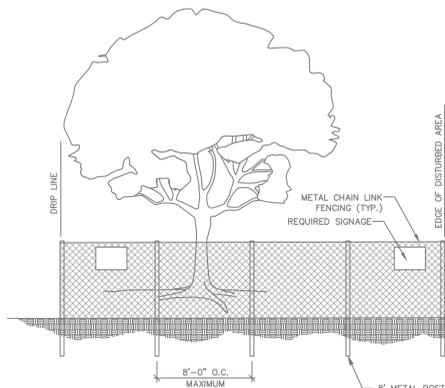


LANDSCAPE PLAN



- NOTES**
1. ALL EXISTING TREES DESIGNATED TO BE PRESERVED SHALL BE PROTECTED BY FENCING, AS ILLUSTRATED.
  2. INSTALL TREE PROTECTION FENCE AT TREE DRIP LINE OR AT EDGE OF DISTURBED AREA, AS SHOWN ON PLANS, OR PER ARBORIST DIRECTION IN THE FIELD PRIOR TO CONSTRUCTION.
  3. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVERE LARGE ROOTS WHEN INSTALLING POSTS.
  4. THERE SHALL BE NO CONSTRUCTION ACTIVITY OR STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING.
  5. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
  6. SIGNAGE DESIGNATING THE PROTECTION ZONE AND PENALTIES FOR VIOLATIONS SHALL BE SECURED IN A PROMINENT LOCATION ON EACH PROTECTION FENCE.



TREE PROTECTION FENCING

N.T.S.

**PLANT LIST: GENERAL LANDSCAPING**

SYMBOL	QTY.	LATIN NAME / Common Name	SIZE	SPACING
<b>TREES</b>				
(Symbol)	5	CARPINUS BETULUS 'FASTIGIATA' Pyramidal European Hornbeam	1.5" cal.	As Shown
(Symbol)	7	MALUS TSCHONSKII Tschonoskii Flowering Crabapple	2" cal.	As Shown
(Symbol)	5	ZELKOVA SERRATA 'VILLAGE GREEN' Village Green Zelkova	2" cal.	As Shown
(Symbol)	1	CORNUS x 'VENUS' Venus Flowering Dogwood	1.5" cal.	As Shown
<b>EXISTING TREES TO REMAIN</b>				

**PLANT LIST: GENERAL LANDSCAPING (CONTINUED)**

SYMBOL	QTY.	LATIN NAME / Common Name	SIZE	SPACING
<b>SHRUBS</b>				
(Symbol)	59	ABELIA GRAND 'KALEIDOSCOPE' Kaleidoscope Abelia	2 gal.	3' o.c.
(Symbol)	64	ILEX GLABRA 'CHAMZIN' Naxos Holly	5 gal.	3' o.c.
(Symbol)	49	LEUCOTHOE FONTANESIANA 'NANA' Rainbow Fetterbush	2 gal.	3' o.c.
(Symbol)	35	MAHONIA AQUIFOLIUM Tall Oregon Grape	5 gal.	5' o.c.
(Symbol)	6	RIBES SANGUINEUM Red Flowering Currant	5 gal.	4' o.c.
(Symbol)	43	SPIRAEA BETULIFOLIA Birchleaf Spirea	2 gal.	3' o.c.
(Symbol)	46	VACCINIUM OVATUM Evergreen Huckleberry	5 gal.	4' o.c.
<b>PERENNIALS</b>				
(Symbol)	64	HELICTOTRICHON SEMPERVIRENS Blue Out Grass	1 gal.	2' o.c.
(Symbol)	42	POLYSTICHUM MUNITUM Sword Fern	1 gal.	3' o.c.
<b>GROUND COVER</b>				
(Symbol)	93	FRAGARIA CHILOENSIS Coast Strawberry	1 gal.	3' o.c.
(Symbol)	300	MAHONIA REPENS Creeping Oregon Grape	1 gal.	3' o.c.
(Symbol)	54,068 SF	ECO-LAWN GRASS MIX	Seed	

**PLANT LIST: STORMWATER FACILITIES**

Per 2020 City of Portland Stormwater Management Manual

SYMBOL	QTY.	LATIN NAME / Common Name	SIZE	SPACING
<b>TREES</b>				
(Symbol)	5	RHAMNUS PURSHIANA Coccoloba	2 gal.	3' o.c.
(Symbol)	6	THUJA PLICATA Western Red Cedar	2 gal.	3' o.c.
<b>ZONE A PLANTS</b> 80 Herbaceous Plants per 100 SF				
<b>ZONE B PLANTS</b> 7 Shrubs & 70 Groundcover Plants per 100 SF				

**GENERAL NOTES:**

1. Contractor is to verify all plant quantities.
2. Adjust plantings in the field as necessary.
3. Project is to be irrigated by an automatic, underground system, which will provide full coverage for all plant material. System is to be design/build by Landscape Contractor. Alternately, plants may be watered by hand or by other temporary means for a minimum period of two growing seasons or until plant establishment.
4. All plants are to be fully foliated, well branched and true to form.
5. Contractor is to notify Landscape Architect or Owner's Representative of any site changes or unforeseen conditions that may be detrimental to plant health, or cause future problems to any structural elements of the project.
6. Landscaping shall be continuously maintained to meet the requirements of the local governing jurisdiction.

Corbett School District  
**Woodard Campus**  
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Project

Consultant

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**DESIGN REVIEW**

Date  
**07/20/2021**

Project Number  
**20019**

Drawing Title  
**LANDSCAPE PLAN**

Sheet No.

**L1.01**

**OUTLINE SPECIFICATIONS PLANTING AND SEEDING:**

**GENERAL:** All plants shall conform to all applicable standards of the latest edition of the "American Association of Nurserymen Standards", A.N.S.I. Z60.1 — 1973. Meet or exceed the regulations and laws of Federal, State, and County regulations, regarding the inspection of plant materials, certified as free from hazardous insects, disease, and noxious weeds, and certified fit for sale in Oregon.

The apparent silence of the Specifications and Plans as to any detail, or the apparent omission from them of a detailed description concerning any point, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of first quality are to be used. All interpretations of these Specifications shall be made upon the basis above stated.

Landscape contractor shall perform a site visit prior to bidding to view existing conditions.

**PERFORMANCE QUALITY ASSURANCE:** Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary horticultural practices and who are completely familiar with the specified requirements and methods needed for the proper performance of the work of this section.

**NOTIFICATION:** Give Landscape Architect minimum of 2 days advance notice of times for inspections. Inspections at growing site does not preclude Landscape Architect's right of rejection of deficient materials at project site. Each plant failing to meet the above mentioned "Standards" or otherwise failing to meet the specified requirements as set forth shall be rejected and removed immediately from the premises by the Contractor and at his expense, and replaced with satisfactory plants or trees conforming to the specified requirements.

**SUBSTITUTIONS:** Only as approved by the Landscape Architect or the Owner's Representative.

**GUARANTEE AND REPLACEMENT:** All plant material shall be guaranteed from final acceptance for one full growing season or one year, whichever is longer. During this period the Contractor shall replace any plant material that is not in good condition and producing new growth (except that material damaged by severe weather conditions, due to Owner's negligence, normally unforeseen peculiarities of the planting site, or lost due to vandalism). Guarantee to replace, at no cost to Owner, unacceptable plant materials with plants of some variety, age, size and quality as plant originally specified. Conditions of guarantee on replacement plant shall be same as for original plant.

Landscape Contractor shall keep on site for Owner's Representative's inspection, all receipts for soil amendment and topsoil deliveries.

**PROTECTION** Protect existing roads, sidewalks, and curbs, landscaping, and other features remaining as final work. Verify location of underground utilities prior to doing work. Repair and make good any damage to service lines, existing features, etc. caused by landscaping installation.

**PLANT QUALITY ASSURANCE:** Deliver direct from nursery. Maintain and protect roots of plant material from drying or other possible injury. Store plants in shade and protect them from weather immediately upon delivery, if not to be planted within four hours.

Nursery stock shall be healthy, well branched and rooted, formed true to variety and species, full foliaged, free of disease, injury, defects, insects, weeds, and weed roots. Trees shall have straight trunks, symmetrical tips, and have an intact single leader. Any trees with double leaders will be rejected upon inspection. All Plants: True to name, with one of each bundle or lot tagged with the common and botanical name and size of the plants in accordance with standards of practice of the American Association of Nurserymen, and shall conform to the Standardized Plant Names, 1942 Edition.

Container grown stock: Small container-grown plants, furnished in removable containers, shall be well rooted to ensure healthy growth. **Grow container plants in containers a minimum of one year** prior to delivery, with roots filling container but not root bound. Bare root stock: Roots well-branched and fibrous. Balled and burlapped (B&B): Ball shall be of natural size to ensure healthy growth. Ball shall be firm and the burlap sound. No loose or made ball will be acceptable.

**TOPSOIL AND FINAL GRADES:** Landscape Contractor is to supply and place 12" of topsoil in planting beds and 6" in lawn areas. Landscape Contractor is to verify with the General Contractor if the on-site topsoil is or is not conducive to proper plant growth. The topsoil shall be a sandy loam, free of all weeds and debris inimical to lawn or plant growth. Furnish soil analysis by a qualified soil testing laboratory stating percentages of organic matter; gradation of sand, silt and clay content; cation exchange capacity; deleterious material; pH; and plant nutrient content of the topsoil. Report suitability of topsoil for plant growth and recommended quantities of nitrogen, phosphorus and potash nutrients and soil amendments (including compost) to be added to produce satisfactory topsoil. If stockpiled topsoil on site is not conducive to proper plant growth, the Landscape Contractor shall import the required amount.

Landscaping shall include finished grades and even distribution of topsoil to meet planting requirements. Grades and slopes shall be as indicated. Planting bed grades shall be approximately 3" below adjacent walks, paving, finished grade lines, etc., to allow for bark application. Finish grading shall remove all depressions or low areas to provide positive drainage throughout the area.

**PLANTING SPECIFICATIONS:**

**HERBICIDES:** Prior to soil preparation, all areas showing any undesirable weed or grass growth shall be treated with Round-up in strict accordance with the manufacturer's instructions.

**SOIL PREPARATION:** Work all areas by rototilling to a minimum depth of 8". Remove all stones (over 1 1/2" size), sticks, mortar, large clumps of vegetation, roots, debris, or extraneous matter turned up in working. Soil shall be of a homogeneous fine texture. Level, smooth and lightly compact area to plus or minus .10 of required grades.

In groundcover areas add 2" of compost (or as approved) and till in to the top 6" of soil.

**PLANTING HOLE:** Lay out all plant locations and excavate all soils from planting holes to 2 1/2 times the root ball or root system width. Loosen soil inside bottom of plant hole. Dispose of any "subsoil" or debris from excavation. Check drainage of planting hole with water, and adjust any area showing drainage problems.

**SOIL MIX:** Prepare soil mix in each planting hole by mixing:  
2 part native topsoil (no subsoil)  
1 part compost (as approved)

Thoroughly mix in planting hole and add fertilizers at the following rates:  
Small shrubs - 1/8 lb./ plant  
Shrubs - 1/3 to 1/2 lb./ plant  
Trees - 1/3 to 1 lb./ plant

**FERTILIZER:** For trees and shrubs use Commercial Fertilizer "A" Inorganic (5-4-3) with micro-nutrients and 50% slow releasing nitrogen. For initial application in fine seed lawn areas use Commercial Fertilizer "B" (8-16-8) with micro-nutrients and 50% slow-releasing nitrogen. For lawn maintenance use Commercial Fertilizer "C" (22-16-8) with micro-nutrients and 50% slow-releasing nitrogen. DO NOT apply fertilizer to Water Quality Swale.

**PLANTING TREES AND SHRUBS:** Plant upright and face to give best appearance or relationship to adjacent plants and structures. Place 6" minimum, lightly compacted layer of prepared planting soil under root system. Loosen and remove twine binding and burlap from top 1/2 of root balls. Cut off cleanly all broken or frayed roots, and spread roots out. Stagger Plants in rows. Backfill planting hole with soil mix while working each layer to eliminate voids.

When approximately 2/3 full, water thoroughly, then allow water to soak away. Place remaining backfill and dish surface around plant to hold water. Final grade should keep root ball slightly above surrounding grade, not to exceed 1". Water again until no more water is absorbed. Initial watering by irrigation system is not allowed.

**STAKING OF TREES:** Stake or guy all trees. Stakes shall be 2" X 2" (nom.) quality tree stakes with point. They shall be of Douglas Fir, clear and sturdy. Stake to be minimum 2/3 the height of the tree, not to exceed 8'-0". Drive stake firmly 1'-6" below the planting hole. Tree ties for deciduous trees shall be "Chainlock" (or better). For Evergreen trees use "Gro-Strait" Tree Ties (or a reinforced rubber hose and guy wires) with guy wires of a minimum 2 strand twisted 12 ga. wire. Staking and guying shall be loose enough to allow movement of tree while holding tree upright.

**MULCHING OF PLANTINGS:** Mulch planting areas with dark, aged, medium grind fir or hemlock bark (aged at least 6 months) to a depth of 2" in ground cover areas and 2 1/2" in shrub beds. Apply evenly, not higher than grade of plant as it came from the nursery, and rake to a smooth finish. Water thoroughly, then hose down planting area with fine spray to wash leaves of plants.

**SEED INSTALLATION:** Apply Commercial Fertilizer Mix "B" at 4.5 lbs. Per 1,000 sq.ft. and Lime at the recommended rates and rake into soil surface. Establish an even, fine textured seeded meeting grades, surfaces and texture. Sow seed with a mechanical spreader at the uniform rates as noted below. Rake seed lightly to provide cover.

**SEED:** Bluetag grass seed conforming to applicable State laws. No noxious weed seeds. Submit Guaranteed analysis.  
**Grass Seed Mix:** To Contain 80% Perennial Ryegrass, 15% Eureka Hard Fescue, and 20% Herbaceous Plants and Clover (Hobbs and Hopkins Pro-Time 705 PDX, or approved equal). Sow at 2 lbs. Per 1,000 sq.ft.

**MAINTENANCE OF SEEDED AREAS:** Seeded areas shall be maintained by watering, mowing, reseeding, and weeding for a minimum of 60 days after seeding. After 30 days, or after the second mowing, apply Commercial Fertilizer Mix "C" at 5 lbs. per 1,000 sq. ft. Mow and keep at 1 1/2" to 2" in height. Remove clippings and dispose of off site.

**GENERAL MAINTENANCE:** Protect and maintain work described in these specifications against all defects of materials and workmanship, through final acceptance. Replace plants not in normal healthy condition at the end of this period. Water, weed, cultivate, mulch, reset plants to proper grade or upright position, remove dead wood and do necessary standard maintenance operations. Irrigate when necessary to avoid drying out of plant materials, and to promote healthy growth.

**CLEAN-UP:** At completion of each division of work all extra material, supplies, equipment, etc., shall be removed from the site. All walks, paving, or other surfaces shall be swept clean, mulch areas shall have debris removed and any soil cleared from surface. All areas of the project shall be kept clean, orderly and complete.

**WATER QUALITY SPECIFICATIONS PER THE 2016 CITY OF PORTLAND STORMWATER MANAGEMENT MANUAL:**

**SITE PREPARATION:** Existing vegetation to be saved must be clearly marked and securely protected. If native plants are present, they should be salvaged and stored for replanting once construction is complete. The location of all future stormwater facilities should be clearly marked before site work begins. All stormwater facility areas should be fenced or covered to protect them from damage or misuse during construction. Fencing is required around all infiltration facilities to prevent soil compaction during construction. The subgrade in proposed infiltration areas must not be compacted. At least 8 inches of native material must be maintained above the proposed bottom of the facility until construction is scheduled for the facility. No vehicular traffic, material storage or heavy equipment is allowed within 10 feet of the infiltration facility area after site clearing and grading have been completed, except that needed to excavate, grade, and construct the facility. Lined facilities must be covered with plywood or other sheeting to prevent misuse, such as temporary storage or construction debris. No stormwater facility area should be used for dumping concrete or other construction waste, mixing grout, cleaning tools or washing paint brushes.

Once the facility is graded, all native subsoil must be scarified before installing a minimum of 18" stormwater facility growing medium. No disturbance should occur within the dripline of existing trees. After scarifying, no other construction traffic should be allowed in the area, except for planting and related work. All construction and other debris must be removed before the growing medium is placed. Furthermore, the soil must not be exposed during wet weather conditions and must be covered with the growing medium within 1 day of being exposed.

**GROWING MEDIUM:** For public facilities, refer to City of Portland Standard Construction Specification Section 1040.14(d) Stormwater Facility Blended Soil. For private facilities, topsoil growing medium may include stormwater facility blended soil, blended topsoil, three-way mix, or native soils. Soil analysis for all growing media is required for all public facilities and may be required for private facilities. Soil placement and planting should occur in conditions that do not result in over-compaction or erosion. Temperature, moisture levels and handling can have a huge influence on the infiltration rate of the facility and on plant survivability.

**TIMING:** For best results, plantings should be installed between February 1 and May 1 or between October 1 and November 15. Bare root stock shall be installed only from December 15 through April 15. When plantings must be installed outside these times, additional measures may be needed to assure survival.

**EROSION CONTROL:** Grading, soil preparation, and seeding shall be performed during optimal weather conditions to minimize sediment impacts. See Civil sheets for grading information and erosion control measures.

**HERBICIDES:** Herbicide use is not allowed without written permission from BES.

**FERTILIZER:** Do not apply fertilizer to any plantings within the stormwater facilities.

**MULCHING:** Mulch is not required in wet area (Zone A) of stormwater facilities, nor for public facilities in the right of way. Trees, shrubs, and groundcovers planted in the upland areas of private facilities shall be mulched with aged, hemlock bark to a depth of two to three inches between all plantings. Mulch shall not be over-applied. Manure mulching and high-fertilizer hydroseeding are prohibited in stormwater facilities.

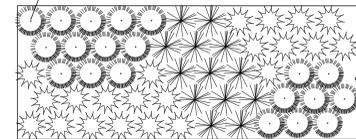
**IRRIGATION:** Permanent irrigation systems are not allowed for BES maintained facilities, unless approved by BES. Project is to be irrigated by a temporary, automatic, above ground system, which will provide full coverage for all plant material. Alternative methods of irrigation may also be allowed if approved by BES. Irrigation system is to be design/build by landscape contractor. Guarantee system for a minimum period of two years.

**MAINTENANCE:** Stormwater facilities must be maintained so they function as intended and limit offsite environmental impacts. Operations and maintenance (O&M) is the responsibility of the property owner or designated responsible party. Refer to Chapters 1.4 and Chapter 3 of the City of Portland Stormwater Management Manual for additional information and forms.

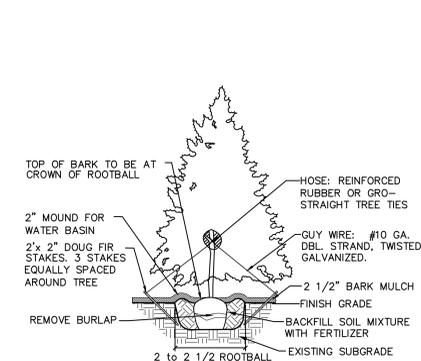
Every project on private property with at least one stormwater facility is required to submit an Operations & Maintenance Form prior to permit issuance. Owners of private facilities are required to check their stormwater systems regularly to determine maintenance needs.

Stormwater facilities in the public right of way or in public easements are the responsibility of the permittee until accepted by the City following completion of a 2-year warranty and establishment period. Permittee is required to submit an Operations & Maintenance Form, and Operations & Maintenance Plan prior to permit issuance. During the warranty period, regular maintenance tasks must be performed; this includes inspecting, maintaining, repairing, and/or replacing the associated vegetative components; any structural or functional repairs; and the general maintenance of the facility as outlined in the O&M Plan. Deferred maintenance may result in extension of the warranty period if City inspection determines that the facilities are not established per the requirements.

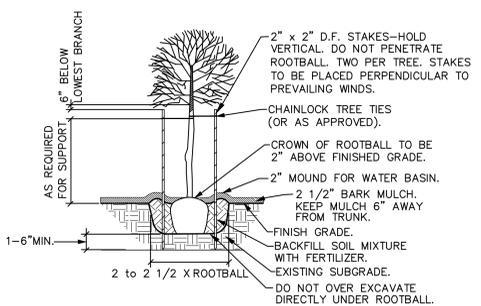
INSTALL TREATMENT AREA  
PLANTS IN ALTERNATING  
GROUPS OF 9 TO 15 PLANTS



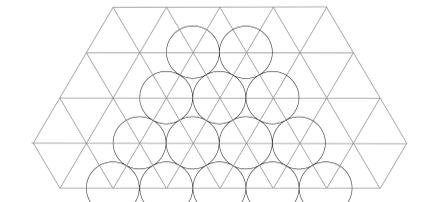
STORMWATER FACILITY PLANTING DETAIL  
NOT TO SCALE



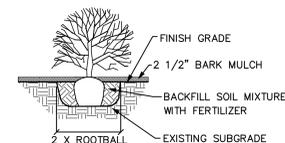
EVERGREEN TREE STAKING DETAIL  
NOT TO SCALE



GENERAL DECIDUOUS TREE PLANTING DETAIL  
NOT TO SCALE



GROUNDCOVER PLANTING DETAIL  
NOT TO SCALE



SHRUB PLANTING DETAIL  
NOT TO SCALE

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