM; Estuarine fringe river-sourced (3.54 credits withdrawn)	Enhancement

14. **Mitigation Site Location:** Mitigation shall be conducted off site. The center-point of the mitigation sites are 46.14398 degrees latitude, -123.92519 degrees longitude (Skipanon Forest); 46.1529 degrees latitude, -123.7179 degrees longitude (Claremont); 46.15394 degrees, -123.93263 degrees longitude (Sand Creek); and 46.16833 degrees latitude, -123.93771 degrees longitude (Scott Wetlands). The current legal descriptions are as follows: Skipanon Forest – T8N, R10W, Section 28, Tax lots 1900, 3000, 3905, 100, 200, 300, 400, 500, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500 and Section 33, Tax lots 1100, 2101, as shown on Figure #11A of the mitigation plan (June 2012); Claremont – T8N, R8W, Section 30AB, portion of Tax lot 100 as shown on Figure # 2 of the mitigation plan (September 2012); Sand Creek – T8N, R10W, Section 28, Tax lot 2700 as shown on Figure # 11C of the mitigation plan (June 2012); Scott Wetlands - T8N, R10W, Section 21, Tax lot 101 as shown on Figure #11B of the mitigation plan (June 2012).

15. **Signs Required:** Signs shall be posted along the mitigation site perimeter stating that the area behind the sign is a protected wetland site at the conservation-in-lieu sites.
16. **Long-term Protection of the Mitigation Sites - Deed Restriction:** The mitigation sites shall be protected in perpetuity by recording the Deed Restrictions approved by the Department. There shall be no wetland impacts until the approved Deed Restrictions are recorded with Clatsop County (most were received by the Department August 5, 2009).
17. **Long-term Maintenance Required (see OAR 141-085-0705(1)(j)):** Long-term site maintenance will be provided by the North Coast Land Conservancy unless transferred according to OAR 141-085-0585 (8).
18. **Long-Term Maintenance Plans:** Final Long term Management Plans for all three conservation sites (Skipanon, Sand Creek, and Scott Wetlands) including spreadsheets justifying the amount of endowment, shall be submitted to the Department by May 31, 2018.

### **Monitoring and Reporting Requirements**

19. **Post-Construction Report Required:** A post-construction report demonstrating as-built conditions and discussing any variation from the approved plan shall be provided to the Department within 90 days of mitigation site grading. The post-construction report shall include:
  - a. A scaled drawing, accurate to 1-foot elevation, showing the finished contours of the mitigation site.
  - b. A narrative that describes any deviation from the approved mitigation plan.
20. **Corrective Action May Be Required:** The Department retains the authority require corrective action in the event the performance standards are not accomplished at any time within the monitoring period.

### **Performance Standards**

**To be deemed successful, the mitigation areas including buffers shall meet the following performance standards, as determined by DSL:**

21. **Invasive Species Removal:** *Ilex Aquifolium* and *Hedera helix* are to be sprayed with herbicides and removed at all conservation sites.

### **Financial Security**

22. **Financial Security Required:** A performance bond (financial security) in the amount of \$50,000 has been provided to the Department to ensure completion of compensatory mitigation in accordance with the conditions of this permit. Failure to keep the performance bond continuously in effect through the date of full performance of all the permit holder's obligations hereunder shall constitute a violation and default of this permit by permit holder. At any time the Department, in its sole discretion, may declare permit holder to be in breach of default of its performance obligations under this permit and there upon claim the full unreleased portion of the penal sum of the financial security, which the holder shall pay over to Department within twenty (20) days after delivery of written notice to the holder of such financial security of such breach or default by permit holder.

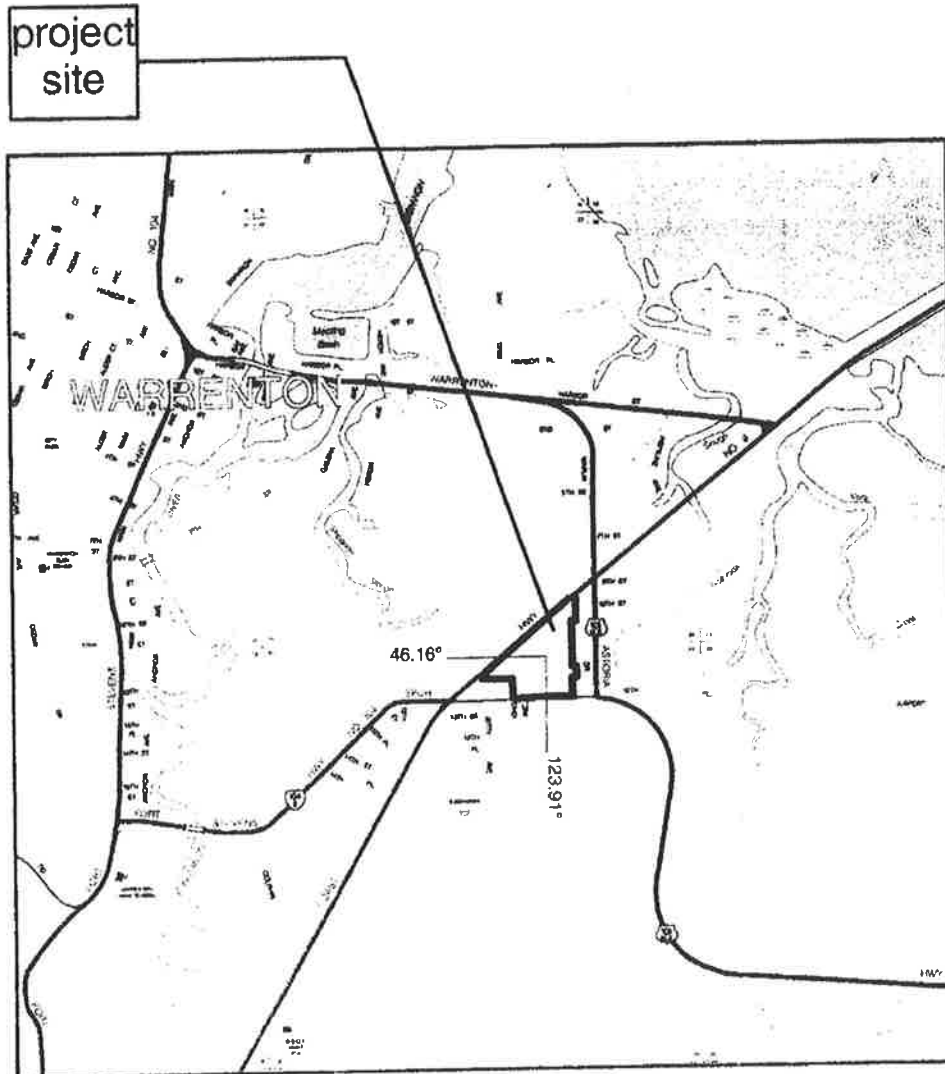
- 23. Release of the Financial Security:** The permit holder shall file a request with the agency for release of this financial security based on the following:
- a. 100% release upon approval of the post-construction report for the Skipanon conservation site documenting two large wood placements, riparian plantings, invasive species plant removal and receipt of Final Long-Term Management Plans for all three conservation sites (Skipanon, Sand Creek, and Scott Wetlands) including spreadsheets justifying the amount of endowment.

**ATTACHMENT B**

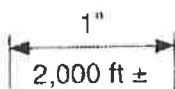
**Permittee: Warrenton Fiber Company**

**Project: Marlin Avenue/Hwy 101 Commercial Development**

**Maps and Drawings for Removal/Fill Permit No. 38988-FP**



base map source: ODOT



Warrenton Fiber Company  
Location map  
Figure 1

2007/05/23





source: GoogleMaps. image © 2007 DigitalGlobe



Warrenton Fiber Company  
Circa 2005 Aerial Photograph  
Figure 5a  
2007 05 23

Figure 3

**ON-SITE FILL PERMIT NOTES**

TOTAL SITE AREA = 17.1 ACRES  
 ON-SITE WETLAND IMPACT AREA = 14.7 ACRES  
 ON-SITE EXCAVATION (CUT) = 28,000 CY  
 ON-SITE FILL = 129,000 CY

**OFF-SITE FILL PERMIT NOTES**

TOTAL OFF-SITE PROJECT AREA = 0.30 ACRES  
 TOTAL WETLAND IMPACT AREA = 0.20 ACRES  
 OFF-SITE EXCAVATION (CUT) = 400 CY  
 OFF-SITE FILL = 1000 CY

**PROJECT TOTALS**

TOTAL PROJECT AREA = 17.4 ACRES  
 TOTAL WETLAND IMPACT AREA = 14.9 ACRES  
 TOTAL EXCAVATION (CUT) = 28,400 CY  
 TOTAL FILL (APPROX.) = 130,000 CY\*\*

\*\* APPROXIMATE TOTAL FILL VOLUME IS BASED ON AN ESTIMATE OF ANTICIPATED FINISH GRADE ELEVATIONS.







**PROPOSED CONTOUR NOTE**

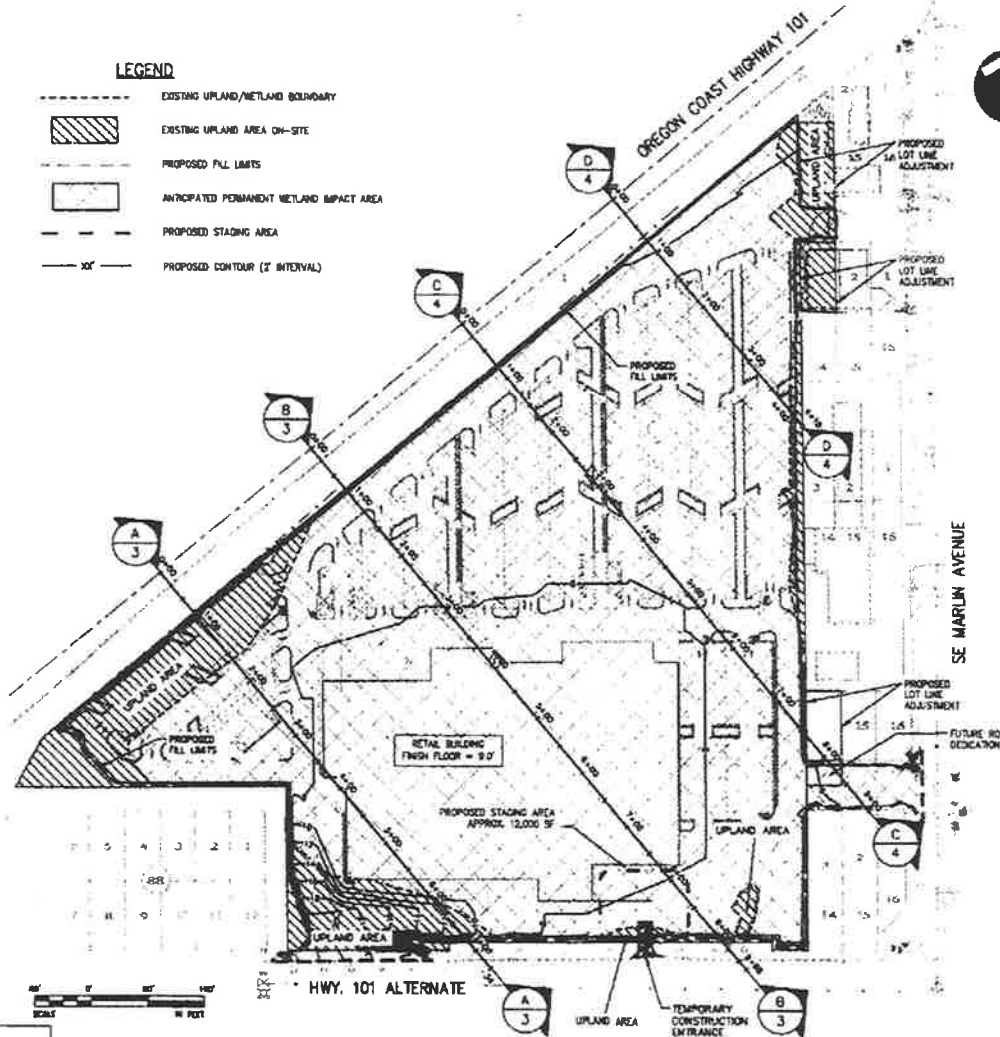
PROPOSED CONTOURS ARE APPROXIMATE ONLY AND WILL CHANGE DURING FINAL SITE DESIGN AND GRADING. THE FILL BOUNDARY DELINEATES THE TOE OF THE PROPOSED FILL AREA.

**GENERAL NOTES**

1. THE PROPOSED FILL LIMITS AREA BASED ON A SCHEMATIC SITE PLAN PROVIDED BY PACLAND DATED JULY 11, 2008.
2. A GEOTECHNICAL ENGINEER SHALL PROVIDE PROPER CUT/FILL METHODS, SURCHARGING REQUIREMENTS AND ON-SITE CONSTRUCTION OBSERVATION DURING CONSTRUCTION.

**LEGEND**

-  EXISTING UPLAND/WETLAND BOUNDARY
-  EXISTING UPLAND AREA ON-SITE
-  PROPOSED FILL LIMITS
-  ANTICIPATED PERMANENT WETLAND IMPACT AREA
-  PROPOSED STAGING AREA
-  PROPOSED CONTOUR (2' INTERVAL)



HALF SCALE DRAWING  
 REDUCED FOR PERMIT SUBMITTAL

NO.	DATE	REVISIONS
1	11/18/08	ISSUE FOR PERMIT SUBMITTAL

**WARRENTON FIBER**  
 FILL PERMIT EXHIBIT  
 PROPOSED FILL PLAN  
 WARRENTON, OREGON

**HLB**  
 Incorporated

38988-FP-02-01  
 PROJECT NUMBER 38988  
 DATE 11/18/08  
 DRAWN BY JLD  
 CHECKED BY JLD  
 PROJECT NO. 38988-FP-02-01  
 SHEET NO. 2  
 TOTAL SHEETS 2

## **APPENDIX I**

*Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Letter, City of Warrenton, February 5, 2021, Scott Hess, Community Development Director*



February 5, 2021

To: Kyle Langeliers, Roby's Furniture  
From: Scott Hess, Community Development Director, City of Warrenton  
Copy: Van Wilfonger, Building Official; Colin Stelzig, Public Works Director; Brian Alsbury, Fire Chief  
Re: January 20, 2021 Pre-application meeting

This memo outlines information identified during the preapplication meeting with you on Wednesday, January 20, 2021. You can use this memo as a checklist to help assure that your application is complete when submitted. Our comments are based on the discussion on January 20, 2021, and on a preliminary Site Plan and narrative materials provided by you via email on January 4, 2021.

The project is proposed on a portion of Tax Lot 081027AB06400 located near Marlin Ave and the Fort Stevens Hwy Spur. It is our understanding that this is a commercial retail store consisting of approximately 28,000 square feet. The property is zoned is zoned **General Commercial (C-1)**.

This proposal is a permitted use in the General Commercial (C-1) zone, and will require site design review per WMC 212.040. The application will be reviewed via a **Type 3** process with a public hearing before the Planning Commission and notice described in WMC 16.208.050. The Community & Economic Development Department performance review time for a Type 3 application from "completeness" to "notice of decision" is 6-8 weeks. Application requirements are listed in WMC 16.216 & 16.220.

Codes referenced below will be used in reviewing the Site Design Review submittal. Staff will ask that you provide a narrative response to the code sections below. Staff can assist with a **template** for that response if necessary.

#### **Planning/Zoning Comments:**

1. Warrenton Municipal Code 16.208.050 Type III Applications provides details needed to satisfy the public notice hearing posting and elements required leading up to Planning Commission
2. WMC 16.121.020 establishes standards for Site Design review applicability. Commercial buildings greater than 10,000 square feet greater require a Type III review with public notice required per Chapter 16.208.040.
3. WMC 16.212.040 explains Site Design elements.
  - a. Street Lights will be required as well as a lighting plan for the site
  - b. Assure that parking lot is lit to increase safety of the rear parking

*"Making a difference through excellence of service"*

4. Design standards for C-1 Zone can be found in Title 16, Division 3. On initial review, this project will be required to conform with the following:
- a. Chapter 16.116 Design Standards: Please review the Architectural Design Standards and provide information on how the design the building meets the basic Building Requirements in 16.116.030 C. Note the Building Massing, Materials, and Mechanical equipment requirements.
  - b. Chapter 16.20 Access and Circulation
  - c. Chapter 16.124 Landscaping, Street Trees, Fences, and Walls
    - i. Chapter 16.124.070 New Landscaping provides information for Landscaping Plans. Basic requirements are 15% of the site shall be landscaped in Commercial Zones
  - d. Chapter 16.128 Vehicle and Bicycle Parking:
    - i. Vehicle Parking - Your use falls into the category of "General Retail", and there is also a standard for "Furniture or appliance repair shop". The higher parking number is 1 space per 350 square feet of retail space, and the lower number is 1 space per 750 square feet of floor space.
    - ii. Landscaped parking aisles will count towards your 15% landscape requirement.
    - iii. Bicycle parking – Required to provide at minimum 2 spaces with 25% long term and 75% short term. Long term parking must be within a lockable enclosure, a secure room in a building onsite, monitored, or another form of sheltering. Placing the bike rack under an awning in a visible location that does not impede pedestrian flow will meet this requirement.
    - iv. Applicants can request a parking reduction as a Class 1 or Class 2 variance, and must provide a written request and a parking analysis provided by a qualified professional/registered engineer. Review 16.128.030.10 for more information.
  - e. Chapter 16.144.040 Signs: This reference is direct to the Commercial Sign Requirements can be handled administratively at building permit, but understanding the requirements will be helpful for you now.
  - f. 16.156 Wetland and riparian corridor development standards: Provide documentation of wetland delineation and mitigation done within the overall site development by the current owners. Explain how your project meets those requirements set forth in the State's permit.
  - g. 16.192 Large-Scale Developments: This section of code largely refers to other areas, with a key exception of requiring Soil Suitability analysis if needed. It is possible that this work was done with the development of Tractor Supply, and whether it covered the entire site.
5. The Planning Commission meets on the second Thursday of each month. Your completed application materials need to be submitted at least **five weeks ahead** of the meeting date.

#### **Building Department Comments:**

- 1. The plans, as provided, are conceptual in nature and contain insufficient information to provide comprehensive Building Department comments at this time.
- 2. Building Department Review and Building Permit submittal are the final step in the Land Use approval process. The project must clear all Planning and Zoning, and Public Works comments prior to submittal for a Building Permit.

## Public Works Comments:

Public Works understands that a new furniture store is proposed on a portion of Tax Lot 081027AB06400. With this information, staff at public works has provided the following items that will need to be addressed in your design and planning documents:

1. The developer is required to follow the City of Warrenton Development Standards. These standards can be found in Title 16 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet that standards set forth in the development code. Below is a link to the Development Code  
<http://qcode.us/codes/warrenton/view.php?topic=16&frames=on>
2. The developer must follow the City's Water and Sewer Regulations. These regulations are included under Title 13 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet that standards set forth in the development code. Below is a link to the Title 13 of our Code:  
<http://qcode.us/codes/warrenton/view.php?topic=13&frames=on>
3. The developer is required to follow the Engineering Standards & Design Criteria Manual. Please provide documentation showing how the development meets the standards set forth in this manual. This manual can be found at the  
<http://www.ci.warrenton.or.us/publicworks/page/engineering-specifications-design-guide>
4. Sewer services for commercial projects shall be a minimum of 6" diameter.
5. Water meter and service connections will be installed by the owner/contractor.
6. All commercial property shall have a backflow device at the meter for premise isolation.
7. The City will need an easement at meter and vault locations if on private property.
8. Sidewalks shall be a minimum of 5 feet wide and shall meet ODOT standards.
9. Street lights are required for all new developments. Show proposed street light locations and submit plan to Pacific Power & Light for circuit design.
10. Please work with the Fire Chief to determine appropriate Fire hydrant spacing for this development. Developer team is responsible for determining if fire flows are available at this location. This can include hydrant testing and/or water modeling.
11. All on-site driveways, parking areas, aisles and turn-a-rounds shall have on-site collection or infiltration of surface waters to eliminate sheet flow of such waters onto public rights-of-way and abutting property. Surface water facility plans shall be prepared by a qualified engineer and constructed in accordance with City standards. Stormwater report shall detail pre and post stormwater conditions, including the adjacent ROWs and flows from existing storm system.
12. The City has design standards for refuse enclosures that include the required turning radius and access standard. Current design does not appear to show refuse or recycling services?
13. Existing flood elevation are 12' NAVD, Future flood elevations could be near 13' NAVD.

## Fire Department Comments:

Based on the information provided, the Fire Department has the following comments.

### ACCESS:

With plans submitted, it appears that adequate access has been provided. Fire department is requesting that the East end of property (closest to loading dock) that the curb be painted red and labeled "NO PARKING-FIRE LANE" every 6 feet, from the Southeast corner to the Northeast corner. Building access with key must be provided, this will be in a Supra Box affixed to the exterior of building next to the

sprinkler riser room. Please see attached page with Supra Box ordering details. Provide and affix to the building-BUILDING INFORMATION SIGN-please read attached appendix J Oregon Fire Code.

**WATER SUPPLY:**

Hydrants-Please provide the following information:

Waterflows from hydrants located on the NW and SE property, please see page #2 for a list of vendors that can complete this. Hydrant locations and distance all appear to be in good locations. FDC will be located on the NE corner of property within 15 feet of hydrant (see plans for location). FDC must have locking caps with key. Please see attached for ordering information from KNOX FDC caps.

**ADDRESS:**

The address number also be located on the drive isle on the NW corner (front entrance) with numbers that contrast from the building color and that are no smaller than 6 inches in height.

**MISC:**

*Please provide the Fire Dept with water flow and fire flow calcs.*

**Hydrant Flow Testing:**

Red Hawk Fire Protection  
3801 NW Fruit Valley Rd Suite D, Vancouver, WA 98660  
(360)984-3712

Wvatt Fire Protection  
9095 SW Burnham St, Tigard, OR 97223  
(503) 684-2928

Delta Fire, Inc  
14795 SW 72nd Ave, Portland, OR 97224  
(503) 620-4020

Viking Fire Protection  
3245 NW Front Ave, Portland, OR 97210  
(503)227-1171

Basic Fire Protection  
8135 NE MLK Jr. Blvd, Portland, OR 97211  
(503)2850713

**Estimated Permit Fees & SDCs**

Grading permits and engineering design are reviewed by a third-party consultant and requires a deposit and direct charge for services. This will be calculated at the time of submittal.

Site Design Review: Planning Commission 25001-30000sqft	\$ 1750
Variance (if desired for parking reduction):	\$ 500 Class 1 or \$ 1250 Class 2

**Systems Development Charge:**

*The City will collect systems development charges when building permits are issued. Below is an estimate based on the submitted plan set:*

SDC	Cost	Factor	Cost
Water Meter	\$ 3,296.00	1" meter	\$ 3296.00
Wastewater	\$ 3,294.00	1" meter	\$ 3294.00
Storm Water	\$ 157.00	(factor)	\$
Transportation		(trip gen)	
Per PHPT	\$ 527.22		\$
Parks	\$ 0.00		\$
<b>TOTAL</b>			<b>\$</b>

*\*You have indicated that your store is approximately 28,000 square feet with 23,000 of that being used for general retail space. In order to best calculate your SDC fee, I would like to confer with my City Engineer and Public Works Director on the Storm Water factor and Trip Generation factor rather than provide an incorrect estimate in this Pre-App memo. I will follow-up with additional information.*

Final SDCs will be calculated per approved plans at building permit issuance.

**Please use this letter as a checklist for your land use submittal.**

If you have any questions about the requirements or any City related issues, please contact Scott Hess at [shess@ci.warrenton.or.us](mailto:shess@ci.warrenton.or.us) or 503-861-0920.



## **APPENDIX K**

*Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Memorandum, Warrenton Fire Department, February 5, 2021, Brian Alsbury, Fire Chief*



# Warrenton Fire Department

P.O. Box 250 Warrenton, OR 97146-0250 (503) 861-2494 Fax 503/861-2351  
225 S. Main Warrenton, Or 97146-0250

## MEMORANDUM

**To:** Scott Hess, Community Development Director  
**Date:** February 5, 2021  
**From:** Brian Alsbury, Fire Chief  
**Re:** Roby's Furniture and Appliance

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Based on the information provided, the Fire Department has the following comments.

### ACCESS:

With plans submitted, it appears that adequate access has been provided. Fire department is requesting that the East end of property (closest to loading dock) that the curb be painted red and labeled "NO PARKING-FIRE LANE" every 6 feet, from the Southeast corner to the Northeast corner. Building access with key must be provided, this will be in a Supra Box affixed to the exterior of building next to the sprinkler riser room. Please see attached page with Supra Box ordering details. Provide and affix to the building-BUILDING INFORMATION SIGN-please read attached appendix J Oregon Fire Code.

### WATER SUPPLY:

Hydrants-Please provide the following information:  
Waterflows from hydrants located on the NW and SE property, please see page #2 for a list of vendors that can complete this. Hydrant locations and distance all appear to be in good locations. FDC will be located on the NE corner of property within 15 feet of hydrant (see plans for location). FDC must have locking caps with key. Please see attached for ordering information from KNOX FDC caps.

### ADDRESS:

The address number also be located on the drive isle on the NW corner (front entrance) with numbers that contrast form the building color and that are no smaller than 6 inches in height.

### MISC:

Please provide the Fire Dept with water flow and fire flow calcs.

-Hydrant Flow Testing-

**Red Hawk Fire Protection**

3801 NW Fruit Valley Rd Suite D, Vancouver, WA 98660  
(360) 984-3712

**Wyatt Fire Protection**

9095 SW Burnham St, Tigard, OR 97223  
(503) 684-2928

**Delta Fire, Inc**

14795 SW 72nd Ave, Portland, OR 97224  
(503) 620-4020

**Viking Fire Protection**

3245 NW Front Ave, Portland, OR 97210  
(503) 227-1171

**Basic Fire Protection**





8135 NE MLK Jr. Blvd, Portland, OR 97211  
(503) 285 0713



## Rapid Entry System Order Form

**This form must be filled out completely or your order will be delayed.**

- |  |   |
|--|---|
| 1. Orders must be prepaid.                             | 4. Submit order via: Fax: 800.547.2111  |
| 2. Fill in your billing and shipping address.          | Email: <a href="mailto:alejandra.gatica@kiddeus.com">alejandra.gatica@kiddeus.com</a> |
| 3. Contact your fire department for their system code. | Mail: Kidde Safety, 1016 Corporate Park Drive, Mebane, NC 27302                       |

All Kidde Safes come with black polyester textured powder paint, wall anchors and bolts. Optional through-wall mounting kits are recommended for non-recessed units for higher security.		QTY.	PRICE	TOTAL
 <b>SupraSafe 2HS</b> Heavy Duty — 1/4" steel walls & door 5"H x 4"W x 3-1/4"D	SupraSafe 2HS		\$194.00	
	SupraSafe 2HS/TS Tamper switch connects to building alarm		\$234.00	
	SupraSafe 2HS/TS through-wall mounting kit		\$14.00	
 <b>SupraSafe 2HSR</b> Heavy Duty — 1/4" steel walls & door 5"H x 4"W x 3-1/4"D with 7" x 7" flange	SupraSafe 2HSR		\$234.00	
	SupraSafe 2HSR/TS Tamper switch connects to building alarm		\$274.00	
	SupraSafe 2HSR/TS (recessed mounting kit for masonry or concrete walls)		\$69.00	
 <b>SupraSafe 1 (1 to 2 keys only)</b> 1/8" steel walls & door Tamper switch not available on this model. 3"H x 4"W x 2"D	SupraSafe 1		\$147.00	
	SupraSafe 1 through-wall mounting kit		\$14.00	
 <b>Supra Max (for residential use only)</b> Durable zinc alloy construction 3-5/8"H x 4-5/8"W x 2-1/8"D	Supra Max with door mount hanger		\$90.00	
	Supra Max wall mount		\$79.00	
	Supra Max through-wall mounting kit		\$19.00	
Accessories: Additional fire alert decals (one provided with every lock box)			\$2.00	

### Fire Department Rapid Entry Systems Ordering Instructions

- All Lock Boxes are shipped without keys. Contact the Fire Department for information concerning keys and lockup. Mounting Instructions for Lock Boxes Included with your order. Allow approximately 2-3 weeks for delivery.
- Please contact your fire department for specific instructions on where to mount the Lock Box.

	Subtotal	
Processing & Handling:	1 unit \$10 * 2-4 units \$20 * 5-8 units \$40	
	9-12 units \$60 * 13 or more \$110	
	Add state and local sales tax for ship-to address (If tax-exempt, must include Tax Exempt Form or Resale cert.)	
	Grand total	

### Registered Fire Department information:

Dept. Name: Warren Fire Dept.  
 City/State/Zip: Warren OR 97146  
 Dept. System Code: QB 892  
 Authorized Signature: \_\_\_\_\_  
 (May be required, check with Fire Department)

### Ship to:

Company/Name: \_\_\_\_\_

Physical Street Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

County: \_\_\_\_\_

Attention: \_\_\_\_\_

Prices are subject to change and are valid as of August 1st, 2014.

<p>If Paying by credit card see below:          Would you like us to call you for credit card information? Y / N          Phone Number _____          Payment: <input type="checkbox"/> VISA <input type="checkbox"/> MasterCard <input type="checkbox"/> AMEX          Credit Card # _____          Expires _____ Signature _____          Today's Date _____ Print Name _____</p> <p><b>If paying by check, please attach to order.</b>  <b>Mails payable to Kidde Safety. Mail to: Kidde Safety, PO Box 90370          Chicago, IL 60696-0370</b></p>
--

### Credit card billing address:

Company / Name: \_\_\_\_\_

Physical Street Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

# Rapid Entry System

Instant fire department access without damaging the door or building

The Rapid Entry System is designed to help fire departments and businesses work together to preserve lives and property. It eliminates the need for fire department officials to maintain and carry cumbersome key rings with hundreds of building keys.

## Here's how the Rapid Entry System works:

1. The building owner purchases the Lock Box of his choice and mounts it securely near the entrance. Fire department officials lock the building keys in the Lock Box.
2. To ensure absolute security, Kidde has developed a flexible program for shipping Lock Boxes directly to building owners. Special security keys are supplied only to authorized fire department officials.
3. When a fire alarm sounds at night or on the weekend, the fire department has instant access to the building. Access is fast, easy and safe without the need for the building owner or tenant to drive to the site after hours.

## Kidde — a name you can trust:

Safe and secure. Keys that open the Lock Boxes are provided exclusively by Kidde. Our SupraSafe 2 High Security units are UL certified antitheft devices. All SupraSafes are steel construction with locking systems designed to withstand attack. Optional tamper switches can be integrated with a building's alarm system.

The SupraSafe line offers a variety of sizes, styles and features. Building owners can custom-tailor a Rapid Entry System to meet their needs.

Toll-free product support. You have the resources of the world's largest lock box manufacturer and the backing of Kidde.

Help make it safer for the fire department to protect property and reduce injuries; avoid the expense of replacing a costly door or window due to unnecessary forced entry.



Costly damage of forced entry is eliminated when building keys are stored securely near entrances.

**J101.1.4 Sign size and lettering.** The minimum size of the building information sign and lettering shall be in accordance with the following:

1. The width and height shall be 6 inches by 6 inches (152 mm by 152 mm).
2. The height or width of each Maltese cross wing area shall be 1 1/8 inches (29 mm) and have a stroke width of 1/2 inch (13 mm).
3. The center of the Maltese cross, a circle or oval, shall be 3 inches (76 mm) in diameter and have a stroke width of 1/2 inch (6 mm).
4. All Roman numerals and alphabetic designations, shall be 1 1/4 inch (32 mm) height and have a stroke width of 1/4 inch (6 mm).

**J101.2 Sign designations.** Designations shall be made based upon the construction type, content, hazard, fire protection systems, life safety and occupancy. Where multiple designations occur within a classification category, the designation used shall be based on the greatest potential risk.

**J101.3 Construction type (top wing).** The construction types shall be designated by assigning the appropriate Roman numeral, and letter, placed inside the top wing of the Maltese cross. The hourly rating provided is for the structural framing in accordance with Table 601 of the *International Building Code*,

CONSTRUCTION TYPE	FIRE-RESISTANCE RATING
IA—Noncombustible	3 Hours
IB—Noncombustible	2 Hours
IIA—Noncombustible	1 Hour
IIB—Noncombustible	0 Hours
IIIA—Noncombustible/combustible	1 Hour
IIIB—Noncombustible/combustible	0 Hours
IV—Heavy timber (HT)	HT
VA—Combustible	1 Hour
VB—Combustible	0 Hours

**J101.4 Fire protection systems (right wing).** The fire protection system shall be designated by determining its level of protection and assigning the appropriate designation to the right wing of the Maltese cross. Where multiple systems are provided, all shall be listed:

- AS Automatic sprinkler system installed throughout
- DS Dry sprinkler system and designated areas
- FA Fire alarm system
- FP Fire pump
- FW Fire wall and designated areas
- PAS Pre-action sprinkler system and designated floor
- PS Partial automatic sprinkler system, and designate floor
- CES Chemical extinguishing system and designated area
- CS Combination sprinkler and standpipe system

- S Standpipe system
- NS No system installed

**J101.5 Occupancy type (bottom wing).** The occupancy of a building or structure shall be designated in accordance with the occupancy classification found in Section 302.1 of the *International Building Code* and the corresponding designation shall be placed in the bottom wing of the Maltese cross. When a building or structure contains a mixture of uses and occupancies; all uses and occupancies shall be identified.

- A Assembly
- B Business
- E Educational
- F Factory or Industrial
- H High Hazard
- I Institutional
- M Mercantile
- R Residential

**J101.6 Hazards of content (left wing).** The hazards of building contents shall be designated by one of the following classifications as defined in NFPA 13 and the appropriate designation shall be placed inside the left wing of the Maltese cross:

- LH Light hazard
- MH Moderate hazard
- HH High hazard

**J101.7 Tactical considerations (center circle).** The center circle shall include the name of the local fire service and when required the letters TC for tactical considerations. When fire fighters conduct preplan operations, a unique situation(s) for tactical considerations shall be identified and the information provided to the fire dispatch communications center to further assist fire fighters in identifying that there is special consideration(s) for this occupancy. Special consideration designations include, but are not limited to:

1. Impact-resistant drywall.
2. Impact-resistant glazing, such as blast or hurricane-type glass.
3. All types of roof and floor structural members including but not limited to post-tension concrete, bar joists, solid wood joists, rafters, trusses, cold-formed galvanized steel, I-joists and I-beams; green roof with vegetation, soil and plants.
4. Hazardous materials (explosives, chemicals, plastics, etc.).
5. Solar panels and DC electrical energy.
6. HVAC system; and smoke management system for pressurization and exhaust methods.
7. Other unique characteristic(s) within the building that are ranked according to a potential risk to occupants and fire fighters.

## APPENDIX J

# BUILDING INFORMATION SIGN

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION J101 GENERAL

**J101.1 Scope.** New buildings shall have a building information sign(s) that shall comply with Sections J101.1.1 through J101.7. Existing buildings shall be brought into conformance with Sections J101.1 through J101.9 when one of the following occurs:

1. The fire department conducts an annual inspection intended to verify compliance with this section, or any required inspection.
2. When a change in use or occupancy has occurred.

**Exceptions:**

1. Group U occupancies.
2. One- and two-family dwellings.

**J101.1.1 Sign location.** The building information sign shall be placed at one of the following locations:

1. Upon the entry door or sidelight at a minimum height of 42 inches (1067 mm) above the walking surface on the address side of the building or structure.
2. Upon the exterior surface of the building or structure on either side of the entry door, not more than than 3 feet (76 mm) from the entrance door, at a minimum

height of 42 inches (1067 mm) above the walking surface on the address side of the building or structure.

3. Conspicuously placed inside an enclosed entrance lobby, on any vertical surface within 10 feet (254 mm) of the entrance door at a minimum height of 42 inches (1067 mm) above the walking surface.
4. Inside the building's fire command center.
5. On the exterior of the fire alarm control unit or on the wall immediately adjacent to the fire alarm control unit door where the alarm panel is located in the enclosed main lobby.

**J101.1.2 Sign features.** The building information sign shall consist of:

1. White reflective background with red letters;
2. Durable material;
3. Numerals shall be Roman or Latin numerals, as required, or alphabet letters; and
4. Permanently affixed to the building or structure in an approved manner.

**J101.1.3 Sign shape.** The building information sign shall be a Maltese cross as shown in Figure J101.1.3

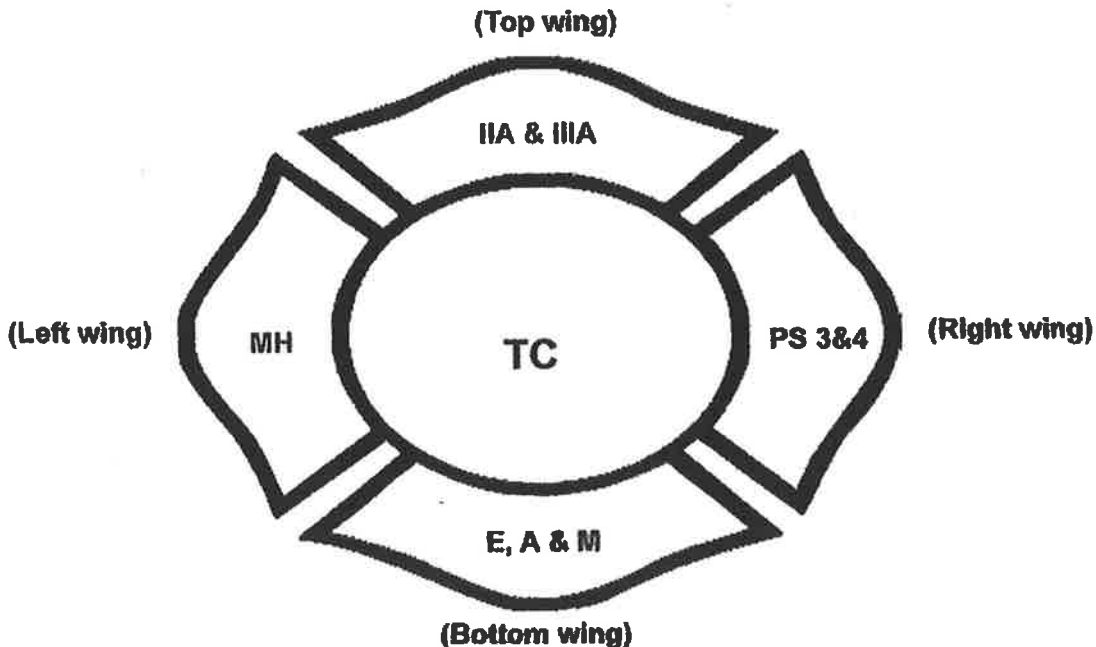


FIGURE J101.1.3  
EXAMPLE OF COMPLETED BUILDING INFORMATION SIGN

## **APPENDIX L**

*Reduced Sized Drawings (11" X 17")*



**CIVIL DRAWING INDEX**

- C1.0 COVER SHEET
- C2.0 GENERAL PROJECT NOTES & ABBREVIATIONS
- C3.0 STANDARD CITY OF WARRENTON NOTES
- C4.0 COMMERCIAL SITE DESIGN
- C4.1 EXISTING CONDITIONS & TOPOGRAPHY
- C5.0 SITE DRAINAGE & GRADING PLAN
- C6.0 SITE FILL, SURCHARGE, & PRELOADING PLAN
- C6.1 SITE EXCAVATION PLAN
- C6.2 EXCAVATION/STRUCTURAL FILL/SURCHARGE CROSS SECTIONS & DETAILS
- C6.3 DETAILS - RETAINING WALLS & PAVEMENT CROSS-SECTIONS
- C7.0 DRIVE ENTRANCES AND SITE UTILITIES (WATER, SEWER AND CONDUITS)
- C7.1 DETAILS - UTILITIES
- C8.0 STORE ENTRANCES & ACCESS WAYS
- C8.1 TRUCK MANEUVERING/TRACKING DIAGRAM
- C9.0 LANDSCAPING & LIGHTING PLAN
- C10.0 DETAILS - WATER SERVICE, DOMESTIC AND FIRE
- C11.0 STORMWATER DRAINAGE--PLAN & PROFILES
- C11.1 DETAILS - STORMWATER WATER QUALITY TREATMENT FACILITIES
- C12.0 DETAILS - ROADS/SIDEWALKS & CURBS
- C13.0 DETAILS - ADA SIDEWALK & CURB RAMPS
- C14.0 ESCP - COVER
- C14.1 ESCP - GENERAL NOTES
- C14.2 ESCP - PHASE I & II
- C14.3 ESCP - BUILDING CONSTRUCTION
- C14.4 ESCP - ODOT DETAILS

**STRUCTURAL DRAWING INDEX**

- S1.0 SITE PLAN
  - S2.0 SITE SURCHARGE PRELOADING PLAN
  - S3.0 FOUNDATION PLAN
  - S4.0 MEZZANINE & RESTROOM PLANS
  - S5.0 ROOF PLAN & ROOF DIAPHRAGM SCHEMATIC
  - S6.0 EXTERIOR ELEVATIONS
  - S7.0 BUILDING SECTIONS & WEST WALL FRAMING
  - S8.0 FOUNDATION/FRAMING SECTIONS & DETAILS
  - S9.0 FOUNDATION & FRAMING DETAILS
- SUBMITTED SEPARATELY**

# ROBY'S FURNITURE

WARRENTON, OREGON



## STRICKER Engineering

**UTILITY PROVIDERS:**

**CITY OF WARRENTON**  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-0917

**WATER & SANITARY SEWER**  
CITY OF WARRENTON  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-0917

**ELECTRICITY**  
PACIFIC POWER  
ATTN: MARILYN BROCKEY  
2340 SE DOLPHIN  
WARRENTON OREGON 97146  
503-861-6005

**CABLE TELEVISION**  
CHARTER SPECTRUM COMMUNICATIONS  
ATTN: VINNY BILLECI  
419 GATEWAY AVENUE  
ASTORIA OREGON 97103  
503-338-7710

**GAS**  
NW NATURAL GAS  
ATTN: RICH GIRARD  
220 NW 2ND AVE  
PORTLAND OREGON 97209  
503-226-4211 EXT. 2980  
503-261-6169 (CELL)

**TELEPHONE**  
CENTURY LINK  
ATTN: MIKE MEISNER  
481 INDUSTRY  
ASTORIA OREGON 97103  
503-242-7676

**ONE CALL CENTER**  
1-800-332-2344 OR 81



**PROJECT TEAM:**

**OWNER:**  
WARRENTON PROPERTY INVESTMENTS, LLC  
5111 N. COAST HIGHWAY, NEWPORT, OR 97365  
CONTACT: KYLE LANGUIERS, REGIONAL MANAGER  
PHONE: (503) 812-8267

**PROJECT ENGINEER:**  
STRICKER ENGINEERING  
PO BOX 366 GARIBALDI, OR 97118  
CONTACT: JOHN DOYLE, PRESIDENT  
PHONE: (503) 322-2442

**CIVIL DESIGN:**  
YOUNGS RIVER ENGINEERING, LLC  
91290 YOUNGS RIVER RD. ASTORIA, OR 97103  
CONTACT: GEOFFREY LIJENWALL, P.E.  
PHONE: (503) 791-3010

**GEOTECHNICAL ENGINEER:**  
TERRA ASSOCIATES, INC.  
12220 113TH AVE, STE 130, KIRKLAND, WA 98034  
CONTACT: JOHN SADLER, SENIOR ENGINEERING GEOLOGIST  
THEODORE SCHEPPER, P.E., PRINCIPAL  
PHONE: (425) 821-4334

**ENVIRONMENTAL CONSULTANT:**  
BRIDGEWATER GROUP  
COMMERCE PLAZA, SUITE 235, 7100 HAMPTON ST. TIGARD, OR 97223  
CONTACT: JUSTIN POUNDS, RG  
PHONE: (503) 675-5252

**CONSTRUCTION CONTRACTOR (SITE WORK):**  
BIG RIVER CONSTRUCTION, INC.  
35064 HIGHWAY 101 BUSINESS ASTORIA, OR 97103  
CONTACT: PHIL GAFFNEY  
PHONE: (503) 338-3878

**GENERAL NOTES:**

1. PROPOSED DEVELOPMENT: COMMERCIAL/RETAIL STORE, HOME FURNITURE & APPLIANCES
2. GENERAL LOCATION: WARRENTON, OREGON BETWEEN HIGHWAY 101 AND MARLINE AVE ON NORTH SIDE OF HIGHWAY 101 ALTERNATE.
3. PROPOSED BUILDING: 27,500 SQ. FT FABRICATED STEEL STRUCTURE WITH WOOD SIDING & METAL ROOF
4. SITE ZONING: COMMERCIAL, C-1

**REFERENCE DATUM:**

STATION INDEX ID: PID SC0559'

DATUM: NAVD 88  
ELEVATION: 8.36 FT

LOCATION: BETWEEN HIGHWAY 101 & MARLIN AVE. ON NORTH SIDE OF  
ALT. HIGHWAY 101. T.C. #81027 AB06900, T8N, R10W, SECTION 27  
LATITUDE 46.153934, LONGITUDE -123.906084



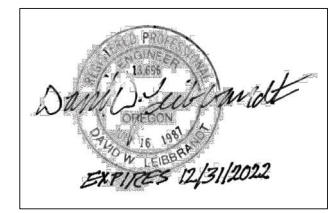
**SITE LOCATION MAP (NTS)**



**SITE VICINITY MAP (NTS)**

REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



D:\Warrenton Projects\Roby's\Working\C1.0 - COVER SHEET.dwg Plotted: Jun 01, 2021 - 12:18pm By: Geoff

ROBY'S FURNITURE  
COVER SHEET  
WARRENTON, OREGON

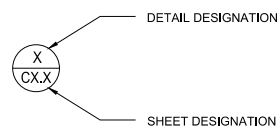
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ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:  
**C1.0**  
361

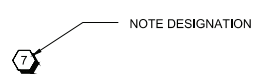
**PERMIT SET**

# ABBREVIATIONS

ABAN(D)	ABANDON(ED)	PC	POINT OF CURVATURE
APPROX	APPROXIMATELY	PERP	PERPENDICULAR
APPWD	APPROVED	PL	PROPERTY LINE
AWWA	AMERICAN WATER WORKS ASSOCIATION	POC	POINT OF CURVATURE
		POT	POINT OF TANGENCY
BCR	BEGIN CURB RETURN	PROP	PROPOSED
BFILL	BACKFILL	PT	POINT OF TANGENCY
BLDG	BUILDING	PVC	POLYVINYLE CHLORIDE
BRK	BREAK	PVI	POINT OF VERTICAL INTERSECTION
BTM	BOTTOM		
BVC	BEGIN VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
BVCE	BEGINNING VERTICAL CURVE ELEVATION	RD	ROAD
BVCS	BEGINNING VERTICAL CURVE STATION	RDCR	REDUCER
		RDWY	ROADWAY
€	CENTER LINE	REINF	REINFORCE(D)(IN)(MENT)
CB	CATCH BASIN	RESTR	RESTRAIN(ED)
CDF	CONTROLLED DENSITY FILL	REQ'D	REQUIRED
CI	CAST IRON	RT	RIGHT
CL	CLASS	RW	RIGHT OF WAY
CLR	CLEARANCE		
CONC	CONCRETE	SCHED	SCHEDULE
CONST	CONSTRUCTION	SD	STORM DRAIN
COORD	COORDINATE	SDMH	STORM DRAIN MANHOLE
CR	CRUSHED ROCK	SHT(S)	SHEET(S)
CSP	CONCRETE SEWER PIPE	SL	SLOPE
CY	CUBIC YARD	SPECS	SPECIFICATIONS
CU	COPPER	SQ	SQUARE
		SQ FT	SQUARE FEET
DET	DETAIL	SRVC	SERVICE
DI	DUCTILE IRON	SS	SANITARY SEWER
DIA	DIAMETER	SSCO	SANITARY SEWER CLEAN OUT
DIM	DIMENSION	SSMH	SANITARY SEWER MANHOLE
DWG	DRAWING	SST	STAINLESS STEEL
DWY	DRIVEWAY	STA	STATION
		STL	STEEL
EA	EACH	STD	STANDARD
ECR	END CURB RETURN	S/W	SIDEWALK
EL/ELEV	ELEVATION		
EOP	END OF PAVEMENT	T, TEL	TELEPHONE
EQ	EQUAL	TEMP	TEMPORARY
EVC	END VERTICAL CURVE	THK	THICKNESS
EVCE	END VERTICAL CURVE ELEVATION		
EVCS	END VERTICAL CURVE STATION	THRU	THROUGH
EXIST	EXISTING	TYP	TYPICAL
EXIST GR	EXISTING GRADE		
		VERT	VERTICAL
FO	FIBER OPTIC	VC	VERTICAL CURVE
FLG	FLANGE		
		W	WATER
G	GAS	W/	WITH
GALV	GALVANIZED	W/IN	WITHIN
GEN	GENERAL	W/O	WITHOUT
GR	GRAVEL	WSVC	WATER SERVICE
GV	GATE VALVE		
HP	HIGH POINT		
HWY	HIGHWAY		
IE	INVERT ELEVATION		
INSTL	INSTALL		
JT(S)	JOINT(S)		
L	LENGTH		
LOC	LOCATION		
LF	LINEAR FOOT		
LP	LOW POINT		
LT	LEFT		
LVC	LENGTH OF VERTICAL CURVE		
MATL(S)	MATERIAL(S)		
MAX	MAXIMUM		
MECH	MECHANICAL		
MFR	MANUFACTURER		
MH	MANHOLE		
MIN	MINIMUM		
MJ	MECHANICAL JOINT		
NTS	NOT TO SCALE		
NIC	NOT IN CONTRACT		
OC	ON CENTER		
OD	OUTSIDE DIAMETER		
ODOT	OREGON DEPARTMENT OF TRANSPORTATION		



### DETAIL DESIGNATION



- NOTE:
- DESIGNATION NUMBER CALLS OUT NOTES ON CURRENT SHEET.
  - NOTES ARE NOT INTERCHANGEABLE BETWEEN SHEETS.

### NOTE DESIGNATION

# GENERAL NOTES

- ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF WARRENTON AND THE 2021 OREGON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION INCLUDING SUPPLEMENTS. IN THE EVENT OF A CONFLICT BETWEEN WARRENTON POLICIES AND REGULATIONS AND THE OREGON STANDARD SPECIFICATIONS, THE MORE STRINGENT SHALL CONTROL UNLESS OTHERWISE DIRECTED BY THE CITY OF WARRENTON.
- CONTRACTOR SHALL NOTIFY THE CITY AND ALL UTILITY COMPANIES A MINIMUM OF 72 BUSINESS HOURS (3 BUSINESS DAYS) PRIOR TO THE START OF CONSTRUCTION OR RESUMING WORK AFTER SHUTDOWNS EXCEPT FOR NORMAL RESUMPTION OF WORK AFTER SUNDAYS OR HOLIDAYS. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF ORS 757.541 TO 757.571.
- CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET APPLICABLE AGENCY REQUIREMENTS AND PROVIDE A COMPLETED PROJECT TO THE START OF CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES PRIOR TO THE START OF CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE ALL BONDS AND INSURANCE REQUIRED BY PUBLIC OR PRIVATE AGENCIES HAVING JURISDICTION, INCLUDING THE CITY OF WARRENTON.
- UNLESS OTHERWISE APPROVED BY THE CITY OF WARRENTON, CONSTRUCTION OF IMPROVEMENTS SHALL BE DONE BETWEEN 7:00 A.M. AND 6:00 P.M., MONDAY THROUGH SUNDAY.
- ANY INSPECTION BY CITY STAFF SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
- THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF APPROVED DRAWINGS ON THE CONSTRUCTION SITE AT ALL TIMES WHEREON HE WILL RECORD ANY APPROVED DEVIATIONS IN CONSTRUCTION FROM THE APPROVED DRAWINGS, AS WELL AS THE STATION LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE CITY UPON REQUEST.
- SUBMITTALS SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION IN ACCORDANCE WITH CITY REQUIREMENTS.
- MAINTENANCE BOND--CONTRACTOR SHALL SUBMIT A SUITABLE MAINTENANCE BOND PRIOR TO FINAL PAYMENT WHERE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.
- "CITY" REFERS TO CITY OF WARRENTON, OREGON.
- EXISTING CONDITIONS--CONTRACTOR SHALL VERIFY EXISTING PROJECT SITE CONDITIONS RELATIVE TO PROPOSED IMPROVEMENT DESIGNS AND REPRESENTATIONS SHOWN ON THE PLANS. CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER OR CITY OF ANY DISCREPENCIES, CONFLICTS OR UNCERTAINTIES THAT MAY EFFECT THE WORK. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK IN QUESTION UNTIL APPROPRIATE CLARIFICATIONS HAVE BEEN MADE BY THE ENGINEER OR THE CITY. DOING SO SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST SHOULD RE-WORK OR CORRECTIONS BE REQUIRED.
- APPLICABLE STANDARDS--ALL WORK IN PUBLIC RIGHTS-OF-WAY SHALL BE COMPLETED IN FULL ACCORDANCE WITH ALL CURRENT CITY STANDARDS, HEREIN REFERENCED OREGON STANDARDS AND OTHER APPLICABLE INDUSTRY STANDARDS, INCLUDING BUT NOT LIMITED TO: AWWA, APWA, ASTM, IBC, UPC, AASHTO, DOT-MUTCD AND IFC.
- GEOTECHNICAL ENGINEERING REPORT--A SITE SPECIFIC GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED FOR THE PROJECT: "GEOTECHNICAL REPORT, ROBY'S FURNITURE, FORT STEVENS HIGHWAY (HWY 101 BUSINESS) AND SE MARLIN DRIVE, WARRENTON, OREGON, BY TERRA ASSOCIATES, INC., APRIL 12, 2021. THE CONTRACTOR SHALL MAINTAIN A COPY OF THIS REPORT ON THE PROJECT SITE AT ALL TIMES. THE RECOMMENDATIONS OF THIS REPORT HAVE BEEN INCORPORATED INTO THE PROJECT'S DESIGNS AND THE CONTRACTOR IS REQUIRED TO FAMILIARIZE THEMSELVES WITH THE INFORMATION, ANALYSIS, FINDINGS AND RECOMMENDATIONS PRESENTED THEREIN. THE PROVISIONS OF THIS REPORT THAT RELATE TO EXPECTED CONSTRUCTION ACTIVITIES, PROCEDURES AND TECHNIQUES SHALL BE ACCEPTED AS APPLICABLE SPECIFICATIONS AS IF INCORPORATED DIRECTLY HEREIN.
- ON-SITE GEOTECHNICAL TESTING--THE CONTRACTOR SHALL PROVIDE ALL FIELD TESTING RECOMMENDED TO CONFIRM SUITABLE FOUNDATION CONDITIONS, AND SHALL CONDUCT POTHOLES IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER, TO DETERMINE THE SUITABILITY OF EXISTING ROCK FILL TO SERVE AS STRUCTURAL FILL. THE HEREIN REFERENCED GEOTECHNICAL REPORTING RECOMMENDATIONS RELATED TO EXCAVATION, STRUCTURAL FILL PLACEMENT AND SURCHARGE MATERIAL PLACEMENT AND MONITORING, SHALL BE CONSIDERED AS PROJECT TECHNICAL SPECIFICATIONS IN FULL EFFECT AS PART OF PROJECT DESIGNS REPRESENTED IN THESE PLANS.
- COMPACTION TESTING--THE CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING SERVICES FOR REQUIRED COMPACTION TESTING AND SURVEYING SERVICES FOR SITE BASELINES, FACILITIES LAYOUTS AND MONITORING OF SURCHARGE SETTLEMENT. ONLY AFTER THE GEOTECHNICAL ENGINEER HAS CONFIRMED IN WRITING, THAT REQUIRED SITE SURCHARGING/PRELOADING IS COMPLETE, SHALL SURFACE CONSTRUCTION PROCEED. INITIAL GEOTECHNICAL TESTING SHALL BE AT THE DEVELOPER'S EXPENSE. THE COST OF ANY NEEDED RETESTING DUE TO INSUFFICIENT COMPACTION EFFORT, SHALL BE BORN BY THE CONTRACTOR.

- HIGH GROUND WATER AND FLOOD POTENTIAL--THE PROJECT SITE CURRENTLY LIES BELOW THE MAPPED FEMA FLOOD HAZARD ELEVATION OF 12.0 FEET. THUS, THE SITE IS AT RISK OF FLOODING DURING CONSTRUCTION. THE FIRST PHASES OF THE WORK INCLUDE OVER-EXCAVATION FOR FOUNDATIONS AND THE PLACEMENT OF COMPACTED STRUCTURAL FILL AND SURCHARGE MATERIAL. SITE FINISH GRADES WILL LEAVE THE MAJORITY OF THE SITE ABOVE THE 12.0-FT FEMA FLOOD HAZARD ELEVATION, BUT THE EASTERLY PORTION OF THE SITE WILL BE FINISHED AT AN ELEVATION LOWER THAN THE ESTABLISHED FLOOD LEVEL, MATCHING EXISTING ADJACENT ROAD GRADES. PER ABOVE REFERENCED SITE GEOTECHNICAL REPORTING, THE CONTRACTOR SHOULD EXPECT TO ENCOUNTER GROUNDWATER AT DEPTHS IN THE RANGE OF 2-3 FEET BELOW CURRENT SURFACE ELEVATIONS.
- SITE DEWATERING--IT SHALL BE UNDERSTOOD TO BE THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE HIGH GROUNDWATER AND POTENTIAL SITE FLOODING CONDITIONS AND PLAN CONSTRUCTION WORK AND OPERATIONS ACCORDINGLY. IN THE EVENT OF SITE FLOODING, THE CONTRACTOR SHALL PROMPTLY STABILIZE THE SITE AND SUSPEND OPERATIONS UNTIL FLOOD WATERS RECEDE AND WORK CAN BE SATISFACTORILY COMPLETED. ALL POTENTIAL DEWATERING MEASURES REQUIRED TO COMPLETE THE WORK SHALL BE UNDERSTOOD TO BE THE CONTRACTOR'S RESPONSIBILITY.
- EXISTING GRADES--DESIGNS FOR NEW SIDEWALKS AND DRIVEWAYS ARE INTENDED TO MATCH EXISTING SIDEWALK AND STREET GRADES. IN COMPLETING THE WORK, THE CONTRACTOR SHALL MAKE ALL EFFORTS NECESSARY TO MATCH EXISTING GRADES AND ACHIEVE SMOOTH AND SEAMLESS TRANSITIONS BETWEEN NEW AND EXISTING WORK TO THE EXTENT PRACTICABLE.
- SURFACE RESTORATION--EXISTING SIDEWALKS AND STREETS SURROUNDING THE SITE WERE RECENTLY CONSTRUCTED AND ARE IN NEW CONDITION. THE CONTRACTOR SHALL MAKE APPROPRIATE EFFORTS TO PROTECT EXISTING SURFACES AND SHALL BE RESPONSIBLE FOR REPLACEMENT AND/OR RESTORATION OF ANY DAMAGE RESULTANT FROM THE WORK.
- EXISTING SIDEWALKS--TEMPORARY CONCRETE "ECO-BLOCK" RETAINING WALLS ARE PLANNED TO RETAIN STRUCTURAL FILL AND SURCHARGE MATERIAL AROUND THE NORTH AND WEST SIDES OF THE NEW BUILDING AREA. THESE WALLS WILL BE SITUATED IMMEDIATELY ADJACENT TO EXISTING SIDEWALKS AND BECAUSE THE PURPOSE OF THE SURCHARGING IS TO FORCEABLY COMPRESS AND PRE-CONSOLIDATE SUBSURFACE SOILS, SOME SETTLEMENT OF THE SIDEWALKS ARE ANTICIPATED. AS PART OF THE WORK THE CONTRACTOR SHALL RESTORE ALL EXISTING SIDEWALKS TO ORIGINAL GRADES, EITHER BY PRESSURE GROUTING TO RAISE GRADE OR BY REPLACEMENT OF DAMAGED SIDEWALKS.
- SURFACE DRAINAGE--THE PROJECT'S SITE DRAINAGE AND GRADING PLAN DESIGN IS INTENDED TO PROVIDE POSITIVE DRAINAGE FROM ALL PAVED SURFACES. THE CONTRACTOR SHALL PERFORM WORK TO ACCOMPLISH THIS OBJECTIVE AND SHALL PROMPTLY NOTIFY THE ENGINEER OF ANY CIRCUMSTANCES THAT MIGHT INTERFERE WITH THIS OBJECTIVE SO THAT APPROPRIATE CORRECTIVE MEASURES MAY BE TAKEN.
- CONSTRUCTION AREA SIGNAGE--THE CONTRACTOR SHALL PROVIDE AND MAINTAIN APPROPRIATE CONSTRUCTION AREA WARNING SIGNAGE SO AS TO PROTECT PEDESTRIANS AND THE TRAVELING PUBLIC AT ALL TIMES THROUGHOUT CONSTRUCTION.
- TRAFFIC CONTROL PLAN--THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR CITY AND ODOT APPROVAL BEFORE PROCEEDING WITH THE WORK. THE TRAFFIC CONTROL PLAN SHALL FOLLOW APPLICABLE CITY, ODOT AND MUTC GUIDANCE AND REQUIREMENTS. THE CONTRACTOR SHALL EXECUTE AND MAINTAIN THE APPROVED TRAFFIC CONTROL PLAN DURING ALL ACTIVE PHASES OF THE WORK.
- SPECIFICATIONS FOR STRUCTURAL FILL--IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS, STRUCTURAL FILL SHALL BE PROVIDED AS FOLLOWS: 100 PERCENT PASSING 6-INCH SIEVE, 75 PERCENT MAXIMUM PASSING NO. 4 SIEVE, 5 PERCENT MAXIMUM PASSING NO. 200 SIEVE. FILL SHALL BE PLACED IN MAXIMUM 12-INCH LIFTS AND COMPACTION SHALL BE 95-PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM TEST DESIGNATION D-698 (STANDARD PROCTOR). THE MOISTURE CONTENT OF STRUCTURAL FILL AT THE TIME OF COMPACTION SHALL BE WITHIN TWO (2) PERCENT OF OPTIMUM, PER ASTM STANDARD.
- COMMERCIAL SITE SEWER LATERAL--THE EXISTING SANITARY SEWER STUB-OUT TO THE SITE IS 6-INCHES DIAMETER PER CITY STANDARDS FOR COMMERCIAL SITES. ACCORDINGLY, 6-INCH DIAMETER SEWER SERVICE CONNECTION PIPING SHALL EXTEND FROM THE PROPOSED BUILDING AND CONNECT TO EXISTING 6-INCH PIPING.
- TEMPORARY REROUTING OF DITCH DRAINAGE--DITCH BANK IMPROVEMENT AND BOTTOM REGRADING WORK SHOULD BE PERFORMED DURING DRY-WEATHER CONDITIONS. SEE NPDES DEQ 1200-C PERMIT AND EROSION AND SEDIMENTATION CONTROL PLAN (ESCP) FOR WORK RESTRICTIONS AND REQUIREMENTS. TEMPORARY FLOW DIVERSION PIPING WILL BE REQUIRED FOR REROUTING OF STORMDRAINAGE FLOW AROUND ACTIVE WORK AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING AND CONFIGURING SUCH FACILITIES AS MAY BEST ACCOMMODATE PARTICULAR CONSTRUCTION OPERATIONS.
- UTILITY COORDINATION--CONTRACTOR TO COORDINATE ALL UTILITY SERVICE CONNECTIONS WITH NOTED SERVICE PROVIDERS AND COMPLY WITH ALL APPLICABLE AGENCY REQUIREMENTS FOR SERVICE CONNECTION CONSTRUCTION, CONNECTION, TESTING AND START-UP.



REV	DATE	DESCRIPTION

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503-322-2442  
strickerengineering.com  
John@strickerengineering.com



ROBY'S FURNITURE  
GENERAL PROJECT NOTES & ABBREVIATIONS  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:  
**C2.0**  
362

PERMIT SET

GENERAL NOTES

- 1. NO PERSON SHALL DO WORK AFFECTING THE PUBLIC RIGHT-OF-WAY WITHOUT FIRST OBTAINING A PERMIT FROM THE PUBLIC WORKS DEPARTMENT...
2. CONSTRUCTION SHALL CONFORM TO THE OREGON SPECIFICATIONS AND STANDARD DRAWINGS FOR CONSTRUCTION AND AS REVISED BY THE CITY OF WARRENTON...
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND ARRANGE FOR THE RELOCATION OF ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION...
4. OREGON LAW REQUIRES THAT THE RULES ADOPTED BY OREGON UTILITY NOTIFICATION CENTER BE FOLLOWED...
5. THE CONTRACTOR SHALL MAKE PROVISIONS TO KEEP ALL EXISTING UTILITIES (INCLUDING NON-LOCATABLE) IN SERVICE AND PROTECT THEM DURING CONSTRUCTION...
6. THE CONTRACTOR SHALL POT HOLE AND VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION...
7. ALL PROJECT ELEMENTS SHALL BE CONSTRUCTED PER APPROVED PROJECT DRAWINGS, SPECIFICATIONS, FEDERAL, STATE AND LOCAL PERMITS...
8. THE CONTRACTOR SHALL KEEP AN APPROVED SET OF PLANS ON THE PROJECT SITE AT ALL TIMES...
9. ALL DSL, DEQ, ODOT, AND OHA PERMITS, AND REGULATIONS WILL BE THE RESPONSIBILITY OF THE DEVELOPER...
10. PROJECT INSPECTION ON PRIVATE PROJECTS IS THE RESPONSIBILITY OF THE DEVELOPER...
11. PROJECT PLANS SHALL ALWAYS HAVE AN ENGINEER-OF-RECORD PERFORMING THE FUNCTION OF DESIGN ENGINEER...
12. INFRASTRUCTURE THROUGH NEIGHBORING PROPERTY IS ALLOWED ONLY WHEN RECORDED ACCESS EASEMENTS ARE GRANTED BY OWNERS...
13. SUBDIVISION PROJECTS ARE REQUIRED TO HAVE UTILITY LOCATION PLAN...
14. ALL PUBLIC, PRIVATE AND FRANCHISE UTILITIES SHALL BE IN PLACE PRIOR TO PROJECT FINAL APPROVAL AND ACCEPTANCE...
15. ALL SURVEY MONUMENTS ON THE PROJECTS SITE OR THAT MAY BE SUBJECT TO DISTURBANCE WITHIN THE CONSTRUCTION AREA...
16. GRADING AND FILL/EXCAVATION PERMITS OR PRIVATE SERVICE PLUMBING PERMITS SHALL BE REQUIRED WHEN WORK IS PERFORMED ON PRIVATE PROPERTY...
17. THE CONTRACTOR IS REQUIRED TO METER CONSTRUCTION WATER THROUGH A CITY HYDRANT WATER METER...
18. ALL EXISTING STREETS AND SIDEWALKS TO BE CLEANED AND OR PROTECTED DAILY...
19. CONTRACTOR SHALL ERRECT AND MAINTAIN TEMPORARY TRAFFIC CONTROL PER THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD)...
20. ANY INSPECTION BY THE CITY, COUNTY, STATE, FEDERAL AGENCY OR DESIGN ENGINEER SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN COMPLIANCE WITH THE APPLICABLE CODES, REGULATIONS, CITY STANDARDS AND PROJECT CONTRACT DOCUMENTS...
21. TRACER WIRE SYSTEMS MUST BE INSTALLED AS A SINGLE CONTINUOUS WIRE...
22. ALL NEW TRACER WIRE INSTALLATIONS SHALL BE LOCATED USING TYPICAL LOW FREQUENCY (512 HZ) LINE TRACING EQUIPMENT...
23. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT "REDLINE DRAWINGS" TO DESIGN ENGINEER FOR PREPARATION OF RECORD DRAWINGS...

SEWER PLAN NOTES

- 1. THE INTERIOR OF THE MANHOLE BASE SHALL BE FORMED SO THE EFFLUENT ENTERS THE FLOW SMOOTHLY WITH THE SHELF SLOPE NO MORE THAN 1:12...
2. MANHOLE, BASE, AND CONE OR FLAT-TOP LIDS SHALL HAVE ONLY MAINLINE TRACER WIRE EXTENDED INTO EACH MANHOLE AND SECURED UNDER THE MANHOLE LID FOR EASY ACCESS...
3. NEW 4" ASTM D3034 PVC LATERAL TO CONNECTION ON PUBLIC MAINLINE WITH 4" SANITARY TEE-WYE...
4. THE SEWER LATERALS SHALL BE INSTALLED ENTERING THE SEWER MAIN LINE FROM THE UPPER QUADRANT OF THE PIPE...
5. NEWLY CONSTRUCTED CURBS OR REPLACED CURBS SHALL BE STAMPED WITH THE CAPITOL LETTER 11S" AT THE LOCATION EACH SANITARY LATERAL CROSSING...
6. CONSTRUCT SERVICE SADDLES AT LEAST 24" FROM MANHOLE WALL OR ADJACENT SERVICE...
7. CONSTRUCT SERVICE LATERAL WITHIN 5' OF THE CENTER OF THE PROPERTY SERVED...
8. EACH LATERAL SHALL BE MARKED WITH A GREEN 2"x 4" BURIED AT THE END OF THE PIPE WITH THE GREEN TRACER WIRE SECURED ABOVE GRADE TO THE 2"x4" LATERAL...
9. CONTRACTOR IS RESPONSIBLE FOR VACUUM, MANDREL AND TELEVISION TESTING AND INSPECTION REQUIREMENTS...
10. CONTRACTOR SHALL KEEP DOWNSTREAM SANITARY SEWER PIPES AND MANHOLES CLEAN OF CONSTRUCTION DEBRIS...
11. ALL MANHOLES LOCATED IN UNIMPROVED EASEMENTS AND RIGHT OF WAYS SHALL BE PROVIDED WITH TAMPER PROOF LIDS...
12. CONTRACTOR SHALL SUBMIT ACCURATE AS-BUILT STATIONS FOR ALL CONNECTIONS OF SEWER LATERALS AND NOTE THE DISTANCE FROM UPSTREAM MANHOLES...

STORM PLAN NOTES

- 1. INSTALLATION OF CURB INLETS, FIELD INLETS AND MANHOLES ARE TO CONFORM TO CITY STANDARDS...
2. CONSTRUCTION OF INLET/ OUTLET HEADWALL STRUCTURES, RIPRAP BANK STABILIZATION, BIO-FILTER SWALE AND ENERGY DISSIPATION FEATURES...
3. INSTALLATION OF STORM WATER DETENTION, FLOW AND POLLUTION CONTROL WATER QUALITY FEATURES PER APPROVED PLANS...
4. CONSTRUCTION OF DRAINAGE DITCH TO APPROVED SLOPE & GRADE, VEGETATION ON SIDE SLOPES FOR EROSION CONTROL...
5. ROOF AND GARAGE RUNOFF DRAINAGE SHALL DRAIN TO APPROVED DRAINWAYS...
6. EACH LOT MAY HAVE 2 EACH 3" SCHEDULE 40 PVC WEEP HOLES INSTALLED ON EACH SIDE OF THE DRIVEWAY...
7. CONTRACTOR IS RESPONSIBLE FOR, MANDREL AND TELEVISION TESTING AND INSPECTION REQUIREMENTS...
8. STORM WATER DETENTION MAY BE REQUIRED, ENGINEERED HYDROLOGY STUDIES ARE REQUIRED PRIOR TO PERMITTING...

WATER PLAN NOTES

- 1. ONLY CITY OF WARRENTON PERSONNEL MAY OPERATE PUBLIC WATER VALVES ON CITY WATER MAINS...
2. CONTRACTOR IS RESPONSIBLE TO FLUSH, CLEAN, DISINFECT AND PRESSURE TEST WATER LINES PER AWWA STANDARDS...
3. FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 MODEL A-423 OR AN APPROVED EQUAL WITH A RECIRCULATION OIL LUBRICATION SYSTEM...
4. HYDRANTS ADJACENT TO PAVED STREETS SHALL BE MARKED USING BLUE STIMSONITE@ TWO SIDED MARKERS (2-WAY BLUE 884B)...
5. CONTRACTOR SHALL PERFORM A FLOW TEST FOR EACH HYDRANT AND VERIFY HYDRANT OPENING EASE AND LUBRICANT...
6. CONTRACTOR SHALL PAINT FIRE HYDRANTS TO CITY STANDARD...
7. AIR RELEASE AND VALVE ASSEMBLIES SHALL BE AUTOMATIC ONLY...
8. ALL WATER VALVES SHALL HAVE VC212 VALVE BOX SELF-CENTERING GUIDES OR EQUAL...
9. VALVE BOXES SHALL BE MODEL 910 VANCOUVER STYLE W/MANUFACTURED CAST NOTCHES ALIGNED WITH DIRECTION OF MAIN AND TRAFFIC RATED LID...
10. ALL VALVES SHALL BE OPERATED TO VERIFY VALVE WRENCH TOOL CLEARANCE PRIOR TO FINAL PAVING...
11. ALL VALVE BOXES NOT SET IN ASPHALT SHALL HAVE A MINIMUM OF 18" X 18" X 3" THICK CONCRETE PAD WITH VALVE BOX CENTERED...
12. RESIDENTIAL SERVICE LINES SHALL HAVE FORD F500-4-NL BRASS ONE-INCH (1") CORPORATION STOP...
13. CONSTRUCT SERVICE SADDLES AT LEAST 24" FROM MAINLINE END OR AN ADJACENT SERVICE...
14. COMMERCIAL PROPERTIES MAKING CONNECTIONS TO THE CITY INFRASTRUCTURE SHALL PROVIDE AND INSTALL MASTER METER ALLEGERO UNDER-THE-GLASS (UTG) OR MASTER METER OCTAVE WATER METERS...
15. CUSTOMER YARD VALVES (SHUT OFF'S) BEHIND THE METER SHALL BE INSTALLED BY THE DEVELOPER ON THE PROPOSED WATER SERVICE AND ARE REQUIRED TO BE IN PLACE PRIOR TO THE ACTIVATION OF THE WATER METER...

WARRENTON PAVING PLAN NOTES

- 1. ALL EXISTING STREETS AND SIDEWALKS TO BE CLEANED AND OR PROTECTED DAILY...
2. STANDARD MONOLITHICALLY POURED 6" CURB AND 18" GUTTER SECTION SHALL BE CONSTRUCTED...
3. THE FULL STREET SECTION SHALL HAVE A MINIMUM OF 4" ASPHALT CONCRETE IN TWO 2" LIFTS...
4. ROADWAY STRUCTURE OF TWELVE INCHES OF 1" OR 3/4" - 0" INCH COMPACTED BASE ROCK...
5. ALL CUTS IN ASPHALT PAVING, PORTLAND CEMENT PAVING, CONCRETE CURBS, GUTTERS AND SIDEWALKS SHALL BE SAW CUTS AT LEAST THREE INCHES DEEP...
6. TRENCH COMPACTION OF 1" OR 3/4"-0" BACKFILL IN PUBLIC UTILITIES...
7. MAILBOX UNITS MOUNTED IN SIDEWALK SHALL HAVE A SWEEP PROVIDED BEHIND THE OBSTRUCTION...
8. NEW ADA RAMP WITH TRUNCATED DOMES TEXTURE PATTERN IS REQUIRED ON ALL STREET CORNERS...
9. ALL STREET NAME SIGNS SHALL BE INSTALLED BY CONTRACTOR TO APWA AND CITY STANDARDS...
10. ALL STREET MARKINGS SUCH AS STOP BARS OR CROSSWALKS ETC... SHALL BE INSTALLED BY CONTRACTOR...
11. STREETLIGHT POLES AND LUMINAIRES SHALL BE INSTALLED PRIOR TO FINAL APPROVAL...
12. SIDEWALK PORTIONS TO BE (RE)CONSTRUCTED FOR FULL FRONTAGE OR WHERE BROKEN AND MISSING... TWO INCHES OF COMPACTED 3/4"-0" BASE ROCK UNDER CONCRETE...

STREET LIGHT PLAN NOTES

- 1. STREET LIGHTS TO BE FIBERGLASS POLES (PROVIDED BY PP & L) WITH HPS 16L-150 WATT LAMPS...
2. DOWNTOWN STREET LIGHTS TO BE DECORATIVE SPECIAL DISTRICT STREET LIGHTS INSTALLED ON CONCRETE FOUNDATIONS...
3. ALL STREET LIGHTS TO HAVE INDIVIDUAL PULL BOX (-BOX)...
4. ALL STREET LIGHTS TO BE 2' FROM BACK OF CURB WHERE RECESSED OR NO SIDEWALK EXISTS...
5. ALL STREET LIGHT CONDUITS TO BE 2-1/2" PVC SCHEDULE 40...
6. STREET LIGHTING IMPROVEMENTS SHALL NOT BE ACCEPTED UNTIL "AS-BUILT" PLANS HAVE BEEN SUBMITTED TO AND APPROVED BY THE PUBLIC WORKS DIVISION...

EROSION CONTROL NOTES PLAN NOTES

- 1. ALL SITES SHALL SUBMIT AN EROSION CONTROL PLAN FOR REVIEW, REGARDLESS OF SIZE...
2. EROSION CONTROL PLAN SHALL INCLUDE:
a. THE METHODS AND/OR FACILITIES TO BE USED TO PREVENT EROSION AND POLLUTION...
b. LIMITS OF CLEARING BY FLAGGING BOUNDARIES IN THE FIELD...
c. AN ANALYSIS OF SOURCE CONTROLS...
d. A DRAINAGE PLAN DURING CONSTRUCTION...
e. SHOW EXISTING CONTOURS AS WELL AS ALL SENSITIVE AREAS...
f. A DESCRIPTION OF HISTORIC LOCALIZED FLOODING PROBLEMS...
3. EROSION CONTROL PLAN SHALL INCLUDE A SCHEDULE FOR IMPLEMENTATION...
4. A SITE-SPECIFIC PLAN PREPARED BY A REGISTERED PROFESSIONAL ENGINEER SHALL BE REQUIRED AND ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED FOR SITES HAVING ONE OR MORE OF THE FOLLOWING CHARACTERISTICS:
a. SITES GREATER THAN FIVE (5) ACRES DISTURBED...
b. SITES WITH SLOPES GREATER THAN 15 PERCENT...
c. SITES WITH HIGHLY ERODIBLE SOILS...
d. SITES ADJACENT TO SENSITIVE AREAS...
e. SITES WHERE GRADING AND CLEARING ACTIVITIES ARE LIKELY BETWEEN OCTOBER 1ST AND APRIL 30TH...
f. ALL DISTURBED LAND AREAS THAT SHALL REMAIN UNWORKED FOR 14 DAYS...
5. ADDITIONAL EROSION CONTROL MEASURES MAY INCLUDE ONE OR MORE OF THE FOLLOWING:
a. LIMITED AREA CLEARED AT ANY ONE TIME...
b. ADDITIONAL DRAINAGE REQUIREMENTS DURING CONSTRUCTION...
c. FILTERING OR TREATMENT OF RUNOFF...
d. ADDITIONAL WATER QUALITY...
e. ADDITIONAL EROSION CONTROL TO COVER PORTIONS OF THE SITE...
f. MAINTAINING A VEGETATED BUFFER STRIP BETWEEN SITE AND SENSITIVE AREA...
g. ADDITIONAL FACILITIES TO REDUCE VOLUME AND VELOCITY OF WATER RUNOFF...
h. IF THERE ARE NO WORKABLE ALTERNATIVES, LIMIT CLEARING AND GRADING...
i. ALL DISTURBED LAND AREAS THAT SHALL REMAIN UNWORKED FOR 14 DAYS...
6. SITE CLEANUP AND DEBRIS REMOVAL...
7. DUST CONTROL ON STREETS ACCESSIBLE AND USED BY RESIDENTS IS REQUIRED...
8. MINIMUM EROSION CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING...



Table with 2 columns: REV, DATE. The table is mostly empty, indicating no revisions have been recorded.

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ROBY'S FURNITURE
STANDARD CITY OF WARRENTON NOTES
WARRENTON, OREGON

DRAWN: 05/28/2021
ISSUED: 05/28/2021
SCALE: AS SHOWN
JOB N.O.: 2012211249

Drawing N.O.:
C3.0
363

REDUCED DRAWING
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PERMIT SET

TOTAL SITE AREA: APPROX. 70,500 SQ. FT (1.61 ACRES)  
 BUILDING AREA: 27,550 SQ. FT  
 LANDSCAPED AREA: 11,060 SQ. FT. (0.25 ACRES) (15.7% OF TOTAL SITE AREA)  
 PARKING SPACES: 43  
 TAX MAP: 81027AB06400  
 LOCATION DESCRIPTION: NE ¼ OF SECTION 27, T. 8 N., R. 10 W., LAT. 46.153934, LONGITUDE -123.906074W.M. CITY OF WARRENTON, CLATSOP COUNTY, OREGON

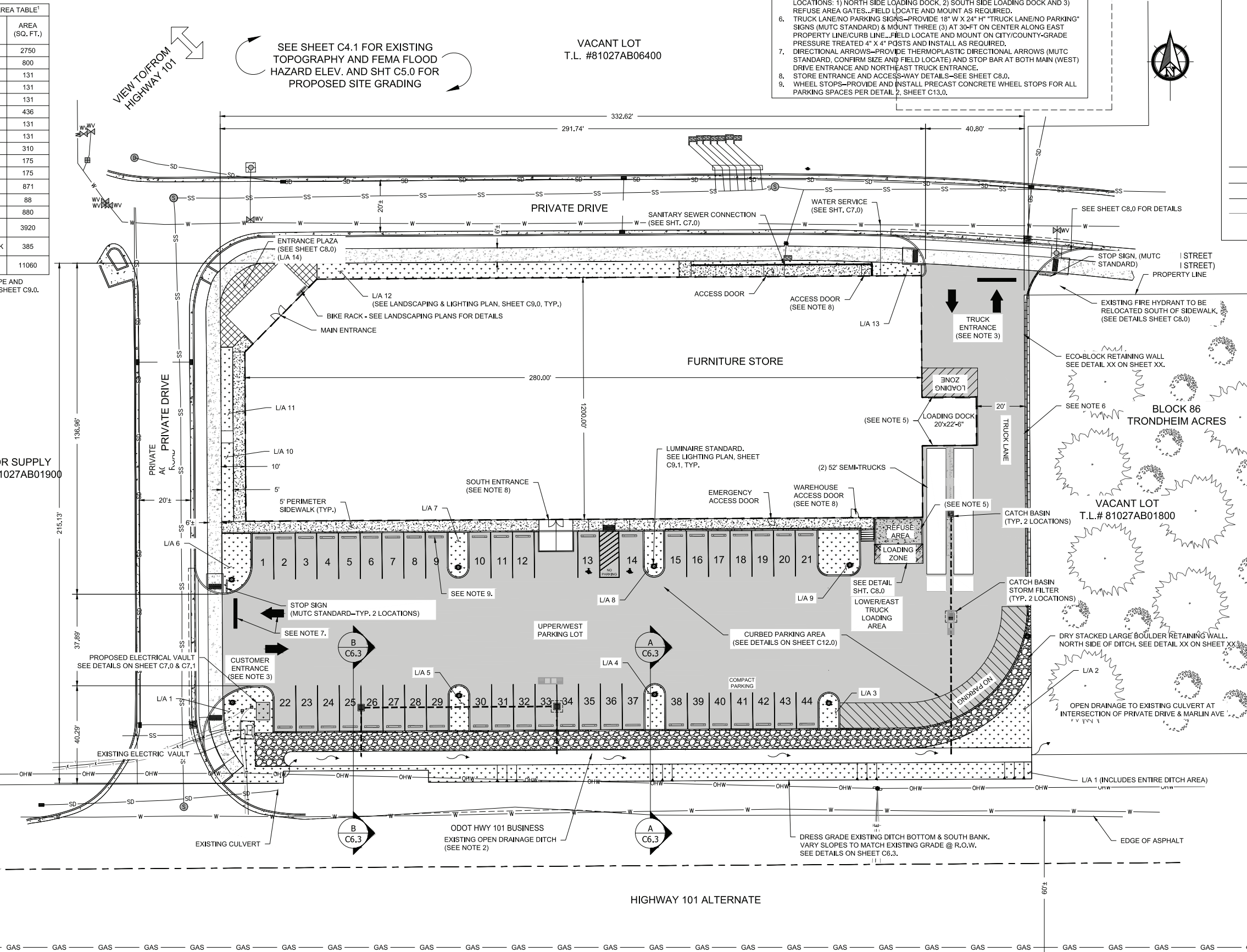
L/A NO.	AREA (SQ. FT.)
L/A 1	2750
L/A 2	800
L/A 3	131
L/A 4	131
L/A 5	131
L/A 6	436
L/A 7	131
L/A 8	131
L/A 9	310
L/A 10	175
L/A 11	175
L/A 12	871
L/A 13	88
L/A 14	880
X-RETAINING WALL	3920
WEST-SIDEWALK	385
<b>TOTAL</b>	<b>11060</b>

1. SEE LANDSCAPE AND LIGHTING PLAN, SHEET C9.0.

- NOTES:
- MAILBOX LOCATION TO BE DETERMINED BY OWNER & DESIGNER/BUILD CONTRACTOR.
  - EXISTING DRAINAGE DITCH TO REMAIN OPEN, WITH DITCH BOTTOM AND SOUTH BANK TO BE RE-GRADED FOR IMPROVED STORM WATER CONVEYANCE, AESTHETIC APPEARANCE AND MAINTENANCE EASE. SEE SITE DRAINAGE AND GRADING PLAN, SHEET 5, DETAILS, SHEET 6.3 AND LANDSCAPE AND LIGHTING PLAN, SHEET C9.0.
  - DRIVE ENTRANCES AND UTILITIES - SEE SHEET C7.0.
  - STORE ENTRANCES & ACCESS WAYS - SEE SHEET C8.0.
  - LOADING ZONE/NO PARKING SIGNS-PROVIDE 18" W X 24" H "LOADING ZONE/NO PARKING" SIGNS (MUTC STANDARD) & MOUNT TWO (2) AT EACH OF THREE (3) LOCATIONS: 1) NORTH SIDE LOADING DOCK, 2) SOUTH SIDE LOADING DOCK AND 3) REFUSE AREA GATES...FIELD LOCATE AND MOUNT AS REQUIRED.
  - TRUCK LANE/NO PARKING SIGNS-PROVIDE 18" W X 24" H "TRUCK LANE/NO PARKING" SIGNS (MUTC STANDARD) & MOUNT THREE (3) AT 30-FT ON CENTER ALONG EAST PROPERTY LINE/CURB LINE...FIELD LOCATE AND MOUNT ON CITY/COUNTY-GRADE PRESSURE TREATED 4" X 4" PGTS AND INSTALL AS REQUIRED.
  - DIRECTIONAL ARROWS-PROVIDE THERMOPLASTIC DIRECTIONAL ARROWS (MUTC STANDARD, CONFIRM SIZE AND FIELD LOCATE) AND STOP BAR AT BOTH MAIN (WEST) DRIVE ENTRANCE AND NORTHEAST TRUCK ENTRANCE.
  - STORE ENTRANCE AND ACCESS-WAY DETAILS-SEE SHEET C8.0.
  - WHEEL STOPS-PROVIDE AND INSTALL PRECAST CONCRETE WHEEL STOPS FOR ALL PARKING SPACES PER DETAIL 2, SHEET C13.0.

### LEGEND

	CONCRETE AREA
	PLANTED AREA
	PAVERS
	FIRE HYDRANT
	WATER VALVE
	ELECTRIC PEDESTAL
	CATCH BASIN
	CATCH BASIN STORM FILTER STRUCTURE
	SANITARY SEWER MANHOLE
	WATER
	SANITARY SEWER
	ELECTRIC
	TELEPHONE
	LIGHT POLE



#### ADJACENT PROPERTIES

**NORTHERLY PROPERTY**  
 ACCT NO: 60293  
 TAX MAP: 81027AB006400A01  
 OWNER/ADDRESS: J.R. ZUKIN CORPORATION  
 DBA MEADOW OUTDOOR ADVERTISING  
 P.O. BOX 331  
 THE DALLES, OR 97058

**BLOCK 87, WEST PORTION OF LOT 1, TRONDHEIM ACRES:**  
 ACCT. NO: 31902  
 TAX MAP: 81027AB01900  
 OWNER/ADDRESS: TKC CCLX, LLC  
 4500 CAMERON VALLEY PARKWAY, #400  
 CHARLETTE, NC 28211

**BLOCK 86, LOT 14, TRONDHEIM ACRES:**  
 ACCT. NO: 31901  
 TAX MAP: 81027AB01800  
 OWNER/ADDRESS: JIMMIE K. RICHARDS & DELORES M. RICHARDS  
 P.O. BOX 334  
 ASTORIA, OR 97103

**BLOCK 91, LOTS 3 & 4, TRONDHEIM ACRES:**  
 ACCT. NO: 31922  
 TAX MAP: 81027AB03801  
 OWNER/ADDRESS: HAROLD MARK RAY & LORETTA JEAN RAY  
 1290 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOT 5, TRONDHEIM ACRES:**  
 ACCT. NO: 52263  
 TAX MAP: 81027AB03800  
 OWNER/ADDRESS: STEVEN GOLDBERG & RAYLA GOLDBERG  
 1160 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOTS 6, 7, & 8, TRONDHEIM ACRES:**  
 ACCT. NO: 31924  
 TAX MAP: 81027AB03900  
 OWNER/ADDRESS: HAROLD MARK RAY & LORETTA JEAN RAY  
 1290 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOT 11, TRONDHEIM ACRES:**  
 ACCT. NO: 31917  
 TAX MAP: 81027AB0331  
 OWNER/ADDRESS: STEVEN GOLDBERG & RAYLA GOLDBERG  
 1160 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 91, LOT 12 TRONDHEIM ACRES:**  
 ACCT. NO: 31916  
 TAX MAP: 81027AB03300  
 OWNER/ADDRESS: HAROLD MARK RAY & LORETTA JEAN RAY  
 1290 ALT. HIGHWAY 101  
 WARRENTON, OR 97146

**BLOCK 92, LOT 13, TRONDHEIM ACRES:**  
 ACCT. NO: 31918  
 TAX MAP: 81027AB03400  
 OWNER ADDRESS: STEVE JORDAN & JUDY JORDAN  
 SWH PROPERTIES, LLC  
 91889 RIDGE ROAD  
 WARRENTON, OR 97146

REV.	DATE	DESCRIPTION

105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com



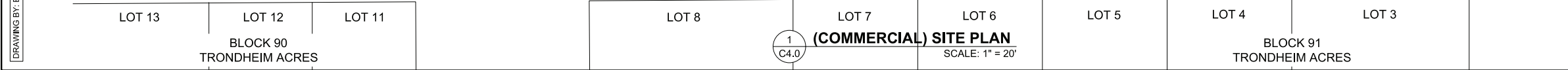
ROBY'S FURNITURE  
 COMMERCIAL SITE DESIGN  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 5/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:  
**C4.0**  
 364

DRAWING BY: BRIAN WISNER, PE, STRICKER ENGINEERING.

REGISTERED PROFESSIONAL ENGINEER  
 B.696  
 OREGON  
 JUL 16, 1997  
 DAVID W. LEIBBRANDT  
 EXPIRES 12/31/2022



- LEGEND:**
- DENOTES EXISTING ASPHALT PAVEMENT
  - DENOTES EXISTING CONCRETE PAVEMENT
  - DENOTES EXISTING GRAVEL
  - DENOTES EXISTING GRASS/LANDSCAPE
  - DENOTES EXISTING UNDERGROUND STORM DRAIN LINE
  - DENOTES EXISTING UNDERGROUND SANITARY SEWER LINE
  - DENOTES EXISTING UNDERGROUND COMMUNICATIONS/TELEPHONE LINE
  - DENOTES EXISTING UNDERGROUND POWER (ELECTRIC) LINE
  - DENOTES EXISTING UNDERGROUND WATER (H2O) LINE
  - DENOTES EXISTING OVERHEAD POWER LINE
  - DENOTES EXISTING BRUSH/VEGETATED LINE
  - DENOTES CATCH BASIN
  - DENOTES IRRIGATION/CONDUIT LINE
  - DENOTES COMMUNICATION RISER
  - DENOTES FIRE HYDRANT
  - DENOTES INVERT ELEVATION OF PIPE/OUTFALL
  - DENOTES MAILBOX
  - DENOTES POWER (ELECTRIC) VAULT
  - DENOTES SANITARY SEWER CLEANOUT
  - DENOTES SANITARY SEWER LATERAL BOARD
  - DENOTES SANITARY SEWER MANHOLE
  - DENOTES STORM DRAIN CLEANOUT
  - DENOTES STORM DRAIN MANHOLE
  - DENOTES UTILITY STAND PIPE/STUB UP
  - DENOTES POWER (ELECTRIC) TRANSFORMER
  - DENOTES POWER (ELECTRIC) POLE
  - DENOTES WATER METER
  - DENOTES WATER VALVE
  - DENOTES CONIFEROUS TREE + DIAMETER
  - DENOTES EDGE OF ASPHALT PAVEMENT [SPOT GRADE]
  - DENOTES EDGE OF CONCRETE [SPOT GRADE]
  - DENOTES EDGE OF GRAVEL [SPOT GRADE]
  - DENOTES GUTTER PAN/CURB FLOWLINE [SPOT GRADE]
  - DENOTES TOP FACE OF CURB [SPOT GRADE]

**VERTICAL DATUM:**  
REFER TO THE COVER PAGE OF THE CONSTRUCTION DOCUMENTS FOR TRONDHEIM LOT 1

**REFERENCE DATUM:**  
STATION INDEX ID: PID SC0559'

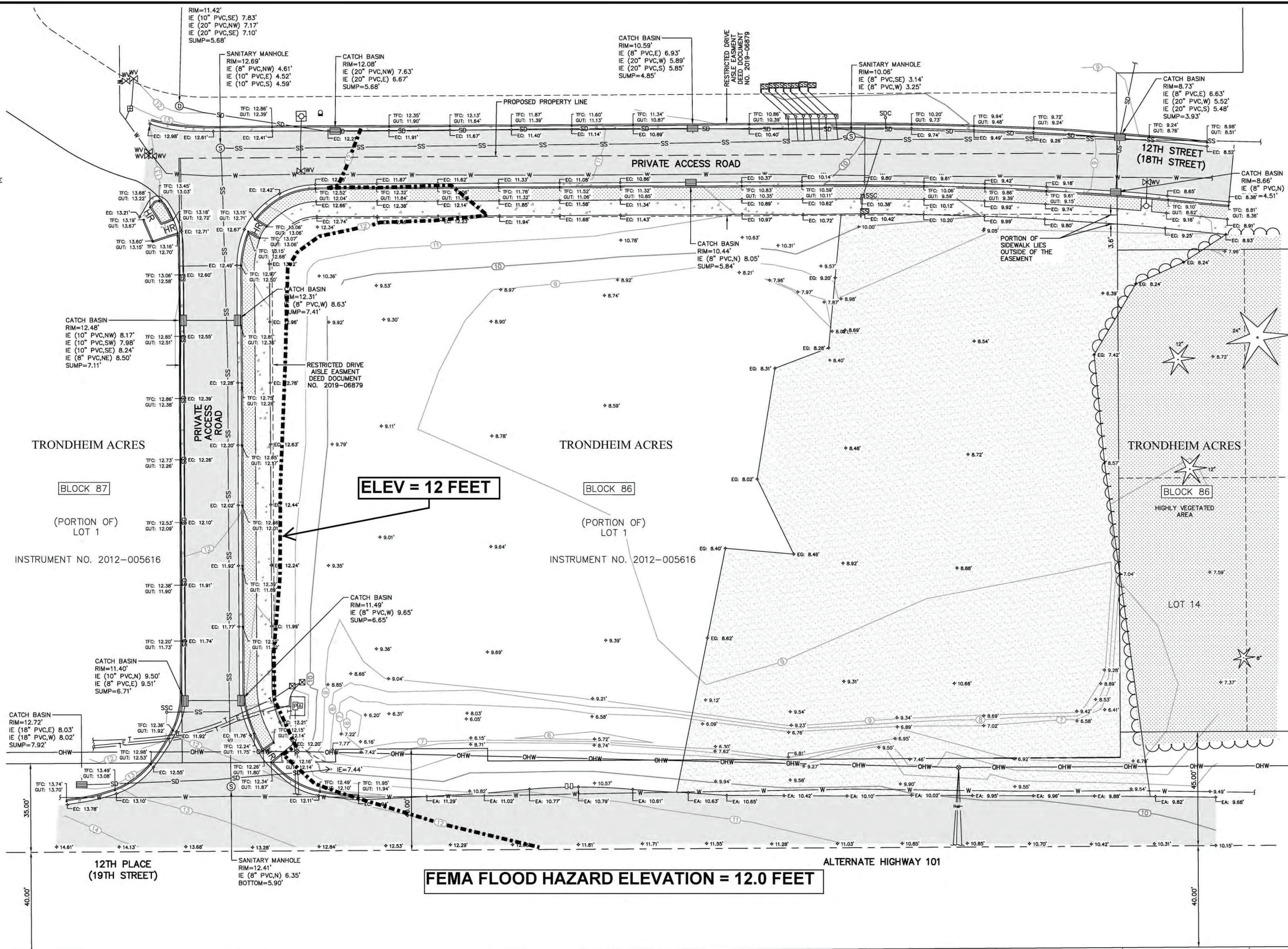
**DATUM:**  
NAVD 88  
ELEVATION: 8.36 FEET

**LOCATION:**  
ON THE EAST SIDE OF MARLIN AVENUE, ABOUT 85 TO 90 FEET NORTH OF THE INTERSECTION WITH S.E. 12TH PLACE.

**UTILITY STATEMENT:**  
THE UNDERGROUND UTILITIES HAVE BEEN LOCATED FROM LOCATE PAINT MARKINGS TIED IN THE FIELD SURVEY AND AS-BUILT DRAWINGS PROVIDED BY UTILITY COMPANIES. THIS SURVEY DOES NOT SHOW ANY PAINT MARKINGS PROVIDED AFTER THE FIELD SURVEY WAS COMPLETED. AS-BUILT DRAWING INFORMATION THAT WAS NOT PROVIDED IS NOT REFLECTED ON THIS SURVEY. AS-BUILT INFORMATION, IF PROVIDED, WAS USED TO IDENTIFY UNDERGROUND PIPE SIZE AND TYPE. IF NO LOCATE PAINT MARKINGS WERE PROVIDED, AS-BUILT INFORMATION WAS USED TO HORIZONTALLY LOCATE THE UNDERGROUND UTILITIES.

THIS SURVEY MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA. THE UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THIS SURVEY, BUT ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION PROVIDED. MANHOLES OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE LIDS AND MAY NOT BE LABELED CORRECTLY.

UTILITY LOCATIONS SHOULD BE VERIFIED BY OREGON UTILITIES NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.



REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

OREGON  
JANUARY 11, 2005  
DARREN S. HARR  
56181

RENEWS: 6-30-21

ROBY'S - WARRENTON  
TOPOGRAPHIC SURVEY

IN THE NE 1/4 OF SECTION 27, T. 8 N., R. 10 W., W.M.  
CITY OF WARRENTON, CLATSOP COUNTY, OREGON

FOR: I LEWIS HOME SOURCE, INC. | 1126 MAIN AVENUE | TILLAMOOK, OR 97141 |

REVISIONS	REVISIONS	INITIAL	RELEASE
0			

DATE: 3/25/2021  
DRAWN: CAJ  
SURVEYOR: DSH  
CHECKED: DSH

JOB NAME:  
ROBY'S - WARRENTON

DRAWING NAME:  
ROBY'S TOPO

SHEET NO.  
1 OF 1

**ROBY'S FURNITURE  
WARRENTON, OREGON  
EXISTING CONDITIONS AND  
TOPOGRAPHY**



REV	DATE	DESCRIPTION

105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com

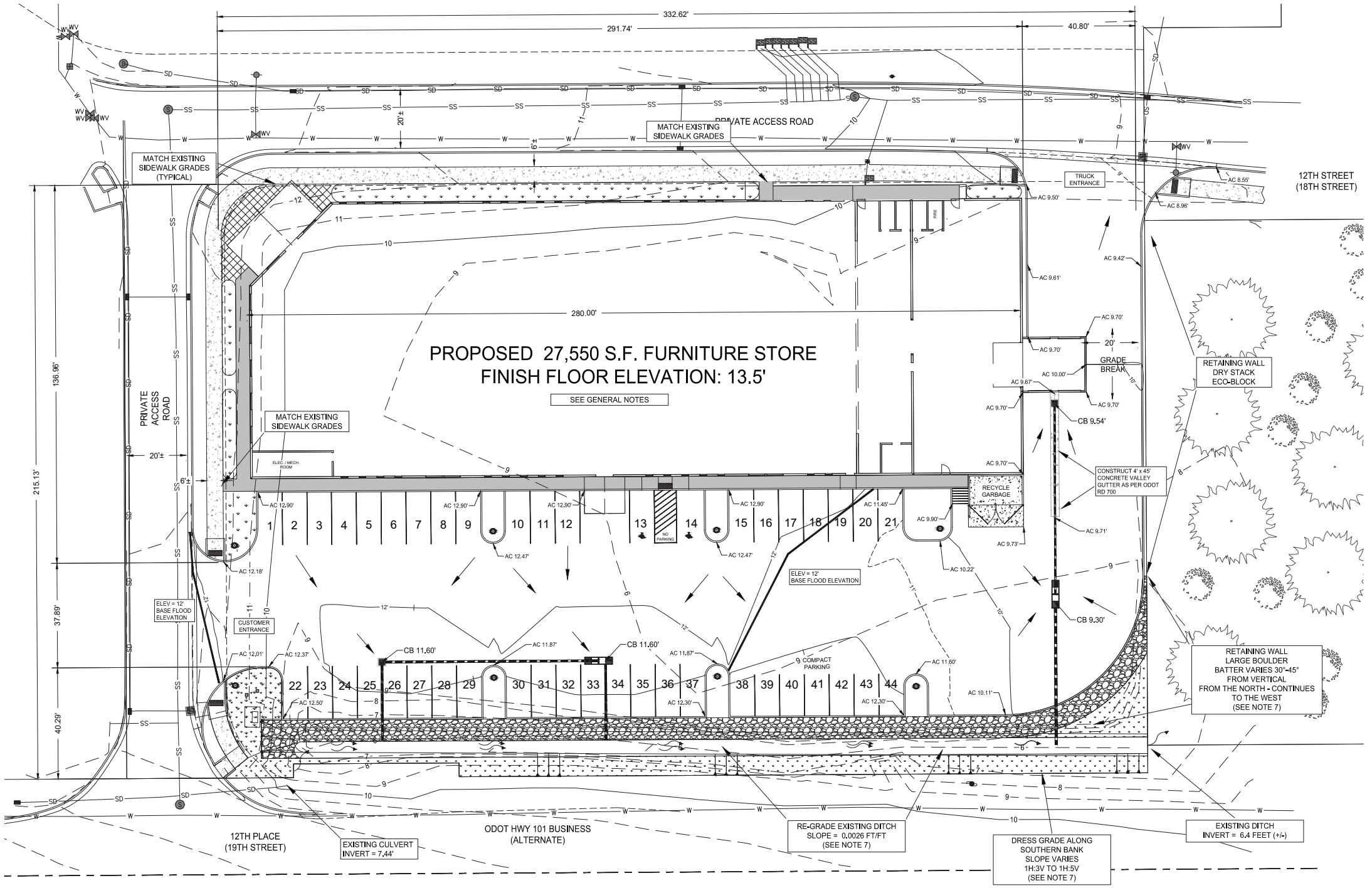


ROBY'S FURNITURE  
 SITE DRAINAGE AND GRADING PLAN  
 GENERAL SHEET NOTES  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

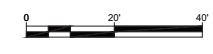
Drawing N.O.:  
**C5.0**  
 366

PERMIT SET



**PROPOSED 27,550 S.F. FURNITURE STORE**  
 FINISH FLOOR ELEVATION: 13.5'  
 SEE GENERAL NOTES

**1 SITE DRAINAGE AND GRADING**  
 C5.0 1" = 20'



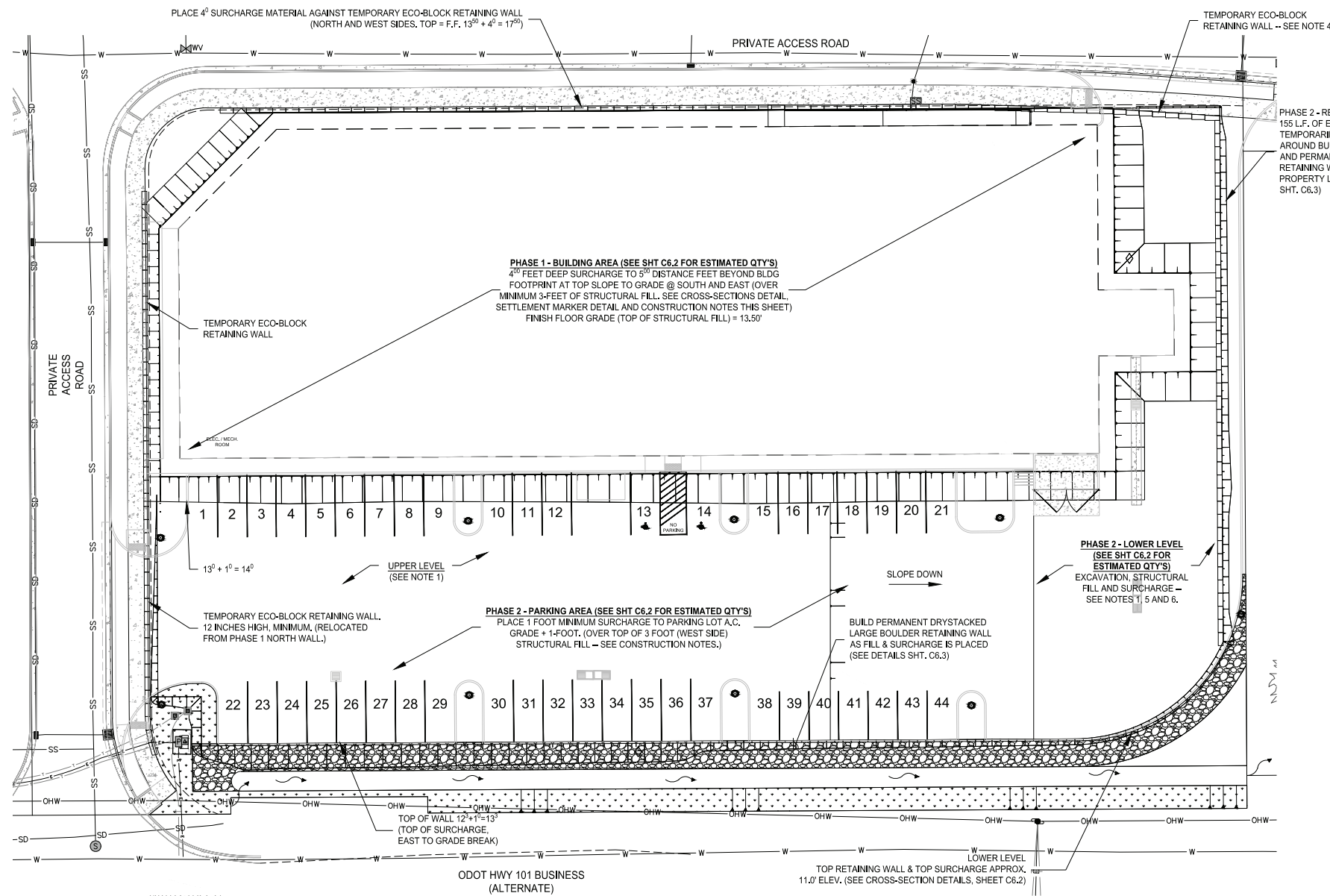
**GENERAL SHEET NOTES:**

- EXISTING SITE IS PARTIALLY FILLED AND REQUIRES STRUCTURAL FILL AND SURCHARGE PRE-CONSOLIDATION TO ESTABLISH SUITABLE FOUNDATION CONDITIONS. A PHASED EARTHWORK PROGRAM IS PROPOSED. SEE SHEETS C6.0, C6.1 & C6.2.
- ALL SITE EXCAVATION AND GRADING TO FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT, TERRA ASSOCIATES, INC., APRIL 12, 2021.
- SEE SHEET C6.2 FOR ESTIMATED EXCAVATION, STRUCTURAL FILL AND SURCHARGE MATERIAL QUANTITIES.
- NO STRUCTURES CURRENTLY OCCUPY THE SITE.
- FINISH GRADE OF MAIN PARKING LOT IS GRADED ABOVE FEMA FLOOD HAZARD ELEVATION OF 12.0'. TRUCK LOADING AREA IS LOWER...SIMILAR TO ELEVATION OF EXISTING PRIVATE DRIVE AT NORTH AND ALT. HWY 101 AT SOUTH.
- ROOF AND FOUNDATION DRAINS ROUTE DIRECTLY TO SOUTH DRAINAGE DITCH. PARKING AREA DRAINAGE ROUTES TO STORMFILTER WATER QUALITY TREATMENT FACILITIES PRIOR TO DISCHARGE SOUTH TO EXISTING DRAINAGE DITCH. NORTHWEST TRUCK ENTRANCE DRAINAGE ROUTES TO EXISTING CATCHBASIN NEAR ENTRANCE. SEE SHEET C11.0, STORMWATER DRAINAGE-PLAN AND PROFILES.
- EXISTING DRAINAGE DITCH: LARGE BOULDER RETAINING WALL ON NORTH SIDE, AND REGRADING OF DITCH BOTTOM AND SOUTH BANK FOR IMPROVED DRAINAGE FLOW, AESTHETICS AND MAINTENANCE.
- GRADING IS CLASSIFIED AS ENGINEERED GRADING PER CITY CODE AND REQUIRES ENGINEERING MONITORING DURING CONSTRUCTION. CONTRACTOR TO COORDINATE WITH ENGINEER AS REQUIRED.
- SEE DEQ NPDES 1200-C PERMIT AND ESCP SHEETS C14.0, C14.1, C14.2, C14.3 & C14.4 FOR EROSION AND SEDIMENTATION CONTROL REQUIREMENTS.

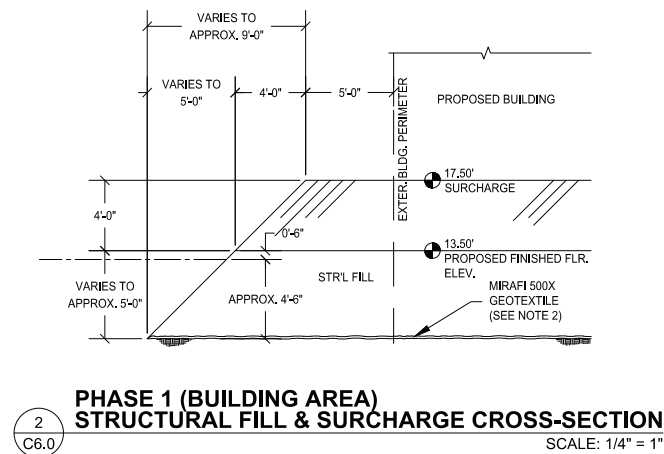
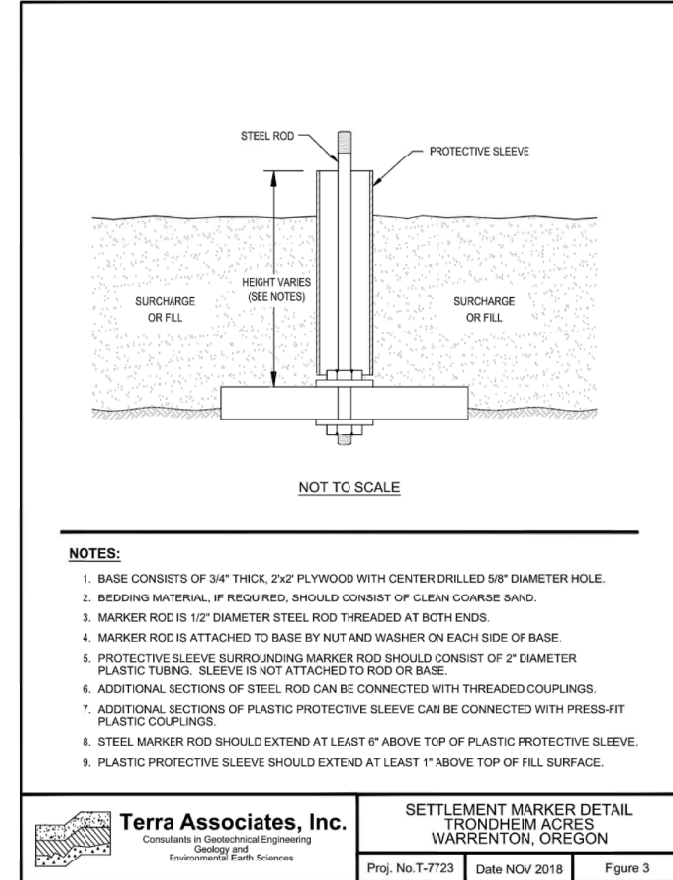
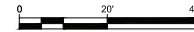
D:\Warrenton Projects\Roby's Drawings\C5.0 - SITE GRADING PLAN\_GCL.dwg Plotted: Jun 01, 2021 - 3:09pm By: Geoff

**CONSTRUCTION NOTES**

1. SEE "SITE DRAINAGE AND GRADING PLAN" SHEET C.4.0 FOR FINISH GRADE ELEVATIONS. SEE SITE EXCAVATION PLAN, SHEET C6.1 FOR PRE-FILL EXCAVATION REQUIREMENTS. SEE EXCAVATION/STRUCTURAL FILL/SURCHARGE CROSS SECTIONS & DETAILS, SHEET C6.2, FOR EXPECTED FILL THICKNESSES. SEE DETAILS--RETAINING WALLS, SHEET C6.3 FOR CONCURRENT RETAINING WALL CONSTRUCTION REQUIRED FOR FILL AND SURCHARGE CONTAINMENT. FOLLOW RECOMMENDATIONS AND GUIDANCE PER GEOTECHNICAL REPORT (ROBY'S FURNITURE, TERRA ASSOCIATES, INC., APRIL 12, 2021).
2. INSTALL MIRAFI 500X GEOTEXTILE, OR APPROVED EQUAL, OVER EXISTING GROUND BEFORE PLACING STRUCTURAL FILL IN BUILDING AREA.
3. FIELD LOCATE AND INSTALL SETTLEMENT MARKERS PER DETAIL THIS SHEET, IN QUANTITIES AND LOCATIONS PER GEOTECHNICAL ENGINEER RECOMMENDATIONS, AND MONITOR OVER TIME, AS REQUIRED.
4. EXISTING SIDEWALKS--TEMPORARY "ECO-BLOCK" RETAINING WALL PLACEMENT AND SURCHARGING IN THE IMMEDIATE VICINITY OF EXISTING SIDEWALKS ON THE NORTH AND WEST SIDES OF THE PROPOSED BUILDING IS EXPECTED TO CAUSE SETTLEMENT OF ADJACENT SIDEWALKS. CONTRACTOR TO REPLACE OR RESTORE SIDEWALKS TO PRE-CONSTRUCTION GRADES AND CONDITION AFTER SURCHARGING PERIOD AS MAY BE REQUIRED.
5. PROVIDE EROSION AND SEDIMENTATION CONTROL THROUGHOUT CONSTRUCTION PER ESCP.
6. POTHOLE AND FIELD VERIFY SUITABILITY OF EXISTING FILL ON EASTERLY SIDE OF PROPERTY, PER GEOTECHNICAL ENGINEER RECOMMENDATIONS. PRIOR TO PROCEEDING WITH FILL AND SURCHARGE OPERATIONS, IT IS ANTICIPATED THAT SURCHARGE MATERIAL USED FOR THE PHASE 1 BUILDING AREA WILL MEET MATERIAL SPECIFICATION REQUIREMENTS FOR ON-SITE RE-USE AS PHASE-2 STRUCTURAL FILL.



**1 SITE SURCHARGE/PRELOADING PLAN**  
SCALE: HORIZONTAL 1"=20'



REV.	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
john@strickerengineering.com



ROBY'S FURNITURE  
SITE EXCAVATION PLAN  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 201211249

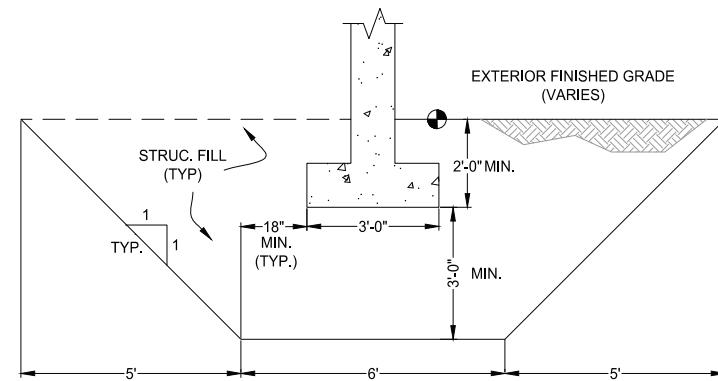
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**C6.0**  
367



PERMIT SET

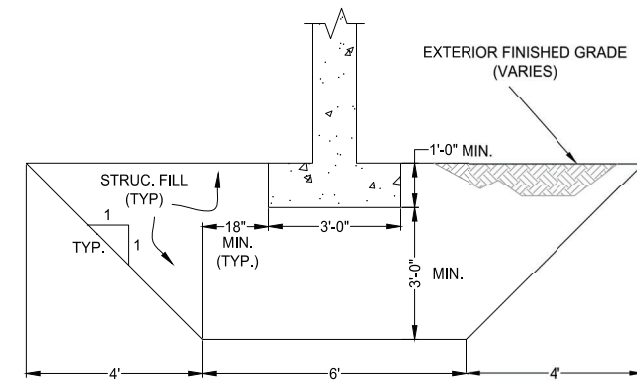
**EXCAVATION PLAN NOTES**

1. EXCAVATION TO FOLLOW GEOTECHNICAL REPORT GUIDANCE (TERRA ASSOCIATES, INC., APRIL 12, 2021, ROBY'S FURNITURE, WARRENTON, OR);
2. SURFACE LAYER STRIPPING GENERALLY NOT REQUIRED WHERE PLANNED STRUCTURAL FILL DEPTHS ABOVE EXISTING GRADES ARE:
  - 2.1. MORE THAN THREE (3) FEET IN BUILDING AREAS
  - 2.2. MORE THAN TWO (2) FEET IN PAVEMENT AREAS
- A. EXCEPTION TO "A." ABOVE, WHERE EXCESSIVELY SOFT AND YIELDING SUB-GRADE IS OBSERVED, UNSTABLE SOILS SHOULD BE REMOVED TO A DEPTH OF 18-INCHES AND REPLACED WITH STRUCTURAL FILL.
- B. EXCAVATION AREAS INCLUDE ALLOWANCE FOR SIDE SLOPE CUTBACKS.
- C. EXCAVATION AREAS SHOWN ARE BASED ON REPORT GUIDANCE FOR FOUNDATION SUPPORT:
3. STRUCTURAL FILL:
  - 3.1. BENEATH CONVENTIONAL SPREAD FOOTINGS—PROVIDE A MINIMUM OF 3-FOOT STRUCTURAL FILL EXTENDING A MINIMUM OF 12-INCHES LATERALLY BEYOND FOOTING EDGES.
  - 3.2. BENEATH PAVED AREAS, PROVIDE A MINIMUM OF 18 TO 24-INCHES BELOW FINISHED GRADE.
  - 3.3. PHASED EXCAVATION: 2-PHASE EXCAVATION IS ANTICIPATED WITH THE FIRST PHASE INVOLVING FOOTING EXCAVATIONS FOR THE PROPOSED BUILDING AREA AND THE SECOND PHASE INVOLVING PARKING AREAS.
4. AN UNCERTAIN DEPTH AND QUALITY OF ROCK-FILL HAS BEEN PREVIOUSLY PLACED ON THE EASTERLY SIDE OF THE SITE. CONTRACTOR TO POT-HOLE AT SEVERAL LOCATIONS UNDER THE OBSERVATION AND GUIDANCE OF THE GEOTECHNICAL ENGINEER SO AS TO FACILITATE A FIELD ASSESSMENT OF POTENTIAL SUITABILITY AS STRUCTURAL FILL. WHERE EXISTING ROCK FILL IS JUDGED TO BE INADEQUATE FOR STRUCTURAL FILL PURPOSES, CONTRACTOR TO EXCAVATE AS REQUIRED TO ACHIEVE MINIMUM STRUCTURAL FILL DEPTHS, TABULATED QUANTITY ESTIMATIONS ASSUME FULL DEPTH EXCAVATION IN EASTERLY LOW-LEVEL PARKING LOT AREA.
5. OVER-EXCAVATION BENEATH UTILITIES—PER GEOTECHNICAL REPORT, CONTRACTOR TO OVER-EXCAVATE BENEATH ALL UTILITY STRUCTURES, PIPELINES AND CONDUITS A DEPTH OF APPROXIMATELY 2-FT TO 4-FT, AND INSTALL COMPACTED STRUCTURAL FILL, AS REQUIRED TO ESTABLISH SOUND FOUNDATION CONDITIONS. PROVIDE MIRAFI 500X GEOTEXTILE FABRIC BETWEEN EXCAVATED GROUND SUB-BASE AND FOUNDATION STRUCTURAL FILL.



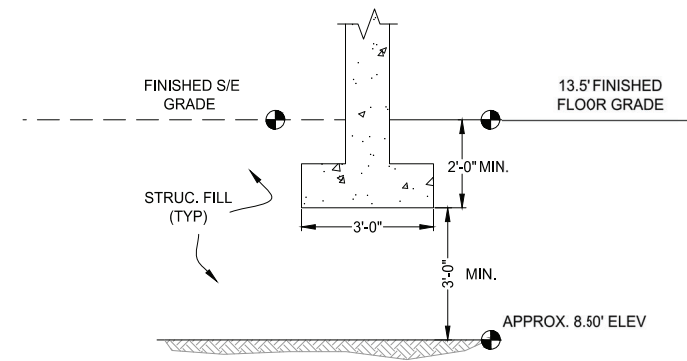
**CASE 1 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'



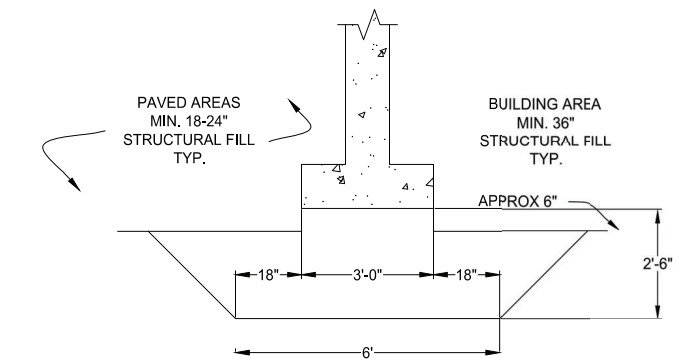
**CASE 2 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'



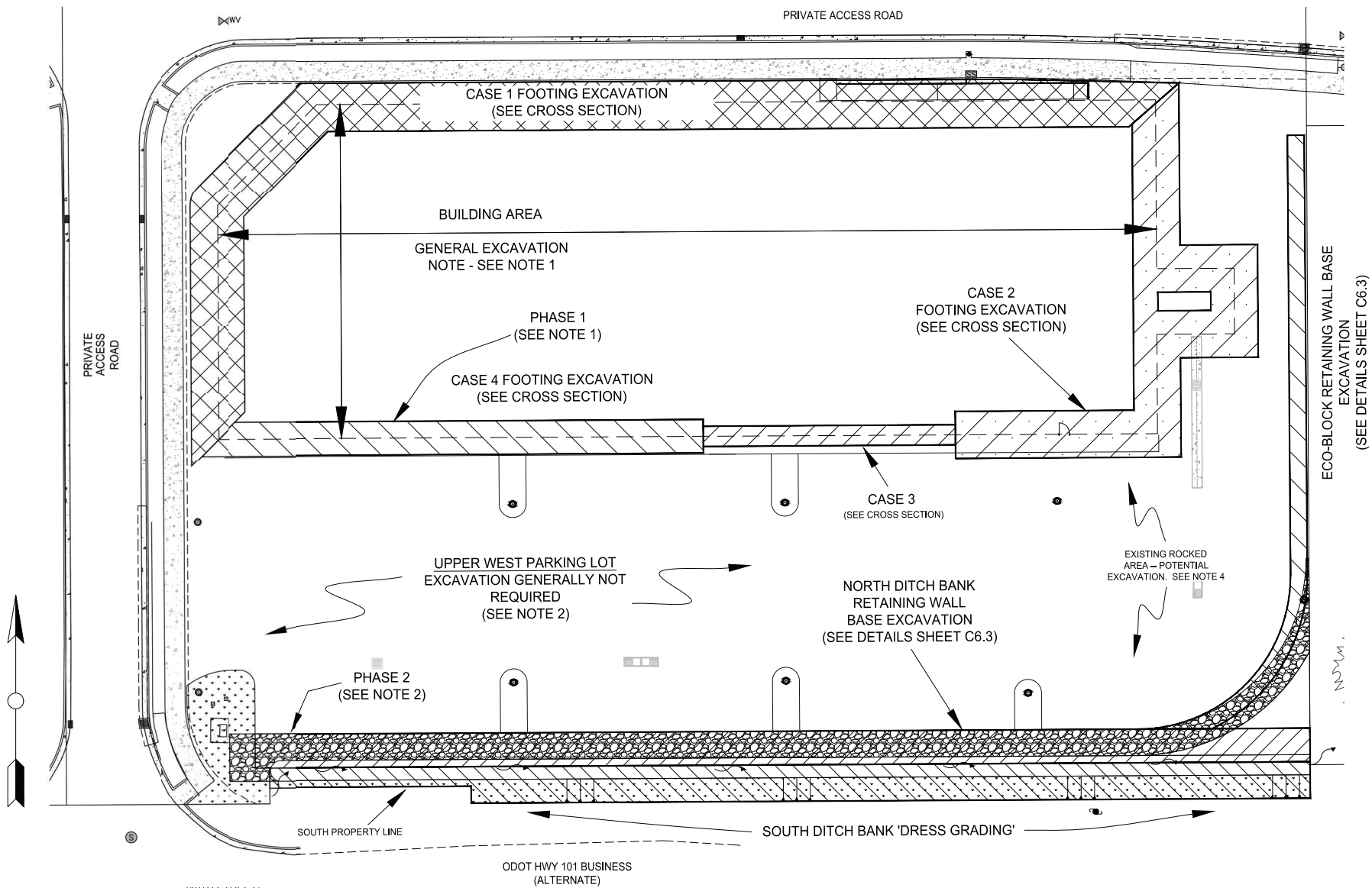
**CASE 3 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'

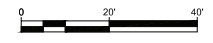


**CASE 4 FOOTING CONDITION**

X - SECTION (TYPICAL)  
SCALE: 1/2" = 1'



**1 SITE EXCAVATION PLAN**  
SCALE: HORIZONTAL 1"=20'



REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



**ROBY'S FURNITURE**  
**SITE EXCAVATION PLAN**  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/21/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

PERMIT SET  
Drawing N.O.:  
**C6.1**  
368





**EARTHWORK (EXCAVATION/STRUCTURAL**

**FILL/SURCHARGE) NOTES:**

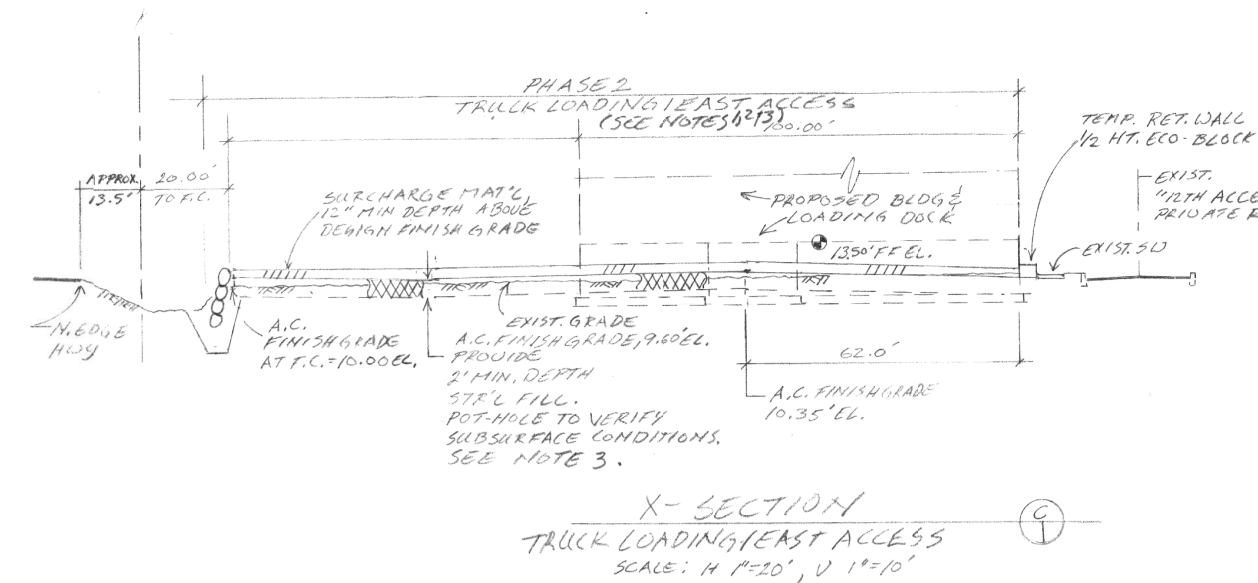
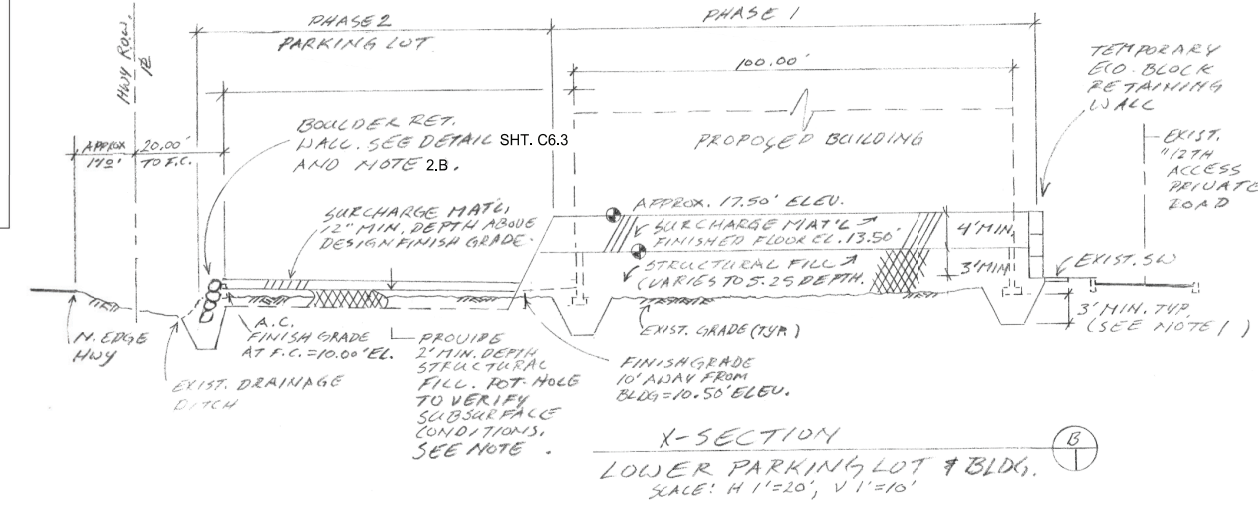
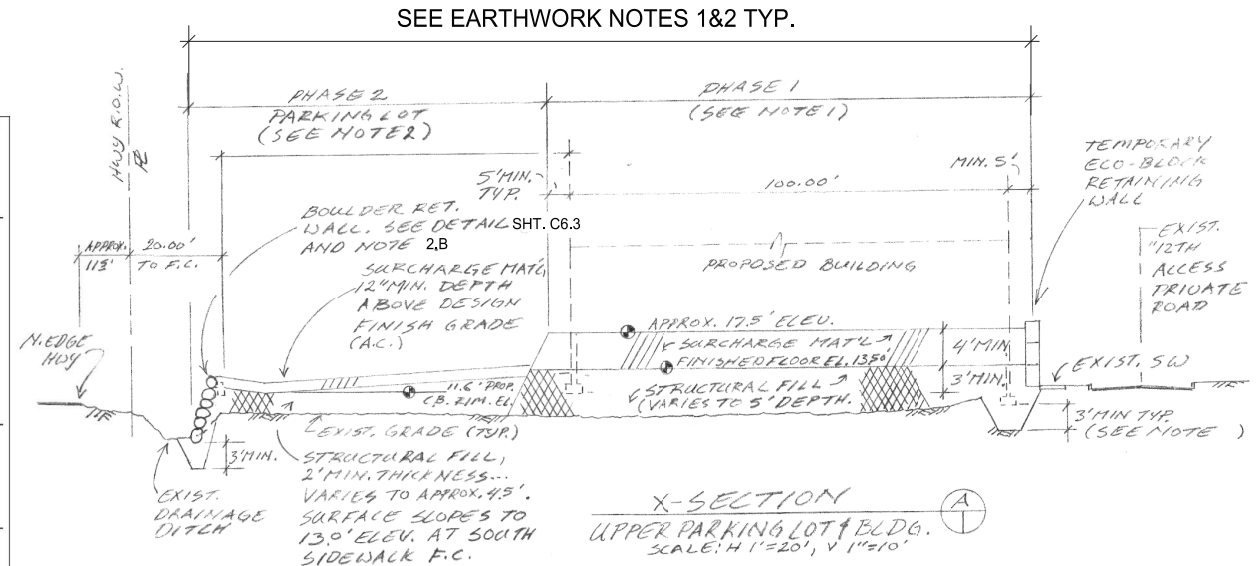
- EXCAVATION, STRUCTURAL FILL PLACEMENT AND SITE SURCHARGING TO FOLLOW GEOTECHNICAL REPORT GUIDANCE (TERRA ASSOCIATES, INC., APRIL 12, 2021, ROBY'S FURNITURE, WARRENTON, OR):
  - SURFACE LAYER STRIPPING GENERALLY NOT REQUIRED WHERE PLANNED STRUCTURAL FILL DEPTHS ABOVE EXISTING GRADES ARE:
    - MORE THAN THREE (3) FEET IN BUILDING AREAS
    - MORE THAN TWO (2) FEET IN PAVEMENT AREAS
  - EXCEPTION TO "A." ABOVE, WHERE EXCESSIVELY SOFT AND YIELDING SUBGRADE IS OBSERVED, UNSTABLE SOILS SHOULD BE REMOVED TO A DEPTH OF 18-INCHES AND REPLACED WITH STRUCTURAL FILL.
  - EXCAVATION AREAS INCLUDE ALLOWANCE FOR SIDE SLOPE CUT BACKS.
  - EXCAVATION AREAS SHOWN ARE BASED ON REPORT GUIDANCE FOR FOUNDATION SUPPORT:
    - BENEATH CONVENTIONAL SPREAD FOOTINGS—PROVIDE A MINIMUM OF 3-FEET STRUCTURAL FILL EXTENDING A MINIMUM OF 12-INCHES LATERALLY BEYOND FOOTING EDGES.
    - BENEATH PAVED AREAS, PROVIDE A MINIMUM OF 18 TO 24-INCHES BELOW FINISHED GRADE.
- PHASED EARTHWORK PROGRAM—A TWO PHASE EARTHWORK PROGRAM IS PLANNED AS FOLLOWS:
  - PHASE 1—BUILDING AREA:
    - OVER EXCAVATE FOOTING AREAS AND PLACE STRUCTURAL FILL FOUNDATION MATERIAL.
    - CONSTRUCT TEMPORARY ECO-BLOCK RETAINING WALLS... NORTH AND WEST SIDE.
    - INSTALL STRUCTURAL FILL TO FINISHED FLOOR ELEVATION (13.5')
    - INSTALL 4" THICK SURCHARGE MATERIAL
    - PRECONSOLIDATE SUBSURFACE—MONITOR SUBSURFACE CONSOLIDATION OVER 3-4 MONTH PERIOD, WITH PRECONSOLIDATION COMPLETE, PROCEED TO PHASE 2.
  - PHASE 2—PAVED AREAS:
    - EXCAVATE "SURFACE SOFT SPOTS" AND EXCAVATE RETAINING WALL FOOTING AREAS AND PLACE STRUCTURAL FILL. BEGIN RETAINING WALL CONSTRUCTION.
    - POT-HOLE AND ASSESS EAST SIDE ROCK-FILL AREA PER NOTE 3 BELOW, OVEREXCAVATE "SHALLOW AREAS" AS REQUIRED AND PLACE STRUCTURAL FILL AT REQUIRED DEPTHS TO FINISH GRADES PER SITE DRAINAGE AND GRADING PLAN.
    - CONSTRUCT RETAINING WALLS AS STRUCTURAL FILL IS PLACED.
    - INSTALL SURCHARGE MATERIAL AND FINAL RETAINING WALL "TOP-OUT"
- AN UNCERTAIN DEPTH AND QUALITY OF ROCK-FILL HAS BEEN PREVIOUSLY PLACED ON THE EASTERLY SIDE OF THE SITE. CONTRACTOR TO POT-HOLE AT SEVERAL LOCATIONS UNDER THE OBSERVATION AND GUIDANCE OF THE GEOTECHNICAL ENGINEER SO AS TO FACILITATE A FIELD ASSESSMENT OF POTENTIAL SUITABILITY AS STRUCTURAL FILL. WHERE EXISTING ROCK FILL IS JUDGED TO BE INADEQUATE FOR STRUCTURAL FILL PURPOSES, CONTRACTOR TO EXCAVATE AS REQUIRED TO ACHIEVE MINIMUM STRUCTURAL FILL DEPTHS. TABULATED QUANTITY ESTIMATIONS ASSUME FULL DEPTH EXCAVATION IN EASTERLY LOW-LEVEL PARKING LOT AREA.

**SUMMARY TABLE--ESTIMATED VOLUME QUANTITIES**

**EXCAVATION/STRUCTURAL FILL/SURCHARGE MATERIALS**

ITEM DESCRIPTION	ESTIMATED QUANTITY	
<b>EXCAVATION:</b>	<b>CUBIC FEET (C.F.)</b>	<b>CUBIC YARDS (C.Y.)</b>
*Phase 1 Building Footings	27,000	1,000
*Retaining Walls	20,000	800
*Phase 2 Parking & Access Areas	3,600	320
<b>TOTAL ESTIMATED EXCAVATION:</b>	<b>55,600 CF</b>	<b>2,120 CY</b>
<b>STRUCTURAL FILL:</b>		
*Phase 1 Building Area	24,500	900
-Footing Support	172,000	6,400
-Main Building Area (2)		
*Phase 2 Parking Access Areas	57,000	2,100
-Upper/Westerly Parking Area	14,000	525
-Lower Easterly Area (3)	20,000	750
-Retaining Walls		
<b>TOTAL ESTIMATED SURCHARGE MATERIAL</b>	<b>287,500 CF</b>	<b>10,675 CY</b>
<b>SURCHARGE MATERIAL:</b>		
*Phase 1 Building Area	130,000	4,820
*Phase 2 Parking & Access Areas	25,000	930
<b>TOTAL ESTIMATED SURCHARGE MATERIAL</b>	<b>155,000 C.F.</b>	<b>5,750 C.Y.</b>

- Contractor to pothole existing rock-fill area in presence of geotechnical engineer to determine material suitability as structural fill. Quantities shown represent potential excavation requirements if existing rock material is judged unsuitable.
- Structural Fill on south and east sides extends beyond the recommended "footprint and 5-foot perimeter" as required to support surcharge material.
- Includes approximately 320 cy's (8,600 cf) of "Potential" Structural Fill to replace potentially unsuitable existing rock-fill material. See notes.



**PHASE 1 BUILDING FOOTING EXCAVATION & STRUCTURAL FILL ESTIMATED QUANTITIES**

Sub-Area Description	Length (ft)	Excav. X-Sect'n Area (ft²)	Excav. Volume (cf)	Excav. Volume (cy)	Str'l Fill X-Sect'n (ft²)	Str'l Fill Volume (cf)	Str'l Fill Volume (cy)
<b>Bldg. Footings:</b>							
*Case 1	362	45	16,290	603	40	14,460	536
*Case 2	231	33	7,623	282	30	6,930	256
*Case 3	75	-0-	-0-	-0-	-0-	-0-	-0-
*Case 4	140	21.5	3,010	111	21	3,010	111
Subtotals:			26,923	997		24,400	904
Sub'tl Rnd-offs:			(27,000)	(1,000)		(24,500)	(900)
<b>Retaining Walls:</b>							
*E. Pl Ret Wall	155	20	3,100	115	20	3,100	115
*N. Ditch Bank	315	52.5	16,538	612.5	48.5	15,278	565
*SE Planter	70	25	1,750	65	25	1,750	65
Subtotals:			17,450	646		16,190	745
Sub'tl Rnd-offs:			(17,500)	(650)		(16,200)	(750)

**PHASE 1 BUILDING AREA STRUCTURAL FILL ESTIMATED QUANTITIES**

Sub-Area Description	Area (sf)	Depth or Length (ft)	Volume (cf)	Volume (cy)
Bldg Footprint	27,550	5	137,750	5,102
Loading Dock	460	5	2,300	85
Perim. Shldr				
*N. Wall	750	2.5	1,875	69
*NW Entry	430	1	430	16
*West Wall	4,200	1	4,200	155
*South Wall	2,610	5	13,050	483
*East Wall	1,323	5	6,615	245
*Slope Shldr	12.5	437	5,463	202
Subtotals:			171,683	6,357
Sub'tl Rnd-offs:			(172,000)	(6,400)

**PHASE 1 BUILDING AREA SURCHARGE ESTIMATED QUANTITIES**

Sub-Area Description	Area (sf)	Depth or Length (ft)	Volume (cf)	Volume (cy)
Bldg + 5' (expt ret. wlls)	31,668	4	126,672	4,692
Sloped Shldr	442	8	3,536	130
Subtotals:			129,808	4,822
Round-offs			(130,000)	(4,820)

**PHASE 2 PAVED AREAS-EXCAVATION ESTIMATED QUANTITIES**

Sub-Area ID	Sub-Area Description	Area (ft²)	Ave. Depth (ft)	Volume (ft³)	Volume (cy³)
A1	W/Upr PL	16,060	-0-	-0-	-0-
A2	SE PL	4,408	1.25	5,500	204
A3	NE PL	1,012	2	2,024	75
A4	Uppr WR	N/A	-0-	-0-	-0-
A4'	Lwr WR	14	73	1,049	38
Subtotals:				8,573	317
Round-offs				(8,600)	(320)

**PHASE 2 PAVED AREAS-STRUCTURAL FILL ESTIMATED QUANTITIES**

Sub-Area ID	Sub-Area Description	Area (ft²)	Ave. Depth (ft)	Volume (ft³)	Volume (cy³)
A1	W/Upr PL	16,060	3.22	51,713	1,915
A2	SE PL Top	4,408	0.75	3,306	122
A2	SE PL Pt'l	4,408	1.25	5,500	204
A3	NE PL Top	1,012	-0-	-0-	-0-
A3	NE PL Pot'l	1,012	2	2,024	75
A4	Uppr WR	72	74	5,328	197
A4'	Lwr ER Top	31	73	2,263	84
A4'	Lwr ER Pt'l	14	73	1,049	38
Sub'tl Top:				62,610	2,316
Sub'tl Pot'l:				8,573	317
Total				71,183	2,635

**PHASE 2 PAVED AREAS-SURCHARGE ESTIMATED QUANTITIES**

Sub-Area ID	Sub-Area Description	Area (ft²)	Ave. Depth (ft)	Volume (ft³)	Volume (cy³)
A1	W/Upr PL	16,060	1	16,060	595
A2	SE Park LT	4,408	1	4,408	16
A3	NE Park LT	1,012	1	1,012	37
A4&A4'	Ramp Area	3,700	1	3,700	137
SubTotal				25,180	932
Round-offs				(25,000)	(930)

REV	DATE	DESCRIPTION

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ROBY'S FURNITURE  
EXCAVATION/STRUCTURAL FILL/SURCHARGE  
CROSS SECTIONS & DETAILS  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB NO.: 2012211249

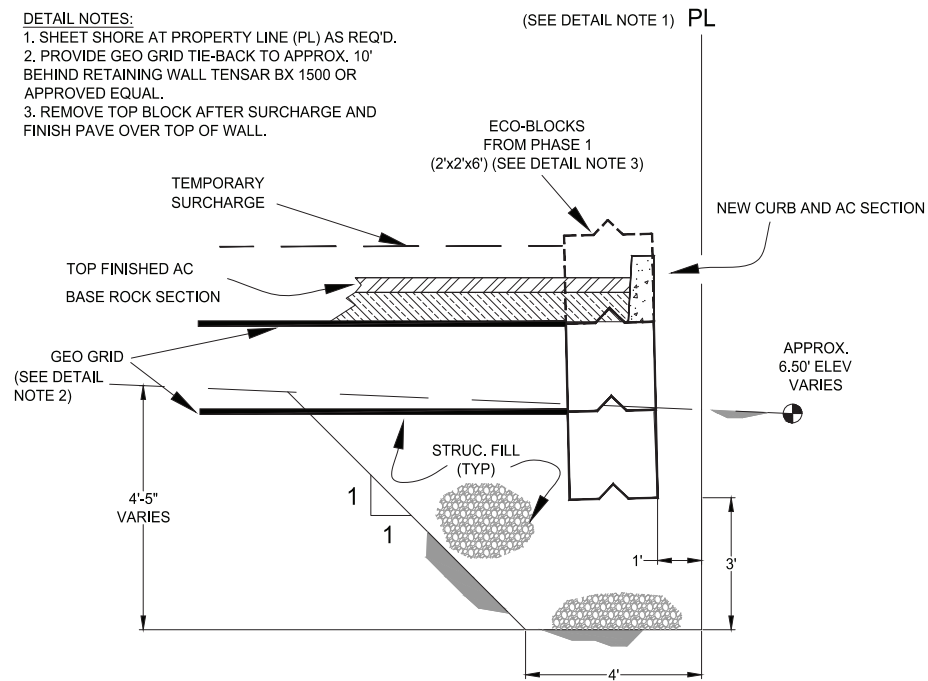
Drawing N.O.:  
**C6.2**  
369



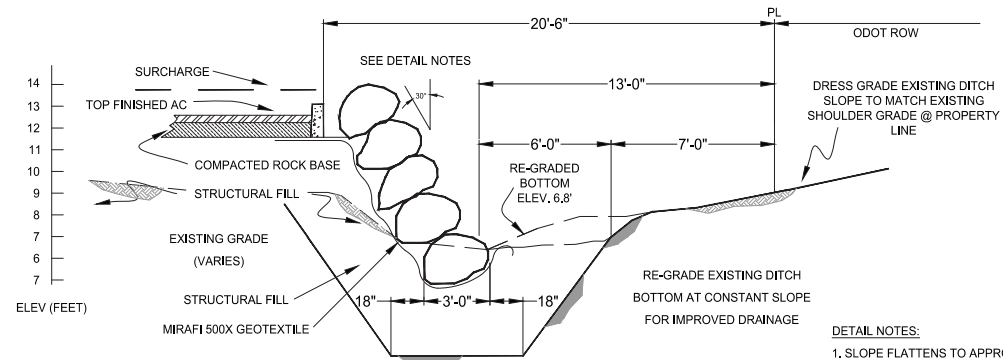
PERMIT SET

**DETAIL NOTES:**

1. SHEET SHORE AT PROPERTY LINE (PL) AS REQ'D.
2. PROVIDE GEO GRID TIE-BACK TO APPROX. 10' BEHIND RETAINING WALL TENSAR BX 1500 OR APPROVED EQUAL.
3. REMOVE TOP BLOCK AFTER SURCHARGE AND FINISH PAVE OVER TOP OF WALL.



**ECO-BLOCK RETAINING WALL**

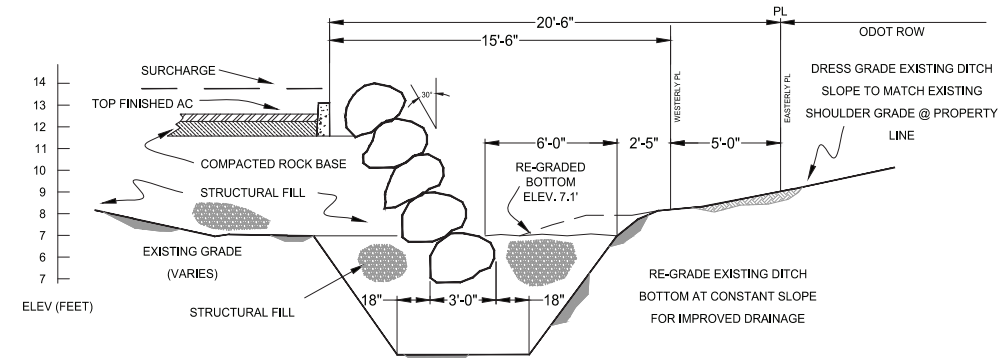


**SOUTH DITCH RETAINING WALL**

CROSS SECTION A-A  
SCALE: 1/4" = 1'

**A**  
C6.3

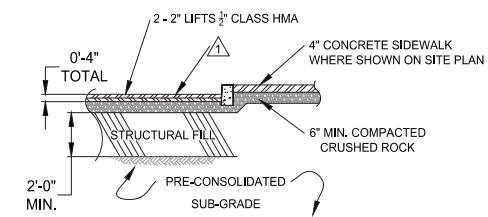
- DETAIL NOTES:**
1. SLOPE FLATTENS TO APPROX. 45° FROM VERTICAL AT EAST END AS TOP CURB DROPS TO APPROX. ELEV. 10.5'



**SOUTH DITCH RETAINING WALL**

CROSS SECTION B-B  
SCALE: 1/4" = 1'

**B**  
C6.3



**PAVEMENT CROSS-SECTION**

SCALE: 1/4" = 1'

**C**  
C6.3

- 1. FINISH GRADE HMA SURFACING TO GRADES SHOWN ON SHEET C5.0. SLOPE TO DRAIN.
- 2. SEE GEOTECHNICAL REPORT FOR SUB-BASE PRE-CONSOLIDATION AND PROOF-ROLL PROCEDURES.

REV	DATE	DESCRIPTION

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**ROBY'S FURNITURE**  
**DETAILS--RETAINING WALLS & PAVEMENT**  
**CROSS-SECTIONS**

WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

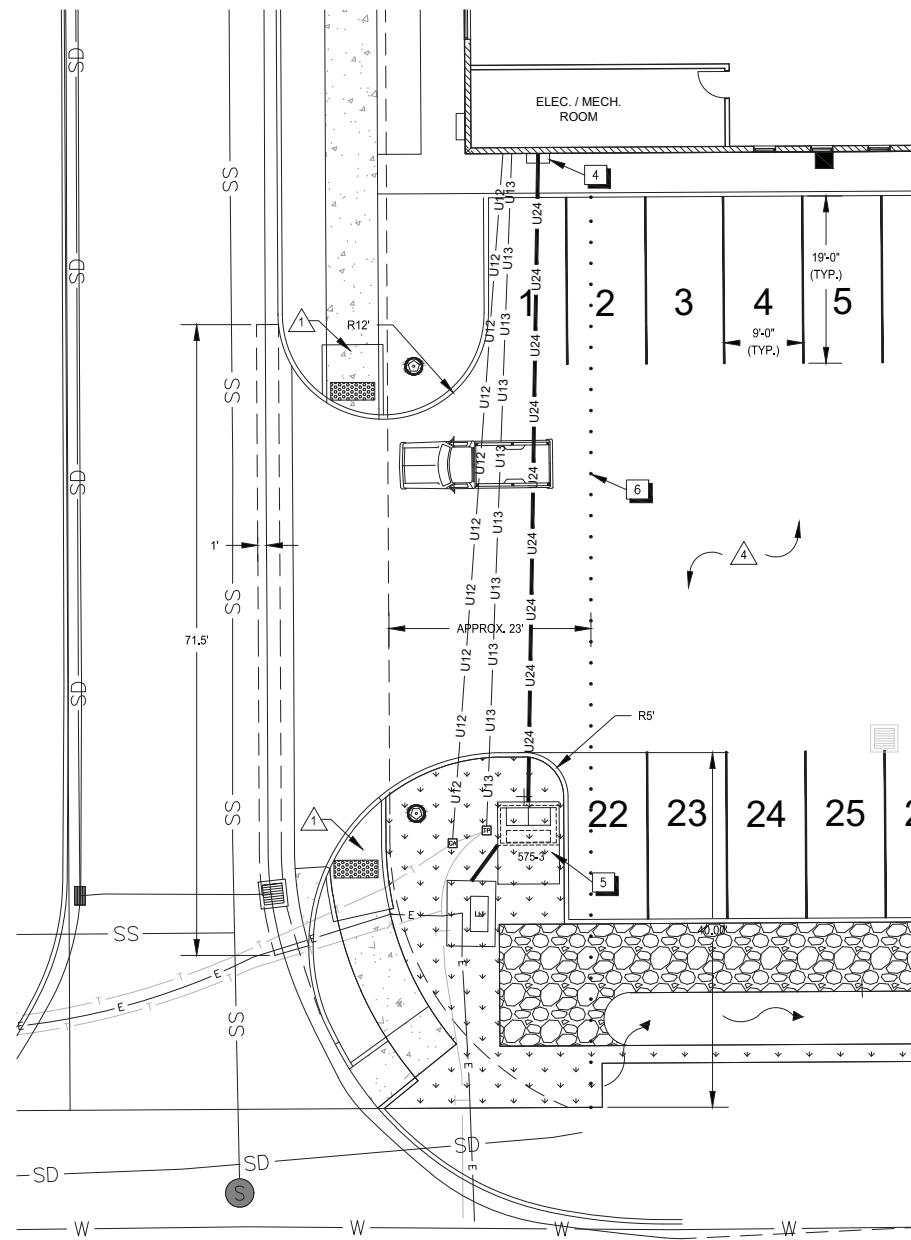
**C6.3**

370

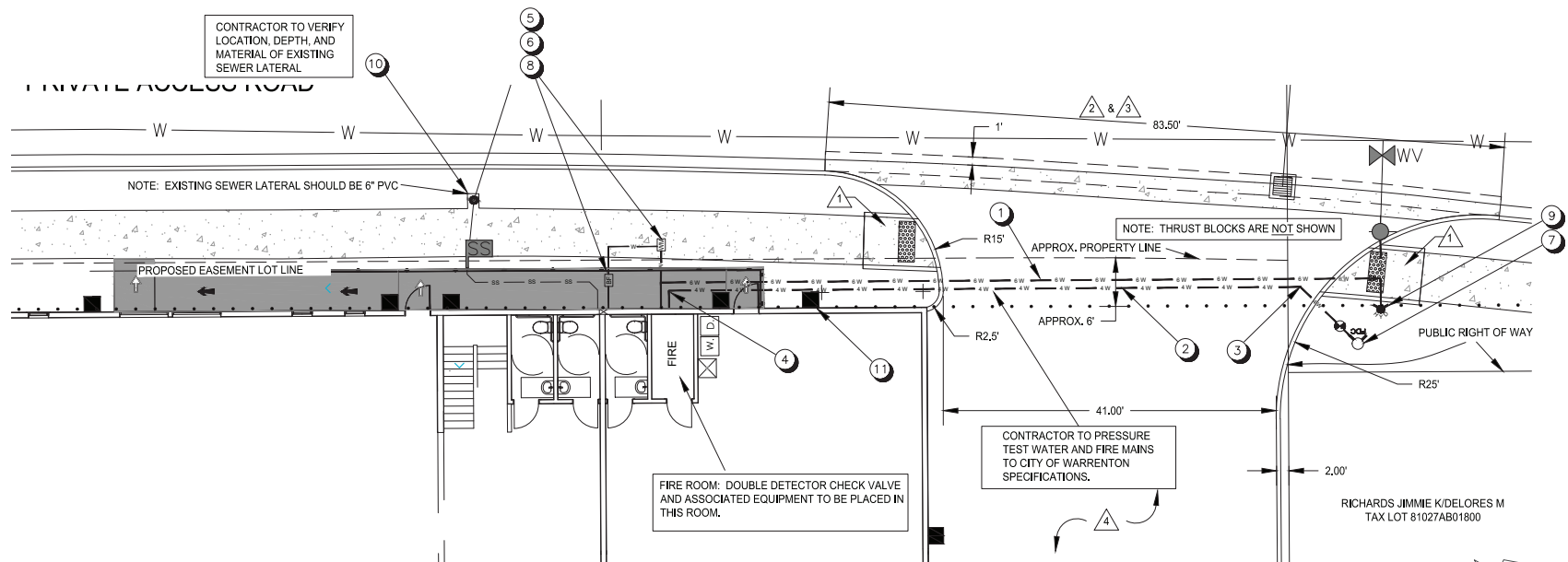


**PERMIT SET**

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**2 MAIN (WEST) ENTRANCE UTILITIES**  
 SCALE: HORIZONTAL 1"=10'



**1 NORTH ENTRANCE UTILITIES**  
 SCALE: HORIZONTAL 1"=10'

**CONSTRUCTION NOTES - WATER AND SEWER**

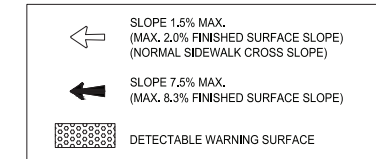
- 1 FURNISH AND INSTALL 6"Ø C-900 PVC SDR-18 WATER MAIN WITH TRACER WIRE - ALL JOINTS SHALL BE RESTRAINED.
- 2 FURNISH AND INSTALL 4"Ø C-900 PVC SDR-18 FDC MAIN WITH TRACER WIRE - ALL JOINTS SHALL BE RETAINED.
- 3 FURNISH AND INSTALL 4" 45° DUCTILE IRON BEND - MJ X MJ WITH GRIP RINGS. CONSTRUCT THRUST BLOCK AS PER DETAIL 4, SHEET C10.0
- 4 FURNISH AND INSTALL 4" 90° DUCTILE IRON BEND - MJ X MJ WITH GRIP RINGS. CONSTRUCT THRUST BLOCK AS PER DETAIL 4, SHEET C10.0
- 5 FURNISH AND INSTALL 6" CONNECTION FIRE MAIN. DETAILS BY D/B CONTRACTOR.
- 6 FURNISH AND INSTALL WATER METER AND DOUBLE DETECTOR CHECK VALVE. WATER METER TO BE IN PUBLIC RIGHT OF WAY (SIDEWALK). DOUBLE DETECTOR CHECK VALVE TO BE IN PUBLIC UTILITY EASEMENT (PRIVATE PROPERTY), COORDINATE WITH CITY FIRE MARSHAL. SEE DETAIL SHEET C10.0 DETAIL 2
- 7 DESIGN/BUILD CONTRACTOR TO FURNISH AND INSTALL FIRE DEPARTMENT CONNECTION (FDC) MAIN INTO BUILDING. SEE MEP PLANS FOR CONNECTION DETAILS. SEE DETAIL 2 SHEET C10.0.
- 8 FIELD LOCATE/FURNISH AND INSTALL LOCKING INDICATOR POST VALVE FOR THE FDC MAIN. SEE DETAIL SHEET C10.0 DETAIL 3
- 9 FIELD LOCATE, FURNISH AND INSTALL 6" Ø FIRE MAIN CONNECTION AS PER SHEET C10.0, DETAIL 3. MOVE EXISTING FIRE HYDRANT AND RE-INSTALL EXISTING FIRE HYDRANT AS PER DETAILS SHEET C10.0, DETAIL 7. CONTRACTOR SHALL VERIFY BURY DEPTH OF EXISTING FIRE HYDRANT AND MAKE CORRECTIONS AS NEEDED FOR NEW LOCATION.
- 10 CONTRACTOR SHALL VERIFY DEPTH AND MATERIAL OF THE EXISTING SEWER LATERAL. CONTRACTOR SHALL FIELD VERIFY SANITARY SEWER CONNECTION AT BUILDING & CONNECT TO THE EXISTING SEWER LATERAL AS PER APPLICABLE CODE AND SUB-CONTRACTOR PLANS.
- 11 OWNER TO PROVIDE EASEMENT FOR FRONTAGE WATER MAIN PER CITY REQUIREMENTS.

**CONSTRUCTION NOTES - CURBS, SIDEWALKS, AND ROADS**

- 1 ADA CURB RAMPS--CONSTRUCT ADA CURB RAMPS PER ODOT STANDARD DRAWING, RD 905. SEE SHEET C12.0.
- 2 EXISTING CURB REMOVAL--SAW CUT AND REMOVE EXISTING MONOLITHIC CURB & GUTTER. SAW CUT EXISTING A.C. 12" INCHES INTO ROADWAY THE FULL LENGTH OF THE NEW DRIVEWAY AND CONSTRUCT NEW 36" INCH WIDE VALLEY GUTTER PER ODOT STANDARD DETAIL RD 700, SHEET C13.0.
- 3 GRIND EXISTING A.C. 1/2" DEPTH, BACK 1' FROM EXISTING GUTTER LINE AND EXTEND NEW A.C. PAVING OVER LOWER LAYER TO FORM "TEE-CUT".
- 4 FINISH A.C. GRADING--PREPARE FINISH GRADE FOR NEW A.C. DRIVEWAYS AND PARKING AREAS PER SITE DRAINAGE AND GRADING PLAN, SHEET C5.0 AND PREPARE ROAD SECTION AND PAVE PER DETAIL, DETAIL 1, SHEET C5.0.

**CONSTRUCTION NOTES - UTILITIES**

- 1 INSTALL PP & L 575 TRANS-PCORP VAULT. LOCATION AND FINISHED ELEVATION TO BE DETERMINED IN FIELD BY ENGINEER AND PP&L
- 2 FURNISH AND INSTALL CONDUIT, AS PER PPL, FROM SECTIONALIZING CABINET TO PPL 575 VAULT. CONDUIT SHALL HAVE LONG SWEEPS. COORDINATE WITH POWER COMPANY TYPE - PVC OR FIBERGLASS SWEEPS.
- 3 FURNISH AND INSTALL SCHEDULE 40 PVC CONDUIT AS PER SCHEDULE FOR ELECTRICAL, TELEPHONE, AND CABLE.
- 4 ELECTRICAL SERVICE ENTRANCE -- FIELD LOCATE BY DESIGN/BUILD (D/B) CONTRACTOR AND COORDINATE W/ PP&L.
- 5 D/B CONTRACTOR TO INSTALL/PROVIDE ALL PRIMARY AND SECONDARY CONDUIT AND VAULTS AND COORDINATE WITH PP&L.
- 6 OWNER TO PROVIDE EASEMENT FOR FRONTAGE ELECTRICAL & COMMUNICATIONS CONDUITS PER CITY REQUIREMENTS.



**REDUCED DRAWING**  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



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**ROBY'S FURNITURE**  
**DRIVE ENTRANCES & SITE UTILITIES**  
**(WATER, SEWER, CONDUITS)**  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:

**C7.0**  
 371

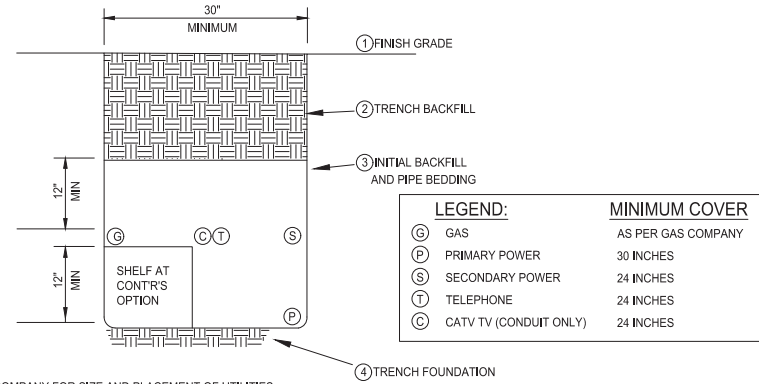
**PERMIT SET**

**NOTES:**

\* ALL DIMENSIONS SHOWN ARE MINIMUM AND RELATIVE TO OUTSIDE OF PIPE BELL.

**TRENCH MATERIAL:**

- ① MATCH FINISH GRADE AS SHOWN
- ② 3/4"-0" CRUSHED ROCK DEPTH TO DEPEND ON SURFACE (AC OR CONCRETE)
- ③ COMPACTED 3/4"-0" CRUSHED ROCK OR CLEAN NATIVE SAND
- ④ CRUSHED ROCK 3/4"-0"



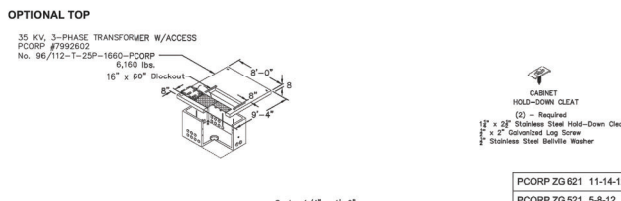
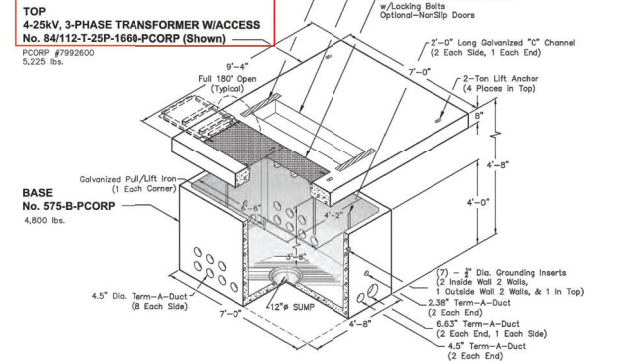
COORDINATE WITH UTILITY COMPANY FOR SIZE AND PLACEMENT OF UTILITIES.

**1 TYPICAL JOINT UTILITY TRENCH DETAIL**  
NOT TO SCALE

C7.1

**575-TRANS-PCORP**

5 x 7, 4-25 kV, 3-Phase 75-750 kVA Transformer Padvault With Access, Stock Item 7992600  
5 x 7, 35 kV, 3-Phase 75-750 kVA Transformer Padvault With Access, Stock Item 7992602



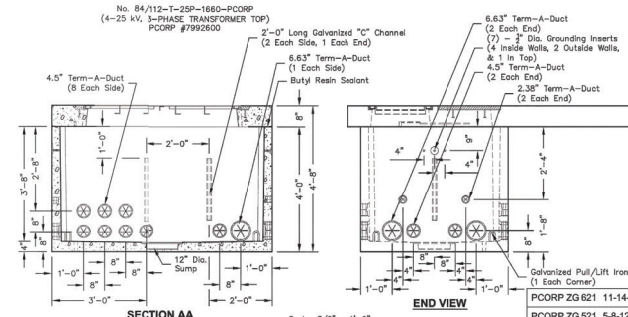
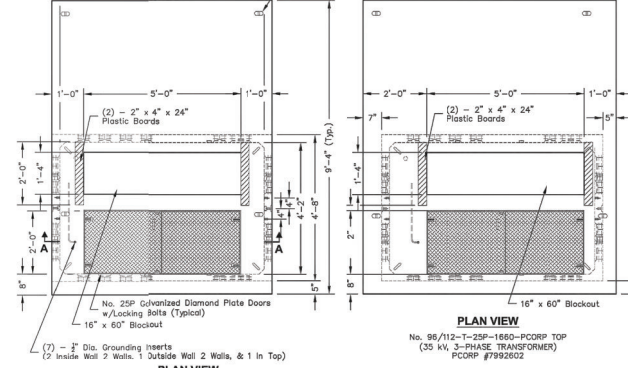
<p>PO Box 323, Wilsonville, Oregon 97070-0323 Tel: (503) 682-2844 Fax: (503) 682-2657</p>	<p><b>575-TRANS-PCORP</b></p> <p>File Name: 020JEE57STRANS1 Issue Date: Revised 11-6-12 oldcastleprecast.com/wilsonville</p>	<p><b>575-TRANS-PCORP</b> <b>5 x 7</b> <b>PACIFICORP</b></p>
	<p>Scale: 1/4" = 1'-0"</p>	

NOTE: CONTRACTOR SHALL VERIFY WITH PPL ON VAULT TYPE AND LID

**2 PPL 575 VAULT FOR ELECTRICAL TRANSFORMER**  
NOT TO SCALE

C7.1

**575-TRANS-PCORP**



<p>PO Box 323, Wilsonville, Oregon 97070-0323 Tel: (503) 682-2844 Fax: (503) 682-2657</p>	<p><b>575-TRANS-PCORP</b></p> <p>File Name: 020JEE57STRANS2 Issue Date: Revised 11-6-12 oldcastleprecast.com/wilsonville</p>	<p><b>575-TRANS-PCORP</b> <b>5 x 7</b> <b>PACIFICORP</b></p>
	<p>Scale: 3/8" = 1'-0"</p>	



REV	DATE	DESCRIPTION

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ROBY'S FURNITURE  
DETAILS- UTILITIES

DRAWN: 05/28/2021  
ISSUED: 05/21/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

**C7.1**  
372

**REDUCED DRAWING**  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PERMIT SET

WARRENTON, OREGON



REV	DATE	DESCRIPTION

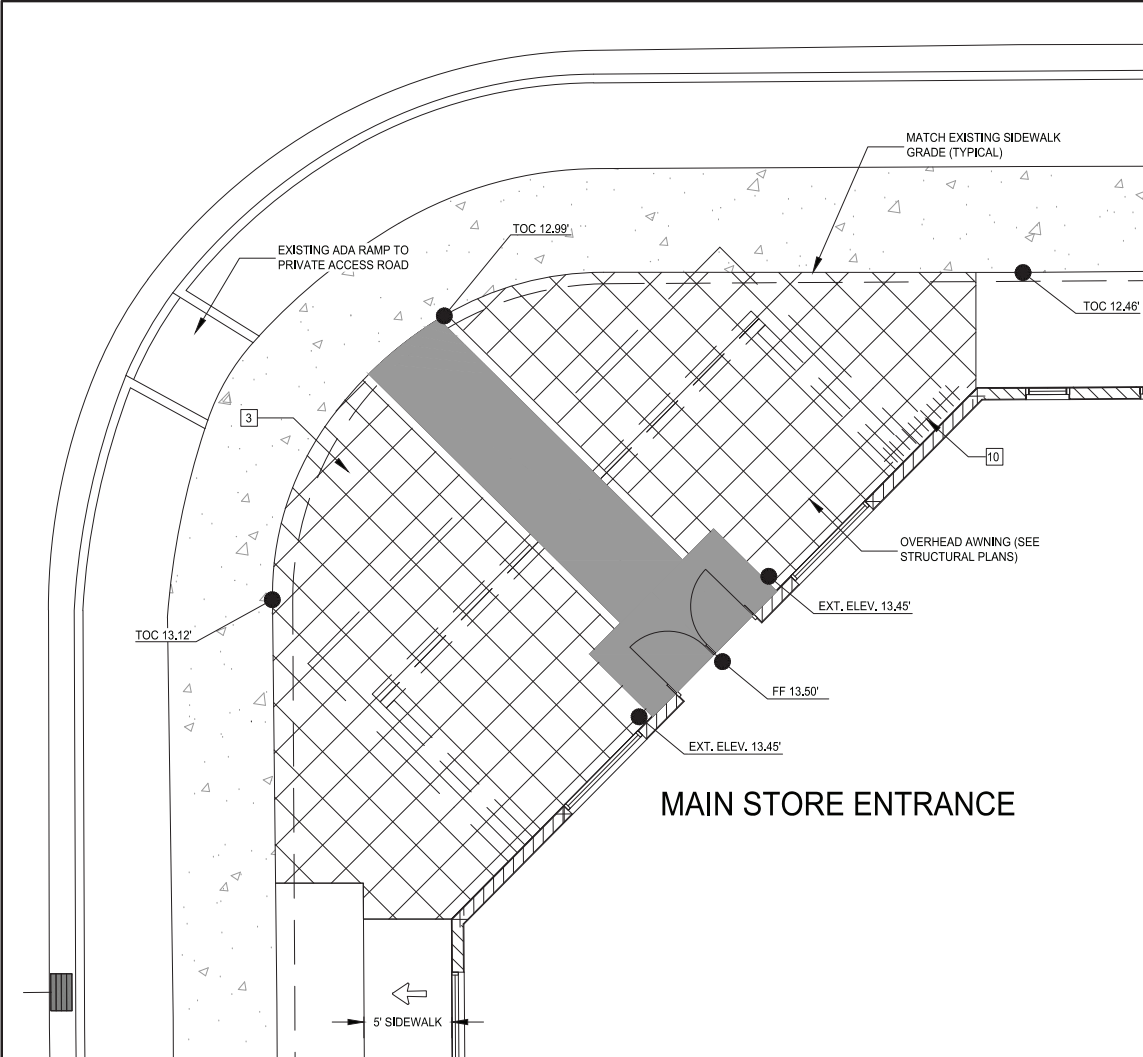
105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



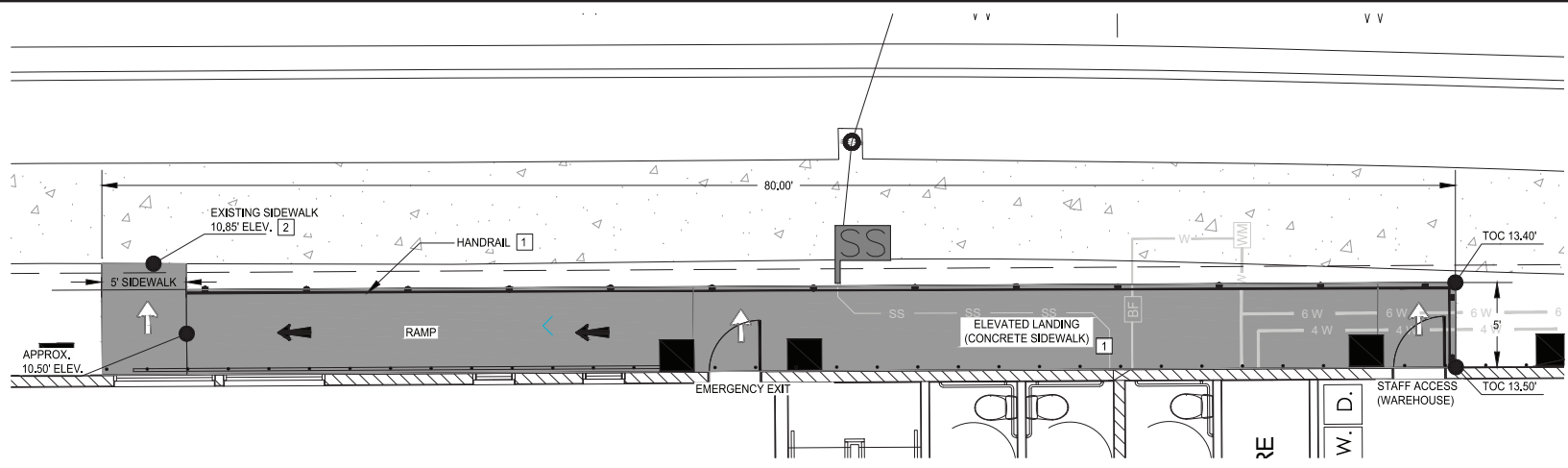
**ROBY'S FURNITURE**  
**STORE ENTRANCES & ACCESS WAYS**  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 201221249

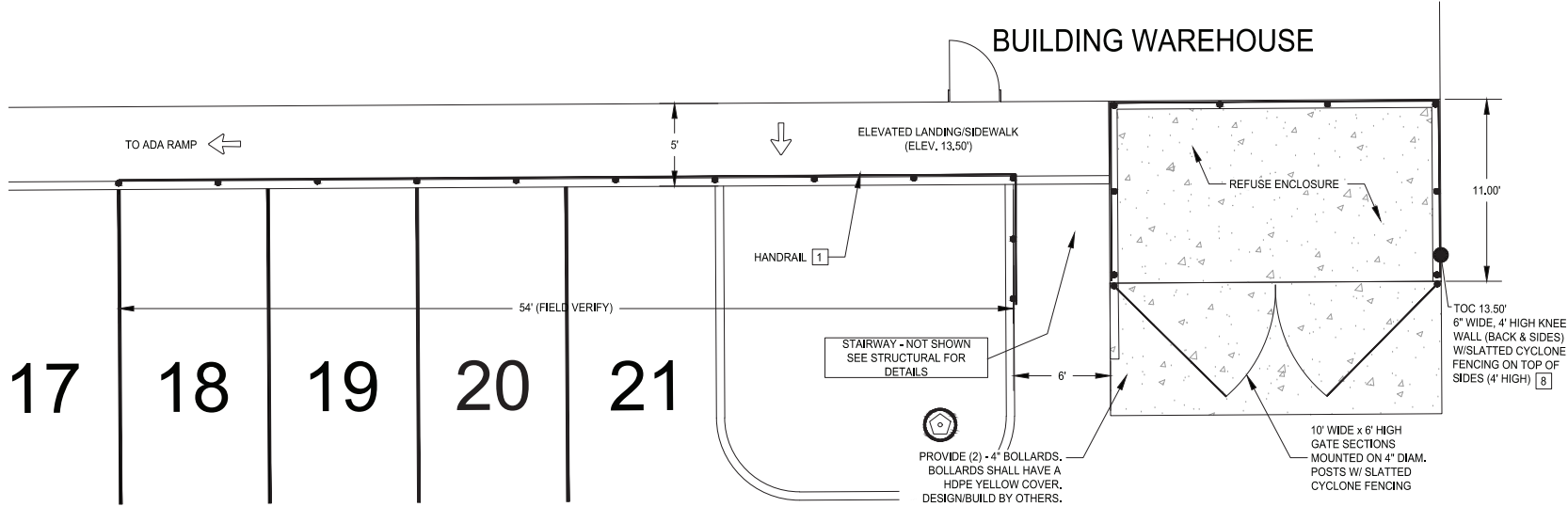
Drawing N.O.:  
**C8.0**  
373



**1 MAIN NW ENTRANCE**  
C8.0 SCALE: HORIZONTAL 1"=5'



**2 NORTH EAST BUILDING ACCESS**  
C8.0 SCALE: HORIZONTAL 1"=5'

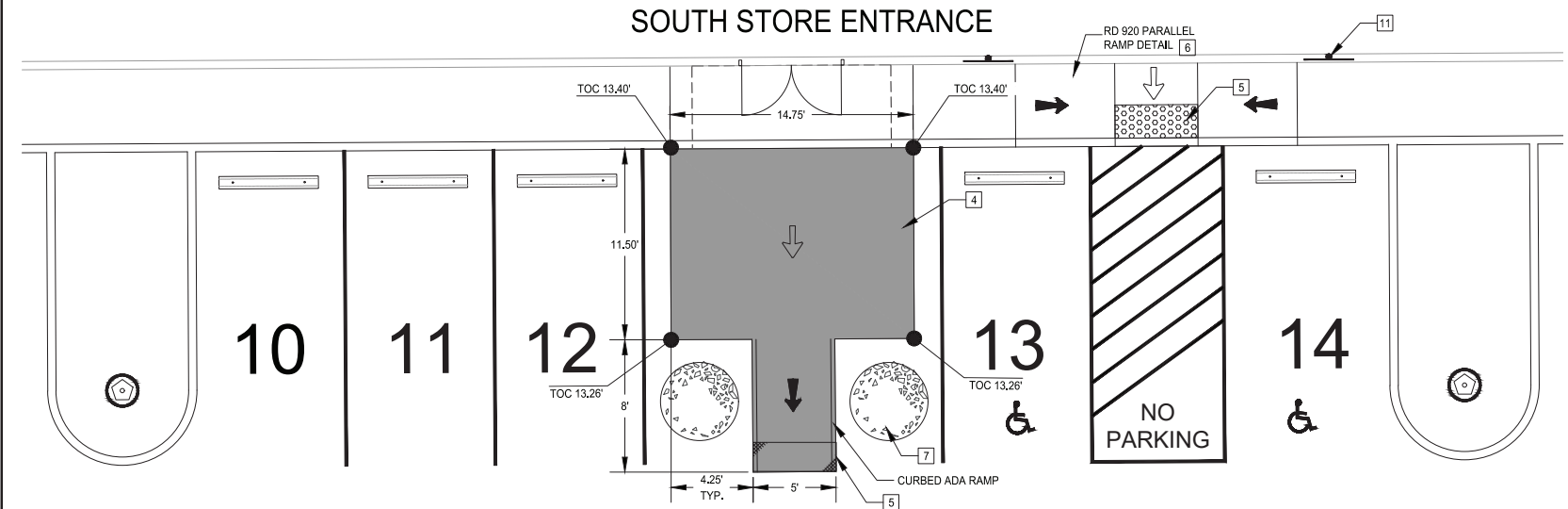


**4 SOUTH EAST BUILDING ENTRANCE**  
C8.0 SCALE: HORIZONTAL 1"=5'

← SLOPE 1.5% MAX.  
(MAX. 2.0% FINISHED SURFACE SLOPE)  
(NORMAL SIDEWALK CROSS SLOPE)

← SLOPE 7.5% MAX.  
(MAX. 8.3% FINISHED SURFACE SLOPE)

DETECTABLE WARNING SURFACE



**3 SOUTH BUILDING ENTRANCE**  
C8.0 SCALE: HORIZONTAL 1"=5'

**CONSTRUCTION NOTES - BUILDING ENTRANCES**

- ELEVATED SIDEWALK AND HANDRAIL—TO BE DESIGN/BUILD BY CONTRACTOR. SEE STRUCTURAL PLANS FOR DETAILS.
- MATCH EXISTING SIDEWALK GRADES—FIELD VERIFY EXISTING GRADES AND CONSTRUCT NEW HARDSCAPE FACILITIES TO MATCH.
- MAIN ENTRANCE PLAZA—DETAILED DESIGN OF SCORED OR STAMPED CONCRETE OF CONCRETE PAVERS BY DESIGN/BUILD CONTRACTOR.
- 8" THICK POURED CONCRETE SLAB PORCH W/AWNING OVERHEAD.
- PROVIDE ADA DETECTABLE WARNING SURFACE, SEE DETAILS, SHEET C12.0
- ADA CURB RAMP—PROVIDE ODOT STANDARD RD 920 OR MOST CURRENT ODOT UPDATE. SEE DETAILS, SHEET C12.0
- DECORATIVE PLANTERS—PROVIDE PERMANENT OR LARGE-PLANTER-POT DECORATIVE PLANTERS PER DESIGN/BUILD CONTRACTOR...FIELD VERIFY AND CONFIRM WITH OWNER.
- REFUSE AREA FEATURES (ALL DETAILS BY DESIGN/BUILD CONTRACTOR):  
 \* CONCRETE SLAB—PROVIDE 19.0' X 20.0' 6-INCH THICK CONCRETE SLAB PER CITY STANDARDS  
 \* PROTECTIVE KNEE WALL—PROVIDE APPROXIMATELY 4-FT HIGH, 6" THICK PROTECTIVE KNEE WALL ON SIDES AND BACK...FIELD VERIFY DIMENSIONS.  
 \* SIDE FENCING—PROVIDE APPROXIMATELY 4' HIGH SLATTED CYCLONE FENCING ON TOP OF KNEE WALL FOR VISUAL SCREENING.  
 \* GATES—PROVIDE TWO OUTWARD SWINGING 10-WIDE GATE PANELS, MATCHING CYCLONE FENCING WITH SLATS FOR VISUAL SCREENING. MOUNT GATES TO 4-INCH DIAMETER POSTS  
 \* PROTECTIVE BOLLARDS—PROVIDE PROTECTIVE GATE POST BOLLARDS PER CITY STANDARDS. FIELD VERIFY MATERIALS, INSTALLATION DETAILS AND LOCATION.  
 \* LOADING ZONE/NO PARKING—PROVIDE GATE SIGNS AND A.C. SURFACE PAINTING PER CITY STANDARDS
- STAIRS—PROVIDE REINFORCED CONCRETE STAIRS AND HANDRAIL MATCHING OTHER BUILDING-EXTERIOR HANDRAILS. FIELD VERIFY EXISTING GRADES AND DIMENSIONS AND CONFIRM/ADJUST RISE & RUN DIMENSIONS AS REQUIRED PER BUILDING CODE.
- BIKE RACK—PROVIDE 9-SPACE BIKE RACK WITH 2 SPACES DEDICATED TO LONG TERM PER CITY CODE AND DESIGN STANDARDS. DETAILS BY DESIGN/BUILD CONTRACTOR. STYLE SELECTION, LOCATION & MOUNTING.
- ADA PARKING SIGNAGE—WALL MOUNT ADA "RESERVED PARKING/VAN ACCESSIBLE" SIGN, PER DETAIL SHEET 13. FIELD VERIFY SIZE, LOCATION AND MOUNTING DETAILS.

**REDUCED DRAWING**  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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REV	DATE	DESCRIPTION

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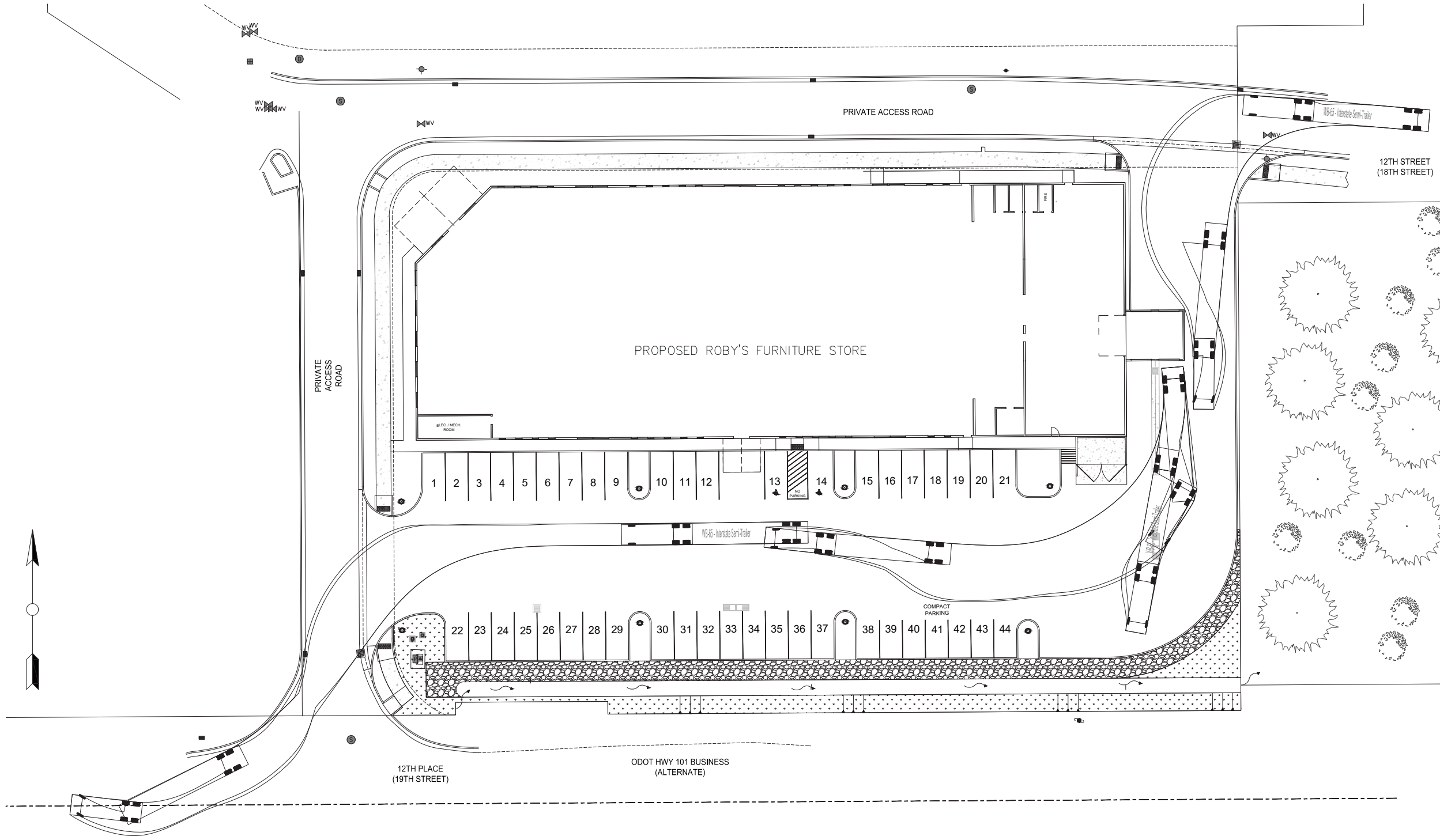
**ROBY'S FURNITURE  
 TRUCK MANEUVERING/TRACKING DIAGRAM**

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:  
**C8.1**  
 374

**PERMIT SET**

WARRENTON, OREGON



**VEHICLE TRACKING**  
 SCALE: HORIZONTAL 1"=20'



DESIGN VEHICLE TYPE	Symbol	DIMENSIONS (FEET)					
		Height	Width	Lgth.	Overhang Front	Overhang Rear	Wheelbase WB1 / WB2
Interstate Semitrailer	WB-65	13.5	8.5	73.5	4.0	4.5	21.6 / 45.4

REFERENCE TO ASSHTO TRUCK MANEUVERING MODE

**TRUCK TRACKING DISCLAIMER**

TRUCK MANEUVERING DIAGRAM IS DEVELOPED TO AID IN GEOMETRIC DESIGN OF SITE AND IS PROVIDED FOR GENERAL INFORMATION ONLY. MANEUVERING DIAGRAM IS BASED ON WB-65 AND SHOWS LIKELY TRACKING PATH OF A MAXIMUM ANTICIPATED TRACTOR-TRAILER-RIG TRAILER LENGTH OF 52-FEET. TURNING CONDITIONS ARE KNOWN TO BE CONFINED. OWNER TO ADVISE SUPPLIERS IN ADVANCE OF CONFINED ENTRY CONDITIONS AND THE NEED FOR CAUTIOUS EXPERIENCED DRIVERS. CORNER BUMPERS WILL BE PROVIDED FOR BUILDING PROTECTION. ENGINEER, OWNER, CITY AND ASSHTO ARE NOT RESPONSIBLE FOR POTENTIAL TRUCK DAMAGE DUE TO OVER LENGTH VEHICLES OR CARELESS DRIVING/MANEUVERING. SUPPLIERS WILL BE ADVISED OF THE NORTHEAST CORNER TRUCK ENTRANCE LOCATION WITH NEEDED APPROACH FROM THE EAST OFF OF MARLIN AVENUE.

**REDUCED DRAWING  
 VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET,  
 ADJUST SCALES ACCORDINGLY

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**ROBY'S FURNITURE  
LANDSCAPING AND LIGHTING PLAN**

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

**C9.0**  
375

PERMIT SET

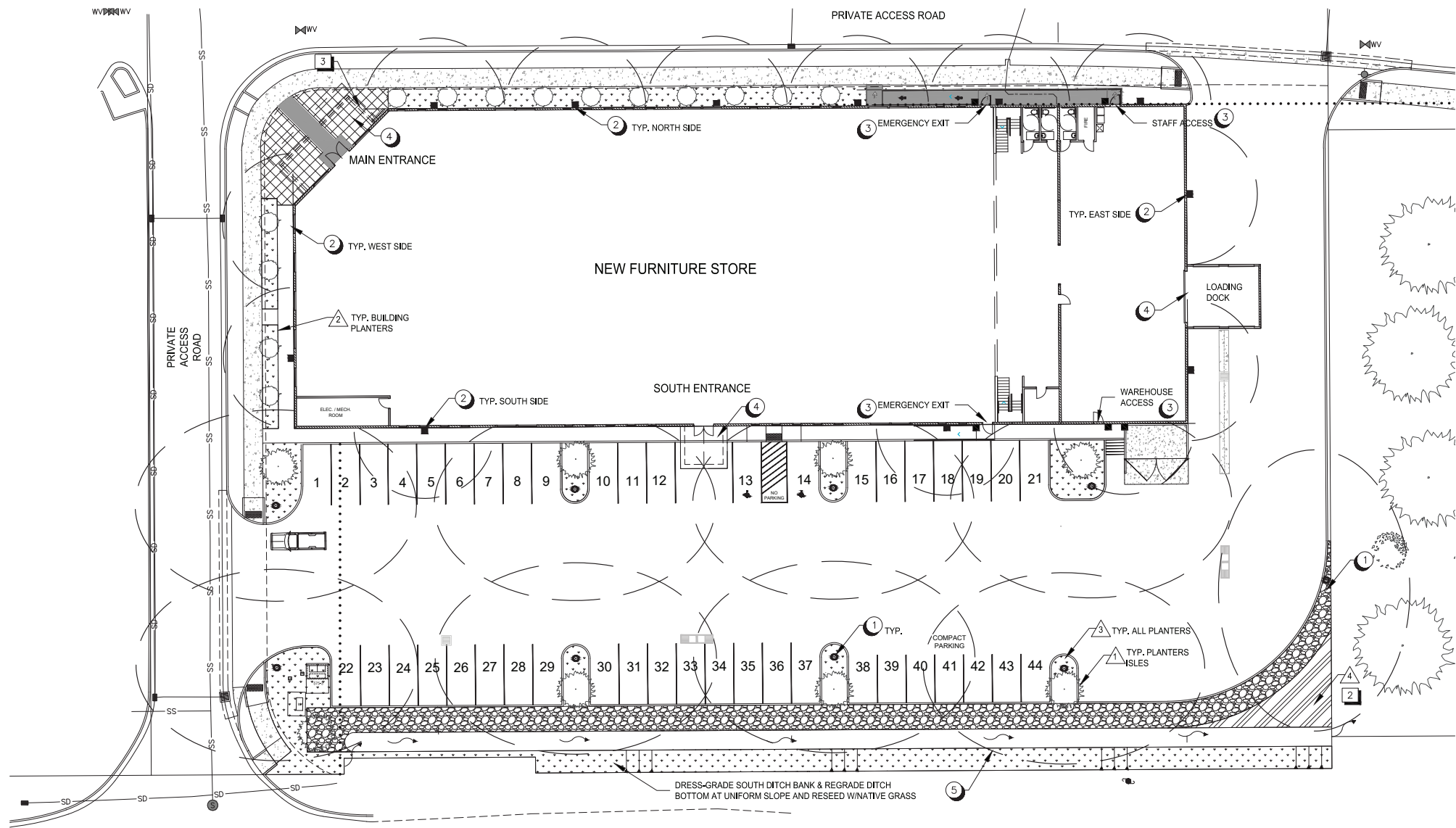
WARRENTON, OREGON

**CONSTRUCTION NOTES - LANDSCAPING**

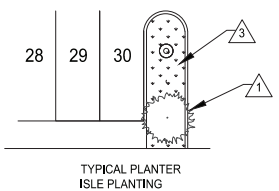
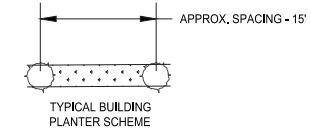
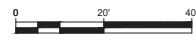
- LANDSCAPE PLANTING AND IRRIGATION--DETAILED LANDSCAPE PLANTING PLAN AND PLANTING TO BE PROVIDED BY DESIGN/BUILD (D/B) CONTRACTOR, FOLLOWING CITY STANDARDS. SEE "GENERAL PLANTING THEME" TABLE, THIS SHEET. DROUGHT TOLERANT PLANTINGS ARE PLANNED WITH TEMPORARY/INITIAL IRRIGATION TO BE PROVIDED BY LANDSCAPE CONTRACTOR UNTIL ALL PLANTS BECOME WELL ESTABLISHED.
- SOUTHEAST CORNER PLANTER--GRADE SOUTHEAST CORNER PLANTER AREA TO MATCH EXISTING GRADES TO EAST AT PROPERTY LINE AND DITCH GRADE TO SOUTH. PLANT WITH NATURAL WETLANDS PLANTINGS...PER D/B CONTRACTOR PLANTING PLAN.
- BICYCLE PARKING--PROVIDE MINIMUM 9 SPACES WITH TWO SPACES BEING LONG TERM, PER CITY CODE/STANDARDS/REQUIREMENTS. BICYCLE RACK STYLE, LOCATION AND INSTALLATION PER D/B CONTRACTOR.

**CONSTRUCTION NOTES - LIGHTING**

- PLANTER ISLE LIGHT STANDARDS--PROVIDE CAST-IN-PLACE CONCRETE LIGHT STANDARD FOUNDATION BASE PER STRUCTURAL PLANS. DETAILED LUMINAIRE DESIGN AND LIGHTING CONSTRUCTION BY D/B CONTRACTOR.
- BUILDING MOUNTED LIGHTING--PROVIDE HIGH MOUNTED LUMINAIRES ON BUILDING FOR SUPPLEMENTARY LIGHTING. DESIGN AND INSTALLATION BY D/B CONTRACTOR. SEE STRUCTURAL PLANS.
- EXTERIOR DOOR LEVEL LIGHTING--FIELD LOCATE AND INSTALL EXTERIOR DOOR-LEVEL LIGHTING AT ALL SIDE ACCESS DOORS PER D/B CONTRACTOR.
- STORE ENTRANCE LIGHTING--OVERHEAD RECESSED LIGHTING TO BE PROVIDED AT BOTH MAIN NORTHWEST AND SOUTH CUSTOMER ENTRANCES UNDER AWNINGS AND AT REAR LOADING DOCK. DETAILED DESIGN AND INSTALLATION BY D/B CONTRACTOR. SEE STRUCTURAL PLANS.
- EXTERIOR SITE LIGHTING--GENERAL LIGHT FIXTURE LOCATIONS AND INTENDED LIGHTING COVERAGES ARE SHOWN ON PLANS. DETAILED LUMINAIRE DESIGN (INCLUDING STANDARD STYLE AND HEIGHT) TO BE PERFORMED BY D/B CONTRACTOR TO PROVIDE AMPLE LIGHTING FOR CUSTOMER CONVENIENCE, PUBLIC SAFETY AND SITE SECURITY.



**1 LANDSCAPING AND LIGHTING PLAN**  
SCALE: HORIZONTAL 1"=20'



**TYPICAL WETLANDS PLANT LIST:**

- SP - Shors Pine
- C - Cascara
- E - Elderberry
- 9B - Pacific 9bark
- SD - Spirea Douglasi
- RT - Red Twig Dogwood
- SB - Snowberry
- BW - Bog Willow
- AW - Arctic Willow

**GENERAL PLANTER THEME**

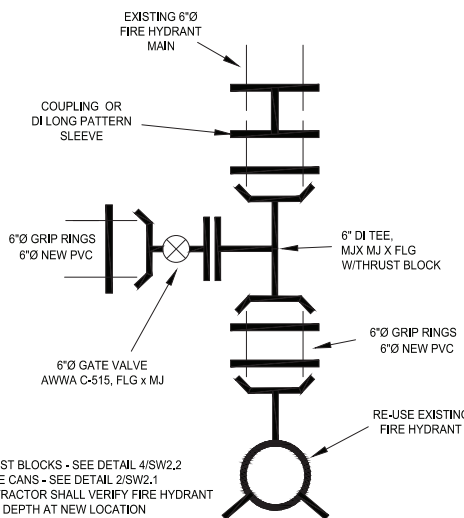
- SIGNATURE TREE
- TALL COLUMNAR TREE
- MIXED BED PLANTING: ORNAMENTAL GRASSES/SHRUBS/GROUNDCOVER... VARYING SHAPE, SIZE & COLOR
- WETLANDS PLANTINGS

**REDUCED DRAWING  
VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**LANDSCAPE PLAN - GENERAL NOTES**

- LANDSCAPING PLAN: DESIGN COMPLIES WITH ALL REQUIREMENTS OF CITY OF WARRENTON DEVELOPMENT CODE 16.124.070.
- LANDSCAPED AREA: TOTAL EXCEEDS MINIMUM 15% OF GROSS AREA REQUIREMENT. (71,500 SF X 15% = 10,725 SF)
- LANDSCAPE MATERIALS:
  - NATURAL VEGETATION PRESERVED--SOUTH SIDE OPEN DRAINAGE DITCH TO BE PRESERVED AS NATURAL VEGETATION.
  - PLANT SELECTION--ALL NEW PLANTINGS TO BE "LOCAL CLIMATE" HARDY NATIVE SPECIES.
  - NON-NATIVE, INVASIVE PLANTS PROHIBITED--ALL INVASIVE HIMALAYAN BLACKBERRIES ON-SITE TO BE REMOVED.
  - HARDSCAPE FEATURES--COVER LESS THAN 90% MAX. OF LANDSCAPED AREA.
  - NON-PLANT GROUND COVERS--BARK DUST, CHIPS, AGGREGATE, ETC. SHALL BE LESS THAN 90% OF TOTAL LANDSCAPED AREA.
  - TREE SIZE--NEW TREES TO HAVE A MINIMUM CALIPER SIZE OF 1.5-INCHES.
  - SHRUB SIZE--ALL NEW SHRUBS TO BE BALLED AND BURLAPPED TO FIT IN MULTI-GALLON CONTAINERS.
  - GROUNDCOVER SIZE--SIZE AND SPACING SO AS TO COVER A MINIMUM OF 30% OF UNDERLYING SOIL WITHIN TWO YEARS.
  - SIGNIFICANT VEGETATION PRESERVED--PRESERVED NATURAL VEGETATION IS INCLUDED IN LANDSCAPED AREA TOTAL.
  - STORMWATER FACILITIES--NATIVE SOILS (UNDISTURBED PLANTS AND EMBEDDED PLANT ROOTS & SEEDS) OF EXISTING OPEN DRAINAGE DITCH BOTTOM AND SOUTH-SIDE BANK TO BE PRESERVED AND WATER TOLERANT NATIVE PLANTING TO BE RESTORED WITH PROPOSED RE-GRADING.
- LANDSCAPE DESIGN STANDARDS--DESIGNS COMPLY WITH ALL REQUIREMENTS OF CITY DEVELOPMENT CODE 16.124.070.E.
  - SET BACK LANDSCAPING:
    - VISUAL SCREENING FOR PRIVACY, OPEN ENTRANCES FOR SECURITY.
    - TREES AND SHRUBS AS WIND BREAKS.
    - RETAINAGE OF NATURAL VEGETATION WHERE PRACTICABLE.
    - DEFINITION OF PEDESTRIAN PATHWAYS AND OPEN SPACES WITH LANDSCAPE MATERIALS.
    - USE OF SIGNATURE TREES, HEDGES, FLOWERING PLANTS AS FOCAL POINTS.
    - USE OF TREES FOR SUMMER SHADING IN COMMON AREAS.
  - USE OF COMBINATION PLANTINGS FOR YEAR-LONG COLOR AND INTEREST.
  - SCREENAGE OF OUTDOOR STORAGE AND MECHANICAL AREAS.
- PARKING AREAS:
  - MINIMUM LANDSCAPING OF 8% OF PARKING AREA PROVIDED.
    - MINIMUM PLANTING OF ONE TREE PER FIVE PARKING SPACES WITH EVENLY DISTRIBUTED PLANTING SCHEME (TREES, BUSHES & GROUNDCOVER)
    - MORE THAN 20 PARKING SPACES ARE REQUIRED, THUS, LANDSCAPE ISLANDS ARE INCLUDED AT NO LESS THAN ONE ISLAND PER 12 CONTIGUOUS SPACES.
    - ALL LANDSCAPE AREAS ARE GREATER THAN MINIMUM 4-FT X 4-FT REQUIREMENT.
  - BUFFERING AND SCREENING:
    - PARKING/MANEUVERING AREA ADJACENT TO STREETS AND DRIVES--EVERGREEN HEDGE (GREATER THAN MINIMUM 36-INCH HEIGHT) SCREENING TO BE PROVIDED IN BUFFER PLANTER SOUTH OF MAIN PARKING LOT ENTRANCE.
    - PARKING/MANEUVERING AREA ADJACENT TO BUILDING--AS REQUIRED, 5-FOOT WIDE (GREATER THAN 4-FT MIN.) RAISED SIDEWALK PATHWAY IS PROVIDED AT THE SOUTH SIDES OF THE NEW BUILDING AS A BUFFER BETWEEN THE BUILDING AND THE PARKING AREA.
    - SCREENING OF MECHANICAL EQUIPMENT, OUTDOOR STORAGE, SERVICE AND DELIVERY AREAS--A NON-SEE-THROUGH GATED/FENCED ENCLOSURE IS PROVIDED AT THE SOUTHWEST CORNER OF THE BUILDING, SCREENING RECYCLING AND REFUSE BINS.
- MAINTENANCE AND IRRIGATION--AS ENCOURAGED, DROUGHT-TOLERANT PLANT SPECIES WILL BE USED AS PLANT MATERIALS TO THE EXTENT AVAILABLE AND PRACTICABLE. UNDERGROUND IRRIGATION IS NOT PLANNED TO BE INCLUDED. LANDSCAPE CONTRACTOR TO PROVIDE TEMPORARY WATERING SERVICE AND MAINTENANCE WARRANTY.
- DETAILED LANDSCAPE PLANTING PLAN, PLANT SELECTION, MATERIALS SUPPLY, PLANTING AND MAINTENANCE CONFORMING TO ABOVE REQUIREMENTS TO BE PROVIDED BY DESIGN/BUILD LANDSCAPING CONTRACTOR.

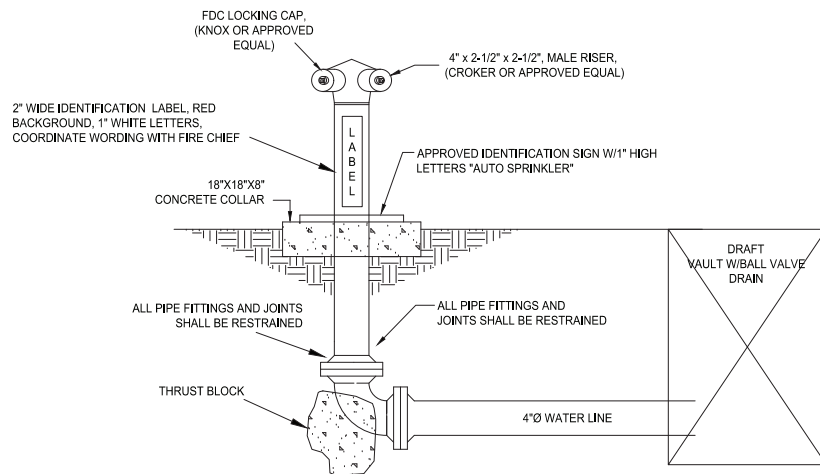
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**NOTE:**

1. THRUST BLOCKS - SEE DETAIL 4/SW2.2
2. VALVE CANS - SEE DETAIL 2/SW2.1
3. CONTRACTOR SHALL VERIFY FIRE HYDRANT BURY DEPTH AT NEW LOCATION

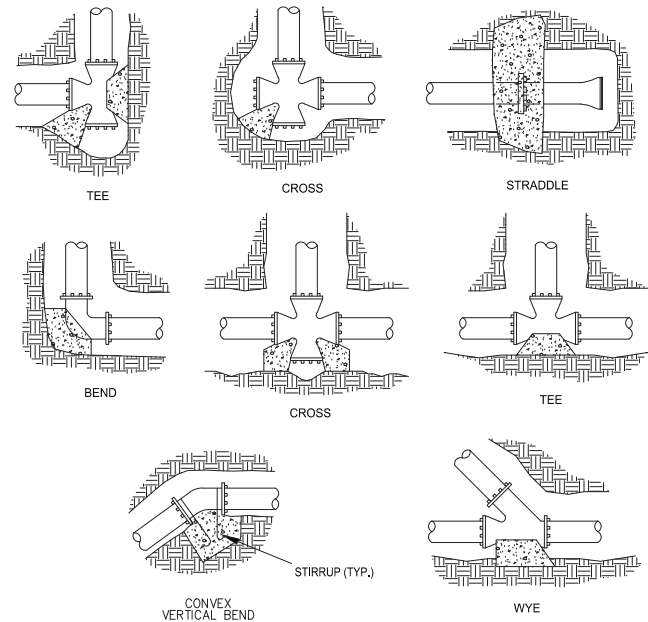
**1 6" DOMESTIC WATER CONNECTION DETAIL**  
C10.0 NOT TO SCALE



**2 FIRE DEPARTMENT CONNECTION DETAIL**  
C10.0 NOT TO SCALE

**CONTRACTOR SUPPLIED AND INSTALLED:**

1. 1" SERVICE SADDLE (ROMAC 202S OR EQUIVALENT)
2. 1" CORPORATION STOP (FORD FB1000-4G OR EQUIVALENT)
3. 1" POLYETHYLENE, MUNIPEX WATER SERVICE TUBING (CTS)
4. 1"x3/4" LOCKABLE ANGLE STOP USING FORD GRIP RING FITTINGS
5. METER BOX - ARMORCAST RPM A6000485 (12X20X12) WITH POLYMER CONCRETE 20K TRAFFIC RATED LID
6. FURNISH AND INSTALL MASTER METER ALLEGRO UNDER-THE-GLASS (UTG) OR MASTER METER OCTAVE WATER METERS

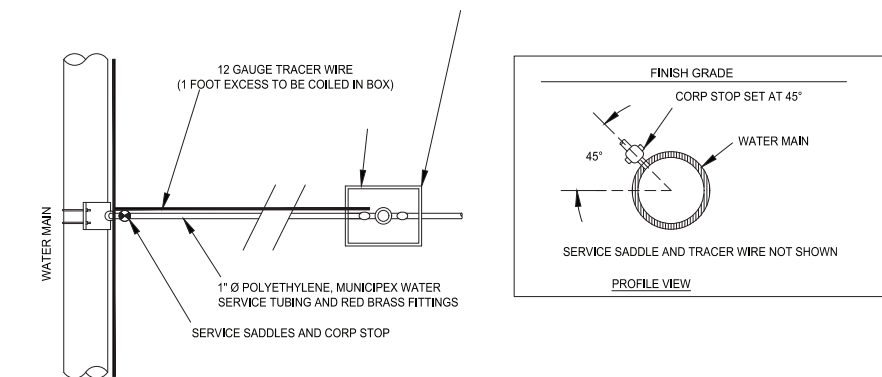


**NOTES:**

1. CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
2. POUR CONCRETE BLOCKING AGAINST UNDISTURBED EARTH.
3. ALL CONCRETE MIX SHALL HAVE A MIN. 28 DAY STRENGTH OF 3000 PSI.
4. WRAP PIPE AND/OR FITTINGS WITH 2 LAYERS OF POLYETHYLENE FILM WHERE IN CONTACT WITH CONCRETE
5. KEEP CONCRETE CLEAR OF ALL JOINTS AND ACCESSORIES.
6. ALL REBAR SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-123 (MIN. 3.4 MIL). REBAR SHALL BE BENT BEFORE GALVANIZATION, AND LAST 4" OF BAR SHALL BE BENT 90 DEGREES WITH A 1/2" RADIUS BEND. REBAR SHALL BE TIGHTLY FIT TO RESTRAINED FITTING.
7. BEARING AREAS BASED ON TEST PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING STRESS OF 1500 lb/sq. IF CONDITIONS AND SITE VARY NOTIFY ENGINEER FOR NEW THRUST BLOCK REQUIREMENTS.

THRUST BLOCK IN SQUARE FEET						
FITTING SIZE	TEE, WYE, PLUG OR CAP	90° BEND OR PLUGGED CROSS	45° BEND	11 1/4" BEND	STRADDLE BLOCK	
6.0	2.8	4.0	2.1	1.3	-	9.8
8.0	5.1	7.0	3.9	2.0	1.3	17.3

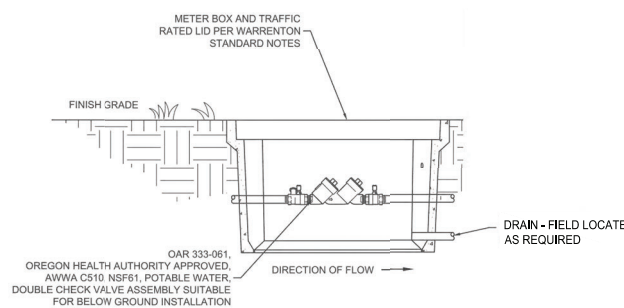
**4 THRUST BLOCK DETAIL**  
C10.0 NTS



**NOTE:**

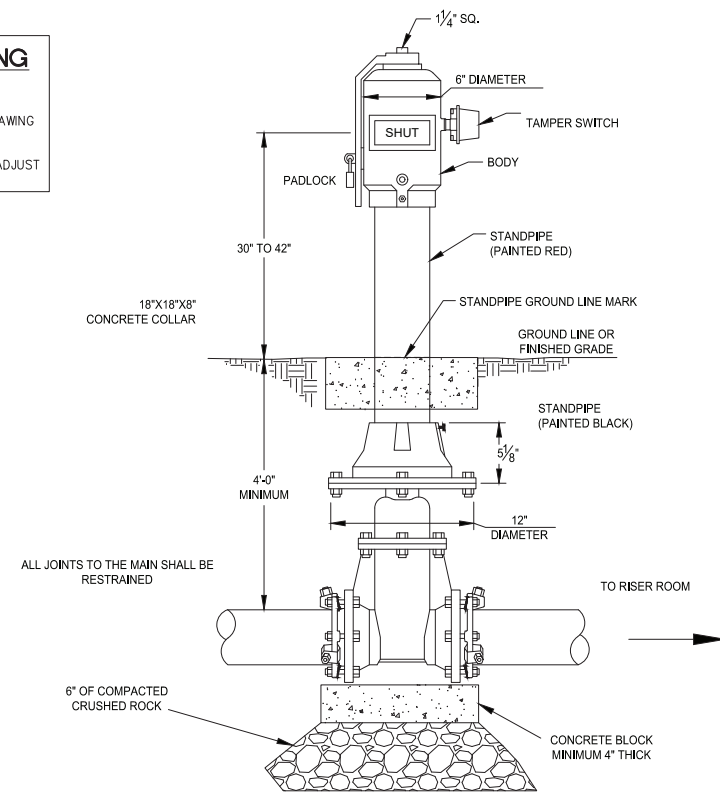
1. WIRE SPLICES SHALL BE MADE WITH WATER PROOF CONNECTIONS.
2. WHEN PLACED IN SIDEWALK, SEE DETAIL X/WX.1 FOR PLACEMENT OF WATER METER.
3. 6" MINIMUM OF COMPACTED 3/4"-0" CRUSHED ROCK TO SURROUND SERVICE LINE, AND WATER METER BOX. COMPACTED ROCK TO EXTEND A MINIMUM OF 6" PAST THE WATER METER BOX

**5 WATER SERVICE CONNECTION DETAIL**  
C10.0 NTS



**6 DOMESTIC DOUBLE CHECK VALVE DETAIL**  
C10.0 NTS

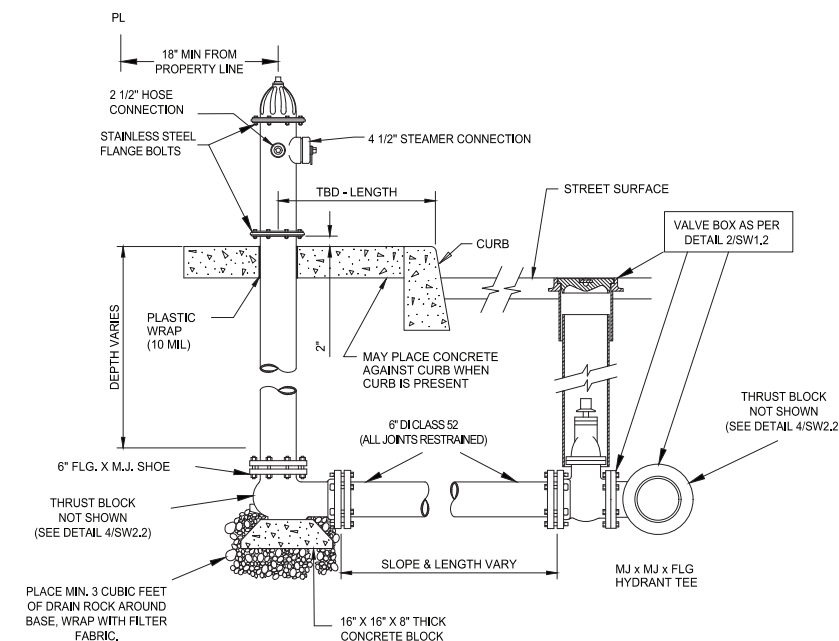
**REDUCED DRAWING**  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0" = 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



**3 MONITORED POST INDICATOR VALVE**  
C10.0 NOT TO SCALE

**NOTES:**

1. HYDRANTS TO BE MUELLER 5 1/4" MVO SUPER CENTURION (YELLOW) 250 MODEL A-423 WITH TWO 2-1/2" HOSE NOZZLES AND ONE PUMPER NOZZLE. MJ INLETS 5-1/4" OPENING.
2. JOINTS TO BE RESTRAINED BY GRIPS RING GASKETS OR BY USING FLANGE HYDRANT SHOE, GATE VALVE AND SPOOL.
3. CONFIRM REQUIRED HYDRANT ASSEMBLY PARTS AND DEPTH OF BURY WITH EACH INDIVIDUAL HYDRANT.
4. ALL FITTINGS IN CONTACT W/CONCRETE SHALL BE WRAPPED IN PLASTIC. HYDRANT DRAIN HOLES TO REMAIN OPEN TO DRAIN ROCK AND OPERATIONAL.
5. 1 1/2" - 3/4" CLEAN DRAIN ROCK SHALL BE PLACED A MIN. OF 6" ABOVE DRAIN OUTLET.
6. BURY OF HYDRANT SHALL BE MEASURED FROM FINISHED GRADE TO BOTTOM OF CONNECTING PIPE
7. THRUST BLOCK AT FIRE HYDRANT TEE - SEE DETAIL 4/SW2.2
8. HYDRANT VALVE SHALL BE MUELLER RESILIENT SEAT GATE VALVE ONLY. DO NOT LEAVE THE TRACER WIRE IN A POSITION TO BECOME TANGLED AROUND THE GATE VALVE. RUN THE WIRE FROM THE TRENCH, UP BETWEEN THE CONCRETE VALVE BOX AND THE PVC INSERT.
- 9.



**7 FIRE HYDRANT DETAIL**  
C10.0 NTS



REV	DATE	DESCRIPTION

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**ROBY'S FURNITURE**  
**DETAILS--WATER SERVICE, DOMESTIC & FIRE**  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:  
**C10.0**  
376

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**PERMIT SET**



### STORM DRAINAGE CONSTRUCTION NOTES

- 1 FURNISH AND INSTALL ODOT TYPE 3 CATCH BASIN WITH 6" RISER W/6" CONCRETE RISER. SEE DETAIL 2, SHEET C11.1 AND ODOT DETAIL RD 378.
- 2 FURNISH AND INSTALL CONTECH CONTEC CONCRETE CATCH BASIN STORMFILTER - DUAL UNIT. SEE SHEET C11.1. ALL CONTECH CATCH BASIN STORMFILTER UNITS TO BE PROVIDED WITH ANTI-BUOYANCY RINGS.
- 3 FURNISH AND INSTALL 8" PVC ASTM 3034 PVC PIPE SHALL BE USED AS PER TRENCH DETAIL 1, SHEET C11.1
- 4 FURNISH AND INSTALL 6" PVC ASTM 3034 PVC PIPE SHALL BE USED AS PER TRENCH DETAIL 1, SHEET C11.1
- 5 FURNISH AND INSTALL 4" PVC ASTM 3034 PVC PIPE SHALL BE USED AS PER TRENCH DETAIL 1, SHEET C11.1
- 6 FURNISH AND INSTALL CHECK VALVE FOR FOUNDATION DRAIN - LOCATION TO BE DETERMINED IN FIELD AND DESIGN/BUILD.
- 7 FOR STORM PIPES (STORM, FOUNDATION, AND DOWNSPOUTS) - CONTROLLED DENSITY FILL (CDF) - CONTROLLED LOW STRENGTH MATERIALS - ODOT SECTION 00442) SHALL BE USED WITH PIPES LESS THAN 24" OF COVER. THIS SHALL BE IN VEHICLE TRAVEL AREAS.
- 8 PER GEOTECHNICAL REPORT, OVER-EXCAVATE BENEATH ALL CATCH BASINS AND PROVIDE 2 FT TO 4 FT OF STRUCTURAL FILL AS FOUNDATION SUPPORT. INSTALL MIRAFIX 500X OR APPROVED EQUAL GEOTECHNICAL TEXTILE BETWEEN EXISTING GROUND SUB-BASE AND STRUCTURAL FILL.

Structure Name	Structure Details
CB-3	RIM = 9.30' SDP-CB4-CB3 INV IN = 7.55' CB-3 OUTFALL INV OUT = 7.05'
CB-4	RIM = 9.50' SDP-CB4-CB3 INV OUT = 7.84'
CB-1	RIM = 11.60' CB-1 OUTFALL INV OUT = 8.70' SDP-CB1-CB2 INV OUT = 8.58'
CB-2	RIM = 11.60' SDP-CB1-CB2 INV IN = 8.05' CB-2 OUTFALL INV OUT = 7.55'

PIPE TABLE - Storm							
NAME	SIZE	START	END	LENGTH (ft)	SLOPE	START INV	END INV
SDP-CB4-CB3	6"	CB-3	CB-4	72'	0.40%	7.55'	7.84'
CB-3 OUTFALL	10"	CB-3		52'	0.65%	7.05'	6.71'
CB-2 OUTFALL	8"	CB-2		29'	0.65%	7.55'	7.36'
SDP-CB1-CB2	8"	CB-1	CB-2	81'	0.65%	8.58'	8.05'
CB-1 OUTFALL	8"	CB-1		28'	0.65%	8.70'	8.52'

### FOUNDATION AND DOWNSPOUT STORM DRAINAGE NOTES

DESIGN - BUILD: CONTRACTOR SHALL FURNISH AND INSTALL ALL DRAINAGE SYSTEMS.

#### COMMON DESIGN ELEMENTS:

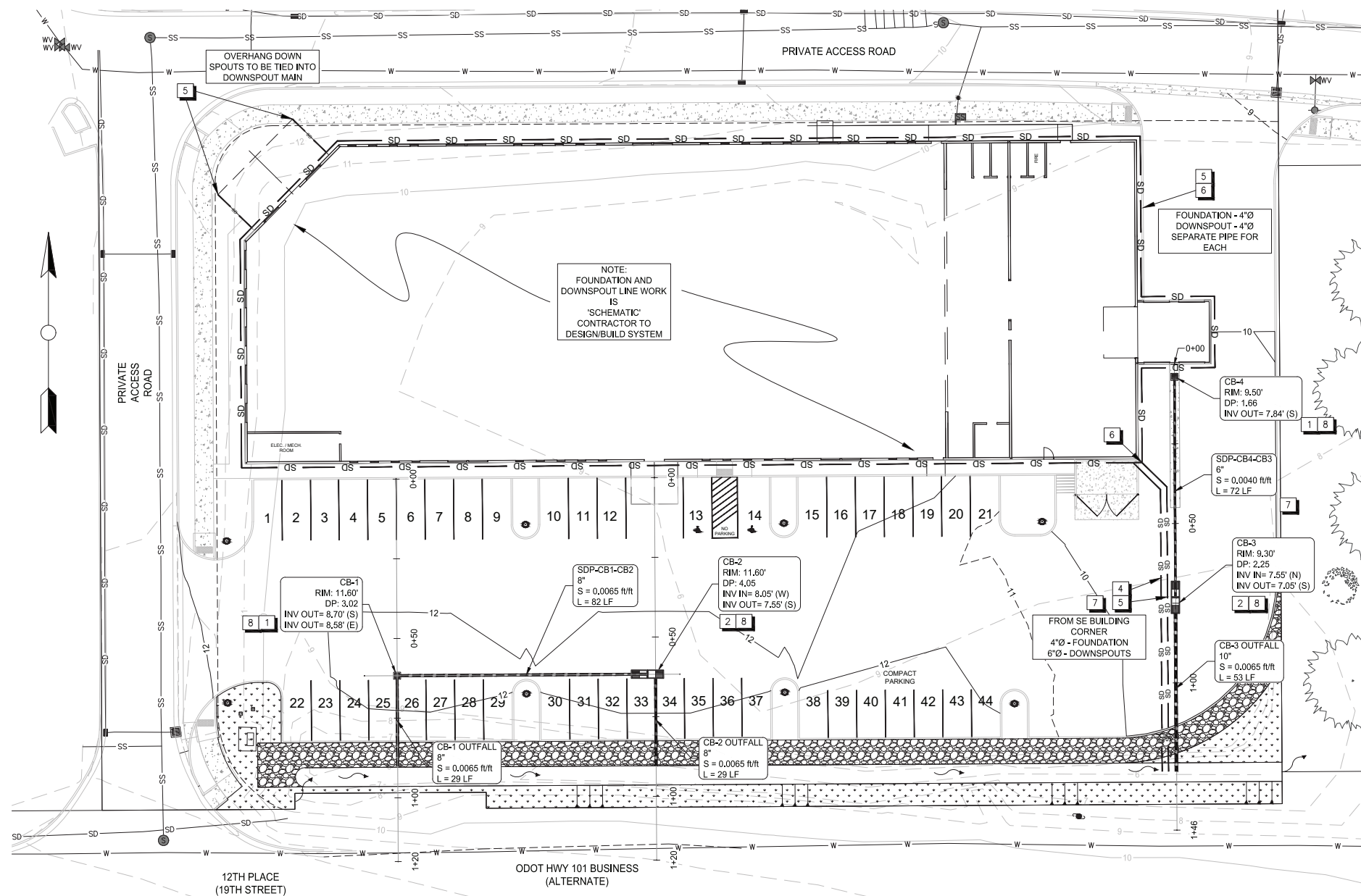
- a. 4" OR 6" ASTM 3034 SDR 35 PVC PIPE - GASKETED JOINTS
- b. CLEANOUTS INSTALLED AS PER COMMON TRADE PRACTICE. CONTRACTOR TO PROVIDE DRAWING SHOWING LOCATIONS. CLEANOUTS TO BE BROUGHT TO THE SURFACE. CLEANOUTS IN CONCRETE OR ASPHALT SHALL BE CAST IRON.
- c. TRACER WIRE INSTALLED AND BROUGHT UP BY CLEANOUTS.
- d. PVC MAINS TO HAVE A MINIMUM OF 2 FEET OF COVER OVER PIPE - IN CONCRETE AND ASPHALT AREAS.
- e. DRAINS TO HAVE A MINIMUM OF 1/4" PER 12" GRADE - ONCE PAST THE BUILDING - GOING TO THE DRAINAGE (SOUTH). CONTRACTOR TO VERIFY DEPTHS AND GRADES, PRIOR TO INSTALLATION.
- f. NOTE: PLAN DRAWING IS SCHEMATIC ONLY - CONTRACTOR TO PROVIDE DRAWING WITH GRADES AND DEPTHS PRIOR TO INSTALLATION.

#### FOUNDATION DRAIN

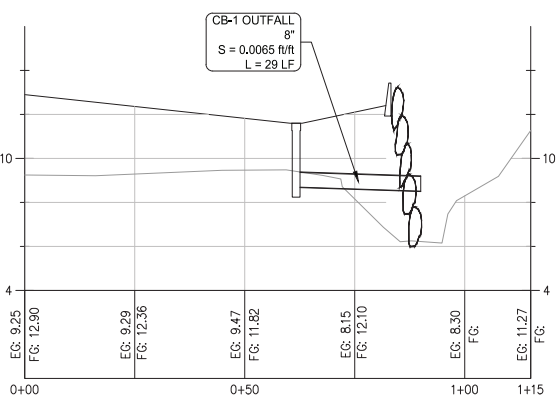
- a. SHALL DESIGN AND INSTALL AS PER GEO-TECH'S DETAIL 3, SHEET C11.1.

#### DOWNSPOUTS

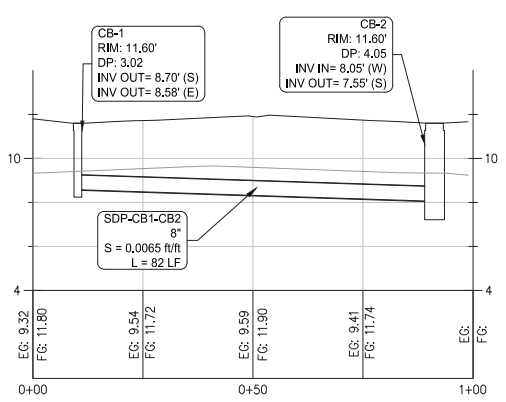
- a. SHALL DESIGN AND BUILD.
- b. 4"Ø PIPE SHALL BE USED AROUND THE PERIMETER OF THE BUILDING. 6"Ø WILL BE USED FOR THE OUTFALL PIPING.
- c. CONTRACTOR TO PROVIDE:
  - c.a. LOCATION AND NUMBER OF DOWNSPOUTS
  - c.b. EACH DOWNSPOUT - SHALL HAVE WYE AND THREADED PLUG - CLEANOUT
  - c.c. SUBMITTAL ON DOWNSPOUTS (SQUARE OR ROUND)
  - c.d. SUBMITTAL ON PIPE FITTING - DOWNSPOUT (SQ. OR ROUND) TO WYE



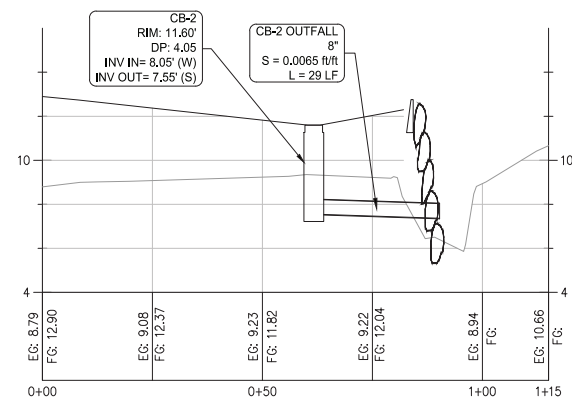
1 STORM DRAINAGE  
C11.0  
1" = 20'



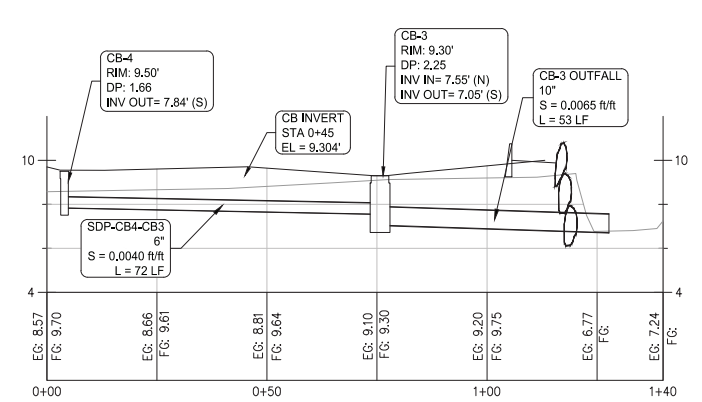
CB-1 PROFILE: 0+00-1+15  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft



CB-1 TO CB-2 PROFILE: 0+00-1+00  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft



CB-2 PROFILE: 0+00-1+15  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft



CB-3 PROFILE: 0+00-1+40  
HORIZ SCALE: 1 in = 20 ft  
VERT SCALE: 1 in = 4 ft



REV	DATE	DESCRIPTION

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ROBY'S FURNITURE  
STORMWATER DRAINAGE--PLAN & PROFILES  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

C11.0  
377

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PERMIT SET



REV.	DATE	DESCRIPTION

105 East Cypress  
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John@strickerengineering.com



ROBY'S FURNITURE  
 DETAILS - STORMWATER WATER QUALITY TREATMENT FACILITIES  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

C11.1

378

PERMIT SET

### STORMFILTER DESIGN NOTES

- CONCRETE CATCHBASIN STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCAL APPROVALS
- PEAK CONVEYANCE CAPACITY IS 1.3 CFS
- CONCRETE CATCHBASIN STORMFILTER IS AVAILABLE WITH UP TO TWO (2), 18" (457) OR 27" (686) TALL CARTRIDGES
- UP TO 4 INDIVIDUAL UNITS MAY BE LINKED FOR AN ULTIMATE CAPACITY OF EIGHT (8) CARTRIDGES

CARTRIDGE SIZE (in. [mm])	27 [686]	18 [457]
ACTIVATION HEAD (ft. [mm])	3.05 [930]	2.3 [591]
SPECIFIC FLOW RATE (gpm/ft <sup>2</sup> [L/min/m <sup>2</sup> ])	2.1 [36]	2.1 [36]
CARTRIDGE FLOW RATE (gpm [L/min])	22.5 [1.4]	11.25 [0.7]

\* 1.67 gpm/ft<sup>2</sup> (1.13 L/min/m<sup>2</sup>) SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHORUS® (PSORB) MEDIA ONLY

LINKING OPTIONS SHOWN BELOW. FLEXIBLE INLET PIPE, GRATED AND SOLID COVER PLACEMENT. MAXIMUM HEIGHT FOR LINKED UNITS VARIES. CONTACT YOUR CONTECH REPRESENTATIVE FOR MORE INFORMATION.

QUAD UNIT

MAXIMUM RIM TO INVERT = 4'-0" (1219)

TRIPLE UNIT

MAXIMUM RIM TO INVERT = 6'-0" (1829)

DUAL UNIT

MAXIMUM RIM TO INVERT = 6'-0" (1829)

SINGLE UNIT

MAXIMUM RIM TO INVERT = 6'-0" (1829)

**GENERAL NOTES:**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- ALTERNATE DIMENSIONS ARE MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
- STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPRON-ACTIVATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES (178). FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 30 SECONDS.
- SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM [L/min]) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF [m<sup>2</sup>]).
- STRUCTURE SHALL MEET ASHTO H20-10 LOAD RATING, ASSUMING EARTH COVER OF 0'-0" (0) AND GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET ASHTO M500 AND BE CAST WITH THE CONTECH LOGO.

**INSTALLATION NOTES:**

- ANY SUBGRADE BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
- CONTRACTOR TO PROVIDE AND INSTALL PIPES. MATCH PIPE INVERTS SHOWN ON PROJECT SPECIFIC DRAWINGS.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	WATER QUALITY FLOW RATE (cfs [L/s])	PEAK FLOW RATE (cfs [L/s])	RETURN PERIOD OF PEAK FLOW (yrs)	CARTRIDGE FLOW RATE	CARTRIDGE SIZE (T, H)	MEDIA TYPE (PERLITE, ZPO, PSORB)	NUMBER OF CARTRIDGES REQUIRED	RIM ELEVATION

PIPE DATA	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES/SPECIAL REQUIREMENTS:

MACARTHUR STUDIO - 662238-010  
CONCRETE CATCHBASIN STORMFILTER

**NOTE: CATCH BASIN STORMFILTER UNITS TO BE PROVIDED WITH CONCRETE BUOYANCY RINGS**

**CONTECH ENGINEERED SOLUTIONS LLC**  
www.conteches.com  
11815 NE Glenn Wading Drive, Portland, OR 97220  
503-288-4987 503-242-3393 800-361-7811 FAX

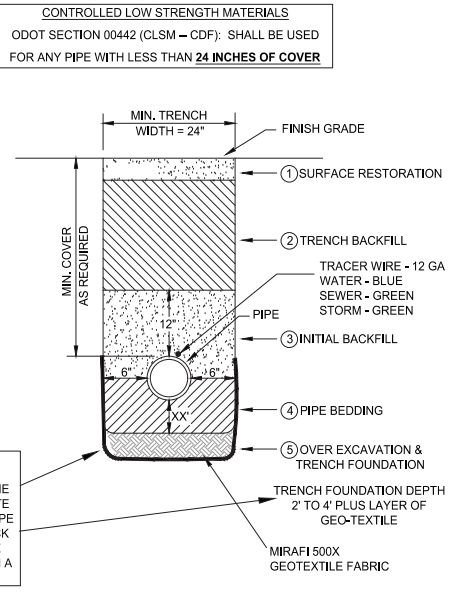
**NOTE: CATCH BASIN STORMFILTER UNITS TO BE PROVIDED WITH CONCRETE BUOYANCY RINGS**

- NOTES:**
- \* ALL DIMENSIONS SHOWN ARE MINIMUM AND RELATIVE TO OUTSIDE OF PIPE BELL.
  - \* MINIMUM COVER:  
STORM MAIN = 24"  
WATER MAIN = 30"  
SEWER MAIN = 36"

- TRENCH MATERIAL:**
- MATCH FINISH GRADE MATERIALS AS SHOWN ON PLANS.
  - COMPACTED 3/4"-0" CRUSHED ROCK
  - COMPACTED 3/4"-0" CRUSHED ROCK
  - COMPACTED 3/4"-0" CRUSHED ROCK
  - OVER EXCAVATE & INSTALL 1-1/2" MINUS COMPACTED CRUSHED ROCK IF TRENCH FOUNDATION STABILIZATION IS REQUIRED, PER GEOTECHNICAL REPORT. EXPECT 2'-4" OVER EXCAVATION REQUIREMENT.

**GEO-TECH REPORT**

THE VERY SOFT, FINE-GRAINED NATIVE SOILS WILL BE UNSUITABLE FOR SUPPORT OF BURIED UTILITY PIPES. THE CONTRACTOR SHOULD BE PREPARED TO OVER EXCAVATE TWO TO FOUR FEET OF NATIVE SOIL FROM BELOW THE PIPE INVERT ELEVATION AND REPLACE IT WITH CRUSHED ROCK OR BEDDING AGGREGATE PLACED OVER A GEOTEXTILE SEPARATION FABRIC SUCH AS MIRAFI 500X TO ESTABLISH A STABLE PIPE FOUNDATION.



**1 TYPICAL STORM/WATER/SEWER TRENCH DETAIL**  
NOT TO SCALE

**ODOT TYPE 3 GRATE**  
215 lbs.

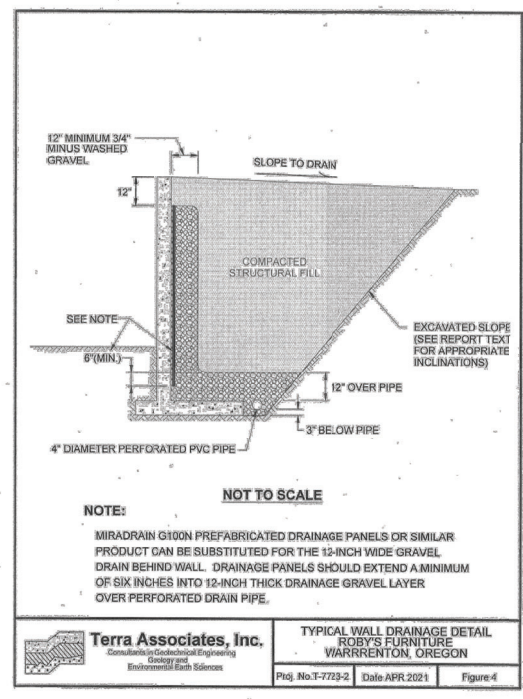
**ODOT TYPE 3 RISER**

Height	Weight
4"	180 lbs.
6"	270 lbs.
12"	540 lbs.

**ODOT TYPE 3 BASE**  
2,030 lbs.

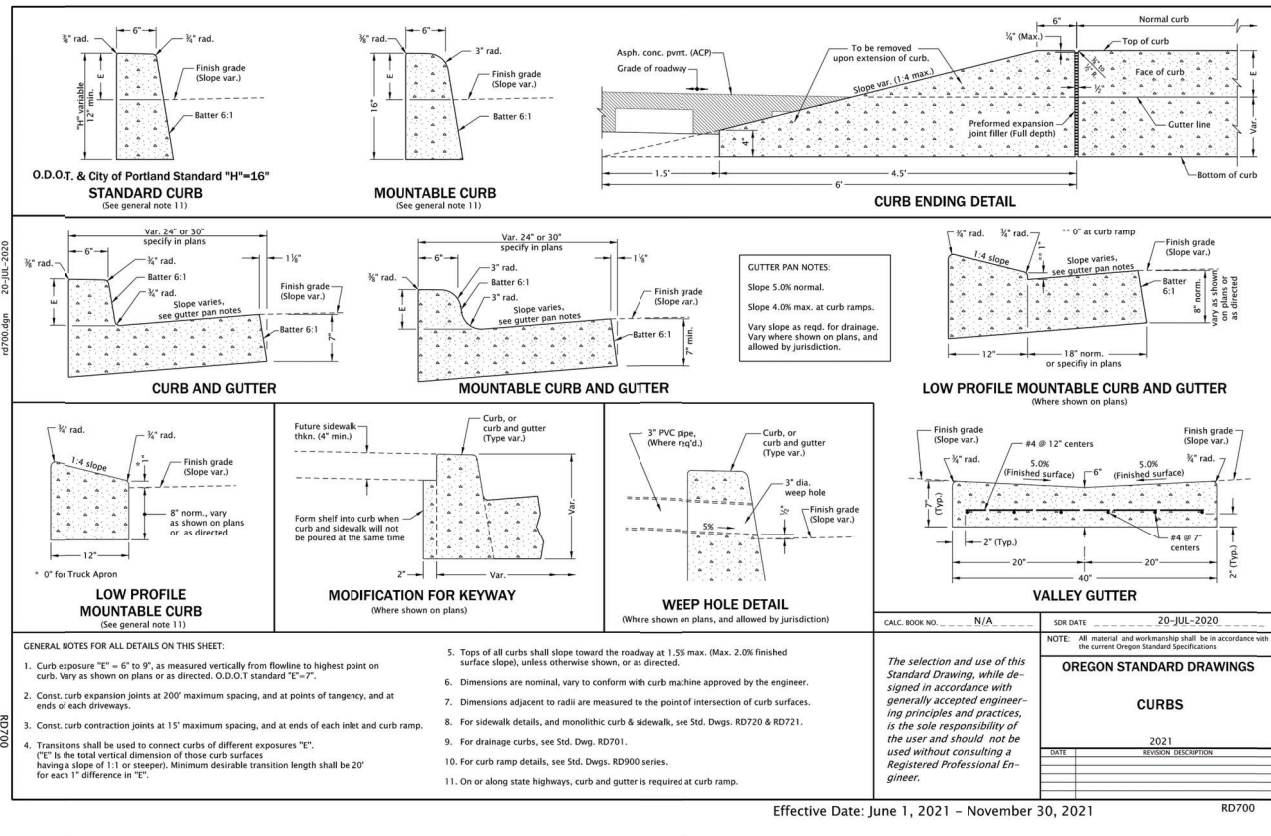
- NOTES:**
- SIMILAR TO ODOT CATCH BASIN TYPE 3 SPECIFICATIONS STANDARD DRAWING NO. RD378.
  - FURNISH AND INSTALL 6" CONCRETE RISER

**2 CONCRETE CATCH BASIN - TYPE 3 ODOT**  
NTS



**3 FOUNDATION DRAIN**  
NOT TO SCALE

**REDUCED DRAWING**  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



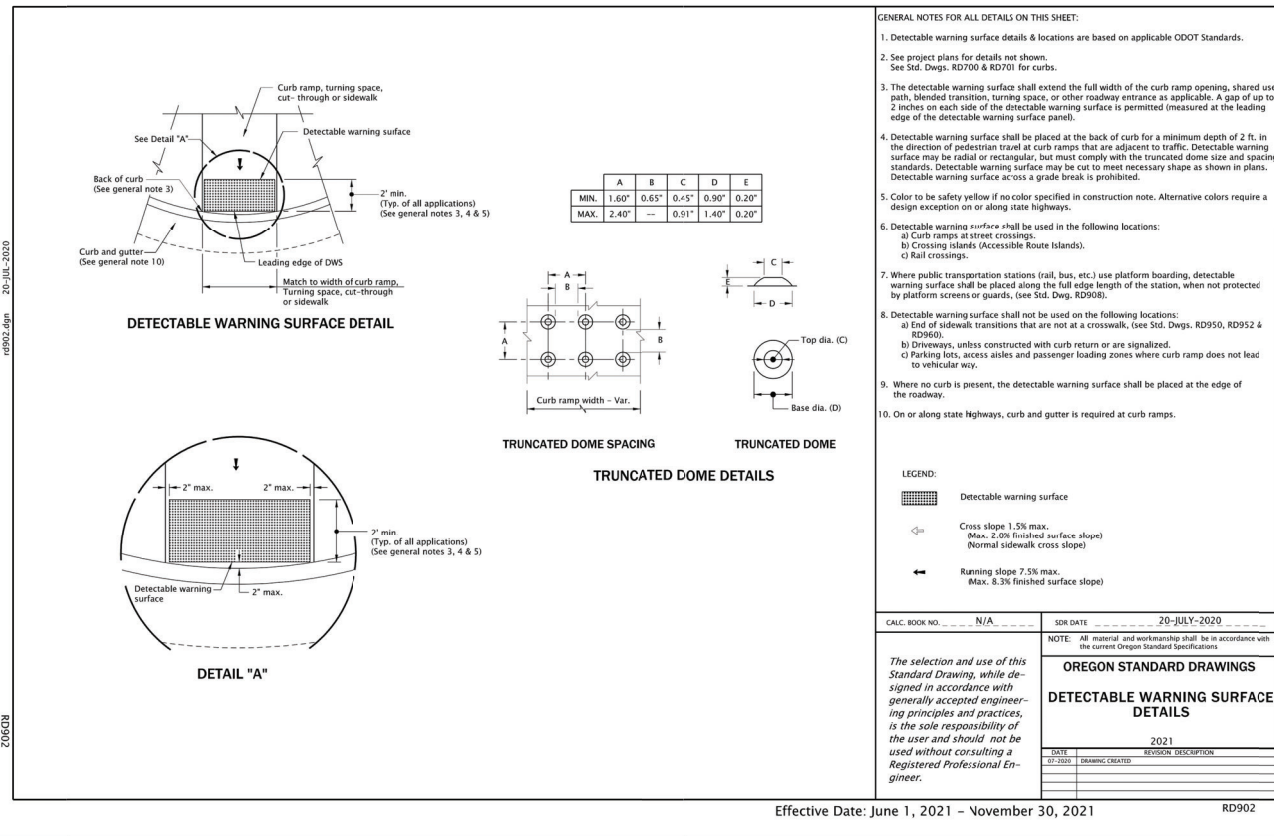
- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Curb exposure "E" = 6" to 9", as measured vertically from flowline to highest point on curb. Vary as shown on plans or as directed. O.D.O.T. standard "E"=7".
  - Const. curb expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveway.
  - Const. curb contraction joints at 15' maximum spacing, and at ends of each inlet and curb ramp.
  - Transitions shall be used to connect curbs of different exposures "E". "E" is the total vertical dimension of those curb surfaces having a slope of 1:1 or steeper. Minimum desirable transition length shall be 20' for each 1" difference in "E".
  - Tops of all curbs shall slope toward the roadway at 1.5% max. (Max. 2.0% finished surface slope), unless otherwise shown, or as directed.
  - Dimensions are nominal, vary to conform with curb machine approved by the engineer.
  - Dimensions adjacent to radii are measured to the point of intersection of curb surfaces.
  - For sidewalk details, and monolithic curb & sidewalk, see Std. Dwg. RD720 & RD721.
  - For drainage curbs, see Std. Dwg. RD701.
  - For curb ramp details, see Std. Dwg. RD900 series.
  - On or along state highways, curb and gutter is required at curb ramp.

**OREGON STANDARD DRAWINGS**

**CURBS**

DATE	REVISION DESCRIPTION
2021	

Effective Date: June 1, 2021 - November 30, 2021 RD700



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Detectable warning surface details & locations are based on applicable ODOT Standards.
  - See project plans for details not shown. See Std. Dwg. RD700 & RD701 for curbs.
  - The detectable warning surface shall extend the full width of the curb ramp opening, shared use path, blended transition, turning space, or other roadway entrance as applicable. A gap of up to 2 inches on each side of the detectable warning surface is permitted (measured at the leading edge of the detectable warning surface panel).
  - Detectable warning surface shall be placed at the back of curb for a minimum depth of 2 ft. in the direction of pedestrian travel at curb ramps that are adjacent to traffic. Detectable warning surface may be radial or rectangular, but must comply with the truncated dome size and spacing standards. Detectable warning surface may be cut to meet necessary shape as shown in plans. Detectable warning surface across a grade break is prohibited.
  - Color to be safety yellow if no color specified in construction note. Alternative colors require a design exception on or along state highways.
    - Curb ramps at street crossings.
    - Crossing islands (Accessible Route Islands).
    - Rail crossings.
  - Where public transportation stations (rail, bus, etc.) use platform boarding, detectable warning surface shall be placed along the full edge length of the station, when not protected by platform screens or guards, (see Std. Dwg. RD950, RD952 & RD960).
  - Detectable warning surface shall not be used on the following locations:
    - End of sidewalk transitions that are not at a crosswalk, (see Std. Dwg. RD950, RD952 & RD960).
    - Driveways, unless constructed with curb return or are signalized.
    - Parking lots, access aisles and passenger loading zones where curb ramp does not lead to wheelchair way.
  - Where no curb is present, the detectable warning surface shall be placed at the edge of the roadway.
  - On or along state highways, curb and gutter is required at curb ramps.

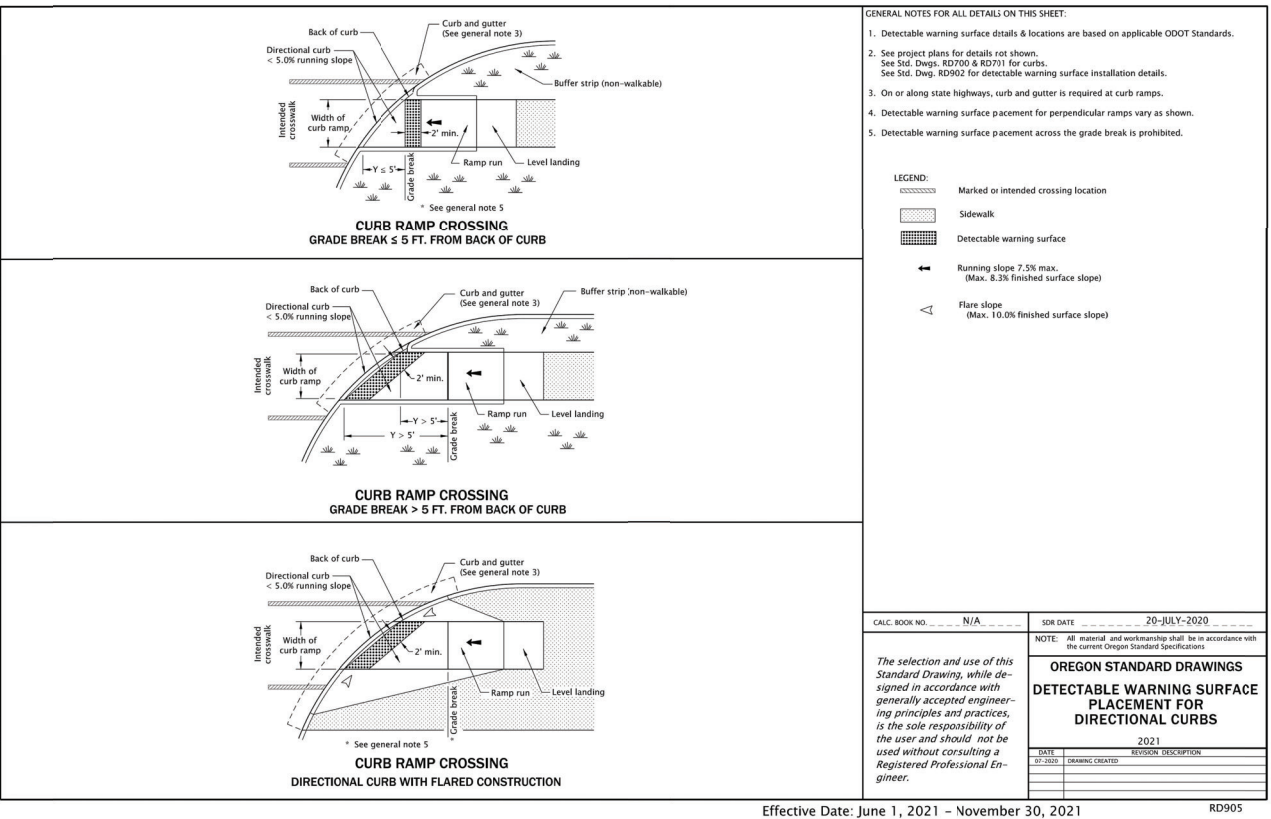
	A	B	C	D	E
MIN.	1.60'	0.65'	0.45'	0.90'	0.20'
MAX.	2.40'	-	0.91'	1.40'	0.20'

**OREGON STANDARD DRAWINGS**

**DETECTABLE WARNING SURFACE DETAILS**

DATE	REVISION DESCRIPTION
2021	

Effective Date: June 1, 2021 - November 30, 2021 RD902



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Detectable warning surface details & locations are based on applicable ODOT Standards.
  - See project plans for details not shown. See Std. Dwg. RD700 & RD701 for curbs. See Std. Dwg. RD902 for detectable warning surface installation details.
  - On or along state highways, curb and gutter is required at curb ramps.
  - Detectable warning surface placement for perpendicular ramps vary as shown.
  - Detectable warning surface placement across the grade break is prohibited.

**LEGEND:**

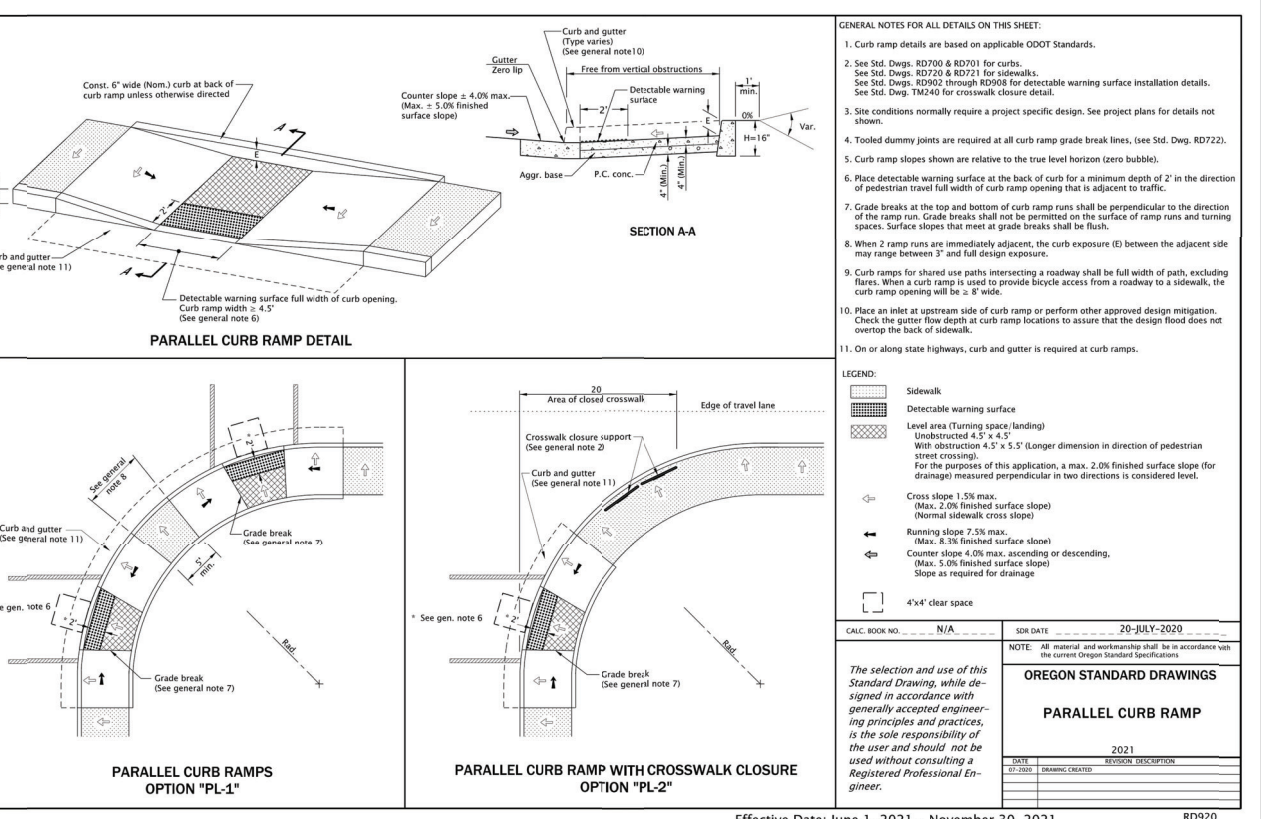
- Marked on intended crossing location
- Sidewalk
- Detectable warning surface
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- Flare slope (Max. 10.0% finished surface slope)

**OREGON STANDARD DRAWINGS**

**DETECTABLE WARNING SURFACE PLACEMENT FOR DIRECTIONAL CURBS**

DATE	REVISION DESCRIPTION
2021	

Effective Date: June 1, 2021 - November 30, 2021 RD905



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Curb ramp details are based on applicable ODOT Standards.
  - See Std. Dwg. RD700 & RD701 for curbs. See Std. Dwg. RD720 & RD721 for sidewalks. See Std. Dwg. RD902 through RD908 for detectable warning surface installation details. See Std. Dwg. TM240 for crosswalk closure detail.
  - Site conditions normally require a project specific design. See project plans for details not shown.
  - Tooled dummy joints are required at all curb ramp grade break lines, (see Std. Dwg. RD722).
  - Curb ramp slopes shown are relative to the true level horizon (zero bubble).
  - Place detectable warning surface at the back of curb for a minimum depth of 2' in the direction of pedestrian travel full width of curb ramp opening that is adjacent to traffic.
  - Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.
  - When 2 ramp runs are immediately adjacent, the curb exposure (E) between the adjacent side may range between 3" and full design exposure.
  - Curb ramps for shared use paths intersecting a roadway shall be full width of path, excluding flares. When a curb ramp is used to provide bicycle access from a roadway to a sidewalk, the curb ramp opening will be 4' wide.
  - Place an inlet at upstream side of curb ramp or perform other approved design mitigation. Check the gutter flow depth at curb ramp locations to assure that the design flood does not overlap the back of sidewalk.
  - On or along state highways, curb and gutter is required at curb ramps.

**LEGEND:**

- Sidewalk
- Detectable warning surface
- Level area (turning space/landing)
- Unobstructed 4.5' x 4.5'
- With obstruction 4.5' x 5.5' (Longer dimension in direction of pedestrian street crossing).
- For the purposes of this application, a max. 2.0% finished surface slope (for drainage) measured perpendicular in two directions is considered level.
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)
- Running slope 7.5% max. (Max. 8.3% finished surface slope)
- Counter slope 4.0% max. ascending or descending. (Max. 5.0% finished surface slope) Slope as required for drainage
- 4'x4' clear space

**OREGON STANDARD DRAWINGS**

**PARALLEL CURB RAMP**

DATE	REVISION DESCRIPTION
2021	

Effective Date: June 1, 2021 - November 30, 2021 RD920

**REDUCED DRAWING**  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



REVISIONS

REV	DATE	DESCRIPTION

105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com



**ROBY'S FURNITURE**  
**DETAILS--ROADS/SIDEWALKS/CURBS**  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:  
**C12.0**  
 379

D:\Warrenton Projects\Roby'sCAD Final\Roby\_Details\_A.dwg Plotted: May 31, 2021 - 10:24am By: Geoff

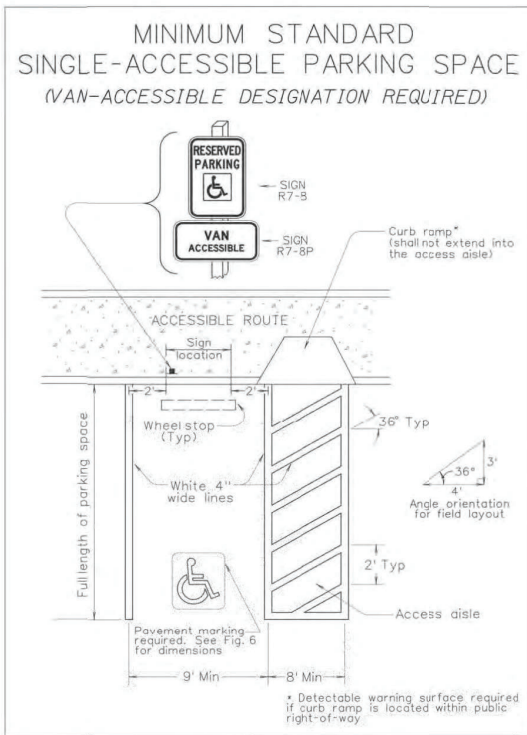
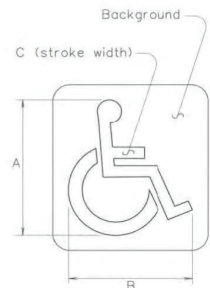


Figure 1

**1 ADA PARKING DETAILS**  
SCALE: NTS

PAVEMENT MARKING STENCIL

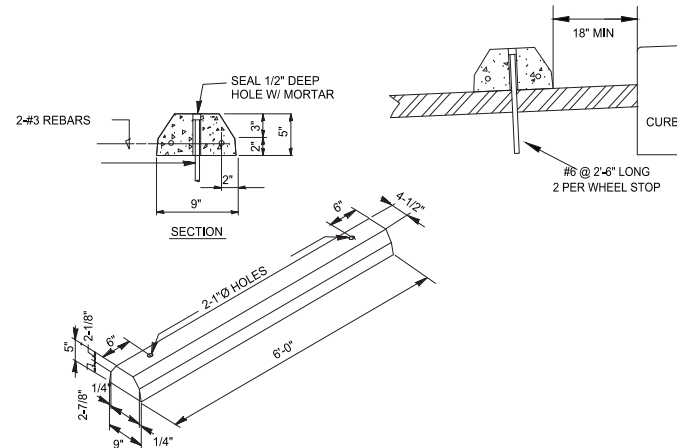


Pavement Marking Background: *Optional: Blue, Retroreflective*  
Pavement Marking Stencil: *White, Retroreflective*

LEGEND	DIMENSIONS (INCHES)						
	A	B	C	D	E	F	G
MINIMUM	28	24	3				
STANDARD	41	36	4				

The pavement marking stencil shall be used to designate an accessible parking area reserved for vehicles with DMV permits.

Figure 6



**2 PRECAST CONCRETE WHEEL STOP**  
SCALE: NTS



REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



ROBY'S FURNITURE  
DETAILS--ADA SIDEWALK/CURB RAMPS

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

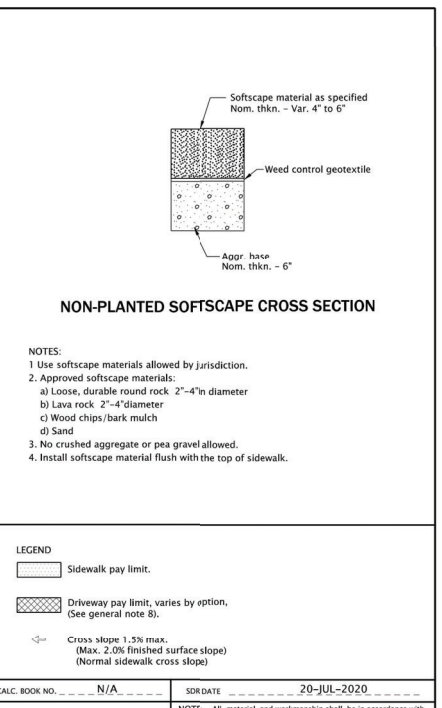
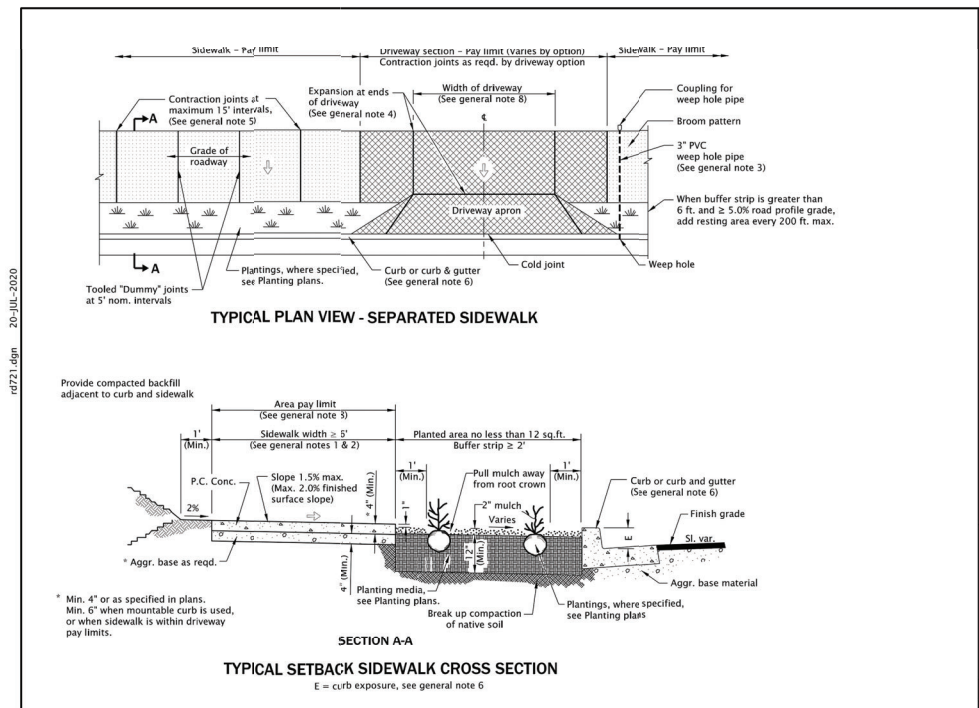
Drawing N.O.:

**C13.0**  
380

PERMIT SET

WARRENTON, OREGON

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- NOTES:
- Use softscape materials allowed by jurisdiction.
  - Approved softscape materials:
    - a) Loose, durable round rock 2"-4" in diameter
    - b) Lava rock 2"-4" diameter
    - c) Wood chips/bark mulch
    - d) Sand
  - No crushed aggregate or pea gravel allowed.
  - Install softscape material flush with the top of sidewalk.

LEGEND

- Sidewalk pay limit.
- Driveway pay limit, varies by option. (See general note 8).
- Cross slope 1.5% max. (Max. 2.0% finished surface slope) (Normal sidewalk cross slope)

CALC. BOOK NO.	N/A	SDR DATE	20-JUL-2020
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.			
<b>OREGON STANDARD DRAWINGS</b>			
<b>SEPARATED SIDEWALKS</b>			
DATE	2021		

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
- Include additional paved or unpaved 2" shy distance to vertical faces higher than 5' such as retaining walls, sound walls, fences and buildings.
  - Curb type and sidewalk width as shown on plans or as directed. On sidewalks 8' and wider, provide a longitudinal joint at the midpoint.
  - Install 3" pvc weep hole pipes in sidewalks where shown on plans, and allowed by jurisdiction. Place contraction joint over top of pipe. See Std. Dwg. RD700 for weep hole details.
  - Provide expansion joints around poles, posts, boxes, at ends of each driveway, and other fixtures which protrude through or against the structures. For sidewalk, monolithic curb & sidewalk, const. expansion joints at 45' maximum spacing. See Std. Dwg. RD722 for expansion joint details.
  - Const. contraction joints at 15' maximum spacing, and at ends of each curb ramp. See Std. Dwg. RD722 for contraction joint details.
  - Curb and gutter shown; see project plans for the curb design specified. For curb details, see Std. Dwg. RD700 & RD701. ODOT standard E-7.
  - Sidewalk details are based on ODOT applicable standards.
  - Driveway encroaches into sidewalk shown; see project plans for the driveway design specified. For driveway details not shown, see Std. Dwg. RD725, RD730, RD735, RD740, RD745 & RD750.
  - See project plans for details not shown.
  - Provide plantings in areas 12 SF or greater, as shown or directed. Treat areas less than 12 SF with mulch surfacing.

**EROSION CONTROL PLAN NOTES** (CITY OF WARRENTON - NOTES)

1. ALL SITES SHALL SUBMIT AN EROSION CONTROL PLAN FOR REVIEW, REGARDLESS OF SIZE. NEW DEVELOPMENTS IMPACTING AREAS OF 10,000 SQUARE FEET OR GREATER MUST OBTAIN AN EROSION CONTROL PERMIT.
2. EROSION CONTROL PLAN SHALL INCLUDE:
  - a. THE METHODS AND/OR FACILITIES TO BE USED TO PREVENT EROSION AND POLLUTION CREATED FROM THE DEVELOPMENT BOTH DURING AND AFTER CONSTRUCTION.
  - b. LIMITS OF CLEARING BY FLAGGING BOUNDARIES IN THE FIELD BEFORE STARTING SITE GRADING OR CONSTRUCTION. STAGING AREAS SHALL BE INCLUDED.
  - c. AN ANALYSIS OF SOURCE CONTROLS, SUCH AS DETENTION AND STORAGE DURING CONSTRUCTION AS AN ALTERNATIVE METHOD TO CONTROL EROSION FROM STORM WATER RUNOFF.
  - d. A DRAINAGE PLAN DURING CONSTRUCTION.
  - e. SHOW EXISTING CONTOURS AS WELL AS ALL SENSITIVE AREAS, CREEKS, STREAMS, WETLANDS, AND OPEN AREAS.
  - f. A DESCRIPTION OF HISTORIC LOCALIZED FLOODING PROBLEMS RESULTING FROM SURFACE WATER RUNOFF, FEMA OR FLOODING PROBLEMS KNOWN TO THE COMMUNITY OR THE CITY.
3. EROSION CONTROL PLAN SHALL INCLUDE A SCHEDULE FOR IMPLEMENTATION OF EROSION MEASURES. THE SCHEDULE SHALL INCLUDE:
  - a. MEASURES TO COVER BARE SOIL WITHIN 14 DAYS FOLLOWING FINAL GRADING.
  - b. IMPLEMENTATION OF WET WEATHER MEASURES BETWEEN OCTOBER 1ST AND APRIL 30TH, UNLESS OTHERWISE APPROVED BY THE CITY.
  - c. ON SITES WHERE VEGETATION AND GROUND COVER HAVE BEEN REMOVED, CITY APPROVED GROUND COVER SHALL BE RE-ESTABLISHED BY SEEDING AND MULCHING ON OR BEFORE SEPTEMBER 1ST WITH THE GROUND COVER ESTABLISHED BY OCTOBER 15TH. AS AN ALTERNATIVE TO SEEDING AND MULCHING, OR IF GROUND COVER IS NOT ESTABLISHED BY OCTOBER 15TH, THE OPEN AREAS SHALL BE PROTECTED THROUGH THE WET SEASON WITH STRAW MULCH, EROSION BLANKETS, OR OTHER APPROVED METHODS, WHERE APPROPRIATE, WITH LONG TERM MAINTENANCE PLAN.
  - d. WATER CONTAINING SEDIMENT SHALL NOT BE DISCHARGED INTO THE SURFACE WATER MANAGEMENT SYSTEM, WETLANDS OR STREAMS WITHOUT FIRST PASSING THROUGH AN APPROVED SEDIMENT FILTERING FACILITY OR DEVICE. DISCHARGE FROM TEMPORARY SEDIMENTATION PONDS OR DETENTION FACILITIES USED FOR SEDIMENTATION DURING CONSTRUCTION SHALL BE CONSTRUCTED TO CITY STANDARDS TO PROVIDE ADEQUATE SEDIMENT FILTRATION.
4. A SITE-SPECIFIC PLAN PREPARED BY A REGISTERED PROFESSIONAL ENGINEER SHALL BE REQUIRED AND ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED FOR SITES HAVING ONE OR MORE OF THE FOLLOWING CHARACTERISTICS:
  - a. SITES GREATER THAN FIVE (5) ACRES DISTURBED.
  - b. SITES WITH SLOPES GREATER THAN 15 PERCENT ON ANY PORTION OF THE SITE.
  - c. SITES WITH HIGHLY ERODIBLE SOILS.
  - d. SITES ADJACENT TO SENSITIVE AREAS.
  - e. SITES WHERE GRADING AND CLEARING ACTIVITIES ARE LIKELY BETWEEN OCTOBER 1ST AND APRIL 30TH
5. ADDITIONAL EROSION CONTROL MEASURES MAY INCLUDE ONE OR MORE OF THE FOLLOWING:
  - a. LIMITED AREA CLEARED AT ANY ONE TIME;
  - b. ADDITIONAL DRAINAGE REQUIREMENTS DURING CONSTRUCTION;
  - c. FILTERING OR TREATMENT OF RUNOFF;
  - d. ADDITIONAL WATER QUALITY;
  - e. ADDITIONAL EROSION CONTROL TO COVER PORTIONS OF THE SITE;
  - f. MAINTAINING A VEGETATED BUFFER STRIP BETWEEN SITE AND SENSITIVE AREA;
  - g. ADDITIONAL FACILITIES TO REDUCE VOLUME AND VELOCITY OF WATER RUNOFF;
  - h. IF THERE ARE NO WORKABLE ALTERNATIVES, LIMIT CLEARING AND GRADING IN SOME AREAS BETWEEN OCTOBER 1ST AND APRIL 30TH.
  - i. ALL DISTURBED LAND AREAS THAT SHALL REMAIN UNWORKED FOR 14 DAYS OR MORE SHALL BE PHYSICALLY COVERED IN THE WET WEATHER SEASON
6. SITE CLEANUP AND DEBRIS REMOVAL. CONTRACTOR TO REMOVE EXCESSIVE SOIL AND DEBRIS DEPOSITED ONTO STREETS OR INTO THE CITY STORM DRAINAGE SYSTEM. STREET CLEANUP ON STREETS EVERY DAY AND UPON COMPLETION OF WORK OR AS REQUIRED BY THE CITY.
7. DUST CONTROL ON STREETS ACCESSIBLE AND USED BY RESIDENTS IS REQUIRED.
8. MINIMUM EROSION CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING. SEDIMENT FENCES ALONG THE DOWNGRADE SLOPE OF THE PROJECT PERIMETER. FILTER BAGS AT CATCH BASIN INLETS. STREET CLEANING OF DEBRIS OR MATERIAL DROPPED IN TRANSIT. INSTALLATION OF WATER QUALITY EROSION CONTROL BMP'S PER PROJECT PLANS.

# ROBY'S FURNITURE

## WARRENTON OREGON

**PROJECT TEAM:**

**OWNER:**  
WARRENTON PROPERTY INVESTMENTS, LLC  
5111 N. COAST HIGHWAY, NEWPORT, OR 97365  
CONTACT: KYLE LANGLIERS, REGIONAL MANAGER  
PHONE: (503) 812-8267

**PROJECT ENGINEER:**  
STRICKER ENGINEERING  
PO BOX 366 GARIBALDI, OR 97118  
CONTACT: JOHN DOYLE, PRESIDENT  
PHONE: (503) 322-2442

**CIVIL DESIGN:**  
YOUNGS RIVER ENGINEERING, LLC  
91290 YOUNGS RIVER RD. ASTORIA, OR 97103  
CONTACT: GEOFFREY LILJENWALL, PE  
PHONE: (503) 791-3010

**GEOTECHNICAL ENGINEER:**  
TERRA ASSOCIATES, INC.  
12220 113TH AVE. STE 130, KIRKLAND, WA 98034  
CONTACT: JOHN SADLER, SENIOR ENGINEERING GEOLOGIST  
THEODORE SCHEPPER, P.E., PRINCIPAL  
PHONE: (425) 821-4334

**ENVIRONMENTAL CONSULTANT:**  
BRIDGEWATER GROUP  
COMMERCE PLAZA, SUITE 235, 7100 HAMPTON ST. TIGARD, OR 97223  
CONTACT: JUSTIN POLNDS, RG  
PHONE: (503) 675-5252

**CONSTRUCTION CONTRACTOR (SITE WORK):**  
BIG RIVER CONSTRUCTION, INC.  
35064 HIGHWAY 101 BUSINESS ASTORIA, OR 97103  
CONTACT: PHIL GAFFNEY  
PHONE: (503) 338-3878



REVISIONS

REV. DATE

**UTILITY PROVIDERS:**

**CITY OF WARRENTON**  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-0917

**WATER & SANITARY SEWER**  
CITY OF WARRENTON  
ATTN: COLLIN STELZIG  
PUBLIC WORKS DIRECTOR  
45 SW 2ND STREET  
WARRENTON OREGON 97146  
503-861-0917

**ELECTRICITY**  
PACIFIC POWER  
ATTN: MARILYN BROCKEY  
2340 SE DOLPHIN  
WARRENTON OREGON 97146  
503-861-6005

**CABLE TELEVISION**  
CHARTER SPECTRUM COMMUNICATIONS  
ATTN: VINNY BELLECI  
419 GATEWAY AVENUE  
ASTORIA OREGON 97103  
503-338-7710

**GAS**  
NW NATURAL GAS  
ATTN: RICH GIRARD  
220 NW 2ND AVE  
PORTLAND OREGON 97209  
503-226-4211 EXT. 2980  
503-281-6169 (CELL)

**TELEPHONE**  
CENTURY LINK  
ATTN: MIKE MEISNER  
481 INDUSTRY  
ASTORIA OREGON 97103  
503-242-7676

**ONE CALL CENTER**  
1-800-332-2344 OR 81

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



**SURVEY DATA**

**REFERENCE DATUM:**  
STATION INDEX ID: PID SC0559'

**DATUM:** NAVD 88  
**ELEVATION:** 8.36 FT

**LOCATION:** BETWEEN HIGHWAY 101 & MARLIN AVE. ON NORTH SIDE OF ALT. HIGHWAY 101. T.C. #81027 AB06900, T8N, R10W, SECTION 27  
**LATITUDE** 46.153934, **LONGITUDE** -123.906084



VICINITY MAP



VICINITY MAP

**SITE DATA**

**TOTAL SITE AREA:** APPROXIMATE. 70,500 SQ. FT (1.61 ACRES)  
**BUILDING AREA:** 27,550 SQ. FT  
**LANDSCAPED AREA:** 10,776 SQ. FT. (0.25 ACRES) (15.2% OF TOTAL SITE AREA)  
**TAX MAP:** 81027AB06400

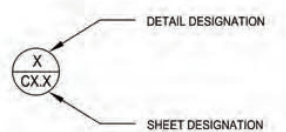
**LOCATION DESCRIPTION:** NE ¼ of SECTION 27, T. 8 N., R. 10 W., LAT. 46.153934, LONGITUDE -123.906074W.M. CITY OF WARRENTON, CLATSOP COUNTY, OREGON

**ESCP DRAWING INDEX**

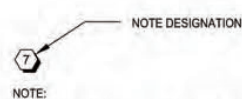
- C14.0 ESCP - COVER
- C14.1 ESCP - NOTES
- C14.2 ESCP - PHASE I & II
- C14.3 ESCP - BUILDING CONSTRUCTION
- C14.4 ESCP - DETAILS

**REDUCED DRAWING  
VERIFY SCALE**

BAR IS ONE INCH ON ORIGINAL DRAWING  
0" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY



**DETAIL DESIGNATION**



**NOTE DESIGNATION**

- NOTE:**
1. DESIGNATION NUMBER CALLS OUT NOTES ON CURRENT SHEET.
  2. NOTES ARE NOT INTERCHANGEABLE BETWEEN SHEETS.

PENDING DEQ REVIEW

ROBY'S FURNITURE  
ESCP COVER SHEET

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

**C14.0**

381

**SITE DESCRIPTION**

ON-SITE CONSTRUCTION ACTIVITIES	SITE IS TO BE CONSTRUCTED IN 2 PHASES. CONSTRUCTION INCLUDES THE DEVELOPMENT OF RETAIL FURNITURE STORE WITH PARKING AND LOADING DOCK. PHASE 1 WILL CONSIST OF SURCHARGING THE SITE WITH STRUCTURAL ROCK FILL. PHASE 2 WILL BE THE CONSTRUCTION OF THE BUILDING AND SURCHARGING THE PARKING LOT.
OFF-SITE CONSTRUCTION SUPPORT A CTIVITY AREAS COVERED BY THIS PERMIT (SEE SECTION 1.3.2)	RIGHT OF WAY IMPROVEMENTS INCLUDE ASPHALT PAVING. NOTE: ALL STORMWATER WILL FLOW TO EXISTING BASINS DESIGN AND INSTALLED IN THE PRIOR SITE DEVELOPMENT (COMMERCIAL SHOPPING CENTER)
PROPERTY SIZE (ACRES)	1.61
TOTAL DISTURBED AREA (NEAREST QUARTER ACRE)	1.61
303(D) CATEGORY 4 AND 5 IMPAIRMENT STATUS OF EACH RECEIVING WATER BODY	N/A
WATERBODIES IMPACTED BY CONSTRUCTION ACTIVITIES WITH 401 WATER QUALITY CERTIFICATIONS, USA CE PERMIT, DSL PERMIT, AND/OR ANY OTHER APPLICABLE AGENCY AUTHORIZATION PERMIT NUMBERS	A COE AND DSL JOINT PERMIT NO. xxxxxxx
ESTIMATED START DATES OF CLEARING AND GRUBBING	AUGUST 2021
ESTIMATED START DATES OF MASS GRADING	AUGUST 2021
ESTIMATED START DATES OF DEMOLITION ACTIVITIES	N/A
ESTIMATED START DATES OF SITE PREPARATION (I.E. EXCAVATING, CUTTING AND FILLING)	AUGUST 2021
ESTIMATED START DATES OF FINAL GRADING, AND CREATION OF SOIL AND VEGETATION STOCKPILES REQUIRING STABILIZATION	MAY 2022
ESTIMATED DATES OF TEMPORARY OR FINAL STABILIZATION OF EXPOSED AREAS	DECEMBER 2022
ESTIMATED DATES OF REMOVAL OF TEMPORARY STORMWATER CONTROLS AND CONSTRUCTION EQUIPMENT OR VEHICLES	DECEMBER 2022
ESTIMATED FINAL END DATE OF CONSTRUCTION-RELATED POLLUTANT-GENERATING ACTIVITIES	DECEMBER 2022
FILL MATERIAL	IMPORTED STRUCTURAL MATERIAL
SITE SOILS	QUATERNARY ALLUVIUM (FINE SILTS)
SLOPES	0%-3%
AUTHORIZED NON-STORMWATER DISCHARGES IN SECTION 1.4 THAT WILL OR MAY OCCUR	WATER USED FOR DUST CONTROL
POLLUTANT-GENERATING ACTIVITIES ON THE SITE WITH INVENTORY OF POLLUTANTS OR POLLUTANT CONSTITUENTS WHICH COULD BE DISCHARGED IN STORMWATER FROM THE CONSTRUCTION SITE	GROUND DISTURBANCE GENERATING SEDIMENT, CONCRETE WASHOUT, AND EQUIPMENT OILS
	<b>STORMWATER CONTROLS:</b>
SEDIMENT FENCE	SEDIMENT FENCING IS A TEMPORARY SEDIMENT TRAP CONSISTING OF AN ENTRENCHED GEOTEXTILE STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS. SEDIMENT FENCES ARE ADEQUATE TO TREAT FLOW DEPTHS CONSISTENT WITH OVERLAND OR SHEET FLOW
CONSTRUCTION ENTRANCE	A CONSTRUCTION ENTRANCE IS A STABILIZED ROCK PAD PLACED AT CONSTRUCTION SITE INGRESS/EGRESS LOCATIONS TO REDUCE THE AMOUNT OF SEDIMENT TRANSPORTED ONTO PAVED ROADS BY VEHICLES OR RUNOFF
SOIL STOCKPILE PROTECTION	PROVIDES IMMEDIATE PROTECTION TO SLOPES AND STOCKPILES. PLASTIC SHEETING HAS BEEN KNOWN TO TRANSFER EROSION PROBLEMS BECAUSE WATER WILL SHEET FLOW OFF THE PLASTIC AT HIGH VELOCITY. THIS IS USUALLY ATTRIBUTABLE TO POOR APPLICATION, INSTALLATION AND MAINTENANCE
ROCK ENERGY DISSIPATER	OUTLET PROTECTION REDUCES THE SPEED OF CONCENTRATED FLOW, THEREBY PREVENTING SCOUR AT DOWNSTREAM OUTFLETS. BY DISSIPATING ENERGY, OUTLET PROTECTION LOWERS THE POTENTIAL FOR DOWNSTREAM EROSION. OUTLET PROTECTION INCLUDES RIPRAP-LINED BASINS, CONCRETE APRONS, AND SETTLING BASINS. OUTLET PROTECTION PREVENTS SCOUR AT STORM
CONCRETE WASHOUT	PROVIDES DESIGNATED WASHOUT AREA TO REDUCE THE DISCHARGE OF POLLUTANTS

**STORM MANAGEMENT PLAN**

**PRIOR TO ANY SIGNIFICANT EXCAVATION**

1. INSTALL BEST MANAGEMENT PRACTICE (BMP) FOR EROSION PREVENTION
2. INSTALL CONSTRUCTION ENTRANCE
3. MAINTAIN AS MUCH EXISTING VEGETATION AS POSSIBLE

**DURING CONSTRUCTION**

1. IF THE CONSTRUCTION ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, ALTERNATIVE MEASURES TO KEEP STREETS FREE OF SEDIMENT MUST BE USED, THESE INCLUDE STREET VACUUM SWEEPING AND PLACING SEDIMENT IN DESIGNATED STOCKPILE, INCREASING THE DIMENSIONS OF THE ENTRANCE AND/OR INSTALLATION OF A WHEEL WASH.
2. REMOVE ANY SOIL THAT LEAVES THE SITE AND ENTERS DOWNSTREAM DRAINAGE SYSTEM
3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION, SEDIMENT AND POLLUTANT CONTROL MEASURES, TEMPORARY AND PERMANENT, IN PROPER FUNCTIONING ORDER. WITHIN 24 HOURS FOLLOWING A STORM OR HIGH WIND EVENT, THE CONTRACTOR MUST ADJUST, REPAIR AND REPLACE EROSION, SEDIMENT AND POLLUTANT CONTROL MEASURES TO ENSURE THAT THE MEASURES ARE FUNCTIONING PROPERLY.
4. ALL STOCKPILED MATERIALS SHALL BE PROTECTED WITH TEMPORARY SOIL STABILIZATION MEASURES SUCH AS PLASTIC SHEETING SECURED WITH TIE DOWNS AND SANDBAGS.

**UPON COMPLETION OF EXCAVATION**

RE-SEED ALL DISTURBED SOILS. SEED SHALL BE FROM BLUE TAG STOCK AND FROM THE LATEST CROP AVAILABLE. THE FOLLOWING MIXTURES ARE APPROPRIATE FOR THE OREGON NORTH COAST:

**SOIL CONSERVATION MIX:**


- HYBRID RYE: 3 LBS/ACRE 9%
- TALL FESCUE: 18 LBS/ACRE 52%
- CREEPING RED FESCUE: 8 LBS/ACRE 24%
- BENT GRASS: 1 LBS/ACRE 3%
- BIG TREFOLI: 4 LBS/ACRE 12%

**VISUAL MONITORING PROGRAM**

SITE CONDITION	MINIMUM FREQUENCY
ACTIVE PERIODS	DAILY WHEN STORMWATER RUNOFF, INCLUDING RUNOFF FROM SNOW MELT, IS OCCURRING AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS, REGARDLESS OF WHETHER STORMWATER RUNOFF IS OCCURRING
PRIOR TO THE SITE BECOMING INACTIVE OR IN ANTIPOATION OF SITE INACCESSIBILITY	ONCE TO DETERMINE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE IN WORKING ORDER, ANY NECESSARY MAINTENANCE AND REPAIR MUST BE PRIOR TO LEAVING THE SITE.
INACTIVE PERIODS GREATER THAN FOURTEEN (14) CONSECUTIVE CALENDAR DAYS	ONCE EVERY MONTH
PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER	IF PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT AND ACCESSIBLE DISCHARGE POINT OR DOWNSTREAM LOCATION.
PERIODS DURING WHICH DISCHARGE IS UNLIKELY DUE TO FROZEN CONDITIONS	MONTHLY. RESUME MONITORING IMMEDIATELY UPON MELT, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

**OREGON STANDARD ESCP NOTES**

1. ONCE KNOWN, INCLUDE A LIST OF ALL CONTRACTORS THAT WILL ENGAGE IN CONSTRUCTION ACTIVITIES ON SITE, AND THE AREAS OF THE SITE WHERE THE CONTRACTOR(S) WILL ENGAGE IN CONSTRUCTION ACTIVITIES. REVISE THE LIST AS APPROPRIATE UNTIL PERMIT COVERAGE IS TERMINATED (SECTION 4.4.C.I). IN ADDITION, INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G., ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS THEIR INDIVIDUAL RESPONSIBILITIES. (SECTION 4.4.C.II)
2. VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
3. INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.G)
4. RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. (SECTION 4.7)
5. THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTIONS 4 AND 4.11)
6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
7. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SECTION 4.9)
8. SEQUENCE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2)
9. CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVENT STORMWATER FROM BYPASSING CONTROLS AND PONDING. (SECTION 2.2.3)
10. IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SECTION 2.2.1)
11. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SECTION 2.2.5)
12. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FOOT OF WATERS OF THE STATE. (SECTION 2.2.4)
13. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3)
14. CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAM BANKS. (SECTIONS 2.1.1 AND 2.2.16)
15. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION, BOTH INTERNALLY AND AT THE SITE BOUNDARY. (SECTIONS 2.2.6 AND 2.2.13)
16. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SECTION 2.2.14)
17. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATION MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS. (SECTIONS 2.2.20 AND 2.2.21)
18. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SECTION 2.3.7)
19. KEEP WASTE CONTAINER LIDS CLOSED WHEN NOT IN USE AND CLOSE LIDS AT THE END OF THE BUSINESS DAY FOR THOSE CONTAINERS THAT ARE ACTIVELY USED THROUGHOUT THE DAY. FOR WASTE CONTAINERS THAT DO NOT HAVE LIDS, PROVIDE EITHER (1) COVER (E.G., A TARP, PLASTIC SHEETING, TEMPORARY ROOF) TO PREVENT EXPOSURE OF WASTES TO PRECIPITATION, OR (2) A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS (E.G., SECONDARY CONTAINMENT). (SECTION 2.3.7)
20. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ON-SITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND-DISTURBING ACTIVITIES. (SECTION 2.2.7)
21. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SECTION 2.2.7.F)
22. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
23. ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED. (SECTION 2.2.10)
24. PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED. (SECTION 2.2.12)
25. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENTS, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS. (SECTIONS 2.2.15 AND 2.3)
26. PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A)
27. IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPONDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
28. PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
29. IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SECTION 2.3)
30. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SECTION 2.2.9)
31. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SECTION 2.3.5)
32. IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION 1.2.9)
33. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED, THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SECTION 2.2)
34. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED. OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SECTION 2.2.8)
35. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
36. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C)
37. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT, SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT. (SECTION 2.1.5.D)
38. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS, ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIMEFRAME. (SECTION 2.2.19.A)
39. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SECTION 2.2.19)
40. DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F.)
41. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SECTION 2.2.20)
42. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED, ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED MOVED AND DISPOSED OF PROPERLY, UNLESS NEEDED FOR LONG TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE. (SECTION 2.2.21)

**REDUCED DRAWING  
VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0"  1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST  
SCALES ACCORDINGLY



REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
503-322-2442  
strickerengineering.com  
John@strickerengineering.com



**ROBY'S FURNITURE**  
ESCP General Notes

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:  
**C14.1**  
382

**PENDING DEQ REVIEW**

WARRENTON, OREGON



REV	DATE	DESCRIPTION

105 East Cypress  
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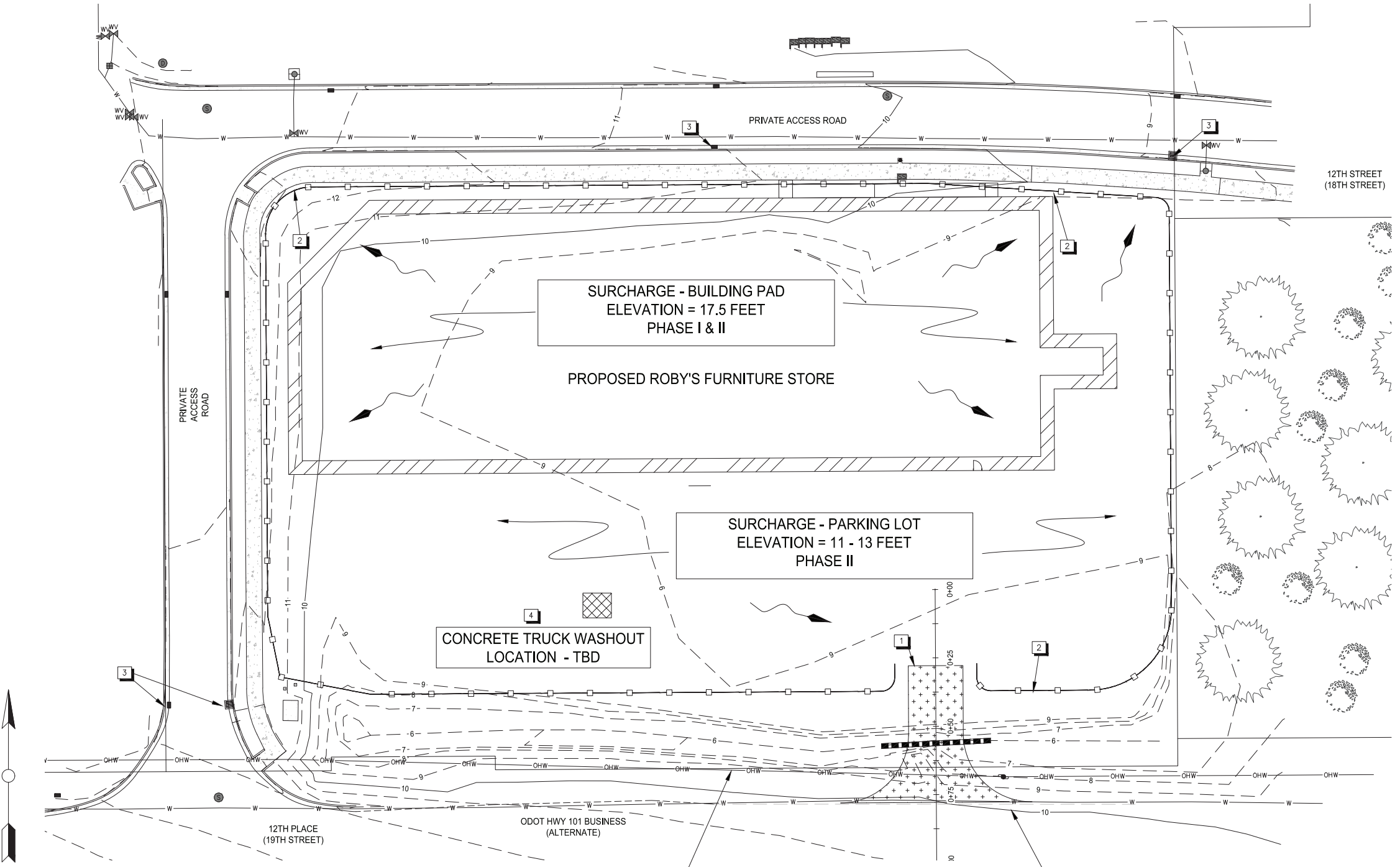
**ROBY'S FURNITURE**  
**ESCP PHASE I & II**  
WARRENTON, OREGON

DRAWN: 05/28/2021  
ISSUED: 05/28/2021  
SCALE: AS SHOWN  
JOB N.O.: 2012211249

Drawing N.O.:

**C14.2**  
383

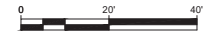
PENDING DEQ REVIEW



**ESCP LEGEND**

- PROPOSED FLOW ARROW
- EXISTING FLOW ARROW
- ROCK CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- SILT FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- BIOBAG CHECK DAM

**ESCP - PHASE I + II**  
SCALE: HORIZONTAL 1"=20'



**EROSION CONSTRUCTION NOTES**

1. INSTALL CONSTRUCTION ENTRANCE AS PER SHEET C14.4, ODOT RD1000
2. INSTALL SEDIMENT FENCE (TYP) AS PER SHEET C14.4, ODOT RD1040
3. INSTALL INLET PROTECTION AS PER SHEET C14.4, ODOT RD1010
4. INSTALL CONCRETE TRUCK WASHOUT AS PER SHEET C14.4, ODOT RD1070

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0" 1"  
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**EXISTING SOUTHERN DITCH**

THIS EXISTING DITCH LINE WILL HAVE BANK MODIFICATION - RETAINING WALL CONSTRUCTION ALONG THE NORTHERN BANK - SEE SHEETS - C.X SERIES FOR THE SPECIFIC CONSTRUCTION OF THESE STRUCTURES.

**TIME LINE:** THE CONSTRUCTION SEQUENCE WILL BE DETERMINED BY THE CONTRACTOR AND WEATHER/SEASON CONSIDERATIONS.

**ODOT TEMPORARY CULVERT:** WILL BE THE FIRST CONSTRUCTION IN THIS AREA. ACTUAL LOCATION TO BE DETERMINED AND APPROVED BY ODOT.

**ESCP - BMP:** BEST PRACTICES WILL BE USED IN THE CONSTRUCTION OF THE RETAINING WALLS AND DITCH SLOPE.

**TEMPORARY CONSTRUCTION ACCESS ROAD**

CONTRACTOR TO CONSTRUCT TEMPORARY ROAD ACROSS AN EXISTING DITCH. THIS ACCESS IS FOR THE HAULING OF THE STRUCTURAL FILL FOR THIS SITE - OVER 15,000 CY. THIS STRUCTURAL FILL WILL BE USED FOR SURCHARGING OF THE BUILDING AND PARKING SITE.

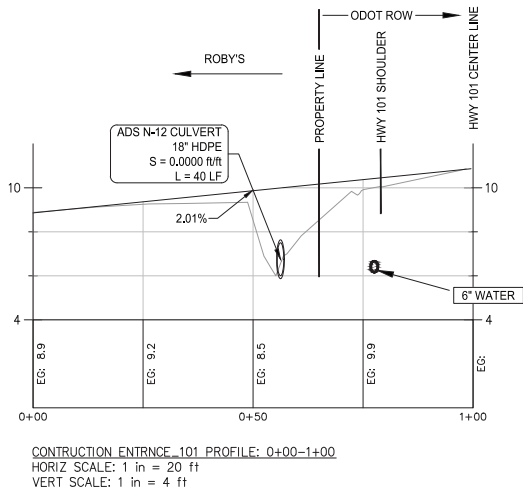
AN 18"Ø CULVERT WILL BE PLACED IN THE EXISTING DITCH LINE FOR THIS CROSSING. COMPACTED FILL WILL BE USED FOR BACKFILL AND PIPE ZONE MATERIAL. RIP RAP (4"-6") WILL BE USED FOR THE TWO PIPE ENDS.

**EXISTING STORM DRAINAGE:** STORM FLOWS WEST TO EAST - ALONG THIS EXISTING DITCH. AT THE WEST END - THERE IS AN EXISTING 18"Ø CULVERT DISCHARGING TO THIS DITCH LINE.

**BACKGROUND:** THIS CULVERT CROSSING SITE WAS USED BY THE OWNERS OF THIS SITE - FOR SITE DEVELOPMENT. THE CULVERT WAS REMOVED AFTER THE INITIAL CONSTRUCTION.

**ODOT TEMPORARY PERMIT - ACCESS:**

1. CONTRACTOR IS SUBMITTING FOR A PERMIT FOR THIS ACCESS.
2. ODOT SHALL APPROVE LOCATION. CONSTRUCTION RAMP COULD MOVE TO THE WEST DEPENDING ON ODOT DETERMINATION.



D:\Warrenton Projects\Roby's Drawings\Roby\_ESCP.dwg Plotted: Jun 01, 2021 - 3:13pm By: Geoff



REV	DATE	DESCRIPTION

105 East Cypress  
Garibaldi, OR 97118  
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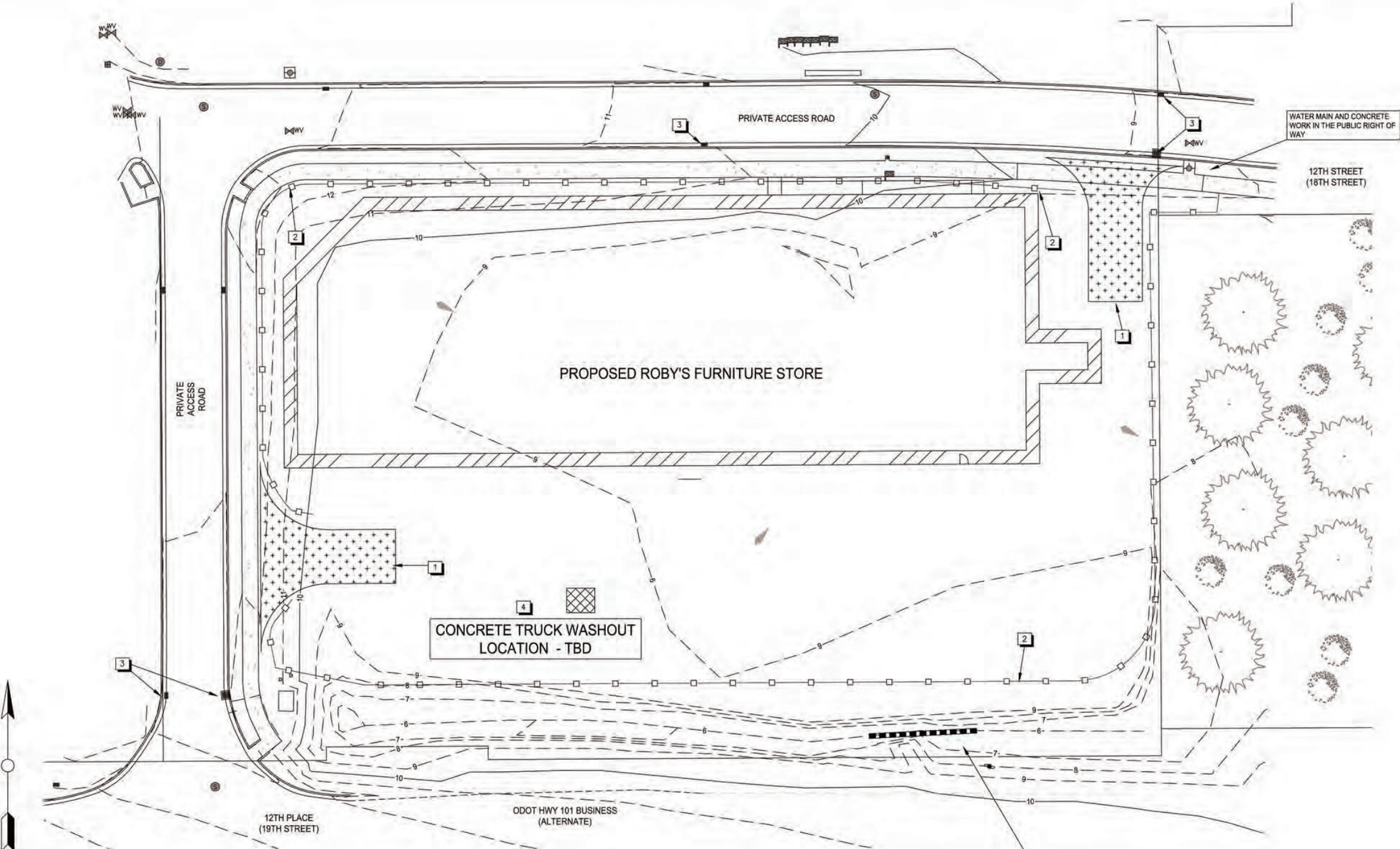


**ROBY'S FURNITURE**  
**ESCP BUILDING CONSTRUCTION**  
 WAPRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:  
**C14.3**  
 384

PENDING DEQ REVIEW



**ESCP LEGEND**

- PROPOSED FLOW ARROW
- EXISTING FLOW ARROW
- ROCK CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- SILT FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- BIOBAG CHECK DAM

**ESCP - BUILDING CONSTRUCTION**  
SCALE: HORIZONTAL 1"=20'



**EROSION CONSTRUCTION NOTES**

- 1** INSTALL CONSTRUCTION ENTRANCE AS PER SHEET C14.4, ODOT RD1000
- 2** INSTALL SEDIMENT FENCE (TYP) AS PER SHEET C14.4, ODOT RD1040
- 3** INSTALL INLET PROTECTION AS PER SHEET C14.4, ODOT RD1010
- 4** INSTALL CONCRETE TRUCK WASHOUT AS PER SHEET C14.4, ODOT RD1070

**TEMPORARY CONSTRUCTION ACCESS ROAD**

**PHASE II & BUILDING CONSTRUCTION - SURCHARGING OF PARKING LOT**  
 DURING THIS PHASE THE SURCHARGE STRUCTURAL FILL ROCK WILL BE MOVED AND PLACED ON THE PARKING LOT FOR SURCHARGING THIS AREA. ADDITIONALLY, THIS WILL BE THE CONSTRUCTION SURFACE FOR THE VERTICAL CONSTRUCTION.  
 PHASE III CONSTRUCTION ENTRANCE WILL BE REMOVED AT THE END OF PHASE II AND DURING THE BUILDING CONSTRUCTION.  
 ODOT TEMPORARY ACCESS (CULVERT) WILL BE REMOVED AS THE TWO (2) NEW ENTRANCES ARE CONSTRUCTED (CONCRETE CURB AND GUTTERS). THIS WILL BE COORDINATED WITH ODOT.

**REDUCED DRAWING**  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

D:\Warrenton Project\Roby's Drawings\Roby\_ESCP.dwg Plotted: Jun 01, 2021 - 3:13pm By: Geoff



REV.	DATE	DESCRIPTION

105 East Cypress  
 Garibaldi, OR 97118  
 503-322-2442  
 strickerengineering.com  
 John@strickerengineering.com



PENDING DEQ REVIEW  
 ROBY'S FURNITURE  
 ESCP ODOT Details  
 WARRENTON, OREGON

DRAWN: 05/28/2021  
 ISSUED: 05/28/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 201221249

Drawing N.O.:

C14.4  
 385

**CONSTRUCTION ENTRANCE - TYPE 1**  
 NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 2**  
 NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 3 (TYPE 1 OR 2 WITH EXISTING CURB)**  
 NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 6**  
 NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 7**  
 NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 10**  
 NOT TO SCALE

**CONSTRUCTION ENTRANCE - TYPE 11**  
 NOT TO SCALE

**SECTION A-A**  
 NOT TO SCALE

**SECTION B-B**  
 NOT TO SCALE

**SECTION C-C**  
 NOT TO SCALE

**WOODEN CURB RAMP SECTION D-D**  
 NOT TO SCALE

Length (FT)	Area Of Exposed Soil (Acres)
20	0.25
50	0.25 < A < 1.0
100	A > 1.0

**NOTES:**  
 1. The Type 1 entrance is a simple entrance without a diversion ridge or setting basin.  
 2. The wooden ramp may be used on either Type 1 or Type 2 entrances in situations where there is curb and the curb is not removed for the construction entrance.

**Effective Date: June 1, 2021 - November 30, 2021** RD1003

**GEOTEXTILE/WIRE MESH/AGGREGATE - TYPE 2**  
 NOT TO SCALE

**PREFABRICATED FILTER INSERT - TYPE 3**  
 NOT TO SCALE

**SOD PROTECTION - TYPE 6**  
 NOT TO SCALE

**AREA DRAIN PLAN**

**AREA DRAIN PERSPECTIVE VIEW**

**CURB INLET SEDIMENT DAM - TYPE 10**  
 NOT TO SCALE

**WATTLE BARRIER WITH FILTER INSERT - TYPE 11**  
 NOT TO SCALE

**COMPOST FILTER SOCK OR WATTLE - TYPE 7**  
 NOT TO SCALE

**NOTES:**  
 Type 2 - Geotextile/wire mesh/aggregate: Place the wire mesh over the grate. Place sediment fence geotextile over the wire mesh and perimeter area around structure. Install aggregate over the geotextile fabric.  
 Type 3 - Prefabricated filter inserts: Install prefabricated filter inserts according to the plans, special provisions, and manufacturer recommendations. Prefabricated inserts with provisions for overflow are allowed only when accompanied by additional BMP's to prevent the potential of sediments entering project storm systems. Field fabricated inserts are not allowed.  
 Type 7 - Compost filter sock: Drive 2"x2" wood stakes a minimum of 6" into ground and flush with the top of the sock. Overlap ends of sock per manufacturer recommendations (12" min., 36" max.). Use 8" to 12" dia sock on curbside in traffic areas.

**Effective Date: June 1, 2021 - November 30, 2021** RD1010

**SEDIMENT FENCE AND GEOTEXTILE BURY DETAIL - TYPE 1**  
 NOT TO SCALE

**ALTERNATE SEDIMENT FENCE WITHOUT TRENCHING - TYPE 2**  
 NOT TO SCALE

GRADE	MAXIMUM SPACING ON GRADE
Grade < 10%	300'
10% < Grade < 15%	150'
15% < Grade < 20%	100'
20% < Grade < 30%	50'
30% < Grade	25'

**POST SPACING TABLE**

POST SPACING	SEDIMENT FENCE WITH GEOTEXTILE ELONGATION LESS THAN 50%	SEDIMENT FENCE WITH GEOTEXTILE ELONGATION 50% OR MORE
6"	10'	10'
8"	15'	15'
10"	20'	20'

**GENERAL NOTES:**  
 1. Use 2"x2" wood fence posts.  
 2. Posts to be installed on downhill side of sediment fence geotextile. Position posts to prevent separation from geotextile.  
 3. Compact filter fabric trench backfill and soil on uphill side of fence.  
 4. Locate fence no closer than three feet to the toe of a slope.  
 5. Wing spacing shall comply with "Fence Spacing for General Application Table".

**Effective Date: June 1, 2021 - November 30, 2021** RD1040

**CONCRETE TRUCK WASH OUT FACILITY**  
 NOT TO SCALE

**SECTION AA**

**STAPLE DETAIL**  
 NOT TO SCALE

**REDUCED DRAWING VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**Effective Date: June 1, 2021 - November 30, 2021** RD1070

D:\Warrenton\Projects\2021\144\144-001\144-001.dwg 01/20/2021 By: Geoff

rd1003.dwg 01/20/2021

RD1003

rd1010.dwg 01/20/2021

RD1010

rd1040.dwg 01/20/2021

RD1040

rd1070.dwg 01/20/2021

RD1070

## **APPENDIX M**

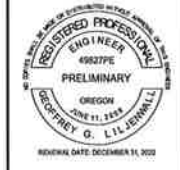
### *Photo Plates:*

*A. Existing Conditions*

*B. Sample Store Signage*

*C. Site Views (South and North)*

D:\Warrenton Projects\Roby's Drawings\C4.1.dwg Plotted: May 08, 2021 - 12:30pm By: Geoff



REV	DATE	DESCRIPTION	REVISIONS

105 East Cypress  
 Garibaldi, OR 97118  
 503-352-2442  
 strickerengr@engineering.com  
 John@strickerengineering.com



**ROBY'S FURNITURE**  
 EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY  
 WARRENTON OREGON

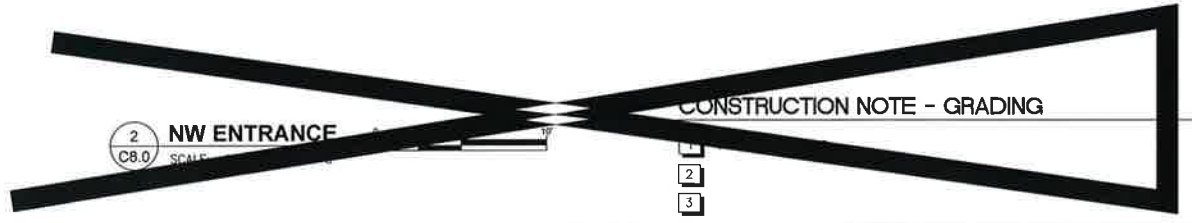
DRAWN: 12/21/2020  
 ISSUED: 04/30/2021  
 SCALE: AS SHOWN  
 JOB N.O.: 2012211249

Drawing N.O.:

**C4.1**  
 387

30% SCHEMATIC

**REDUCED DRAWING**  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET,  
 ADJUST SCALES ACCORDINGLY



View to NW toward Hwy 101 from Building Main Entrance location



View south from proposed building mid-point





**Proposed**  
**ROBY'S FURNITURE STORE**  
**Warrenton, Oregon**

**Example Store Signage**

**June 3, 2021 Appendix M.B**

**APPENDIX N**

*Land Use Compatibility Statement, City of Warrenton letter to Oregon DEQ, May 12, 2021.*



May 12, 2021

To: Oregon Department of Environmental Quality  
From: Will Caplinger, Interim City Planner, City of Warrenton  
Re: Land Use Compatibility Statement for Roby's Furniture project

Findings under Section 2.E.:

1. The project is compatible with the acknowledged City of Warrenton Comprehensive Plan. The project area is within the Commercial Lands designation. Section 3.320(1)(c) of the Comprehensive Plan states that, "the purpose of the General Commercial Zone is to allow a broad range of commercial uses..."
2. The project area is within the General Commercial (C-1) District. Warrenton Municipal Code (WMC) Section 16.40.020.A.2 states that "Retail business establishments" are a permitted use.
  - a. The project is subject to WMC Sections 16.40.040 Development Standards and 16.40.060 Other Applicable Standards.
  - b. The project area contains Locally Significant Wetlands. Development is subject to the Wetland Area Protection Standards in WMC 16.156.030.

# Land Use Compatibility Statement

## Section 1 – To be completed by the applicant

1A. Applicant Name: **Warrenton Property Investments, L**

1B. Project Name: **Roby's Furniture**

Contact Name: **Kyle Langeliers**

Physical Address: **NW Corner of Fort Stephens Hwy**

Mailing Address: **5111 N Coast Highway**

City, State, Zip: **Warrenton, Oregon**

City, State, Zip: **Newport, Oregon 97365**

Tax Lot #: **81027AB06400**

Telephone: **503-812-8267**

Township: **8N** Range: **10W** Section: **27**

Tax Account #:

Latitude: **46.153934**

**86-1391915**

Longitude: **-123.906084**

1C. Describe the project, include the type of development, business, or facility and services or products provided (attach additional information if necessary):

Proposed new commercial/retail development: **Roby's Furniture Store.**

1D. Check the type of DEQ permit(s) or approval(s) being applied for at this time.

- |   |  |
|---|--|
| <input type="checkbox"/> Air Quality Notice of Construction                                   | <input type="checkbox"/> Clean Water State Revolving Fund Loan Request   |
| <input type="checkbox"/> Air Contaminant Discharge Permit                                     | <input type="checkbox"/> Wastewater/Sewer Construction Plan/ Specifications (includes review of plan changes that require use of new land) |
| <input type="checkbox"/> Air Quality Title V Permit   | <input type="checkbox"/> Water Quality NPDES Individual Permit   |
| <input type="checkbox"/> Air Quality Indirect Source Permit                                   | <input type="checkbox"/> Water Quality WPCF Individual Permit (for onsite construction-installation permits use the DEQ Onsite LUCS form)  |
| <input type="checkbox"/> Parking/Traffic Circulation Plan                                     | <input checked="" type="checkbox"/> Water Quality NPDES Stormwater General Permit (1200-A, 1200-C, 1200-CA, 1200-COLS, and 1200-Z)         |
| <input type="checkbox"/> Solid Waste Land Disposal Site Permit                                | <input type="checkbox"/> Water Quality General Permit (all general permits, except 600, 700-PM, 1700-A, and 1700-B when they are mobile)   |
| <input type="checkbox"/> Solid Waste Treatment Facility Permit                                | <input type="checkbox"/> Water Quality 401 Certification for federal permit or license   |
| <input type="checkbox"/> Solid Waste Composting Facility Permit (includes Anaerobic Digester) |  |
| <input type="checkbox"/> Conversion Technology Facility Permit                                |  |
| <input type="checkbox"/> Solid Waste Letter Authorization Permit                              |  |
| <input type="checkbox"/> Solid Waste Material Recovery Facility Permit                        |  |
| <input type="checkbox"/> Solid Waste Energy Recovery Facility Permit                          |  |
| <input type="checkbox"/> Solid Waste Transfer Station Permit                                  |  |
| <input type="checkbox"/> Waste Tire Storage Site Permit                                       |  |
| <input type="checkbox"/> Pollution Control Bond Request                                       |  |
| <input type="checkbox"/> Hazardous Waste Treatment, Storage or Disposal Permit                |  |

This application is for:  Permit Renewal  New Permit  Permit Modification  Other:



**Section 2 – To be completed by city or county planning official**

Applicant name: **Warrenton Property Investments, LLC** Project name: **Roby's Furniture**

Instructions: **Written findings of fact for all local decisions are required; written findings from previous actions are acceptable. For uses allowed outright by the acknowledged comprehensive plan, DEQ will accept written findings in the form of a reference to the specific plan policies, criteria, or standards that were relied upon in rendering the decision with an indication of why the decision is justified based on the plan policies, criteria, or standards.**

2A. The project proposal is located:  Inside city limits  Inside UGB  Outside UGB

2B. Name of the city or county that has land use jurisdiction (the legal entity responsible for land use decisions for the subject property or land use): **City of Warrenton**

2C.  This project is not within the jurisdiction of any other land use, zoning, or planning entity

This project is also within the jurisdiction of the following land use, zoning, or planning entity \_\_\_\_\_

2D. Is the activity allowed under Measure 49 (2007)?  No, Measure 49 is not applicable  Yes, if yes, then check one:

Express; approved by DLCD order #:

Conditional; approved by DLCD order #:

Vested; approved by local government decision or court judgment docket or order #:

2E. Is the activity a composting facility?

No  Yes; Senate Bill 462 (2013) notification requirements have been met.

2F. Is the activity or use compatible with your acknowledged comprehensive plan as required by OAR 660-031?

Please complete this form to address the activity or use for which the applicant is seeking approval (see 1.C on the previous page). If the activity or use is to occur in multiple phases, please ensure that your approval addresses the phases described in 1C. For example, if the applicant's project is described in 1C. as a subdivision and the LUCS indicates that only clearing and grading are allowed outright but does not indicate whether the subdivision is approved, DEQ will delay permit issuance until approval for the subdivision is obtained from the local planning official.

The activity or use is specifically exempt by the acknowledged comprehensive plan; explain:

Yes, the activity or use is pre-existing nonconforming use allowed outright by (provide reference for local ordinance):

Yes, the activity or use is allowed outright by (provide reference for local ordinance):

Yes, the activity or use received preliminary approval that includes requirements to fully comply with local requirements; findings are attached.

Yes, the activity or use is allowed; findings are attached.

No, see 2D. above, activity or use allowed under Measure 49; findings are attached.

No, (complete below or attach findings for noncompliance and identify requirements the applicant must comply with before compatibility can be determined):

Relevant specific plan policies, criteria, or standards:

Provide the reasons for the decision:

Additional comments (attach additional information as needed):

Planning Official Signature:

Title: **Interim City Planner**

Print Name: **Will Caplinger**

Telephone #: **(503) 468-1015**

Date: **5/12/21**

If necessary, depending upon city/county agreement on jurisdiction outside city limits but within UGB:

Planning Official Signature:

Title:

Print Name:

Telephone #: **(503) 468-1015**

Date:

**Alternative formats**



State of Oregon Department of Environmental Quality  
**Land Use Compatibility Statement**

**What is a Land Use Compatibility Statement?**

A LUCS is a form developed by DEQ to determine whether a DEQ permit or approval will be consistent with local government comprehensive plans and land use regulations.

**Why is a LUCS required?**

DEQ and other state agencies with permitting or approval activities that affect land use are required by Oregon law to be consistent with local comprehensive plans and have a process for determining consistency. DEQ activities affecting land use and the requirement for a LUCS may be found in Oregon Administrative Rules (OAR) Chapter 340, Division 18.

**When is a LUCS required?**

A LUCS is required for nearly all DEQ permits and certain approvals of plans or related activities that affect land use prior to issuance of a DEQ permit or approval. These permits and activities are listed in section 1.D on p. 2 of this form. A single LUCS can be used if more than one DEQ permit or approval is being applied for concurrently.

Permit modifications or renewals also require a LUCS when any of the following applies:

1. Physical expansion on the property or proposed use of additional land;
2. Alterations, expansions, improvements or changes in method or type of disposal at a solid waste disposal site as described in OAR 340-093-0070(4)(b);
3. A significant increase in discharges to water;
4. A relocation of an outfall outside of the source property; or
5. Any physical change or change of operation of an air pollutant source that results in a net significant emission rate increase as defined in OAR 340-200-0020.

**How to complete a LUCS:**

Step	Who does it?	What happens?
1.	Applicant	Applicant completes Section 1 of the LUCS and submits it to the appropriate city or county planning office.
2.	City or County Planning Office	City or county planning office completes Section 2 of the LUCS to indicate whether the activity or use is compatible with the acknowledged comprehensive plan and land use regulations, attaches written findings supporting the decision of compatibility, and returns the signed and dated LUCS to the applicant.
3.	Applicant	Applicant submits the completed LUCS and any supporting information provided by the city or county to DEQ along with the DEQ permit application or approval request.

**Where to get help:**

For questions about the LUCS process, contact the DEQ staff responsible for processing the permit or approval. DEQ staff may be reached at 1-800-452-4011 (toll-free, inside Oregon) or 503-229-5630. For general questions, please contact DEQ land use staff listed on our [Land Use Compatibility Statement page](#) online.

**Cultural resources protection laws:**

Applicants involved in ground-disturbing activities should be aware of federal and state cultural resources protection laws. ORS 358.920 prohibits the excavation, injury, destruction, or alteration of an archeological site or object or removal of archeological objects from public and private lands without an archeological permit issued by the State Historic Preservation Office. 16 USC 470, Section 106, National Historic Preservation Act of 1966 requires a federal agency, prior to any undertaking, to take into account the effect of the undertaking that is included on or eligible for inclusion in the National Register. For further information, contact the State Historic Preservation Office at 503-378-4168, ext. 232.

## **APPENDIX O**

*Roby's Customer/Traffic Analysis, 2017-2019*

**Roby's Furniture & Appliance Store**  
**CUSTOMER/TRAFFIC ANALYSIS, 3-YEARS DATA**  
**(Six Stores--2017, 2018 & 2019)**  
 Data Source: Kyle Langeleirs, Roby's Furniture

2017	January	February	March	April	May	June	July	August	Sept	October	November	December		
<b>Store</b>														
Astoria	338	253	306	266	258	223	369	380	343	374	256	300		
Tillamook	454	500	445	480	462	498	662	475	479	448	418	478		
Lincoln City	339	337	302	327	332	294	316	354	303	415	357	323		
Newport	377	406	382	387	366	414	437	337	346	360	335	287		
Florence	523	550	285	224	211	203	255	261	258	239	215	220		
McMinnville	385	377	501	552	498	488	422	369	159	357	433	418		
	2416	2423	2221	2236	2127	2120	2461	2176	1888	2193	2014	2026	<b>26301</b>	<b>Customers</b>
												(12 month	/12=	
													2191.75	
												(6 stores)	/6=	
													365.29	
												(24 business days)	/24=	<b>15.22</b>

2018	January	February	March	April	May	June	July	August	Sept	October	November	December		
<b>Store</b>														
Astoria	244	224	319	280	381	313	279	304	221	313	307	287		
Tillamook	418	386	447	393	475	350	428	385	422	392	341	399		
Lincoln City	284	309	354	275	294	280	247	275	300	384	255	267		
Newport	402	321	380	347	385	393	391	391	400	418	393	330		
Florence	212	271	312	244	212	261	261	254	297	212	212	316		
McMinnville	400	362	523	428	381	375	374	405	476	447	409	340		
	1960	1873	2335	1967	2128	1972	1980	2014	2116	2166	1917	1939	<b>24367</b>	<b>Customers</b>
												(12 months)	/12=	
													2030.58	
												(6 stores)	/6=	
													338.43	
												(24 Business Days)	/24=	<b>14.1</b>

**Roby's Furniture & Appliance Store**  
**CUSTOMER/TRAFFIC ANALYSIS, 3-YEARS DATA**  
**(Six Stores--2017, 2018 & 2019)**  
**Data Source: Kyle Langeleirs, Roby's Furniture**

<b>2019</b>	January	February	March	April	May	June	July	August	Sept	October	November	December		
<b>Store</b>														
Astoria	293	308	247	278	380	323	298	349	316	367	361	265		
Tillamook	391	423	390	428	377	431	444	464	462	485	430	384		
Lincoln City	248	235	295	302	263	305	313	309	246	252	245	178		
Newport	393	344	391	359	403	355	373	446	370	348	380	375		
Florence	407	407	407	407	407	318	331	336	277	313	280	276		
McMinnville	378	407	355	312	336	321	340	383	336	333	397	388		
	2110	2124	2085	2086	2166	2053	2099	2287	2007	2098	2093	1866	<b>25074</b>	<b>Customers</b>
												(12 month	/12=	
													2089.5	
												(6 stores)	/6=	
													348.25	
												(24 Business days)	/24=	<b>14.5</b>

**END**

**SITE DESIGN REVIEW NARRATIVE REPORT**

## **APPENDIX I**

*Pre-Application Meeting (Roby's Furniture & Appliance, January 20, 2021) Comment Letter, City of Warrenton, February 5, 2021, Scott Hess, Community Development Director*



February 5, 2021

To: Kyle Langeliers, Roby's Furniture  
From: Scott Hess, Community Development Director, City of Warrenton  
Copy: Van Wilfonger, Building Official; Colin Stelzig, Public Works Director; Brian Alsbury, Fire Chief  
Re: January 20, 2021 Pre-application meeting

This memo outlines information identified during the preapplication meeting with you on Wednesday, January 20, 2021. You can use this memo as a checklist to help assure that your application is complete when submitted. Our comments are based on the discussion on January 20, 2021, and on a preliminary Site Plan and narrative materials provided by you via email on January 4, 2021.

The project is proposed on a portion of Tax Lot 081027AB06400 located near Marlin Ave and the Fort Stevens Hwy Spur. It is our understanding that this is a commercial retail store consisting of approximately 28,000 square feet. The property is zoned is zoned **General Commercial (C-1)**.

This proposal is a permitted use in the General Commercial (C-1) zone, and will require site design review per WMC 212.040. The application will be reviewed via a **Type 3** process with a public hearing before the Planning Commission and notice described in WMC 16.208.050. The Community & Economic Development Department performance review time for a Type 3 application from "completeness" to "notice of decision" is 6-8 weeks. Application requirements are listed in WMC 16.216 & 16.220.

Codes referenced below will be used in reviewing the Site Design Review submittal. Staff will ask that you provide a narrative response to the code sections below. Staff can assist with a **template** for that response if necessary.

#### **Planning/Zoning Comments:**

1. Warrenton Municipal Code 16.208.050 Type III Applications provides details needed to satisfy the public notice hearing posting and elements required leading up to Planning Commission
2. WMC 16.121.020 establishes standards for Site Design review applicability. Commercial buildings greater than 10,000 square feet greater require a Type III review with public notice required per Chapter 16.208.040.
3. WMC 16.212.040 explains Site Design elements.
  - a. Street Lights will be required as well as a lighting plan for the site
  - b. Assure that parking lot is lit to increase safety of the rear parking

*"Making a difference through excellence of service"*



4. Design standards for C-1 Zone can be found in Title 16, Division 3. On initial review, this project will be required to conform with the following:
- a. Chapter 16.116 Design Standards: Please review the Architectural Design Standards and provide information on how the design the building meets the basic Building Requirements in 16.116.030 C. Note the Building Massing, Materials, and Mechanical equipment requirements.
  - b. Chapter 16.20 Access and Circulation
  - c. Chapter 16.124 Landscaping, Street Trees, Fences, and Walls
    - i. Chapter 16.124.070 New Landscaping provides information for Landscaping Plans. Basic requirements are 15% of the site shall be landscaped in Commercial Zones
  - d. Chapter 16.128 Vehicle and Bicycle Parking:
    - i. Vehicle Parking - Your use falls into the category of "General Retail", and there is also a standard for "Furniture or appliance repair shop". The higher parking number is 1 space per 350 square feet of retail space, and the lower number is 1 space per 750 square feet of floor space.
    - ii. Landscaped parking aisles will count towards your 15% landscape requirement.
    - iii. Bicycle parking – Required to provide at minimum 2 spaces with 25% long term and 75% short term. Long term parking must be within a lockable enclosure, a secure room in a building onsite, monitored, or another form of sheltering. Placing the bike rack under an awning in a visible location that does not impede pedestrian flow will meet this requirement.
    - iv. Applicants can request a parking reduction as a Class 1 or Class 2 variance, and must provide a written request and a parking analysis provided by a qualified professional/registered engineer. Review 16.128.030.10 for more information.
  - e. Chapter 16.144.040 Signs: This reference is direct to the Commercial Sign Requirements can be handled administratively at building permit, but understanding the requirements will be helpful for you now.
  - f. 16.156 Wetland and riparian corridor development standards: Provide documentation of wetland delineation and mitigation done within the overall site development by the current owners. Explain how your project meets those requirements set forth in the State's permit.
  - g. 16.192 Large-Scale Developments: This section of code largely refers to other areas, with a key exception of requiring Soil Suitability analysis if needed. It is possible that this work was done with the development of Tractor Supply, and whether it covered the entire site.
5. The Planning Commission meets on the second Thursday of each month. Your completed application materials need to be submitted at least **five weeks ahead** of the meeting date.

#### **Building Department Comments:**

1. The plans, as provided, are conceptual in nature and contain insufficient information to provide comprehensive Building Department comments at this time.
2. Building Department Review and Building Permit submittal are the final step in the Land Use approval process. The project must clear all Planning and Zoning, and Public Works comments prior to submittal for a Building Permit.

## Public Works Comments:

Public Works understands that a new furniture store is proposed on a portion of Tax Lot 081027AB06400. With this information, staff at public works has provided the following items that will need to be addressed in your design and planning documents:

1. The developer is required to follow the City of Warrenton Development Standards. These standards can be found in Title 16 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet that standards set forth in the development code. Below is a link to the Development Code  
<http://qcode.us/codes/warrenton/view.php?topic=16&frames=on>
2. The developer must follow the City's Water and Sewer Regulations. These regulations are included under Title 13 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet that standards set forth in the development code. Below is a link to the Title 13 of our Code:  
<http://qcode.us/codes/warrenton/view.php?topic=13&frames=on>
3. The developer is required to follow the Engineering Standards & Design Criteria Manual. Please provide documentation showing how the development meets the standards set forth in this manual. This manual can be found at the  
<http://www.ci.warrenton.or.us/publicworks/page/engineering-specifications-design-guide>
4. Sewer services for commercial projects shall be a minimum of 6" diameter.
5. Water meter and service connections will be installed by the owner/contractor.
6. All commercial property shall have a backflow device at the meter for premise isolation.
7. The City will need an easement at meter and vault locations if on private property.
8. Sidewalks shall be a minimum of 5 feet wide and shall meet ODOT standards.
9. Street lights are required for all new developments. Show proposed street light locations and submit plan to Pacific Power & Light for circuit design.
10. Please work with the Fire Chief to determine appropriate Fire hydrant spacing for this development. Developer team is responsible for determining if fire flows are available at this location. This can include hydrant testing and/or water modeling.
11. All on-site driveways, parking areas, aisles and turn-a-rounds shall have on-site collection or infiltration of surface waters to eliminate sheet flow of such waters onto public rights-of-way and abutting property. Surface water facility plans shall be prepared by a qualified engineer and constructed in accordance with City standards. Stormwater report shall detail pre and post stormwater conditions, including the adjacent ROWs and flows from existing storm system.
12. The City has design standards for refuse enclosures that include the required turning radius and access standard. Current design does not appear to show refuse or recycling services?
13. Existing flood elevation are 12' NAVD, Future flood elevations could be near 13' NAVD.

## Fire Department Comments:

Based on the information provided, the Fire Department has the following comments.

### ACCESS:

With plans submitted, it appears that adequate access has been provided. Fire department is requesting that the East end of property (closest to loading dock) that the curb be painted red and labeled "NO PARKING-FIRE LANE" every 6 feet, from the Southeast corner to the Northeast corner. Building access with key must be provided, this will be in a Supra Box affixed to the exterior of building next to the

sprinkler riser room. Please see attached page with Supra Box ordering details. Provide and affix to the building-BUILDING INFORMATION SIGN-please read attached appendix J Oregon Fire Code.

**WATER SUPPLY:**

Hydrants-Please provide the following information:

Waterflows from hydrants located on the NW and SE property, please see page #2 for a list of vendors that can complete this. Hydrant locations and distance all appear to be in good locations. FDC will be located on the NE corner of property within 15 feet of hydrant (see plans for location). FDC must have locking caps with key. Please see attached for ordering information from KNOX FDC caps.

**ADDRESS:**

The address number also be located on the drive isle on the NW corner (front entrance) with numbers that contrast from the building color and that are no smaller than 6 inches in height.

**MISC:**

*Please provide the Fire Dept with water flow and fire flow calcs.*

**Hydrant Flow Testing:**

Red Hawk Fire Protection  
3801 NW Fruit Valley Rd Suite D, Vancouver, WA 98660  
(360)984-3712

Wvatt Fire Protection  
9095 SW Burnham St, Tigard, OR 97223  
(503) 684-2928

Delta Fire, Inc  
14795 SW 72nd Ave, Portland, OR 97224  
(503) 620-4020

Viking Fire Protection  
3245 NW Front Ave, Portland, OR 97210  
(503)227-1171

Basic Fire Protection  
8135 NE MLK Jr. Blvd, Portland, OR 97211  
(503)2850713

**Estimated Permit Fees & SDCs**

Grading permits and engineering design are reviewed by a third-party consultant and requires a deposit and direct charge for services. This will be calculated at the time of submittal.

Site Design Review: Planning Commission 25001-30000sqft	\$ 1750
Variance (if desired for parking reduction):	\$ 500 Class 1 or \$ 1250 Class 2

**Systems Development Charge:**

*The City will collect systems development charges when building permits are issued. Below is an estimate based on the submitted plan set:*

SDC	Cost	Factor	Cost
Water Meter	\$ 3,296.00	1" meter	\$ 3296.00
Wastewater	\$ 3,294.00	1" meter	\$ 3294.00
Storm Water	\$ 157.00	(factor)	\$
Transportation		(trip gen)	
Per PHPT	\$ 527.22		\$
Parks	\$ 0.00		\$
<b>TOTAL</b>			<b>\$</b>

*\*You have indicated that your store is approximately 28,000 square feet with 23,000 of that being used for general retail space. In order to best calculate your SDC fee, I would like to confer with my City Engineer and Public Works Director on the Storm Water factor and Trip Generation factor rather than provide an incorrect estimate in this Pre-App memo. I will follow-up with additional information.*

Final SDCs will be calculated per approved plans at building permit issuance.

**Please use this letter as a checklist for your land use submittal.**

If you have any questions about the requirements or any City related issues, please contact Scott Hess at [shess@ci.warrenton.or.us](mailto:shess@ci.warrenton.or.us) or 503-861-0920.



# Warrenton Fire Department

P.O. Box 250 Warrenton, OR 97146-0250 (503) 861-2494 Fax 503/861-2351  
225 S. Main Warrenton, Or 97146-0250

## MEMORANDUM

**To:** Scott Hess, Community Development Director  
**Date:** February 5, 2021  
**From:** Brian Alsbury, Fire Chief  
**Re:** Roby's Furniture and Appliance

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Based on the information provided, the Fire Department has the following comments.

### ACCESS:

With plans submitted, it appears that adequate access has been provided. Fire department is requesting that the East end of property (closest to loading dock) that the curb be painted red and labeled "NO PARKING-FIRE LANE" every 6 feet, from the Southeast corner to the Northeast corner. Building access with key must be provided, this will be in a Supra Box affixed to the exterior of building next to the sprinkler riser room. Please see attached page with Supra Box ordering details. Provide and affix to the building-BUILDING INFORMATION SIGN-please read attached appendix J Oregon Fire Code.

### WATER SUPPLY:

Hydrants-Please provide the following information:  
Waterflows from hydrants located on the NW and SE property, please see page #2 for a list of vendors that can complete this. Hydrant locations and distance all appear to be in good locations. FDC will be located on the NE corner of property within 15 feet of hydrant (see plans for location). FDC must have locking caps with key. Please see attached for ordering information from KNOX FDC caps.

### ADDRESS:

The address number also be located on the drive isle on the NW corner (front entrance) with numbers that contrast from the building color and that are no smaller than 6 inches in height.

### MISC:

Please provide the Fire Dept with water flow and fire flow calcs.



August 5, 2021

Will Caplinger  
City Planner, Interim  
City of Warrenton  
225 S Main Ave  
Warrenton, OR 97146

RE: Roby's Furniture – Site Design Review (WMC 16.212.040)

Dear Mr. Caplinger,

The planning review submittal package has been provided to City of Warrenton Public Works. The drawing set, Pre-App Meeting notes have been reviewed. This letter summarizes our review comments of the information provided, by Striker Engineering, dated June 28, 2021.

As submitted, the development consists of a new building and parking lot off Alternate Highway 101.

The submitted information has been reviewed for compliance with the City of Warrenton Municipal Code Site Design Review, Section 16.212.040 and additional referenced sections.

This is not a review of the engineering plans or construction details currently provided in the application documentation, but is a review of applicable code related to site design review. Engineer review will take place after planning commission approves the development and once engineering plans have submitted to the City for review and comments.

**General Notes:**

- Construction Documents shall meet all requirements of federal, state, and local standards, codes, ordinances, guidelines and/or other legal requirements.
- The developer is required to follow the City of Warrenton Development Standards. These standards can be found in Title 16 of the Warrenton Municipal Code. Please provide documentation showing how this development will meet the standards set forth in the development code.
- The developer must follow the City's Water and Sewer Regulations. These regulations are included under Title 13 of the Warrenton Municipal Code.
- The developer is required to follow the Engineering Standards & Design Criteria Manual. Please provide documentation showing how the development meets the standards set forth in this manual.
- Grading and Erosion Control activities shall adhere to the requirements of the Approved Oregon Department of Environmental Quality General Permit for Stormwater Discharge, 1200-C when applicable.
- Grading activities shall adhere to the recommendations provided in the project final Geotechnical report when applicable.

**Comments:**

1. Stormwater treatment will need to be reviewed by the appropriate agency. It is our understanding that treatment will be reviewed by Oregon DEQ.
2. Sewer services for commercial projects shall be a minimum of 6" diameter.
3. Water meter and service connections will be installed by the owner/contractor.
4. All commercial property shall have a backflow device at the meter for premise isolation.
5. The City will need an easement around the water meter and vault locations if on private property. Water meters are not allowed in the sidewalk.
6. Sidewalks shall be a minimum of 5 feet wide and shall meet ODOT standards.
7. Street lights are required for all new developments. Show proposed street light locations and submit plan to Pacific Power & Light for circuit design.
8. Please work with the Fire Chief to determine appropriate Fire hydrant spacing for this development. Developer team is responsible for determining if fire flows are available at this location. This can include hydrant testing and/or water modeling.
9. All on-site driveways, parking areas, aisles and turn-a-rounds shall have on-site collection or infiltration of surface waters to eliminate sheet flow of such waters onto public rights-of-way and abutting property. Surface water facility plans shall be prepared by a qualified engineer and constructed in accordance with City standards. Stormwater report shall detail pre and post stormwater conditions, including the adjacent ROWs and flows from existing storm system. This report shall also include calculations for any new stormwater systems and the capacity of existing stormwater systems. This includes offsite stormwater systems associated with this development.
10. Driveway shall meet ODOT standards.
11. All easements, private or public, shall be shown on plans and recorded with the county.
12. Provide detailed grading elevations of all sidewalks, ADA ramps and driveways.
13. Clearly show private ownership of stormwater utilities.
14. Clearly show stormwater drainage patterns.
15. Provide identification of slopes greater than 10%.
16. The City of Warrenton utilizes ODOT standard drawings and details for public facilities construction. Coordinate, and modify as appropriate, any ODOT drawings with the City's Engineering Design Standards Adopted April 2020.
17. Provide impact study that includes wastewater and water use. Provide adequate documentation confirming the statement or an analysis of the existing conditions that demonstrates available capacity.
18. Provide a water and wastewater demands for this development.

If there are any questions, please don't hesitate to call me.

Sincerely,



Collin Stelzig  
Public Works Director

Enclosures: None