City of Edmonds

Public Works Department, Engineering Division

121 5th Ave N
Edmonds, WA 98020

Checklist 7:
Post-Construction Soil Quality and Depth BMP

Per ECDC 18.30, all Category 1 projects must comply with Minimum Requirements No. 1 through No. 5, and all Category 2 projects must comply with Minimum Requirements No. 1 through No. 9. Post-construction soil quality and depth is required to be established on all disturbed lawn and landscaped areas subject to Minimum Requirement No. 5. See also Addendum Checklists 1 through 3 for submittal requirements.

Post-construction soil quality and depth shall be established in accordance with the Department of Ecology's Stormwater Management Manual for Western Washington (SWMMWW), ECDC 18.30, and the requirements in the Addendum. The City of Edmonds developed the following checklist to aid project proponents and plan reviewers in complying with the applicable SWMMWW requirements for this BMP. In addition, City-specific requirements (i.e., requirements presented in ECDC 18.30, the Addendum, or other City requirements that are not included in the SWMMWW) are also included in the checklist. Note also that much of the post-construction soil quality and depth design content in the SWMMWW refers to the Soils for Salmon, Building Soil guidebook (available at <www.soilsforsalmon.org/how>. To simplify the design and review process, the requirements from the Building Soil guidebook are also included in this checklist

This checklist reflects most, but not necessarily all, of the items that shall be documented by the project proponent, for review by the Engineering Division. It is intended to be used as an aid for developers and plan reviewers by providing a foundation for clear and consistent BMP design in the City of Edmonds. However, all items may not be applicable to every project, and all items of concern to this office may not be covered on this checklist.

Applicant:

Application #:

Within each blank cell, enter comment codes as follows:

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		MODELING AND SIZING (SWMMWW Volume V, Section 5.3.1, BMP T5.13)
1		Lawn and landscape areas that meet the requirements of this BMP are modeled as "pasture" rather than "lawn" surface over the underlying soil (till or outwash).
		SETBACKS (Addendum, Appendix A)
2*		Lawn and landscape area is not within the North Edmonds Earth Subsidence and Landslide Hazard Area (ESLHA).
		DESIGN CRITERIA (SWMMWW Volume V, Section 5.3.1, BMP T5.13; Building Soil Manual, 2016; City of Edmonds Standard Detail for Post-Construction Soil Quality and Depth)
		Compost Specifications
3*		Compost meets organic content requirements either by using "preapproved" amendment rates (see compost specifications in BMP T7.30 and Addendum Checklist 10) or calculated amendment rates (see below).
4*		If using "preapproved" amendment rates, the compost meets the compost specifications in BMP T7.30 and Addendum Checklist 10, with the following exceptions: • Compost may have up to 35 percent biosolids or manure. • Compost must have organic matter content of 40 percent to 65 percent. • Carbon to nitrogen ratio may be up to 35:1 for plantings entirely composed of plants native to the Puget Sound Lowlands region.
5*		If using calculated amendment rates, compost meets compost specifications for preapproved rates, or other organic materials amended to meet carbon to nitrogen requirements and contaminant standards for "composted materials" in WAC 173-350-220.
		Soil Retention
6*		Existing vegetation and soils are left undisturbed and are protected from compaction during construction.
7*		Soils to be retained are not stripped, logged, graded or driven on during construction (Building Soil Manual, 2016).
		Soil Amendment
8*		Soil organic matter is determined using the most current version of ASTM D2974 "Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils" and TMECC 05.07A "Loss-On-Ignition Organic Matter Method." Results of soil analysis are submitted to the City along with proposed soil mix to meet soil requirements.
9*		Topsoil pH is 6.0 to 8.0, or matches the pH of the original undisturbed soil.
10*		Subsoils are scarified to at least 8 inches depth (or to depth needed to achieve a total depth of 12 inches of uncompacted soil after calculated amount of amendment is added).
11*		Leave plant debris or its equivalent on the soil surface to replenish organic matter.

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		Turf Installations
12*		Topsoil layer in turf areas achieves a minimum organic matter content of 5 percent.
13*		If using the preapproved amendment rate, 1.75 inches of composted material is rototilled into 6.25 inches of soil for a total settled depth of 8 inches (Building Soil Manual, 2016).
14*		If using the calculated amendment rate, the calculated amount of composted material or approved organic material is rototilled into depth of soil needed to achieve 8 inches of settled soil at 5 percent organic content (Building Soil Manual, 2016).
15*		Soil is compacted to 85 percent of maximum dry density, modified proctor ASTM D1557 (Building Soil Manual, 2016).
16*		Surface is level and no woody debris or rocks over 1-inch diameter remain (Building Soil Manual, 2016).
		Planting Beds
17*		Topsoil layer in planting beds achieves a minimum organic matter content of 10 percent.
18*		If using the preapproved amendment rated, 3 inches of composted material is rototilled into 5 inches of soil for a total settled depth of 8 inches (Building Soil Manual, 2016).
19*		If using a calculated amendment rate, calculated amount of composted material or approved organic material rototilled into depth of soil needed to achieve 8 inches of settled soil at 10 percent organic content (Building Soil Manual, 2016).
20*		Surface is smooth and no rocks over 2 inches in diameter remain (Building Soil Manual, 2016).
21*		2 inches of organic mulch is provided.
		Stockpile Soil
22*		Areas requiring cuts have removed the upper native topsoil and stockpiled for replacement on site.
23*		The depth of upper native soils that is stockpiled is the entire depth of the native topsoil horizon, but no more than 3 feet.
24*		Stockpiled soils are amended as needed and applied as described in Soil Amendment above (Building Soil Manual, 2016).
25*		Stockpiled soils are reapplied in layers no greater than 1 foot.
		Importing Soil
26*		Topsoil pH is 6.0 to 8.0, or matches the pH of the original undisturbed soil.
27*		Subsoils are scarified to at least 6 inches below the topsoil layer.
		Turf Installations
28*		For turf installations, an imported topsoil mix that contains 5 percent organic matter (typically around 25 percent compost) is used (Building Soil Manual, 2016).
29*		Soil portion is sand or sandy loam per the USDA (Building Soil Manual, 2016).
30*		3 inches of imported topsoil mix is tilled into 2 inches of soil (Building Soil Manual, 2016).

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31*		3 more inches of topsoil mix are placed on surface (Building Soil Manual, 2016).
32*		Soil is compacted to 85 percent of maximum dry density, modified proctor ASTM D1557 (Building Soil Manual, 2016).
33*		Surface is level, and no woody debris or rocks over 1-inch diameter remain (Building Soil Manual, 2016).
		Planting Beds
34*		For planting beds, an imported mix that contains 10 percent organic matter (typically around 25 percent compost) is used (Building Soil Manual, 2016).
35*		Soil portion is sand or sandy loam per the USDA (Building Soil Manual, 2016).
36*		3 inches of imported topsoil mix is tilled into 2 inches of soil (Building Soil Manual, 2016).
37*		3 more inches of topsoil mix are placed on surface (Building Soil Manual, 2016).
38*		Surface is smooth and no rocks over 2 inches in diameter remain (Building Soil Manual, 2016).
39*		2 inches of organic mulch is provided.
		CONSTRUCTION CRITERIA INCLUDED IN THE SWPPP (Addendum, Section 6.1)
40*		Root zones where tree roots limit the depth of incorporation of amendments are exempted from soil preservation and amendment requirements. Root zones are fenced and protected from stripping of soil, grading, or compaction to the maximum extent practical.
41*		Materials are stockpiled in areas designated for clearing and grading (such as parking areas and future impervious roadways) and away from infiltration and other stormwater facilities.
42*		Small stockpiles are covered with weed barrier material that sheds moisture yet allows air transmission. Large stockpiles are seeded and/or mulched.
43*		Topsoil or other materials are not relocated to areas where they can cover critical root zones, suffocate vegetation, or erode into adjacent streams.
44*		The soil preservation area is clearly identified (e.g., using flagging or high visibility fencing) and protected prior to construction.
45*		A soil and vegetation management plan is provided showing areas to be protected and restoration methods for disturbed areas.
46*		Construction SWPPP sheets outline construction sequencing that will protect the soil preservation area during construction.
47		General (i.e., non-BMP-specific) construction SWPPP BMPs and protection techniques are implemented as applicable. The upslope of construction areas are stabilized and overland flow distances are minimized.
48*		Machinery is operated outside of the soil preservation area during construction.
49*		Placement of topsoils does not occur during wet or saturated conditions.
50*		Establish soil quality and depth toward the end of construction, and once established, protect from compaction and erosion.

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	INSPECTION CRITERIA
51	The soil preservation and amendment BMP meets applicable siting, design, and construction criteria (see * notations in applicable rows).

Reviewer: _____

Review Date: _____

Reviewer Phone #: _____

Reviewer Comments: