EGR & Associates, Inc.

Engineers, Geologists and Surveyors

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

Stormwater Management Report

Fairway Estates PUD Phases 2, 3 and 4
Map and Tax Lot 18-12-15-00-01500
Florence, Oregon
September 22, 2022

Owner/Applicant

Pacific Golf Communities, LLC Roberts Land Company, LLC 4000 Rhododendron Drive Florence, OR 97439

Engineer/Surveyor

EGR & Associates, Inc. 2535B Prairie Road Eugene, Oregon 97402 This page intentionally left blank.

Designer's Certification and Statement

I hereby certify that this Stormwater Management Report for Fairway Estates PUD Phases 2, 3 and 4 has been prepared by me or under my supervision and meets minimum standards of the City of Florence and normal standards of engineering practice. I hereby acknowledge and agree that the jurisdiction does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities designed by me.

9-22-2022 RENEWS: 1/1/2024 This page intentionally left blank.

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 $Appendix \ B-Sizing \ Spread sheets \ and \ Calculations$

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PROJECT OVERVIEW AND DESCRIPTION

The project site is approximately 10.33 acres in size and is identified as Tax Lot 1500 on Lane County Assessor Map 18-12-15-00. The site is located north of the Fairway Estates P.U.D. Phase 1 subdivision, east of the Mariners Village P.U.D. subdivision, west of Florence Golf Links, and south of public lands. Access is from the Fairway Estates P.U.D. Phase 1 subdivision private street system that connects to Rhododendron Drive. A vicinity map is included in Appendix A.

The property is inside the City of Florence and is currently zoned Single Family Residential. Proposed development consists of 42 single-family lots to be developed in three phases starting from the terminus of Fairway Estates P.U.D. Phase 1 and extending northward. Two existing private streets in Phase 1 will be extended into and looped through the proposed development. Underground utilities consisting of public wastewater and water lines, franchise utilities, and private stormwater facilities will be installed to serve the development. These utilities are currently stubbed to the south side of the site from the Phase 1 subdivision improvements.

Local groundwater and surface water generally flows from the northeast to southwest towards the Siuslaw River. The tributary watershed upgradient (north) from the site consists predominantly of undeveloped land situated on Lane County, City of Florence and BLM lands. These lands rely solely on groundwater infiltration for stormwater management. Soils within the watershed, including the project site, consists predominantly of Yaquina loamy fine sand.

The project site is currently vacant land overgrown with coastal brush and trees. Topography is generally flat with an approximate gradient of 1- to 2-percent from north to south. Proposed development will include clearing and grading of the site as needed. A preliminary site grading plan is included in Appendix A. The two private streets currently terminated at the south side of the site will be extended through the development and connected on the north side of the site to create a looped street system. The streets will slope at approximate one-half percent grades from a high point on the north side to the terminus of the current streets. Underground utilities will generally be located within the roadway or in an adjacent public utility easement.

METHODOLOGY

Existing Conditions

Groundwater and surface runoff upgradient (northerly) from the site generally flows to the southwest towards Florence Golf Links, the Mariners Village subdivision, and the project site. Stormwater flow typically concentrates at the northwest corner of Florence Golf Links and northeast corner of the Mariners Village subdivision.

At Florence Golf Links, stormwater is routed to the southwest corner of the golf course property where the stormwater is discharged into a stormwater pipe that terminates at the southeast corner of the Fairway Estates subdivision. This stormwater pipe is part of the Fairway Estates P.U.D. Phase 1 stormwater system.

Stormwater collected at the northeast corner of Mariners Village subdivision is piped underneath the development to a large infiltration basin on the south side of the subdivision. During wet years groundwater levels will come to the surface of the surrounding area. This excess surface water flows southerly between the Mariners Village subdivision and the project site and is discharged into the Phase 1 stormwater system.

The Phase 1 stormwater system includes large diameter stormwater pipes (ranging between 36-inch and 60-inch diameter) that discharge to a public pipe through a flow control manhole located at the Tournament Drive intersection onto Rhododendron Drive. A public 15-inch diameter pipe installed in Rhododendron Drive from the flow control manhole to just north of 35th Street discharges into a ravine that outfalls into the Siuslaw River. The flow control manhole attenuates the rate of discharge from the Fairway Estates on-site system and helps to prevent flows in the ravine from exceeding capacity.

Stormwater management for Phase 1 development consists of stormwater runoff from the roadway being directed into street-side swales. The swales are sized to receive the road and sidewalk runoff only with the intent that the homes address stormwater on site at time of building construction per Florence standards.

No changes to the current stormwater system are proposed as part of this development.

Proposed Stormwater Management

The <u>Florence Stormwater Management Design Manual</u>, <u>Revised September 2011</u> (Florence Stormwater Manual) requires treatment and flow control using vegetated surface facilities to the maximum extent feasible with the standard requirement to maintain peak flow rates at their predevelopment levels for up to the 25-year runoff events. In high groundwater areas, such as sites with Yaquina soil type, groundwater is to be addressed per the Florence Stormwater Manual.

The Phase 1 stormwater management approach addresses groundwater by incorporating an under-drain beneath the infiltration facility that is connected into the on-site piped stormwater system. This is an approved method per the Florence Stormwater Manual.

Stormwater management for proposed new phases will continue the same management approach as in Phase 1. This includes vegetated swales installed along one side of on-site streets sized to receive the road and sidewalk runoff for purpose of water quality and infiltration for up to the 25-year runoff events. Homes will address stormwater on site per Florence standards at time of building construction. An under-drain will be installed beneath the vegetated swales. Overflow from street-side stormwater facilities and under-drains will be directed into the on-site piped system.

ANALYSIS

Presumptive Approach Analysis

The Florence Stormwater Manual requires that the Presumptive Approach be used for projects with new or redeveloped impervious area of 0.5 acre or greater, which applies to this project. Presumptive Approach calculations were performed utilizing the City of Eugene Stormwater Surface Filtration/Infiltration Facility Sizing Spreadsheet. This calculator is an Excel-based spreadsheet that is downloadable from the City of Eugene web page. Runoff calculations are based on unit hydrograph method for a 24-hour storm, NRCS Type 1A rainfall distribution.

Design storms for pollution reduction and flood control are based on a water quality rainfall depth of 0.8 inches and 25-year rainfall depth of 5.06 inches, respectively (from Table 4.1 of Florence Stormwater Manual).

The infiltration rate of dune sand is expected to be greater than 10 inches per hour, but the Florence Stormwater Manual limits the infiltration rate to the assumed long term infiltration rate for the growing medium, or 4 inches per hour.

A pre-development curve number (CN) of 73 is selected based on a Hydrologic Soil Group D and brush with greater than 75-pecent coverage. A post-development CN of 98 is selected for impervious surfaces.

For purposes of this preliminary design, each development phase is delineated into drainage catchments served by individual swales located adjacent to lots on one side of the roadway. Catchment areas are illustrated on the Drainage Basin Map included in Appendix A and consists of pavement and walkway surfaces of the private street adjacent to lots. Size of each vegetated swale is controlled by the required storage needed to fully infiltrate collected stormwater for the design storm, so if the facility size meets destination requirements, then it also meets pollution reduction requirements. Facility sizing spreadsheets for each catchment area are included in Appendix B and summarized on the Drainage Basin Map in Appendix A. These facilities manage runoff from the street surfaces only. Homes will address stormwater on site per Florence standards at time of building construction.

Conveyance Pipes

A stormwater conveyance pipe will be extended with street construction. The conveyance pipe will connect into an existing 36-inch diameter storm pipe that currently ends at the street terminus. The stormwater pipe will collect stormwater from street-side swale overflows and facility under-drains and convey the stormwater to the Phase 1 stormwater system. The conveyance pipes are sized to accommodate peak flow based on 25-year overflow from street-side stormwater facilities. Calculation worksheets for pipe sizes are included in Appendix B. Peak flows are based on peak runoff rate calculations given in the facility sizing spreadsheet for

a 25-year design storm, which results in a peak runoff rate of 0.0137 gpm per square foot impervious area. Peak flows and pipe sizes are summarized below.

Pipe I.D.	Basins Served	Impervious Area, s.f.	Peak Runoff, cfs	Pipe Size Required
Basin 1 Pipe	Basins 1 and 2	43,097	1.32	12"
Basin 2 Pipe	Basin 1	19,612	0.60	10"
Basin 3 Pipe	Basin 3	38,745	1.18	12"

Table 1. Conveyance Pipe Size Summary

Escape Route

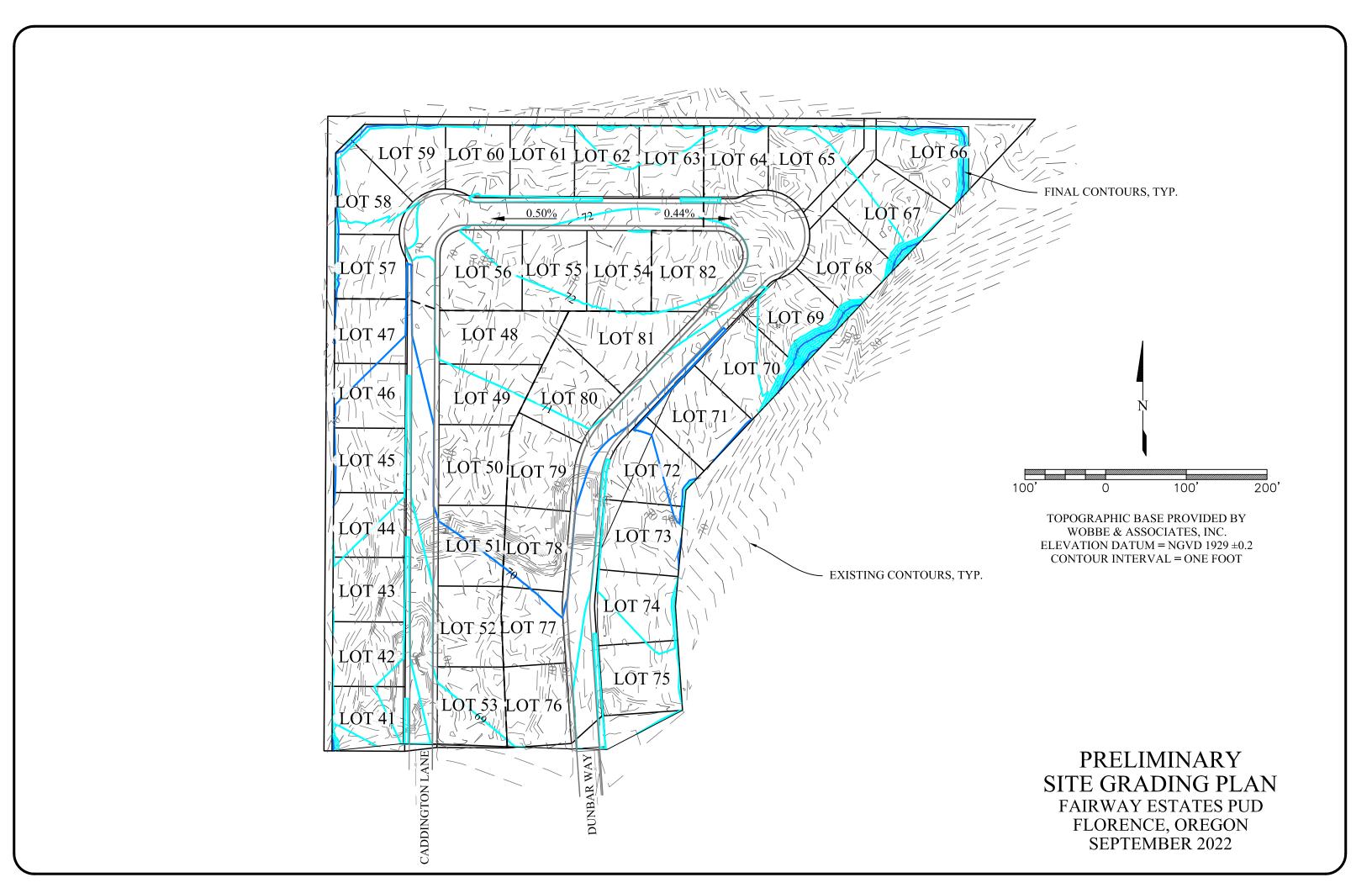
The on-site private stormwater system discharges into a public piped system located in Rhododendron Drive. If the capacity in the public system is exceeded, then stormwater from the subdivision will collect at a low point in the street network on Tournament Drive where a depressed path runs between Lots 28 and 29 to an open space to the south. Stormwater will either temporarily pond in the open space and infiltrate into the ground or at higher levels will discharge to a pre-existing catch basin and 12-inch diameter storm pipe that flows off-site to the south.

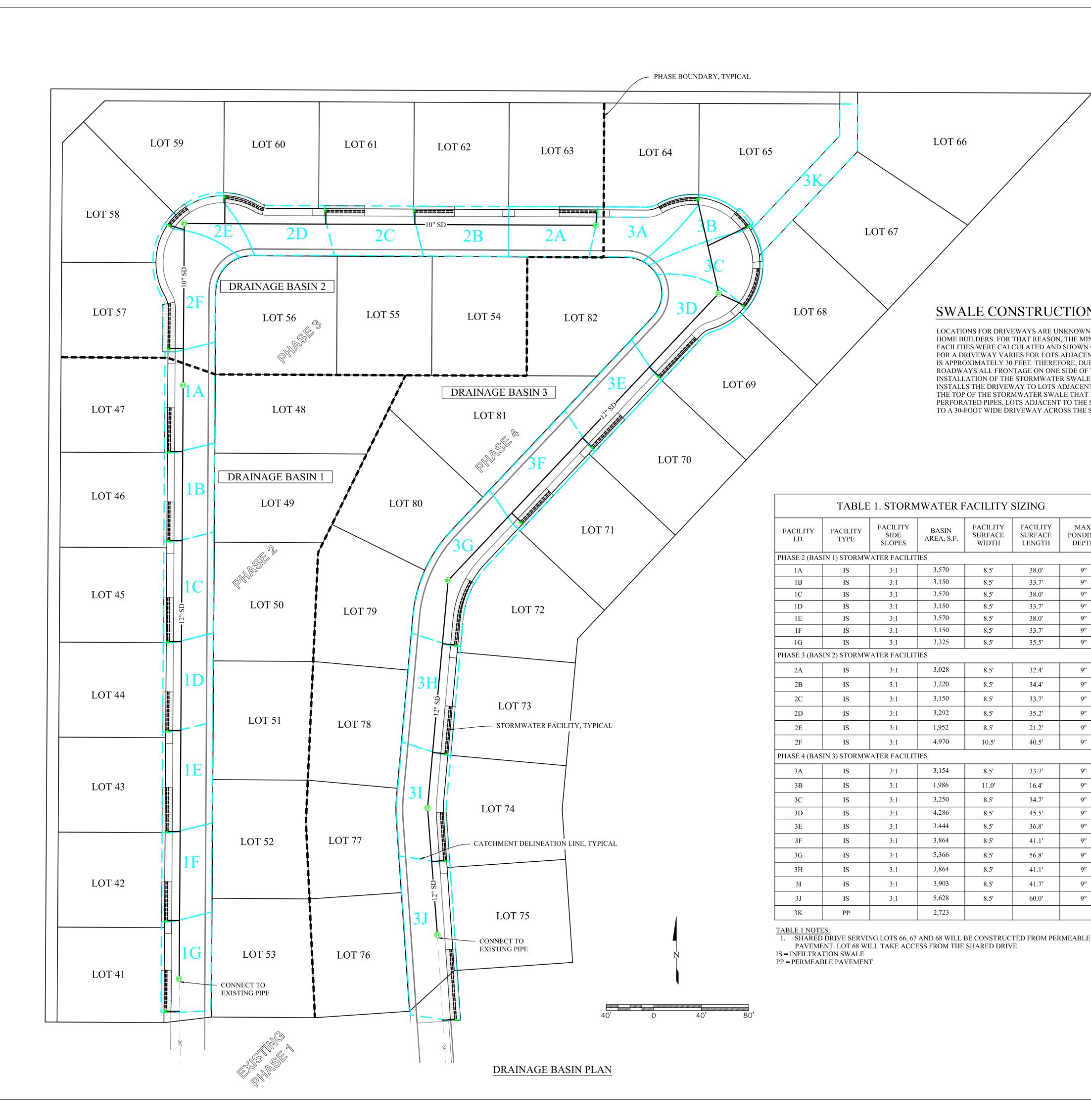
ENGINEERING CONCLUSIONS

- 1. Florence standards require treatment and flow control using vegetated surface facilities to the maximum extent feasible with the standard requirement to maintain peak flow rates at their pre-development levels for up to the 25-year runoff events.
- 2. Site soils are predominantly loamy fine sand that are well suited for infiltration systems. Thus, vegetated infiltration facilities will be used on this site for final destination of stormwater runoff from impervious surfaces.
- 3. Adequate detention storage capacity can be provided using low impact development techniques, such as swales installed adjacent to the street. Surface runoff from pavement and walks will be routed into the street-side facilities. Overflow from these facilities will be directed into the piped stormwater system installed in the street. These facilities will be privately maintained by a homeowner association.
- 4. It is the intent that runoff from roofs will be collected and directed into private individual onsite stormwater facilities sized in accordance with Florence standards when home construction occurs. Individual onsite stormwater facilities will be privately maintained by the homeowner.

APPENDIX A FIGURES







STORMWATER FACILITY DESIGN NOTES

1. FACILITIES ARE SIZED PER THE PRESUMPTIVE APPROACH.

LOT 66

SWALE CONSTRUCTION NOTE

TO A 30-FOOT WIDE DRIVEWAY ACROSS THE SWALE.

FACILITY FACILITY

SURFACE

LENGTH

33.7'

38.0'

33.7'

38.0'

33.7'

35.5'

32.4'

34.4'

33.7'

35.2'

21.2'

40.5'

33.7'

16.4'

34.7'

45.5'

36.8'

41.1'

56.8'

41.1'

41.7'

SURFACE

WIDTH

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

10.5'

8.5'

11.0'

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

8.5'

LOCATIONS FOR DRIVEWAYS ARE UNKNOWN AND WILL BE DETERMINED BY THE

MAX.

PONDING

DEPTH

9"

9"

9"

9"

9"

9"

9"

9"

9"

9"

9"

9"

HOME BUILDERS. FOR THAT REASON, THE MINIMUM SIZE OF STORMWATER FACILITIES WERE CALCULATED AND SHOWN ON THIS MAP. THE AVAILABLE AREA FOR A DRIVEWAY VARIES FOR LOTS ADJACENT TO THE SWALE BUT THE MINIMUM

IS APPROXIMATELY 30 FEET. THEREFORE, DURING CONSTRUCTION OF THE

LOT 67

FACILITY

SIDE

SLOPES

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

3:1

BASIN

AREA, S.F

3,150

3,570

3,150

3,570

3,150

3,325

3,028

3,220

3,150

3,292

1,952

4,970

3,154

1,986

4,286

3,444

3,864

5,366

3,903

5,628

2,723

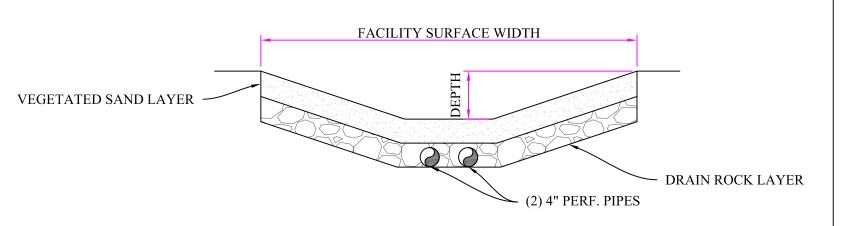
- 2. RUNOFF CALCULATIONS ARE PER THE UNIT HYDROGRAPH METHOD, 24 HOUR
- STORM, NRCS TYPE 1A RAINFALL DISTRIBUTION. 3. FACILITIES ARE SIZED TO MEET POLLUTION REDUCTION, FLOW CONTROL, AND FINAL DESTINATION (INFILTRATION FACILITY) STANDARDS.
- 4. PER FLORENCE STORMWATER MANUAL, A WATER QUALITY DESIGN RAINFALL 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 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 DEPTH 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 THE PRIVATE PIPED STORMWATER SYSTEM. THE PIPED SYSTEM DISCHARGES INTO A PUBLIC STORM DRAIN PIPE LOCATED IN RHODODENDRON DRIVE THAT DISCHARGES IN THE SIUSLAW RIVER SOUTHWEST OF THE SITE. IN EVENT THE PIPED SYSTEM CAPACITY IS EXCEEDED, THEN THE FINAL ESCAPE ROUTE IS AT THE LOW POINT OF THE PHASE 1 PROJECT ON TOURNAMENT DRIVE WHERE A DEPRESSED PATH BETWEEN LOTS 28 AND 29 CONNECTS TO AN OPEN SPACE TO THE SOUTH.

PRIVATE STORM PIPE

<u>| WALK</u>

ROADWAYS ALL FRONTAGE ON ONE SIDE OF THE ROADWAY WILL INCLUDE INSTALLATION OF THE STORMWATER SWALE. WHEN THE HOME BUILDER INSTALLS THE DRIVEWAY TO LOTS ADJACENT TO THE SWALE, IT WILL BE OVER THE TOP OF THE STORMWATER SWALE THAT IS INTERCONNECTED BY PERFORATED PIPES. LOTS ADJACENT TO THE SWALE WILL BE ABLE TO INSTALL UP STREET PAVEMENT 6" CURB -2% SLOPE PERFORATED UNDER-DRAIN PIPE BENEATH INFILTRATION SWALE - INFILTRATION SWALE. OVERFLOW STRUCTURE OVERFLOW STRUCTURE AND UNDER-DRAIN DISCHARGE PIPE CONNECTS INTO PRIVATE STORM PIPE.

TYPICAL STREET-SIDE SWALE PLAN



TYPICAL STORMWATER SWALE

DRAINAGE BASIN MAP FAIRWAY ESTATES PUD FLORENCE, OREGON SEPTEMBER 2022

APPENDIX B SIZING SPREADSHEETS AND CALCULATIONS



Depth of Growing Medium (Soil)=

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:	Fairway Estates			Date:	5/19/2022	
Project Address:	<u>18-12-15-00-01500</u>			Permit Number:	<u>NA</u>	
	Florence, OR			Catchment ID:	<u>1A</u>	
Designer:	Clint Beecroft					
Company:	EGR & Associates					
Instructions: 1. Complete this form for 2. Provide a distinctive C calculations with the fa 3. The maximum drainag 4.For infiltration facilities	each drainage catch atchment ID for each acility. In catchment to be more in Class A or B soils maximum soil infiltration of the composition of the catchment to be more in Class A or B soils maximum soil infiltration of the catchment in Class A or B soils maximum soil infiltration of the catchment in Class A or B soils maximum soil infiltration of the catchment in Class A or B soils in Class A or B soils in Class A or B soils maximum soil infiltration of the catchment in Class A or B soils in Class A	facility coordinated with odeled per the Presumpt where no infiltration testi on rate of 2.5 in/hr for to	the site basin ive Approach ng has been p psoil/growing	map to correlate the is 1 acre (43,560 SF perfromed use an informedium.	e appropriate -) filtration rate of 0	0.5 in/hr.
Destination	` '	*An infiltration facility must be o	chosen as the faci	lity type to meet destination	on requirements	
Site Data-Post Develop	ment					
Total Square Footage	pervious Area CN=	3570 sqft 98 3570 sft		Square Footage Po Pervi	ous Area CN=	0 sqft 85 5 min
Site Data-Pre Developm	nent (Data in th	is section is only used	if Flow Cont	rol is required)		
Pre	e-Development CN=	73	Time of C	oncentration Pre-D	Development=	10 min
Soil Data						
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See Not 4 in/hr	re 4)		ation Design= filtration Rate	5 in/hr
Design Storms Used Fo	or 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				
Eacility Data						
Facility Data		I elle el el	Di d		F	000 %
		Infiltration Stormwater	Planter	_	Surface Area=	323 sqft
	Surface Width=	8.5 ft		Facility Surfac	 -	93 ft
-	Surface Length=	38 ft		_	Bottom Area=	134 sqft
	acility Side Slopes=	3 to 1		Facility Botto	m Perimeter=	75 ft
	Ponding Depth mwater Facility=	9 in		В	asin Volume=	179.0 cf

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Ratio of Facility Area to Impervious Area=

0.090

Pollution Reduction-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.015 cfs	Peak Facility Overflow Rate= 0.000 cfs
Total Runoff Volume to Stormwater Facility =	186 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	0.0 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Med	ets Pollution Reduction	Standards?
	rement of No Facility Floodin rement for Maximum of 18 Ho	
Flow Control-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.109 cfs	Peak Facility Overflow Rate= 0.038 cfs
Total Runoff Volume to Stormwater Facility =	1432 cf	Total Overflow Volume= 48 cf
	1102 01	Peak Off-Site Flow Rate
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs
Drawdown Time=	0.2 hours	· · · · · · · · · · · · · · · · · · ·
Pre-Development Rur Peak Flow Rate = Total Runoff Volume =	0.043 cfs 692 cf	
Yes Facility Sizing Med	ets Flow Control Standa	rds?
· · · · · · · · · · · · · · · · · · ·	rement for Post Development rement for Maximum of 18 Ho	t offsite flow less or equal to Pre-Development Flow? our Drawdown Time?
Destination-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.109 cfs	Peak Facility Overflow Rate= 0.000 cfs
Facility =	1432 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	8.9 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Med	ets Destination Standard	ds?
	rement of No Facility Floodin rement for Maximum of 30 ho	

5/19/2022-5:41 AM 2



EUGENE	City of Eugene					
	Version 2.1					
Project Information						
Project Name: Project Address: Designer: Company:	Fairway Estates 18-12-15-00-01500 Florence, OR Clint Beecroft EGR & Associates			Date: 5/19/2022 nit Number: NA hment ID: 1B		
 Provide a distinctive C calculations with the fa The maximum drainag For infiltration facilities 	each drainage catch atchment ID for each acility. ge catchment to be m in Class A or B soils maximum soil infiltrati	ment in the project site that is facility coordinated with the since the presumptive Apwhere no infiltration testing hat on rate of 2.5 in/hr for topsoil/	ite basin map to pproach is 1 acr s been perfrome	correlate the appropriate re (43,560 SF) red use an infiltration rate of 0.	5 in/hr.	
Design Requirements.						
Choose "Yes" from the d	ropdown boxes below	next to the design standards	requirements for	or this facility.		
Pollution Reducti Flow Cont Destinati	rol (FC) Yes on (DT) Yes	*An infiltration facility must be chosen	as the facility type to	o meet destination requirements		
Site Data-Post Develop	ment					
In	Total Square Footage Impervious Area 3150 sqft Impervious Area CN 98 Total Square Footage Pervious Area CN 98 Total Square Footage of Drainage Area 3150 sft Weighted Average CN 98 Time of Concentration Post Development 5 min					
Site Data-Pre Developn	nent (Data in th	is section is only used if Flo	w Control is re	equired)		
Pre Soil Data	e-Development CN=	73 Ti	ime of Concent	ration Pre-Development=	10 min	
Tested Se	oil Infiltration Rate= oil Infiltration Rate= or Calculations	10 in/hr (See Note 4) 4 in/hr		Destination Design= Soil Infiltration Rate	5 in/hr	
		Dagian Storm				
Requirement Pollution Reduction Flow Control Destination	Rainfall Depth 0.8 inches 5.1 inches 5.1 inches	Design Storm Water Quality Flood Control Flood Control				
Facility Data						
Max. I	Facility Type= Surface Width= Surface Length= acility Side Slopes= Ponding Depth mwater Facility= ving Medium (Soil)=	Infiltration Stormwater Plan 8.5 ft 33.7 ft 3 to 1 9 in 2 in Re	Fa	Facility Surface Area= acility Surface Perimeter= Facility Bottom Area= acility Bottom Perimeter= Basin Volume= Area to Impervious Area=	286.45 sqft 84.4 ft 117 sqft 66 ft 158.8 cf 0.091	

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Pollution Reduction-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.013 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Total Runoff Volume to Stormwater Facility =	164 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.0 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Mee	ets Pollution Reduction Sta	ndards?		
YES Meets Requir	rement of No Facility Flooding?			
	rement for Maximum of 18 Hour [Drawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.096 cfs	Peak Facility Overflow Rate= 0.033 cfs		
Total Runoff Volume to Stormwater				
Facility =	1263 cf	Total Overflow Volume= 42 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Run				
Peak Flow Rate =	0.038 cfs			
Total Runoff Volume =	611 cf			
Yes Facility Sizing Mee	ets Flow Control Standards	?		
	rement for Post Development offs rement for Maximum of 18 Hour [site flow less or equal to Pre-Development Flow? Drawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.096 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Total Runoff Volume to Stormwater	0.000			
Facility =	1263 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.9 in	<u> </u>		
Drawdown Time=	0.2 hours			
Yes Facility Sizing Mee	ets Destination Standards?			
VEO. Marka Barratara and of Na Facility Flag 11 0				
	rement of No Facility Flooding? rement for Maximum of 30 hour D)rawdown Time?		
Infects Requir		,		

5/19/2022-5:46 AM 2



EUGENE	City of Eugene				
	Version 2.1				
Project Information					
Project Name:	Fairway Estates		Date:	<u>5/19/2022</u>	
Project Address:	<u>18-12-15-00-01500</u>		Permit Number:	NA NA	
	Florence, OR		Catchment ID:	<u>1C</u>	
Designer:	Clint Beecroft				
Company:	EGR & Associates				
Instructions:					
	-		that is to be sized per the Presum		
		facility coordinated with	the site basin map to correlate th	ie appropriate	
calculations with the fa	•	adalad par the Presump	tive Approach is 1 acre (43,560 S	· = \	
-			ing has been perfromed use an in		/hr
		on rate of 2.5 in/hr for to	-	miliation rate of 0.5 m/	'111.
	TIGATITUM SON INTINUAL	0111416 01 2.0 11/111 101 16			
Design Requirements:					
Choose "Yes" from the d	ropdown boxes below	next to the design stan	dards requirements for this facility	y.	
Pollution Reduction					
Flow Conti	` ′				
Destination	on (DT) Yes	*An infiltration facility must be	chosen as the facility type to meet destinat	ion requirements	
21 2 2 2					
Site Data-Post Develop	ment				
Total Square Footage	e Impervious Area=	3570 sqft	Total Square Footage P	'ervious Area=	0 sqft
lm	pervious Area CN=	98	Perv	ious Area CN=	85
T.10 F.		0570 6			
Total Square Footage	_	3570 sft	Time of Concentration Post	Development=	5 min
	ghted Average CN=	98			
Site Data-Pre Developm	ent (Data in th	is section is only used	I if Flow Control is required)		
Pre	e-Development CN=	73	Time of Concentration Pre-	Development=	10 min
Soil Data					
Tested So	oil Infiltration Rate=	10 in/hr (See No	ote 4) Destin	nation Design=	5 in/hr
Design So	oil Infiltration Rate=	4 in/hr		nfiltration Rate	
Design Storms Used Fo	or Calculations				
Requirement	Rainfall Depth	Design Storm			
Pollution Reduction		Water Quality			
Flow Control		Flood Control			
Destination		Flood Control			
Facility Data					
demity Data	Equility Tymes	Infiltration Starmusta	r Dianter Facility	Surface Areas	222 orft
		Infiltration Stormwate		Surface Area=	323 sqft
	Surface Width= Surface Length=	8.5 ft 38 ft	•	ace Perimeter= Bottom Area=	93 ft 134 sqft
E.	acility Side Slopes=	38 II	•	om Perimeter=	75 ft
	Ponding Depth	3 10 1	Facility Botto	Jiii Felillietel –	7511
	mwater Facility=	9 in	E	Basin Volume=	179.0 cf
	ing Medium (Soil)=	2 in	Ratio of Facility Area to Imp		0.090

5/19/2022-5:47 AM

Ratio of Facility Area to Impervious Area=

Depth of Growing Medium (Soil)=

Pollution Reduction-Calculation Results					
Peak Flow Rate to Stormwater Facility =	0.015 cfs	Peak Facility Overflow Rate= 0.000 cfs			
Total Runoff Volume to Stormwater					
Facility =	186 cf	Total Overflow Volume= 0 cf			
Max. Depth of Stormwater in Facility=	0.0 in				
Drawdown Time=	0.2 hours				
	s Pollution Reduction Star	ndards?			
-	ment of No Facility Flooding?				
YES Meets Requirer	ment for Maximum of 18 Hour D	Drawdown Time?			
Flow Control-Calculation Results					
Peak Flow Rate to Stormwater Facility =	0.109 cfs	Peak Facility Overflow Rate= 0.038 cfs			
Total Runoff Volume to Stormwater					
Facility =	1432 cf	Total Overflow Volume= 48 cf			
		Peak Off-Site Flow Rate			
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs			
Drawdown Time=	0.2 hours				
Pre-Development Runo Peak Flow Rate = Total Runoff Volume =	ff Data 0.043 cfs 692 cf				
Yes Facility Sizing Meets Flow Control Standards?					
	ment for Post Development offs ment for Maximum of 18 Hour D	site flow less or equal to Pre-Development Flow? Prawdown Time?			
Destination-Calculation Results					
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.109 cfs	Peak Facility Overflow Rate= 0.000 cfs			
Facility =	1432 cf	Total Overflow Volume= 0 cf			
Max. Depth of Stormwater in Facility=	8.9 in				
Drawdown Time=	0.2 hours				
Yes Facility Sizing Meets Destination Standards?					
YES Meets Requirement of No Facility Flooding?					
	ment for Maximum of 30 hour D	rawdown Time?			
<u> </u>					

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Project Information Project Name: Fairway Estates		Version 2.1		
Project Address: 18-12-15-00-1509 Permit Number: NA Catchment ID: 10 Designer: Clint Beacroft 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 performed 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 In infiltration facility must be chosen as the facility type to meet destination requirements Site Data-Post Development Total Square Footage Impervious Areas 3150 sqft Total Square Footage Pervious Area ON= 85 min Weighted Average CN= 98 Total Square Footage of Drainage Areas 3150 sqft Time of Concentration Post Development 5 min Weighted Average CN= 98 Total Square Footage of Drainage Areas 3150 sqft Time of Concentration Post Development 5 min Weighted Average CN= 98 Trested Soil Infiltration Rates 10 in/hr (See Note 4) Destination Design 5 in/hr Design Soil Infiltration Rate 4 in/hr Soil Infiltration Rate 5 in/hr Soil Infiltration Rate 4 in/hr Soil Infiltration Rate 5 in/hr Facility Surface Areas 268.55 sqft Facility Surface Areas 44.4 ft Facility Surface Lengths 5 in/hr Facility Surface Lengths 5 in/hr Facility Surface Lengths 65 ft Facility Surface Perimeter 66 ft Facility Bottom Areas 66 ft Facility Bottom Perimeter 66 ft F	Project Information			
Posigner: Climb Beacroft Company: ECR & Associates		Fairway Estates		Date: <u>5/19/2022</u>
Designer: Clint Beecroft	Project Address:	18-12-15-00-01500		Permit Number: <u>NA</u>
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 inflitration facilities in Class A or B soils where no inflitration testing has been performed use an inflitration rate of 0.5 in/hr. For all facilities use a maximum soil inflitration 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)		Florence, OR		Catchment ID: 1D
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 performed 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) 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= Impervious Area CN= 98 Site Data-Pro Dotage Impervious Area= Weighted Average CN= 98 Site Data-Pro Development (Data in this section is only used if Flow Control is required) Pre-Development (Data in this section is only used if Flow Control is required) Pre-Development CN= Tested Soil Infiltration Rate= Design Storms Used For Calculations Requirement Posign Soil Infiltration Rate= Design Storms Used For Calculations Requirement Facility Data Facility Inches Facility Surface Area= Surface Width= Surface Width= Surface Wi	Designer:	Clint Beecroft		
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 performed 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 Area 3150 sqft Pervious Area CN 85 Total Square Footage of Drainage Area 3150 sqft Pervious Area CN 85 Total Square Footage of Drainage Area 3150 sqft 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= 10 min Soil Data Tested Soil Infiltration Rate= 10 in/hr (See Note 4) Destination Design= 5 in/hr Soil Infiltration Rate Design Storms Used For Calculations Requirement Rainfall Depth Design Storm Pollution Reduction 5.1 inches Flood Control Destination 5.1 inches Flood Control Destination Destination Pre-Developmenter= 84.4 ft Facility Surface Area 117 sqft Facility Bottom Pre-Derimeter= 66 ft Max. Ponding Depth	Company:	EGR & Associates		
Total Square Footage Impervious Area 3150 sqft Pervious Area CN 98 Total Square Footage of Drainage Area 3150 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 10 min Soil Data Tested Soil Infiltration Rate 10 in/hr (See Note 4) Destination Design 5 in/hr 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 286.45 Surface Width 8.5 ft Facility Surface Perimeter 84.4 ft Facility Surface Perimeter 84.4 ft Facility Side Slopes 3 to 1 Facility Bottom Area 117 Min Min	Instructions: 1. Complete this form for 2. Provide a distinctive C calculations with the fraction of the frac	r each drainage catch catchment ID for each acility. ge catchment to be m in Class A or B soils maximum soil infiltrat lropdown boxes below on (PR) Yes rol (FC) Yes	facility coordinated with the sodeled per the Presumptive A where no infiltration testing his ion rate of 2.5 in/hr for topsoil when the design standards	site basin map to correlate the appropriate Approach is 1 acre (43,560 SF) has been perfromed use an infiltration rate of 0.5 in/hr. Il/growing medium. s requirements for this facility.
Total Square Footage of Drainage Area = 3150 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 = 10 min Soil Data Tested Soil Infiltration Rate = 10 in/hr (See Note 4) Destination Design = 5 in/hr Soil Infiltration Rate 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 Surface Area = 286.45 sqft ft Facility Surface Perimeter = 34.4 ft Facility Surface Perimeter = 34.4 ft Facility Surface Perimeter = 34.4 ft Facility Surface Area = 117 sqft Facility Side Slopes = 3 to 1 Facility Bottom Area = 117 sqft Facility Bottom Perimeter = 66 ft Max. Ponding Depth	Site Data-Post Develop	ment		
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= 10 min Soil Data Tested Soil Infiltration Rate= 10 in/hr (See Note 4) Destination Design= 5 in/hr Soil Infiltration Rate 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= 286.45 sqft Surface Width= 8.5 ft Facility Surface Perimeter= 84.4 ft Surface Length= 33.7 ft Facility Surface Perimeter= 84.4 ft Facility Side Slopes= 3 to 1 Facility Bottom Area= 117 sqft Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft	In Total Square Footag	npervious Area CN= e of Drainage Area=	98 3150 sft Ti	Pervious Area CN= 85
Soil Data Tested Soil Infiltration Rate= 10 in/hr (See Note 4) Destination Design= 5 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 Surface Width= 8.5 ft Facility Surface Perimeter= 84.4 ft Facility Surface Length= 33.7 ft Facility Bottom Area= 117 sqft Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft Max. Ponding Depth				low Control is required)
Tested Soil Infiltration Rate=				
Tested Soil Infiltration Rate= 10 in/hr (See Note 4) Destination Design= 5 in/hr Design Soil Infiltration Rate= 4 in/hr Soil Infiltration Rate Design Storms Used For Calculations Requirement Rainfall Depth Design Storm		e-Development CN=	13	nime of Concentration Pre-Development=
Design Soil Infiltration Rate 4 in/hr Soil Infiltration Rate Design Storms Used For Calculations Requirement Rainfall Depth Design Storm	Soil Data			
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 Surface Width= 8.5 ft Facility Surface Area= 286.45 ft Facility Surface Perimeter= 84.4 ft Facility Surface Length= 33.7 ft Facility Side Slopes= 3 to 1 Facility Bottom Area= 117 sqft Max. Ponding Depth				
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 Surface Width= Surface Width= Surface Length= 33.7 ft Facility Bottom Area= 117 sqft Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft Max. Ponding Depth	Design Storms Used F	or Calculations		
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 Surface Width= Surface Width= Surface Length= 33.7 ft Facility Bottom Area= 117 sqft Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft Max. Ponding Depth	Requirement	Rainfall Depth	Design Storm	
Flow Control 5.1 inches Flood Control Destination 5.1 inches Flood Control Facility Data Facility Type= Infiltration Stormwater Planter Surface Width= 8.5 ft Facility Surface Perimeter= 84.4 ft Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft Max. Ponding Depth				
Destination 5.1 inches Flood Control		†	•	
Facility Type= Infiltration Stormwater Planter Surface Width= 8.5 ft Facility Surface Perimeter= 84.4 ft Surface Length= 33.7 ft Facility Bottom Area= 117 sqft Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft Max. Ponding Depth				
Facility Type= Infiltration Stormwater Planter Surface Width= 8.5 ft Facility Surface Perimeter= 84.4 ft Surface Length= 33.7 ft Facility Bottom Area= 117 sqft Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft Max. Ponding Depth	Facility Data			
	F Max.	Surface Width= Surface Length= acility Side Slopes=	8.5 ft 33.7 ft	Facility Surface Perimeter= 84.4 ft Facility Bottom Area= 117 sqft

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Ratio of Facility Area to Impervious Area=

Depth of Growing Medium (Soil)=

0.091

Pollution Reduction-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.013 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Total Runoff Volume to Stormwater Facility =	164 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.0 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Mee	ets Pollution Reduction Sta	ndards?		
YES Meets Requir	rement of No Facility Flooding?			
	rement for Maximum of 18 Hour [Drawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.096 cfs	Peak Facility Overflow Rate= 0.033 cfs		
Total Runoff Volume to Stormwater				
Facility =	1263 cf	Total Overflow Volume= 42 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Run				
Peak Flow Rate =	0.038 cfs			
Total Runoff Volume =	611 cf			
Yes Facility Sizing Mee	ets Flow Control Standards	?		
	rement for Post Development offs rement for Maximum of 18 Hour [site flow less or equal to Pre-Development Flow? Drawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.096 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Total Runoff Volume to Stormwater	0.000			
Facility =	1263 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.9 in	<u> </u>		
Drawdown Time=	0.2 hours			
Yes Facility Sizing Mee	ets Destination Standards?			
VEO. Marka Barratara and of Na Facility Flag 11 0				
	rement of No Facility Flooding? rement for Maximum of 30 hour D)rawdown Time?		
Infects Requir		,		

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Depth of Growing Medium (Soil)=

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

Project Information	Version 2.1				
	Fairway Fatataa			Date: 5/40/2022	
Project Name: Project Address:	Fairway Estates			Date: <u>5/19/2022</u> Permit Number: <u>NA</u>	
Project Address:	18-12-15-00-01500				
Docionori	Florence, OR			Catchment ID: <u>1E</u>	
Designer:	Clint Beecroft				
Company:	EGR & Associates				
Instructions:					
1. Complete this form fo	r each drainage catch	ment in the project site	that is to be siz	zed per the Presumptive Approach.	
		· ·		map to correlate the appropriate	
calculations with the f	acility.				
3. The maximum draina	ge catchment to be m	odeled per the Presump	tive Approach	is 1 acre (43,560 SF)	
4.For infiltration facilities	in Class A or B soils	where no infiltration test	ting has been p	perfromed use an infiltration rate of	0.5 in/hr.
For all facilities use a	maximum soil infiltrat	on rate of 2.5 in/hr for to	opsoil/growing	medium.	
Design Requirements					
Choose "Yes" from the	drondown hoxes helov	next to the design star	ndards requirer	nents for this facility	
Onloge Tes nom the C	aropaowii boxes belov	The At to the design star	idal do l'oquil ci	ionis for this facility.	
Pollution Reducti	ion (PR) Yes				
Flow Cont	rol (FC) Yes				
Destinat	ion (DT) Yes	*An infiltration facility must be	chosen as the faci	lity type to meet destination requirements	
	` '	,		,	
Site Data-Post Develor	oment				
Total Square Footag	je Impervious Area=	3570 sqft	Total	Square Footage Pervious Area=	0 sqft
	npervious Area CN=	98	Total	Pervious Area CN=	
	iipei vious Aicu Oit	00		1 GIVIOUS AIGU GIV	<u> </u>
Total Square Footag	e of Drainage Area=	3570 sft	Time of Co	ncentration Post Development=	5 min
	ighted Average CN=	98			
Site Data-Pre Developr		is section is only used	l if Flow Cont	rol is required)	
-	e-Development CN=	73		oncentration Pre-Development=	10 min
	e-Development ON-	13		oncentration Fre-Development-	10
Soil Data					
	oil Infiltration Rate=	10 in/hr (See No	ote 4)	Destination Design=	
Design S	oil Infiltration Rate=	4 in/hr		Soil Infiltration Rate	
Design Storms Used F	or 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 Stormwate	r Planter	Facility Surface Area=	323 sqft
	Surface Width=	8.5 ft		Facility Surface Perimeter=	
	Surface Length=	38 ft		Facility Bottom Area=	
F	acility Side Slopes=	3 to 1		Facility Bottom Perimeter=	
	Ponding Depth				
	mwater Facility=	9 in		Basin Volume=	179.0 cf

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Ratio of Facility Area to Impervious Area=

0.090

Pollution Reduction-Calculation Results					
Peak Flow Rate to Stormwater Facility =	0.015 cfs	Peak Facility Overflow Rate= 0.000 cfs			
Total Runoff Volume to Stormwater					
Facility =	186 cf	Total Overflow Volume= 0 cf			
Max. Depth of Stormwater in Facility=	0.0 in				
Drawdown Time=	0.2 hours				
	s Pollution Reduction Star	ndards?			
-	ment of No Facility Flooding?				
YES Meets Requirer	ment for Maximum of 18 Hour D	Drawdown Time?			
Flow Control-Calculation Results					
Peak Flow Rate to Stormwater Facility =	0.109 cfs	Peak Facility Overflow Rate= 0.038 cfs			
Total Runoff Volume to Stormwater					
Facility =	1432 cf	Total Overflow Volume= 48 cf			
		Peak Off-Site Flow Rate			
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs			
Drawdown Time=	0.2 hours				
Pre-Development Runo Peak Flow Rate = Total Runoff Volume =	ff Data 0.043 cfs 692 cf				
Yes Facility Sizing Meets Flow Control Standards?					
	ment for Post Development offs ment for Maximum of 18 Hour D	site flow less or equal to Pre-Development Flow? Prawdown Time?			
Destination-Calculation Results					
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.109 cfs	Peak Facility Overflow Rate= 0.000 cfs			
Facility =	1432 cf	Total Overflow Volume= 0 cf			
Max. Depth of Stormwater in Facility=	8.9 in				
Drawdown Time=	0.2 hours				
Yes Facility Sizing Meets Destination Standards?					
YES Meets Requirement of No Facility Flooding?					
	ment for Maximum of 30 hour D	rawdown Time?			
<u> </u>					

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	Version 2.1				
Project Information					
Project Name:	Fairway Estates		Date:	5/19/2022	
Project Address:	18-12-15-00-01500		Permit Number:	NA	
•	Florence, OR		Catchment ID:	1F	
Designer:	Clint Beecroft			_	
Company:	EGR & Associates				
 Provide a distinctive C calculations with the fa The maximum drainag For infiltration facilities For all facilities use a 	Catchment ID for each acility. ge catchment to be modern in Class A or B soils we maximum soil infiltration	ment in the project site that is to facility coordinated with the site odeled per the Presumptive Appwhere no infiltration testing has lon rate of 2.5 in/hr for topsoil/gro	basin map to correlate the roach is 1 acre (43,560 S been perfromed use an in	e appropriate	n/hr.
Design Requirements:					
Choose "Yes" from the d	dropdown boxes below	next to the design standards re	equirements for this facility	<i>į</i> .	
Pollution Reducti Flow Cont Destinati	rol (FC) Yes	*An infiltration facility must be chosen as	the facility type to meet destinat	ion requirements	
Site Data-Post Develop	ment				
Total Square Footag	npervious Area CN=	98	Total Square Footage P Perv of Concentration Post	ious Area CN=	0 85 5 min
Site Data-Pre Developn	nent (Data in thi	s section is only used if Flow	Control is required)		
_	e-Development CN=		e of Concentration Pre-	Development=	10 min
	e Bevelopinient ett	11111		Bevelopinent	10
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See Note 4) 4 in/hr		nation Design=	5 in/hr
Design Storms Used Fo	L				
Requirement		Design Storm			
Pollution Reduction		Water Quality			
Flow Control	1 1	Flood Control			
Destination	5.1 inches	Flood Control			
Facility Data					
	Facility Type= Surface Width= Surface Length= acility Side Slopes= Ponding Depth	Infiltration Stormwater Plante 8.5 ft 33.7 ft 3 to 1	Facility Surfa Facility	Surface Area= nce Perimeter= Bottom Area= nm Perimeter=	286.45 sqft 84.4 ft 117 sqft 66 ft
	mwater Facility=	Qin	F	Rasin Volume=	158.8 cf

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Ratio of Facility Area to Impervious Area=

Depth of Growing Medium (Soil)=

0.091

Pollution Reduction-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.013 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Total Runoff Volume to Stormwater								
Facility =	164 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?								
-	irement of No Facility Flo	=						
YES Meets Requ	irement for Maximum of 1	8 Hour Drawdown Time?						
Flow Control-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.096 cfs	Peak Facility Overflow Rate= 0.033 cfs						
Total Runoff Volume to Stormwater								
Facility =	1263 cf	Total Overflow Volume= 42 cf						
		Peak Off-Site Flow Rate						
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs						
Drawdown Time=	0.2 hours							
Pro Develorment Pro	maff Data							
Pre-Development Ru Peak Flow Rate =	0.038 cfs							
Total Runoff Volume =	611 cf							
Total Number Volume =	011							
Yes Facility Sizing Me	ets Flow Control Star	ndards?						
	irement for Post Developi irement for Maximum of 1	ment offsite flow less or equal to Pre-Development Flow? 8 Hour Drawdown Time?						
Destination-Calculation Results								
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.096 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Facility =	1263 cf	Total Overflow Volume= 0 cf						
Max. Depth of Stormwater in Facility=	8.9 in							
Drawdown Time=	0.2 hours							
Yes Facility Sizing Me	ets Destination Stand	dards?						
YES Meets Requ	YES Meets Requirement of No Facility Flooding?							
-	irement for Maximum of 3	-						
• • • • • • • • • • • • • • • • • • • •								

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Depth of Growing Medium (Soil)=

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:	Fairway Estates			Date: <u>5/19/2022</u>	
Project Address:	18-12-15-00-01500			Permit Number: NA	
	Florence, OR			Catchment ID: 1G	
Designer:	Clint Beecroft				
Company:	EGR & Associates				
Instructions:					
 Complete this form fo 	r each drainage catch	ment in the project site	that is to be siz	ed per the Presumptive Approach	
2. Provide a distinctive 0	Catchment ID for each	facility coordinated with	n the site basin	map to correlate the appropriate	
calculations with the f	acility.				
3. The maximum draina	ge catchment to be m	odeled per the Presump	tive Approach	is 1 acre (43,560 SF)	
4.For infiltration facilities	in Class A or B soils	where no infiltration test	ting has been p	erfromed use an infiltration rate of	0.5 in/hr.
For all facilities use a	maximum soil infiltrat	on rate of 2.5 in/hr for to	opsoil/growing	medium.	
Design Requirements					
Choose "Yes" from the o	dropdown boxes belov	next to the design star	ndards requiren	nents for this facility.	
Pollution Reduct	ion (PR) Yes				
Flow Cont					
Destinat	` '	*Δn infiltration facility must be	chosen as the faci	ity type to meet destination requirements	
Destinat	1011 (D1) 103	An initiation facility must be	chosen as the faci	ity type to meet destination requirements	
Site Data-Post Develor	ment				
		0005			
Total Square Footag	-	3325 sqft	Total	Square Footage Pervious Area=	
Ir	npervious Area CN=	98		Pervious Area CN=	85
Total Courses Footon	f Dusinsus Aussu	2225 -#	Time of Co		C main
Total Square Footag	ighted Average CN=	3325 sft 98	Time of Co	ncentration Post Development=	: 5 min
Site Data-Pre Developr		is section is only used	l if Flow Contr	rol is required)	
-	·				10 min
	e-Development CN=	73	Time or C	oncentration Pre-Development=	10
Soil Data					
Tested S	oil Infiltration Rate=	10 in/hr (See No	ote 4)	Destination Design=	5 in/hr
Design S	oil Infiltration Rate=	4 in/hr		Soil Infiltration Rate	i
Design Storms Used F	or 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					
racility Data					
		Infiltration Stormwate	r Planter	Facility Surface Area=	
	Surface Width=	8.5 ft		Facility Surface Perimeter=	
	Surface Length=	35.5 ft		Facility Bottom Area=	
	acility Side Slopes=	3 to 1		Facility Bottom Perimeter=	70 ft
	Ponding Depth mwater Facility=	9 in		Basin Volume=	: 167.3 cf
111 3101	mwater racility-	9 11 1		Dasiii voiuille-	107.301

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Ratio of Facility Area to Impervious Area=

0.091

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 =	173 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?								
-	irement of No Facility Flor	=						
YES Meets Requi	irement for Maximum of 1	8 Hour Drawdown Time?						
Flow Control-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.102 cfs	Peak Facility Overflow Rate= 0.035 cfs						
Total Runoff Volume to Stormwater								
Facility =	1334 cf	Total Overflow Volume= 44 cf						
		Peak Off-Site Flow Rate						
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs						
Drawdown Time=	0.2 hours							
Pre-Development Ru Peak Flow Rate = Total Runoff Volume =	0.040 cfs 645 cf							
Yes Facility Sizing Me	ets Flow Control Star	ndards?						
	irement for Post Developr irement for Maximum of 1	ment offsite flow less or equal to Pre-Development Flow? 8 Hour Drawdown Time?						
Destination-Calculation Results								
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.102 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Facility =	1334 cf	Total Overflow Volume= 0 cf						
Max. Depth of Stormwater in Facility=	8.9 in							
Drawdown Time=	0.2 hours							
Yes Facility Sizing Me	ets Destination Stand	dards?						
YES Meets Requi	YES Meets Requirement of No Facility Flooding?							
	irement for Maximum of 3							

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EUGENE	City of Eugene					
	Version 2.1					
Project Information						
Project Name:	Fairway Estates			Date:	<u>5/19/2022</u>	
Project Address:	<u>18-12-15-00-01500</u>			Permit Number:	<u>NA</u>	
	Florence, OR			Catchment ID:	<u>2A</u>	
Designer:	Clint Beecroft					
Company:	EGR & Associates					
	atchment ID for each acility. e catchment to be m in Class A or B soils	facility coordinated with	n the site basin otive Approach ting has been p	map to correlate the is 1 acre (43,560 SI erfromed use an int	e appropriate F)	i in/hr.
Design Requirements:						
Choose "Yes" from the d	ropdown boxes belov	v next to the design star	ndards requiren	nents for this facility	<i>'</i> .	
Pollution Reduction Flow Contr Destination	rol (FC) Yes	*An infiltration facility must be	chosen as the facil	ity type to meet destinati	on requirements	
Site Data-Post Develop	ment					
Total Square Footage	pervious Area CN=	98 3028 sft		Square Footage P Pervi ncentration Post [ous Area CN=	0 85 5 min
Site Data-Pre Developm	ent (Data in th	is section is only used	d if Flow Contr	ol is required)		
	-Development CN=	73	Time of C	oncentration Pre-I	Development=	10 min
Soil Data						
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See No 4 in/hr	ote 4)		ation Design= filtration Rate	5 in/hr
Design Storms Used Fo	or 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 Stormwate	er Planter	Facility	Surface Area=	275.4 sqft
	Surface Width=	8.5 ft		_	ce Perimeter=	81.8 ft
	Surface Length=	32.4 ft		-	Bottom Area=	112 sqft
Fa	acility Side Slopes=			-	om Perimeter=	64 ft
	Ponding Depth			•		
	nwater Facility=	9 in		В	asin Volume=	152.7 cf
Depth of Grow	ing Medium (Soil)=	2 in	Ratio of F	acility Area to Imp	ervious Area=	0.091

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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 =	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?								
	ement of No Facility Flooding?							
YES Meets Require	ement for Maximum of 18 Hour D	Prawdown Time?						
Flow Control-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.093 cfs	Peak Facility Overflow Rate= 0.032 cfs						
Total Runoff Volume to Stormwater								
Facility =	1214 cf	Total Overflow Volume= 40 cf						
		Peak Off-Site Flow Rate						
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs						
Drawdown Time=	0.2 hours							
Pre-Development Runc Peak Flow Rate = Total Runoff Volume =	0.037 0.587 of							
Yes Facility Sizing Meet	ts Flow Control Standards	?						
	ement for Post Development offs ement for Maximum of 18 Hour D	site flow less or equal to Pre-Development Flow? Prawdown Time?						
Destination-Calculation Results								
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.093 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Facility =	1214 cf	Total Overflow Volume= 0 cf						
Max. Depth of Stormwater in Facility=	8.9 in							
Drawdown Time=	0.2 hours							
Yes Facility Sizing Meet	ts Destination Standards?							
YES Meets Require	ement of No Facility Flooding?							
-	ement for Maximum of 30 hour D	rawdown Time?						
, , a see a se								

5/19/2022-5:51 AM 2



	Version 2.1							
Project Information	Version 2.1							
Project Name:	Fairway Estates	Date: 5/19/2022						
Project Address:	18-12-15-00-01500	Permit Number: NA						
	Florence, OR	Catchment ID: 2B						
Designer:	Clint Beecroft							
Company:	EGR & Associates							
. ,								
Instructions:								
1. Complete this form fo	or each drainage catchment in f	the project site that is to be sized per the Presumptive Approach.						
2. Provide a distinctive 0	Catchment ID for each facility o	coordinated with the site basin map to correlate the appropriate						
calculations with the f	facility.							
3. The maximum draina	ge catchment to be modeled p	er the Presumptive Approach is 1 acre (43,560 SF)						
4.For infiltration facilities	s in Class A or B soils where no	o infiltration testing has been perfromed use an infiltration rate of 0.5 in/hr.						
For all facilities use a	maximum soil infiltration rate of	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.						
	. (22)							
Pollution Reduct								
Flow Conf	trol (FC) Yes							
Destinat	ion (DT) Yes *An infiltra	tion facility must be chosen as the facility type to meet destination requirements						
Site Data-Post Develor	oment							
Total Square Footag	ge Impervious Area=	220 sqft Total Square Footage Pervious Area= 0 sqft						
-	mpervious Area CN=	98 Pervious Area CN= 85						
		_						
Total Square Footag	ge of Drainage Area= 32	220 sft Time of Concentration Post Development= 5 min						
-	eighted Average CN=	98						
Site Data-Pre Develop	ment (Data in this section	on is only used if Flow Control is required)						
	<u> </u>							
Pr	re-Development CN=	Time of Concentration Pre-Development= 10 min						
Soil Data								
Tested S	Soil Infiltration Rate=	10 in/hr (See Note 4) Destination Design= 5 in/hr						
Design S	Soil Infiltration Rate=	4 in/hr Soil Infiltration Rate						
Design Storms Used F	or Calculations							
Deswirement	Rainfall Depth Design	Charma						
Requirement Pollution Reduction	0.8 inches Water C							
Flow Control	5.1 inches Flood C							
Destination	5.1 inches Flood C							
	J. I linches Flood C	Ontio						
Facility Data								
		ion Stormwater Planter Facility Surface Area= 292.4 sqft						
		8.5 ft Facility Surface Perimeter= 85.8 ft						
	Surface Length= 3	sqft Facility Bottom Area= 120 sqft						
	Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 68 ft							
	Ponding Depth							
	rmwater Facility=	9 in Basin Volume= 162.1 cf						
Depth of Growing Medium (Soil)= 2 in Ratio of Facility Area to Impervious Area 0.091								

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Pollution Reduction-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.013 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Total Runoff Volume to Stormwater								
Facility =	168 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?								
-	rement of No Facility Flood	=						
YES Meets Requi	rement for Maximum of 18 I	Hour Drawdown Time?						
Flow Control-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.099 cfs	Peak Facility Overflow Rate= 0.034 cfs						
Total Runoff Volume to Stormwater								
Facility =	1291 cf	Total Overflow Volume= 43 cf						
		Peak Off-Site Flow Rate						
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs						
Drawdown Time=	0.2 hours							
<u>Pre-Development Rur</u> Peak Flow Rate = Total Runoff Volume =	noff Data 0.039 cfs 625 cf							
Yes Facility Sizing Me	ets Flow Control Stand	lards?						
	rement for Post Developme rement for Maximum of 18 I	ent offsite flow less or equal to Pre-Development Flow? Hour Drawdown Time?						
Destination-Calculation Results								
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.099 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Facility =	1291 cf	Total Overflow Volume= 0 cf						
Max. Depth of Stormwater in Facility=	8.9 in							
Drawdown Time=	0.2 hours							
Yes Facility Sizing Me	ets Destination Standa	rds?						
YES Meets Requi	rement of No Facility Flood	ing?						
-	rement for Maximum of 30 I	<u> </u>						
, , a see a se								

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

	Version 2.1							
Project Information	V 61 51011 2. 1							
Project Name:	Fairway Estates			Date: <u>5/19/2022</u>				
Project Address:	18-12-15-00-01500			Permit Number: NA				
-	Florence, OR			Catchment ID: 2C				
Designer:	Clint Beecroft							
Company:	EGR & Associates							
l								
Instructions:								
	_			ed per the Presumptive Approach	•			
		facility coordinated with	n the site basin	map to correlate the appropriate				
calculations with the fa	•	adalad was tha Duanius	-4: A	- 1 (12 FCO SE)				
3. The maximum drainag					. O. F. i.e./b.e.			
		on rate of 2.5 in/hr for to	-	erfromed use an infiltration rate of	0.5 111/111.			
		Ji Tate of 2.5 iii/iii for to	opsoli/growing r	ledidili.				
Design Requirements:								
Choose "Yes" from the o	lropdown boxes below	next to the design stan	ndards requirem	ents for this facility.				
Pollution Reducti								
Flow Cont	` '							
Destinati	on (DT) Yes	*An infiltration facility must be	chosen as the facili	ty type to meet destination requirements				
0'4- D-4- D4 D								
Site Data-Post Develop	ment							
Total Square Footag	-	3150 sqft	Total	Square Footage Pervious Area=				
In	npervious Area CN=	98		Pervious Area CN=	85 85 B			
Total Sauces Footon	. of Ducinous Augo-	2150 of	Time of Co.	acontration Boot Boyolonmont	Emin			
Total Square Footag	e of Drainage Area= ighted Average CN=	3150 sft 98	Time of Co	ncentration Post Development=	: 5 min			
Site Data-Pre Developn	· · · · · · · · · · · · · · · · · · ·	is section is only used	d if Flow Contr	ol is required)				
Pro	e-Development CN=	73	Time of Co	oncentration Pre-Development=	: 10 min			
Soil Data								
Tested S	oil Infiltration Rate=	10 in/hr (See No	ote 4)	Destination Design=	in/hr			
Design S	oil Infiltration Rate=	4 in/hr		Soil Infiltration Rate	ı <u> </u>			
Design Storms Used F	or Calculations							
Requirement	Rainfall Depth	Design Storm	1					
Pollution Reduction		Water Quality						
Flow Control	5.1 inches	Flood Control						
Destination	5.1 inches	Flood Control						
Facility Data								
-	Facility Type=	Infiltration Stormwate	er Planter	Facility Surface Area=	286.45 sqft			
	Surface Width=	8.5 ft		Facility Surface Perimeter=				
Surface Length= 33.7 ft Facility Bottom Area= 117 sqft								
F	acility Side Slopes=	3 to 1		Facility Bottom Perimeter=				
	Max. Ponding Depth							
	mwater Facility=	9 in		Basin Volume=				
Depth of Growing Medium (Soil)= 2 in Ratio of Facility Area to Impervious Area 0.091								

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Pollution Reduction-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.013 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Total Runoff Volume to Stormwater								
Facility =	164 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?								
-	irement of No Facility Flo	=						
YES Meets Requ	irement for Maximum of 1	8 Hour Drawdown Time?						
Flow Control-Calculation Results								
Peak Flow Rate to Stormwater Facility =	0.096 cfs	Peak Facility Overflow Rate= 0.033 cfs						
Total Runoff Volume to Stormwater								
Facility =	1263 cf	Total Overflow Volume= 42 cf						
		Peak Off-Site Flow Rate						
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs						
Drawdown Time=	0.2 hours							
Pro Develorment Pro	maff Data							
Pre-Development Ru Peak Flow Rate =	0.038 cfs							
Total Runoff Volume =	611 cf							
Total Number Volume =	011							
Yes Facility Sizing Me	ets Flow Control Star	ndards?						
	irement for Post Developi irement for Maximum of 1	ment offsite flow less or equal to Pre-Development Flow? 8 Hour Drawdown Time?						
Destination-Calculation Results								
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.096 cfs	Peak Facility Overflow Rate= 0.000 cfs						
Facility =	1263 cf	Total Overflow Volume= 0 cf						
Max. Depth of Stormwater in Facility=	8.9 in							
Drawdown Time=	0.2 hours							
Yes Facility Sizing Me	ets Destination Stand	dards?						
YES Meets Requ	YES Meets Requirement of No Facility Flooding?							
-	irement for Maximum of 3	-						
• • • • • • • • • • • • • • • • • • • •								

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LUGERE	City of Eugene				
	Version 2.1				
Project Information					
Project Name:	Fairway Estates			Date: <u>5/19/2022</u>	
Project Address:	<u>18-12-15-00-01500</u>			Permit Number: <u>NA</u>	
	Florence, OR			Catchment ID: 2D	
Designer:	Clint Beecroft				
Company:	EGR & Associates				
 Provide a distinctive (calculations with the f The maximum drainal For infiltration facilities For all facilities use a 	Catchment ID for each facility. ge catchment to be most in Class A or B soils maximum soil infiltrat	n facility coordinated with	the site basin tive Approach ing has been p	perfromed use an infiltration rate of 0).5 in/hr.
Design Requirements					
Choose "Yes" from the o		w next to the design stand	dards requiren	nents for this facility.	
Flow Cont Destinat		*An infiltration facility must be o	chosen as the faci	lity type to meet destination requirements	
Site Data-Post Develor	oment				
Ir Total Square Footag	ge Impervious Area= mpervious Area CN= ge of Drainage Area= gighted Average CN=	98 3292 sft		Square Footage Pervious Area= Pervious Area CN= oncentration Post Development=	0 sqft 85 5 min
Site Data-Pre Developr	ment (Data in th	nis section is only used	if Flow Cont	rol is required)	
•	re-Development CN=			oncentration Pre-Development=	10 min
	e-Development CN-	73	Time or C	oncentration Fre-Development-	TO ITHIII
Soil Data					
	ioil Infiltration Rate= ioil Infiltration Rate=		te 4)	Destination Design= Soil Infiltration Rate	5 in/hr
Design Storms Used F	or 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	r Planter	Facility Surface Area=	299.2 sqft
	Surface Width=		- Idillo	Facility Surface Perimeter=	87.4 ft
	Surface Length=			Facility Bottom Area=	123 sqft
-	Facility Side Slopes=			Facility Bottom Perimeter=	69 ft
	Ponding Depth			. dointy Dottom i crimeter –	0011
	rmwater Facility=	9 in		Basin Volume=	165.8 cf
	wing Medium (Soil)=		Ratio of F	acility Area to Impervious Area=	0.091

5/19/2022-5:55 AM

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 =	172 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.0 in			
Drawdown Time=	0.2 hours			
	ets Pollution Reduction Sta	ndards?		
-	ement of No Facility Flooding?			
YES Meets Require	ement for Maximum of 18 Hour I	Orawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.101 cfs	Peak Facility Overflow Rate= 0.034 cfs		
Total Runoff Volume to Stormwater				
Facility =	1320 cf	Total Overflow Volume= 44 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Rund Peak Flow Rate = Total Runoff Volume =	off Data 0.040 cfs 639 cf			
Yes Facility Sizing Mee	ets Flow Control Standards	?		
	ement for Post Development offs ement for Maximum of 18 Hour D	site flow less or equal to Pre-Development Flow? Orawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.101 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Facility =	1320 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.9 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Mee	ets Destination Standards?			
YES Meets Require	ement of No Facility Flooding?			
-	ement for Maximum of 30 hour D	rawdown Time?		

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EUGENE	City of Eugene	
	Version 2.1	
Project Information		
Project Name:	Fairway Estates	Date: <u>5/19/2022</u>
Project Address:	<u>18-12-15-00-01500</u>	Permit Number: <u>NA</u>
	Florence, OR	Catchment ID: <u>2E</u>
Designer:	Clint Beecroft	
Company:	EGR & Associates	
Instructions:		
1. Complete this form fo	r each drainage catchment in the p	project site that is to be sized per the Presumptive Approach.
2. Provide a distinctive 0	Catchment ID for each facility coord	dinated with the site basin map to correlate the appropriate
calculations with the f	acility.	
3. The maximum draina	ge catchment to be modeled per th	ne Presumptive Approach is 1 acre (43,560 SF)
4.For infiltration facilities	in Class A or B soils where no infi	iltration 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	5 in/hr for topsoil/growing medium.
Design Requirements		
Choose "Yes" from the o	dropdown boxes below next to the	design standards requirements for this facility.
		9,
Pollution Reducti	ion (PR) Yes	
Flow Cont	trol (FC) Yes	
Destinat	ion (DT) Yes *An infiltration fa	acility must be chosen as the facility type to meet destination requirements
	` '	
Site Data-Post Develor	ment	
Total Square Footag	ge Impervious Area= 1952	sqft Total Square Footage Pervious Area= 0 sqft
	npervious Area CN= 98	Pervious Area CN= 85
_		
Total Square Footag	e of Drainage Area= 1952	sft Time of Concentration Post Development= 5 min
	ighted Average CN= 98	· -
Site Data-Pre Developr	nent (Data in this section is	s only used if Flow Control is required)
Pr	e-Development CN= 73	Time of Concentration Pre-Development= 10 min
Soil Data		
Tested S	ioil Infiltration Rate=	in/hr (See Note 4) Destination Design= 5 in/hr
		in/hr Soil Infiltration Rate
Design Storms Used F		
Requirement Pollution Reduction	 	
Flow Control	0.8 inches Water Quality 5.1 inches Flood Control	
Destination	5.1 inches Flood Control	
	3.1 mones 1 lood oonte	5
Facility Data	Facilità Tanan Inditantian	Character Plants
	Facility Type= Infiltration S	· · · · · · · · · · · · · · · · · · ·
	Surface Width= 8.5	
-	Surface Length= 21.2	·
	Facility Side Slopes= 3 Ponding Depth	to 1 Facility Bottom Perimeter= 41 ft
	rmwater Facility=	in Basin Volume= 100.2 cf
	wing Medium (Soil)=	

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 =	102 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.1 in			
Drawdown Time=	0.2 hours			
	ts Pollution Reduction Sta	ndards?		
-	ement of No Facility Flooding?			
YES Meets Require	ement for Maximum of 18 Hour I	Drawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.060 cfs	Peak Facility Overflow Rate= 0.020 cfs		
Total Runoff Volume to Stormwater				
Facility =	783 cf	Total Overflow Volume= 25 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Runo Peak Flow Rate = Total Runoff Volume =	off Data 0.024 cfs 379 cf			
Yes Facility Sizing Meet	ts Flow Control Standards	?		
	ement for Post Development off ement for Maximum of 18 Hour I	site flow less or equal to Pre-Development Flow? Drawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.060 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Facility =	783 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.9 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Meet	ts Destination Standards?			
YES Meets Require	ement of No Facility Flooding?			
- The state of the	ement for Maximum of 30 hour I	Orawdown Time?		



EUGENE	City of Eugene							
	Version 2.1							
Project Information								
Project Name:	Fairway Estates			Date:	5/19/2022			
Project Address:	<u>18-12-15-00-01500</u>			Permit Number:	<u>NA</u>			
	Florence, OR			Catchment ID:	<u>2F</u>			
Designer:	Clint Beecroft							
Company:	EGR & Associates							
nstructions: 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 di	opdown boxes below	next to the design star	ndards requiren	nents 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 Developi	ment							
Total Square Footage Impervious Area								
Site Data-Pre Developm	ent (Data in th	is section is only used	d if Flow Conti	ol is required)				
	-Development CN=	73	Time of C	oncentration Pre-I	Development=	10 min		
Soil Data		<u> </u>			_			
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See No 4 in/hr	ote 4)		ation Design= filtration Rate	5 in/hr		
Design Storms Used Fo	r Calculations							
Requirement	Rainfall Depth	Design Storm]					
Pollution Reduction	0.8 inches	Water Quality	1					
Flow Control	5.1 inches	Flood Control						
Destination	5.1 inches	Flood Control						
Facility Data								
•	Facility Type=	Infiltration Stormwate	r Planter	Facility 9	Surface Area=	425.25 sqft		
	Surface Width=	10.5 ft		_	ce Perimeter=	102 ft		
	Surface Length=	40.5 ft			Bottom Area=	216 sqft		
Fa	cility Side Slopes=	3 to 1		-		84 ft		
	Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 84 ft Max. Ponding Depth							
	nwater Facility=	9 in		В	asin Volume=	248.1 cf		
Depth of Growing Medium (Soil)= 2 in Ratio of Facility Area to Impervious Area 0.086					0.086			

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 =	259 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.0 in			
Drawdown Time=	0.2 hours			
	ets Pollution Reduction Star	ndards?		
-	rement of No Facility Flooding?			
YES Meets Requir	ement for Maximum of 18 Hour D	Prawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.152 cfs	Peak Facility Overflow Rate= 0.049 cfs		
Total Runoff Volume to Stormwater				
Facility =	1993 cf	Total Overflow Volume= 70 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Run Peak Flow Rate = Total Runoff Volume =	0.060 cfs 964 cf			
Yes Facility Sizing Mee	ets Flow Control Standards?	?		
	rement for Post Development offs rement for Maximum of 18 Hour D	site flow less or equal to Pre-Development Flow? Orawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.152 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Facility =	1993 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.9 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Mee	ets Destination Standards?			
YES Meets Requir	ement of No Facility Flooding?			
-	ement for Maximum of 30 hour D	rawdown Time?		



Depth of Growing Medium (Soil)=

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:	Fairway Estates			Date: <u>5/19/2022</u>		
Project Address:	18-12-15-00-01500			Permit Number: NA		
	Florence, OR			Catchment ID: 3A		
Designer:	Clint Beecroft					
Company:	EGR & Associates					
· ·	-			ed per the Presumptive Approach		
Provide a distinctive C calculations with the fa		facility coordinated with	n the site basin	map to correlate the appropriate		
3. The maximum drainag	ge catchment to be m	odeled per the Presump	tive Approach	is 1 acre (43,560 SF)		
				erfromed use an infiltration rate of	0.5 in/hr.	
For all facilities use a	maximum soil infiltrat	on rate of 2.5 in/hr for to	opsoil/growing	medium.		
Design Requirements:						
Choose "Yes" from the d	lropdown boxes belov	next to the design stan	ndards requiren	nents for this facility.		
Pollution Reducti	on (PR) Yes	ĺ				
Flow Cont						
Destinati	` ′	*An infiltration facility must be	abasan as the fasi	itu tura ta maat daatinatian raquiramanta		
Destillati	on (D1) 163	"An inilitration facility must be	cnosen as the raci	ity type to meet destination requirements		
Site Data-Post Develop	ment					
Total Square Footag In	e Impervious Area= npervious Area CN=	3154 sqft 98	Total	Square Footage Pervious Area= Pervious Area CN=		
Total Courses Factors	a of Ducinous Auson	2454-#	Time of Co	manufaction Doct Davidonmant		
Total Square Footag	ghted Average CN=	3154 sft 98	Time of Co	ncentration Post Development=	5 min	
Site Data-Pre Developn		is section is only used	l if Flow Cont	rol is required)		
	·					
Pro	e-Development CN=	73	Time of C	oncentration Pre-Development=	10 min	
Soil Data						
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See No 4 in/hr	ote 4)	Destination Design= Soil Infiltration Rate	# Table 1	
Design Storms Used Fo	or 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				
Encility Data	'					
Facility Data						
		Infiltration Stormwate	r Planter	Facility Surface Area=		
	Surface Width=	8.5 ft		Facility Surface Perimeter=		
	Surface Length=	33.7 ft		Facility Bottom Area=		
	Facility Side Slopes= 3 to 1 Facility Bottom Perimeter= 66 ft					
Max. Ponding Depth in Stormwater Facility= 9 in Basin Volume= 158.8 cf					158.8 cf	

5/19/2022-6:13 AM

Ratio of Facility Area to Impervious Area=

0.091

Pollution Reduction-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.013 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Total Runoff Volume to Stormwater				
Facility =	164 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.0 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Me	eets Pollution Reductio	n Standards?		
-	irement of No Facility Floor	=		
YES Meets Requ	irement for Maximum of 18	Hour Drawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.097 cfs	Peak Facility Overflow Rate= 0.033 cfs		
Total Runoff Volume to Stormwater				
Facility =	1265 cf	Total Overflow Volume= 42 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N∖A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Ru	moff Data			
Peak Flow Rate =	0.038 cfs			
Total Runoff Volume =	612 cf			
Total Handii Volumo	012			
Yes Facility Sizing Me	eets Flow Control Stand	dards?		
	irement for Post Developmoirement for Maximum of 18	ent offsite flow less or equal to Pre-Development Flow? Hour Drawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.097 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Facility =	1265 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.9 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Me	eets Destination Standa	ards?		
YES Meets Requ	irement of No Facility Floor	ding?		
-	irement for Maximum of 30	<u> </u>		



	Version 2.1			
Project Information				
Project Name:	Fairway Estates		Date: <u>5/19/2022</u>	
Project Address:	18-12-15-00-01500		Permit Number: <u>NA</u>	
	Florence, OR		Catchment ID: 3B	
Designer:	Clint Beecroft			
Company:	EGR & Associates			
Instructions:				
 Complete this form for 	each drainage catchm	ent in the project site that is to be	sized per the Presumptive Approach.	
2. Provide a distinctive C	atchment ID for each fa	acility coordinated with the site ba	sin map to correlate the appropriate	
calculations with the fa	acility.			
3. The maximum drainag	e catchment to be mod	deled per the Presumptive Approa	ch is 1 acre (43,560 SF)	
4.For infiltration facilities	in Class A or B soils when	here no infiltration testing has bee	n perfromed use an infiltration rate of 0.5	in/hr.
For all facilities use a r	maximum soil infiltration	n rate of 2.5 in/hr for topsoil/growin	ng medium.	
Design Requirements:				
3 - 4				
Choose "Yes" from the d	ropdown boxes below r	next to the design standards requi	rements for this facility.	
Pollution Reduction	on (PR) Yes			
Flow Contr	rol (FC) Yes			
Destination	on (DT) Yes	An infiltration facility must be chosen as the	facility type to meet destination requirements	
	` '	•	, ,	
Site Data-Post Develop	ment			
Total Causana Factor	- Imama mai a u a Ausa	1000 - ##	tel Causana Falatana Bamaiaua Ausan	0
Total Square Footage	_		tal Square Footage Pervious Area	0 sqft
ım	npervious Area CN=	98	Pervious Area CN=	85
Tatal Causana Falatana	Dueine ne Ance-	1000 of Time of	Composition Book Bourlands	C main
Total Square Footage			Concentration Post Development=	5 min
vvei	ghted Average CN=	98		
Site Data-Pre Developm	nent (Data in this	s section is only used if Flow Co	ntrol is required)	
Pre	e-Development CN=	73 Time o	f Concentration Pre-Development=	10 min
Soil Data				
	oil Infiltration Rate=	10 in/hr (See Note 4)	Destination Design=	5 in/hr
Design So	oil Infiltration Rate=	4 in/hr	Soil Infiltration Rate	
Design Storms Used Fo	or Calculations			
Doguiromant	Beinfell Denth C	Daging Starm		
Requirement Pollution Reduction		Design Storm		
		Vater Quality		
Flow Control		Flood Control		
Destination	5.1 inches F	Flood Control		
Facility Data				
	Facility Type= Ir	nfiltration Stormwater Planter	Facility Surface Area=	180.4 sqft
	Surface Width=	11 ft	Facility Surface Perimeter=	54.8 ft
	Surface Length=	16.4 ft	Facility Bottom Area=	77 sqft
F:	acility Side Slopes=	3 to 1	Facility Bottom Perimeter=	37 ft
	Ponding Depth			
	mwater Facility=	9 in	Basin Volume=	104.3 cf
	ving Medium (Soil)=		f Facility Area to Impervious Area=	0.091

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 =	104 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.0 in			
Drawdown Time=	0.2 hours			
	ets Pollution Reducti			
-	rement of No Facility Flo	=		
YES Meets Requi	rement for Maximum of 1	18 Hour Drawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.061 cfs	Peak Facility Overflow Rate= 0.014 cfs		
Total Runoff Volume to Stormwater				
Facility =	797 cf	Total Overflow Volume= 23 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Rui Peak Flow Rate = Total Runoff Volume =	noff Data 0.024 cfs 385 cf			
Yes Facility Sizing Me	ets Flow Control Star	ndards?		
		ment offsite flow less or equal to Pre-Development Flow? I8 Hour Drawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.061 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Facility =	797 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.7 in			
Drawdown Time=	0.2 hours			
Yes Facility Sizing Me	ets Destination Stand	dards?		
YES Meets Requi	rement of No Facility Flo	oding?		
-	-	30 hour Drawdown Time?		



Depth of Growing Medium (Soil)=

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:	Fairway Estates			Date: <u>5/19/2022</u>			
Project Address:	18-12-15-00-01500		Pe	ermit Number: <u>NA</u>			
	Florence, OR		Ca	atchment ID: 3C			
Designer:	Clint Beecroft						
Company:	EGR & Associates						
Instructions: 1. Complete this form for 2. Provide a distinctive C calculations with the fa 3. The maximum drainag 4. For infiltration facilities For all facilities use a r Design Requirements: Choose "Yes" from the d	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.						
Destination	on (DT) Yes	*An infiltration facility must be ch	nosen as the facility typ	pe to meet destination requirements			
Site Data-Post Develop	ment						
Total Square Footage Impervious Area 3250 sqft Impervious Area CN 98 Total Square Footage Pervious Area CN 85 Total Square Footage of Drainage Area 3250 sft Time of Concentration Post Development 5 min Weighted Average CN 98							
Site Data-Pre Developm	nent (Data in th	is section is only used i	f Flow Control is	s required)			
Pre	e-Development CN=	73	Time of Conce	entration Pre-Development=	10 min		
Soil Data							
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See Note 4 in/hr	÷ 4)	Destination Design= Soil Infiltration Rate	5 in/hr		
Design Storms Used Fo	or 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					
	0.1 1.1.2.1.2.2						
Facility Data				F			
		Infiltration Stormwater	Planter	Facility Surface Area=	294.95 sqft		
	Surface Width=	8.5 ft		Facility Surface Perimeter=	86.4 ft		
	Surface Length=	34.7 ft		Facility Bottom Area=	121 sqft		
	acility Side Slopes=	3 to 1		Facility Bottom Perimeter=	68 ft		
	Ponding Depth mwater Facility=	9 in		Basin Volume=	163.5 cf		

5/19/2022-6:14 AM

Ratio of Facility Area to Impervious Area=

0.091

Pollution Reduction-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.013 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Total Runoff Volume to Stormwater				
Facility =	169 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	0.0 in	·		
Drawdown Time=	0.2 hours			
	ets Pollution Reduction St			
-	ement of No Facility Flooding?			
YES Meets Require	ement for Maximum of 18 Hour	Drawdown Time?		
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility =	0.099 cfs	Peak Facility Overflow Rate= 0.034 cfs		
Total Runoff Volume to Stormwater				
Facility =	1304 cf	Total Overflow Volume= 43 cf		
		Peak Off-Site Flow Rate		
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs		
Drawdown Time=	0.2 hours			
Pre-Development Run Peak Flow Rate = Total Runoff Volume =	0.039 cfs 630 cf			
Yes Facility Sizing Mee	ets Flow Control Standard	s?		
	rement for Post Development of rement for Maximum of 18 Hour	ffsite flow less or equal to Pre-Development Flow? Drawdown Time?		
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.099 cfs	Peak Facility Overflow Rate= 0.000 cfs		
Facility =	1304 cf	Total Overflow Volume= 0 cf		
Max. Depth of Stormwater in Facility=	8.9 in	·		
Drawdown Time=	0.2 hours			
Yes Facility Sizing Mee	ets Destination Standards	?		
YES Meets Require	ement of No Facility Flooding?			
-	ement for Maximum of 30 hour			



DOGENIA	only of Eugene				
	Version 2.1				
Project Information					
Project Name:	Fairway Estates			Date: <u>5/10/2022</u>	
Project Address:	18-12-15-00-01500			Permit Number: NA	
-	Florence, OR			Catchment ID: 3D	
Designer:	Clint Beecroft			· · ·	
Company:	EGR & Associates				
Provide a distinctive Concalculations with the false and the maximum drainages. For infiltration facilities are a resign Requirements:	atchment ID for each acility. e catchment to be main Class A or B soils maximum soil infiltration ropdown boxes below	facility coordinated with the	e site basin e Approach i g has been p soil/growing i	erfromed use an infiltration rate of nedium.	
Destination		*An infiltration facility must be cho	osen as the facil	ty type to meet destination requirements	
Site Data-Post Develop	ment				
Total Square Footage Impervious Area					
Site Data-Pre Developm	nent (Data in th	is section is only used if	Flow Contr	ol is required)	
Pre	e-Development CN=	73	Time of C	oncentration Pre-Development=	10 min
Soil Data					
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See Note 4 in/hr	4)	Destination Design= Soil Infiltration Rate	5 in/hr
Design Storms Used Fo	or 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			
	0.1,				
Facility Data					
		Infiltration Stormwater P	Planter	Facility Surface Area=	386.75 sqft
	Surface Width=	8.5 ft	_	Facility Surface Perimeter=	108 ft
	Surface Length=	45.5 ft		Facility Bottom Area=	164 sqft
Fa	acility Side Slopes=	3 to 1		Facility Bottom Perimeter=	90 ft
	Ponding Depth mwater Facility=	9 in		Basin Volume=	214.1 cf

5/19/2022-6:15 AM

Ratio of Facility Area to Impervious Area=

Depth of Growing Medium (Soil)=

0.090

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 =	223 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	0.0 in	
Drawdown Time=	0.2 hours	
	ts Pollution Reduction Star	ndards?
-	ement of No Facility Flooding?	
YES Meets Require	ement for Maximum of 18 Hour D	rawdown Time?
Flow Control-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.131 cfs	Peak Facility Overflow Rate= 0.045 cfs
Total Runoff Volume to Stormwater		
Facility =	1719 cf	Total Overflow Volume= 58 cf
		Peak Off-Site Flow Rate
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs
Drawdown Time=	0.2 hours	
Pre-Development Rund Peak Flow Rate = Total Runoff Volume =	off Data 0.052 cfs 831 cf	
Yes Facility Sizing Mee	ts Flow Control Standards?	?
	ement for Post Development offs ement for Maximum of 18 Hour D	site flow less or equal to Pre-Development Flow? Prawdown Time?
Destination-Calculation Results		
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.131 cfs	Peak Facility Overflow Rate= 0.000 cfs
Facility =	1719 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	8.9 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Mee	ets Destination Standards?	
YES Meets Require	ement of No Facility Flooding?	
	ement for Maximum of 30 hour D	rawdown Time?
<u></u>		



Depth of Growing Medium (Soil)=

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:	Fairway Estates			Date: <u>5/19/2022</u>	
Project Address:	18-12-15-00-01500			Permit Number: NA	
	Florence, OR			Catchment ID: 3E	
Designer:	Clint Beecroft				
Company:	EGR & Associates				
Instructions:					
•	-			ed per the Presumptive Approach	
		facility coordinated with	n the site basin	map to correlate the appropriate	
calculations with the f	•				
3. The maximum draina	-				
				erfromed use an infiltration rate of	0.5 in/hr.
For all facilities use a	maximum soil infiltrat	ion rate of 2.5 in/hr for to	opsoil/growing	nedium.	
Design Requirements	:				
Choose "Yes" from the	dropdown boxes belov	v next to the design star	ndards requiren	nents for this facility.	
Pollution Reduct	ion (PR) Yes				
Flow Con					
Destinat	` ′	*An infiltration facility must be	abasan as the fasi	lity time to most destination requirements	
Destinat	ion (D1) 165	An inflitration facility must be	cnosen as the raci	lity type to meet destination requirements	
Site Data-Post Develor	oment				
		0.144			
	ge Impervious Area=	3444 sqft	Total	Square Footage Pervious Area=	
li	mpervious Area CN=	98		Pervious Area CN=	: <mark>85</mark>
T.10 F.		0444 6	- :		
-	ge of Drainage Area=	3444 sft	Time of Co	ncentration Post Development=	: 5 min
	eighted Average CN=	98			
Site Data-Pre Develop	ment (Data in th	is section is only used	d if Flow Conti	ol is required)	
Pr	re-Development CN=	73	Time of C	oncentration Pre-Development=	: 10 min
Soil Data					
Tested S	Soil Infiltration Rate=	10 in/hr (See No	ote 4)	Destination Design=	5 in/hr
Design S	Soil Infiltration Rate=	4 in/hr		Soil Infiltration Rate	,
Design Storms Used F	or 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			
	0.1 1101100	1 1000 Control	<u> </u>		
Facility Data					
		Infiltration Stormwate	r Planter	Facility Surface Area=	
	Surface Width=	8.5 ft		Facility Surface Perimeter=	
	Surface Length=	36.8 ft		Facility Bottom Area=	
	acility Side Slopes=	3 to 1		Facility Bottom Perimeter=	73 ft
	Ponding Depth				470.0
in Sto	rmwater Facility=	9 in		Basin Volume=	173.3 cf

5/19/2022-6:15 AM

Ratio of Facility Area to Impervious Area=

0.091

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 =	180 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	0.0 in	
Drawdown Time=	0.2 hours	
	ets Pollution Reduc	
-	irement of No Facility FI	-
YES Meets Requi	irement for Maximum of	18 Hour Drawdown Time?
Flow Control-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.105 cfs	Peak Facility Overflow Rate= 0.036 cfs
Total Runoff Volume to Stormwater		
Facility =	1381 cf	Total Overflow Volume= 46 cf
		Peak Off-Site Flow Rate
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N∖A cfs
Drawdown Time=	0.2 hours	
<u>Pre-Development Ru</u> Peak Flow Rate = Total Runoff Volume =	noff Data 0.042 cfs 668 cf	
Yes Facility Sizing Me	ets Flow Control Sta	andards?
		pment offsite flow less or equal to Pre-Development Flow? 18 Hour Drawdown Time?
Destination-Calculation Results		
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.105 cfs	Peak Facility Overflow Rate= 0.000 cfs
Facility =	1381 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	8.9 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Me	ets Destination Star	ndards?
YES Meets Requi	irement of No Facility FI	ooding?
-	_	30 hour Drawdown Time?



	Version 2.1				
Project Information					
Project Name:	Fairway Estates			e: <u>5/19/2022</u>	
Project Address:	<u>18-12-15-00-01500</u>		Permit Numbe		
	Florence, OR		Catchment ID:	<u>3F</u>	
Designer:	Clint Beecroft				
Company:	EGR & Associates				
Instructions:					
•	•	• •	is to be sized per the Presul		
		ility coordinated with the	site basin map to correlate	the appropriate	
calculations with the	•				
			Approach is 1 acre (43,560		
4.For infiltration facilitie	s in Class A or B soils whe	re no infiltration testing l	has been perfromed use an	infiltration rate of 0	.5 in/hr.
For all facilities use a	a maximum soil infiltration r	ate of 2.5 in/hr for topso	il/growing medium.		
Design Requirements	3:				
Choose "Yes" from the	dropdown boxes below nex	xt to the design standard	ds requirements for this facil	itv.	
		to the decign etamatic		9.	
Pollution Reduct	tion (PR) Yes				
Flow Con	trol (FC) Yes				
][infiltration facility must be chos	en as the facility type to meet destin	ation requirements	
2000	/	minute see the seems of the see	on as are rasinly type to most assum		
Site Data-Post Develo	pment				
Total Square Foots	ao Imponious Ares-	3864 sqft	Total Square Footage	Porvious Area-	0 sqft
	ge Impervious Area= mpervious Area CN=	98	Total Square Footage	vious Area CN=	85
'	Impervious Area CN-	90	Pei	vious Area CN-	00
Total Square Foota	ge of Drainage Area=	3864 sft 1	Time of Concentration Pos	t Development=	5 min
-	eighted Average CN=	98	ille of Concentration Fos	t Development-	<u> </u>
Site Data-Pre Develop			Flow Control is required)		
Р	re-Development CN=	73	Time of Concentration Pre	-Development=	10 min
Soil Data					
Tested 9	Soil Infiltration Rate=	10 in/hr (See Note 4)	Dest	ination Design=	5 in/hr
Design S	Soil Infiltration Rate=	4 in/hr	Soil	Infiltration Rate	
Design Storms Used I	For Calculations				
Requirement	Rainfall Depth Des	sign Storm			
Pollution Reduction		_			
		ter Quality			
Flow Control		od Control			
Destination	5.1 inches Floo	od Control			
Facility Data				_	
	Facility Type= Infi	Itration Stormwater Pla	<mark>anter Facilit</mark>	y Surface Area=	349.35 sqft
	Surface Width=	8.5 ft	Facility Sur	face Perimeter=	99.2 ft
	Surface Length=	41.1 ft		ty Bottom Area=	146 sqft
!	Facility Side Slopes=	3 to 1		ttom Perimeter=	81 ft
	. Ponding Depth		•		
in Sto	rmwater Facility=	9 in		Basin Volume=	193.5 cf

5/19/2022-6:16 AM

Ratio of Facility Area to Impervious Area=

0.090

Depth of Growing Medium (Soil)=

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 =	201 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	0.0 in	
Drawdown Time=	0.2 hours	
	ets Pollution Reducti	
-	irement of No Facility Flo	=
YES Meets Requi	irement for Maximum of 1	8 Hour Drawdown Time?
Flow Control-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.118 cfs	Peak Facility Overflow Rate= 0.041 cfs
Total Runoff Volume to Stormwater		
Facility =	1550 cf	Total Overflow Volume= 52 cf
		Peak Off-Site Flow Rate
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs
Drawdown Time=	0.2 hours	
<u>Pre-Development Ru</u> Peak Flow Rate = Total Runoff Volume =	0.047 cfs 749 cf	
Yes Facility Sizing Me	ets Flow Control Star	ndards?
		ment offsite flow less or equal to Pre-Development Flow? 8 Hour Drawdown Time?
Destination-Calculation Results		
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.118 cfs	Peak Facility Overflow Rate= 0.000 cfs
Facility =	1550 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	8.9 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Me	ets Destination Stand	dards?
YES Meets Requi	irement of No Facility Flo	oding?
•	irement for Maximum of 3	-



	Version 2.1				
Project Information	7 0101011 211				
Project Name:	Fairway Estates			Date: <u>5/19/2022</u>	
Project Address:	18-12-15-00-01500			Permit Number: NA	
•	Florence, OR			Catchment ID: 3G	
Designer:	Clint Beecroft			· ·	
Company:	EGR & Associates				
 Provide a distinctive C calculations with the fa The maximum drainag For infiltration facilities 	atchment ID for each acility. le catchment to be m in Class A or B soils	facility coordinated with	n the site basin otive Approach ting has been p	erfromed use an infiltration rate o	
Design Requirements:					
Choose "Yes" from the d Pollution Reducti Flow Conti	on (PR) Yes rol (FC) Yes			nents for this facility.	
Site Data-Post Develop	ment				
Total Square Footag Im Total Square Footage	pervious Area CN=	5366 sqft 98 5366 sft		Square Footage Pervious Area= Pervious Area CN= ncentration Post Development=	85
Wei	ghted Average CN=	98			
Site Data-Pre Developm	nent (Data in th	is section is only used	d if Flow Conti	ol is required)	
	e-Development CN=	73	Time of C	oncentration Pre-Development=	= 10 min
Soil Data					
	oil Infiltration Rate= oil Infiltration Rate=	10 in/hr (See No 4 in/hr	ote 4)	Destination Design- Soil Infiltration Rate	
Design Storms Used Fo	or Calculations				
Requirement	Rainfall Depth	Design Storm]		
Pollution Reduction	0.8 inches	Water Quality	1		
Flow Control	5.1 inches	Flood Control	1		
Destination	5.1 inches	Flood Control			
Facility Data					
	Facility Type= Surface Width= Surface Length= acility Side Slopes= Ponding Depth	Infiltration Stormwate 8.5 ft 56.8 ft 3 to 1	er Planter	Facility Surface Area= Facility Surface Perimeter= Facility Bottom Area= Facility Bottom Perimeter=	= 130.6 ft = 209 sqft

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in Stormwater Facility=

Depth of Growing Medium (Soil)=

267.1 cf

0.090

Basin Volume=

Ratio of Facility Area to Impervious Area=

Pollution Reduction-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.022 cfs	Peak Facility Overflow Rate= 0.000 cfs
Total Runoff Volume to Stormwater		
Facility =	280 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	0.0 in	<u></u> -
Drawdown Time=	0.2 hours	
	Pollution Reduction Sta	ndards?
The state of the s	nent of No Facility Flooding? nent for Maximum of 18 Hour I	Drawdown Time?
Meets Requiren	lent for Maximum of 18 Hour L	orawdown Time?
Flow Control-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.164 cfs	Peak Facility Overflow Rate= 0.056 cfs
Total Runoff Volume to Stormwater		
Facility =	2152 cf	Total Overflow Volume= 73 cf
		Peak Off-Site Flow Rate
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs
Drawdown Time=	0.2 hours	
Pre-Development Runof Peak Flow Rate = Total Runoff Volume =	f <u>Data</u> 0.065 cfs 1041 cf	
Yes Facility Sizing Meets	Flow Control Standards	?
	nent for Post Development offs nent for Maximum of 18 Hour D	site flow less or equal to Pre-Development Flow? Drawdown Time?
Destination-Calculation Results		
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.164 cfs	Peak Facility Overflow Rate= 0.000 cfs
Facility =	2152 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	8.9 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Meets	Destination Standards?	
YES Meets Requiren	nent of No Facility Flooding?	
The state of the s	nent for Maximum of 30 hour D	Prawdown Time?



EUGENE	City of Eugene				
	Version 2.1				
Project Information					
Project Name: Project Address: Designer: Company:	Fairway Estates 18-12-15-00-01500 Florence, OR Clint Beecroft EGR & Associates			Date: 5/19/2022 Permit Number: NA Catchment ID: 3H	
 Provide a distinctive (calculations with the f The maximum draina For infiltration facilities 	Catchment ID for each facility. ge catchment to be most in Class A or B soils.	facility coordinated with	n the site basin otive Approach ting has been p	perfromed use an infiltration rate of 0).5 in/hr.
Design Requirements	:				
Pollution Reduct Flow Cont Destinat	ion (PR) Yes trol (FC) Yes	v next to the design stan	·	nents for this facility. lity type to meet destination requirements	
Site Data-Post Develo	pment				
lı Total Square Footag	ge Impervious Area= mpervious Area CN= ge of Drainage Area= sighted Average CN=	3864 sft 98		Square Footage Pervious Area= Pervious Area CN= Incentration Post Development=	0 85 5 min
Site Data-Pre Develop	ment (Data in th	is section is only used	d if Flow Cont	ol is required)	
Pr Soil Data	re-Development CN=	73	Time of C	oncentration Pre-Development=	10 min
Design S	Soil Infiltration Rate= Soil Infiltration Rate=	10 in/hr (See No 4 in/hr	ote 4)	Destination Design= Soil Infiltration Rate	5 in/hr
Design Storms Used F	or Calculations		1		
Requirement Pollution Reduction Flow Control Destination	Rainfall Depth 0.8 inches 5.1 inches 5.1 inches	Design Storm Water Quality Flood Control Flood Control			
Facility Data					
Max.	Facility Type= Surface Width= Surface Length= Facility Side Slopes= Ponding Depth rmwater Facility=	8.5 ft ft 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	r Planter	Facility Surface Area= Facility Surface Perimeter= Facility Bottom Area= Facility Bottom Perimeter= Basin Volume=	349.35 sqft 99.2 ft 146 sqft 81 ft
	wing Medium (Soil)=		Ratio of F	acility Area to Impervious Area=	0.090

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 =	201 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	0.0 in	
Drawdown Time=	0.2 hours	
	ets Pollution Reducti	
-	irement of No Facility Flo	=
YES Meets Requi	irement for Maximum of 1	8 Hour Drawdown Time?
Flow Control-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.118 cfs	Peak Facility Overflow Rate= 0.041 cfs
Total Runoff Volume to Stormwater		
Facility =	1550 cf	Total Overflow Volume= 52 cf
		Peak Off-Site Flow Rate
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs
Drawdown Time=	0.2 hours	
<u>Pre-Development Ru</u> Peak Flow Rate = Total Runoff Volume =	0.047 cfs 749 cf	
Yes Facility Sizing Me	ets Flow Control Star	ndards?
		ment offsite flow less or equal to Pre-Development Flow? 8 Hour Drawdown Time?
Destination-Calculation Results		
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.118 cfs	Peak Facility Overflow Rate= 0.000 cfs
Facility =	1550 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	8.9 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Me	ets Destination Stand	dards?
YES Meets Requi	irement of No Facility Flo	oding?
•	irement for Maximum of 3	-



EUGENE	City of Eugene				
	Version 2.1				
Project Information					
Project Name: Project Address: Designer:	Fairway Estates 18-12-15-00-01500 Florence, OR Clint Beecroft			Date: 5/19/2022 Permit Number: NA Catchment ID: 3I	
Company:	EGR & Associates				
 Provide a distinctive of calculations with the The maximum draina For infiltration facilities For all facilities use a 	Catchment ID for each facility. age catchment to be mean of the solls are maximum soil infiltrates.	n facility coordinated with	n the site basin otive Approach ting has been p	perfromed use an infiltration rate of 0	.5 in/hr.
Design Requirements	i:				
Pollution Reduct	tion (PR) Yes	w next to the design stan	·	nents for this facility. lity type to meet destination requirements	
Site Data-Post Develo	pment				
Total Square Footag	ge Impervious Area= mpervious Area CN= ge of Drainage Area= eighted Average CN=	98 3903 sft		Square Footage Pervious Area= Pervious Area CN= oncentration Post Development=	0 sqft 85 5 min
Site Data-Pre Develop	ment (Data in th	nis section is only used	d if Flow Cont	rol is required)	
Pi Soil Data	re-Development CN=	73	Time of C	oncentration Pre-Development=	10 min
Tested S Design S	Soil Infiltration Rate= Soil Infiltration Rate=		ote 4)	Destination Design= Soil Infiltration Rate	5 in/hr
Design Storms Used F	or Calculations		_		
Requirement Pollution Reduction Flow Control Destination	Rainfall Depth 0.8 inches 5.1 inches 5.1 inches	Design Storm Water Quality Flood Control Flood Control			
Facility Data					
Max. in Sto	Surface Width= Surface Length= Facility Side Slopes= . Ponding Depth rmwater Facility=	41.7 ft 3 to 1 9 in		Facility Surface Area= Facility Surface Perimeter= Facility Bottom Area= Facility Bottom Perimeter= Basin Volume=	354.45 sqft 100.4 ft 149 sqft 82 ft 196.3 cf
Depth of Gro	wing Medium (Soil)=	2 in	Ratio of F	acility Area to Impervious Area=	0.091

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 =	203 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	0.0 in	
Drawdown Time=	0.2 hours	
	ets Pollution Reduction Sta	ndards?
-	rement of No Facility Flooding?	
YES Meets Require	ement for Maximum of 18 Hour I	Drawdown Time?
Flow Control-Calculation Results		
Peak Flow Rate to Stormwater Facility =	0.119 cfs	Peak Facility Overflow Rate= 0.039 cfs
Total Runoff Volume to Stormwater		
Facility =	1565 cf	Total Overflow Volume= 51 cf
		Peak Off-Site Flow Rate
Max. Depth of Stormwater in Facility=	9.0 in	Filtration Facility Underdrain= N\A cfs
Drawdown Time=	0.2 hours	
Pre-Development Run Peak Flow Rate = Total Runoff Volume =	0.047 cfs 757 cf	
Yes Facility Sizing Mee	ets Flow Control Standards	?
	ement for Post Development off ement for Maximum of 18 Hour I	site flow less or equal to Pre-Development Flow? Drawdown Time?
Destination-Calculation Results		
Peak Flow Rate to Stormwater Facility = Total Runoff Volume to Stormwater	0.119 cfs	Peak Facility Overflow Rate= 0.000 cfs
Facility =	1565 cf	Total Overflow Volume= 0 cf
Max. Depth of Stormwater in Facility=	8.9 in	
Drawdown Time=	0.2 hours	
Yes Facility Sizing Mee	ets Destination Standards?	
YES Meets Require	ement of No Facility Flooding?	
-	rement for Maximum of 30 hour E	Orawdown Time?



EUGENE	City of Eugene				
	Version 2.1				
Project Information					
Project Name:	Fairway Estates			Date: <u>5/19/2022</u>	
Project Address:	<u>18-12-15-00-01500</u>			Permit Number: <u>NA</u>	
	Florence, OR			Catchment ID: 3J	
Designer:	Clint Beecroft				
Company:	EGR & Associates				
Instructions:					
1. Complete this form fo	r each drainage catch	ment in the project site that is	s to be size	ed per the Presumptive Approach.	
Provide a distinctive C calculations with the f		facility coordinated with the	site basin n	map to correlate the appropriate	
3. The maximum drainag	ge catchment to be mo	odeled per the Presumptive A	Approach is	s 1 acre (43,560 SF)	
4.For infiltration facilities	in Class A or B soils	where no infiltration testing h	as been pe	erfromed use an infiltration rate of 0.5 in/hr.	
For all facilities use a	maximum soil infiltrati	on rate of 2.5 in/hr for topsoil	l/growing m	nedium.	
Design Requirements:					
Choose "Yes" from the o	dropdown boxes below	next to the design standard	s requireme	ents for this facility.	
Pollution Reducti	on (PR) Yes				
Flow Cont					
	` '				
Destinati	ion (DT) Yes	*An infiltration facility must be chose	n as the facility	y type to meet destination requirements	
Site Data-Post Develop	ment				
Total Square Footag	e Impervious Area=	5628 sqft	Total S	Square Footage Pervious Area=	0 sqft
-	npervious Area CN=	98		Pervious Area CN=	85
	•				
Total Square Footag	e of Drainage Area=	5628 sft Ti	ime of Con	ncentration Post Development=	5 min
	ighted Average CN=	98			-
Site Data-Pre Developr	nent (Data in th	is section is only used if FI	low Contro	ol is required)	
Pr	e-Development CN=	73	Time of Co	ncentration Pre-Development=	10 min
Soil Data	•				
	oil Infiltration Rate=	10 in/hr (See Note 4)		Postination Posigna	5 in/hr
	oil Infiltration Rate=	4 in/hr		Destination Design= Soil Infiltration Rate	3 111/111
Design Storms Used F		7 11/111		Con minutation reac	
<u> </u>	T				
Requirement	· ·	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 Pla	nter	Facility Surface Area=	510 sqft
	Surface Width=	8.5 ft		Facility Surface Perimeter=	137 ft
	Surface Length=	60 ft		Facility Bottom Area=	222 sqft
	acility Side Slopes=	3 to 1		Facility Bottom Perimeter=	119 ft
	Ponding Depth	0 1:-		B	000 4
in Stor	mwater Facility=	9 in		Basin Volume= 2	282.1 cf

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Ratio of Facility Area to Impervious Area=

0.091

Depth of Growing Medium (Soil)=

Pollution Reduction-Calculation Results				
Peak Flow Rate to Stormwater Facility = 0.023	cfs Peak Facility Overflow Rate= 0.000 cfs			
Total Runoff Volume to Stormwater				
Facility = 293	cf Total Overflow Volume= 0 cf			
Max. Depth of Stormwater in Facility= 0.0	in			
Drawdown Time= 0.2	hours			
	ution Reduction Standards? f No Facility Flooding?			
-	or Maximum of 18 Hour Drawdown Time?			
Flow Control-Calculation Results				
Peak Flow Rate to Stormwater Facility = 0.172	cfs Peak Facility Overflow Rate= 0.052 cfs			
Total Runoff Volume to Stormwater	CIS F CAR I ACINLY OVER NOW NAIGE 0.002 CIS			
Facility = 2257	cf Total Overflow Volume= 71 cf			
	Peak Off-Site Flow Rate			
Max. Depth of Stormwater in Facility= 9.0	in Filtration Facility Underdrain= N\A cfs			
Drawdown Time= 0.2	hours			
Pre-Development Runoff Data				
Peak Flow Rate = 0.068 cfs				
Total Runoff Volume = 1092 cf				
Yes Facility Sizing Meets Flow	v Control Standards?			
	or Post Development offsite flow less or equal to Pre-Development Flow? or Maximum of 18 Hour Drawdown Time?			
Destination-Calculation Results				
Peak Flow Rate to Stormwater Facility = 0.172 Total Runoff Volume to Stormwater	cfs Peak Facility Overflow Rate= 0.000 cfs			
Facility = 2257	cf Total Overflow Volume= 0 cf			
Max. Depth of Stormwater in Facility= 8.9	in			
Drawdown Time= 0.2	hours			
Yes Facility Sizing Meets Des	tination Standards?			
YES Meets Requirement of No Facility Flooding?				
The state of the s	or Maximum of 30 hour Drawdown Time?			

	Worksheet for Basin 1 Pipe		
Project Description			
Friction Method	Manning Formula		
Solve For	Normal Depth		
Input Data			
Roughness Coefficient	0.013		
Channel Slope	0.00500 ft/ft		

Roughness Coefficient	0.013	
Channel Slope	0.00500	ft/ft
Diameter	1.00	ft
Discharge	1.32	ft³/s

Results		
Normal Depth	0.51	ft
Flow Area	0.41	ft²
Wetted Perimeter	1.60	ft
Hydraulic Radius	0.25	ft
Top Width	1.00	ft
Critical Depth	0.49	ft
Percent Full	51.4	%
Critical Slope	0.00607	ft/ft
Velocity	3.25	ft/s
Velocity Head	0.16	ft
Specific Energy	0.68	ft
Froude Number	0.90	

 Maximum Discharge
 2.71 ft³/s

 Discharge Full
 2.52 ft³/s

 Slope Full
 0.00137 ft/ft

Flow Type SubCritical

GVF Input Data		
Downstream Depth	0.00	ft

Length 0.00 ft Number Of Steps 0

GVF Output Data

Upstream Depth 0.00 ft
Profile Description

Profile Headloss 0.00 ft
Average End Depth Over Rise 0.00 %
Normal Depth Over Rise 51.41 %
Downstream Velocity Infinity ft/s

Worksheet for Basin 1 Pipe

GVF Output Data

 Upstream Velocity
 Infinity
 ft/s

 Normal Depth
 0.51
 ft

 Critical Depth
 0.49
 ft

 Channel Slope
 0.00500
 ft/ft

 Critical Slope
 0.00607
 ft/ft

Messages

Notes

Peak flow based on 25 year overflow from Basins 1 and 2 facilities. Total impervious surface area is 43,097 s.f.. Peak runoff is 0.0137 gpm per square foot, or 1.32 cfs.

Worksh	eet for	Basin 2	2 Pipe

Friction Method Manning Formula Solve For Normal Depth

Input Data

Project Description

Roughness Coefficient	0.013	
Channel Slope	0.00500	ft/ft
Diameter	0.83	ft
Discharge	0.60	ft³/s

Results

Normal Depth		0.36	ft
Flow Area		0.23	ft²
Wetted Perimeter		1.19	ft
Hydraulic Radius		0.19	ft
Top Width		0.82	ft
Critical Depth		0.34	ft
Percent Full		43.4	%
Critical Slope		0.00614	ft/ft
Velocity		2.66	ft/s
Velocity Head		0.11	ft
Specific Energy		0.47	ft
Froude Number		0.90	
Maximum Discharge		1.65	ft³/s
Discharge Full		1.53	ft³/s
Slope Full		0.00077	ft/ft
Flow Type	SubCritical		

Flow Type

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	43.43	%
Downstream Velocity	Infinity	ft/s

Worksheet for Basin 2 Pipe

GVF Output Data

Upstream Velocity Infinity ft/s Normal Depth 0.36 ft Critical Depth 0.34 ft Channel Slope 0.00500 ft/ft Critical Slope 0.00614 ft/ft

Messages

Notes

Peak flow based on 25 year overflow from Basin 2 facilities. Total impervious surface area is 19,612 s.f.. Peak runoff is 0.0137 gpm per square foot, or 0.60 cfs.

Worksheet for	Basin	3 F	Pipe
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	Worksheet for B	Basin	3 Pipe
Project Description			
Friction Method	Manning Formula		
Solve For	Normal Depth		
Input Data			
Roughness Coefficient		0.013	
Channel Slope	C	0.00450	ft/ft
Diameter		1.00	ft
Discharge		1.18	ft³/s
Results			
Normal Depth		0.50	ft
Flow Area		0.39	ft²
Wetted Perimeter		1.56	ft
Hydraulic Radius		0.25	ft
Top Width		1.00	ft
Critical Depth		0.46	ft
Percent Full		49.6	%
Critical Slope	C	0.00594	ft/ft
Velocity		3.03	ft/s
Velocity Head		0.14	ft
Specific Energy		0.64	ft
Froude Number		0.86	
Maximum Discharge		2.57	ft³/s
Discharge Full		2.39	ft³/s
Slope Full	(0.00110	ft/ft
Flow Type	SubCritical		
GVF Input Data			
Downstream Depth		0.00	ft
Length		0.00	ft
Number Of Steps		0	
GVF Output Data			
Upstream Depth		0.00	ft
Profile Description			
Profile Headloss		0.00	ft
Average End Depth Over Rise		0.00	%
Normal Depth Over Rise		49.62	%
Downstream Velocity		Infinity	ft/s

Worksheet for Basin 3 Pipe

GVF Output Data

 Upstream Velocity
 Infinity
 ft/s

 Normal Depth
 0.50
 ft

 Critical Depth
 0.46
 ft

 Channel Slope
 0.00450
 ft/ft

 Critical Slope
 0.00594
 ft/ft

Messages

Notes

Peak flow based on 25 year overflow from Basin 3 facilities. Total impervious surface area is 38,745 s.f.. Peak runoff is 0.0137 gpm per square foot, or 1.18 cfs.