

1680 MOLALLA AVENUE (PARKING LOT EXPANSION)

S.E. 1/4, N.W 1/4, SECTION 5, T.3S., R.2E., W.M.,
CITY OF LAKE OSWEGO, CLACKAMAS COUNTY, OREGON



LEGEND

---	BOUNDARY LINE
---	ADJACENT/ADJOINING LOT LINE
---	CENTER LINE ROW
---	EASEMENT
104	EXISTING 1' CONTOUR LINE
105	EXISTING 5' CONTOUR LINE
	EXISTING TREE
	EXISTING CATCH BASIN
	EXISTING STORM SEWER MANHOLE
	EXISTING SANITARY SEWER MANHOLE
	EXISTING FIRE HYDRANT
	EXISTING WATER VALVE
	EXISTING IRRIGATION VALVE
	EXISTING UTILITY POLE
	EXISTING STREET LIGHT
	EXISTING GAS METER
	EXISTING BOLLARD
	EXISTING SIGN
	EXISTING DOWN SPOUT
	EXISTING HANDICAP PARKING
XOH	EXISTING OVERHEAD LINE
XSS	EXISTING SANITARY SEWER LINE
XSD	EXISTING STORM SEWER LINE
XW	EXISTING WATER LINE
XG	EXISTING GAS LINE
□	EXISTING FENCELINE

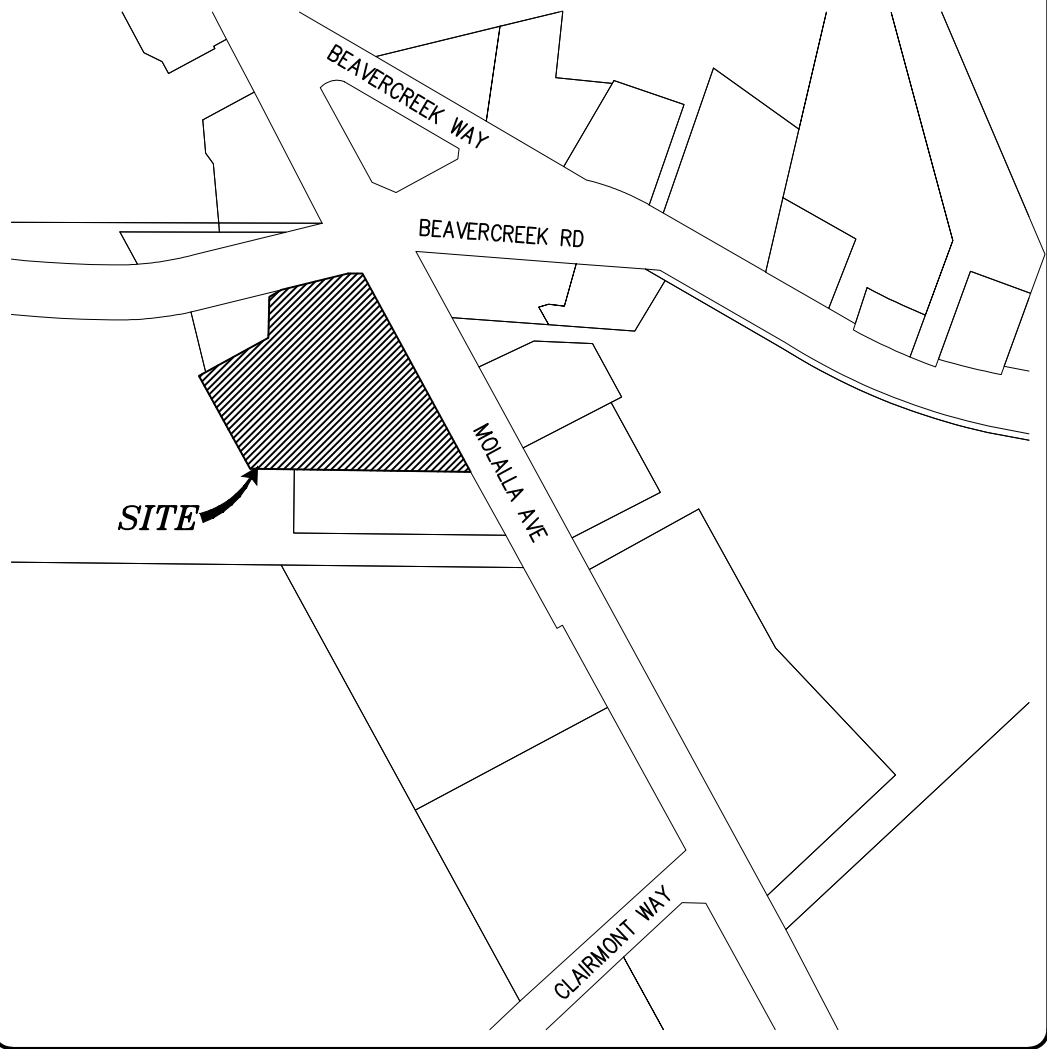
SITE INFORMATION:

SITE ADDRESS: 1680 MOLALLA AVENUE
TAX MAPS: T3S R2E SEC. 05C
TAX LOTS: 301
GROSS AREA: 78,803 SF (AFTER DEDICATION)
ZONING: C

SURVEYOR:

EMERIO DESIGN, LLC
6445 SW FALLBROOK PL, SUITE 100
BEAVERTON, OR 97008
CONTACT: KING PHELPS, PLS
503-746-8812 | TEL
503-639-9592 | FAX

VICINITY MAP



DRAWING INDEX:

- COVERSHEET
- EXISTING CONDITIONS AND DEMOLITION PLAN
- PRELIMINARY GRADING & EROSION CONTROL PLAN
- PRELIMINARY SITE PLAN
- PRELIMINARY UTILITY PLAN

APPLICANT:

MARQUIS COMPANIES
4560 SE INTERNATIONAL WAY #100
MILWAUKIE, OREGON 97222
CONTACT: SCOTT MILLER
971-206-5200 | TEL

ENGINEER:

EMERIO DESIGN, LLC
6445 SW FALLBROOK PL, SUITE 100
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BENCH MARK INFORMATION

THE DATUM FOR THIS SURVEY IS BASED UPON USGS BM D212 IN
CONCRETE WALL AT OREGON CITY HALL.
ELEVATION=497.73 USCS.

1680 MOLALLA AVENUE

TAX MAP T3S R2E 05C
TAX LOT 00301

CITY OF OREGON CITY, OREGON

COVERSHEET

REVISIONS	
NO.	DESCRIPTION

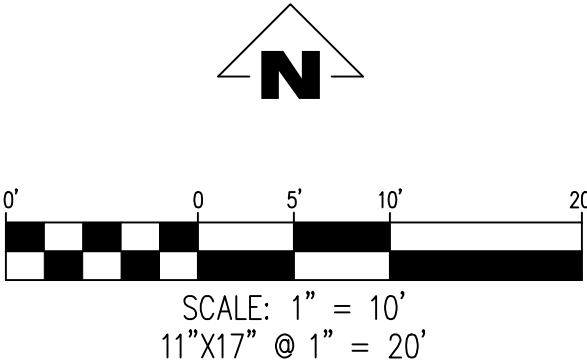
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FAX: (503) 639-9592
www.emeriodesign.com

SHEET
1
OF
5

BEAVERCREEK ROAD

MOLALLA AVENUE



LEGEND

- BOUNDARY LINE
- ADJACENT/ADJOINING LOT LINE
- CENTER LINE ROW
- EASEMENT
- EXISTING 1" CONTOUR LINE
- EXISTING 5' CONTOUR LINE
- EXISTING TREE
- EXISTING CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VUALT
- EXISTING WATER VALVE
- EXISTING IRRIGATION VALVE
- EXISTING UTILITY POLE
- EXISTING STREET LIGHT
- EXISTING GAS METER
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING DOWN SPOUT
- EXISTING HANDICAP PARKING
- EXISTING OVERHEAD LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM SEWER LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING FENCELINE

DEMOLITION NOTES

- 1 EXISTING CURB TO BE REMOVED
- 2 EXISTING AC TO BE REMOVED
- 3 SAWCUT LINE
- 4 EXISTING TREE TO BE REMOVED
- 5 EXISTING STRIPING TO BE REMOVED
- 6 EXISTING AC PAVEMENT TO REMAIN AND BE PROTECTED DURING DEMOLITION
- 7 EXISTING CURB TO REMAIN AND BE PROTECTED DURING DEMOLITION
- 8 EXISTING ELECTRIC LINE TO REMAIN BE PROTECTED DURING DEMOLITION
- 9 EXISTING GAS LINE TO REMAIN AND BE PROTECTED DURING DEMOLITION
- 10 EXISTING STORM CATCH BASIN TO REMAIN AND BE PROTECTED DURING DEMOLITION
- 11 EXISTING STRIPING TO REMAIN AND BE PROTECTED DURING DEMOLITION

1680 MOLALLA AVENUE
TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

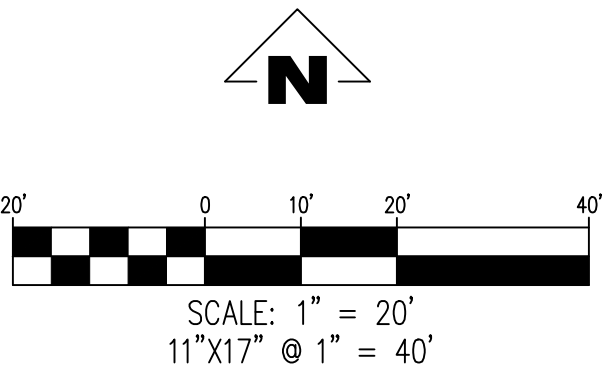
EXISTING CONDITIONS AND
DEMOLITION PLAN

REVISIONS	
NO.	DATE

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BEAVERCREEK ROAD

MOLALLA AVENUE



LEGEND

- BOUNDARY LINE
- - - ADJACENT/ADJOINING LOT LINE
- - - CENTER LINE ROW
- XSD- EXISTING STORM DRAIN LINE
- ← DIRECTION OF SURFACE DRAINAGE
- X-X- PROPOSED SEDIMENT FENCE

WET WEATHER EROSION PREVENTION REQUIREMENTS

ALL STOCKPILED MATERIAL MUST BE FULLY COVERED WITH SECURED PLASTIC SHEETING AND ISOLATED WITH SILT FENCING OR CHECK DAM/WATTLES AT THE TOE OF THE SLOPE UNLESS BEING WORKED.

ALL EXPOSED/DISTURBED SOIL MUST BE COVERED AT THE END OF EACH WORK DAY. APPROVED GROUND COVER INCLUDES 3" MINIMUM DEPTH OF STRAW, COMPOST MULCH, WOOD CHIPS, OR GRAVEL. PLASTIC SHEETING, OVERLAPPED AND SECURELY STAKED, MAY ALSO BE USED AS A GROUND COVER.

ALL VEHICLES MUST BE PARKED ON THE GRAVEL CONSTRUCTION ENTRANCE OR DRIVEWAY, OR OTHER GRAVELED PARKING PADS. DO NOT PARK VEHICLES ON SOILS PROTECTED WITH APPROVED COVER.

ALL CONCRETE WASH OUT, MORTAR AND WET SAW SLURRY, AND ALL LIQUID WASTE MUST BE DUMPED INTO LEAKPROOF PANS. NO GROUND/PIT DUMPING IS ALLOWED ON ANY SITE-THIS IS A YEAR-ROUND REQUIREMENT.

ALL CONSTRUCTION WASTE, GARBAGE AND DEBRIS MUST BE COLLECTED AT THE END OF EACH WORK DAY AND STORED IN CONTAINERS OR ENCLOSED FACILITIES UNTIL DISPOSED OF-THIS IS A YEAR ROUND REQUIREMENT.

ALL EROSION CONTROL FACILITIES AND PRACTICES DESCRIBED IN YOUR EROSION CONTROL PLAN MUST BE PROPERLY INSTALLED, MONITORED FOR EFFECTIVENESS AND MAINTAINED THROUGHOUT THE PROJECT. IF THE FACILITIES AND PRACTICES IN THE PLAN ARE NOT EFFECTIVE, ADDITIONAL MEASURES MUST BE IMPLEMENTED. INFORMATION REGARDING MAINTENANCE CAN BE FOUND IN THE LAKE OSWEGO CODE, SECTION 52.

INFORMATION REGARDING APPROVED MEASURES AND INSTALLATION PROCEDURES IS CONTAINED IN THE "EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL" (REVISED DECEMBER 2008). YOU CAN OBTAIN A HARD COPY OF THIS MANUAL THROUGH CLEAN WATER SERVICES OR CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES. ALTERNATIVELY, AN ELECTRONIC COPY CAN BE DOWNLOADED FREE OF CHARGE FROM THE CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES WEB SITE.
([HTTP://WWW.CO.CLACKAMAS.OR.US/WES/INDEX.HTM](http://www.co.clackamas.or.us/wes/index.htm))

OTHER MEASURES MAY BE REQUIRED BY THE INSPECTOR TO ADDRESS SITE CONDITIONS. ALL MEASURES MUST BE MAINTAINED IN GOOD WORKING ORDER, WITH ALL ACCUMULATIONS OF SEDIMENT REMOVED AS NECESSARY.

TO PRESERVE GROUND COVER, IT'S RECOMMENDED THAT TEMPORARY PLYWOOD, PLANK OR GRAVEL WALKWAYS BE PLACED AROUND THE JOBSITE TO PROVIDE ACCESS TO THE STRUCTURE WITHOUT FURTHER DISTURBING COVERED SOILS.

THE "WET WEATHER REQUIREMENTS" ARE IN ADDITION TO STANDARD EROSION AND SEDIMENT CONTROL REQUIREMENTS. PLEASE SEE THE APPROVED EROSION CONTROL PLAN, ATTACHED "ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES", "WET WEATHER MEMO" AND DETAILS FOR COMPLETE REQUIREMENTS.

ALL CONTRACTORS, SUBCONTRACTORS, PROPERTY OWNERS AND ANYONE WORKING ON THE CONSTRUCTION SITE IS EXPECTED TO KNOW LOCAL, STATE AND FEDERAL REQUIREMENTS RELATED TO EROSION AND SEDIMENT CONTROL AND WATER QUALITY. ALL REGULATIONS MUST BE ADHERED TO AT ALL TIMES.

EROSION CONTROL CONSTRCUTION NOTES

- ① USE EXISTING DRIVEWAY AS CONSTRUCTION ENTRANCE
- ② SILT SEDIMENT FENCE
- ③ BIO-BAG FOR CATCH BASIN
- ④ GARAGE CONTAINERS
- ⑤ STOCK PILE (COVER W/ PLASTIC OCT 1 - MAY 31)
- ⑥ TEMPORARY DIGOUT STOCK PILE. (COVER W/ PLASTIC OCT 1 - MAY 31)

NOTES:

LEAK-PROOF GARBAGE CONTAINERS ARE REQUIRED ON ALL CONSTRUCTION SITES. GARBAGE, LITTER AND DEBRIS SHOULD BE COLLECTED AND CONTAINED AT THE END OF EACH WORK DAY.

ALL CONCRETE WASH OUT, MORTAR AND TILE SAW SLURRY MUST BE CONTAINED IN LEAK-PROOF PANS; NO GROUND DUMPING IS PERMITTED.

WET WEATHER SEASON IS OCTOBER 1 THROUGH MAY 31. ALL DISTURBED SOILS MUST BE COVERED WITH 3" OF APPROVED COVER AT THE END OF EACH WORK DAY; ALL STOCKPILES MUST BE FULLY COVERED WITH SECURED PLASTIC SHEETING UNLESS ACTIVELY BEING WORKED; ADDITIONAL MEASURES AS REQUIRED.

ALL MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING ALL MEASURES DAILY AND ADDING OR ADJUSTING MEASURES AS NEEDED TO REDUCE EROSION AND CONTAIN SEDIMENT.

ALL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED. REPAIR OR REPLACE DAMAGED MEASURES WITHIN 24 HOURS.

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REVISIONS

NO. DATE DESCRIPTION

PRELIMINARY GRADING &
EROSION CONTROL PLAN

1680 MOLALLA AVENUE

TAX MAP T3S R2E 05C

TAX LOT 00301

CITY OF OREGON CITY, OREGON

SHEET

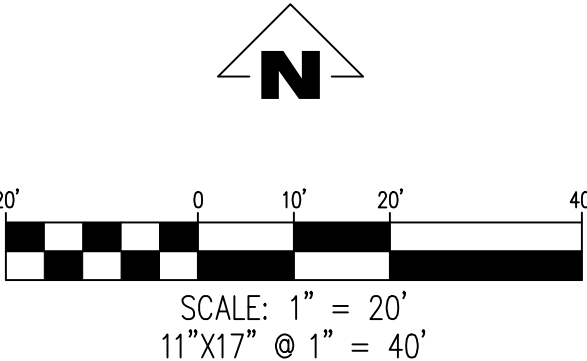
3

OF

5

BEAVERCREEK ROAD

MOLALLA AVENUE



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- EXISTING FENCELINE

CONSTRUCTION NOTES

- 1 SAWCUT LINE
- 2 PROPOSED AC PAVEMENT
- 3 PROPOSED 6" STANDARD CURB
- 4 PROPOSED PARKING STRIPING
- 5 PROPOSED SERVICE PARKING/LOADING ZONE STRIPING
- 6 PROPOSED FILTRATION RAIN GARDEN
- 7 PROPOSED CURB CUT SCUPPER

1680 MOLALLA AVENUE
TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON

PRELIMINARY SITE PLAN

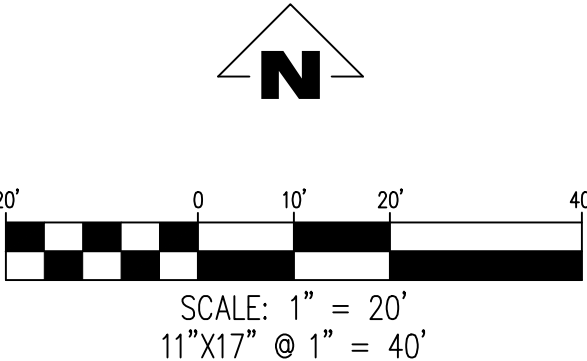
REVISIONS	
NO.	DESCRIPTION

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BEAVERCREEK ROAD

MOLALLA AVENUE



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CONSTRUCTION NOTES

- 1 PROPOSED FILTRATION RAIN GARDEN (137 SF)

2 PROPOSED FILTRATION RAIN GARDEN (130 SF)

3 PROPOSED FILTRATION RAIN GARDEN (453 SF)

4 PROPOSED FILTRATION RAIN GARDEN (144 SF)
- 5 PROPOSED 6" WYE

6 PROPOSED 6" ABS PERFORATED PIPE

7 PROPOSED 6" ABS SOLID PIPE (S=1% MINIMUM)

8 PROPOSED CURB CUT SCUPPER
- 9 PROPOSED 6" PVC 3034 STORM PIPE

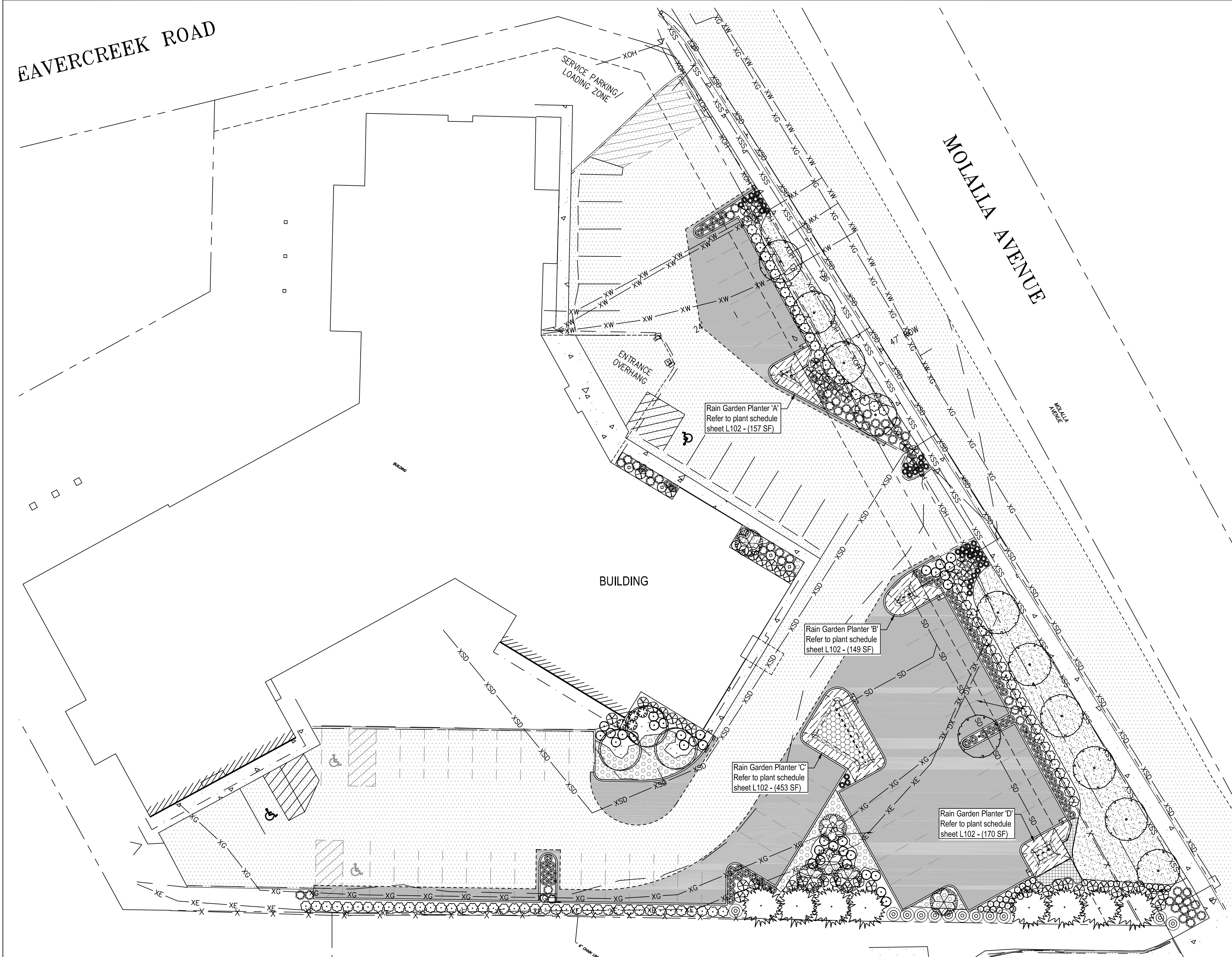
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REVISIONS	
NO.	DESCRIPTION

PRELIMINARY UTILITY PLAN

1680 MOLALLA AVENUE
TAX MAP T3S R2E 05C
TAX LOT 00301
CITY OF OREGON CITY, OREGON



PLANT MATERIALS LISTING:					
Botanical name Common Name					
SYM	TREES	QTY.	SIZE	CONDITION	REMARKS
	Acer palmatum 'Sangokaku' Coral Bark Maple	3	5-6'	B&B	Multi-stem
	Acer circinatum Vine Maple	6	5-6'	B&B	Multi-stem
	x Cupressocyparis leylandii 'Naylors Blue' Naylors Blue Leyland Cypress	8	6-7'	B&B	
	Zelkova 'Green Village' Green Village Zelkova	11	2" Cal.	B&B	
SYM	SHRUBS	QTY.	SIZE	CONDITION	REMARKS
	Euonymus fortunei 'Emerald 'n Gold' Emerald 'n Gold Euonymus	72	1 Gal.	Can	12-15"
	Hemerocallis 'Happy Returns' Happy Returns Daylily	26	1 Gal.	Can	10-12"
	Hydrangea paniculata 'Littlelime' Littlelime Hydrangea	18	5 Gal.	Can	10-12"
	Hydrangea 'Cityline' Dwarf Hydrangea	6	5 Gal.	Can	18-21"
	Prunus lusitanica Portuguese Laurel	12	5 Gal.	Can	18-21"
	Rhododendron 'Anah Kruschke' Anah Kruschke Rhododendron	39	5 Gal.	Can	18-21"
	Rudbeckia fulgida 'Goldsturm' Black Eye Susan	43	1 Gal.	Can	10-12"
	Spiraea x bumalda 'Goldflame' Goldflame Spiraea	52	2 Gal.	Can	18-21"
	Syringa pubescens 'Miss Kim' Miss Kim Lilac	4	5 Gal.	Can	18-21"
	Viburnum davidii David Viburnum	34	2 Gal.	Can	12-15"
	Viburnum tinus 'Spring Bouquet' Spring Bouquet Viburnum	90	5 Gal.	Can	12-15"
SYM	GROUND COVER	QTY.	SIZE	CONDITION	REMARKS
	Erica x darleyensis 'Kramers Rote' Kramers Red Winter Heath	25	1 Gal.	Can	24" O.C.
	Polystichum munitum Sword Fern	175	1 Gal.	Can	24" O.C.
	Lawn (seed or hydroseed)	2,550 SF			

APPROXIMATE LANDSCAPE AREA	
PLANTING AREA:	6,125 sq.ft.
LAWN AREA:	2,550 sq.ft.
RAIN GARDEN AREA:	929 sq.ft.

NOTES:
1. REFER TO SHEET L103 FOR PLANTING DETAILS AND NOTES.
2. REFER TO SHEET L102 FOR RAIN GARDEN PLANTING LISTING AND PLANTING REQUIREMENTS NOTES.

RAIN GARDEN PLANTER FACILITY 'A'					
PLANTING RATES REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS					
PLANT TYPE	PLANTING AREA (SQ FT)	PLANTING DENSITY (PER SQ FT)	NUMBER OF PLANTS	NUMBER OF SPECIES	
ZONE A SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 22 SQ FT					
LG. SHRUB / SM. TREE	22	/ 100 X	3 =	1	1
SM. SHRUB	22	/ 100 X	4 =	1	1
GROUND COVER	22	/ 100 X	115 =	25	2
ZONE B DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 135 SQ FT					
TREE	135	/ 100 X	1 =	1	1
LG. SHRUB / SM. TREE	135	/ 100 X	3 =	4	2
SM. SHRUB	135	/ 100 X	4 =	5	2
GROUND COVER	135	/ 100 X	115 =	155	2

RAIN GARDEN PLANTER FACILITY 'B'					
PLANTING RATES REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS					
PLANT TYPE	PLANTING AREA (SQ FT)	PLANTING DENSITY (PER SQ FT)	NUMBER OF PLANTS	NUMBER OF SPECIES	
ZONE A SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 30 SQ FT					
LG. SHRUB / SM. TREE	30	/ 100 X	3 =	1	1
SM. SHRUB	30	/ 100 X	4 =	1	1
GROUND COVER	30	/ 100 X	115 =	35	2
ZONE B DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 119 SQ FT					
TREE	119	/ 100 X	1 =	1	1
LG. SHRUB / SM. TREE	119	/ 100 X	3 =	4	2
SM. SHRUB	119	/ 100 X	4 =	5	2
GROUND COVER	119	/ 100 X	115 =	137	2

RAIN GARDEN PLANTER FACILITY 'C'					
PLANTING RATES REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS					
PLANT TYPE	PLANTING AREA (SQ FT)	PLANTING DENSITY (PER SQ FT)	NUMBER OF PLANTS	NUMBER OF SPECIES	
ZONE A SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 224 SQ FT					
LG. SHRUB / SM. TREE	224	/ 100 X	3 =	7	1
SM. SHRUB	224	/ 100 X	4 =	9	1
GROUND COVER	224	/ 100 X	115 =	258	2
ZONE B DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 229 SQ FT					
TREE	229	/ 100 X	1 =	2	1
LG. SHRUB / SM. TREE	229	/ 100 X	3 =	7	2
SM. SHRUB	229	/ 100 X	4 =	9	2
GROUND COVER	229	/ 100 X	115 =	263	2

RAIN GARDEN PLANTER FACILITY 'D'					
PLANTING RATES REFER TO SHEET L103 FOR PLANT LISTING & PLANTING REQUIREMENTS					
PLANT TYPE	PLANTING AREA (SQ FT)	PLANTING DENSITY (PER SQ FT)	NUMBER OF PLANTS	NUMBER OF SPECIES	
ZONE A SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 40 SQ FT					
LG. SHRUB / SM. TREE	40	/ 100 X	3 =	1	1
SM. SHRUB	40	/ 100 X	4 =	2	1
GROUND COVER	40	/ 100 X	115 =	46	2
ZONE B DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 130 SQ FT					
TREE	130	/ 100 X	1 =	1	1
LG. SHRUB / SM. TREE	130	/ 100 X	3 =	4	2
SM. SHRUB	130	/ 100 X	4 =	5	2
GROUND COVER	130	/ 100 X	115 =	150	2

MEARS DESIGN+GROUP

LANDSCAPE ARCHITECTURE & PLANNING

PO BOX 23338 | PORTLAND, OREGON | 97281

PHONE: 503.601.4516 | FAX: 503.924.4688

REGISTERED 540

TROY MEARS

OREGON

12/21/2003

LANDSCAPE ARCHITECT

MARQUIS ASSISTED CARE

PARKING LOT EXPANSION

PLANTING PLAN

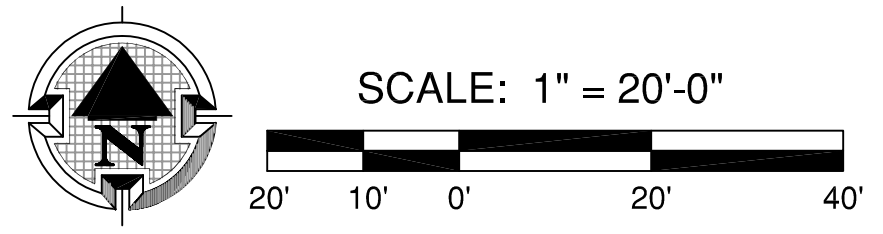
1680 MOLALLA, OREGON CITY, OREGON

REVISIONS		
REV.	DATE	DESCRIPTION
1	2/26/2019	Design Changes

SHEET NAME:
PLANTING PLAN

DRAWN BY: TAM
CHECKED BY: TAM
ISSUE DATE: 8/9/2018
JOB NO.: 1828

SHEET:
L101
OF 3



NOT FOR CONSTRUCTION

LISTING FOR RAIN GARDEN FACILITY 'A' (REFER TO PLANTING DETAILS SHEET L103)						
L.G. Shrub/ Sm. Tree	<div><div>ZONE A</div><div>SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Douglas spiraea (Spirea douglasii)	1	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	1				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	1	Shrub	1 gal.		Cluster
	Total Small Shrubs	1				
G.C.	Spreading rush (Juncus patens)	13	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	12	Herb	Plug	4"	Mass
	Total Groundcover	25				
Tree	<div><div>ZONE B</div><div>DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Vine Maple (Acer circinatum)	1	Tree	1" cal.	1" cal.	Cluster
	Total Trees	1				
L.G. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguineum)	2	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	2	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	4				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	2	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	3	Shrub	1 gal.		Cluster
	Total Small Shrubs	5				
G.C.	Spreading rush (Juncus patens)	78	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	77	Herb	Plug	4"	Mass
	Total Groundcover	155				

LISTING FOR RAIN GARDEN FACILITY 'B' (REFER TO PLANTING DETAILS SHEET L103)						
L.G. Shrub/ Sm. Tree	<div><div>ZONE A</div><div>SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Douglas spiraea (Spirea douglasii)	1	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	1				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	1	Shrub	1 gal.		Cluster
	Total Small Shrubs	1				
G.C.	Spreading rush (Juncus patens)	18	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	17	Herb	Plug	4"	Mass
	Total Groundcover	35				
Tree	<div><div>ZONE B</div><div>DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Vine Maple (Acer circinatum)	1	Tree	1" cal.	1" cal.	Cluster
	Total Trees	1				
L.G. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguineum)	2	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	2	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	4				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	2	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	3	Shrub	1 gal.		Cluster
	Total Small Shrubs	5				
G.C.	Spreading rush (Juncus patens)	69	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	68	Herb	Plug	4"	Mass
	Total Groundcover	137				

LISTING FOR RAIN GARDEN FACILITY 'C' (REFER TO PLANTING DETAILS SHEET L103)						
L.G. Shrub/ Sm. Tree	<div><div>ZONE A</div><div>SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Douglas spiraea (Spirea douglasii)	7	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	7				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	9	Shrub	1 gal.		Cluster
	Total Small Shrubs	9				
G.C.	Spreading rush (Juncus patens)	129	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	129	Herb	Plug	4"	Mass
	Total Groundcover	258				
Tree	<div><div>ZONE B</div><div>DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Vine Maple (Acer circinatum)	2	Tree	1" cal.	1" cal.	Cluster
	Total Trees	2				
L.G. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguineum)	4	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	3	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	7				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	5	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	4	Shrub	1 gal.		Cluster
	Total Small Shrubs	9				
G.C.	Spreading rush (Juncus patens)	132	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	131	Herb	Plug	4"	Mass
	Total Groundcover	263				

LISTING FOR RAIN GARDEN FACILITY 'D' (REFER TO PLANTING DETAILS SHEET L103)						
L.G. Shrub/ Sm. Tree	<div><div>ZONE A</div><div>SEASONAL SATURATED / TEMPORARY INUNDATED ZONE 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Douglas spiraea (Spirea douglasii)	1	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	1				
Sm. Shrub	Kelsey Dogwood (Cornus sericea 'Kelseyi')	2	Shrub	1 gal.		Cluster
	Total Small Shrubs	2				
G.C.	Spreading rush (Juncus patens)	23	Herb	Plug	6"	Mass
	Dense Sedge (Carex densa)	23	Herb	Plug	4"	Mass
	Total Groundcover	46				
Tree	<div><div>ZONE B</div><div>DRIER TRANSITIONAL AREA ABOVE DESIGNED HIGH WATER MARK 176 SQ FT</div><div>Plant Communities</div></div>	Minimum Species Composition	Plant Catagory	Minimum Rooting Size	Minimum Plant Height	Spacing Format
	Vine Maple (Acer circinatum)	2	Tree	1" cal.	1" cal.	Cluster
	Total Trees	1				
L.G. Shrub/ Sm. Tree	Red flowering Currant (Ribes sanguineum)	2	Shrub	1 gal.	30"	Cluster
	Douglas spiraea (Spirea douglasii)	2	Shrub	1 gal.	30"	Cluster
	Total Large Shrubs / Small Tree	4				
Sm. Shrub	Oregon Grape (Mahonia aquifolium)	2	Shrub	1 gal.		Cluster
	Kelsey Dogwood (Cornus sericea 'Kelseyi')	3	Shrub	1 gal.		Cluster
	Total Small Shrubs	5				
G.C.	Spreading rush (Juncus patens)	75	Herb	Plug	6"	Mass
	Blue wild rye (Elymus glaucus)	75	Herb	Plug	4"	Mass
	Total Groundcover	150				

Stormwater Facility Growing Medium Per CCSD#1 Standards (Appendix A)
Furnish imported growing medium for vegetated stormwater facilities conforming to the following:

- A.3.1 Standard Blend. Standard Blend for Public and Private Facilities: Use this blend for all vegetated stormwater management facilities, except those in the right-of-way where compaction from foot traffic is a concern.
- General Composition: The medium should be a blend of loamy soil, sand, and compost that is 30 to 40 percent compost (by volume) and meets the criteria in this specification.
 - Analysis Requirements for the Blended Material:
 - Particle Gradation: A particle gradation of the blended material, including compost, should be in conformance with ASTM C1 17/C136 (AASHTO T11/T27).
 - Organic Matter Content: The soil organic matter content should be in conformance with ASTM D2974 (loss on ignition test). The soil organic matter content should be a minimum of 10 percent.
 - pH: The blended material should have a pH of 5.5 to 7.

- A.3.2 General Requirements for the Blended Material:
- The material should be loose and friable.
 - It should be well mixed and homogenous.
 - It should be free of wood pieces, plastic, screened and free of stones 1 inch (25 mm) or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; and free of weeds and invasive plants including but not limited to:
 - Cirsium arvense (Canadian Thistle)
 - Convolvulus spp. (Morning Glory)
 - Cytisus scoparus (Scotch Broom)
 - Dipsacus sylvestris (Common Teasel)
 - Festuca arundinaceae (Tall Fescue)
 - Hedera helix (English Ivy)
 - Holcus canatus (Velvet Grass)
 - Lolium spp. (Rye Grasses)
 - Lotus corniculatus (Bird's Foot Trefoil)
 - Lythrium salicaria (Purple Loose Strife)
 - Mellilotus spp. (Sweet Clover)
 - Myriophyllum spicatum (Eurasian Milfoil)
 - Phalaris arundinaceae (Reed Canary Grass)
 - Rubus discolor (Himalayan Blackberry)
 - Solanum spp. (Nightshade)
 - Trifolium spp. (Clovers), and
 - Not infested with nematodes, grubs, other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration, continuous, air-filled, pore-space content on a volume/volume basis should be at least 15 percent when moisture is present at field capacity; and soil should have a field capacity of at least 15 percent on a dry weight basis.
 - It should have no visible free water.
 - It should be obtained from naturally well drained construction or mining sites where topsoil occurs at least 4 inches deep; and it should not be obtained from bogs, wetlands, or marshes.

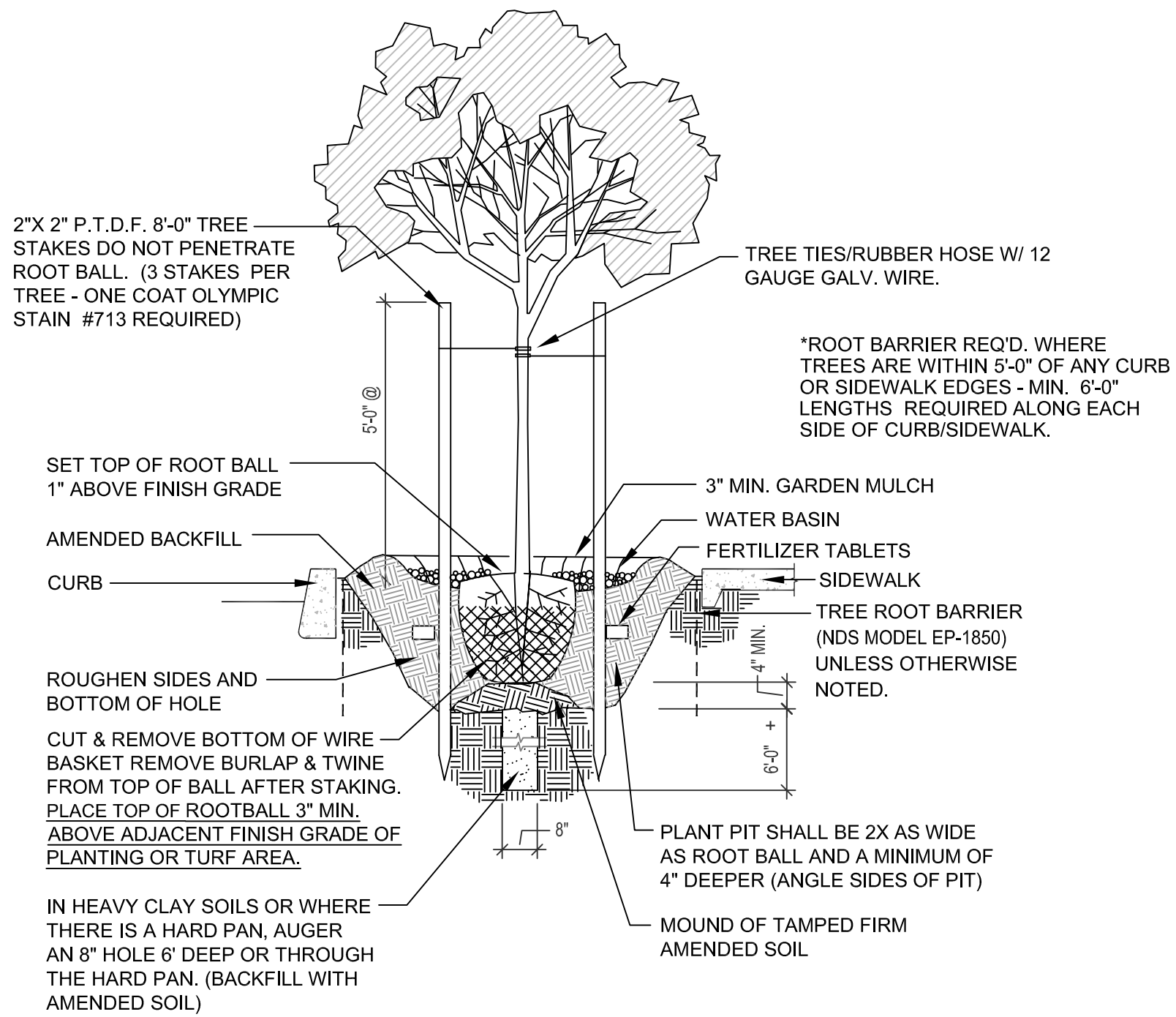
A.3.3 Compost: The compost should be derived from plant material and provided by a member of the U.S. Composting Council Seal of Testing Assurance (STA) program. See www.compostingcouncil.org for a list of providers in the Portland area.

The compost should be the result of the biological degradation and transformation of plant-derived materials under conditions designed to promote aerobic decomposition. The material should be well composted, free of viable weed seeds, and stable with regard to oxygen consumption and carbon dioxide generation. The compost should have no visible free water and produce no dust when handled. It should meet the following criteria, as reported by the U.S. Composting Council STA Compost Technical Data
Sheet provided by the vendor.

- 100 percent of the material must pass through a 1/2-inch screen.
- The pH of the material should be between 6 and 8.
- Manufactured inert material (plastic, concrete, ceramics, metal, etc.) should be less than 1.0 percent by weight.
- The organic matter content should be between 35 and 65 percent.
- The soluble salt content should be less than 6.0 mmhos/cm.
- Germination (an indicator of maturity) should be greater than 80 percent.
- The stability should be between classes 5-7.
- The carbon/nitrogen ratio should be less than 25:1.
- The trace metals test result = "pass."

- A.3.4 Stormwater Facility Growing Medium Installation
- Protection of the Growing Medium: The growing medium should be protected from all sources of contamination, including weed seeds, while at the supplier, in conveyance, and at the project site.
 - Placement of the Growing Medium: The medium should be placed in loose lifts, not to exceed 8 inches each and each lift should be compacted with a water-filled landscape roller. The material should not otherwise be mechanically compacted.
 - Timing of Plant Installation: Weather permitting, plants should be installed as soon as possible after placing and grading the growing medium in order to minimize erosion and further compaction.
 - Erosion Control: Temporary erosion control measures may be required until permanent stabilization measures are functional, including protection of overflow structures.
 - Protection of the Facility: In all cases, the facility must be protected from foot or equipment traffic that is unrelated to the construction of the facility. Temporary fencing or walkways should be installed as needed to keep workers, pedestrians, and equipment out of the facility. Under no circumstances should materials and equipment be stored in the facility.
 - Sediment protection: Stormwater facilities should be kept clean and should not be used as erosion and sediment control structures during construction.
 - Wet and Winter Conditions: Placement of the growing medium is not recommended when the ground is frozen or saturated or when the weather is determined to be too wet.

- A.3.5 Watering, Fertilizing, and Mulching
- Water all plants during establishment to maintain all plantings in a healthy thriving condition.
 - Fertilizers should generally be avoided in stormwater facilities. Fertilize all plants during establishment as needed with slow release, organic (low yield) material.
 - The purpose of mulching soils is to conserve moisture, hold plantings and topsoil in place, limit weed establishment and, moderate soil temperatures.
 - Mulch for Vegetated Stormwater Facilities: The use of mulch in frequently inundated areas should be limited to avoid any possible water quality impacts, including the leaching of tannins and nutrients and the migration of mulch into waterways. Mulches to be used are a stable and inert (nonleaching) matter of sufficient mass and density that it will not float in standard flows. Mulch cover should be maintained throughout the life of the stormwater facility with minimum thickness of 2 inches in depth.

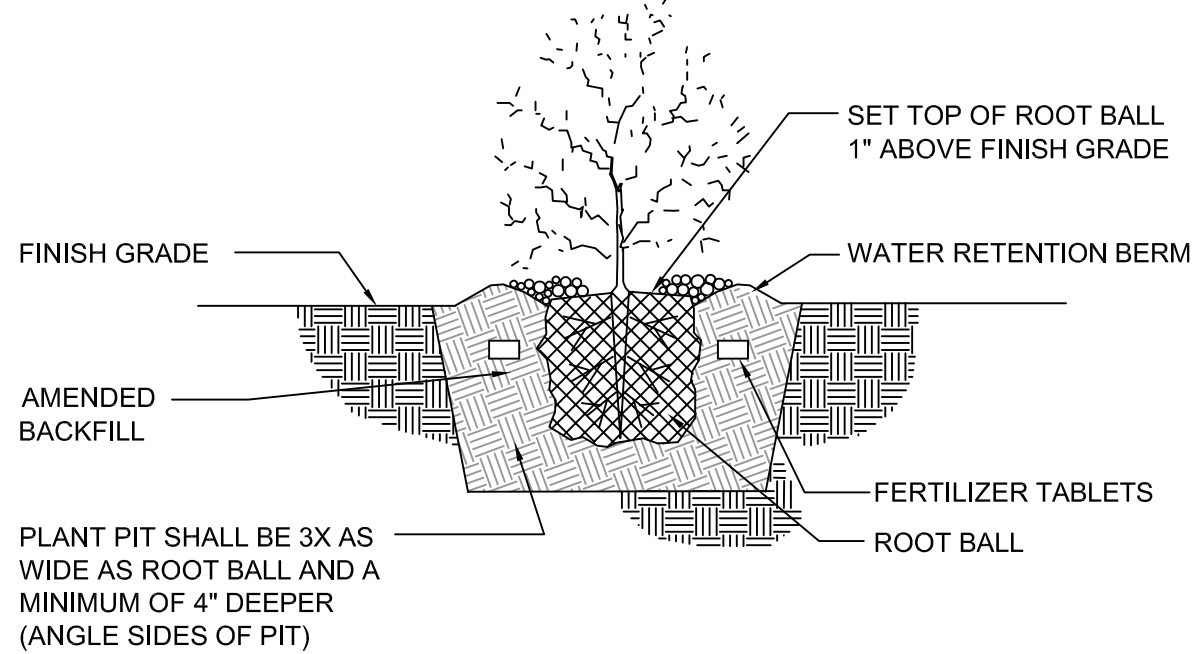


TREE PLANTING DETAIL

N.T.S.

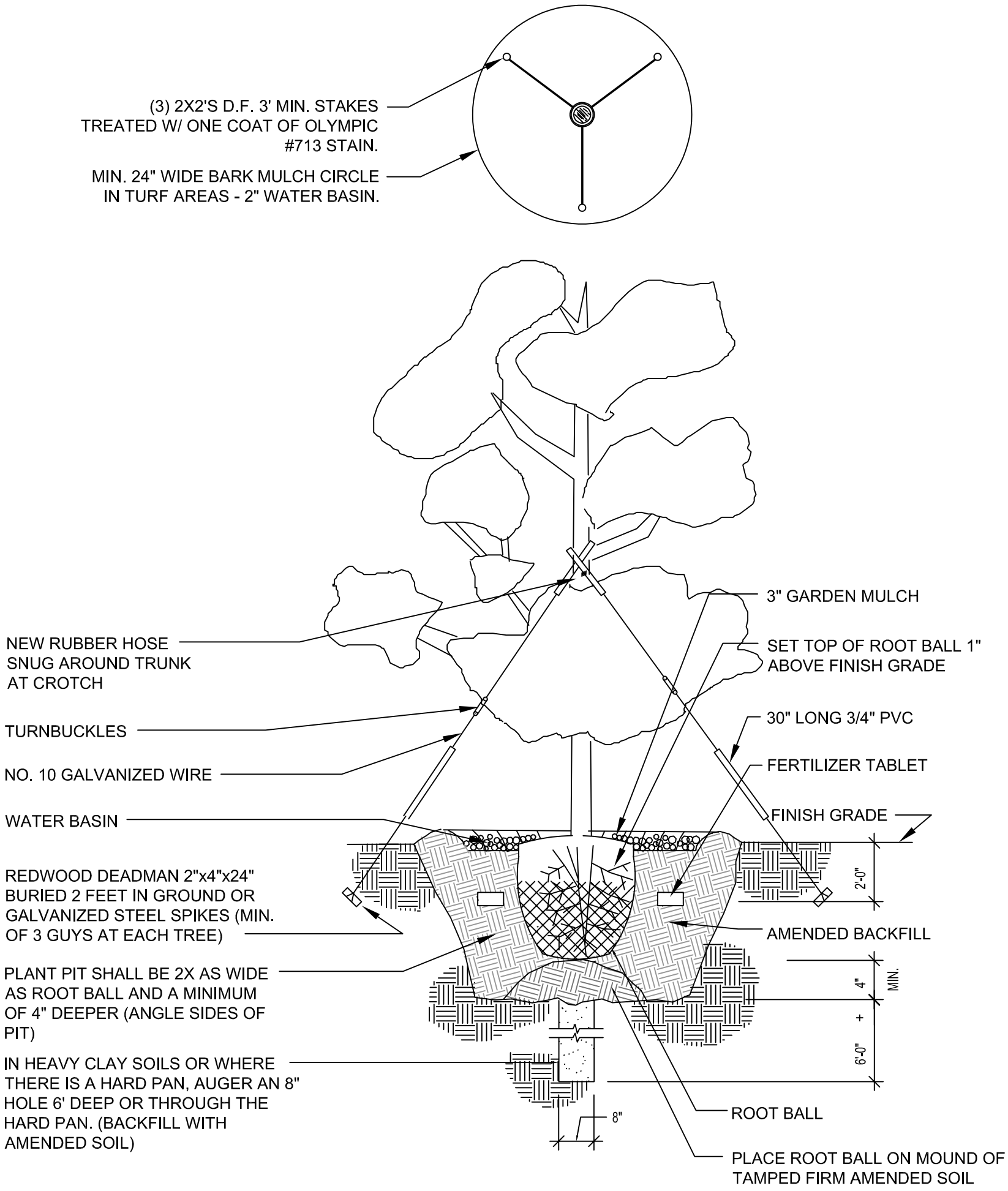
TYPICAL PLANTING NOTES:

1. B&B stock may be substituted with container stock of equal grade.
2. Container stock may be substituted with B&B stock of equal grade.
3. Plant material shall conform with American Standard for Nursery Stock, ANSI Z60.1, 2004 edition.
4. All trees shall be branched.
5. Refer to project technical specification for topsoil requirement. All planting beds shall have a minimum of 18 inches topsoil. Re-use of existing topsoil is recommended, but must meet specifications.
6. Garden mulch all planting beds with 3" min. Layer of specified garden mulch.
7. In the event of a discrepancy between this material listing and the drawings, the drawings shall govern the plant species and quantities required.
8. In the event of question or lack of clarity on drawings, Landscape Contractor is to call Landscape Architect before proceeding.
9. Landscape contractor is to notify Landscape Architect prior to installation of plant material to approve final placement.
10. Landscape Contractor to verify plant material quantities.
11. Contractor will provide a one year warranty on all provided & installed plant material from date of final approval by owner's representative.



SHRUB PLANTING DETAIL

N.T.S.



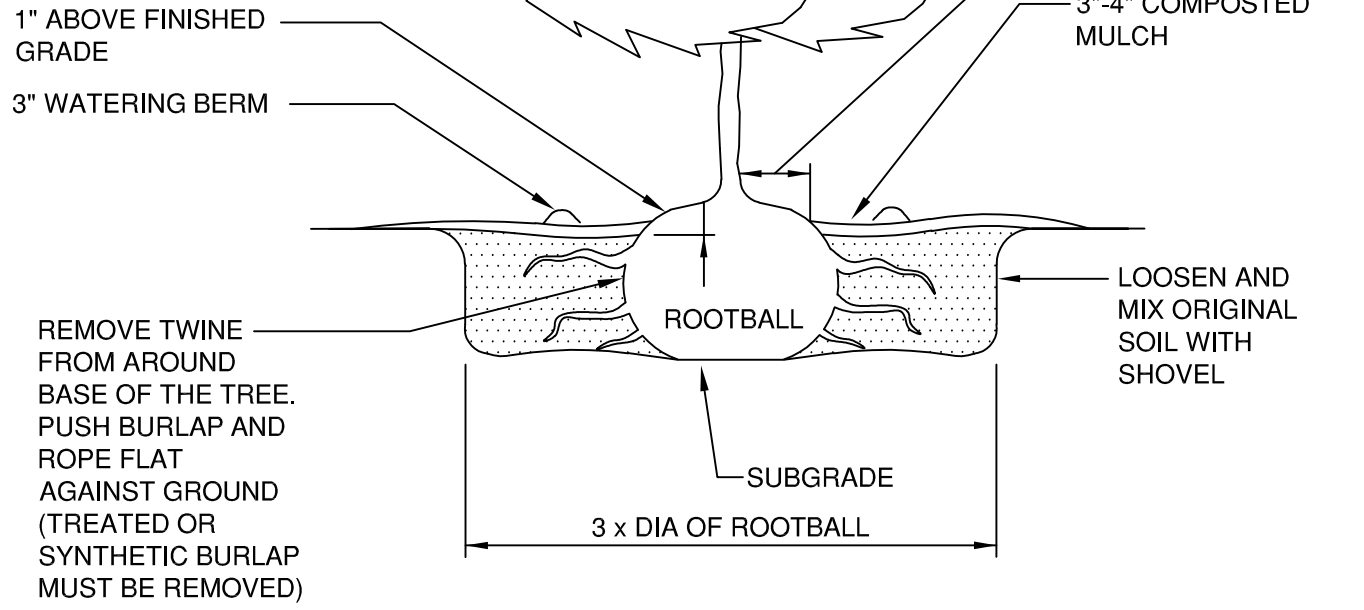
EVERGREEN TREE PLANTING DETAIL

N.T.S.

NO FERTILIZER TABLETS REQUIRED FOR STREAM BANK AND HCA PLANTINGS.

NO FERTILIZER REQUIRED FOR DETENTION POND PLANTINGS.

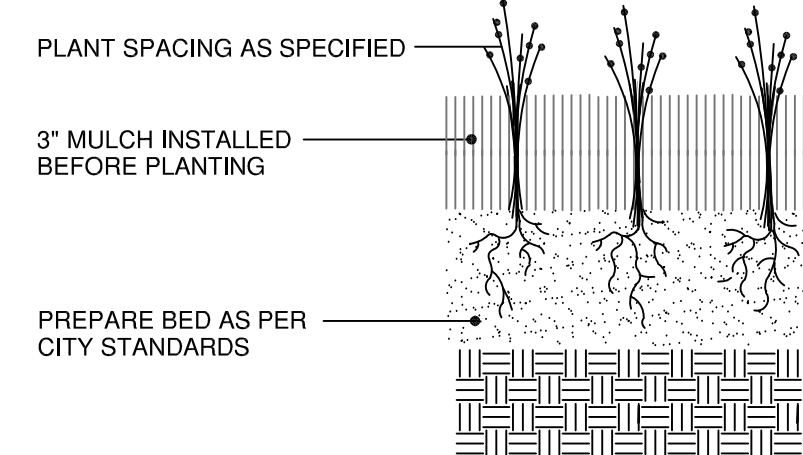
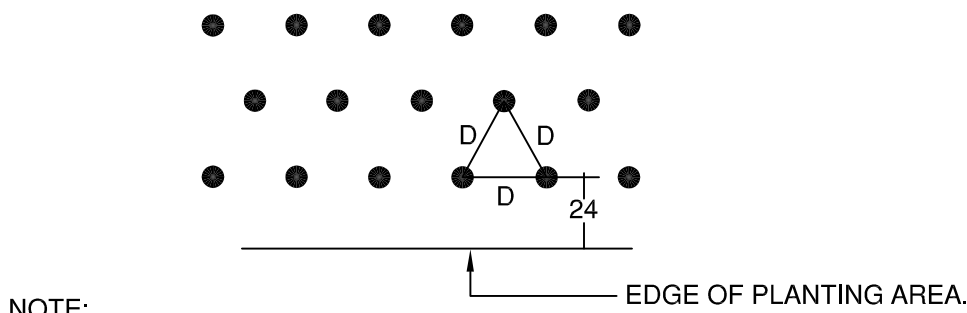
NOTE: IF TREE IS CONTAINER GROWN STOCK, BREAK ROOT BALL APART BEFORE PLACING IN PLANTING HOLE. IF PLANT IS ROOT BOUND MAKE A VERTICAL CUT THROUGH THE LOWER 1/4 OF THE SOIL MASS. PULL OUT AND STRAIGHTEN LARGE, CIRCLING ROOTS.



TREE PLANTING - CONTAINER/ BURLAPPED

(RAIN GARDEN FACILITY AND PLANTER AREAS)

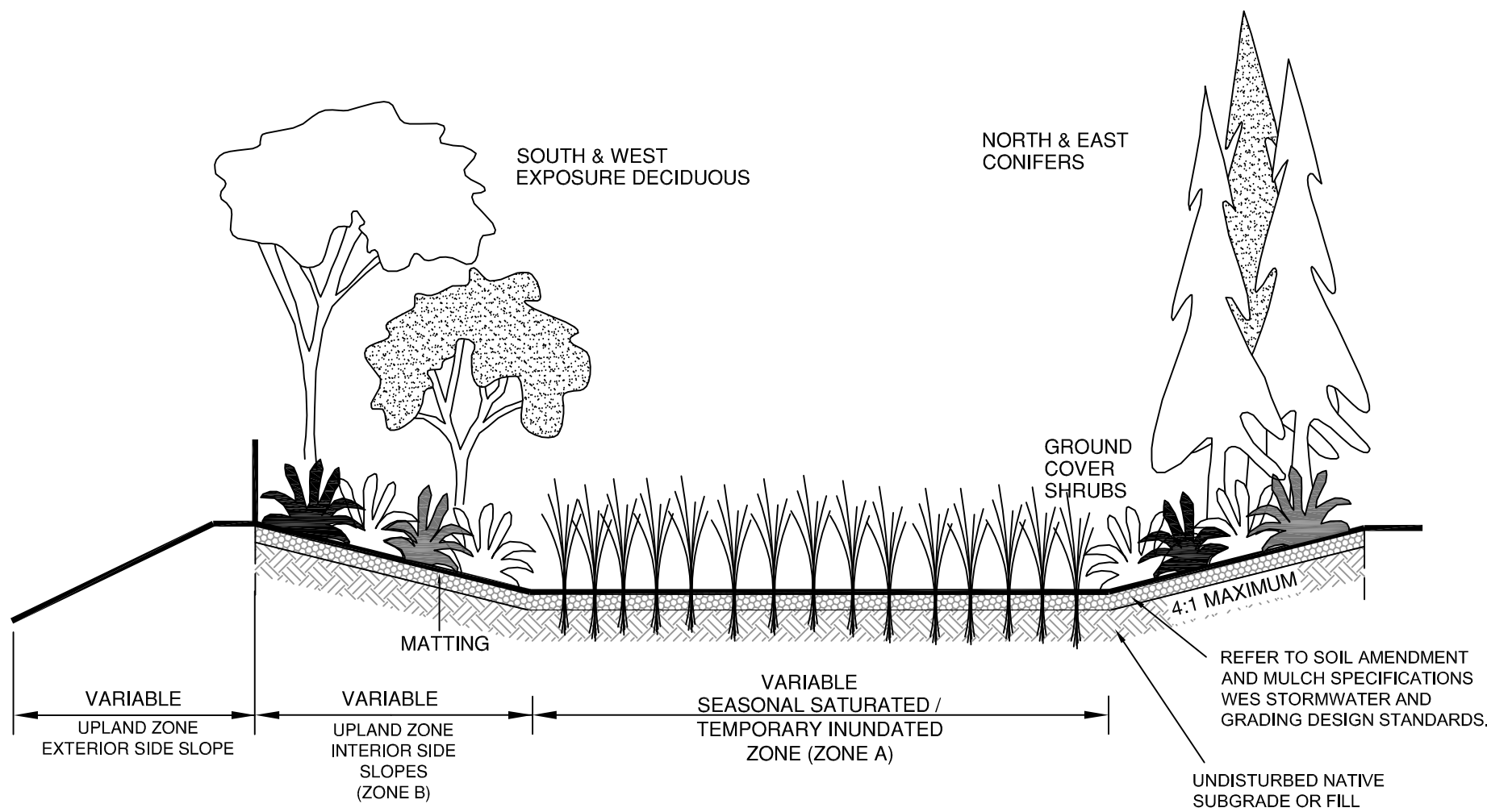
N.T.S.



PLUGS/GROUND COVER PLANTING DETAIL

(RAIN GARDEN FACILITY AND PLANTER AREAS)

N.T.S.



A
L103

RAIN GARDEN / SWALE WATER QUALITY FACILITY

PER WES STANDARDS

REFER TO CIVIL FOR GRADING REQUIREMENTS

NTS

NOT FOR CONSTRUCTION

REVISIONS		
REV.	DATE	DESCRIPTION
1	2/26/2019	Design Changes

SHEET NAME:
DETAILS & NOTES

DRAWN BY: TAM
CHECKED BY: TAM
ISSUE DATE: 8/9/2018
JOB NO.: 1828

SHEET:
L103
OF 3