City of Florence
Community Development Department
250 Highway 101
Florence, OR 97439
Phone: (541) 997 – 8237
Fax: (541) 997 – 4109
www.ci.florence.or.us

Type of Request

THIS SECTION FOR OFFICE USE ONLY

☐ Type I ☐ Type II ☐ Type III ☐ Type IV

Proposal:

Applicant Information

Name: William Johnson Construction Inc, c/o Mike Johnson Phone 1: [redacted]

E-mail Address: mike@cbcoast.com Phone 2:

Address: William Johnson Construction Inc, [redacted]

Signature: [signature] Date: [illegible]

Hailey Sheldon, Sheldon Planning, hailey@sheldonplanning.com, (541) 968-4686

Applicant's Representative (if any):

Property Owner Information

Name: David J Bielenberg Phone 1:

[redacted]

E-mail Address: Phone 2:

[redacted]

Address:

Signature: [signature] Date: Aug. 28, 2023

Hailey Sheldon, Sheldon Planning, hailey@sheldonplanning.com, (541) 968-4686

Applicant's Representative (if any):

NOTE: *If applicant and property owner are not the same individual, a signed letter of authorization from the property owner which allows the applicant to act as the agent for the property owner must be submitted to the City along with this application. The property owner agrees to allow the Planning Staff and the Planning Commission onto the property. Please inform Planning Staff if prior notification or special arrangements are necessary.*

For Office Use Only:

[illegible]	[illegible]	[illegible]

Site Address: N/A. Corner of 37th and Oak.

General Description: Vacant

Assessor's Map No.: 18 12 22 11 Tax lot(s): 01200, 00200

Zoning District: High Density Residential

Conditions & land uses within 300 feet of the proposed site that is one-acre or larger and within 100 feet of the site that is less than an acre OR add this information to the off-site conditions map (FCC 10-1-1-4-B-3): See Preliminary Subdivision and PUD application Attachment 2 Vicinity Maps

Project Description

Square feet of new: _____ Square feet of existing: 0

Hours of operation: N/A Existing parking spaces: 0

Is any project phasing anticipated? (Check One): Yes ☐ No ■

Timetable of proposed improvements: 2 Years

Will there be impacts such as noise, dust, or outdoor storage? Yes ☐ No ■

If yes, please describe: _____

Proposal: (Describe the project in detail, what is being proposed, size, objectives, and what is desired by the project. Attach additional sheets as necessary)

See attached

For Office Use Only:

Date Submitted: _____ Fee: _____

Received by:

Paid

Applicant	Mike Johnson
Owner	David Bielenberg
Agents	Civil Engineer: Clint Beecroft, P.E., EGR & Associates Inc. Contractor: Norm Wells, Ray Wells Inc. Landscaper: Lisa Walter-Sedlacek, Laurel Bay Gardens Planner: Hailey Sheldon, Sheldon Planning LLC
Site Address	37th & Oak
Map No.	18S 12W 22
Parcel No.	1200 & 200
Lane County Account No.	783785 & 1327210
Size	3.13 & 0.21 Acres
Zoning	High Density Residential
Special Development Considerations and Overlays	Flood Hazard: N/A NRCS Soils Map: Yaquina loamy fine sand City of Florence Significant Wetland Areas Map: None City of Florence Hazards Map: Active Dune Advancing Edge; Creeks* National Wetland Inventory: Riverine* / Statewide Wetland Inventory: Riverine* *See Wetland Delineation – No Wetland or Creeks Present
Access	37th Street
Site Description	Vacant
Surrounding Zoning & Use	Residential, City Water Tanks, Florence Golf Links; See Attachment 2 Vicinity Maps

OVERVIEW

This application is for final Planned Unit Development approval, for the project preliminarily approved by Resolution PC 22 21 PUD 01, PC 22 23 SUB 02, & SR 22 48 SIR 13.

This narrative addresses: (1) the conditions of preliminary approval and (2) FCC Title 10 Chapter 23 Planned Unit Development 10-23-11 Approval of the Final Development Plan.

ATTACHMENTS

The following supporting documents are attached and available electronically at:
https://www.dropbox.com/scl/fo/wviavfgbu6t6srj8szei2/h?rlkey=j2q9q6qu29dmydkxjh69jt7zf&dl=0

1. Civil Plans
2. Architectural Plans
3. Landscpaing Plans
4. Stormwater Management Report Supplemental: Final Stormwater System Calculations

NARRATIVE

Preliminary PUD Conditions of Approval

The narrative below addresses the conditions of approval of preliminary subdivision and PUD approval.

> Resolution PC 22 21 PUD 01, PC 22 23 SUB 02, & SR 22 48 SIR 13: Conditions of Approval
>
> […]
>
> FCC 10-3:
>
> 4.1 The shared/common parking area shall meet grading requirements so as not to drain storm water over public ROWs. Parking lot surfacing shall not encroach upon public ROWs. This shall be in accordance with FCC 10-3-8-C. This shall be included on a detailed parking lot plan prior to or in conjunction with first building permits and subject to Public Works and Community Development Department approval.

Attachment 1 Sheets C7 Parking Lot Grading Plan – West Half, C8 Parking Lot Grading Plan – East Half, and C9 Access and Parking Plan satisfy this condition.

> 4.2 [Part 1] Parking spaces shall be screened with evergreen shrubs that reach a minimum 36 inches in height above parking lot grade level at maturity so that headlights do not shine onto adjacent residential uses and zones in accordance with FCC 10-3-8-D and FCC 10-34-3-7. Stormwater facility plantings in the 37th St ROW may meet this screening requirement or this requirement may be met through fencing installed between parking spaces and sidewalk/PUE. The screening plan shall be included in the final landscaping/stormwater facility planting [Part 2] with a proposed schedule of planting at final PUD.

Attachment 2 Sheet L2 satisfies Part 1 of this condition – proposing Escallonia x exoniensis (aka Pink Princess Escallonia) in 5 gallon containers for screening. The Tree and Plant List for the City of Florence lists the diameter and height (at maturity) of Pink Princess Escallonia as 5’ and 5’, respectively; the List also labels this plant “good for tall hedges” and “good for high summer / winter wind.”

Regarding Part 2, schedule of planting: all landscaping is proposed to be planted prior to application for Certificates of Occupancy of the final/last townhome structure.

> 4.3 The shared/common parking area shall be in compliance with FCC 10-3-8-E. A curb or wheel stop of not less than 6 inches shall be installed abutting streets and interior lot lines to prevent encroachment onto adjacent private property, public walkways, sidewalks, or minimum landscaped area required in accordance with FCC 10-3-8-E2.

Attachment 1 Sheet C9 Access and Parking Plan satisfies this condition.

> 4.4 A complete parking lot plan in accordance with FCC 10-3-8 K and FCC 10-3-8-L shall be submitted prior to or in conjunction with final PUD shall include the following items not previously submitted:

• Curb cut dimensions

• Dimensions, continuity, and substance of screening

• Grading, drainage, surfacing, and sub grading details

• Specifications for signs, bumper guards, and curbs

• Each Space shall have double line striping with two feet wide on center

• The width of any striping line in an approved parking area shall be a minimum 4'' wide

Attachment 1 Sheet C9 Access and Parking Plan satisfies this condition.

4.5 In accordance with FCC 10-37-4 the City shall have a 30-day review period starting the day following the final Certificate of Occupancy to evaluate and request adjustments to illumination levels based on staff inspections and public comments. The application shall be permitted to have decreased illumination levels onsite of 1-foot candles versus 2 required in FCC 10-37-4-B.

The applicant understands this lighting review period, to commence following the issuance of the final Certificate of Occupancy.

FCC 10-7:

5.1 The area has Yaquina soils which are known for high ground water. Therefore, the applicant shall record a Covenant of Release which outlines the hazard, restrictions and/or conditions that apply to the property as outlined in subsection (D) of FCC 10-7-7, Review and Use of Site Investigation Report, and limited to a determination that the project as described and conditioned herein meets the land use provisions and development standards of the City Code and Comprehensive Plan current as of this date. This approval makes no judgement or guarantee as to the functional or structural adequacy, suitability for purpose, safety, maintainability, or useful service life of the project." This shall be recorded prior to submittal of any building permit applications or prior to final Subdivision Plat.

The applicant understands this covenant must be filed prior to final subdivision plat.

FCC 10-10:

6.1 Based on FCC 10-2-13 definitions of front lot line, the front lot line for lots 23, 24, and 25 is considered the lot line adjacent to Oak St. Therefore, the maximum fence height along Oak St shall be 4 feet in height in accordance with FCC 10-34-5.

The applicant understands this information. No fence on Oak Street is proposed.

6.2 The applicant shall provide a minimum 5-foot rear yard setback for each individual lot in compliance with FCC 10-10-4-D.

Attachment 1 Sheet G1 Cover Sheet satisfies this condition. In addition, Attachment 3 Sheet S1 and S10 Side Elevation View depict the rear porch dimensions / protrusion.

6.3 The garage and driveway parking stalls shall be maintained as vehicular parking for the use of the single-family attached units and not be converted to another use.

The applicant understands this information.

6.4 The applicant shall either provide long term bike parking that meets criteria in accordance with FCC 10-3-10-C or the applicant shall provide other long term bicycle parking onsite in accordance with FCC 10-3-10, this required long-trem bicycle parking may either be located on individual sites or in common space. Long term bike parking will be verified prior to Cerificate of Occupancy of each unit if proivided on the individual lots, or with final PUD if provided in common or open space.

6.5 Long term bike parking may count towards recreation space requirements of Conditions 7.6 if provided in common or open space on the project site all criteria of FCC 10-3-10 shall be met including, but not limited to location and design, visibility and security, and lighting. If proposed, the long-term parking plan shall be submitted with to final PUD.

Long term bicycle parking to be located on individual lots; to be verified prior to Certificate of Occupancy of each unit.

FCC 10-23:

7.1. FCC 10-23-5-H-1 states high quality building design using Old Town and Mainstreet Architectural Standards or better. Different building facades and exterior design shall be used for each building grouping that meet the intent of FCC 10-6-6. This is to include but is not limited to a diversity of building materials and colors, window designs, garage door designs, roof eaves, light fixtures, driveway paving design/colors, and similar details etc. This shall be reviewed at final PUD.

See narrative below under FCC 10-6-6 on page 11.

7.2 The applicant shall submit a final grading plan illustrating all cuts and fills and final 1 ft. contours and grades to the edges of the development on all sides prior to final PUD.

Attachment 1 Sheet C6 Overall Site Grading Plan and Profile Views satisfies this condition.

7.3 With final PUD application a landscape and vegetation retention plan shall be submitted for the entire development. The buffer to the north shall include trees and shrubs planted or retained at a ratio of at least one tree per 30 ft. The Oak St. frontage and the 37th St. frontage adjacent to unit 25 shall include landscaping consisting of at least one tree for every 30 feet of frontage.

Attachment 3 Landscaping Plan satisfies this condition.

7.4 The corrections for utilities and accesses, as stated by SVFR Chief and Public Works, shall be addressed and provided in a revised utility and access plans submitted for review and approval with Final PUD submittal.

Attachment 1 Civil Plan satisfies this condition.

7.5 The final stormwater management plan shall be submitted for review and approval with Final PUD submittal. It shall include treatment and conveyance systems that meet city design typicals and it shall include consideration of capacity of existing system and an increase in detention pipe size as needed.

Attachment 4 Stormwater Management Report Supplemental Final Stormwater System Calculations satisfies this condition.

7.6 Open space shall be calculated using FCC 10-23-5-E criteria at 20% of the net development area and at least 25% of the 20% shall include area(s) designated and intended for recreation. As modifications are being requested to the development standards of the underlying zone, the recreation plan submitted at final PUD shall include more than the minimum required recreation area in accordance with FCC 10-23-5-H3 & 4. Due to the topographical constraints present on the site, exceeding minimum recreation requirements by may be provided through quality of amenities rather than increased square footage beyond minimum requirements, pending Planning Commission review and approval at final PUD.

7.7 A tentative concept plan with development amenities for the park area supporting both active and passive recreation shall be submitted with final PUD. Prior to issuance of the building permits for the fifth cluster of units the applicant shall submit and have approved a Final PUD approval for the proposed recreation area that is contained within the existing tax lots associated with this project.

Attachment 3 Landscaping Plan, including but not limited to Sheet L1 Vegetation Detail Open Space A and Vegetation Detail Open Space B and Attachment 1 Sheet G5 (proposed plat including these common areas) satisfy these conditions 7.6 and 7.7.

The applicant proposes (1) a cumulative 5,854 square feet of recreational open space, exceeding the required recreational open space requirement of 10-23-5-E by 20 square feet (or 0.3%) and (2) 38,754 square feet of open space, exceeding the recreational open space requirement of 10-23-5-E by 15,419 square feet (or 66%). This is in addition to the private back porches.

	Square Feet	% Net Dev't
TL 1200	136,284	
TL 200	9,016	
37th ROW	28,623	
Net Development Area (TL1200+TL200-ROW)	116,677	
Gross Development Area (TL1200+TL200)	145,300	
Required Open Space: 20% of Net Developable Area	23,335	
Required Recreational Space: 25% of 20% of Net Developable Area	5,834	
Proposed Open Space Area	38,754	33.2%
Proposed Recreational Open Space Area	5,854	5% (25% of Open Space Area)
Extras		
Private Back Porches	2,286	2%

The proposed recreational (and non-recreational) open spaces support both passive and active recreational uses. For example, they may be used for dog walking, walking, yoga. Note also that the HOA could choose to install additional amenities in these spaces, meeting their specific needs.

7.8 The applicant shall submit either an extension request or a Final PUD plan for the townhome development for review and approval within one year of Planning Commission approval of the Preliminary Plan (June 22, 2024). There are many land use regulation changes under consideration that if adopted may affect a request for extension.

FCC 10-35:

8.1 A traffic Impact Study (TIS) in accordance with FCC 10-35-2-5 and FCC 10-1-1-4-E is required based on the criteria that the proposed development will have 25 single family dwelling units and that adjacent neighborhoods or other areas may be adversely affected by the proposed development. A TIS shall be completed and submitted to the City for review and approval prior to, or in conjunction with final plat.

The applicant understands a traffic impact study is required to be completed and submitted to the City for review and approval prior to, or in conjunction with the final plat.

8.2 The maximum driveway width allowable under FCC 10-35-2-12-B for driveways serving single-family residences shall not be more than 24 feet shall be a minimum of 18 feet where the driveway provides two-way traffic. Therefore, the two driveway access points proposed on 37th St shall be a maximum of 24 feet in width and a minimum of 18 feet.

Attachment 1 Sheet C9 Access and Parking Plan satisfies this condition. The two driveway accesses are proposed to be 24' wide.

8.3 The east Myrtle Loop stub shall be built to local street standards.

Attachment 1 Sheet C11 Sidewalk Access Ramp Details satisfies this condition.

8.4 The applicant shall provide examples of signs to be installed at any and all fire access lanes or turnarounds in accordance with FCC 10-35-12-D section prior to issuance of building permits and all signs shall be installed and approved by public works prior to issuance of first Certificate of Occupany. This is intended for fire apperatus and street signage in public ROWs. Condition 4.4 addressed parking signage on private property.

Attachment 1 Sheet C12 Vehicle Turnaround Plan satisfies this condition.

8.5 Certificate of Occupancy for individual units shall not be issued until sidewalks are constructed on the north side of 37th St. and financially secured on the south side of 37th St.

The applicant understands the sidewalks on the north side of 37th Street must be constructed, and the sidewalks on the south side of 37th Street must be financially secured or constructed, prior to issuance of the first Certificaet of Occupancy.

8.6 Vision clearance at 37th and Oak Street shall be confirmed during building inspection or by staff site visit prior to final approval to ensure compliance with minimum vision clearance.

8.7 To meet the vision clearance areas criteria as identified in FCC 10-35-2-14, the HOA shall perpetually maintain landscaping so that vegetation does not grow to obstruct vision clearance areas at internal intersections or intersections with public streets in accordance with FCC 10-35-2-14. This shall be included in the CCRs.

The applicant understands the CCRs for the Myrtle Glenn PUD are required to include language which stipulates the HOA is responsible for complying with the following Florence City Code standard:

> 10-35-2-14: Vision Clearance: No visual obstruction (e.g., sign, structure, solid fence, or shrub vegetation) shall block the area between two and one-half feet (2 1⁄2') and eight (8) feet in height in "vision clearance areas" on streets, driveways, alleys, mid-block lanes, or multi-use paths where no traffic control stop sign or signal is provided, as shown in Figure 10-35(4). The following requirements shall apply in all zoning districts:

A. At the intersection of two (2) streets, minimum vision clearance shall be twenty feet (20').

B. At the intersection of an alley or driveway and a street, the minimum vision clearance shall be ten feet (10').

C. At the intersection of internal driveways, the minimum vision clearance shall be ten feet (10').

The sides of the minimum vision clearance triangle are the curb line or, where no curb exists, the edge of pavement. Vision clearance requirements may be modified by the Public Works Director upon finding that more or less sight distance is required (i.e., due to traffic speeds, roadway alignment, etc.). This standard does not apply to light standards, utility poles, trees trunks and similar objects. Refer to Section 10-2-13 of this Title for definition.

FCC 10-36:

9.1 All landscaping and stormwater facilities adjacent to sidewalks and pedestrian walkways shall be maintained by the HOA to prevent encroachment onto the sidewalks and bicycle areas and ground cover such as rocks or mulch shall be secured to prevent pedestrian hazards in consistency with the 2012 TSP.

The applicant understands the CCRs for the Myrtle Glenn PUD are required to include language which stipulates the HOA is responsible for maintaining the adjacent sidewalk and stormwater facilities (on-site, in 37th Street, and in the public utility easements).

9.2 Stormwater facilities in the ROW and PUEs shall be completed and approved by the Public Works Department or financially secured prior to issuance of any Certificates of Occupancies. Any damage caused by unmanaged stormwater prior to completion of the stormwater facilities will be the responsibility of the applicant or their representatives.

9.3 The proposed emergency vehicle turnaround easement meets current fire codes. However, this shall be a temporary solution and permanent emergency vehicle access shall be developed in conjunction with any development plans on the lot to the south at the expense of the developer of Myrtle Glenn or as agreed upon in writing and submitted to the City by both the Myrtle Glen developer and the developer of the southern property.

The applicant understands that, at the time the southern lot is developed, a "permanent emergency vehicle access" shall be developed. Permanent emergeny vehicle access means either: extension of W Myrtle Loop (complete or partial, as approved by the City), a cul-de-sac, or another design approved by the City. And that a deed restriction (or another legal instrument approved by the City) should be recorded stipulating such.

9.4 Barricades used for the East Myrtle Loop Street and 37th Street stubs shall be Type III barricades in accordance with FCC 10-36-2-9.

Attachment 1 Sheet G7 Standard Drawings and Details satisfies this condition.

> 9.6 Maintenance of the proposed sidewalks shall be the continuing obligation of the adjacent property owner, in the case of this subdivision the responsible party for maintaining these facilities shall be the HOA. In addition to maintaining the sidewalks adjacent to the development, the stormwater facilities, on-site, in the 37th St, or the PUEs shall be maintained by the Myrtle Glenn PUD and shall be stipulated in the CCRs.

The applicant understands the CCRs for the Myrtle Glenn PUD are required to include language which stipulates the HOA is responsible for maintaining the adjacent sidewalk and stormwater facilities (on-site, in 37th Street, and in the public utility easements).

> 9.7 In accordance with this FCC 10-36-2-21 the cost of signs required for new development shall be the responsibility of the developer and shall be installed as part of the street system development and shall be installed by developers per City of Florence Standards and Specifications. This shall apply to signs on public property and ROWS. Signage on private property shall be addressed during parking lot review under Condition 4.4.

Attachment 1 Sheets G8 Standard Drawings and Details and C9 Access and Parking Plan satisfy this condition.

> 9.8 Additional information for mailbox type and location shall be submitted and approved prior to issuance of Certificate of Occupancy with associated units.

The applicant understands that they are required to propose and gain approval for the type and location of mailbox(es) from both the City and USPS, prior to issuance of the Certificate of Occupancy for the associated units.

> 9.9 The building height shall be confirmed at time of building permit plan review and all shall be in compliance with all state and City fire and life safety codes.

> 9.10 The project involves disturbance of more than 1 acre of land. The applicant shall obtain an NPDES permit from DEQ prior to site disturbance.

The applicant understands that the DEQ requires a 1200C permit prior to disturbance of more than 1 acre.

> 9.11 All new utility lines shall be undergrounded, and above ground equipment shall not obstruct vision clearance areas for vehicular traffic.

The applicant's utility plans as presented in Attachment 1 Civil Plans satisfy this condition.

> 9.12 All public improvements shall be warranted against defects in materials and workmanship for a period of one year following acceptance of the improvements by the City. Once accepted, a minimum one (1) year warranty agreement on materials and workmanship shall be initiated between the City of Florence and the developer. A warranty bond or other financial security acceptable to the City in the amount of 12 percent of the original public improvement construction cost shall be maintained throughout the warranty period. The terms of the warranty and the warranty itself shall be provided to the Florence Planning Director prior to final plat approval.

The applicant understands, prior to final plat, they are required to provide a warranty bond or other financial security acceptable to the City in the amount of 12% of the construction cost of

all public improvements, to be held for one year after those improvements are accepted by the City (marked by the City's approval of the final plat).

> FCC 10-37:
>
> 10.1 All lighting proposed on site to include the exterior of the individual units shall be designed as full cut-off fixtures or have shielding method to direct light downwards and do not glare onto adjacent properties or skyward in accordance with FCC 10-37-4. The required lighting plans for individual dwelling units shall be submitted to the planning department for review prior to issuance of building permit.
>
> 10.2 The applicant shall provide design, height, and photometric specification of the proposed street lights for review and approval by the Florence Planning Department and Public Work Department prior to any work being commenced and either prior to or in conjunction with final plat.

The applicant understands that lighting details (including design, height, and photometric specification of the proposed street lights) are required to be submitted to the Planning Department for approval prior to making the first application for a building permit.

> FCC 11-3:
>
> 11.1 The final plat shall contain an Owner's Declaration recital, complete with the name and address of the property owner in accordance with FCC 11-3-2-C3 and the platting standards of ORS 92 for subdivisions.
>
> 11.2 The final plat prepared and submitted for final plat approval shall contain the elevations of all points used to determine contours with the required intervals of 1' 0% to 5'; 2' 5% to 10%; and 5' over 10%

The applicant understands the final plat must contain the details described above under 11.1 and 11.2.

> 11.3 All final engineering details and plans are subject to review, revision and approval by the Florence Community Department, Public Works Director and or City Engineer. The applicant shall submit all required sewage disposal, flood control, and drainage facility plans prior to final plat.

Attachment 1, which includes construction-ready engineering details and plans for review by the Florence Community Department, Public Works Director and or City Engineer, satisfies this condition.

The applicant understands that the City will require certain as-builts and operations and maintenance information post construction.

> 11.4 A final grading plan in required prior to final plat. The final grading plan is subject to discretionary approval by Public Works and/or Engineering.

Attachment 1 Sheet C6 Overall Grading Plan satisfies this condition.

> 11.5 The final plat that is prepared shall contain a legal description in accordance with ORS 92 11.6 The applicant will be expected to proceed with final survey and to make preparations for final subdivision approval within the timeframes outlined in Title 11 Chapter 3-6 & Chapter 4-4 & 4-6 unless otherwise provided for through approved and

allowed extensions from the Planning Director. This tentative plan shall expire on June 22, 2025 unless an extension request is received and approved

The applicant understands that their tentative subdivision plan approval will expire on June 22, 2025, and therefore they are required to construct or bond all proposed / approved public improvements and record the final plat prior to that date.

-

> 7.1. FCC 10-23-5-H-1 states high quality building design using Old Town and Mainstreet Architectural Standards or better. Different building facades and exterior design shall be used for each building grouping that meet the intent of FCC 10-6-6. This is to include but is not limited to a diversity of building materials and colors, window designs, garage door designs, roof eaves, light fixtures, driveway paving design/colors, and similar details etc. This shall be reviewed at final PUD.

FCC 10-23-H-1 applies because the applicant was granted certain modifications to desity, setbacks, and lot area. FCC 10-23-H-1 stipulates: "The project shall meet the development standards for the underlying zone including but not limited to height, density, coverage, setbacks, lot area. However, the applicant may propose modifications to those standards as part of the PUD application without the need for a separate variance or adjustment application subject to FCC 10-5. For all proposed modifications, the applicant shall submit application and show how the proposed modification achieves the following: "1. High quality building design using Old Town and Mainstreet Architectural Standards or higher standards"

Attachment 3, including but not limited to Sheets S9 and S10, combined with the narrative below under 10-6-6 satisfy Condition 7.1 because the proposed building design meets Old Town and Mainstreet Architectural Standards, and therefore the intent (and letter) of FCC 10-6-6.

Title 10: Chapter 6 Design Review: 10-6-6 Downtown Architectural Design

The Architectural Design criteria are designed to address and implement the Florence Downtown Architectural Guidelines. Where applicable, the following criteria consider the historical character of Florence through proper building massing, siting, and materials which reflect important aspects of Oregon's traditional Northwest architecture. The type of building to which this code may apply may differ by district. The following requirements are intended to create and maintain a built environment that is conducive to walking; reduces dependency on the automobile for short trips; provides natural surveillance of public spaces; creates a human-scale design, e.g., with buildings placed close to streets or other public ways and large building walls divided into smaller planes with detailing; and maintains the historic integrity of the community.

Development in the Old Town and Mainstreet districts shall comply with the standards in this section.

The City Planning Official, the City Planning Official's designee, or the Planning Commission may require any of the following conditions in order to establish a minimum level of design quality and compatibility between buildings. The Planning Commission may approve adjustments or variances to the standards as part of a site Design Review approval, pursuant with FCC 10-5 and 10-6, respectively.

The applicant's proposed design meets the standards of 10-6-6, as described below, and therefore (a) is considered by Florence City Code to incorporate proper building massing, siting, and materials and (b) meets all of the conditions the Planning Commission may require in order to establish a minimum level of design quality and compatibility between buildings.

> Title 10: Chapter 6 Design Review: 10-6-6-1 Building Type
>
> These types of buildings currently exist within the applicable zoning districts and are compatible with each other, despite being different in their massing and form. The following building types are permitted in future development and infill. Other building types not listed which are compatible with the surrounding area and buildings and are compatible with the historic nature of the zoning district are also permitted. Not all types may be permitted or regulated in all zoning districts.
>
> A. Residential Type, single-family, duplex (attached & detached), or multi-family
>
> B. Commercial Storefront Type
>
> C. Mixed-Use House Type
>
> D. Community Building Type
>
> Title 10: Chapter 6 Design Review: 10-6-6-2 Building Style
>
> A. Context: Each building or addition shall be designed within the context of its larger surroundings and environment in terms of overall street massing, scale and configuration.
>
> B. Historic Style Compatibility: New and existing building design shall be consistent with the regional and local historical traditions. Where historic ornament and detail is not feasible, historic compatibility shall be achieved through the relation of vertical proportions of historic façades, windows and doors, and the simple vertical massing of historical buildings. Some examples of architectural styles currently or historically present in the Florence area are: Queen Anne, Shingle Style, Second Empire, Victorian, Italianate, Tudor Style, Craftsman Bungalow, American Foursquare, and Vernacular.
>
> 1. Existing buildings: Maintain and restore significant historic details.
>
> 2. New Buildings: Design shall be compatible with adjacent historic buildings.

The proposed architectural style is Craftsman.

The proposed design is similar to neighboring single family, duplex, and small multifamily dwellings – one to two story, lap siding, 5:12 roof pitches.

> Title 10: Chapter 6 Design Review: 10-6-6-3 Building Facades
>
> A. Horizontal Design Elements: Multi-story commercial storefront buildings shall have a distinctive horizontal base; second floor; and eave, cornice and/or parapet line; creating visual interest and relief. Horizontal articulations shall be made with features such as awnings, overhanging eaves, symmetrical gable roofs, material changes, or applied facia detail. New buildings and exterior remodels shall generally follow the prominent horizontal lines existing on adjacent buildings at similar levels along the street frontage.

Examples of such horizontal lines include but are not limited to: the base below a series of storefront windows; an existing awning or canopy line, or belt course between building stories; and/or an existing cornice or parapet line. Where existing adjacent buildings do not meet the City's current building design standards, a new building may establish new horizontal lines.

The roof-lines / horizontal lines of the proposed structures generally follow the prominent horizontal lines existing on adjacent structures (majority single family dwellings). The first-level/garage-level roof lines follow the roof lines of adjacent 1-story structures and the second level roof lines follow the roof lines of adjacent 2-story structures.

B. Vertical Design Elements: Commercial storefront building faces shall have distinctive vertical lines of emphasis spaced at relatively even intervals. Vertical articulations may be made by material changes, variations in roof heights, applied facia, columns, bay windows, etc. The maximum spacing of vertical articulations on long, uninterrupted building elevations shall be not less than one break for every 30 to 40 feet.

The proposed spacing of street-facing verticle articulations exceed this standard (variation in roof height spaced every 14 to 20 feet).

C. Articulation and Detailing: All building elevations that orient to a street or civic space must have breaks in the wall plane (articulation) of not less than one break for every 30 feet of building length or width, as applicable, as follows:

The proposed spacing of street-facing building elevations exceed this standard (variation in roof height spaced every 14 to 20 feet).

1. Plans shall incorporate design features such as varying rooflines, offsets, balconies, projections (e.g., overhangs, porches, or similar features), recessed or covered entrances, window reveals, or similar elements that break up otherwise long, uninterrupted elevations. Such elements shall occur at a minimum interval of 30-40 feet. In addition, each floor shall contain at least two elements meeting the following criteria:

a. Recess (e.g., porch, courtyard, entrance balcony, or similar feature) that has a minimum depth of 4 feet;

b. Extension (e.g., floor area, porch, entrance, balcony, overhang, or similar feature) that projects a minimum of 2 feet and runs horizontally for a minimum length of 4 feet; and/or

c. Offsets or breaks in roof elevation of 2 feet or greater in height.

d. A "break," for the purposes of this subsection, is a change in wall plane of not less than 24 inches in depth. Breaks may include, but are not limited to, an offset, recess, window reveal, pilaster, frieze, pediment, cornice, parapet, gable, dormer, eave, coursing, canopy, awning, column, building base, balcony, permanent awning or canopy, marquee, or similar architectural feature.

Bottom Floor:

1) Offsets: in roof elevation of 2 feet or greater in height (garage roofs)

2) Extension: 22-23' foot deep, 14' wide garage extension every 14-20'

3) Recess: 3’ foot deep, 9.5’ wide front porch recess every 37.75 feet (center of each structure), on the first floor street-side.

4) Extension: garage roof overhang which projects 2’ and runs horizontally for 14’.

5) Extension: approximately 13’ wide terraces over two of the four garages on each structure (garages on the ends of each structure).

Top Floor:

1) Extension: dormer windows (with roofs) every ~10’ (four per structure)

2) Extension: top roof overhang which projects 2’ and runs horizontally for 75’.

The proposed design exceeds this design elements standard.

> 2. The Planning Commission, through Design Review, may approve detailing that does not meet the 24-inch break-in-wall-plan standard where it finds that proposed detailing is more consistent with the architecture of historically significant or historically-contributing buildings existing in the vicinity.

N/A

> 3. Changes in paint color and features that are not designed as permanent architectural elements, such as display cabinets, window boxes, retractable and similar mounted awnings or canopies, and other similar features, do not meet the 24-inch break-in-wall-plane standard.

N/A

> 4. Building elevations that do not orient to a street or civic space need not comply with the 24- inch break-in-wall-plan standard, but should complement the overall building design.

N/A

> Title 10: Chapter 6 Design Review: 10-6-6-4 Permited Visible Building Materials
>
> Building materials which have the same or better performance may be substituted for the materials below provided that they have the same appearance as the listed materials.
>
> A. Exterior Building Walls:
>
> 1. Lap siding, board and batten siding, shingles and shakes. Metal siding and vinyl siding shall not be permitted.
>
> 2. Brick or stone masonry with a minimum 2 1⁄2” deep solid veneer material.
>
> 3. Cement-based stucco.
>
> 4. Secondary materials: Any of the materials listed above as permitted may also be used as secondary materials or accents. In addition, the materials listed above are allowed as secondary materials, trims, or accents (e.g., flashing, wainscoting, awnings, canopies,

ornamentation) when non-reflective and compatible with the overall building design, subject to approval. Secondary materials may be used on up to 30% of the façade.

Lap siding (specifically Hardiplank lap siding) is proposed, which meets this exterior building wall standard.

B. Roofs, Awnings, Gutters, and Visible Roofing Components:

1. Composition shingles, concrete, slate or cedar shingles, or concrete or clay tiles. Red composition shingle similar to the Kyle Building are encouraged.

Composition shingles are proposed, meeting this roofing standard.

2. Standing seam roofing: copper, terne metal or coated metal.

N/A

3. Gutters and downspouts: copper, terne metal, or coated metal.

Galvanized steel with an acrillic coating (inside and out) with a rectancular downspout is proposed, meeting this gutter standard.

4. Single or multi-ply roofing, where visibly concealed.

Wood ply roofing layer proposed to be concealed by composition shingles.

5. Glass, steel, wood or canvas fabric awnings.

N/A

6. Skylights: metal and wood framed glass and translucent polymer.

N/A

C. Chimney Enclosures: Brick, cement-based stucco, stone masonry or wood shingles.

N/A

D. Windows, Entrances, and Accessories:

1. Wood, vinyl or pre-finished metal frames and sashes.

Vinyl windows, specifically Migard or equal, fixed picture and single-hung windows are proposed, meeting this window standard. See window schedule Attachment 2 Sheet S2.

2. Glazed and unglazed entry doors shall be wood, pre-finished or coated metal or fiberglass.

N/A

3. Solid wood or fiberglass shutters.

N/A

4. The use of decorative detailing and ornamentation around windows (e.g., corbels, medallions, pediments, or similar features) is encouraged.

E. Trellises, Decks, Stairs, Stoops, Porches, and Balconies

1. Architectural concrete, brick and stone masonry, solid wood or fiberglass columns, posts, piers and arches.

Solid wood posts are proposed, meeting this standard. See beam schedule Attachment 2 Sheet S2 Roof Plan.

2. Wood, brick, concrete and stone masonry decks, stoops, stairs, porches, and balconies.

Wood decks are proposed, meeting this standard.

3. Solid wood, painted welded steel or iron trellises.

N/A

4. Railings, balustrades, and related components shall be solid wood, painted welded steel or iron.

N/A

F. Landscape/Retaining Walls and Fences: Shall be subject to the FCC 10-34 and the following requirements:

[…]

N/A

G. Building and Site Material Colors: Color finishes on all building exteriors shall be approved by the City and be of a muted coastal Pacific Northwest palette. Reflective, luminescent, sparkling, primary, and "day-glow" colors and finishes are prohibited. The Planning Commission/Planning Commission or their designee may approve adjustments to the standards as part of a site Design Review approval.

Sherwin Williams, Benjamin Moore, or Rhodda paint is proposed. The proposed palete is green, brown, and tan, consistent with the Pacific Northwest palette.

Title 10: Chapter 6 Design Review: 10-6-6-5 Material Applications and Configurations

A. Building Walls:

1. For each building, there shall be one single, clearly dominant exterior wall material and finish.

Base paint color of each building proposed to be either tan, green or brown; trim proposed tan, green, or brown (brown with tan trim, green with brown trim, and so on). Garage doors proposed to be white.

2. Brick and stone front façades shall return at least 18" around side walls.

N/A

3. Building walls of more than one materials shall change along horizontal lines only, with a maximum of three materials permitted per façade.

N/A

4. Heavier materials, such as stone, shall only be used below lighter materials, such as siding.

N/A

5. Siding and shingles shall have a maximum 6” to the weather.

Shingles proposed to have less than 6’’ of each shingle exposed (aka “to the weather”).

6. 4” minimum width corner, skirt, rake and eave trim shall run the full height of each façade, flush, or protrude beyond the surrounding wall surface.

A 6’’x6’’ Douglas Fir Larch post is proposed to run the full height of each corner of each structure, meeting this standard.

7. Board and batten siding: battens shall be spaced a maximum of 8” on center.

N/A

B. Roofs, Awnings, Gutters and Roofing Accessories:

1. Visibly sloped roofs shall pitch a minimum of 5:12 to a maximum 12:12 with symmetrical gable or hip configuration.

Roof pitches proposed 5:12 to 6:12, meeting this standard. (Dormers are 4:12.) See Attachment 2 Sheet S6.

2. Eaves shall be continuous except at sheds and dormers.

All proposed eaves are continuous except at dormers.

3. Shed roofs shall attach to the main building wall or roof ridge with minimum 3:1 slope.

N/A

4. Flat roofs shall be concealed by cornices or parapets.

N/A

5. Gutters shall be round or ogee profile. Leaders shall be round or square.

Gutters are proposed to be ogee profile; leaders proposed to be square.

6. All roof-mounted components such as mechanical equipment shall not be visible from street- level public rights-of-way.

N/A

7. Sloped roof eaves shall overhang exterior wall planes at least 12” and shall be visibly supported by exposed rafter ends or other compatible architectural detailing.

Sloped roof eaves proposed to overhang 1.5’-2’ and are supported by visible wood beams. See Attachment 2 Sheet S6.

C. Towers:

[…]

N/A

D. Visible Windows, Glazing, and Entrances:

1. Windows shall be square and/or vertical rectangular shape with straight, bow, or arch tops.

Windows are proposed to be rectangular with straight tops and rectangular with arch tops (dormers), meeting this standard.

2. 10% of total windows maximum on the public façade may be circular, hexagonal, octagonal or other window configurations.

N/A

3. Bay windows shall have visible bracket support.

N/A

4. Overhead doors shall not face the building’s primary street façade or a major public right-of- way.

The proposed garage doors are technically front-facing overhead doors. However, Florence City Code prefers street-facing garages, and garage doors are generally overhead doors. Therefore, in this case, the garage doors should be permitted to face the primary street. Also, as described above, the garages include several design features desired by 10-6-6, including: windows, roof elevation breaks, terraces.

5. Door and window shutters shall be sized to cover the entire window.

N/A

6. Exterior shutters shall be solid wood or fiberglass.

N/A

7. No single lite or glass panel visible from the street shall be greater than 24 square feet in area except in storefront glazing systems.

N/A

8. Multiple vertical windows may be grouped in the same horizontal opening provided they are separated by 4” minimum width vertical trim.

N/A

9. Windows and doors in exterior walls shall be surrounded with 2 1⁄2” minimum width trim applied flush or projecting beyond the finished wall surface.

All trim (window and door) proposed to be a minimum 3’’ width.

> 10. Profiles of window mullions shall extend out beyond the exterior glass surface. Windows shall have muntins which create True Divided Lights or a similar simulated appearance.

No mullions are proposed. Picture and single-hung windows proposed. See Attachment 2 Sheet S2 for window schedule.

> E. Visible Decks and Balconies: All balconies and decks attached to building faces, whether cantilevered or supported below or above, shall be visibly supported by vertical and horizontal elements such as brackets, columns, or beams. Exterior posts and columns, solid or encased, shall be minimum 5 1⁄2” in cross-section.

Balconies and decks are attached to the rear of the building. Regardless, they are supported by verticle and horizontal wooden beams. See beam schedule on Attachment 2 Sheet S5.

> F. Visible Landscape/Retaining Walls and Fences:
>
> […]

N/A

> G. Mechanical Equipment:
>
> […]

N/A

Final Development Plan Standards

Title 10: Chapter 23: Planned Unit Development (PUD): 10-23-11: Approval of the Final Development Plan

1. Within one year following the approval of the preliminary development plan, the applicant shall file with the Planning Commission a final development plan containing in final form the information required in the preliminary plan. The Planning Commission may grant a one- time extension of one (1) year maximum duration based on compliance with the following criteria:

[…]

Preliminary subdivision and prelimnary PUD approval was granted June 26, 2023. This final PUD application is filed August 29, 2023.

2. Final development plans shall include plans for proposed:

a. Storm drainage.

b. Sewer and water utilities.

c. Streets, pedestrian ways, trails and paths.

d. Preliminary subdivision plan, if property is proposed to be divided.

e. Open Space and Parklands to be dedicated to the public or held in Homeowner Association ownership. (Ord. No. 2, Series 2011)

3. Plans for public improvements shall be prepared by a Registered Engineer and shall be approved by City staff before final approval by the Planning Commission.

4. If the Planning Commission finds evidence of a material deviation from the preliminary development plan, the Planning Commission shall advise the applicant to submit an application for amendment of the planned unit development. An amendment shall be considered in the same manner as an original application.

See Attachments 1 for final development plans, prepared by Clinton Beecroft, PE. And Attachment 2 and 3 for final architectural and landscaping plans.

ATTACHMENT 1

Civil Plans

Myrtle Glenn Subdivision
Final PUD Application to City of Florence
August 29, 2023

DEVELOPER:
WILLIAM JOHNSON CONSTRUCTION, INC.
PO BOX 1176
FLORENCE, OREGON 97439

SURVEYOR:
RYAN ERICKSON, PLS
EGR & ASSOCIATES, INC.
2535B PRAIRIE ROAD
EUGENE, OREGON 97402
(541) 688-8322
EMAIL: rerickson@egrassoc.com

CIVIL ENGINEER:
CLINT BEECROFT, P.E.
EGR & ASSOCIATES, INC.
2535B PRAIRIE ROAD
EUGENE, OREGON 97402
(541) 688-8322
EMAIL: clintbeecroft@egrassoc.com

INSTALLING CONTRACTOR:
RAY WELLS EXCAVATION
CONTACT: NORM WELLS
PHONE: 541-991-0958
E-MAIL: norm@raywellsinc.com

MYRTLE GLENN PUD
FINAL PUD DRAWINGS

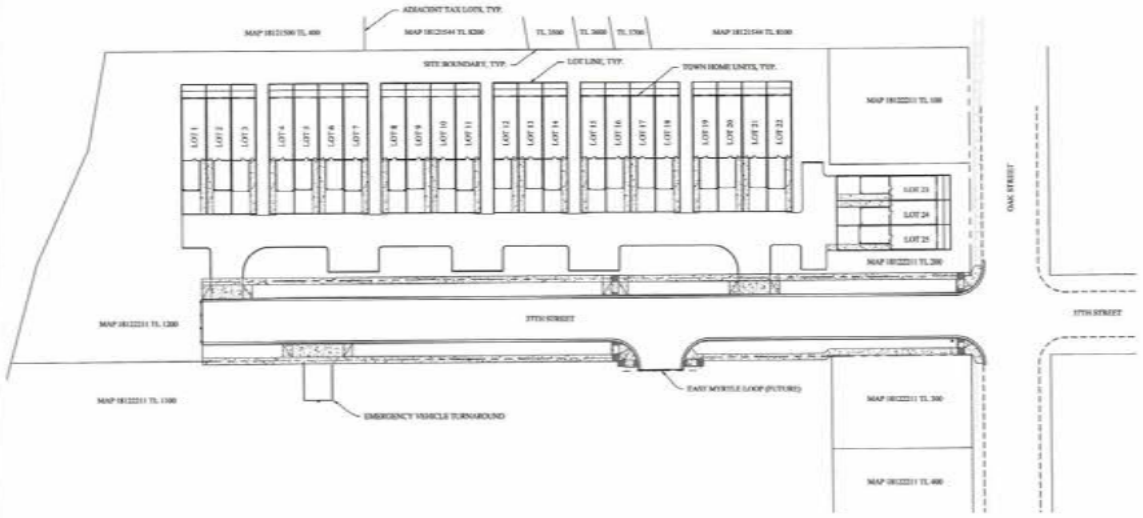
ASSESSOR'S TAX MAP 18-12-22-11, TAX LOTS 200, 1100 AND 1200

FLORENCE, LANE COUNTY, OREGON

RESOLUTION PC 22 21 PUD 01, PC 22 23 SUB 02, & SR 22 48 SIR 13

AUGUST 2023

VICINITY MAP
N.T.S.



SITE MAP
1" = 40'

GENERAL
- G1 COVER SHEET, SHEET INDEX, VICINITY MAP AND SITE MAP
- G2 LEGEND, ABBREVIATIONS, NOTES AND TYPICAL SECTIONS
- G3 EXISTING CONDITIONS SITE MAP
- G4 COORDINATE GEOMETRY AND SURVEY CONTROL
- G5 TENTATIVE SUBDIVISION PLAT
- G6 SIGNING, PAVEMENT MARKINGS AND STREET LIGHTING PLAN
- G7 STANDARD DRAWINGS AND DETAILS - CIVIL DETAILS 1
- G8 STANDARD DRAWINGS AND DETAILS - CIVIL DETAILS 2
- G9 STANDARD DRAWINGS AND DETAILS - CIVIL DETAILS 3
- G10 STANDARD DRAWINGS AND DETAILS - CIVIL DETAILS 4
- G11 STANDARD DRAWINGS AND DETAILS - CIVIL DETAILS 5

CIVIL PLANS
- C1 OVERALL UTILITIES AND SITE PLAN
- C2 STORMWATER MANAGEMENT PLAN AND DETAILS
- C3 37TH STREET PLAN AND PROFILE - STATION 10+75 TO STATION 14+50
- C4 37TH STREET PLAN AND PROFILE - STATION 14+50 TO STATION 18+00
- C5 STORMWATER PIPE PLAN AND PROFILE VIEWS
- C6 OVERALL SITE GRADING PLAN AND CROSS SECTIONS
- C7 PARKING LOT GRADING PLAN - WEST HALF
- C8 PARKING LOT GRADING PLAN - EAST HALF
- C9 ACCESS AND PARKING PLAN
- C10 SIDEWALK ACCESS RAMP DETAILS - 37TH STREET AND OAK STREET
- C11 SIDEWALK ACCESS RAMP DETAILS - 37TH STREET AND EAST MYRTLE LOOP
- C12 VEHICLE TURNAROUND PLAN AND DETAILS

UTILITY LOCATES

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0001 THROUGH 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).

TO REQUEST A LOCATE PLEASE CALL: 811 OR (800) 332-2344

EGR & Associates, Inc.
Engineers and Surveyors
2535B Prairie Road
Eugene, Oregon 97402
(541) 688-8322
Fax (541) 688-8443

OREGON JULY 10, 2001 CLINT BEECROFT 54794 RENEWS: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
COVER SHEET, SHEET INDEX,
VICINITY MAP AND SITE MAP
FLORENCE, OREGON

No	Description of Revisions	Date	Name

Date	08-01-2023
Job Number	7901-22-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

Sheet Number
G1

GENERAL NOTES

1. CONSTRUCTION OF ALL PUBLIC AND PRIVATE IMPROVEMENTS SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE 2018 "OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND CITY OF FLORENCE PUBLIC WORKS DEPARTMENT REQUIREMENTS.
2. THE EROSION PREVENTION MEASURES DESCRIBED IN THE EROSION PREVENTION PERMIT ISSUED FOR THIS SITE SHALL BE IN PLACE PRIOR TO START OF WORK.
3. PRIOR TO ANY SITE DISTURBANCE A PRE-CONSTRUCTION EROSION PREVENTION SITE VISIT IS REQUIRED WITH THE CONTRACTOR, THE EROSION INSPECTOR AND THE CONSTRUCTION INSPECTOR.
4. ITEMS OF WORK NOT SHOWN ON THE PLAN BUT NECESSARY FOR SUCCESSFUL COMPLETION OF THIS PROJECT MAY BE REQUIRED BY THE OWNER, CITY, AND THE CONSULTING ENGINEER.
5. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN AND SECURE APPROVAL OF THE PLAN FROM ODOT AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING WORK.
6. WORK SHALL NOT BE PERFORMED WITHOUT CITY AND CONSULTING ENGINEER INSPECTIONS, AS REQUIRED BY CITY PERMITS. THE FOLLOWING MINIMUM INSPECTIONS ARE REQUIRED PER THE APPLICABLE STANDARDS:
   - 6.1. DEFLECTION TESTING OF ROADWAY SUBGRADE.
   - 6.2. DENSITY TESTING OF ROADWAY BASE ROCK.
   - 6.3. DENSITY TESTING OF FINAL LIFT OF ASPHALT CONCRETE PAVEMENT.
   - 6.4. CONCRETE TESTING OF STRUCTURAL CONCRETE AND CONCRETE CURB & GUTTERS.
   - 6.5. TV AND MANDREL TESTING OF ALL WASTEWATER PIPE.
   - 6.6. LEAK TESTING OF ALL WASTEWATER ELEMENTS.
   - 6.7. LEAK TESTING OF ALL WATER SYSTEM ELEMENTS.
   - 6.8. BACTERIOLOGICAL TESTING OF COMPLETED WATER SYSTEM.
7. REQUESTS BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE CITY, CONSULTING ENGINEER, AND THE OWNER BEFORE THE CHANGES ARE IMPLEMENTED.
8. ATTENTION: OREGON LAW REQUIRES EXCAVATORS 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 OR (800) 332-2344).
9. DURING CONSTRUCTION, RUNOFF FROM THE SITE SHALL BE CONTROLLED, AND INCREASED SEDIMENTS RESULTING FROM SOIL DISTURBANCES SHALL BE RETAINED ON-SITE. THE CONTRACTOR SHALL PROVIDE TEMPORARY DIVERSIONS, SEDIMENT TRAPS, BARRIERS, CHECK DAMS, OR OTHER METHODS AS NECESSARY TO PREVENT ANY AND/OR MINIMIZE NEGATIVE IMPACTS TO WATER QUALITY AND RELATED NATURAL RESOURCES.
10. PLACEMENT OR STORAGE OF SPOILS FROM THE TRENCH WORK IS NOT PERMITTED ON HARD SURFACE STREETS WITHIN PUBLIC RIGHT-OF-WAY. SPOILS STORED IN OTHER RIGHT-OF-WAY AREAS SHALL BE COVERED TO PREVENT EROSION.
11. AT EACH INTERSECTION AT LEAST ONE POST SHALL BE PLACED DISPLAYING STREET NAME SIGNS FOR BOTH INTERSECTING STREETS. A "SIGN SCHEDULE" INDICATING NAMES AND LOCATIONS OF ALL SIGNS TO BE INSTALLED SHALL BE SUBMITTED TO THE PROJECT INSPECTOR WITHIN 15 DAYS OF THE PUBLIC IMPROVEMENT PERMIT ISSUANCE DATE.
12. ELEVATIONS BASED UPON NAVD 1988. GROUND TOPOGRAPHY IS FROM 2021/2022 FIELD SURVEYS BY EGR.
13. AT VARIOUS POINTS THROUGH OUT THE WORK, EXCAVATION MAY BE EXPECTED TO DISTURB EXISTING SURVEY MONUMENTS AND PROPERTY CORNERS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT THESE MARKERS AHEAD OF THEIR OPERATIONS AND RESTORE THEM BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THEIR PROPER LOCATION IF EXCAVATION REQUIRES THEIR REMOVAL. COSTS FOR REFERENCING AND RESTORATION OF DISTURBED MONUMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND SITE CONDITIONS OR ANY INCONSISTENCIES, AMBIGUITIES, ERRORS OR OMISSIONS IN THE DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.
15. QUANTITIES SHOWN ON DRAWINGS ARE APPROXIMATE, CONTRACTOR SHALL VERIFY BEFORE ORDERING.
16. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY COMPANIES FOR ALL WORK INVOLVING EXISTING AND PROPOSED UTILITIES.
17. LOCATION AND DESCRIPTION OF EXISTING UTILITIES ARE BASED ON AVAILABLE RECORDS AND THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF SUCH RECORDS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

CONSTRUCTION NOTES

1. EARTHWORK
   - A. EXCAVATE MATERIALS ABOVE SUBGRADE ELEVATIONS AND TO LINES AND DIMENSIONS INDICATED. REMOVE UNSUITABLE MATERIAL FROM BELOW SUBGRADE AS NEEDED OR DIRECTED. AT A MINIMUM REMOVE THE UPPER 6-INCHES OF TOPSOIL AND VEGETATION FROM THE AREA OF EARTHWORK. SEGREGATE SUITABLE SOIL FOR USE AS BACKFILL. DISPOSE UNSUITED MATERIAL ON-SITE AS DIRECTED.
   - B. WHERE THE CONTRACTOR IS UNABLE TO ACHIEVE SUB-GRADE COMPACTION AND DEFLECTION STANDARDS REQUIRED BY THE SPECIFICATIONS, AS DETERMINED BY FIELD INSPECTION AND TESTING, THE SUB-GRADE SURFACE SHALL BE LOWERED AT LEAST 6-INCHES. FABRIC SHALL BE PLACED, AND THE MATERIAL REMOVED SHALL BE REPLACED WITH 1 1/2"-0 CRUSHED ROCK AND COMPACTED ACCORDING TO THE SPECIFICATIONS. IF SUB-GRADE STILL DOES NOT MEET SPECIFICATIONS OVER-EXCAVATE TO A DEEPER SUBBASE DEPTH AS DIRECTED AND REPEAT THE PROCESS UNTIL THE SUB-GRADE MEETS SPECIFICATIONS.
   - C. SOIL FILL MATERIAL FROM ON-SITE SOURCES SHALL CONSIST OF SELECT SOIL FREE OF ROCK OR GRAVEL LARGER THAN 3-INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER.
   - D. PLACE SOIL FILL MATERIAL IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH AND COMPACT USING A SHEEPSFOOT ROLLER. MAINTAIN WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION.
   - E. COMPACT SOIL FILL TO NOT LESS THAN 92 PERCENT OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D1557.
2. AGGREGATE FILL
   - A. BASE LAYER MATERIAL SHALL CONSISTS OF WELL GRADED 3"-0 CRUSHED ROCK, MECHANICALLY FRACTURED ON A MINIMUM 50 PERCENT OF SURFACES WITH NOT MORE THAN 5 PERCENT OF PARTICLES PASSING THE NUMBER 200 SIEVE.
   - B. AGGREGATE FILL SHALL BE PLACED IN MAXIMUM 8-INCH LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D1557. MAINTAIN WITHIN 2 PERCENT OF OPTIMUM MOISTURE-CONTENT AT TIME OF COMPACTION.
4. ASPHALT PAVEMENT
   - C. ASPHALT CONCRETE PAVEMENT SHALL BE FORMULATED FOR THIS PROJECT IN ACCORDANCE WITH THE REQUIREMENTS FOR 3/4" DENSE GRADED, LEVEL 3 HOT MIXED ASPHALT CONCRETE, AS FULLY DESCRIBED IN SECTION 745 OF THE 2018 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
   - D. PLACE ASPHALT MIX IN MAXIMUM 3" LIFTS AND COMPACT TO A MINIMUM 92 PERCENT RELATIVE COMPACTION AS DETERMINED BY RICE DENSITY TEST AASHTO T 209 AS MODIFIED BY ODOT TM 306.
5. SEEDING
   - A. SEEDING FOR THIS PROJECT SHALL CONSIST OF FURNISHING AND INSTALLING NATIVE UPLAND GRASS MIX AS INDICATED.
   - B. TEMPORARY AND PERMANENT SEEDING SHALL BE FURNISHED AND INSTALLED AS FULLY DESCRIBED IN SECTION 01030 OF THE 2015 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
   - C. NATIVE UPLAND GRASS MIX SHALL BE PROTIME 400 NATIVE UPLAND MIX AVAILABLE FROM HOBBS & HOPKINS, LTD., OR EQUAL. SEED MIX INCLUDES: BLUE WILDRYE (ELYMUS GLAUCUS), MEADOW BARLEY (HORDEUM BRACHYANTHERUM), AND CALIFORNIA BROME (BROMUS CARINATUS). APPLY AT A RATE OF ONE POUND PER 1000 SQUARE FEET USING SEEDING METHOD 1 OF THE SPECIFICATIONS.
   - D. STORMWATER PLANTS SHALL BE PLANTED IN ACCORDANCE WITH THE LANDSCAPE PLAN AND IN ACCORDANCE WITH CITY OF FLORENCE STORMWATER DESIGN MANUAL.

GENERAL WASTEWATER NOTES

1. WASTEWATER PIPE AND FITTINGS SHALL BE PVC, SDR 35 IN CONFORMANCE TO ASTM D3034.
2. ALL CLEANOUTS CONSTRUCTED INSIDE OF THE PUBLIC RIGHT-OF-WAYS AND PUBLIC UTILITY EASEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF FLORENCE PUBLIC WORKS DEPARTMENT REQUIREMENTS.
3. ALL PLASTIC WASTEWATER PIPE TO MANHOLE CONNECTIONS SHALL USE A FLEXIBLE MANHOLE BOOT ADAPTOR (OR OTHER APPROVED METHOD).
4. ALL OTHER MANHOLE CONNECTIONS SHALL BE FACTORY SUPPLIED CONNECTORS WITH NON-SHRINK GROUT, EXCEPT IN THE CASE OF MANHOLES OVER EXISTING LINES.
5. GROUT FOR TOP OF MANHOLE FRAMES SHALL BE NON-SHRINK GROUT.
6. TONE WIRE SHALL BE PLACED OVER ALL WASTEWATER PIPES AND LATERALS.
7. CONTRACTOR TO SEAL START WASTEWATER MANHOLE PRIOR TO VACUUM TESTING.
8. PROVIDE STAMPS IN THE CURB AND GUTTER TO MARK SERVICE LINE LOCATIONS OF ALL CITY UTILITIES IN ACCORDANCE WITH CITY OF FLORENCE PWD REQUIREMENTS.

GENERAL STORM WATER NOTES

1. STORM WATER PIPE SHALL BE PVC OR OTHER APPROVED PIPE MATERIAL IN CONFORMANCE WITH SECTION 00445.11 OF THE STANDARD SPECIFICATIONS.
2. GROUT SHALL BE NON-SHRINK GROUT.
3. TONE WIRE SHALL BE PLACED OVER ALL STORMWATER PIPES.

GENERAL WATER NOTES

1. WATER PIPE SHALL BE PVC DR 18 (235 PSI) MEETING THE REQUIREMENTS OF AWWA C900 AND IN CONFORMANCE WITH SECTION 02470 OF THE 2018 OREGON STANDARD SPECIFICATIONS.
2. CITY OF FLORENCE PWD REQUIRES THE USE OF RESTRAINED JOINT FITTINGS WITH BLUE FLUOROCARBON COATED BOLTS AND NUTS IN LIEU OF THRUST BLOCKS. WHERE THRUST BLOCKING IS DEEMED NECESSARY BY THE CITY THEN PROVIDE THRUST BLOCKS PER CITY OF FLORENCE PWD REQUIREMENTS.
3. COMPLETED WATER SYSTEM SHALL BE FILLED, FLUSHED, DISINFECTED, AND LEAK TESTED IN CONFORMANCE WITH SECTION 01140 OF THE 2018 OREGON STANDARD SPECIFICATIONS.
4. HYDROSTATIC TESTING SHALL BE OBSERVED BY THE CITY AND ENGINEER. TEST DURATION SHALL BE MINIMUM TWO HOURS.
5. TONE WIRE SHALL BE PLACED OVER ALL WATER PIPES AND SERVICE LINES.
6. WATER VALVES SHALL BE GATE VALVES FOR 8-INCH AND SMALLER PIPE SIZE AND BUTTERFLY VALVES FOR 12-INCH AND LARGER PIPE SIZE. FURNISH AND INSTALL WATER VALVES IN ACCORDANCE WITH SECTION 02480 OF THE 2018 OREGON STD SPECIFICATIONS.
7. PROVIDE STAMPS IN THE CURB AND GUTTER TO MARK SERVICE LINE LOCATIONS OF ALL CITY UTILITIES IN ACCORDANCE WITH CITY OF FLORENCE PWD REQUIREMENTS.

LEGEND

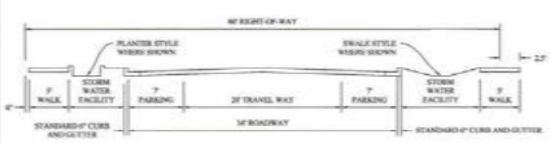
LEGEND (PROPOSED):

- PROPOSED WASTEWATER MANHOLE
- PROPOSED CLEANOUT
- PROPOSED SIGN
- PROPOSED WATER METER
- PROPOSED WATER VALVE
- PROPOSED HYDRANT
- PROPOSED STREET LIGHT
- PROPOSED PLANTER INLETS
- PROPOSED CURB INLET
- 8" WW — PROPOSED WASTEWATER PIPE
- PROPOSED UTILITY JOINT TRENCH
- 8" H20 — PROPOSED WATER PIPE
- 10" SD — PROPOSED STORM PIPE
- PROPOSED PLANTER
- PROPOSED CURB

LEGEND (EXISTING):

- FOUND MONUMENT
- BRASS CAP
- MANHOLE - WASTE WATER
- MANHOLE - STORM WATER
- CURB INLET
- WATER VALVE
- WATER METER
- ELECTRICAL VAULT
- FIRE HYDRANT
- UTILITY POLE
- SIGN
- TREE
- WW — WASTE WATER LINE
- SD — STORM WATER LINE
- E — ELECTRICAL POWER LINE
- OHE — OVERHEAD ELECTRICAL POWER LINE
- G — NATURAL GAS LINE
- T — TELEPHONE/COMMUNICATIONS LINE
- OHT — OVERHEAD TELEPHONE/COMMUNICATIONS LINE
- FENCELINE - CYCLONE FENCING (TYP.)
- CONCRETE WALK/DRIVE

TYPICAL STREET SECTION



SEE CITY DETAIL F-201 FOR STREET SECTION SPECIFICATIONS

NOTE: ℄ ELEVATION = TTC ELEVATION -0.10'

37TH STREET TYPICAL SECTION

NO SCALE

STANDARD ABBREVIATIONS: (NOT ALL ABBREVIATIONS ARE USED)

@	AT	MIN	MINIMUM
Ø	ABC	MJ	MECHANICAL JOINT
AB	ABANDONED UTILITY	MAT.	MATERIAL
AC	ASPHALTIC CONCRETE	MSE	MECHANICALLY STABILIZED EARTH
AGG	AGGREGATE	NAP	NOT A PART
APPROX.	APPROXIMATE	NIC	NOT IN CONTRACT
BC	BACK OF CURB	N.T.S.	NOT TO SCALE
BCR	BACK OF CURB RADIUS	OC,O.C.	ON CENTER
BM	BENCHMARK	OD	OUTSIDE DIAMETER
BSW	BACK OF SIDEWALK	OH	OVER HEAD
BVC	BEGIN VERTICAL CURVE	OHP	OVER HEAD POWER
CaTV	CABLE T.V.	PE	POLYETHYLENE
CB	CATCH BASIN	PC	POINT OF CURVE
CI	CURB INLET/CAST IRON	PI	POINT OF INTERSECTION
CL	CENTERLINE	PMI	PAVEMENT MARKING FILM
CLR	CLEAR	PRC	POINT OF REVERSE CURVE
CMP	CORRUGATED METAL PIPE	PSE	PUBLIC SLOPE EASEMENT
CONC	CONCRETE	PT	POINT OF TANGENCY
CONT	CONTINUOUS	PB	PULL BOX
CONST	CONSTRUCT	PL	PROPERTY LINE
CY	CUBIC YARD	PAVE	PAVEMENT
D	DEPTH	PLAE	PRIVATE LIMITED ACCESS EASEMENT
dD	DESIGN FLOW DEPTH / PIPE DIAMETER	PLSE	PRIVATE LIMITED STORM WATER EASEMENT
DEG	DEGREE	PLWE	PRIVATE LIMITED WASTEWATER EASEMENT
DET	DETAIL	PSDE	PUBLIC STORM DRAIN EASEMENT
DIA	DIAMETER	PUE	PUBLIC UTILITY EASEMENT
DIAG	DIAGONAL	PVC	POLYVINYL CHLORIDE
DI	DROP INLET	PVC	POINT OF VERTICAL CURVE
D.I.P	DUCTILE IRON PIPE	PVI	POINT OF VERTICAL INTERSECTION
D/W	DRIVEWAY	PVT	POINT OF VERTICAL TANGENT
DWG	DRAWING	R.	RADIUS
E	EAST	(R)	RADIAL
Ea	EACH	RCP	REINFORCED CONCRETE PIPE
EG	EXISTING GROUND	RCB	REINFORCED CONCRETE BOX
EOP	EDGE OF PAVEMENT	RIRT	RIGHT
EL, ELEV	ELEVATION	R/W, ROW	RIGHT OF WAY
ELEC	UNDERGROUND POWER	RP	RADIUS POINT
EQ.	EQUAL	S	SOUTH/SLOPE
ESMT	EASEMENT	S.S.	STAINLESS STEEL
EVC	END VERTICAL CURVE	SCHD	SCHEDULE
EW	EACH WAY	SD	STORM DRAIN
EXIST., EX.	EXISTING	SDMH	STORM DRAIN MANHOLE
FIG	FIGURE	SF	SQUARE FOOT
FL	FLOW LINE	SHT	SHEET
FG	FINISHED GRADE	SQ	SQUARE
FH	FIRE HYDRANT	ST	STREET/STORMWATER
FT	FOOT/FEET	STA	STATION
GA	GAGE	STD	STANDARD
GAL	GALLON	SY	SQUARE YARD
GALV	GALVANIZED	SW,SW	SIDEWALK
GB	GRADE BREAK	T	TANGENT
GV	GATE VALVE	TB	THRUST BLOCK
H	HEIGHT	TC	TOP OF CURB
HGL	HYDRAULIC GRADE LINE (S TR)	TEMP	TEMPORARY
HORI/HORIZ	HORIZONTAL	TFC	TOP FACE OF CURB
HP	HIGH POINT	T.O.P.	TOP OF PIPE
HOA	HOME OWNER'S ASSOCIATION	TW, T.O.W.	TOP OF WALL
ID	INSIDE DIAMETER	TYP	TYPICAL
INV	INVERT	VC	VERTICAL CURVE
K	VERTICAL CURVE RATE OF CURVATURE	VG	VALLEY GUTTER
L	LENGTH	VERT	VERTICAL
LC	LONG CHORD	W	WEST/WATER
LF	LINEAR FEET	WL	WATER LINE
LP	LOW POINT	WPJ	WEAKENED PLANE JOINT
L/LT	LEFT	WW	WASTE WATER
MAX	MAXIMUM	WW MH	WASTE WATER MANHOLE
MH	MANHOLE	W/	WITH

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EGR & Associates, Inc.
Engineers and Surveyors
2535 Pierce Road
Eugene, Oregon 97401
(541) 344-9322
Fax (541) 344-0297

OREGON JULY 10, 1981 CHRISTOPHER D. BEECROFT 2001 RENEWS: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
LEGEND, ABBREVIATIONS, NOTES AND TYPICAL SECTIONS
FflorENCE, OREGON

No	Description of Revisions	Date	Name

Date	08-01-2023
Job Number	7001-22-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

Sheet Number

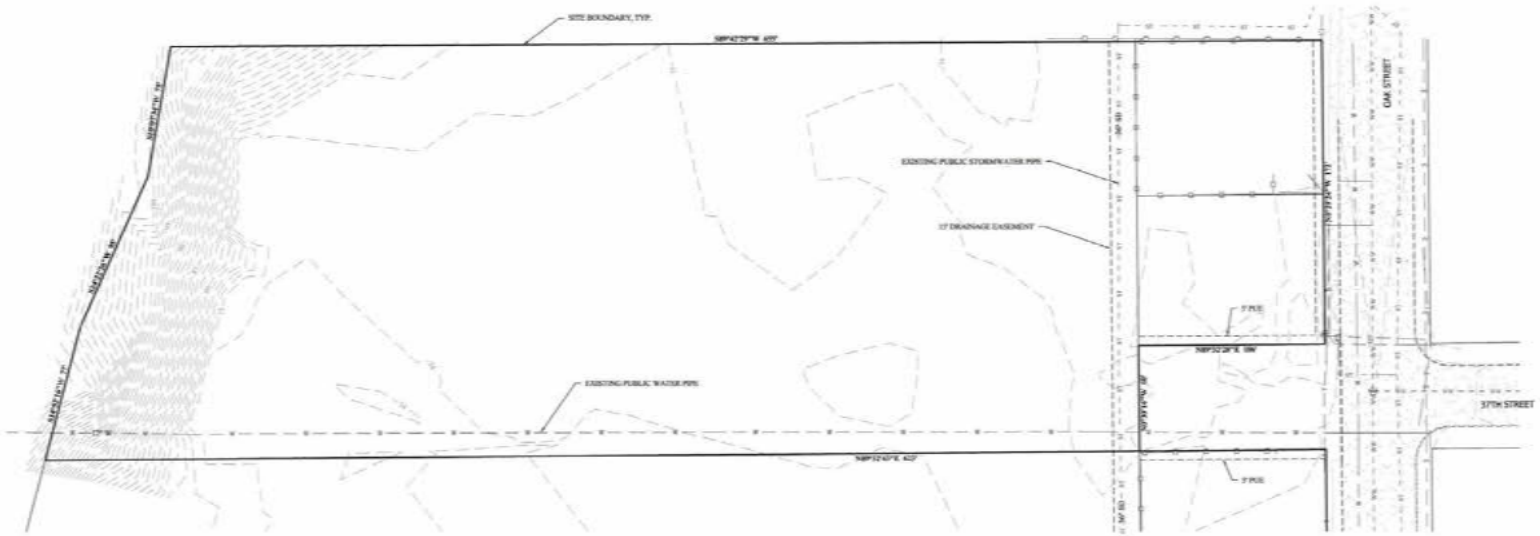
G2

LEGEND:

- FOUND MONUMENT
- BRASS CAP
- MANHOLE - WASTE WATER
- MANHOLE - STORM WATER
- CURB INLET
- WATER VALVE
- WATER METER
- ELECTRICAL VAULT
- FIRE HYDRANT
- UTILITY POLE
- SIGN - COMMERCIAL VEHICLE PARKING ONLY
- TREE
- WASTE WATER LINE
- STORM WATER LINE
- WATER LINE
- ELECTRICAL POWER LINE
- OVERHEAD ELECTRICAL POWER LINE
- NATURAL GAS LINE
- TELEPHONE/COMMUNICATIONS LINE
- OVERHEAD TELEPHONE/COMMUNICATIONS LINE
- FENCELINE - CYCLONE FENCING (TYP.)
- CONCRETE WALK/DRIVE

EXISTING CONDITIONS
FOR
MYRTLE GLENN PUD
NE 1/4, SECTION 22, TOWNSHIP 18 SOUTH, RANGE 12 WEST
OF THE WILLAMETTE MERIDIAN, LANE COUNTY, OREGON
AUGUST 2023

UTILITY STATEMENT:
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



EXISTING CONDITIONS SITE MAP
1" = 30'

EGR & Associates, Inc.
Engineers and Surveyors
2535 Pierce Road
Eugene, Oregon 97402
(541) 688-8313
Fax (541) 688-8315

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
MARCH 9, 2022
BRENT C. BEECROFT
80006
RENEWS: 12/31/23

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
EXISTING CONDITIONS
SITE MAP
FLORENCE, OREGON

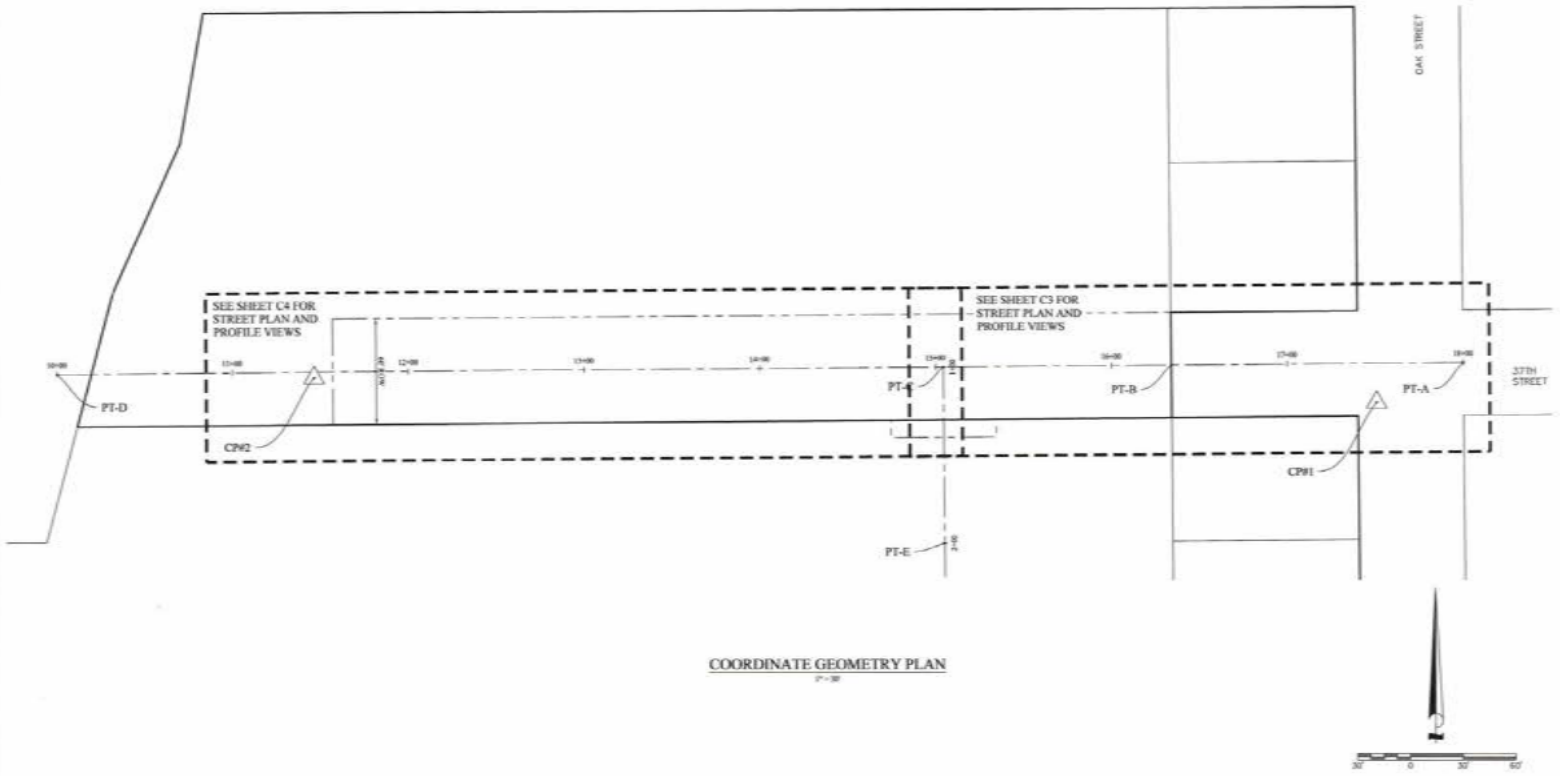
No	Description of Revisions	Date	Name

Date	09-01-2023
Job Number	7991-22-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

Sheet Number
G3

COORDINATE GEOMETRY			
I.D.	DESCRIPTION	EASTING	NORTHING
PT-A	CENTERLINE 37TH STREET AT STATION 18+00.00	427895.94	937161.38
PT-B	CENTERLINE 37TH STREET AT STATION 16+34.86 AND PLAT BOUNDARY	427730.00	937159.85
PT-C	37TH STREET STATION 15+94.26 AND EAST MYRTLE LOOP STATION 1+00.00	427680.24	937158.82
PT-D	CENTERLINE 37TH STREET AT STATION 10+00.00	427095.96	937154.82
PT-E	CENTERLINE EAST MYRTLE LOOP AT STATION 2+00.00	427661.08	937058.83

SURVEY CONTROL				
I.D.	DESCRIPTION	EASTING	NORTHING	ELEVATION
CP01	MAGNAIL W/WASHER	427846.74	937138.59	74.74
CP02	MAGNAIL W/WASHER	427742.34	937152.78	73.41



COORDINATE GEOMETRY PLAN

EGR & Associates, Inc.
Engineers and Surveyors
2155 Pearl Road
Eugene, Oregon 97402
(541) 686-8925
Fax (541) 686-8927

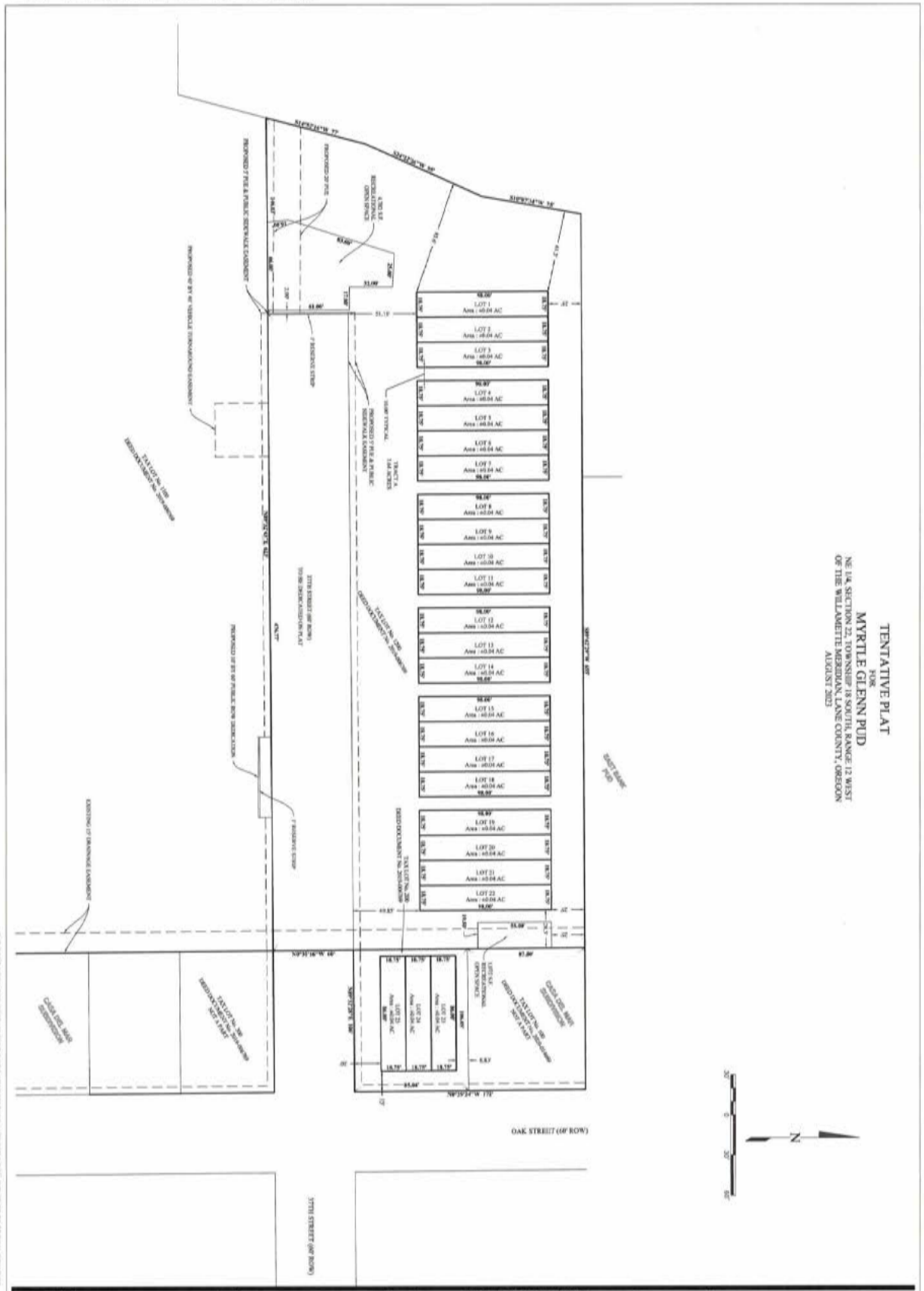
RENEWS: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
COORDINATE GEOMETRY AND SURVEY CONTROL
FLORENCE, OREGON

No.	Description of Revisions	Date	Name

Date	08-01-2023
Job Number	7391-22-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

Sheet Number
G4



TENTATIVE PLAT

FOR

MYRTLE GLENN PUD

NE 1/4, SECTION 22, TOWNSHIP 18 SOUTH, RANGE 12 WEST
OF THE WILLAMETTE MERIDIAN, LANE COUNTY, OREGON
AUGUST 2023

THIS IS NOT A FINAL DOCUMENT UNTIL THE DOCUMENT CONTAINS A VERIFIED DIGITAL SIGNATURE OR ORIGINAL SIGNATURE

Sheet Number							
G5	Date	08-01-2023	No	Description of Revisions	Date	Name	MYRTLE GLENN PUD FINAL PUD IMPROVEMENT DRAWINGS TENTATIVE SUBDIVISION PLAT FLORENCE, OREGON
	Job Number	7991-22-0187					
	Design by						
	Drawn by	BWO					
	Checked by	C. BEECROFT					

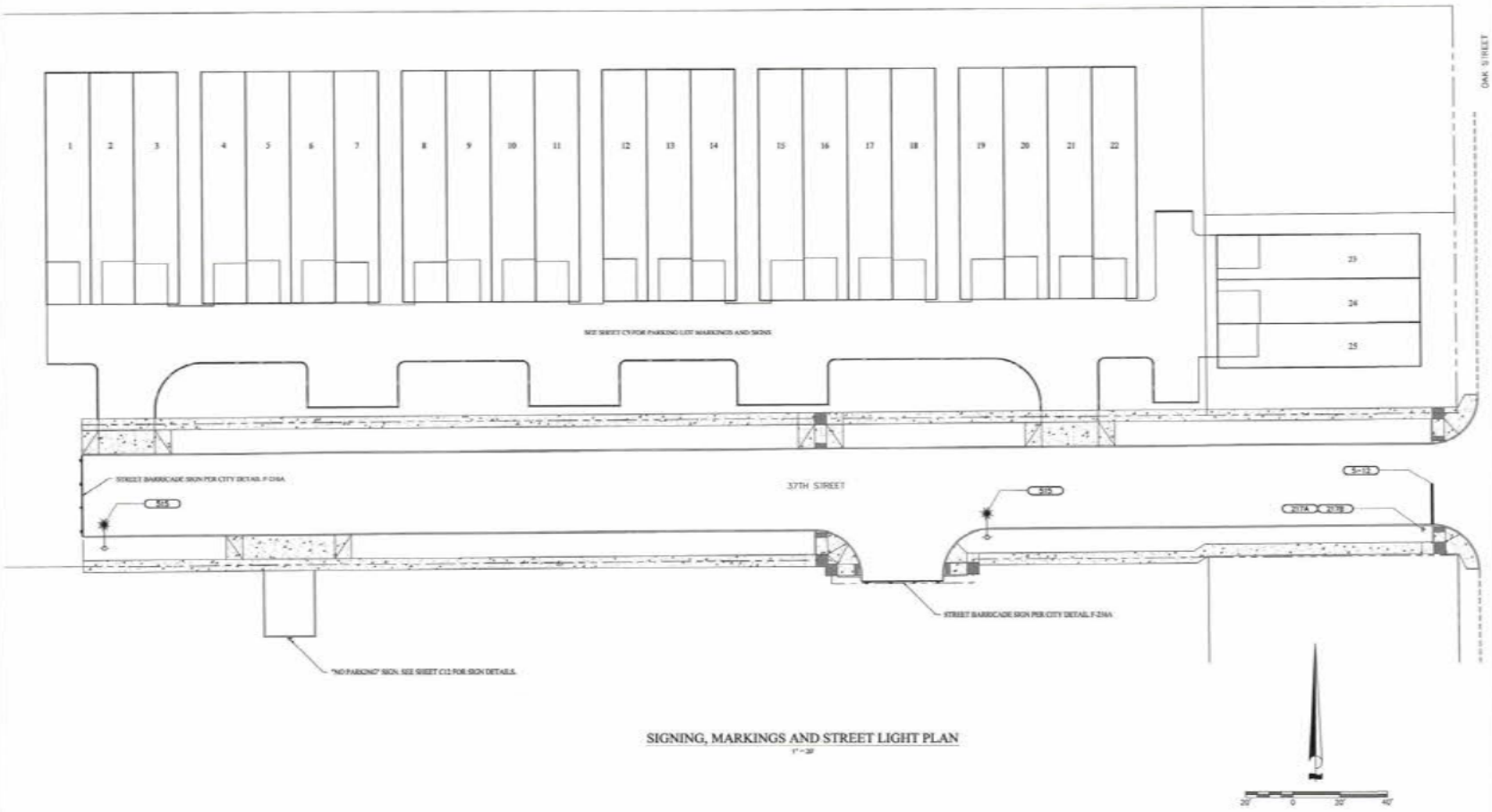
REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
MARCH 6, 2002
BRENT W. CORNING
89801
RENEWS: 12/31/23

EGR & Associates, Inc.
Engineers and Surveyors
2338B Prairie Road
Eugene, Oregon 97402
(541) 688-8322
Fax (541) 688-8067

NOTE:
CLPUD STREET LIGHT STANDARDS HAVE CHANGED TO LED LIGHTING WITH WOOD OR ORNAMENTAL POLE OPTIONS. INSTALLING CONTRACTOR TO COORDINATE WITH OWNER AND CLPUD ON FINAL STREET LIGHT SELECTION AND COORDINATE FINAL LOCATIONS WITH FLORENCE PUBLIC WORKS PRIOR TO INSTALLING POLES AND ELECTRICAL SYSTEM.

CONSTRUCTION NOTES

217A	INSTALL STREET NAME SIGN PER CITY DETAILS F-217, F-217A AND F-217B
217B	INSTALL STOP SIGN PER CITY DETAILS F-217, F-217A AND F-217B
515	INSTALL STREET LIGHT PER CITY AND CLPUD STANDARDS
S-12	INSTALL 12" WIDE WHITE THERMAL STOP BAR



SIGNING, MARKINGS AND STREET LIGHT PLAN
1" = 20'

EGR & Associates, Inc.
Engineers and Surveyors
2535B Pierce Road
Eugene, Oregon 97402
(541) 484-9323
Fax (541) 689-8007

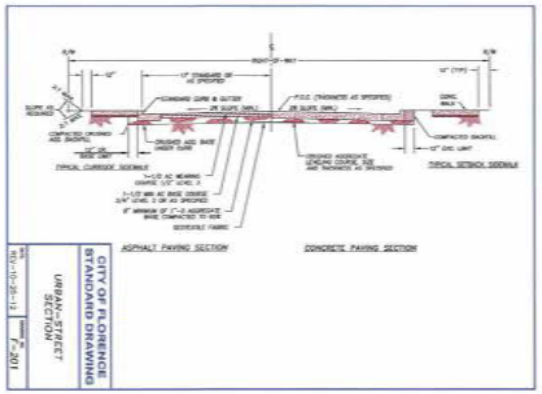
RENEWS: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
SIGNING, PAVEMENT MARKINGS
AND STREET LIGHTING PLAN
FLORENCE, OREGON

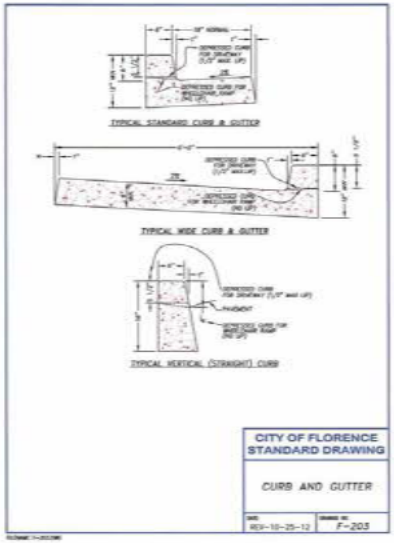
No.	Description of Revisions	Date	Name

Date	09-01-2023
Job Number	7391-20-0187
Design by	C. BEEGROFT
Drawn by	C. BEEGROFT
Checked by	C. BEEGROFT

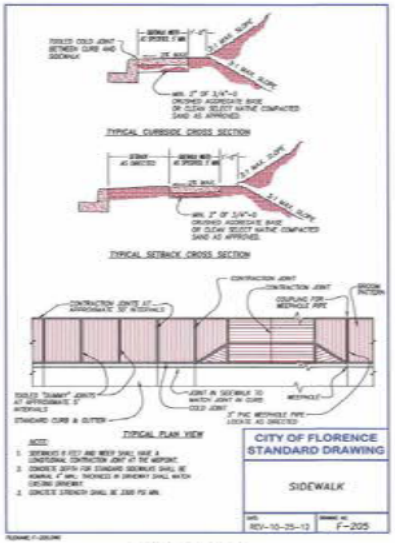
Sheet Number
G6



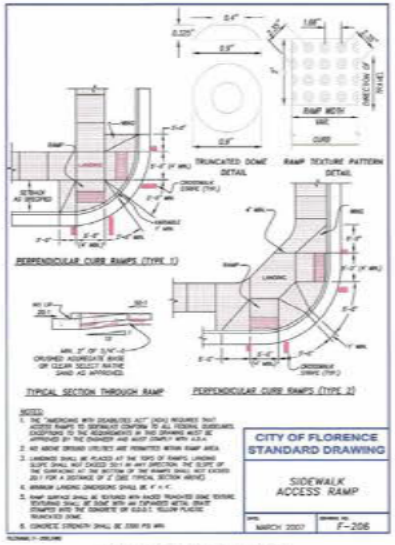
F-201 - URBAN STREET SECTION



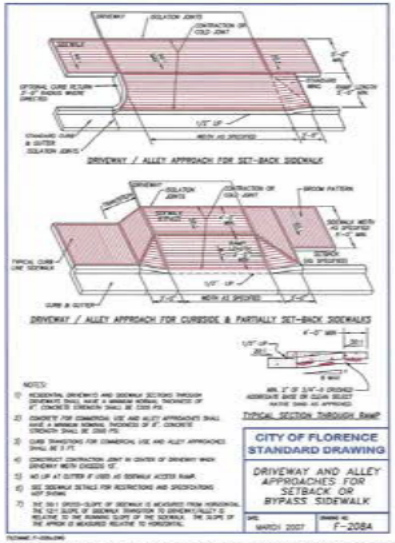
F-203 - CURB AND GUTTER



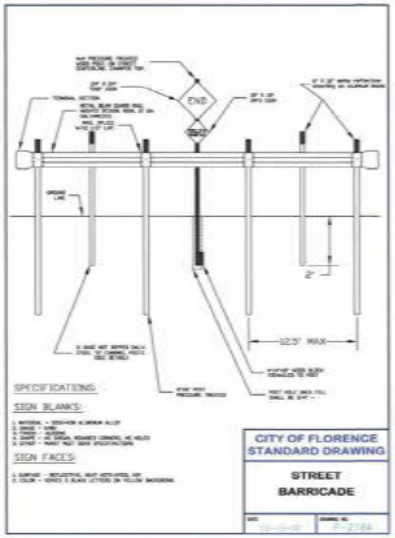
F-205 - SIDEWALK



F-206 - SIDEWALK ACCESS RAMP



F-208A - DRIVEWAY AND ALLEY APPROACHES FOR SETBACK OR BYPASS SIDEWALK



F-216A - STREET BARRICADE

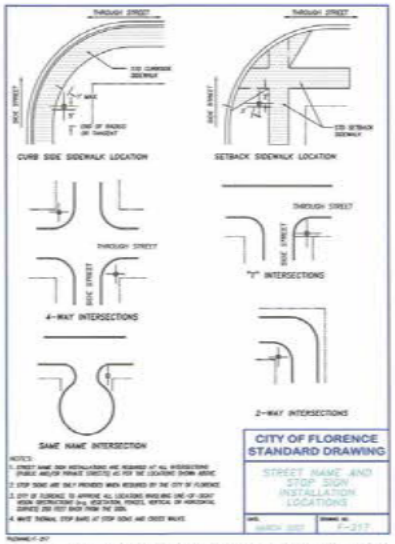
EGR & Associates, Inc.
Engineers and Surveyors
2535 Hilyard Street
Eugene, Oregon 97405
(541) 485-8302
Fax (541) 338-5407

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
STANDARD DRAWINGS AND DETAILS
CIVIL DETAILS 1
FLORENCE, OREGON

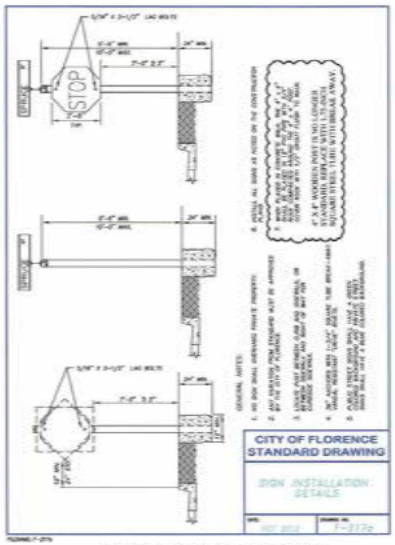
No	Description of Revisions	Date	Name

Date	08-01-2023
Job Number	7991-22-0187
Design by	G. BEECROFT
Drawn by	G. BEECROFT
Checked by	G. BEECROFT

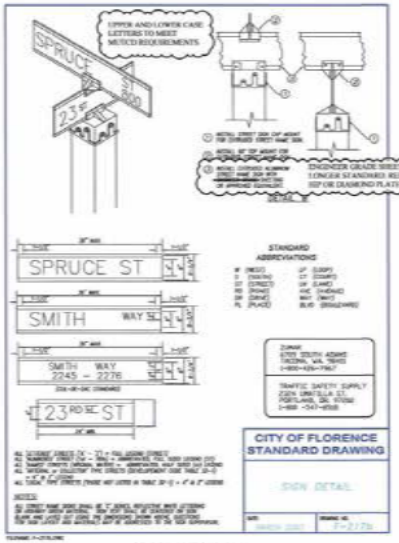
Sheet Number
G7



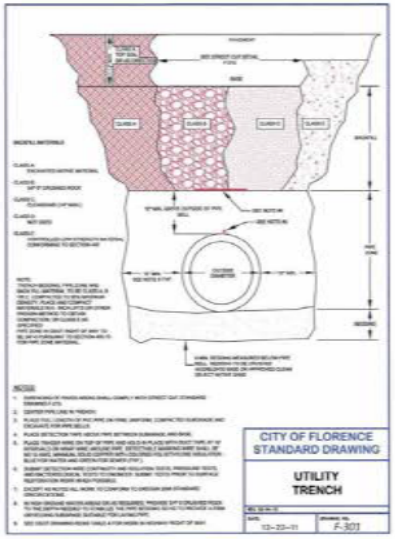
F-217 - STREET NAME AND STOP SIGN INSTALLATION LOCATIONS



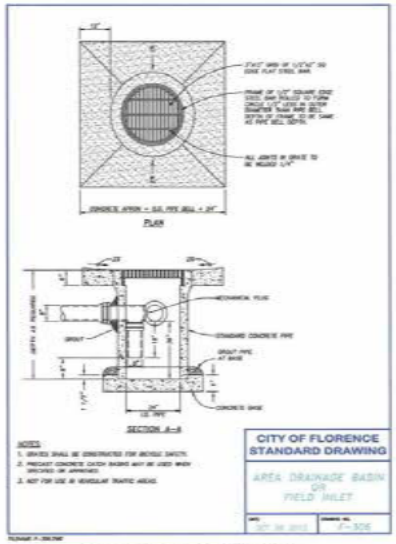
F-217A - SIGN INSTALLATION DETAILS



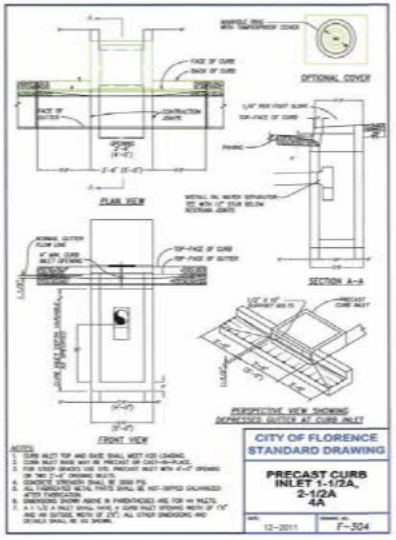
F-217B - SIGN DETAIL



F-301 - UTILITY TRENCH



F-306 - AREA DRAINAGE BASIN DETAIL



F-304 - PRECAST CURB INLET

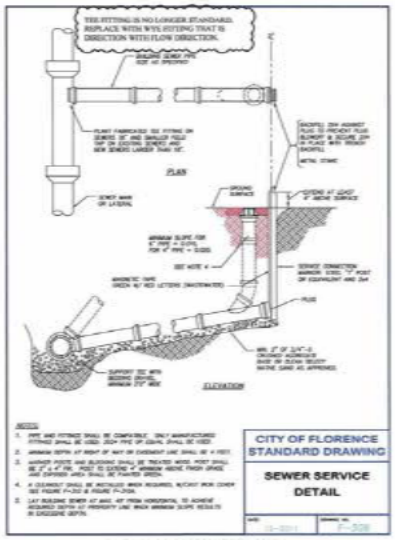
EGR & Associates, Inc.
Engineers and Surveyors
2535 Pearl Road
Eugene, Oregon 97401
(541) 485-8302
Fax (541) 686-9182

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
STANDARD DRAWINGS AND DETAILS
CIVIL DETAILS - 2
FLORENCE, OREGON

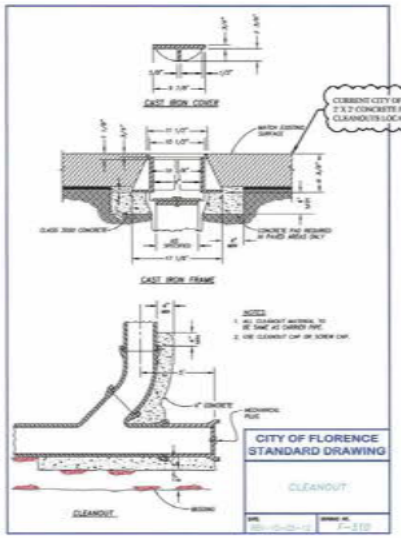
No	Description of Revisions	Date	Name

Date	08-01-2023
Job Number	799-22-0187
Design by	C. BERCROFT
Drawn by	C. BERCROFT
Checked by	C. BERCROFT

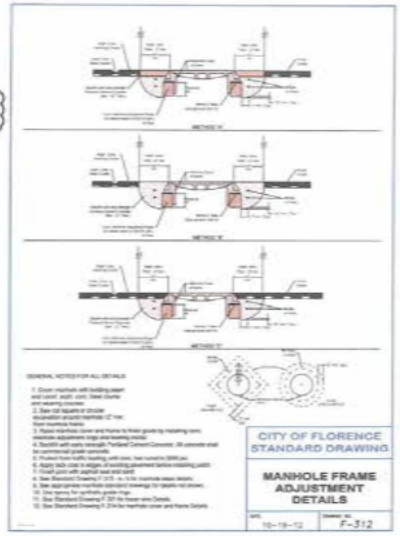
Sheet Number
G8



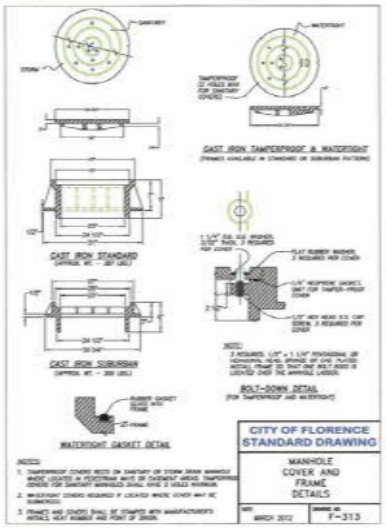
F-308 - SEWER SERVICE DETAIL



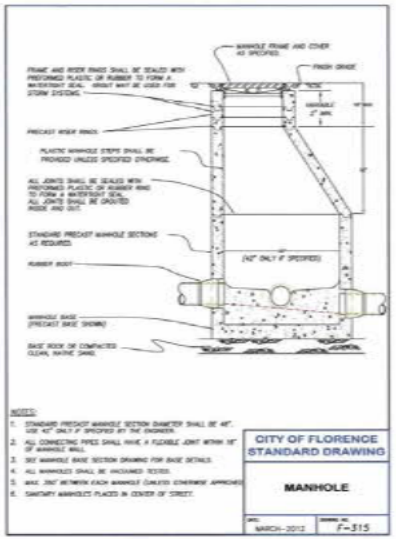
F-310 - CLEANOUT



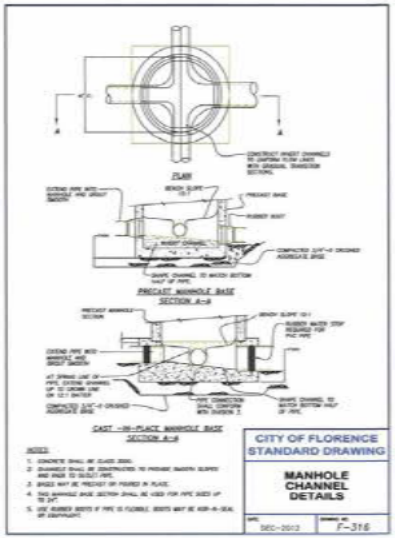
F-312 - MANHOLE ADJUSTMENT DETAILS



F-313 - MANHOLE COVER AND FRAME DETAILS



F-315 - MANHOLE



F-316 - MANHOLE CHANNEL DETAILS

EGR & Associates, Inc.
Engineers and Surveyors
2535 Pierce Road
Eugene, Oregon 97402
(541) 485-8302
Fax (541) 689-8247

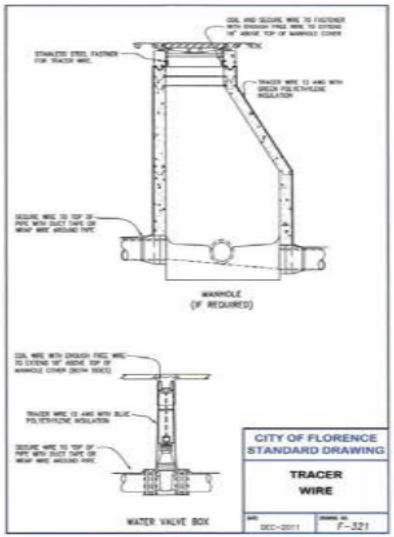
RENEWS: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
STANDARD DRAWINGS AND DETAILS
CIVIL DETAILS - 3
FLORENCE, OREGON

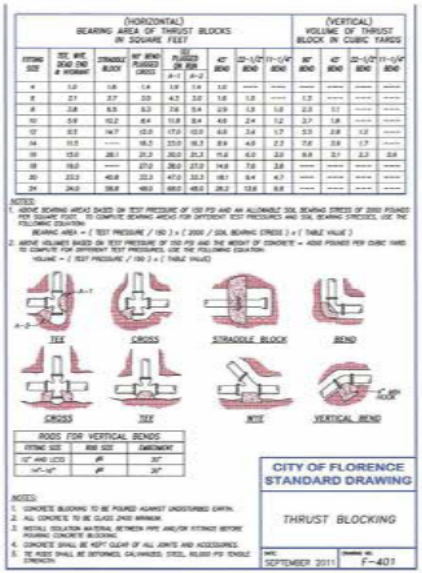
No.	Description of Revisions	Date	Name

Date	08-01-2023
Job Number	7391-20-0187
Design by	C. BEEGROFT
Drawn by	C. BEEGROFT
Checked by	C. BEEGROFT

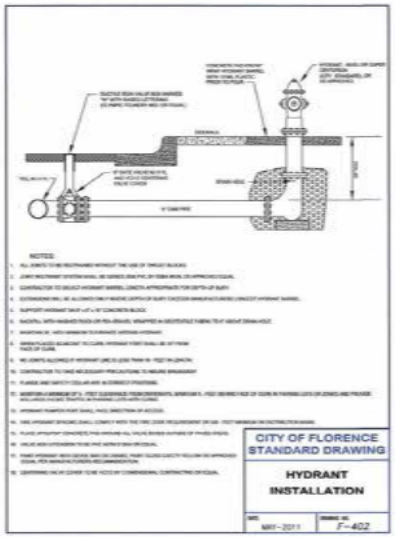
Sheet Number
G9



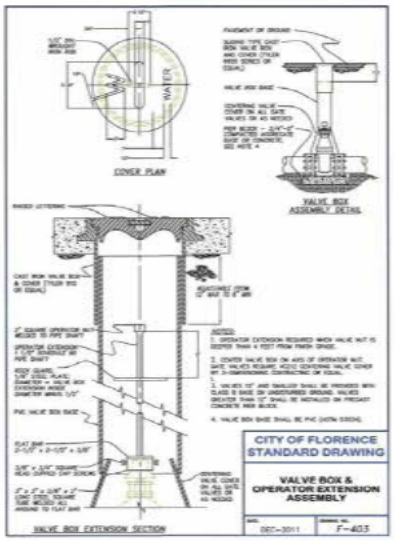
F-321 - TRACER WIRE



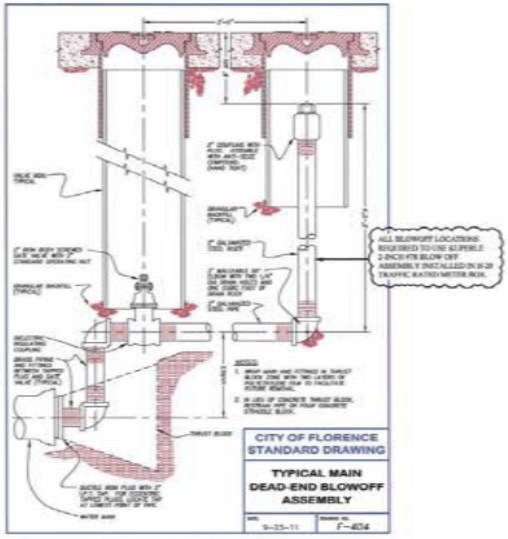
F-401 - THRUST BLOCKING



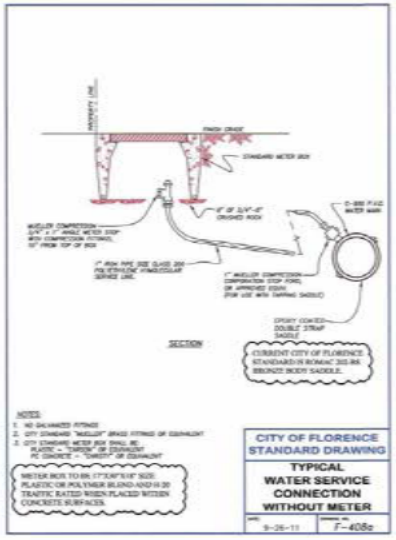
F-402 - HYDRANT INSTALLATION



F-403 - VALVE BOX & OPERATOR EXTENSION ASSEMBLY



F-404 - TYPICAL MAIN DEAD-END BLOWOFF ASSEMBLY



F-408A - TYPICAL WATER SERVICE CONNECTION WITHOUT METER

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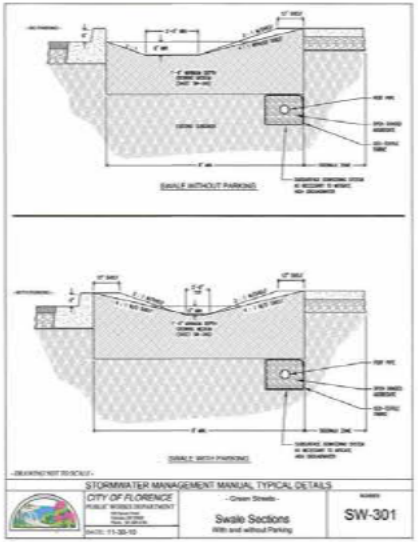
RENEWAL: 01/01/14

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
STANDARD DRAWINGS AND DETAILS
CIVIL DETAILS - 4
FLORENCE, OREGON

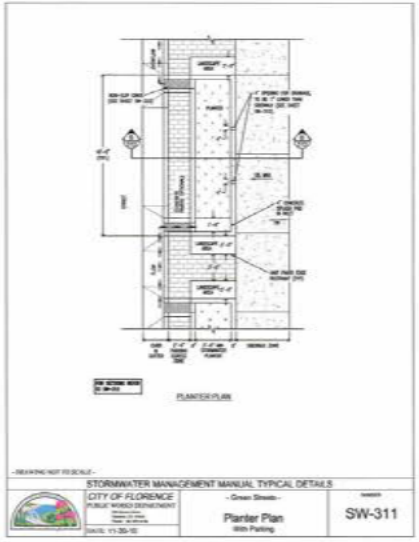
No	Description of Revisions	Date	Name

Date 08-01-2023
Job Number 7391-23-0187
Design by C. BEECROFT
Drawn by C. BEECROFT
Checked by C. BEECROFT

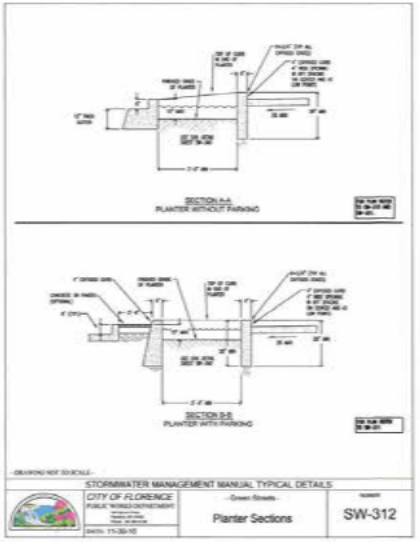
Sheet Number
G10



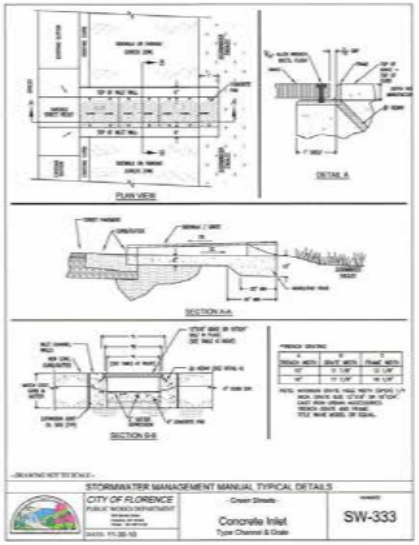
SW-301 - SWALE SECTIONS



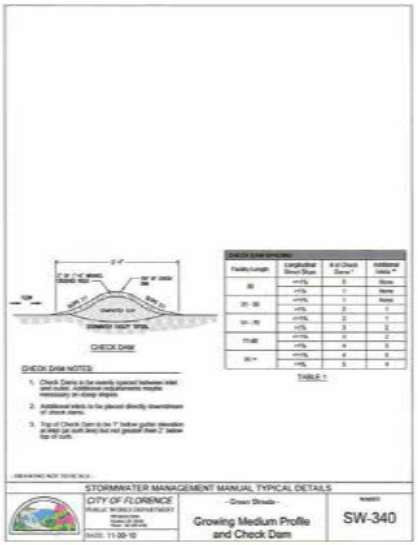
SW-311 - PLANTER PLAN



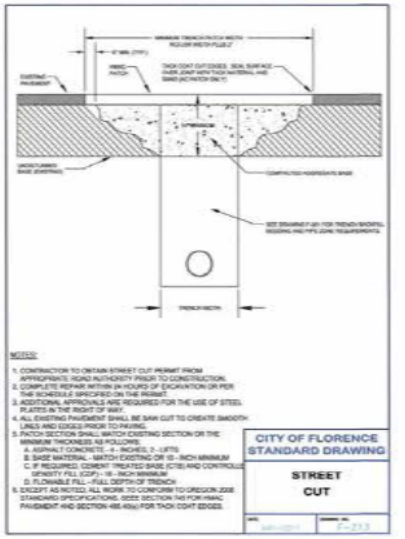
SW-312 - PLANTER SECTIONS



SW-333 - CONCRETE INLET



SW-340 - CHECK DAM



F-213 - STREET CUT

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Fax (541) 686-8927

RENEWS: 01/30/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
STANDARD DRAWINGS AND DETAILS
CIVIL DETAILS - 5
FLORENCE, OREGON

No	Description of Revisions	Date	Name

Date 09-01-2023
Job Number 7391-23-0167
Design by C. BEECROFT
Drawn by C. BEECROFT
Checked by C. BEECROFT

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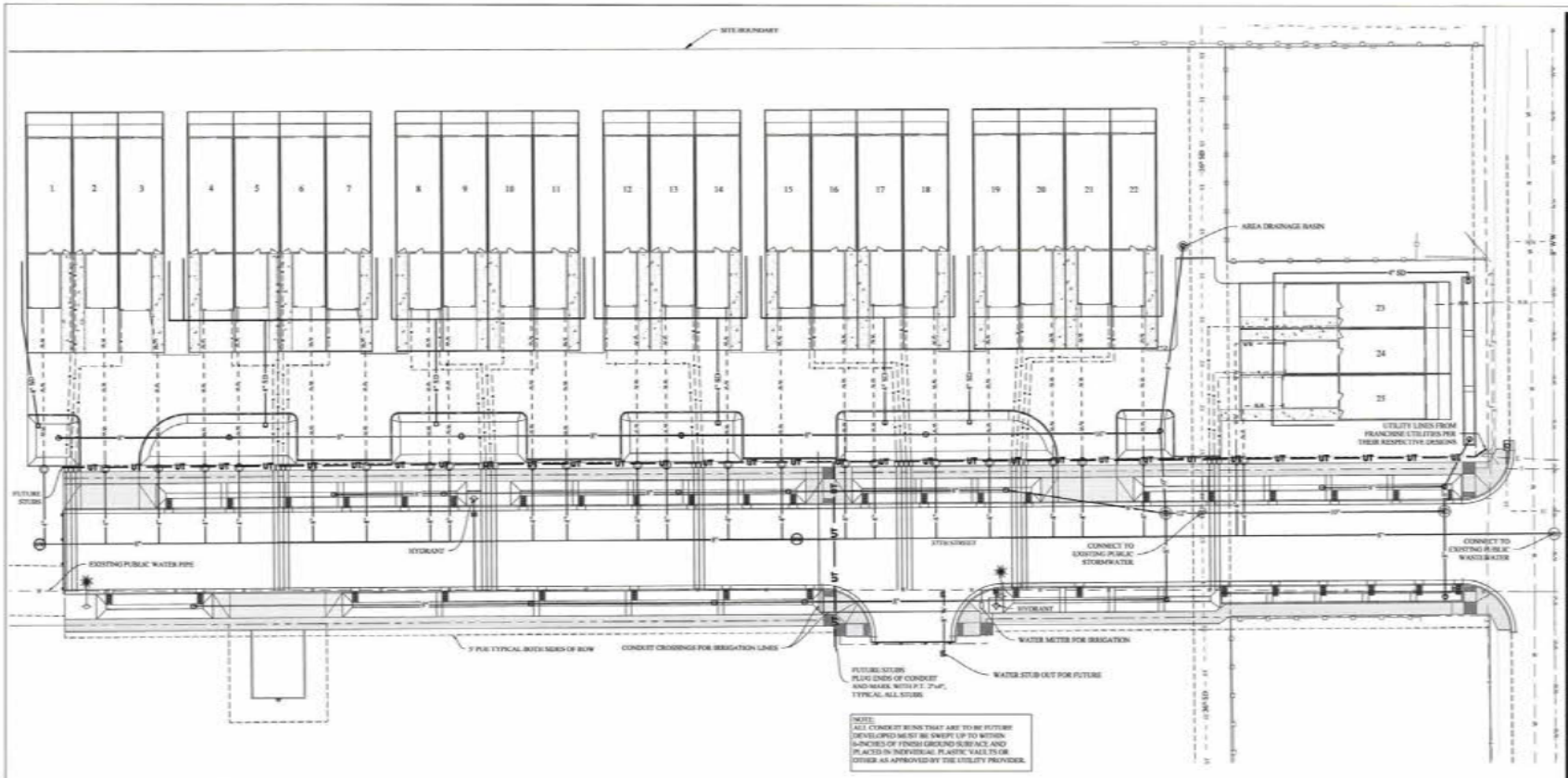

PLAN VIEW
SCALE: 1" = 20'

CONSTRUCTION LEGEND

- —— ww —— ww —— INSTALL PRIVATE WASTEWATER PIPE PER PLUMBING CODE STANDARDS.
- —— w —— w —— INSTALL PRIVATE WATER PIPE PER PLUMBING CODE STANDARDS
- —— 4" SD —— INSTALL ROOF DRAIN PIPE PER PLUMBING CODE STANDARDS.
- —— UT —— UT —— INSTALL JOINT UTILITY TRENCH PER FRANCHISE UTILITIES STANDARDS. INSTALLING CONTRACTOR TO COORDINATE WITH CITY OF FLORENCE, HYAK, SPECTRUM, CENTRAL LINCOLN PUD AND CENTURY LINK FOR CURRENT STANDARDS FOR CONSTRUCTION.

NOTE:
SEE SHEETS C5 AND C6 FOR PUBLIC UTILITY INSTALLATION SPECIFICATIONS IN 37TH STREET. SEE SHEET C5 FOR STORMWATER PIPE INSTALLATION SPECIFICATIONS.

20' 0 20' 40'

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REVISED: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
OVERALL UTILITIES AND SITE PLAN
FLORENCE, OREGON

No.	Description of Revisions	Date	Name

Date 08-01-2023
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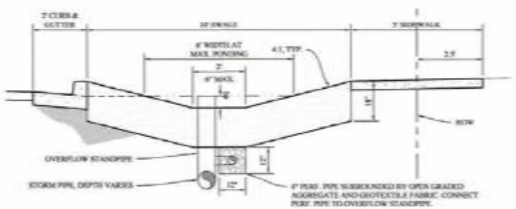
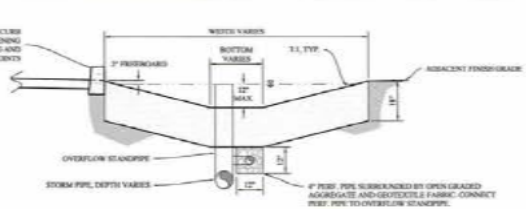
Checked by C. BEEDROFT

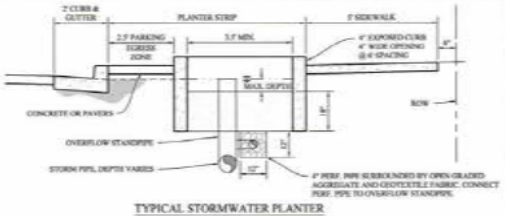
Sheet Number
C1



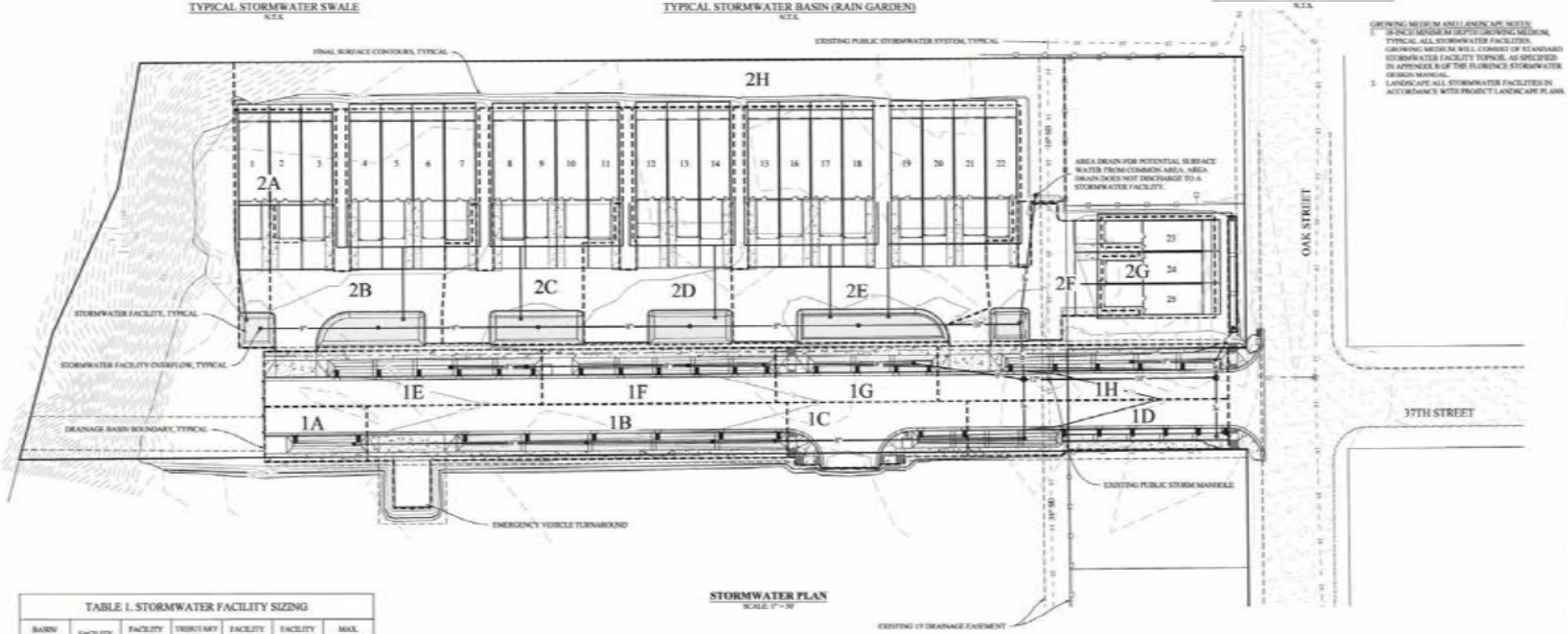
TYPICAL STORMWATER SWALE
N.T.S.



TYPICAL STORMWATER BASIN (RAIN GARDEN)
N.T.S.



TYPICAL STORMWATER PLANTER
N.T.S.



GROWING MEDIUM AND LANDSCAPE NOTES:
1. 18-INCH MINIMUM DEPTH GROWING MEDIUM, TYPICAL ALL STORMWATER FACILITIES. GROWING MEDIUM WILL CONSIST OF STANDARD STORMWATER FACILITY TOPSOIL, AS SPECIFIED IN APPENDIX B OF THE FLORENCE STORMWATER DESIGN MANUAL.
2. LANDSCAPE ALL STORMWATER FACILITIES IN ACCORDANCE WITH PROJECT LANDSCAPE PLANS.

STORMWATER PLAN
SCALE: 1" = 30'

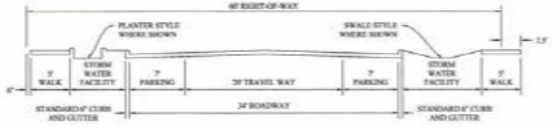
TABLE 1. STORMWATER FACILITY SIZING

BASIN/ FACILITY I.D.	FACILITY TYPE	FACILITY SIDE SLOPES	TRIBUTARY BASIN AREA, S.F.	FACILITY SURFACE WIDTH	FACILITY SURFACE LENGTH	MAX. PONDING DEPTH
PUBLIC (BASIN 1) STORMWATER FACILITIES						
1A	IB	4:1	1,976	10.0'	47.0'	6"
1B	IB	4:1	8,725	10.0'	196.0'	6"
1C	IB	4:1	3,804	10.0'	88.0'	6"
1D	IP	0:1	4,745	3.3'	98.0'	10"
1E	IB	4:1	5,362	10.0'	127.0'	6"
1F	IB	4:1	4,571	10.0'	120.0'	6"
1G	IB	4:1	3,129	10.0'	77.0'	6"
1H	IB	4:1	5,599	10.0'	134.0'	6"
PRIVATE (BASIN 2) STORMWATER FACILITIES						
2A	IB	3:1	4,260	23.1'	20.0'	12"
2B	IB	3:1	13,978	20.4'	60.1'	12"
2C	IB	3:1	11,051	20.2'	54.8'	12"
2D	IB	3:1	9,968	20.0'	49.0'	12"
2E	IB	3:1	20,796	19.7'	84.9'	12"
2F	IB	3:1	4,882	19.9'	22.0'	12"
2G	IP	0:1	4,375	6.0'	68.0'	12"
2H	AD	0	10,500	0	0	0

AD = AREA DRAIN
IP = INFILTRATION PLANTER
IS = INFILTRATION SWALE
IB = INFILTRATION BASIN

STORMWATER FACILITY DESIGN NOTES

1. FACILITIES ARE SIZED PER THE FLORENCE STORMWATER MANUAL PRESUMPTIVE APPROACH.
2. RUNOFF CALCULATIONS ARE PER THE UNIT HYDROGRAPH METHOD, 24 HOUR STORM, NRCS TYPE 1A RAINFALL DISTRIBUTION.
3. FACILITIES ARE SIZED TO MEET POLLUTION REDUCTION, FLOW CONTROL, AND FINAL DESTINATION (INFILTRATION FACILITY) STANDARDS.
4. PER FLORENCE STORMWATER MANUAL, A WATER QUALITY DESIGN RAINFALL DEPTH OF 0.8 INCHES IS USED FOR POLLUTION REDUCTION AND A 25-YEAR RECURRENCE INTERVAL RAINFALL DEPTH OF 5.06 INCHES IS USED FOR FLOW CONTROL AND FINAL DESTINATION.
5. THE INFILTRATION RATE OF FINE DUNE SAND IS CONSERVATIVELY AT LEAST 10 INCHES PER HOUR. THE FLORENCE STORMWATER MANUAL LIMITS THE DESIGN INFILTRATION RATE TO THE INFILTRATION RATE OF THE GROWING MEDIUM WHICH IS GIVEN AS A MAXIMUM 4 INCHES PER HOUR. THE RESULTING FACILITY SIZES AND DEPTHS WERE DESIGNED TO STORE A 25-YEAR EVENT AT THIS INFILTRATION RATE.
6. FINAL DESTINATION IS INFILTRATION INTO GROUNDWATER. FOR AN ESCAPE ROUTE, STORMWATER FACILITIES WILL INCLUDE OVERFLOW PIPES THAT DISCHARGE INTO A PROPOSED PUBLIC STORMWATER PIPE IN 37TH STREET. THE PROPOSED PIPE CONNECTS INTO AN EXISTING 36-INCH DIAMETER PUBLIC STORM DRAIN PIPE LOCATED IN A DRAINAGE EASEMENT ON THE EASTERLY SIDE OF THE SITE. THE EXISTING PIPE FLOWS SOUTH AND WEST TO THE INTERSECTION OF 35TH AND LAUREL WOOD STREETS, SOUTH IN LAUREL WOOD STREET TO 34TH PLACE, THEN EAST TO AN OPEN CONVEYANCE THAT FLOWS SOUTHERLY AND WESTERLY TO THE SIUSLAW RIVER.
7. SEASONAL HIGH GROUNDWATER IS ESTIMATED TO BE GREATER THAN ONE FOOT BELOW EXISTING GROUND SURFACE. THIS IS DETERMINED BASED ON NO WETLANDS ARE FOUND ON THE SITE, WETLAND HYDROLOGY REQUIRES SEASONAL HIGH GROUNDWATER TO BE PRESENT WITHIN ONE FOOT OF GROUND SURFACE.



TYPICAL LOCAL STREET
NO SCALE

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Eugene, Oregon 97402
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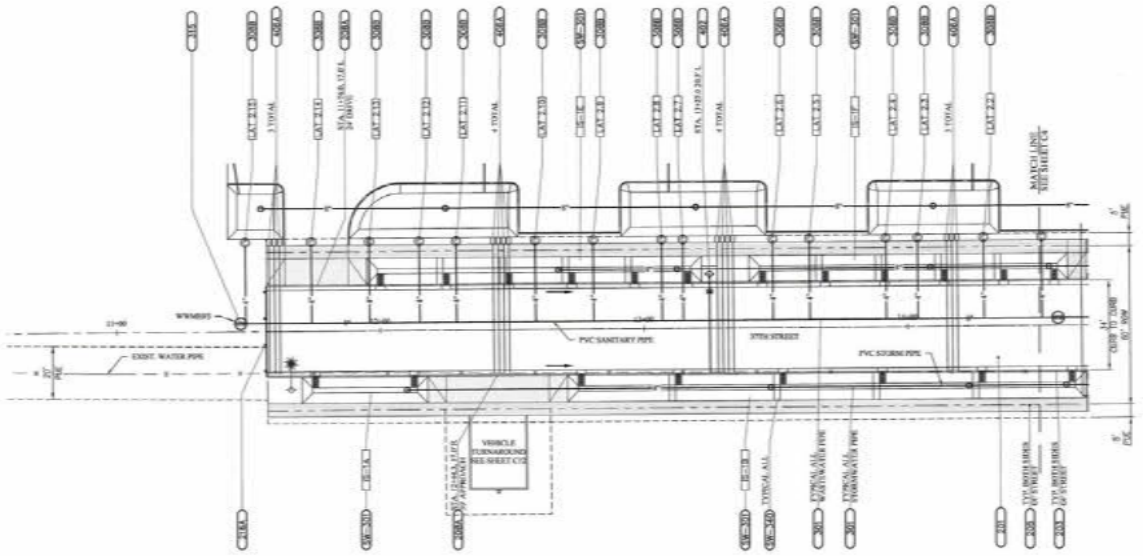
RENEWS: 06/30/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
STORMWATER MANAGEMENT PLAN
AND DETAILS
FLORENCE, OREGON

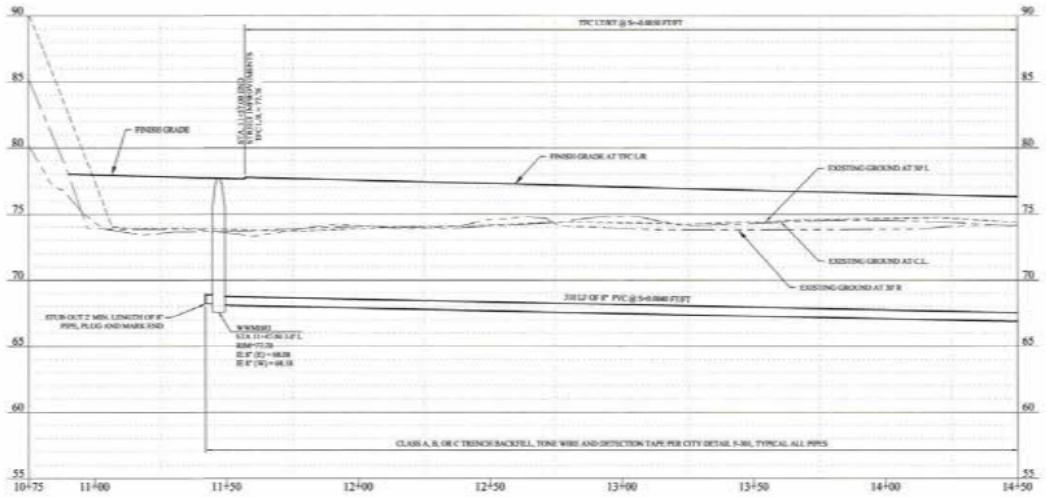
No.	Description of Revisions	Date	Name

Date: 08-01-2023
Job Number: 7391-20-0187
Design by: CLINT BERCROFT
Drawn by: CLINT BERCROFT
Checked by: C. BERCROFT

Sheet Number
C2



PLAN VIEW
SCALE: 1" = 20'



PROFILE VIEW
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 5'

CONSTRUCTION NOTES

- (201) CONSTRUCT STANDARD STREET SECTION WITH ASPHALT PAVEMENT, AGGREGATE BASE AND GEOTEXTILE FABRIC PER CITY DETAIL S-201
- (203) CONSTRUCT STANDARD CURB AND GUTTER PER CITY DETAIL S-203
- (205) CONSTRUCT SETBACK SIDEWALK PER CITY DETAIL S-205
- (208A) CONSTRUCT DRIVEWAY APPROACH FOR SETBACK SIDEWALK WITH 7'-0" WINGS PER CITY DETAIL S-208A
- (216A) INSTALL STREET BARRICADE PER CITY DETAIL S-216A
- (301) CONSTRUCT UTILITY TRENCH PER CITY DETAIL S-301 WITH PIPE AS NOTED
- (308) INSTALL 4" SEWER SERVICE PER CITY DETAIL S-308 AND CLEANOUT PER CITY DETAIL S-310
- (401) INSTALL 48" MANHOLE PER CITY DETAILS S-312, S-313, S-315, S-316 AND S-321
- (402) INSTALL HYDRANT ASSEMBLY PER CITY DETAIL S-402
- (408A) INSTALL WATER SERVICE CONNECTION PER CITY DETAIL S-408A, WITH 2-INCH DIAMETER PLASTIC SLEEVE BETWEEN METER BOX AND BACK OF PUE FOR FUTURE HOUSE SERVICE LINE
- (SW-301) CONSTRUCT INFILTRATION STORMWATER SWALE PER CITY DETAIL SW-301 WITH CONCRETE INLETS PER CITY DETAIL SW-235. SEE ALSO SWALE SECTION ON SHEET C2.
- (SW-340) CONSTRUCT CHECK DAM IN STORMWATER FACILITY WITH NUMBER AND SPACING PER CITY DETAIL SW-340 AND STORMWATER FACILITY TABLE

LATERAL TABLE

LAT ID	LAT SIZE	PROPERTY LINE CLEANOUT	
		STATION	OFFSET
LAT 2.2	4"	14+29.0	33.7' L
LAT 2.3	4"	14+04.0	33.7' L
LAT 2.4	4"	13+92.0	33.7' L
LAT 2.5	4"	13+63.0	33.7' L
LAT 2.6	4"	13+49.0	33.7' L
LAT 2.7	4"	13+13.0	33.7' L
LAT 2.8	4"	13+07.0	33.7' L
LAT 2.9	4"	12+81.0	33.7' L
LAT 2.10	4"	12+59.0	33.7' L
LAT 2.11	4"	12+29.0	33.7' L
LAT 2.12	4"	12+15.9	33.7' L
LAT 2.13	4"	11+96.9	33.7' L
LAT 2.14	4"	11+74.8	33.7' L
LAT 2.15	4"	11+48.0	33.7' L

STORMWATER FACILITY TABLE

FACILITY ID	TOP WIDTH AND LENGTH	DEPTH BELOW GUTTER	CONCRETE INLET LOCATIONS		CHECK DAM LOCATIONS
			STATION	OFFSET	STATION
IS-1A	10.0'x47.0'	6"	11+75.2	17' R	
			12+12.6	17' R	
IS-1B	10.0'x196.5'	6"	12+76.0	17' R	
			12+42.8	17' R	13+48.0
			13+52.6	17' R	13+86.2
			13+86.2	17' R	13+87.9
			14+28.0	17' R	14+28.4
			14+42.1	17' R	
IS-1C	10.0'X122.0'	6"	12+98.2	17' L	
			12+25.1	17' L	12+22.8
			12+48.9	17' L	12+46.6
			12+72.7	17' L	12+70.4
			12+96.6	17' L	12+94.2
			13+18.8	17' L	
IS-1F	10'X120.0'	6"	13+45.2	17' L	
			13+68.9	17' L	13+66.6
			13+91.2	17' L	13+88.9
			14+14.0	17' L	14+11.7
			14+36.6	17' L	14+34.2
			14+53.6	17' L	

SEE TYPICAL STORMWATER FACILITY SECTIONS ON SHEET C2

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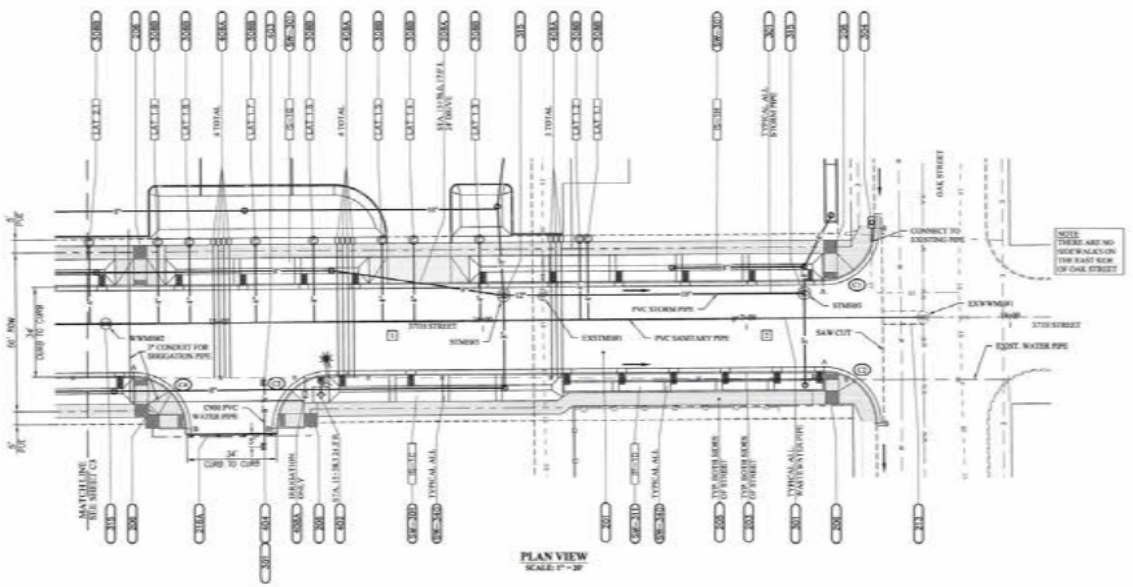
RENEWAL: 6/30/24

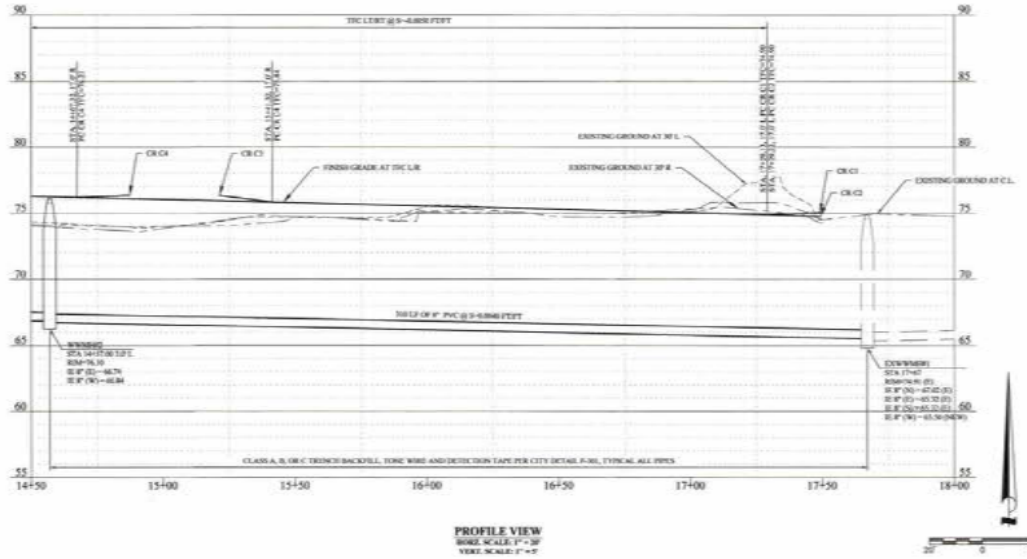
MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
37TH STREET PLAN AND PROFILE
STATION 10+75 TO 14+50
FLORENCE, OREGON

No	Description of Revisions	Date	Name

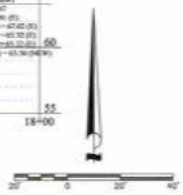
Date	08-01-2023
Job Number	7091-23-0167
Design by	C. BEEDROFT
Drawn by	C. BEEDROFT
Checked by	C. BEEDROFT

Sheet Number
C3





PROFILE VIEW
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 5'



CONSTRUCTION NOTES

205	CONSTRUCT STANDARD STREET SECTION WITH ASPHALT PAVEMENT, AGGREGATE BASE AND GEOTEXTILE FABRIC PER CITY DETAIL F-201
203	CONSTRUCT STANDARD CURB AND GUTTER PER CITY DETAIL F-203
205	CONSTRUCT SETBACK SIDEWALK PER CITY DETAIL F-205
206	CONSTRUCT TYPE 1 CURB RAMPS PER CITY DETAIL F-206 AND SIDEWALK ACCESS RAMP DETAILS
208A	CONSTRUCT DRIVEWAY APPROACH FOR SETBACK SIDEWALK WITH 7'-0" WINGS PER CITY DETAIL F-208A
213	CONNECT TO EXISTING MANHOLE, STREET CUT AND RESURFACING PER CITY DETAIL F-213
216A	INSTALL STREET BARRICADE PER CITY DETAIL F-216A
301	CONSTRUCT UTILITY TRENCH PER CITY DETAIL F-301 WITH PIPE AS NOTED
304	INSTALL TYPE 2-1/2A CURB INLET PER CITY DETAIL F-304
308B	INSTALL 4" SEWER SERVICE PER CITY DETAIL F-308 AND CLEANOUT PER CITY DETAIL F-316
315	INSTALL 48" MANHOLE PER CITY DETAILS F-312, F-313, F-315, F-316 AND F-321
402	INSTALL HYDRANT ASSEMBLY PER CITY DETAIL F-402
403	HOT TAP WITH VALVE AND VALVE BOX PER CITY DETAILS F-403 AND F-321
424	INSTALL MAIN DEAD-END/BLOWOFF ASSEMBLY PER CITY DETAIL F-404, EXCEPT CONSTRUCT STRADDLE BLOCK THRUST BLOCK TO ALLOW FOR FUTURE MAINLINE EXTENSION PER CITY DETAIL F-403
408A	INSTALL WATER SERVICE CONNECTION PER CITY DETAIL 5-408A, WITH 2-INCH DIAMETER PLASTIC SLEEVE BETWEEN METER BOX AND BACK OF PUE FOR FUTURE HOUSE SERVICE LINE
CW-30	CONSTRUCT INFILTRATION STORMWATER SWALE PER CITY DETAIL SW-301 WITH CONCRETE INLETS PER CITY DETAIL SW-331. SEE ALSO SWALE SECTION ON SHEET C2.
CW-31	CONSTRUCT INFILTRATION STORMWATER PLANTER PER CITY DETAIL SW-311 WITH CONCRETE INLETS PER CITY DETAIL SW-331. SEE ALSO PLANTER SECTION ON SHEET C2.
CW-34D	CONSTRUCT CHECK DAM IN STORMWATER FACILITY WITH NUMBER AND SPACING PER CITY DETAIL SW-346 AND STORMWATER FACILITY TABLE

TANGENT TABLE

TANGENT	START	END	DIST	BEARING
T1	10+00.00	16+24.06	624.06'	N89°32'43"E
T2	16+54.06	18+00.00	165.94'	N89°32'28"E

CURB CURVE TABLE ①

Δ = 90°01'00" R= 20.00' A= 31.41'

LC=N44°31'31"E, 28.28'

POINT	TC ELEV	DESCRIPTION
A	74.90	PC STA 17+28.13, 17.00' R
B	75.04	PT STA 17+48.13, 37.42' L

*SEE SIDEWALK ACCESS RAMP DETAIL ON SHEET C10 FOR CURB SLOPES BETWEEN POINTS A AND B.

CURB CURVE TABLE ②

Δ = 89°59'04" R= 20.00' A= 31.41'

LC=S45°28'09"E, 28.28'

POINT	TC ELEV	DESCRIPTION
A	74.90	PC STA 17+28.22, 17.00' R
B	74.76	PT STA 17+48.22, 37.00' R

*SEE SIDEWALK ACCESS RAMP DETAIL ON SHEET C10 FOR CURB SLOPES BETWEEN POINTS A AND B.

CURB CURVE TABLE ③

Δ = 90°01'24" R= 20.00' A= 31.42'

LC=N44°32'39"E, 28.28'

POINT	TC ELEV	DESCRIPTION
A	75.04	PC STA 17+41.32, 17.00' R
B	76.24	PT STA 17+21.32, 37.01' R

*SEE SIDEWALK ACCESS RAMP DETAIL ON SHEET C11 FOR CURB SLOPES BETWEEN POINTS A AND B.

CURB CURVE TABLE ④

Δ = 89°58'57" R= 20.00' A= 31.41'

LC=S45°28'01"E, 28.28'

POINT	TC ELEV	DESCRIPTION
A	76.23	PC STA 18+07.32, 17.00' R
B	76.37	PT STA 18+87.32, 36.99' R

*SEE SIDEWALK ACCESS RAMP DETAIL ON SHEET C11 FOR CURB SLOPES BETWEEN POINTS A AND B.

LATERAL TABLE

LAT ID	LAT SIZE	PROPERTY LINE CLEANOUT	
		STATION	OFFSET
LAT 1.1	4"	16+40.0	33.7' L
LAT 1.2	4"	16+57.0	33.7' L
LAT 1.3	4"	15+98.0	33.7' L
LAT 1.4	4"	15+76.0	33.7' L
LAT 1.5	4"	15+62.0	33.7' L
LAT 1.6	4"	15+36.0	33.7' L
LAT 1.7	4"	15+16.0	33.7' L
LAT 1.8	4"	14+89.0	33.7' L
LAT 1.9	4"	14+77.0	33.7' L
LAT 2.1	4"	14+51.0	33.7' L

STORMWATER FACILITY TABLE

FACILITY ID	TOP WIDTH AND LENGTH	DEPTH BELOW GUTTER	CONCRETE INLET LOCATIONS		CHECK DAM LOCATIONS
			STATION	OFFSET	STATION
IS-1C	15.0'x98.7'	6"	15+46.5	17' R	15+43.5
			15+72.5	17' R	15+85.7
					16+05.8
IS-1D	3.5'x98.2'	10"	16+31.7	17' R	
			16+42.5	17' R	16+50.1
			16+72.1	17' R	16+89.8
			16+91.8	17' R	16+89.6
			17+11.8	17' R	17+08.2
			17+27.5	17' R	
IS-1G	10.0'X77.2'	6"	16+85.0	17' L	
			15+89.2	17' L	15+98.9
			15+32.3	17' L	15+30.0
			15+51.8	17' L	
IS-1E	10.5'X134.1'	6"	16+88.7	17' L	
			16+26.6	17' L	16+24.4
			16+51.8	17' L	16+49.4
			16+77.0	17' L	16+74.7
			17+02.2	17' L	16+99.9
			17+24.6	17' L	

SEE TYPICAL STORMWATER FACILITY SECTIONS ON SHEET C2

EGR & Associates, Inc.
Engineers and Surveyors
2535 Oasis Road
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Fax (541) 688-8467

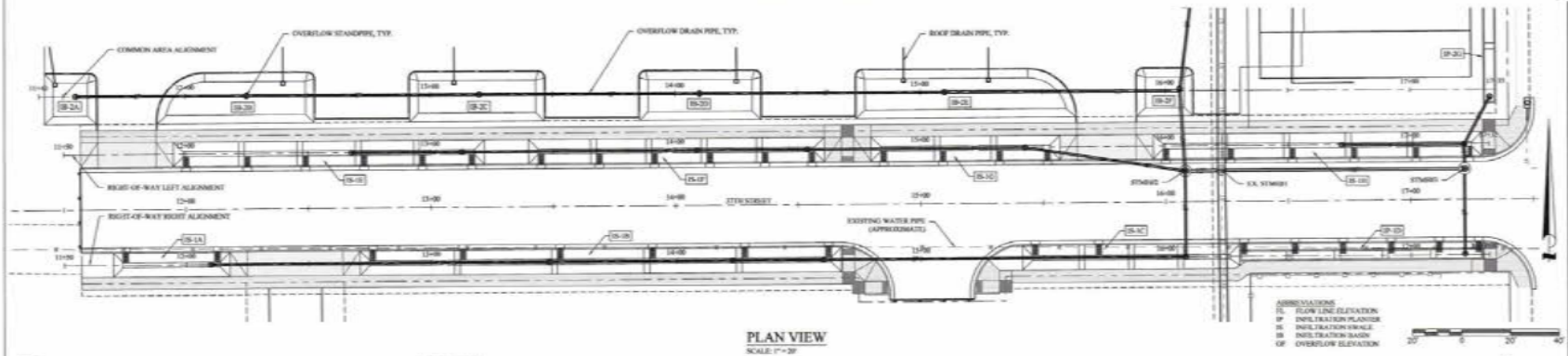
OREGON JULY 10, 1981 RYAN D. BRICKEY 2001 RENEWS: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
37TH STREET PLAN AND PROFILE
STATION 14+50 TO 18+00
FLORENCE, OREGON

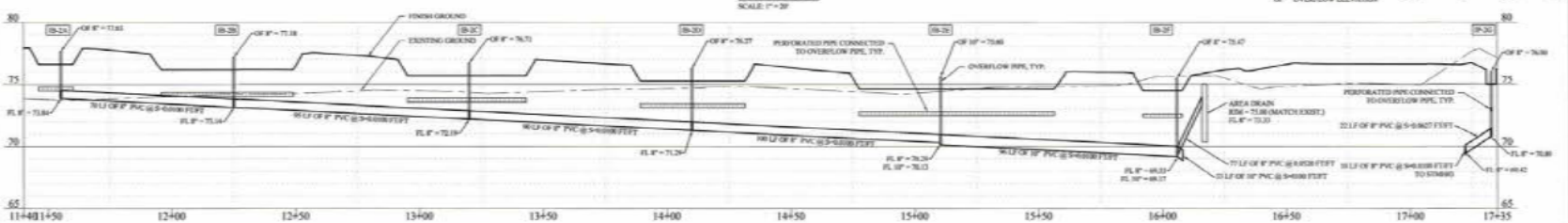
No	Description of Revisions	Date	Name

Date 08-01-2023
Job Number 7391-23-0167
Design by C. BEEGHLY
Drawn by C. BEEGHLY
Checked by C. BEEGHLY

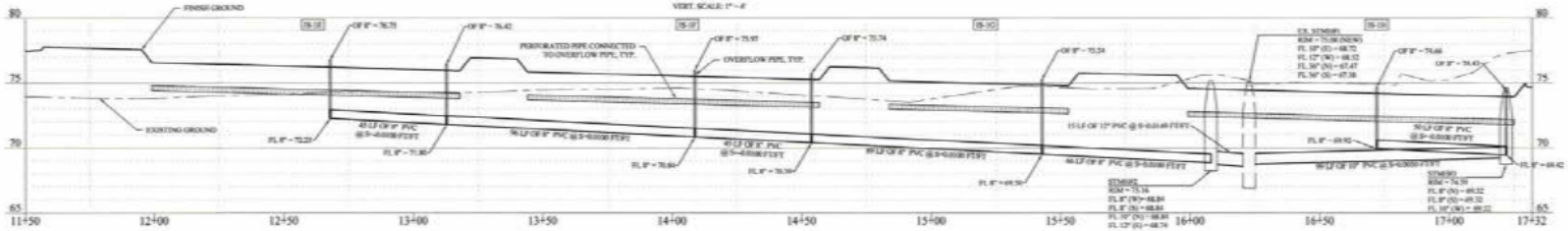
Sheet Number
C4



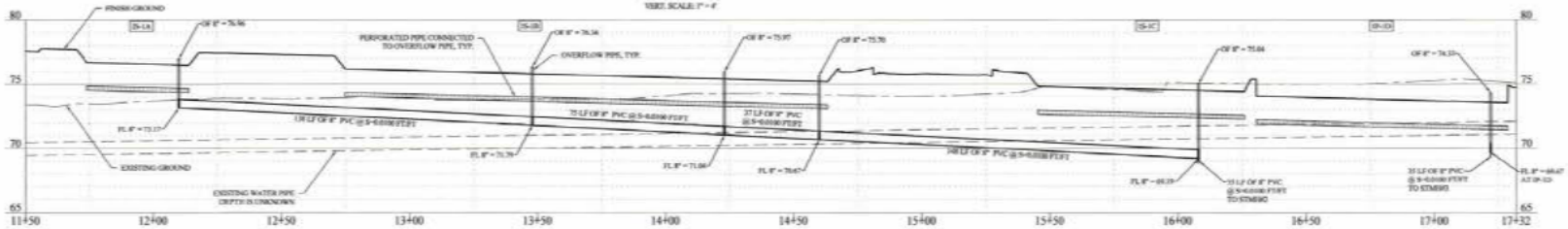
PLAN VIEW
SCALE: 1" = 20'



PROFILE VIEW COMMON AREA
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'



PROFILE VIEW RIGHT-OF-WAY LEFT
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'



PROFILE VIEW RIGHT-OF-WAY RIGHT
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'

EGR & Associates, Inc.
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2535 Prairie Road
Eugene, Oregon 97402
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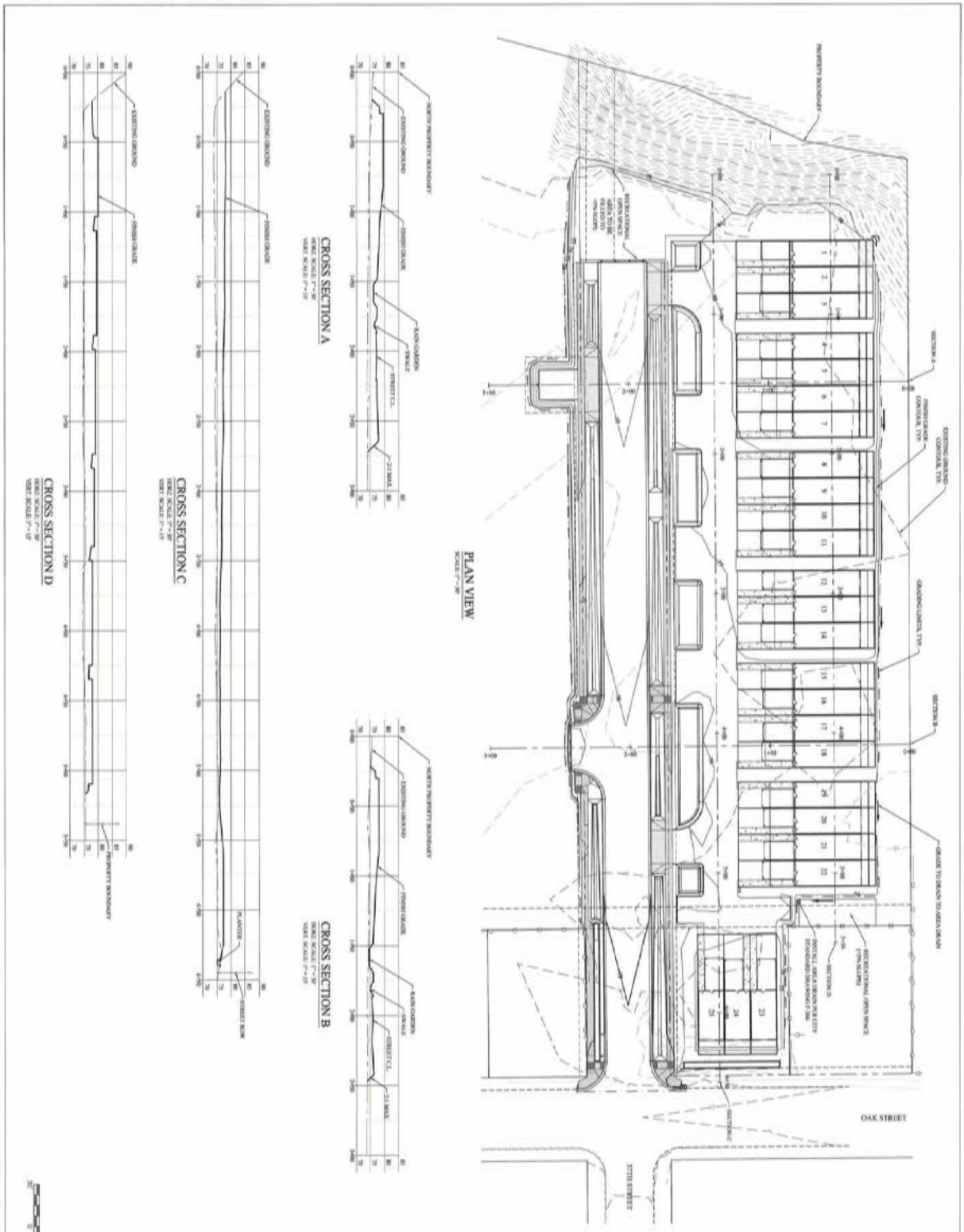
MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
STORMWATER PIPE PLAN
AND PROFILE VIEWS
FLORENCE, OREGON

No	Description of Revisions	Date	Name

Date	08-01-2023
Job Number	7031-23-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

Sheet Number
C5



C6

Sheet Number

Date	09-01-2023
Job Number	7991-22-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

No	Description of Revisions	Date	Name

MYRTLE GLENN PUD

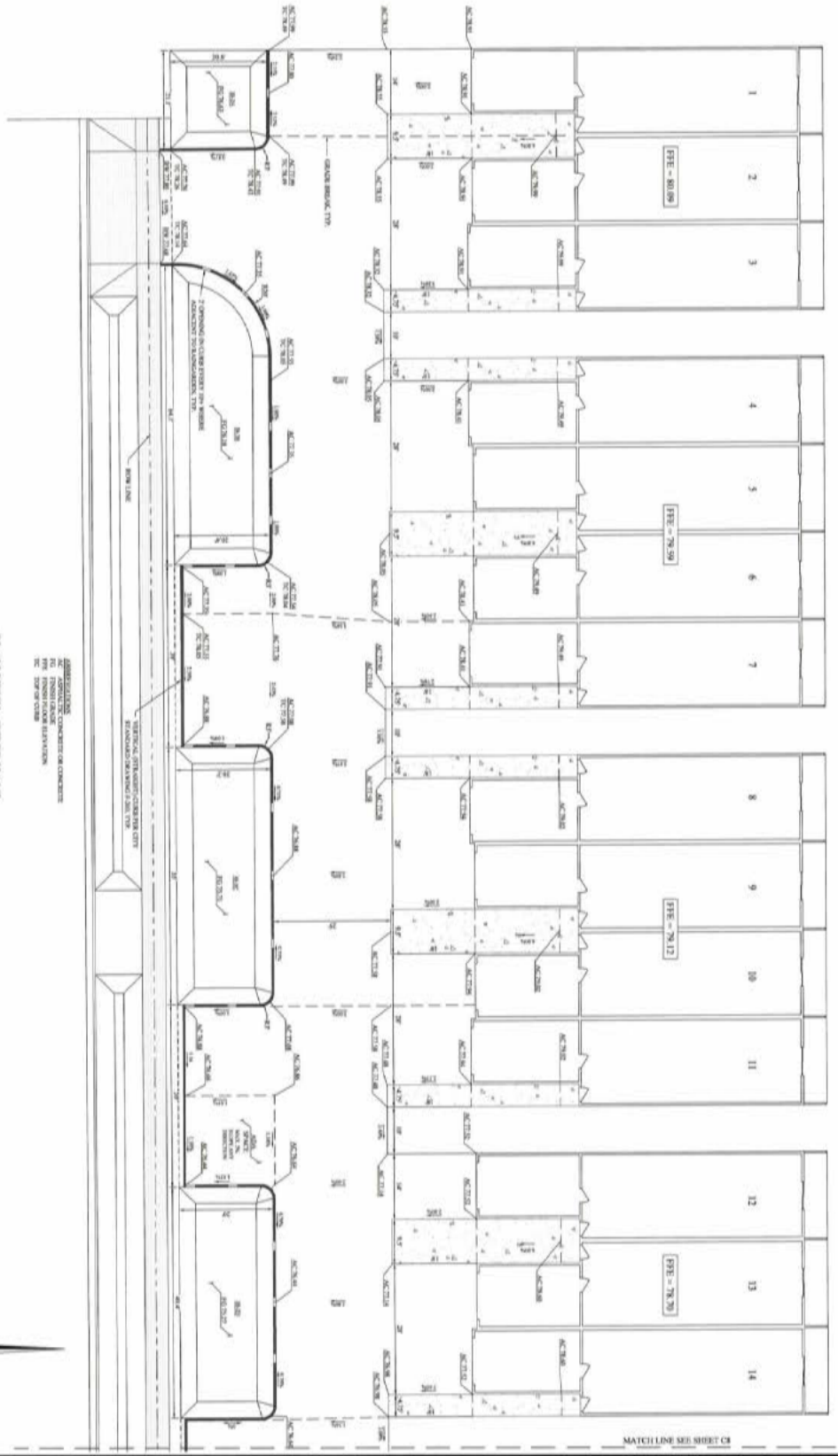
FINAL PUD IMPROVEMENT DRAWINGS

OVERALL SITE GRADING PLAN AND CROSS SECTIONS

FLORENCE, OREGON

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 30, 1991 — CHRISTOPHER L. BEECROFT — RENEWS: 01/01/24

EGR & Associates, Inc.
Engineers and Surveyors
25350 Prairie Road
Eugene, Oregon 97402
(541) 881-8322
Fax (541) 608-8087

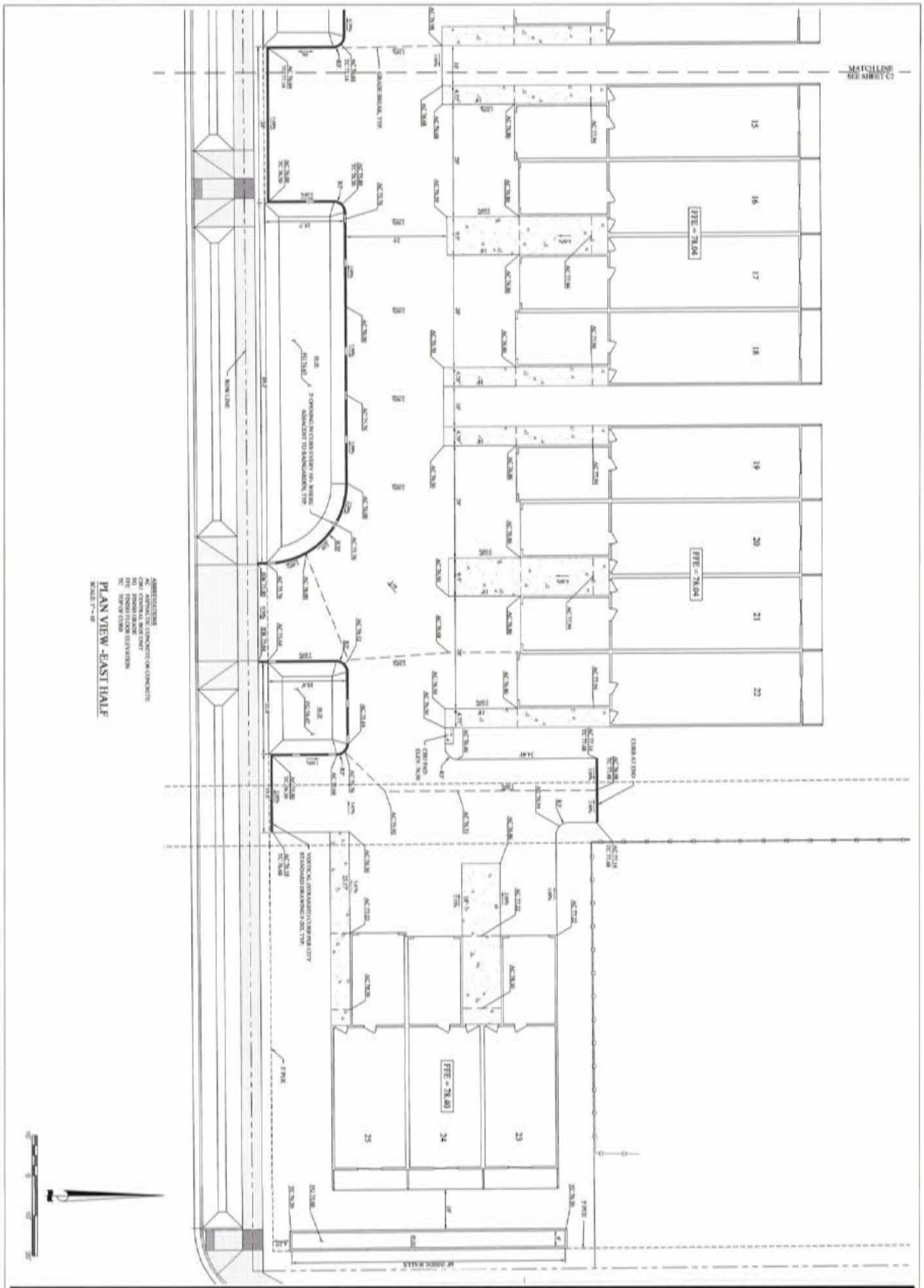


Sheet Number C7	Date 08-01-2023	No	Description of Revisions	Date	Name
	Job Number 7991-22-0187				
	Design by C. BEECROFT				
	Drawn by C. BEECROFT				
	Checked by G. BEECROFT				

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
PARKING LOT GRADING PLAN
WEST HALF
FLORENCE, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 24, 1981
CHRISTOPHER J. BEECROFT
RENEWS: 01/01/24

EGR & Associates, Inc.
Engineers and Surveyors
2535B Prairie Road
Eugene, Oregon 97402
(541) 688-8322
Fax (541) 688-8327



C8

Sheet Number

Date	08-01-2023
Job Number	7991-22-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

No	Description of Revisions	Date	Name

MYRTLE GLENN PUD

FINAL PUD IMPROVEMENT DRAWINGS

PARKING LOT GRADING PLAN

EAST HALF

FLORENCE, OREGON

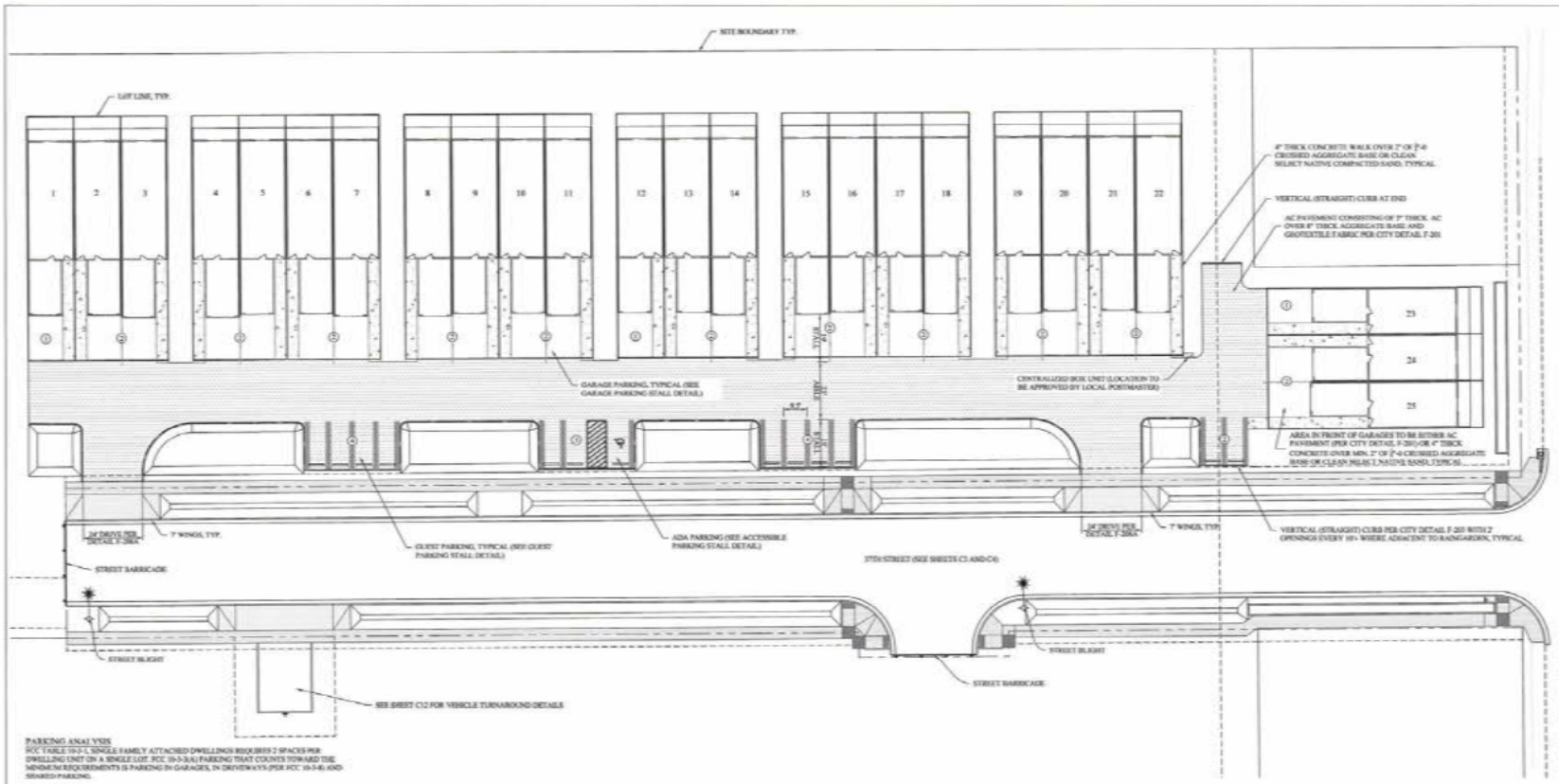
REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 26, 1985
CLINTON L. BEECROFT
RENEWS: 01/01/24

EGR & Associates, Inc.
Engineers and Surveyors

2535 Prairie Road
Eugene, Oregon 97402

(541) 688-8322
Fax (541) 688-8327

THIS IS NOT A FINAL DOCUMENT UNLESS THE DOCUMENT CONTAINS A VERIFIED DIGITAL SIGNATURE OR ORIGINAL SIGNATURE



PARKING ANALYSIS

PCC TABLE 10-3-1, SINGLE FAMILY ATTACHED DWELLINGS REQUIRES 2 SPACES PER DWELLING UNIT ON A SINGLE LOT. PCC 10-3-3(A) PARKING THAT COUNTS TOWARD THE MINIMUM REQUIREMENTS IS PARKING IN GARAGES, IN DRIVEWAYS (PER PCC 10-3-8) AND SHARED PARKING.

NUMBER OF ATTACHED DWELLINGS = 25
MINIMUM REQUIRED PARKING = 50 SPACES
NUMBER GARAGES = 25
NUMBER DRIVEWAYS = 25
NUMBER SHARED PARKING = 12
TOTAL NUMBER PARKING PROVIDED = 62

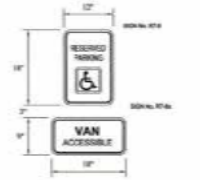
PLAN VIEW

SCALE: 1" = 20'

LEGEND

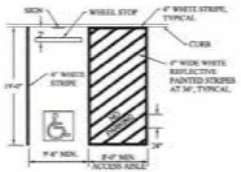
(#) NUMBER OF PARKING SPACES
4" WIDE WHITE REFLECTIVE PAINT STRIPE
24" WIDE WHITE REFLECTIVE PAINT STRIPE

NOTE:
SEE SHEET C5 FOR DRAINAGE DETAILS. SEE SHEETS C6, C7 AND C8 FOR GRADING DETAILS.

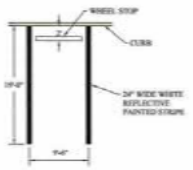


NOTES:
1. THE "VAN ACCESSIBLE" SIGN SHALL ONLY BE USED WITH SIGN R7-8 TO DESIGNATE THE PARKING SPACES THAT HAVE AN ACCESS AISLE OF 8 FEET OR WIDER.
2. INSTALL SIGN 5 FEET ABOVE GRADE TO BOTTOM OF SIGN.

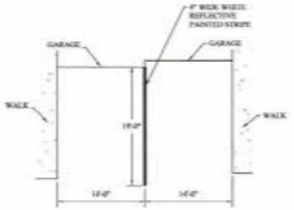
ACCESSIBLE PARKING SIGNS
N.T.S.



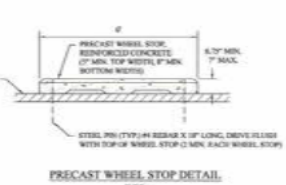
ACCESSIBLE PARKING STALL (VAN ACCESSIBLE)
N.T.S.



TYPICAL GUEST PARKING STALL
N.T.S.



TYPICAL GARAGE PARKING STALL
N.T.S.



PRECAST WHEEL STOP DETAIL
N.T.S.

EGR & Associates, Inc.
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2535 Pierce Road
Eugene, Oregon 97401
(541) 689-0303
Fax (541) 689-0307

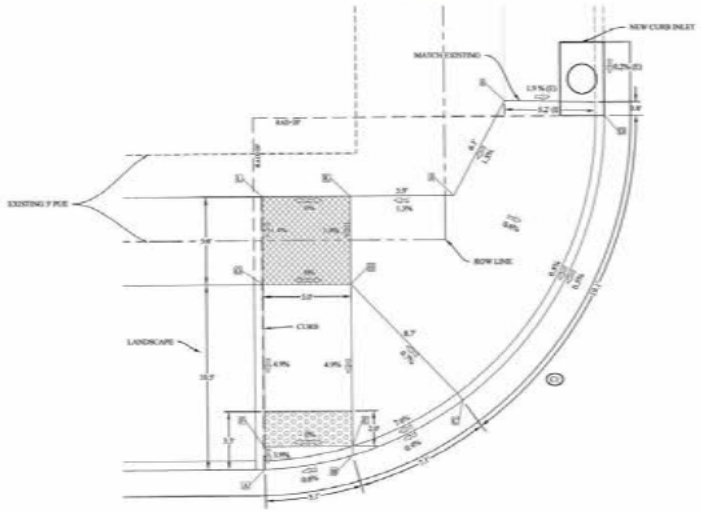
RENEWS: 01/01/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
ACCESS AND PARKING PLAN
FLORENCE, OREGON

No.	Description of Revisions	Date	Name

Date	09-01-2023
Job Number	1991-22-0187
Design by	G. BIEDROFF
Drawn by	G. BIEDROFF
Checked by	G. BIEDROFF

Sheet Number
C9



NW QUADRANT 37TH STREET AND OAK STREET

CR C1 DATA	
RADIUS=20'	
L=91.29'	
A	74.90 TFC 74.40 FL
B	74.42 FL
C	74.96 TFC 74.46 FL
D	75.04 TFC (E) 74.53 FL (E)
E	74.45 BMP
F	74.43 BMP
G	74.90 TFC 74.90 BMP
H	74.90 BMP
I	75.14 BW (E)
J	75.05 BW
K	74.97 BW
L	74.97 BW

ABBREVIATIONS THIS SHEET:

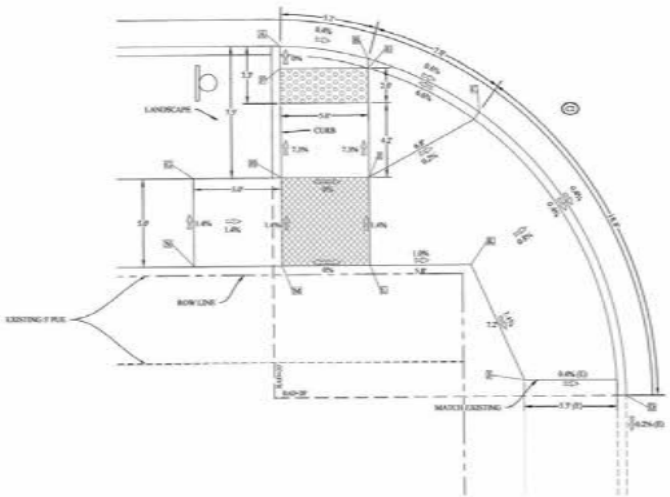
BW	BACK WALK
CR	CURB RETURN
FL	FLOW LINE
FW	FRONT WALK
RAD	RADIUS
RMP	RAMP
TFC	TOP FACE CURB

NOTE: SEE STANDARD DRAWING T-226 FOR GENERAL NOTES FOR ALL RAMPS

LEGEND THIS SHEET

RAMP LANDING

TRUNCATED DOME



SW QUADRANT 37TH STREET AND OAK STREET

CR C2 DATA	
RADIUS=20'	
L=91.29'	
A	74.90 TFC 74.40 FL
B	74.38 FL
C	74.84 TFC 74.34 FL
D	74.76 TFC (E) 74.26 FL (E)
E	74.40 BMP
F	74.40 BMP
G	74.92 FW
H	74.85 TFC 74.85 BMP
I	74.85 BMP
J	74.78 BW (E)
K	74.86 BW
L	74.92 BW
M	74.92 BW
N	74.99 BW

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REGISTERED PROFESSIONAL ENGINEER
OREGON
JANUARY 21, 2014
CHRISTOPHER D. BEECROFT
RENEWAL: 01/01/24

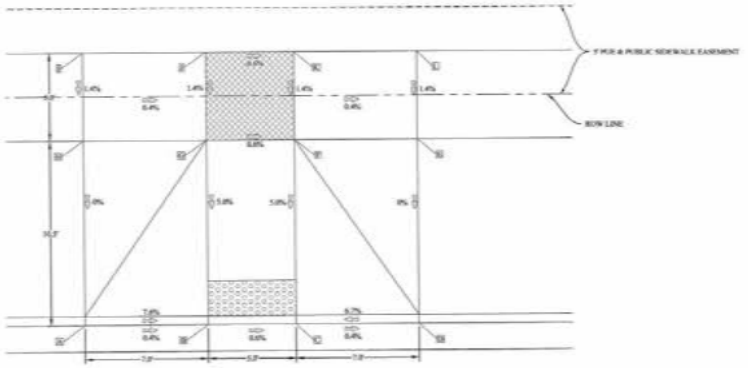
MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
SIDEWALK ACCESS RAMP DETAILS
37TH STREET AND OAK STREET
FLORENCE, OREGON

No	Description of Revisions	Date	Name

Date	09-01-2023
Job Number	7991-23-0187
Design by	C. BEECROFT
Drawn by	C. BEECROFT
Checked by	C. BEECROFT

Sheet Number
C10

CR C4 DATA	
RADIUS=20'	
L=31.29'	
A	76.34 TFC
	75.74 FL
B	75.71 FL
C	75.68 TFC
D	76.13 TFC
	75.63 FL
E	76.15 FW
F	76.18 RMP
G	76.21 RMP
H	76.24 FW
I	76.31 BW
J	76.28 BW
K	76.25 BW
L	76.22 BW



NW QUADRANT 37TH STREET AND EAST MYRTLE LOOP

ABBREVIATIONS THIS SHEET:

BW	BACK WALK
CR	CURB RETURN
FL	FLOW LINE
FW	FRONT WALK
RAD	RADIUS
RMP	RAMP
TFC	TOP FACE CURB

NOTE: SEE STANDARD DRAWING F-286 FOR GENERAL NOTES FOR ALL RAMPS

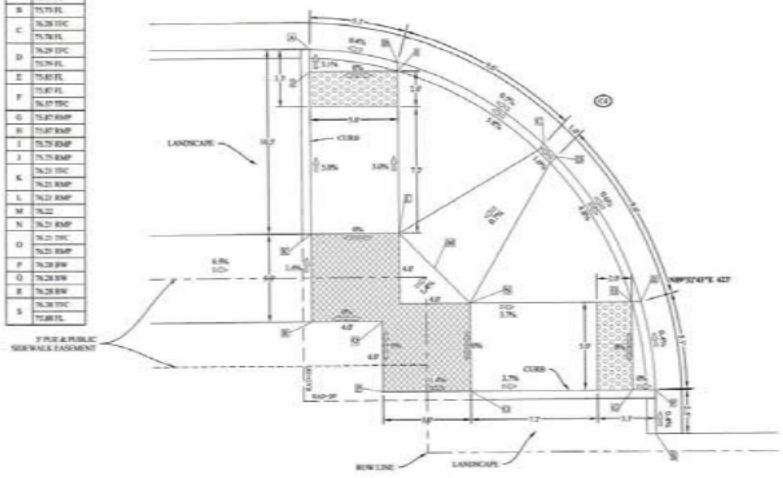
LEGEND THIS SHEET

RAMP LANDING

TRUNCATED DOME

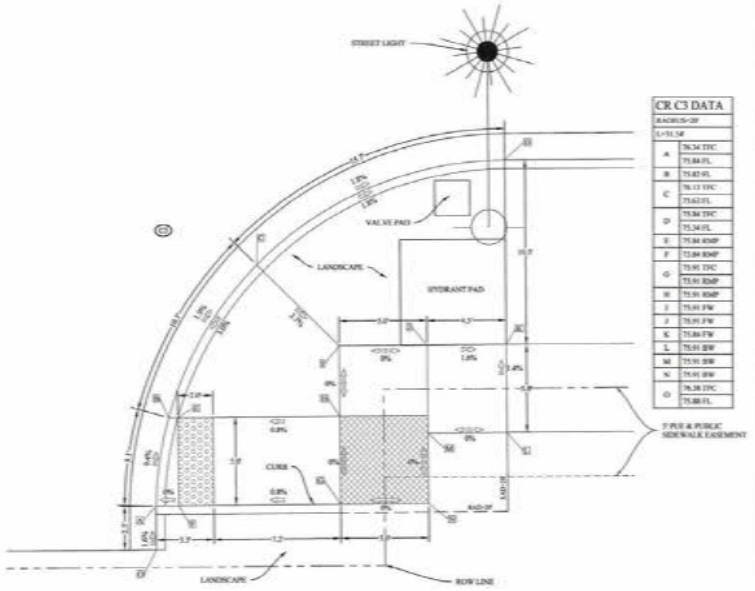
37TH STREET

CR C4 DATA	
RADIUS=20'	
L=31.29'	
A	76.21 TFC
	75.71 FL
B	75.75 FL
C	76.28 TFC
	75.78 FL
D	76.29 TFC
	75.79 FL
E	75.85 FL
F	75.87 FL
	76.37 TFC
G	75.87 RMP
H	75.87 RMP
I	75.75 RMP
J	75.75 RMP
K	76.21 TFC
	76.21 RMP
L	76.21 RMP
M	76.22
N	76.21 RMP
O	76.21 TFC
	76.21 RMP
P	76.28 BW
Q	76.28 BW
R	76.28 BW
S	76.38 TFC
	75.88 FL



SW QUADRANT 37TH STREET AND EAST MYRTLE LOOP

EAST MYRTLE LOOP (FUTURE)



CR C3 DATA	
RADIUS=20'	
L=31.54'	
A	76.34 TFC
	75.84 FL
B	75.82 FL
C	76.13 TFC
	75.63 FL
D	75.84 TFC
	75.34 FL
E	75.84 RMP
F	75.84 RMP
G	75.91 TFC
	75.91 RMP
H	75.91 RMP
I	75.91 FW
J	76.91 FW
K	75.84 FW
L	75.91 BW
M	75.91 BW
N	75.91 BW
O	76.38 TFC
	75.88 FL

SE QUADRANT 37TH STREET AND EAST MYRTLE LOOP

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Eugene, Oregon 97402
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Fax (541) 686-8267

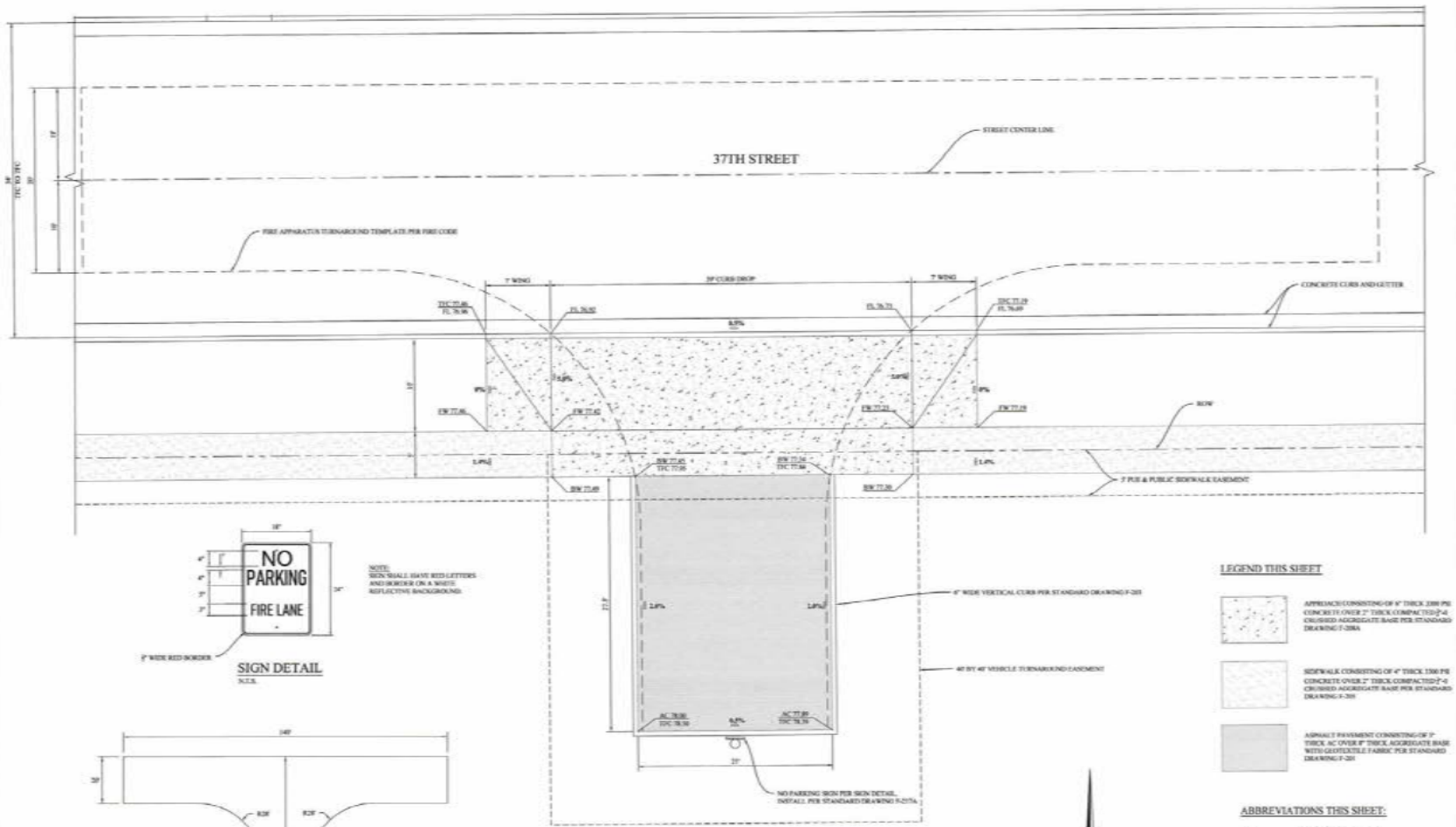
OREGON JULY 10, 1979 CHRISTOPHER D. BERGROFT 61307 RENEWAL 6/30/24

MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
SIDEWALK ACCESS RAMP DETAILS
37TH STREET AND EAST MYRTLE LOOP
FLORENCE, OREGON

No.	Description of Revisions	Date	Name

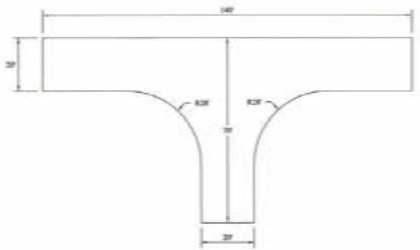
Date 09-01-2023
Job Number 7391-20-0187
Design by C. BERGROFT
Drawn by C. BERGROFT
Checked by C. BERGROFT

Sheet Number
C11



NOTE:
SIGN SHALL HAVE RED LETTERS AND BORDER ON A WHITE, REFLECTIVE BACKGROUND.

SIGN DETAIL
N.T.S.



FIRE APPARATUS TURNAROUND TEMPLATE
N.T.S.

VEHICLE TURNAROUND PLAN
SCALE: 1" = 5'

LEGEND THIS SHEET

- APPROACH CONSISTING OF 6" THICK 3300 PSI CONCRETE OVER 2" THICK COMPACTED 3/4" CRUSHED AGGREGATE BASE PER STANDARD DRAWING F-208A
- SIDEWALK CONSISTING OF 4" THICK 3300 PSI CONCRETE OVER 2" THICK COMPACTED 3/4" CRUSHED AGGREGATE BASE PER STANDARD DRAWING F-209
- ASPHALT PAVEMENT CONSISTING OF 3" THICK AC OVER 8" THICK AGGREGATE BASE WITH GEOTEXTILE FABRIC PER STANDARD DRAWING F-201

ABBREVIATIONS THIS SHEET:

AC	ASPHALT CONCRETE
BW	BACK WALK
FL	FLOW LINE
FW	FRONT WALK
R	RADIUS
ROW	RIGHT-OF-WAY
TFC	TOP FACE CURB

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MYRTLE GLENN PUD
FINAL PUD IMPROVEMENT DRAWINGS
VEHICLE TURNAROUND PLAN
AND DETAILS
FLORENCE, OREGON

No	Description of Revisions	Date	Name

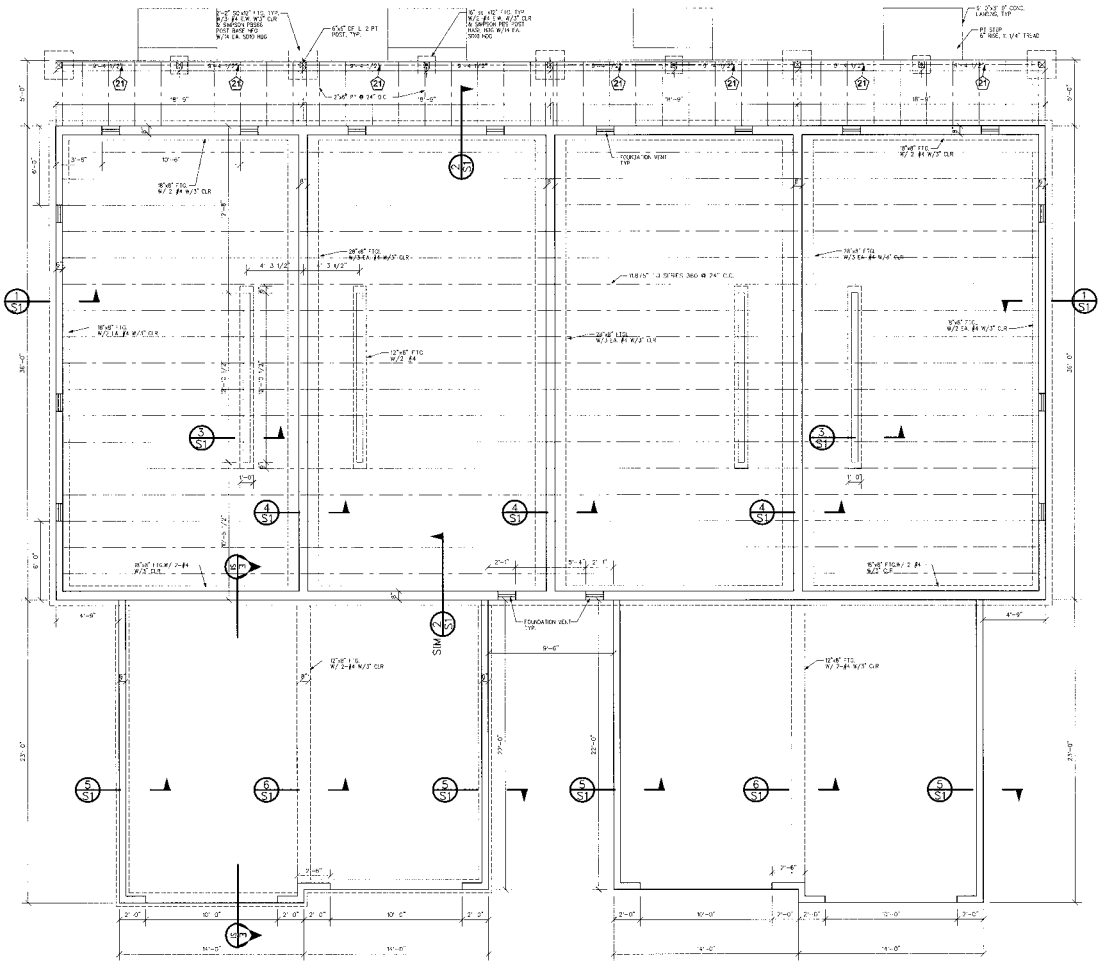
Date 10-01-2023
Job Number 7391-23-0107
Design by C. BIERCROFT
Drawn by C. BIERCROFT
Checked by C. BIERCROFT

Sheet Number
C12

ATTACHMENT 2

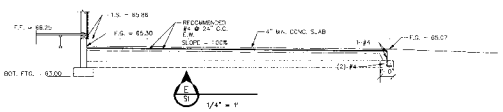
Architectural Plans

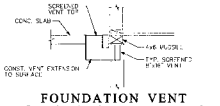
Myrtle Glenn Subdivision
Final PUD Application to City of Florence
August 29, 2023



FOUNDATION &
FIRST FLOOR FRAME PLAN ⚠

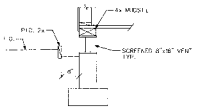
1/4" = 1'





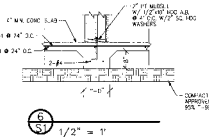
FOUNDATION VENT
@ CONC. SLAB ENTRIES

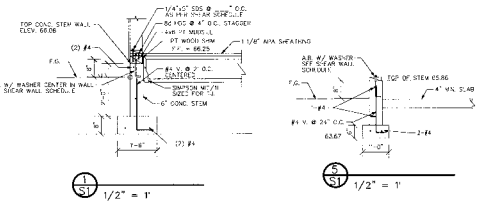
1/2" = 1'

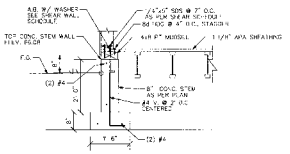


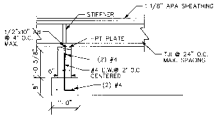
TYP. FOUNDATION VENTS
@ 4x MUDSILL

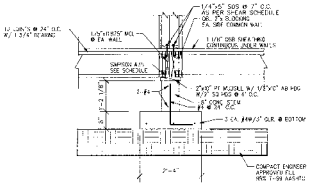
1/2" = 1'











DESIGN NOTES

1) SNOW LOAD 25 PSF
2) FLOOR LIVE LOAD 40 PSF
Floor Coverings carpet, vinyl, 1/4" tile in bathrooms
3) ALLOWABLE SOIL BEARING 1,000 PSF @ 1' DEPTH
4) SEISMIC CATEGORY D2
5) WIND VELOCITY 120 MPH
Exposure B
15 PSF Walls
8 PSF Roof on slopes

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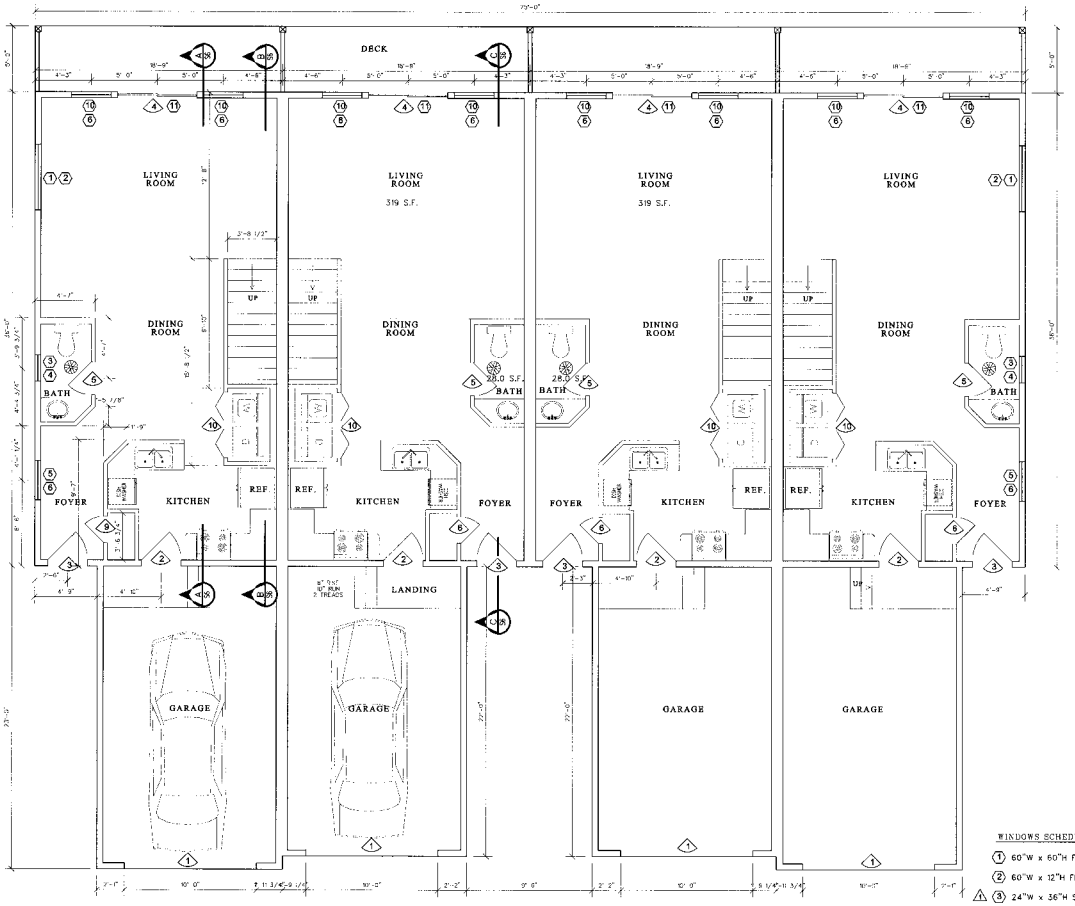
MYRTLE GLEN PUD
TOWNHOUSE FLOOR PLANS
TAX MAP: 10-12-22-11 T.L. 01800, 01100, & 0100
FOR
WILLIAM JOHNSON CONSTRUCTION, INC.
FLORENCE, OREGON

SHEET CONTENT
FOUNDATION PLAN

DRAWN M.N.M.	W.O. No. 1482
DATE 6/3/2023	SCALE SHOWN

REVISIONS
⚠ 7/07/23 M.N.M.

SHEET
S1 OF 10



1ST FLOOR PLAN

1/4" = 1'

CONSTRUCTION NOTES

1) Install smoke detectors and carbon monoxide detectors in the numbers and location as required by the Building Department for this permit.

2) When installing epoxy set all thread rods for tie down bolts or anchor bolts, drill hole with one size bit over rod. Embed as per plan. Clean out hole before placing epoxy. Use Simpson ET High Strength Epoxy as per manufacturer's direction.

3) Windows, doors, and shear wall size and location cannot be changed without approval of Design Engineer. If changes to be made, contact Engineer so that shear loading resistance can be maintained.

4) Verify clear opening of escape windows for all bedrooms. Minimum opening clear height to be at least 22 inches, and minimum clear width to be at window required for each bedroom. Maximum sill height to be 44" above floor for exiting. Minimum sill height to be 24".

⚠ DOOR SCHEDULE		CLEAR OPEN AREA S.F.
1	10'-0"W x 8'-0"H O.H.D.	
2	3'-0"x6'-8" SOLID CORE, METAL CLAD, 20 MIN. FIRE RATING	
⚠ 3	3'-0"x6'-8" FIBERGLASS DOOR	3.83 S.F.
⚠ 4	6'-0"x6'-8" SLIDING GLASS DOOR, W/SCREEN	16.14 S.F.
5	2'-6"x6'-8" HOLLOW WOOD	
6	2'-0"x6'-8" HOLLOW WOOD	
7	5'-0"x6'-8" SLIDING DOOR	
8	5'-10 1/2"x6'-8" SLIDING DOOR	
9	2'-0"x6'-8" POCKET	
10	5'-0"x6'-8" BIFOLD	

⚠ WINDOWS SCHEDULE		CLEAR OPEN AREA S.F.
1	60"W x 60"H FIXED PICTURE	
2	60"W x 12"H FIXED PICTURE, ALL GRID	
⚠ 3	24"W x 36"H SINGLE HUNG, RAIN GLASS	1.5 ?
4	24"W x 12"H FIXED PICTURE, ALL GRID	
5	36"W x 48"H FIXED PICTURE	
6	36"W x 12"H FIXED PICTURE, ALL GRID	
7	60"W x 42"H FIXED PICTURE	
8	24"W x 30"H SINGLE HUNG	1.62 sf
9	36"W x 42"H SINGLE HUNG	3.92 sf
⚠ 10	36"W x 54"H SINGLE HUNG, TEMPERED	5.3 sf
11	72"W x 12"H FIXED PICTURE, ALL GRID	
⚠ 12	36"W x 48"H SINGLE HUNG, TEMPERED	4.81 sf
13	48"W x 42"H HORIZONTAL SLIDER	5.79 sf
14	48"W x 12"H FIXED PICTURE, ALL GRID	
15	24"W x 20"H FIXED PICTURE	
16	18"W x 30"H FIXED PICTURE WITH 1/2 CIRCLE, ALL GRID	

ALL WINDOWS TO HAVE GRIDS ON THE TOP SECTION ONLY UNLESS OTHERWISE NOTED.

⚠ ALL WINDOWS WITHIN 18" VERTICALLY OF FLOOR OR WITHIN 24" LATERALLY OF ANY DOOR TO HAVE TEMPERED GLAZING. WINDOWS OR DOORS ADJACENT TO ANY BATHTUB OR SHOWER SHALL HAVE SAFETY GLAZING.

SPECIFICATIONS

1. Concrete
   - Exposed: min. compressive strength @ 28 days 3,000 psi
   - Protected: min. compressive strength @ 28 days 2,000 psi
   - Min. cement factor 5 sack
   - Type I/II, or IA
   - Max. aggregate size 1 1/2 in.
   - Water-cement ratio 0.48 max.
   - Entrained air (exposed slabs, walls) 3% min, 4% max
   - Water (low alkalinity only) Minimum potable
   - Slump 4" to +/- 1 1/2"

2. Reinforcing Steel:
   - ASTM A 615 Grade 60 deformed, Fy = 60,000 psi
   - Tie wire 9 ga. or heavier soft annealed
   - Bar Supports ACI 315
   - Placement Tolerances ACI 315
     a) 1/2" in c.m.u.
     b) 1/4" vertin concrete
   - Splicing in concrete 36 bar dia., but 18" min.
   - Splicing in c.m.u. 40 bar dia., but 24" min.

3. Anchor Bolts, Machine Bolts
   - A5"M A-307
   - Type Anchor Rent bar
   - Washers 3"x3"x3/16" or as per plan
   - Size As specified in plan
   - Threads in shear or bearing plane Not allowed

4. Lumber
   - Ledgers, plates Press. Tld. DF-L No. 2 & B.
   - Decking Select PTD, DF-L, cedar, or Pre-deck
   - Joists, exposesee DF-L Nos. 2 & 3
   - Joists, exposed Hi or DF-L No. 2 & B
   - Beams DF-L, No. 1, or as per plan
   - Posts Pine, HF or DF-L No. 1 or as per plan

   Pressure treatmen: ACQ 0.40 PCF Retention

5. Subsiding (@ shear walls and under lap siding)
   - CDX Struct. I Plywood 15/32" (1/2")
     19/32" (5/8)
     23/32" (3/4")
   - APA OSB, exposure 1 7/16" or 1/2" as per plan

   Nailing:
   - Panel Edges see shear wall notes or schedule; 6" o.c. max. spacing otherwise
   - Intermediates 12" o.c. for studs @ 16" o.c. 9" o.c. for studs @ 24" o.c.
   - Nail see shear wall schedule; 10d galv. box for 5/8" or thicker, otherwise 8d hot dip galv. box
   - Blocking: At all pane edges and fireblocking as required at floors, and 10' max. vertically
   - Sheet direction: Apply sheets long direction horizontally or vertically with blocking @ panel edges.

6. Plywood Roof Sheathing
   - Type CDX
   - Grade Structural I, II, exterior glue
   - Thickness 5/8"

   Nailing:
   - Panel Edges 6" o.c. max. spacing @ Panel edges; 6" o.c. max. at shear and perimeter walls.
   - Intermediates 12" o.c.
   - Shear Walls, Diaphragm edges 4" o.c.
   - Nail 10d galv. box
   - Shear Rated Trusses 10d galv. box, 4" o.c. @ intermediates and 6" o.c. @ panel edges @ truss top chord.

7. Plywood Floor Sheathing
   - Type APA DF-L, Plywood, T&G
   - Grade Structural I, II, exterior glue
   - Thickness "/8"

   Nailing:
   - Panel Edges 6" o.c. max. spacing @ Panel edges; 4" o.c. max. at shear and perimeter walls.
   - Intermediates 9" o.c.
   - Shear Walls, Diaphragm edges 4" o.c.
   - Nail see shear wall schedule; 10d galv. nail dip box or ring shank
   - Blocking: Blocking required at edges for main floor only. Otherwise, blocking required at all panel bearing and shear walls.

8. Lumber Hangers and Holdowns
   - Light ga. metal hangers Simpson or approved equal
   - Nails hot dipped galvanized, box or Common, length, as per Simpson
   - Corrosion Resistance hot dipped galvanized or /-max where not dipped not evailable

9. Doors
   Hollow wood or metal exterior doors rated for 35 psf. minimum pressure, insulated.

10. Windows
    Windows to be Vilgard or equa, double glazed, vinyl. Rated for 30 psf min. pressure, Low "e", krypton filled, Uw 0.28 or lower.

11. Moisture Barriers
    - Exterior walls Tyvek or equal Drainage Wrap over 30# felt installed on walls de/face of subsiding.
    - Ground under slabs Polyethylene 6 mil.
    - Exterior sheetrock walls & ceilings 0.5 perm sealer, extra side.
    - Backing Veneer Moisture Dam, Merree or equa.

12. Roofing
    - Three tab composition or no tab, fiberglass reinforced 40 year min. guaranteed, 70 mph wind rated
    - Brand: Legacy or Acadian by Malarky, or Mystic 10UL by Building Products
    - Base sheet: 30# felt
    - Flashing: powder coated white enamel over Galvanized metal at edges, or stainless steel.

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REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 22, 2005
MICHAEL P. MCALLISTER
EXP. 12/31/2024

MYRTLE GLEN PUD
TOWNHOUSE FLOOR PLANS

TAX MAP: 18-12-22-11 T.L. 01200, 01100, & 0100

FOR

WILLIAM JOHNSON CONSTRUCTION, INC.

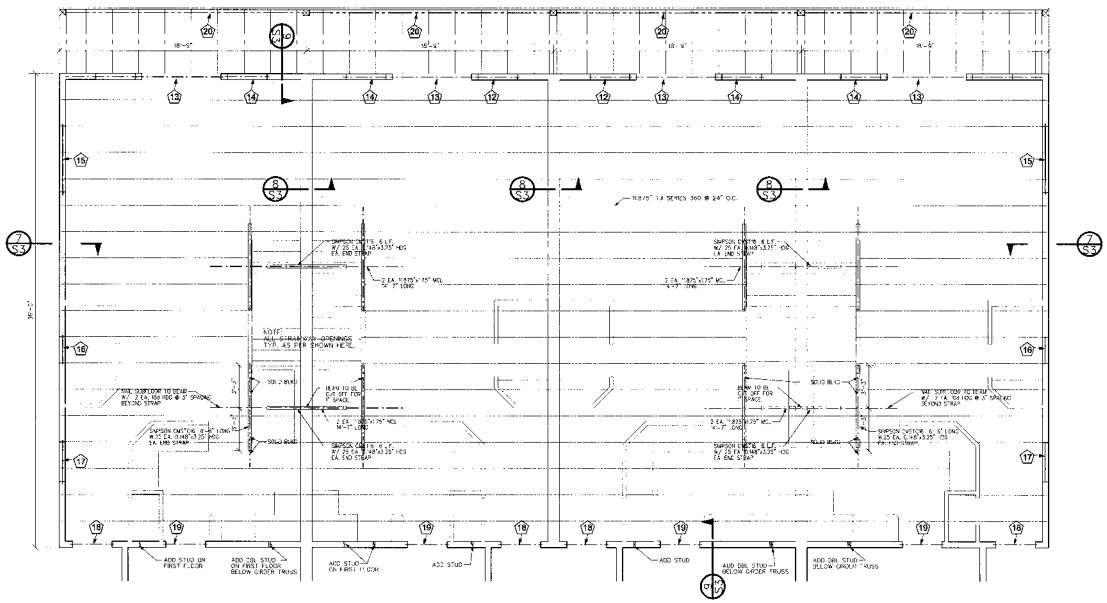
FLORENCE, OREGON

SHEET CONTENT: FIRST FLOOR PLAN

DRAWN	W.O. No.
M.M.M.	1482
DATE	SCALE
6/3/2023	SHOWN

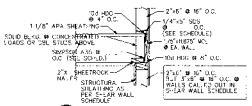
REVISIONS
⚠ 7/7/23 M.M.M.

SHEET
S2 OF 10

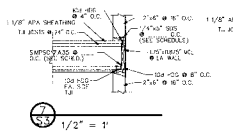


2ND FLOOR FRAME PLAN

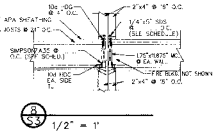
1/4" = 1'



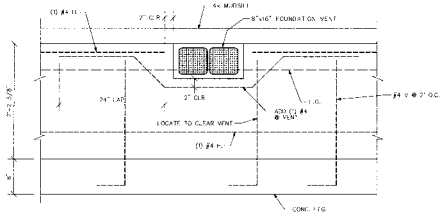
9 S3 1/2" = 1'



7 S3 1/2" = 1'



8 S3 1/2" = 1'



TYP. FOUNDATION VENT IN CONC. REINFORCEMENT

1" = 1'

SPECIFICATION, CONTIN.

13. Finish Siding
    Type: "Hardiplank" brand, over Drainage Wrap, installed as per manufacturer's specifications. Use approved metal flashing at all horizontal joints; do not caulk at these joints.
    Fastenings: Appropriate length stainless steel nails, as per manufacturer's specifications.

4. Manufactured Beams
    Manufactured by Truss Joist MacMillan
    Parallam 2.0E
    Fb = 2,900 psi
    Fv = 290 psi
    E = 2,000,000 psi
    Microlam 1.8E
    Fb = 2,600 psi
    Fv = 285 psi
    E = 1,800,000 psi

5. Glulam Beams
    AITC specification
    Douglas Fir Species 24f-V8
    Fb = 2,400 psi

6. Insulation (With Envelope Enhancement Measure 2 +)
    • Walls = 5" – R-23 Fiberglass
    Ceiling (flat) – R-49 Fiberglass blow in (attic)
    Vaulted Ceilings = R-38 Fiberglass at insulation
    • Floor @ crawl space R-38 Fiberglass
    Floors @ overhangs R-38 Fiberglass
    Exterior Doors R-5 (U= .20)
    • Windows – U = 0.28
    HVAC ducting – R-8, joints sealed.
    Hot water Piping – Insulate with standard foam as manufactured
    Lighting – See 8 below.

7. Heating System (Conservation Measure C or D, Select either choice)
    1) High Efficiency Air Source Heat Pump, HSPF 8.0.
    2) Ductless Heat Pump, HSPF 8.0.

⚠1 8. Ventilation System
    1) Natural Ventilation by openable windows. Windows to have minimum opening area as per window schedule, which will provide ventilation of at 4% of net floor area.
    2) Balanced ventilation with outside air to be provided by an HRV exhaust fan with ducting to move a minimum of 45 cfm continous exhaust. Fan intake to be located on second floor in a place that will be unobstructed. Controls for manual override to be provided.

9. Lighting
    All structure lighting is required to be with fixtures of: LED, CFL or linear fluorescent, min. Lumen per watt rated 70 or Higher.

20. Hot Water System
    On demand electric.

21. Epoxy Set Anchor Bolts, Rebar
    Epoxy: Simpson E.G., 40-100 degrees F. ambient. Manufacturer's specifications
    Rebar: As per rebar spec.

22. Exterior Painting System
    Brand: Sherwin Williams, Benjamin Moore, or Freddie.
    Prime: Prime on clean and dry surfaces, prepared as per paint specs.
    Finish Coats: Two minimum coats.
    Alternate: Prime coat may be in finish coat if approved by Engineer.

23. Manufactured Joists
    Brand: TJI or approved equal
    Series: As noted on plans.

REGISTERED PROFESSIONAL ENGINEER
OREGON
JANUARY 11, 2005
Richard N. McAllister
RENEWS: 12/31/2024

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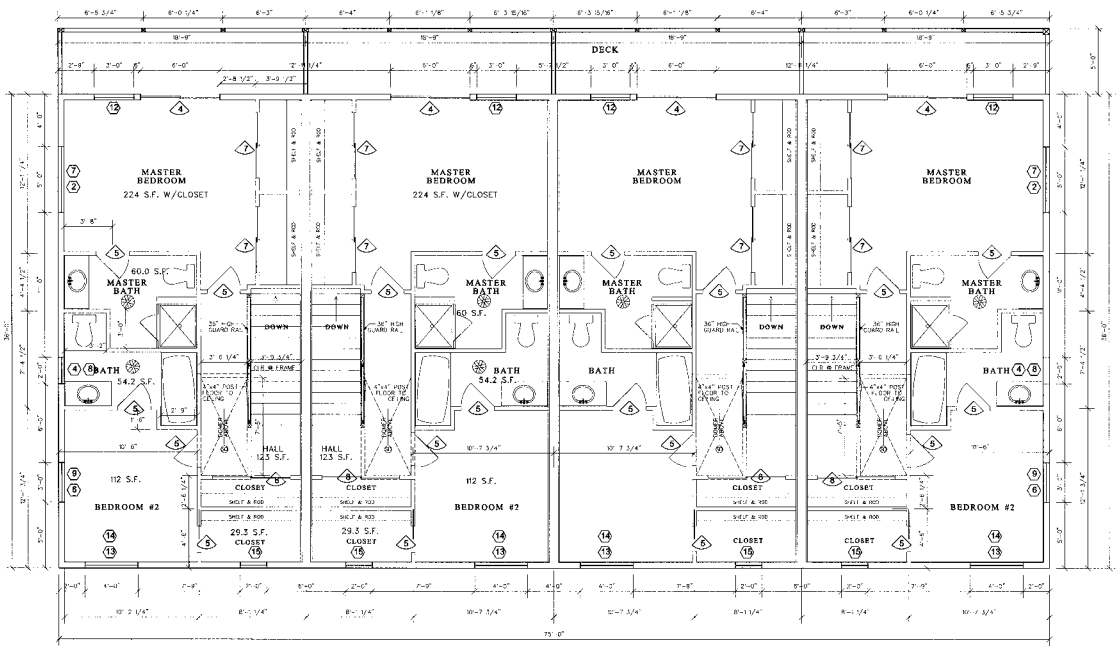
MYRTLE GLEN PUD
TOWNHOUSE FLOOR PLANS
TAX MAP: 18-12-22-11 T.L. 01200, 00100, & 00100
FOR
WILLIAM JOHNSON CONSTRUCTION, INC.
FLORENCE, OREGON

SHEET CONTENT: SECOND FLOOR FRAME PLAN

DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2023	SHOWN

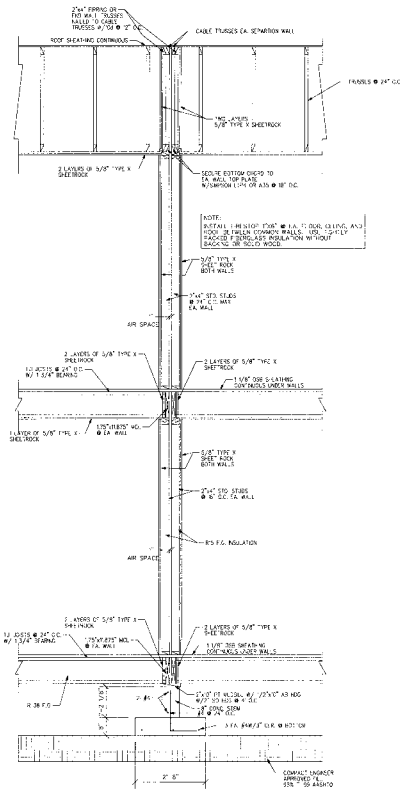
REVISIONS
⚠1 7/7/23 M.N.M.

SHEET
S3 OF 10



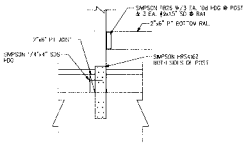
2ND FLOOR PLAN

1/4" = 1'



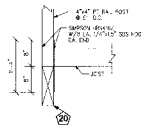
2 HOUR MODIFIED FIRE WALL TYP. AT ALL COMMON WALLS

1/2" = 1'



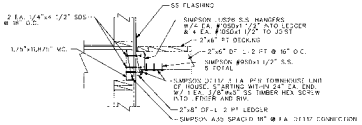
ELEVATION VIEW

3/4" = 1'



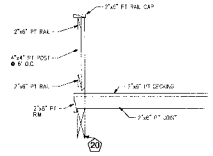
SECTION

3/4" = 1'



DETAIL C

3/4" = 1'



DETAIL B

1/2" = 1'

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 27, 1979
MICHAEL N. MIDDLETON
EXP. 12/31/2024

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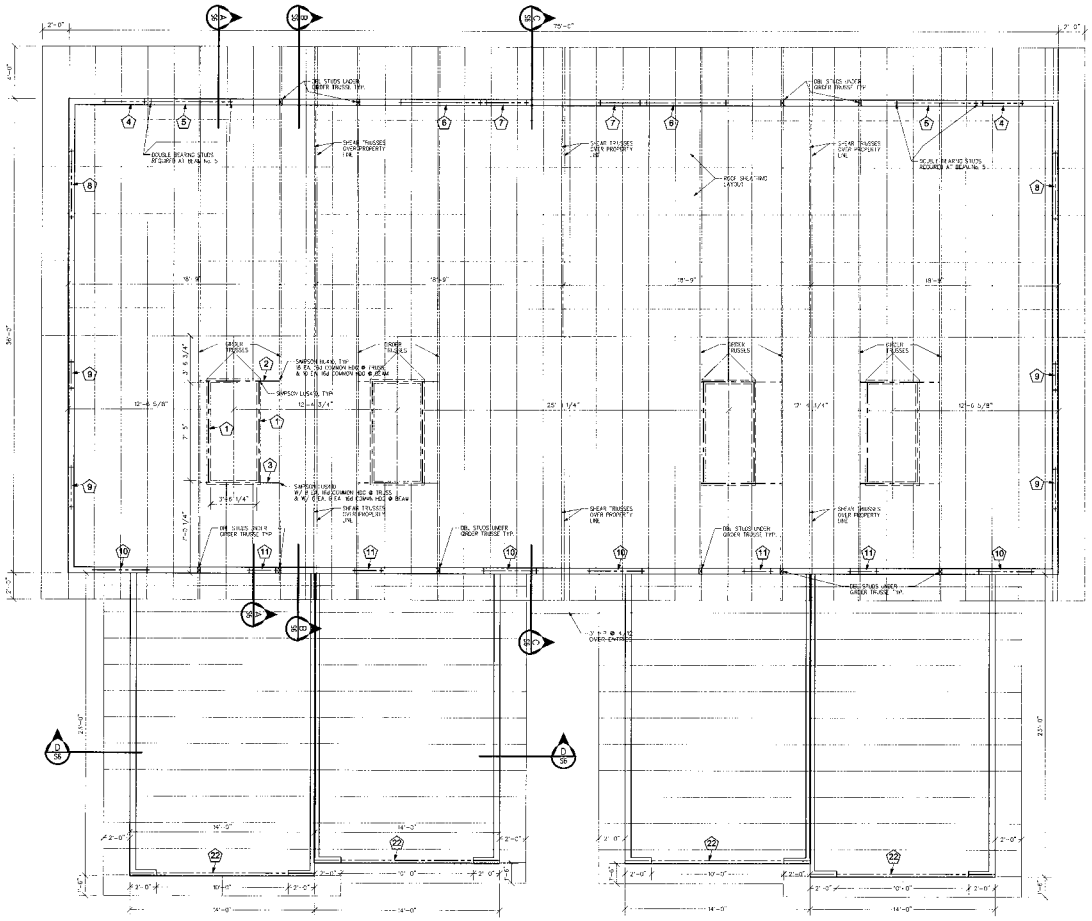
MYRTLE GLEN PUD
TOWNHOUSE FLOOR PLANS
TAX MAP: 18-12-22-11 T.L. 01200, 01100, & 0100
FOR:
WILLIAM JOHNSON CONSTRUCTION, INC.
FLORENCE, OREGON

SHEET CONTENT
SECOND FLOOR PLAN

DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2023	SHOWN

REVISIONS
1 6/21/23 M.N.M.

SHEET
S4 OF 10



ROOF PLAN

1/4" = 1'

BEAM SCHEDULE		
LOCATION	BEAM SIZE / TYPE	BEARING STUDS @ SUPPORTS
1	4"x8" DF L 2	SINGLE 2"x6" STUD
2	4"x10" DF L 2	SINGLE 2"x6" STUD
3	4"x10" DF-L-2	SINGLE 2"x6" STUD
4	6"x8" DF-L-2	SINGLE 2"x6" STUD
5	6"x10" DF-L-2	SINGLE 2"x6" STUD
6	6"x10" DF-L-2 OR 5 1/2"x9" DF 24F-V8 GLB	DOUBLE 2"x6" STUDS (SEE SHEAR WALLS A-1 AND A-5)
7	6"x8" DF-L-2	SINGLE 2"x6" STUD
8	6"x8" DF-L-2	SINGLE 2"x6" STUD
9	6"x8" DF-L-2	SINGLE 2"x6" STUD
10	6"x8" DF-L-2	SINGLE 2"x6" STUD
11	6"x8" DF-L-2	SINGLE 2"x6" STUD
12	6"x8" DF-L-2	SINGLE 2"x6" STUD
13	6"x8" DF-L-2	SINGLE 2"x6" STUD
14	6"x8" DF-L-2	SINGLE 2"x6" STUD
15	6"x8" DF-L-2	SINGLE 2"x6" STUD
16	6"x8" DF-L-2	SINGLE 2"x6" STUD
17	6"x8" DF-L-2	SINGLE 2"x6" STUD
18	6"x8" DF-L-2	SINGLE 2"x6" STUD
19	6"x8" DF-L-2	SINGLE 2"x6" STUD
20	5 1/2"x12" DF 24F-V8 GLB	SINGLE 2"x6" STUD
21	6"x8" DF-L-2	SINGLE 2"x6" STUD
22	4"x2" DF-L-2	SINGLE 2"x6" STUD

TRUSS UP-LIFT CONNECTIONS

ALL SINGLE TRUSSES TO HAVE SIMPSON H8 UPLIFT CONNECTOR @ EXTERIOR WALL PLATE.
ALL GIRDER TRUSSES TO HAVE SIMPSON H10A-2 FAD TRUSSES TO HAVE NAILING.

REGISTERED PROFESSIONAL ENGINEER
OREGON
JANUARY 9, 2001
MICHAEL N. McALLISTER
EXP. 12/31/2024

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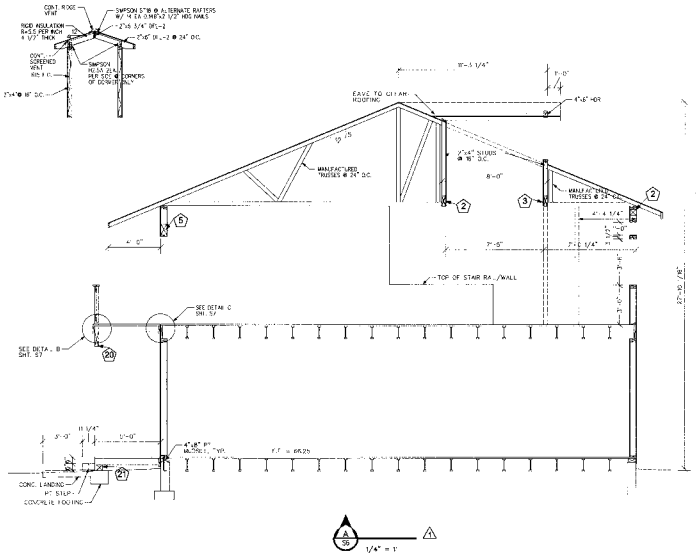
MYRTLE GLEN PUD
TOWNHOUSE FLOOR PLANS
TAX MAP: 18-12-22-11 T.L. 01200, 01100, & 0100
FOR
WILLIAM JOHNSON CONSTRUCTION, INC.
FLORENCE, OREGON

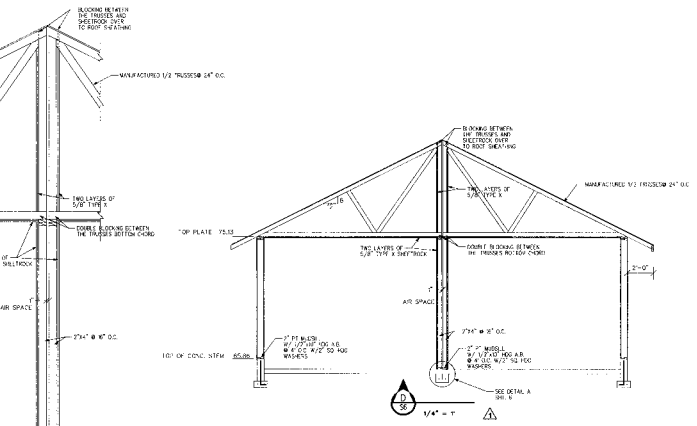
SHEET CONTENT
ROOF PLAN

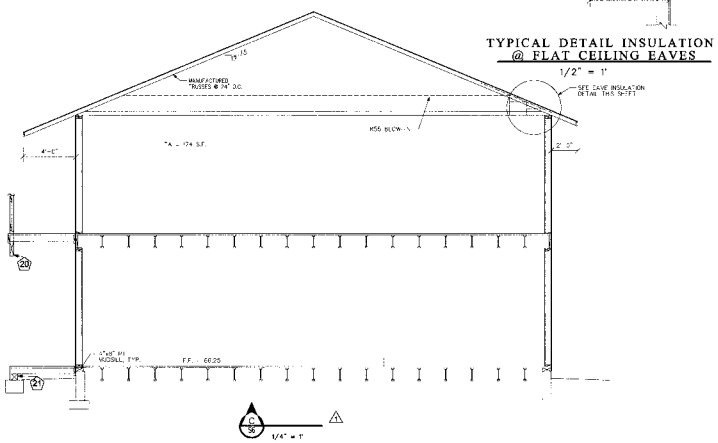
DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2023	SHOWN

REVISIONS
1 7/07/23 M.N.M.

SHEET
S5 OF 10





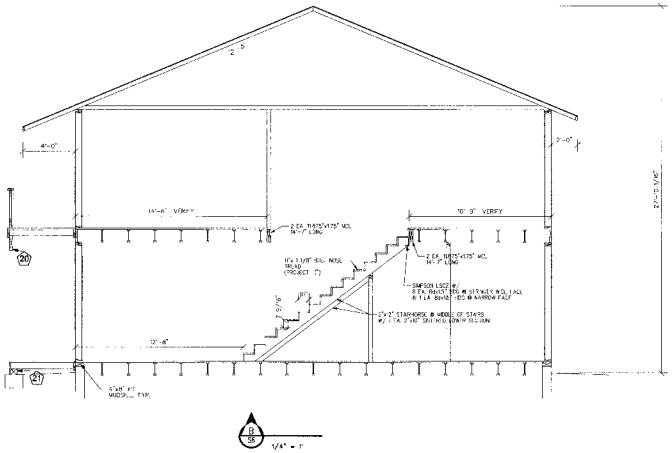


TYPICAL DETAIL INSULATION @ FLAT CEILING EAVES

1/2" = 1'

DETAIL A

1/2" = 1'



MIKE McALLISTER ENGINEERING
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MAPLETON, OREGON 97453
PH: 541-268-4368
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MYRTLE GLEN PUD

TOWNHOUSE FLOOR PLANS

TAX MAP: 18-12-22-11 T.L. 01200, 01100, & 0100

FOR

WILLIAM JOHNSON CONSTRUCTION, INC.

FLORENCE, OREGON

SHEET CONTENT: SECTIONS & DETAILS

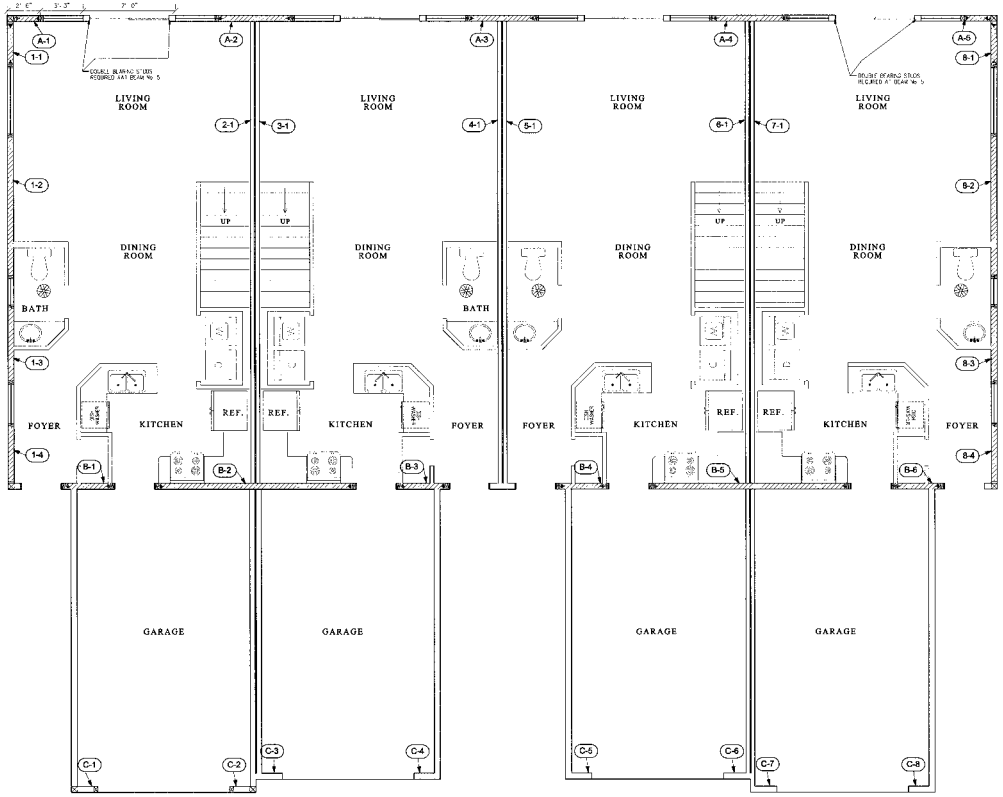
DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2023	SHOWN

REVISIONS

1 12/8/23 M.N.M.

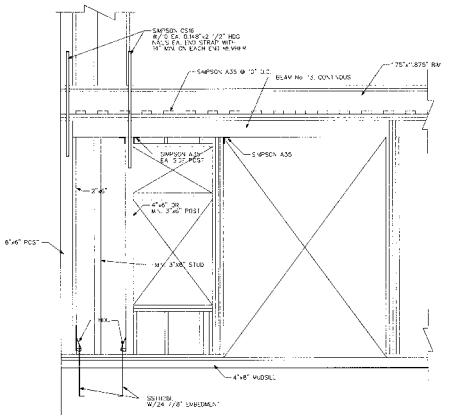
SHEET

S6 OF 10



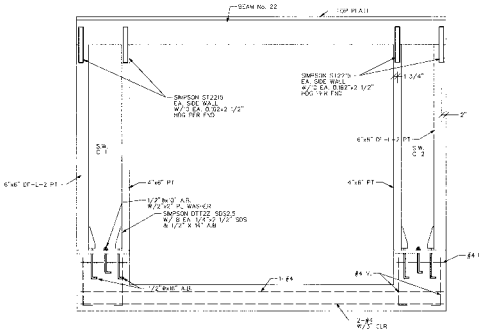
1ST FLOOR SHEARWALL PLAN ⚠

1/4" = 1'



ELEVATION @ FIRST FLOOR
SHEAR WALLS A-1 & A-5

1/2" = 1'



ELEVATION @ SHEAR WALLS
C-1 & C-2 GARAGE OPENING
TYP. ALL WALLS C ⚠

1/2" = 1'

MARK McALLISTER ENGINEERING
11295 E. MAPLETON ROAD
MARION, OREGON 97345
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FAX: 541-854-4328

MYRTLE GLEN PUD

TOWNHOUSE FLOOR PLANS

TAX MAP: 10-1S-2E-11 T.L. 01200, 01100, & 0100

FOR

WILLIAM JOHNSON CONSTRUCTION, INC.

KEIZER, OREGON

SHEET CONTENT
FIRST FLOOR
SHEAR WALL PLAN

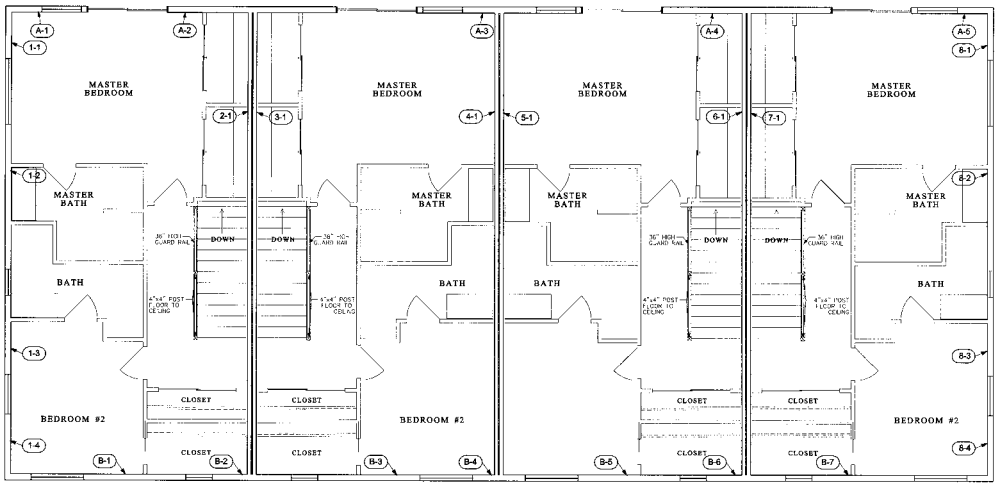
DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2023	SHOWN

REVISIONS

⚠ 7/07/23 M.N.M.

SHEET

S7 OF 10



2ND FLOOR SHEARWALL PLAN

1/4" = 1'

2ND FLOOR SHEAR WALL SCHEDULE

LOCATION	LENGTH	SHEATHING	NAILING	HOLDOWN & POST	WALL PL./RIM JOIST FASTENERS	FLOOR SHEATING RIM FASTENERS	RIM JOIST/WALL PL. BELOW
A-1	2'-9"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
A-2	17'-11 1/4"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
A-3	5'-1 1/2"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
A-4	7'-11 1/4"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
A-5	2'-9"	7/16 STRUCTURAL-1 ONE FACE OF WALL	NOT REQ'D	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
B-1	3'-0"	7/16 STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
B-2	5'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
B-3	7'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	NOT REQ'D	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
B-4	4'-3"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
B-5	7'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
B-6	6'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
B-7	7'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 16" O.C.
1-1	4'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 42" O.C.
1-2	11'-3"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 42" O.C.
1-3	10'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 42" O.C.
1-4	5'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	NOT REQ'D	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 42" O.C.
2-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	SIMPSON A35 @ 4" O.C.
3-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	SIMPSON A35 @ 4" O.C.
4-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	SIMPSON A35 @ 4" O.C.
5-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	SIMPSON A35 @ 4" O.C.
6-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	SIMPSON A35 @ 4" O.C.
7-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	SIMPSON A35 @ 4" O.C.
8-1	4'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 4" O.C.
8-2	9'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 4" O.C.
8-3	9'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 4" O.C.
8-4	5'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x3" @ 16" O.C.	10d HDG @ 4" O.C.	10d TOE NAIL @ 8" O.C. & SIMPSON A35 @ 4" O.C.

* MINIMUM POST OF DBL 2"x STUD WALL ENDS AND AT HOLDOWNS. LAMINATE LONG STUDS TOGETHER W/ 2 EA SDS 1/4"x3" SCREWS FOR WALLS AND HOLDOWNS. WHERE COLLECTOR IS AT SHORT OPENING STUD LAMINATE SHORT STUDS WITH 4 EA SDS SCREWS AT ALL HOLDOWNS.

NOTE: ALL OTHER EXTERIOR WALLS NOT SHOWN IN SHEAR WALL PLAN TO HAVE 7/16 OSB STRUCTURAL WITH 8d @ 6" OC @ FULL 7/2" OC ELSEWHERE. INSTALL BLOCKING AT BRACED WALL PANEL JOINTS AT ALL PANEL EDGES. TO BE NAILED @ 6" OC @ FULL 7/2" OC ELSEWHERE. INSTALL BLOCKING AT BRACED WALL PANEL JOINTS AT ALL PANEL EDGES. TO BE NAILED @ 6" OC @ FULL 7/2" OC ELSEWHERE. SHEAR WALL SHEATHING TO BE APA RATED, INSTALLED ACCORDANCE WITH SHEAR WALL SCHEDULE. 1/2" CDX MAY BE SUBSTITUTED WHERE 7/16" WALL IS SHOWN AND CA LED OUT ON SHEAR WALLS ONLY FOR 8' INSTALL SHEATHING OVER RIM JOIST AND MUDSILL TO CONNECT WALL FLOOR PLATE TO MUDSILL AT ALL EXTERIOR WALLS. NAILING TO BE AS PER SHEAR WALL SCHEDULE.

INSTALL ALL WALL SHEATING VERTICALLY OR HORIZONTALLY, WITH SOLID BLOCKING WHERE AT PANEL EDGES, JOINTS. STUD SPACING TO BE 16" O.C. FOR SHEAR WALLS AS PER SCHEDULE.

FIRST FLOOR SHEAR WALL SCHEDULE

LOCATION	LENGTH	SHEATHING	NAILING	HOLDOWN & POST	WALL PLATE/MUDSILL & SHEETING	FLOOR SHEETING/MUDSILL	MUDSILL/END FASTENERS
A-1	2'-9"	7/16" STRUCTURAL-1 ONE FACE OF WALL BOTH FACES OF WALL	8d @ 4" OC	SIMPSON HDU8 @ EA. END W/ (20) SDS 1/4"x3" & 3" O.C. W/ (20) SDS 1/4"x3" SCREWS, DBL 2"x 6" END POSTS	2 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
A-2	6'-0"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	8d @ 4" OC	SIMPSON HDU8 @ EA. END W/ (20) SDS 1/4"x3" & 3" O.C. W/ (20) SDS 1/4"x3" SCREWS, DBL 2"x 6" END POSTS	2 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
A-3	5'-6"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	8d @ 4" OC	SIMPSON HDU8 @ EA. END W/ (20) SDS 1/4"x3" & 3" O.C. W/ (20) SDS 1/4"x3" SCREWS, DBL 2"x 6" END POSTS	2 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
A-4	6'-0"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	8d @ 4" OC	SIMPSON HDU8 @ EA. END W/ (20) SDS 1/4"x3" & 3" O.C. W/ (20) SDS 1/4"x3" SCREWS, DBL 2"x 6" END POSTS	2 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
A-5	2'-9"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	8d @ 4" OC	SIMPSON HUS8 @ 1 EA. END W/ (10) SDS 1/4"x3" & 3" O.C. W/ (10) SDS 1/4"x3" SCREWS, DBL 2"x 6" END POSTS	2 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
B-1	3'-0"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	OSB, 8d @ 6" OC	SIMPSON HDU4 @ EA. END W/ (10) SDS 1/4"x3" & 3" O.C.	1 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
B-2	15'-2"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	OSB, 8d @ 6" OC	SIMPSON HDU2 @ EA. END W/ (5)SDS 1/4"x3" SCREWS, DBL STUD TNE POSTS	1 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
B-3	5'-1"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	OSB, 8d @ 6" OC	SIMPSON HDU4 @ EA. END W/ (10) SDS 1/4"x3" & 3" O.C. W/ (10) SDS 1/4"x3" SCREWS, 6"x 6" END POSTS	1 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
B-4	3'-1"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	OSB, 8d @ 6" OC	SIMPSON HDU4 @ EA. END W/ (10) SDS 1/4"x3" & 3" O.C. W/ (10) SDS 1/4"x3" SCREWS, 6"x 6" END POSTS	1 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
B-5	10'-2"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	OSB, 8d @ 6" OC	SIMPSON HDU2 @ EA. END W/ (5) SDS 1/4"x3" SCREWS, DBL STUD TNE POSTS	1 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
B-6	3'-1"	7/16" STRUCTURAL-1 BOTH FACES OF WALL	OSB, 8d @ 6" OC	SIMPSON HDU4 @ EA. END W/ (6) SDS 1/4"x3" SCREWS, 6"x 6" END POSTS	1 EA. SIMPSON SDS 1/4"x3" @ 7" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 48" O.C.
C-1	2'-10"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON DTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
C-2	2'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON DTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
C-3	2'-10"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON DTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
C-4	2'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON DTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
C-5	2'-10"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON DTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
C-6	2'-10"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON DTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
C-7	2'-10"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON MTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
C-8	2'-10"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON DTT2Z @ EA. END W/ 1/2"x6"x6" A.B. W/ (6) SDS 1/4"x3 1/2" SCREWS, POSTS AS PER DETAIL			SEE DETAIL
1-1	4'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON HUS10 @ EA. END W/ (8) SDS 1/4"x3" SCREWS, DBL STUD TNE POSTS	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
1-2	11'-2"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
1-3	9'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
1-4	5'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
2-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
3-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
4-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
5-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
6-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
7-1	36'-0"	2 LAYERS 5/8" SHEETROCK ONE SIDE OF WALL	8d @ 7" OC 8d @ 8" O.C.	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
8-1	4'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	SIMPSON HUS2 @ 1 EA. END W/ (6) SDS 1/4"x3" SCREWS, DBL STUD TNE POSTS	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
8-2	11'-2"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
8-3	6'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.
8-4	5'-0"	7/16" STRUCTURAL-1 ONE FACE OF WALL	8d @ 6" OC	NOT REQ'D	SIMPSON SDS 1/4"x4 1/2" @ 16" O.C.	8d HDG @ 4" O.C., STAGGERED	1/2"x10" AB W/ 3" SQ. WASHERS, @ 4'-0" O.C.

** STUDS THIS WALL TO BE 4"x6" OR 4"x6" @ 16" O.C.

MIKE MCALLISTER ENGINEERING
1805 E. MAPLETON ROAD
MAPLETON, OREGON 97453
PH: 541.268.4388
FAX: 541.268.4389

MYRTLE GLEN PUD

TOWNHOUSE FLOOR PLANS

TAX MAP: 18-12-22-11 T.L. 01200, 01100, & 0100

FOR

WILLIAM JOHNSON CONSTRUCTION, INC.

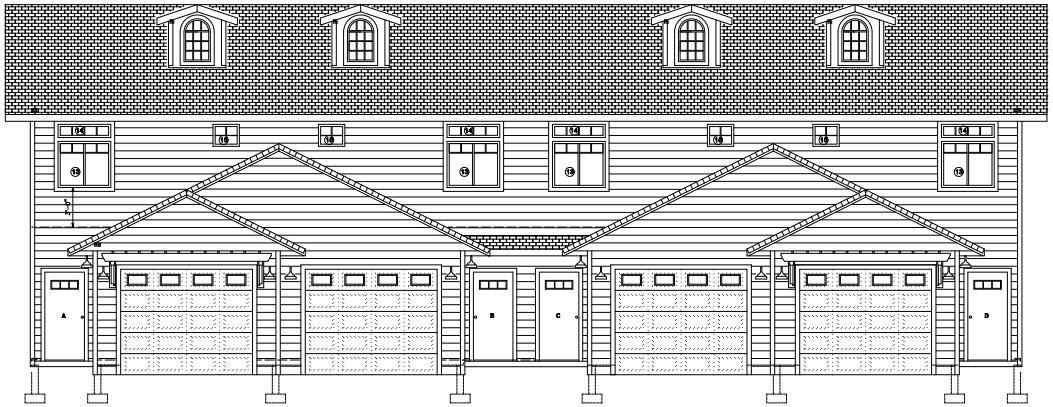
FLORENCE, OREGON

SHEET DESCRIPTION
2ND FLOOR
SHEAR WALL PLAN

DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2023	SHOWN

REVISIONS
1 1/8/23 M.N.M.

SHEET
S8 OF 10



FRONT ELEVATION VIEW

1/4" = 1'

REAR ELEVATION VIEW

1/4" = 1'

MACKENZIE, ENGINEERING
1515 E. MAPLETON ROAD
MAPLETON, OREGON 97453
PH: 541/268-5380
FAX: 541/268-4629

MYRTLE GLEN PUD

TOWNHOUSE FLOOR PLANS

TAX MAP: 18-12-22-11 T.L. 01200, 01100, & 0100

FOR

WILLIAM JOHNSON CONSTRUCTION, INC.

FLORENCE, OREGON

SHEET CONTENT

ELEVATION VIEWS

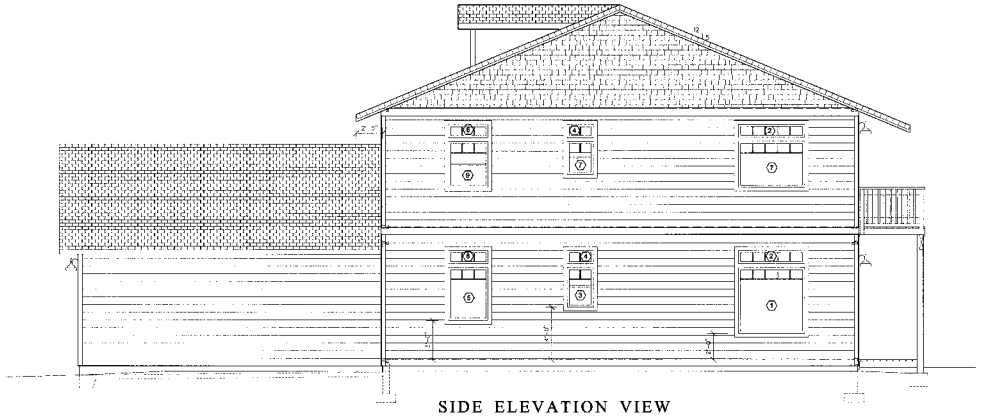
DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2024	SHOWN

REVISIONS

1 7/12/23 MNM

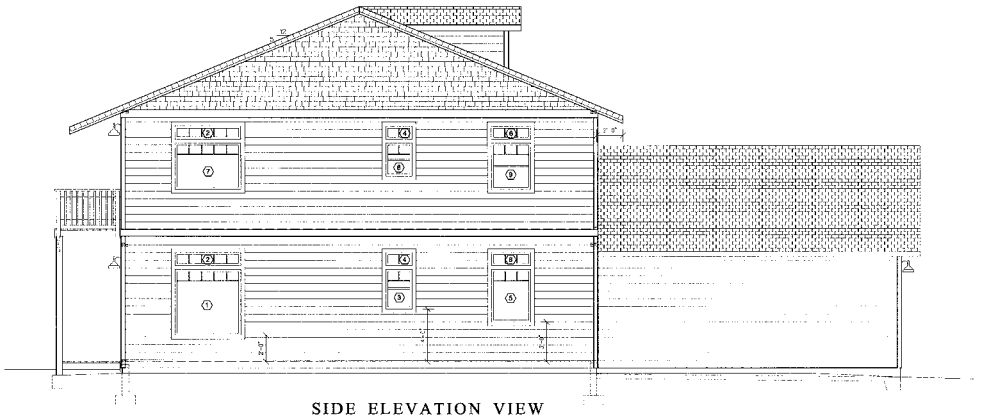
SHEET

S9 OF 10



SIDE ELEVATION VIEW

1/4" = 1'



SIDE ELEVATION VIEW

1/4" = 1'

TODD MACALISTER ENGINEERING
1500 E. APPLETON ROAD
APPLETON, OREGON 97415
PH: 541-288-4456
FAX: 541-288-4396

MYRTLE GLEN PUD

TOWNHOUSE FLOOR PLANS

TAX MAP: 18-12-22-11 T.L. 01200, 01100, & 0100

FOR

WILLIAM JOHNSON CONSTRUCTION, INC.

FLORENCE, OREGON

SHEET CONTENT
ELEVATIONS

DRAWN	W.O. No.
M.N.M.	1482
DATE	SCALE
6/3/2024	SHOWN

REVISIONS

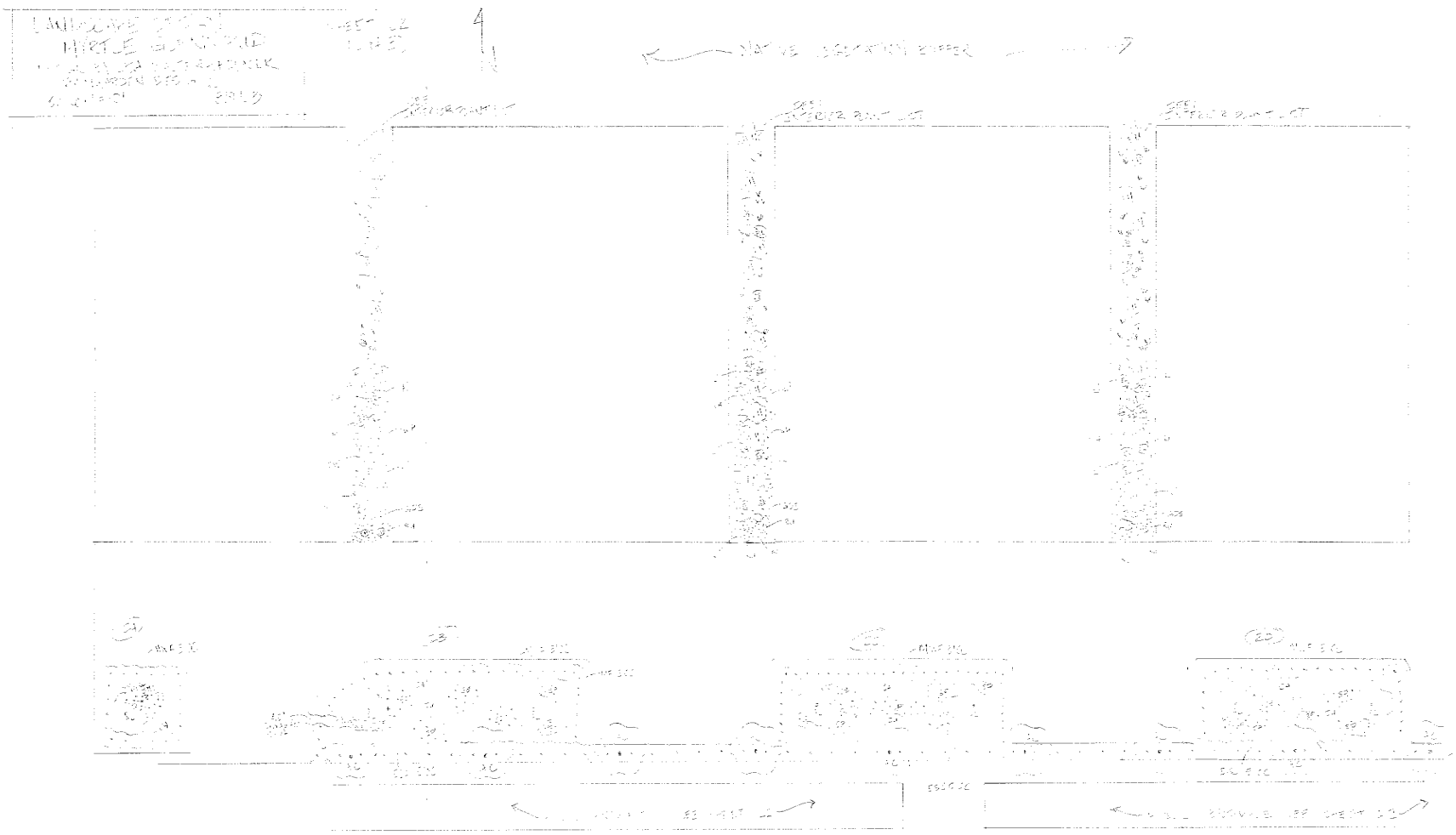
1 9/12/23 MNM

SHEET
S10 OF 10

ATTACHMENT 3

Landscaping Plans

Myrtle Glenn Subdivision
Final PUD Application to City of Florence
August 29, 2023



KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE
SS	AS	SWEET GUM	LIQUIDAMBAR STYRACIFLUA	2" CAL.
O	AS	RED OAK	QUERCUS RUBRA	2" CAL.
TA	27	BALDCYPRESS	TAXODIUM DISTICHUM	2" CAL.
OVER 23		GREEN ASH	FRAXINUS PENNSYLVANICA	2" CAL.
OVER 23		CHINESE ELM	ULMUS PARVIFOLIA	2" CAL.

KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE
LOT	AS	SWEET GUM	LIQUIDAMBAR STYRACIFLUA	2" CAL.
CB	100	AMERICAN HORNBEAM	CARPINUS CAROLINIANA	2" CAL.
FM	100	RED MAPLE	ACER RUBRUM	2" CAL.
DOG	AS	DOGWOOD	CORNUS FLORIDA	2" CAL.
LOB	AS	LOBLOLLY PINE	PINUS TAEDA	2" CAL.
SWG	AS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA	2" CAL.
BALD	AS	BALDCYPRESS	TAXODIUM DISTICHUM	2" CAL.
SHRUB	AS	SHRUB	VARIOUS	3 GAL.
S	AS	SWEETSPIRE	ITEA VIRGINICA 'HENRY'S GARNET'	3 GAL.
VA	AS	VIBURNUM	VIBURNUM SPECIES	3 GAL.
WI	AS	WINTERBERRY	ILEX VERTICILLATA	3 GAL.
IN	AS	INKBERRY	ILEX GLABRA	3 GAL.
FERN	AS	FERN	VARIOUS	1 GAL.
SOUTH	AS	SOUTHERN SHIELD FERN	DRYOPTERIS LADY IN RED	1 GAL.
TA	AS	AUTUMN FERN	DRYOPTERIS ERYTHROSORA	1 GAL.
S	AS	SWORD FERN	POLYSTICHUM MUNITUM	1 GAL.

KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE
LOT	AS	SWEET GUM	LIQUIDAMBAR STYRACIFLUA	2" CAL.
CB	100	AMERICAN HORNBEAM	CARPINUS CAROLINIANA	2" CAL.
FM	100	RED MAPLE	ACER RUBRUM	2" CAL.
DOG	AS	DOGWOOD	CORNUS FLORIDA	2" CAL.
LOB	AS	LOBLOLLY PINE	PINUS TAEDA	2" CAL.
SWG	AS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA	2" CAL.
BALD	AS	BALDCYPRESS	TAXODIUM DISTICHUM	2" CAL.
SHRUB	AS	SHRUB	VARIOUS	3 GAL.
S	AS	SWEETSPIRE	ITEA VIRGINICA 'HENRY'S GARNET'	3 GAL.
VA	AS	VIBURNUM	VIBURNUM SPECIES	3 GAL.
WI	AS	WINTERBERRY	ILEX VERTICILLATA	3 GAL.
IN	AS	INKBERRY	ILEX GLABRA	3 GAL.
FERN	AS	FERN	VARIOUS	1 GAL.
SOUTH	AS	SOUTHERN SHIELD FERN	DRYOPTERIS LADY IN RED	1 GAL.
TA	AS	AUTUMN FERN	DRYOPTERIS ERYTHROSORA	1 GAL.
S	AS	SWORD FERN	POLYSTICHUM MUNITUM	1 GAL.

KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE
LOT	AS	SWEET GUM	LIQUIDAMBAR STYRACIFLUA	2" CAL.
CB	100	AMERICAN HORNBEAM	CARPINUS CAROLINIANA	2" CAL.
FM	100	RED MAPLE	ACER RUBRUM	2" CAL.
DOG	AS	DOGWOOD	CORNUS FLORIDA	2" CAL.
LOB	AS	LOBLOLLY PINE	PINUS TAEDA	2" CAL.
SWG	AS	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA	2" CAL.
BALD	AS	BALDCYPRESS	TAXODIUM DISTICHUM	2" CAL.
SHRUB	AS	SHRUB	VARIOUS	3 GAL.
S	AS	SWEETSPIRE	ITEA VIRGINICA 'HENRY'S GARNET'	3 GAL.
VA	AS	VIBURNUM	VIBURNUM SPECIES	3 GAL.
WI	AS	WINTERBERRY	ILEX VERTICILLATA	3 GAL.
IN	AS	INKBERRY	ILEX GLABRA	3 GAL.
FERN	AS	FERN	VARIOUS	1 GAL.
SOUTH	AS	SOUTHERN SHIELD FERN	DRYOPTERIS LADY IN RED	1 GAL.
TA	AS	AUTUMN FERN	DRYOPTERIS ERYTHROSORA	1 GAL.
S	AS	SWORD FERN	POLYSTICHUM MUNITUM	1 GAL.

IRRIGATION & PLANTER PLANT LIST (SEE DETAIL)

SIZE			
5GL	AL	ALNUS RUBRA	RED ALDER
15GAL	CAE	CORNUS EMPL. 'EDDIE'S WHITE WONDER'	DOGWOOD
5GL	DE	DISCHIA BOUGLASII	TUFTED HAIRGRASS
LINER	EC	LAGERSTROEMIA INDICA	CRAPE MYRTLE
LINER	FX	FUNCUS SPP.	RUSH
5GL	MP	MALUS PUMILA	APPLE
5GL	PT	PRUNUS VIRGINIANA 'CANADA RED'	CHOKECHERRY

LANDSCAPE AREAS PLANT LIST

SIZE			
15GAL	PN	PINUS NIGRA	AUSTRIAN PINE
5GAL	MCA	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE
5GAL	RS	RIBES SANGUINEUM	RED FLOWERING CURRANT
15GAL	AR	ACER RUBRUM 'FRANKSRED'	RED SUNSET MAPLE
15GAL	AC	ACER CIRCINATUM	VINE MAPLE
15GAL	AF	ACER FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE MAPLE (TO CHO)
5GAL	MT	MAGNOLIA GRANDIFLORA 'EXMOUTH'	EXMOUTH MAGNOLIA
5GAL	AK	ARBUTUS UNEDO 'COMPACTA'	COMPACT STRAWBERRY TREE
5GAL	RH	RHODODENDRON 'LEM'	HYBRID RHODODENDRON
5GAL	RY	RHODODENDRON 'YAK'	DWARF HYBRID RHODODENDRON
15GAL	AT	ALNUS RUBRA	RED ALDER
5GAL	VO	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY
5GAL	VC	VITIS CALIFORNICA	CREEPING GRAPE
5GAL	SJG	SPIRAEA JAPONICA 'GOLD DUST'	GOLD DUST SPIREA
5GAL	ESC	ESCALLONIA X EXONIENSIS	FRADESII ESCALLONIA
5GAL	SJW	SPIRAEA JAPONICA 'ANTHONY WATERER'	ANTHONY WATERER SPIREA
5GAL	CS	CORNUS STOLONIFERA	COMPACT BUNCHING BUSH
5GAL	RI	RIBES SANGUINEUM	RED FLOWERING CURRANT

LANDSCAPE AREAS PLANT LIST INTERIOR PLANT LIST DETAIL

SIZE			
5GAL	EA	ERICA X DARLEYENSIS 'JACK BRIDY'	WINTER BLOOM HEATHER
5GAL	EG	ESCHSCHOLZIA MAGELLANICA	OLD PROMISE ESCHSCH
1GAL	M	MISCANTHUS SINENSIS 'VARIEGATUS'	VARIEGATED MISCANTHUS
1GAL	BA	BRUNNERA MACROPHYLLA 'JACK FROST'	JACK FROST BRUNNERA
4IN	LI	PRIMULA VULGARIS	COMMON PRIMROSE
—	VI	VINCA MINOR 'ILLUMINATION'	ILLUMINATION PERIWINKLE
1	SA	SARCOCOCCA HOOKERIANA	SWEETBOX
1GAL	SBA	BERGENIA CORDIFOLIA 'SUNNINGDALE'	SUNNINGDALE BERGENIA
1	TF	HOLCUS LANATUS 'ALBOVARIEGATUS'	VARIEGATED FOREST GRASS
1GAL	VA	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY
1GAL	BS	BERGENIA CORDIFOLIA	HEARTLEAF BERGENIA
—	WO	WOODWARDIA FIMBRIATA	GIANT CHAIN FERN

PLANT NOTES
SEE SHEET L3
SMALL SPRINGS

ATTACHMENT 4

Stormwater Calculations

Myrtle Glenn Subdivision
Final PUD Application to City of Florence
August 29, 2023

EGR & Associates, Inc.

2535B Prairie Road
Eugene, Oregon 97402
(541) 688-8322
Fax (541) 688-8087

Stormwater Management Report Supplemental

Final Stormwater System Calculations

Myrtle Glenn PUD

Map 18-12-22-11 Tax Lots 200, 1100, and 1200

Florence, Oregon

August 1, 2023

Applicant

William Johnson Construction, Inc.

[redacted]

Florence, OR 97439

Engineer/Surveyor

EGR & Associates, Inc.
2535B Prairie Road
Eugene, Oregon 97402

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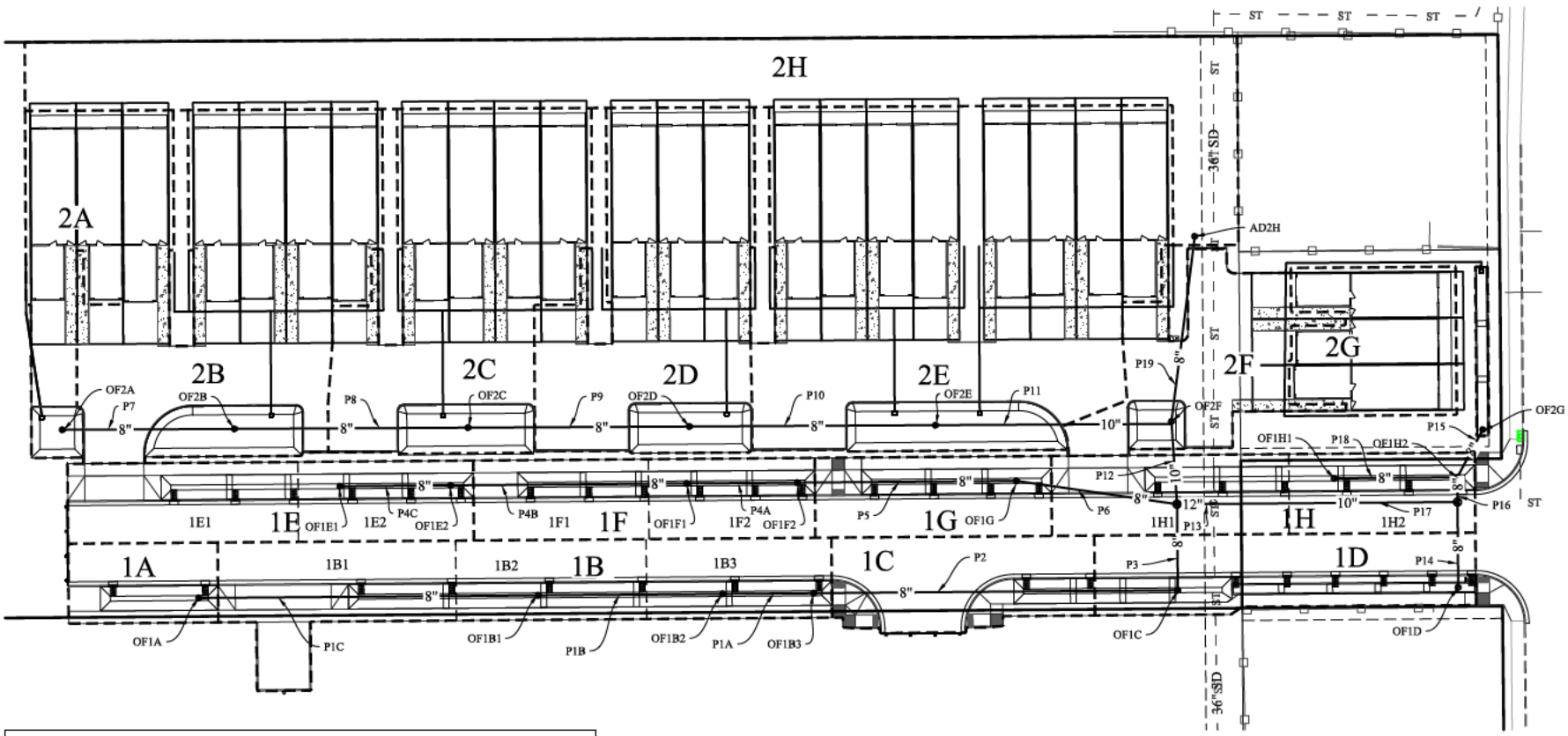


BASIN AREA SUMMARY							
BASIN		AREA, S.F.	BASIN		AREA, S.F.	BASIN	AREA, S.F.
1A		1,976		1E2	2,318	2A	4,265
1B		8,725	1F		4,511	2B	13,978
	1B1	3,762		1F1	2,314	2C	11,051
	1B2	2,515		1F2	2,197	2D	9,968
	1B3	2,448	1G		3,126	2E	20,796
1C		3,834	1H		5,594	2F	4,862
1D		4,745		1H1	3,137	2G	4,175
1E		5,362		1H2	2,457	2H	15,300
	1E1	3,044					

LEGEND

1B	BASIN I.D.
1B1	SUB-BASIN I.D.
OF1B3	OVERFOW I.D.
P2	STORM PIPE I.D.

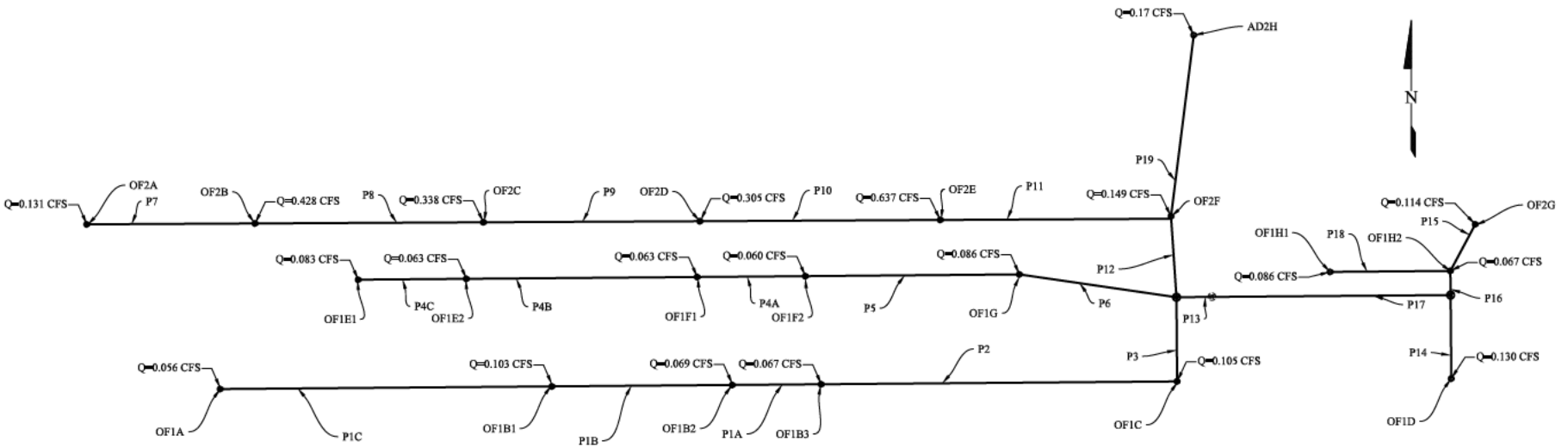
N

40' 0 40' 80'

FIGURE 1
BASIN MAP
MYRTLE GLENN PUD
FLORENCE, OREGON
AUGUST 1, 2023

EGR & Associates, Inc.
Engineers, Geologists, and Surveyors
2535B Prairie Road
Eugene, Oregon 97402
(541) 688-8322
Fax (541) 688-8087

S:\Projects\7091 Mike Johnson\22-0187 37th Street\Phase 1 PEPI\Sheets\7091OAK OCRS88 Stormwater.dwg LAYOUT=Figure 1 Aug 01, 2023 - 12:32pm



PIPE I.D.	DIAMETER INCHES	LENGTH, FT.	SLOPE PERCENT	INFLOW	FLOW, CFS	NORMAL DEPTH, INCHES	VELOCITY, FPS
P1C	8"	138	1.00	OF1A	0.056	1.2	1.8
P1B	8"	75	1.00	P1C+OF1B1	0.159	2.0	2.4
P1A	8"	37	1.00	P1B+OF1B2	0.228	2.4	2.7
P2	8"	148	1.00	P1A+OF1B3	0.295	2.7	2.9
P3	8"	35	1.00	P2+OF1C	0.400	3.2	3.1
P4C	8"	45	1.00	OF1E1	0.083	1.4	2.0
P4B	8"	96	1.00	P4C+OF1E2	0.146	1.9	2.3
P4A	8"	45	1.00	P4B+OF1F1	0.209	2.3	2.6
P5	8"	89	1.00	P4A+OF1F2	0.269	2.6	2.8
P6	8"	66	1.00	P5+OF1G	0.355	3.0	3.0
P7	8"	70	1.00	OF2A	0.131	1.8	2.3
P8	8"	95	1.00	P7+OF2B	0.559	3.8	3.4

PIPE I.D.	DIAMETER INCHES	LENGTH, FT.	SLOPE PERCENT	INFLOW	FLOW, CFS	NORMAL DEPTH, INCHES	VELOCITY, FPS
P9	8"	90	1.00	P8+OF2C	0.897	5.1	3.8
P10	8"	100	1.00	P9+OF2D	1.202	6.5	4.0
P11	10"	96	1.00	P10+OF2E	1.839	7.0	4.5
P12	10"	33	1.00	P11+P19+OF2F	2.158	8.1	4.6
P13	12"	15	1.49	P3+P6+P12	2.913	7.2	5.9
P14	8"	35	1.00	OF1D	0.130	1.8	2.3
P15	8"	22	6.27	OF2G	0.114	1.1	4.2
P16	8"	10	1.00	P15+P18+OF1H2	0.267	2.6	2.8
P17	10"	99	0.50	P16+P14	0.397	3.5	2.4
P18	8"	50	1.00	OF1H1	0.086	1.4	2.0
P19	8"	77	5.20	AD2H	0.170	1.3	4.4

NOTE:
DISCHARGE AT OVERFLOW PIPES ARE THE CALCULATED 25-YEAR PEAK FLOW RATE TO STORMWATER FACILITY TAKEN FROM THE FACILITY SIZING SPREADSHEETS.

FIGURE 2
STORM PIPE SUMMARY
MYRTLE GLENN PUD
FLORENCE, OREGON
AUGUST 1, 2023

EGR & Associates, Inc.
Engineers, Geologists, and Surveyors
2535B Prairie Road
Eugene, Oregon 97402
(541) 688-8322
Fax (541) 688-8087

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1A
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	1976	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	1976	sft	**Time of Concentration Post Development=**	7	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	258	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	98	ft
Surface Length=	43	ft	**Facility Bottom Area=**	78	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	82	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	88.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.131	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.008	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	103	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.056	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	792	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.9	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.026	cfs
Total Runoff Volume =	383	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.056	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	792	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.9	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1B
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	8725	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	8725	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	1152	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	396	ft
Surface Length=	192	ft	**Facility Bottom Area=**	376	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	380	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	386.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.132	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.033	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	454	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.239	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	3492	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.7	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.113	cfs
Total Runoff Volume =	1692	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.239	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	3492	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.7	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1B-1
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	3762	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	3762	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	480	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	172	ft
Surface Length=	80	ft	**Facility Bottom Area=**	152	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	156	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	162.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.128	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.014	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	196	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.103	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1506	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.9	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.049	cfs
Total Runoff Volume =	730	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.103	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1506	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.9	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1B-2
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	2515	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	2515	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	452.4	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	162.8	ft
Surface Length=	75.4	ft	**Facility Bottom Area=**	143	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	147	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	152.8	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.180	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.009	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	131	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.069	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1007	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	4.0	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.033	cfs
Total Runoff Volume =	488	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.069	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1007	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	4.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1B-3
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	2448	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	2448	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	452.4	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	162.8	ft
Surface Length=	75.4	ft	**Facility Bottom Area=**	143	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	147	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	152.8	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.185	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.009	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	127	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.067	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	980	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	3.9	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.032	cfs
Total Runoff Volume =	475	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.067	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	980	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	3.9	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1C
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	3834	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	3834	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	504	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	180	ft
Surface Length=	84	ft	**Facility Bottom Area=**	160	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	164	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	170.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.131	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.014	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	199	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.105	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1535	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.7	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.050	cfs
Total Runoff Volume =	744	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.105	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1535	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.7	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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Project Information

Project Name:	Myrtle Glen Subdivision	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1D
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	4745	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	4745	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	343	sqft
Surface Width=	3.5	ft	**Facility Surface Perimeter=**	203	ft
Surface Length=	98	ft	**Facility Bottom Area=**	343	sqft
Facility Side Slopes=	0	to 1	**Facility Bottom Perimeter=**	203	ft
Max. Ponding Depth in Stormwater Facility=	10	in	**Basin Volume=**	285.8	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.072	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.018	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	247	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.130	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1899	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	9.1	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.061	cfs
Total Runoff Volume =	920	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.130	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1899	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	9.1	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1E
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	5362	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	5362	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	738	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	258	ft
Surface Length=	123	ft	**Facility Bottom Area=**	238	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	242	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	248.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.138	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.020	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	279	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.147	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	2146	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.069	cfs
Total Runoff Volume =	1040	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.147	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	2146	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1E-1
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	3044	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	3044	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	426	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	154	ft
Surface Length=	71	ft	**Facility Bottom Area=**	134	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	138	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	144.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.140	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.011	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	158	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.083	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1218	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.039	cfs
Total Runoff Volume =	590	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.083	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1218	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1E-2
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	2318	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	2318	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	312	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	116	ft
Surface Length=	52	ft	**Facility Bottom Area=**	96	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	100	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	106.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.135	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.009	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	121	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.063	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	928	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.6	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.030	cfs
Total Runoff Volume =	450	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.063	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	928	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.6	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1F
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	4511	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	4511	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	700.8	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	245.6	ft
Surface Length=	116.8	ft	**Facility Bottom Area=**	226	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	230	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	235.6	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.155	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.017	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	235	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.124	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1805	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	4.8	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.058	cfs
Total Runoff Volume =	875	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.124	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1805	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	4.8	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1F-1
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	2314	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	2314	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	414	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	150	ft
Surface Length=	69	ft	**Facility Bottom Area=**	130	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	134	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	140.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.179	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.009	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	120	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.063	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	926	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	4.0	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.030	cfs
Total Runoff Volume =	449	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.063	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	926	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	4.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1F-2
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	2197	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	2197	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	294	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	110	ft
Surface Length=	49	ft	**Facility Bottom Area=**	90	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	94	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	100.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.134	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.008	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	114	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.060	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	879	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.7	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.028	cfs
Total Runoff Volume =	426	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.060	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	879	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.7	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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24 Hour Storm, NRCS Type 1A Rainfall Distribution
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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1G
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	3126	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	3126	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	438	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	158	ft
Surface Length=	73	ft	**Facility Bottom Area=**	138	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	142	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	148.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.140	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.012	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	163	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.086	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1251	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.040	cfs
Total Runoff Volume =	606	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.086	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1251	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1H
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	5594	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	5594	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	780	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	272	ft
Surface Length=	130	ft	**Facility Bottom Area=**	252	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	256	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	262.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.139	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.021	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	291	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.153	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	2239	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.072	cfs
Total Runoff Volume =	1085	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.153	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	2239	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.4	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1H-1
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	3137	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	3137	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	462	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	166	ft
Surface Length=	77	ft	**Facility Bottom Area=**	146	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	150	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	156.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.147	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.012	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	163	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.086	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1256	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.1	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.041	cfs
Total Runoff Volume =	608	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.086	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1256	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.1	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	1H-2
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	2457	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	2457	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development **(Data in this section is only used if Flow Control is required)**

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	318	sqft
Surface Width=	6	ft	**Facility Surface Perimeter=**	118	ft
Surface Length=	53	ft	**Facility Bottom Area=**	98	sqft
Facility Side Slopes=	4	to 1	**Facility Bottom Perimeter=**	102	ft
Max. Ponding Depth in Stormwater Facility=	6	in	**Basin Volume=**	108.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.129	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.009	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	128	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.067	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	983	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.8	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.032	cfs
Total Runoff Volume =	477	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.067	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	983	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	5.8	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	2A
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	4265	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	4265	sft	**Time of Concentration Post Development=**	5	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Rain Garden		**Facility Surface Area=**	430.44	sqft
Surface Width=	21.1	ft	**Facility Surface Perimeter=**	83	ft
Surface Length=	20.4	ft	**Facility Bottom Area=**	217	sqft
Facility Side Slopes=	3	to 1	**Facility Bottom Perimeter=**	59	ft
Max. Ponding Depth in Stormwater Facility=	12	in	**Basin Volume=**	341.9	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.101	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.018	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	222	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.131	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1711	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	9.7	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.055	cfs
Total Runoff Volume =	827	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.131	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1711	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	9.7	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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24 Hour Storm, NRCS Type 1A Rainfall Distribution
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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	2B
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	13978	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	13978	sft	**Time of Concentration Post Development=**	5	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Rain Garden		**Facility Surface Area=**	1226.04	sqft
Surface Width=	20.4	ft	**Facility Surface Perimeter=**	161	ft
Surface Length=	60.1		**Facility Bottom Area=**	779	sqft
Facility Side Slopes=	3	to 1	**Facility Bottom Perimeter=**	137	ft
Max. Ponding Depth in Stormwater Facility=	12	in	**Basin Volume=**	1020.5	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.088	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.058	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	729	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.428	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	5606	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	10.2	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.181	cfs
Total Runoff Volume =	2711	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.428	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	5606	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	10.2	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	2C
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	11051	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	11051	sft	**Time of Concentration Post Development=**	5	min
Weighted Average CN=	98				

Site Data-Pre Development **(Data in this section is only used if Flow Control is required)**

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Rain Garden		**Facility Surface Area=**	1106.96	sqft
Surface Width=	20.2	ft	**Facility Surface Perimeter=**	150	ft
Surface Length=	54.8	ft	**Facility Bottom Area=**	693	sqft
Facility Side Slopes=	3	to 1	**Facility Bottom Perimeter=**	126	ft
Max. Ponding Depth in Stormwater Facility=	12	in	**Basin Volume=**	918.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.100	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.046	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	576	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.338	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	4432	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	8.4	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.143	cfs
Total Runoff Volume =	2144	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.338	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	4432	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	8.4	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

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Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	2D
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	9968	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	9968	sft	**Time of Concentration Post Development=**	5	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Rain Garden		**Facility Surface Area=**	980	sqft
Surface Width=	20	ft	**Facility Surface Perimeter=**	138	ft
Surface Length=	49	ft	**Facility Bottom Area=**	602	sqft
Facility Side Slopes=	3	to 1	**Facility Bottom Perimeter=**	114	ft
Max. Ponding Depth in Stormwater Facility=	12	in	**Basin Volume=**	809.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.098	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.041	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	520	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.305	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	3998	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	8.8	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.129	cfs
Total Runoff Volume =	1933	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.305	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	3998	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	8.8	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	2E
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	20796	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	20796	sft	**Time of Concentration Post Development=**	5	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Rain Garden		**Facility Surface Area=**	1672.53	sqft
Surface Width=	19.7	ft	**Facility Surface Perimeter=**	209.2	ft
Surface Length=	84.9	ft	**Facility Bottom Area=**	1081	sqft
Facility Side Slopes=	3	to 1	**Facility Bottom Perimeter=**	185	ft
Max. Ponding Depth in Stormwater Facility=	12	in	**Basin Volume=**	1394.7	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.080	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.086	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1084	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.637	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	8341	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	11.6	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.269	cfs
Total Runoff Volume =	4034	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.637	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	8341	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	11.6	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	2F
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	4862	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	4862	sft	**Time of Concentration Post Development=**	5	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Rain Garden		**Facility Surface Area=**	437.8	sqft
Surface Width=	19.9	ft	**Facility Surface Perimeter=**	83.8	ft
Surface Length=	22	ft	**Facility Bottom Area=**	222	sqft
Facility Side Slopes=	3	to 1	**Facility Bottom Perimeter=**	60	ft
Max. Ponding Depth in Stormwater Facility=	12	in	**Basin Volume=**	348.1	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.090	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.020	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	253	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.149	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1950	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	11.2	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.063	cfs
Total Runoff Volume =	943	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.149	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1950	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	11.2	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet
24 Hour Storm, NRCS Type 1A Rainfall Distribution
City of Eugene

Version 2.1

Project Information

Project Name:	Myrtle Glenn PUD	**Date:**	7/25/2023
Project Address:	18-12-22-11-01200	**Permit Number:**	NA
	Florence, OR	**Catchment ID:**	2G
Designer:	Clint Beecroft		
Company:	EGR & Associates		

Instructions:

1. Complete this form for each drainage catchment in the project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive Catchment ID for each facility coordinated with the site basin map to correlate the appropriate calculations with the facility.
3. The maximum drainage catchment to be modeled per the Presumptive Approach is 1 acre (43,560 SF)
4. For infiltration facilities in Class A or B soils where no infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr. For all facilities use a maximum soil infiltration rate of 2.5 in/hr for topsoil/growing medium.

Design Requirements:

Choose "Yes" from the dropdown boxes below next to the design standards requirements for this facility.

Pollution Reduction (PR)	Yes
Flow Control (FC)	Yes
Destination (DT)	Yes

*An infiltration facility must be chosen as the facility type to meet destination requirements

Site Data-Post Development

Total Square Footage Impervious Area=	4175	sqft	**Total Square Footage Pervious Area=**	0	sqft
Impervious Area CN=	98		**Pervious Area CN=**	85	
Total Square Footage of Drainage Area=	4175	sft	**Time of Concentration Post Development=**	10	min
Weighted Average CN=	98				

Site Data-Pre Development (Data in this section is only used if Flow Control is required)

Pre-Development CN=	73		**Time of Concentration Pre-Development=**	5	min

Soil Data

Tested Soil Infiltration Rate=	10	in/hr (See Note 4)	**Destination Design=**	4	in/hr
Design Soil Infiltration Rate=	4	in/hr	**Soil Infiltration Rate**		

Design Storms Used For Calculations

Requirement	Rainfall Depth		Design Storm
Pollution Reduction	0.8	inches	Water Quality
Flow Control	5.1	inches	Flood Control
Destination	5.1	inches	Flood Control

Facility Data

Facility Type=	Infiltration Stormwater Planter		**Facility Surface Area=**	272	sqft
Surface Width=	4	ft	**Facility Surface Perimeter=**	144	ft
Surface Length=	68	ft	**Facility Bottom Area=**	272	sqft
Facility Side Slopes=	0	to 1	**Facility Bottom Perimeter=**	144	ft
Max. Ponding Depth in Stormwater Facility=	12	in	**Basin Volume=**	272.0	cf
Depth of Growing Medium (Soil)=	18	in	**Ratio of Facility Area to Impervious Area=**	0.065	

Pollution Reduction-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.016	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	217	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	0.0	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Pollution Reduction Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Flow Control-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.114	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1671	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	11.5	in	Peak Off-Site Flow Rate Filtration Facility Underdrain=	N\A	cfs
Drawdown Time=	0.2	hours			

Pre-Development Runoff Data

Peak Flow Rate =	0.054	cfs
Total Runoff Volume =	810	cf

Yes **Facility Sizing Meets Flow Control Standards?**

YES **Meets Requirement for Post Development offsite flow less or equal to Pre-Development Flow?**
YES **Meets Requirement for Maximum of 18 Hour Drawdown Time?**

Destination-Calculation Results

Peak Flow Rate to Stormwater Facility =	0.114	cfs	Peak Facility Overflow Rate=	0.000	cfs
Total Runoff Volume to Stormwater Facility =	1671	cf	Total Overflow Volume=	0	cf
Max. Depth of Stormwater in Facility=	11.5	in			
Drawdown Time=	0.2	hours			

Yes **Facility Sizing Meets Destination Standards?**

YES **Meets Requirement of No Facility Flooding?**
YES **Meets Requirement for Maximum of 30 hour Drawdown Time?**

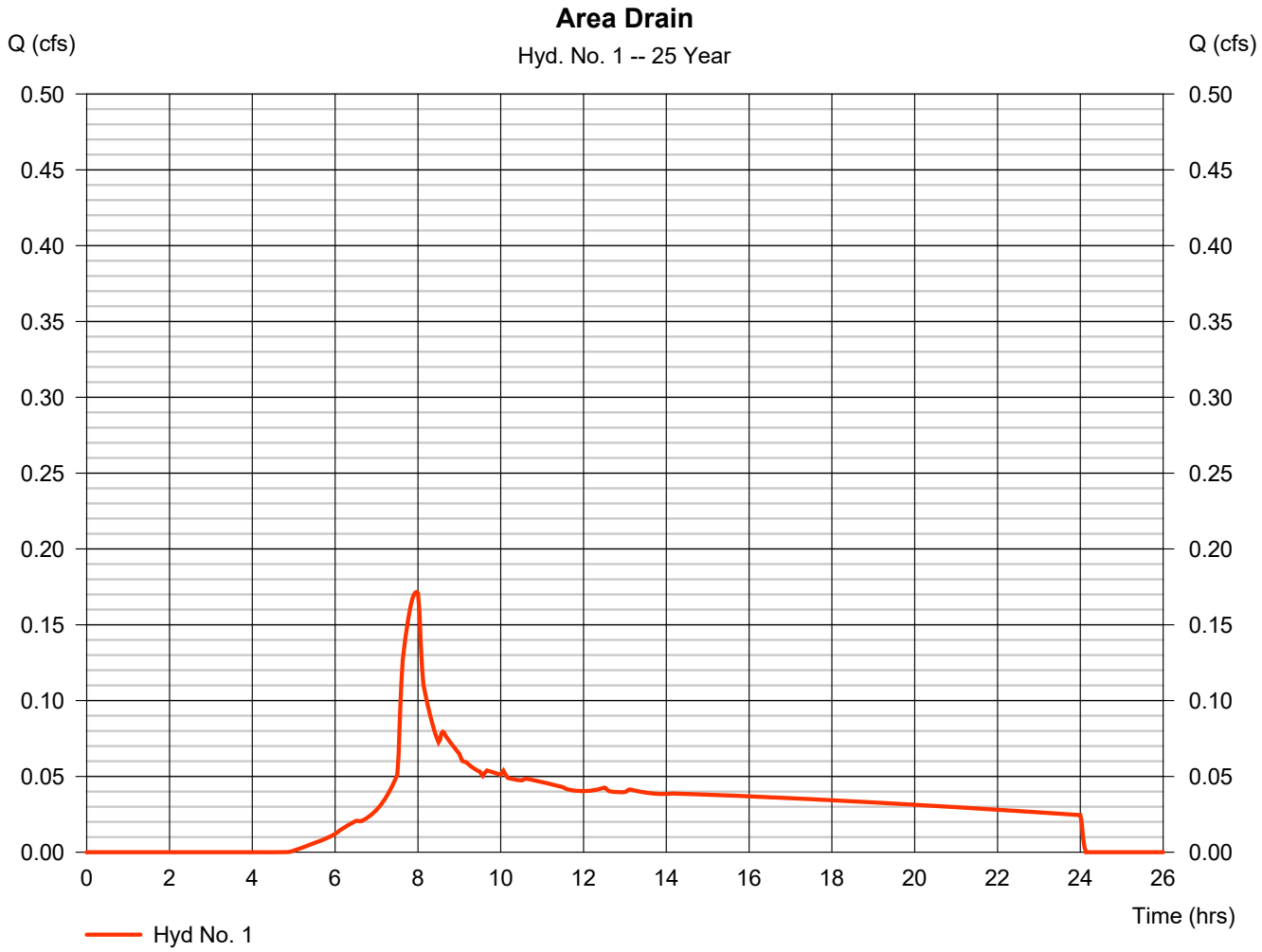
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2018 by Autodesk, Inc. v2018.3 Wednesday, 07 / 26 / 2023

Hyd. No. 1

Area Drain

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.172 cfs
Storm frequency	=	25 yrs	Time to peak	=	7.97 hrs
Time interval	=	2 min	Hyd. volume	=	2,716 cuft
Drainage area	=	0.350 ac	Curve number	=	73
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	5.00 min
Total precip.	=	5.00 in	Distribution	=	Type IA
Storm duration	=	24 hrs	Shape factor	=	484



Worksheet for Overflow 1A

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.056	ft³/s
Crest Elevation		76.96	ft
Tailwater Elevation		73.17	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	77.00	ft
Headwater Height Above Crest	0.04	ft
Tailwater Height Above Crest	-3.79	ft
Flow Area	0.08	ft²
Velocity	0.67	ft/s
Wetted Perimeter	2.17	ft
Top Width	2.09	ft

Worksheet for Overflow 1B-1

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.103	ft³/s
Crest Elevation		76.34	ft
Tailwater Elevation		71.79	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	76.40	ft
Headwater Height Above Crest	0.06	ft
Tailwater Height Above Crest	-4.55	ft
Flow Area	0.13	ft²
Velocity	0.82	ft/s
Wetted Perimeter	2.21	ft
Top Width	2.09	ft

Worksheet for Overflow 1B-2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.069	ft³/s
Crest Elevation		75.97	ft
Tailwater Elevation		71.04	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	76.02	ft
Headwater Height Above Crest	0.05	ft
Tailwater Height Above Crest	-4.93	ft
Flow Area	0.10	ft²
Velocity	0.72	ft/s
Wetted Perimeter	2.18	ft
Top Width	2.09	ft

Worksheet for Overflow 1B-3

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.067	ft³/s
Crest Elevation		75.70	ft
Tailwater Elevation		70.67	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	75.75	ft
Headwater Height Above Crest	0.05	ft
Tailwater Height Above Crest	-5.03	ft
Flow Area	0.09	ft²
Velocity	0.71	ft/s
Wetted Perimeter	2.18	ft
Top Width	2.09	ft

Worksheet for Overflow 1C

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.105	ft³/s
Crest Elevation		75.04	ft
Tailwater Elevation		69.19	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	75.10	ft
Headwater Height Above Crest	0.06	ft
Tailwater Height Above Crest	-5.85	ft
Flow Area	0.13	ft²
Velocity	0.82	ft/s
Wetted Perimeter	2.21	ft
Top Width	2.09	ft

Worksheet for Overflow 1D

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.130	ft³/s
Crest Elevation		74.33	ft
Tailwater Elevation		69.67	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	74.40	ft
Headwater Height Above Crest	0.07	ft
Tailwater Height Above Crest	-4.66	ft
Flow Area	0.15	ft²
Velocity	0.88	ft/s
Wetted Perimeter	2.23	ft
Top Width	2.09	ft

Worksheet for Overflow 1E-1

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.083	ft³/s
Crest Elevation		76.75	ft
Tailwater Elevation		72.25	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	76.80	ft
Headwater Height Above Crest	0.05	ft
Tailwater Height Above Crest	-4.50	ft
Flow Area	0.11	ft²
Velocity	0.76	ft/s
Wetted Perimeter	2.19	ft
Top Width	2.09	ft

Worksheet for Overflow 1E-2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.063	ft³/s
Crest Elevation		76.42	ft
Tailwater Elevation		71.80	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	76.46	ft
Headwater Height Above Crest	0.04	ft
Tailwater Height Above Crest	-4.62	ft
Flow Area	0.09	ft²
Velocity	0.69	ft/s
Wetted Perimeter	2.18	ft
Top Width	2.09	ft

Worksheet for Overflow 1F-1

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.063	ft³/s
Crest Elevation		75.97	ft
Tailwater Elevation		70.84	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	76.01	ft
Headwater Height Above Crest	0.04	ft
Tailwater Height Above Crest	-5.13	ft
Flow Area	0.09	ft²
Velocity	0.69	ft/s
Wetted Perimeter	2.18	ft
Top Width	2.09	ft

Worksheet for Overflow 1F-2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.060	ft³/s
Crest Elevation		75.74	ft
Tailwater Elevation		70.39	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	75.78	ft
Headwater Height Above Crest	0.04	ft
Tailwater Height Above Crest	-5.35	ft
Flow Area	0.09	ft²
Velocity	0.68	ft/s
Wetted Perimeter	2.17	ft
Top Width	2.09	ft

Worksheet for Overflow 1G

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.086	ft³/s
Crest Elevation		75.24	ft
Tailwater Elevation		69.50	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	75.29	ft
Headwater Height Above Crest	0.05	ft
Tailwater Height Above Crest	-5.74	ft
Flow Area	0.11	ft²
Velocity	0.77	ft/s
Wetted Perimeter	2.20	ft
Top Width	2.09	ft

Worksheet for Overflow 1H-1

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.086	ft³/s
Crest Elevation		74.66	ft
Tailwater Elevation		69.92	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	74.71	ft
Headwater Height Above Crest	0.05	ft
Tailwater Height Above Crest	-4.74	ft
Flow Area	0.11	ft²
Velocity	0.77	ft/s
Wetted Perimeter	2.20	ft
Top Width	2.09	ft

Worksheet for Overflow 1H-2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.067	ft³/s
Crest Elevation		74.38	ft
Tailwater Elevation		69.42	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	74.43	ft
Headwater Height Above Crest	0.05	ft
Tailwater Height Above Crest	-4.96	ft
Flow Area	0.09	ft²
Velocity	0.71	ft/s
Wetted Perimeter	2.18	ft
Top Width	2.09	ft

Worksheet for Overflow 2A

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.131	ft³/s
Crest Elevation		77.63	ft
Tailwater Elevation		73.84	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	77.70	ft
Headwater Height Above Crest	0.07	ft
Tailwater Height Above Crest	-3.79	ft
Flow Area	0.15	ft²
Velocity	0.89	ft/s
Wetted Perimeter	2.23	ft
Top Width	2.09	ft

Worksheet for Overflow 2B

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.428	ft³/s
Crest Elevation		77.18	ft
Tailwater Elevation		73.14	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	77.34	ft
Headwater Height Above Crest	0.16	ft
Tailwater Height Above Crest	-4.04	ft
Flow Area	0.33	ft²
Velocity	1.31	ft/s
Wetted Perimeter	2.40	ft
Top Width	2.09	ft

Worksheet for Overflow 2C

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.338	ft³/s
Crest Elevation		76.71	ft
Tailwater Elevation		72.19	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	76.84	ft
Headwater Height Above Crest	0.13	ft
Tailwater Height Above Crest	-4.52	ft
Flow Area	0.28	ft²
Velocity	1.21	ft/s
Wetted Perimeter	2.36	ft
Top Width	2.09	ft

Worksheet for Overflow 2D

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.305	ft³/s
Crest Elevation		76.27	ft
Tailwater Elevation		71.29	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	76.39	ft
Headwater Height Above Crest	0.12	ft
Tailwater Height Above Crest	-4.98	ft
Flow Area	0.26	ft²
Velocity	1.17	ft/s
Wetted Perimeter	2.34	ft
Top Width	2.09	ft

Worksheet for Overflow 2E

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.637	ft³/s
Crest Elevation		75.60	ft
Tailwater Elevation		70.13	ft
Weir Coefficient		3.33	US
Crest Length		2.62	ft
Number Of Contractions	0		

Results

Headwater Elevation	75.77	ft
Headwater Height Above Crest	0.17	ft
Tailwater Height Above Crest	-5.47	ft
Flow Area	0.46	ft²
Velocity	1.39	ft/s
Wetted Perimeter	2.97	ft
Top Width	2.62	ft

Worksheet for Overflow 2F

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		0.149	ft³/s
Crest Elevation		75.47	ft
Tailwater Elevation		70.00	ft
Weir Coefficient		3.33	US
Crest Length		2.09	ft
Number Of Contractions	0		

Results

Headwater Elevation	75.55	ft
Headwater Height Above Crest	0.08	ft
Tailwater Height Above Crest	-5.47	ft
Flow Area	0.16	ft²
Velocity	0.92	ft/s
Wetted Perimeter	2.24	ft
Top Width	2.09	ft

Worksheet for Overflow 2G

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	0.114	ft³/s
Crest Elevation	76.00	ft
Tailwater Elevation	70.80	ft
Weir Coefficient	3.33	US
Crest Length	2.09	ft
Number Of Contractions	0	

Results

Headwater Elevation	76.06	ft
Headwater Height Above Crest	0.06	ft
Tailwater Height Above Crest	-5.20	ft
Flow Area	0.13	ft²
Velocity	0.85	ft/s
Wetted Perimeter	2.22	ft
Top Width	2.09	ft

Worksheet for Pipe P1C

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.056	ft³/s

Results

Normal Depth	1.2	in
Flow Area	0.03	ft²
Wetted Perimeter	0.52	ft
Hydraulic Radius	0.7	in
Top Width	0.47	ft
Critical Depth	0.11	ft
Percent Full	14.7	%
Critical Slope	0.00680	ft/ft
Velocity	1.76	ft/s
Velocity Head	0.05	ft
Specific Energy	0.15	ft
Froude Number	1.20	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00002	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	14.66	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P1C

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.2	in
Critical Depth	0.11	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00680	ft/ft

Worksheet for Pipe P1B

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.159	ft³/s

Results

Normal Depth	2.0	in
Flow Area	0.07	ft²
Wetted Perimeter	0.69	ft
Hydraulic Radius	1.2	in
Top Width	0.57	ft
Critical Depth	0.18	ft
Percent Full	24.5	%
Critical Slope	0.00643	ft/ft
Velocity	2.40	ft/s
Velocity Head	0.09	ft
Specific Energy	0.25	ft
Froude Number	1.24	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00017	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	24.51	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P1B

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	2.0	in
Critical Depth	0.18	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00643	ft/ft

Worksheet for Pipe P1A

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.228	ft³/s

Results

Normal Depth	2.4	in
Flow Area	0.09	ft²
Wetted Perimeter	0.76	ft
Hydraulic Radius	1.3	in
Top Width	0.61	ft
Critical Depth	0.22	ft
Percent Full	29.4	%
Critical Slope	0.00646	ft/ft
Velocity	2.66	ft/s
Velocity Head	0.11	ft
Specific Energy	0.31	ft
Froude Number	1.25	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00036	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	29.45	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P1A

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	2.4	in
Critical Depth	0.22	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00646	ft/ft

Worksheet for Pipe P2

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.295	ft³/s

Results

Normal Depth	2.7	in
Flow Area	0.10	ft²
Wetted Perimeter	0.82	ft
Hydraulic Radius	1.5	in
Top Width	0.63	ft
Critical Depth	0.25	ft
Percent Full	33.6	%
Critical Slope	0.00651	ft/ft
Velocity	2.86	ft/s
Velocity Head	0.13	ft
Specific Energy	0.35	ft
Froude Number	1.25	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00060	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	33.62	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P2

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	2.7	in
Critical Depth	0.25	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00651	ft/ft

Worksheet for Pipe P3

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.400	ft³/s

Results

Normal Depth	3.2	in
Flow Area	0.13	ft²
Wetted Perimeter	0.91	ft
Hydraulic Radius	1.7	in
Top Width	0.65	ft
Critical Depth	0.29	ft
Percent Full	39.6	%
Critical Slope	0.00675	ft/ft
Velocity	3.10	ft/s
Velocity Head	0.15	ft
Specific Energy	0.41	ft
Froude Number	1.23	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00110	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	39.65	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P3

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	3.2	in
Critical Depth	0.29	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00675	ft/ft

Worksheet for Pipe P4C

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.083	ft³/s

Results

Normal Depth	1.4	in
Flow Area	0.04	ft²
Wetted Perimeter	0.58	ft
Hydraulic Radius	0.9	in
Top Width	0.51	ft
Critical Depth	0.13	ft
Percent Full	17.7	%
Critical Slope	0.00664	ft/ft
Velocity	1.98	ft/s
Velocity Head	0.06	ft
Specific Energy	0.18	ft
Froude Number	1.22	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00005	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	17.75	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P4C

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.4	in
Critical Depth	0.13	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00664	ft/ft

Worksheet for Pipe P4B

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.146	ft³/s

Results

Normal Depth	1.9	in
Flow Area	0.06	ft²
Wetted Perimeter	0.67	ft
Hydraulic Radius	1.1	in
Top Width	0.56	ft
Critical Depth	0.17	ft
Percent Full	23.5	%
Critical Slope	0.00645	ft/ft
Velocity	2.34	ft/s
Velocity Head	0.09	ft
Specific Energy	0.24	ft
Froude Number	1.24	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00015	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	23.45	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P4B

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.9	in
Critical Depth	0.17	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00645	ft/ft

Worksheet for Pipe P4A

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.209	ft³/s

Results

Normal Depth	2.3	in
Flow Area	0.08	ft²
Wetted Perimeter	0.75	ft
Hydraulic Radius	1.3	in
Top Width	0.60	ft
Critical Depth	0.21	ft
Percent Full	28.1	%
Critical Slope	0.00641	ft/ft
Velocity	2.59	ft/s
Velocity Head	0.10	ft
Specific Energy	0.29	ft
Froude Number	1.25	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00030	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	28.14	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P4A

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	2.3	in
Critical Depth	0.21	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00641	ft/ft

Worksheet for Pipe P5

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.269	ft³/s

Results

Normal Depth	2.6	in
Flow Area	0.10	ft²
Wetted Perimeter	0.80	ft
Hydraulic Radius	1.4	in
Top Width	0.62	ft
Critical Depth	0.24	ft
Percent Full	32.1	%
Critical Slope	0.00649	ft/ft
Velocity	2.78	ft/s
Velocity Head	0.12	ft
Specific Energy	0.33	ft
Froude Number	1.24	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00050	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	32.10	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P5

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	2.6	in
Critical Depth	0.24	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00649	ft/ft

Worksheet for Pipe P6

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.355	ft³/s

Results

Normal Depth	3.0	in
Flow Area	0.12	ft²
Wetted Perimeter	0.87	ft
Hydraulic Radius	1.6	in
Top Width	0.64	ft
Critical Depth	0.28	ft
Percent Full	37.1	%
Critical Slope	0.00663	ft/ft
Velocity	3.01	ft/s
Velocity Head	0.14	ft
Specific Energy	0.39	ft
Froude Number	1.24	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00086	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	37.12	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P6

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	3.0	in
Critical Depth	0.28	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00663	ft/ft

Worksheet for Pipe P7

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.131	ft³/s

Results

Normal Depth	1.8	in
Flow Area	0.06	ft²
Wetted Perimeter	0.65	ft
Hydraulic Radius	1.1	in
Top Width	0.55	ft
Critical Depth	0.17	ft
Percent Full	22.2	%
Critical Slope	0.00650	ft/ft
Velocity	2.27	ft/s
Velocity Head	0.08	ft
Specific Energy	0.23	ft
Froude Number	1.24	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00012	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	22.23	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P7

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.8	in
Critical Depth	0.17	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00650	ft/ft

Worksheet for Pipe P8

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.559	ft³/s

Results

Normal Depth	3.8	in
Flow Area	0.16	ft²
Wetted Perimeter	1.02	ft
Hydraulic Radius	1.9	in
Top Width	0.67	ft
Critical Depth	0.35	ft
Percent Full	47.8	%
Critical Slope	0.00720	ft/ft
Velocity	3.40	ft/s
Velocity Head	0.18	ft
Specific Energy	0.50	ft
Froude Number	1.20	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00214	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	47.77	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P8

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	3.8	in
Critical Depth	0.35	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00720	ft/ft

Worksheet for Pipe P9

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.897	ft³/s

Results

Normal Depth	5.1	in
Flow Area	0.24	ft²
Wetted Perimeter	1.24	ft
Hydraulic Radius	2.3	in
Top Width	0.64	ft
Critical Depth	0.45	ft
Percent Full	64.2	%
Critical Slope	0.00871	ft/ft
Velocity	3.79	ft/s
Velocity Head	0.22	ft
Specific Energy	0.65	ft
Froude Number	1.10	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00551	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	64.17	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P9

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	5.1	in
Critical Depth	0.45	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00871	ft/ft

Worksheet for Pipe P10

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	1.202	ft³/s

Results

Normal Depth	6.5	in
Flow Area	0.30	ft²
Wetted Perimeter	1.50	ft
Hydraulic Radius	2.4	in
Top Width	0.52	ft
Critical Depth	0.52	ft
Percent Full	81.5	%
Critical Slope	0.01093	ft/ft
Velocity	3.95	ft/s
Velocity Head	0.24	ft
Specific Energy	0.79	ft
Froude Number	0.91	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00990	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	81.49	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P10

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	6.5	in
Critical Depth	0.52	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.01093	ft/ft

Worksheet for Pipe P11

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	10	in
Discharge	1.839	ft³/s

Results

Normal Depth	7.0	in
Flow Area	0.41	ft²
Wetted Perimeter	1.65	ft
Hydraulic Radius	3.0	in
Top Width	0.76	ft
Critical Depth	0.61	ft
Percent Full	70.1	%
Critical Slope	0.00903	ft/ft
Velocity	4.50	ft/s
Velocity Head	0.31	ft
Specific Energy	0.90	ft
Froude Number	1.08	
Maximum Discharge	2.36	ft³/s
Discharge Full	2.19	ft³/s
Slope Full	0.00705	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	70.14	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P11

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	7.0	in
Critical Depth	0.61	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00903	ft/ft

Worksheet for Pipe P12

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	10	in
Discharge	2.158	ft³/s

Results

Normal Depth	8.1	in
Flow Area	0.47	ft²
Wetted Perimeter	1.86	ft
Hydraulic Radius	3.0	in
Top Width	0.66	ft
Critical Depth	0.66	ft
Percent Full	80.6	%
Critical Slope	0.01044	ft/ft
Velocity	4.58	ft/s
Velocity Head	0.33	ft
Specific Energy	1.00	ft
Froude Number	0.95	
Maximum Discharge	2.36	ft³/s
Discharge Full	2.19	ft³/s
Slope Full	0.00970	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	80.64	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P12

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	8.1	in
Critical Depth	0.66	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.01044	ft/ft

Worksheet for Pipe P13

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01490	ft/ft
Diameter	12	in
Discharge	2.913	ft³/s

Results

Normal Depth	7.2	in
Flow Area	0.49	ft²
Wetted Perimeter	1.77	ft
Hydraulic Radius	3.3	in
Top Width	0.98	ft
Critical Depth	0.73	ft
Percent Full	59.9	%
Critical Slope	0.00852	ft/ft
Velocity	5.93	ft/s
Velocity Head	0.55	ft
Specific Energy	1.15	ft
Froude Number	1.48	
Maximum Discharge	4.68	ft³/s
Discharge Full	4.35	ft³/s
Slope Full	0.00669	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	59.89	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P13

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	7.2	in
Critical Depth	0.73	ft
Channel Slope	0.01490	ft/ft
Critical Slope	0.00852	ft/ft

Worksheet for Pipe P14

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.130	ft³/s

Results

Normal Depth	1.8	in
Flow Area	0.06	ft²
Wetted Perimeter	0.65	ft
Hydraulic Radius	1.1	in
Top Width	0.55	ft
Critical Depth	0.16	ft
Percent Full	22.1	%
Critical Slope	0.00650	ft/ft
Velocity	2.26	ft/s
Velocity Head	0.08	ft
Specific Energy	0.23	ft
Froude Number	1.24	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00012	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	22.15	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P14

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.8	in
Critical Depth	0.16	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00650	ft/ft

Worksheet for Pipe P15

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.06270	ft/ft
Diameter	8	in
Discharge	0.114	ft³/s

Results

Normal Depth	1.1	in
Flow Area	0.03	ft²
Wetted Perimeter	0.50	ft
Hydraulic Radius	0.7	in
Top Width	0.45	ft
Critical Depth	0.15	ft
Percent Full	13.3	%
Critical Slope	0.00650	ft/ft
Velocity	4.15	ft/s
Velocity Head	0.27	ft
Specific Energy	0.36	ft
Froude Number	2.97	
Maximum Discharge	3.25	ft³/s
Discharge Full	3.03	ft³/s
Slope Full	0.00009	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	13.26	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P15

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.1	in
Critical Depth	0.15	ft
Channel Slope	0.06270	ft/ft
Critical Slope	0.00650	ft/ft

Worksheet for Pipe P16

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.267	ft³/s

Results

Normal Depth	2.6	in
Flow Area	0.10	ft²
Wetted Perimeter	0.80	ft
Hydraulic Radius	1.4	in
Top Width	0.62	ft
Critical Depth	0.24	ft
Percent Full	32.0	%
Critical Slope	0.00649	ft/ft
Velocity	2.78	ft/s
Velocity Head	0.12	ft
Specific Energy	0.33	ft
Froude Number	1.24	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00049	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	31.97	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P16

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	2.6	in
Critical Depth	0.24	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00649	ft/ft

Worksheet for Pipe P17

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00500	ft/ft
Diameter	10	in
Discharge	0.397	ft³/s

Results

Normal Depth	3.5	in
Flow Area	0.17	ft²
Wetted Perimeter	1.05	ft
Hydraulic Radius	1.9	in
Top Width	0.79	ft
Critical Depth	0.27	ft
Percent Full	34.5	%
Critical Slope	0.00599	ft/ft
Velocity	2.38	ft/s
Velocity Head	0.09	ft
Specific Energy	0.38	ft
Froude Number	0.91	
Maximum Discharge	1.67	ft³/s
Discharge Full	1.55	ft³/s
Slope Full	0.00033	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	34.54	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P17

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	3.5	in
Critical Depth	0.27	ft
Channel Slope	0.00500	ft/ft
Critical Slope	0.00599	ft/ft

Worksheet for Pipe P18

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01000	ft/ft
Diameter	8	in
Discharge	0.086	ft³/s

Results

Normal Depth	1.4	in
Flow Area	0.04	ft²
Wetted Perimeter	0.59	ft
Hydraulic Radius	0.9	in
Top Width	0.51	ft
Critical Depth	0.13	ft
Percent Full	18.1	%
Critical Slope	0.00664	ft/ft
Velocity	2.00	ft/s
Velocity Head	0.06	ft
Specific Energy	0.18	ft
Froude Number	1.22	
Maximum Discharge	1.30	ft³/s
Discharge Full	1.21	ft³/s
Slope Full	0.00005	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	18.06	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P18

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.4	in
Critical Depth	0.13	ft
Channel Slope	0.01000	ft/ft
Critical Slope	0.00664	ft/ft

Worksheet for Pipe P19

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.05200	ft/ft
Diameter	8	in
Discharge	0.170	ft³/s

Results

Normal Depth	1.3	in
Flow Area	0.04	ft²
Wetted Perimeter	0.56	ft
Hydraulic Radius	0.8	in
Top Width	0.50	ft
Critical Depth	0.19	ft
Percent Full	16.8	%
Critical Slope	0.00642	ft/ft
Velocity	4.38	ft/s
Velocity Head	0.30	ft
Specific Energy	0.41	ft
Froude Number	2.77	
Maximum Discharge	2.96	ft³/s
Discharge Full	2.76	ft³/s
Slope Full	0.00020	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.0	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.0	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	16.83	%
Downstream Velocity	Infinity	ft/s

Worksheet for Pipe P19

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	1.3	in
Critical Depth	0.19	ft
Channel Slope	0.05200	ft/ft
Critical Slope	0.00642	ft/ft