THE NATIVE SOIL IN THE TOP 18 INCHES OF ALL STORM WATER PLANTERS SHALL BE AMENDED WITH A MIX OF ONE PART IMPORTED ORGANIC COMPOST AND ONE PART GRAVELLY SAND, SUCH THAT THERE ARE EQUAL PARTS COMPOST, SAND AND NATIVE SOIL. THIS WILL REQUIRE THE STORMWATER PLANTER AREA TO BE OVER EXCAVATED BY APPROXIMATELY 12 INCHES PRIOR TO ADDING SAND AND COMPOST. THE SPECIFICATIONS INCLUDED HEREIN SHALL BE USED FOR THIS PURPOSE AND INCLUDED ON THE PERMIT PLANS. THE MIX SHALL BE THOROUGHLY TILLED TOGETHER ON-SITE, AND SHALL BE CAPABLE OF INFILTRATING WATER WITHOUT PROLONGED PONDING ON THE SURFACE. IF SUCH PONDING OCCURS, ORGANIC COMPOST AND SAND MUST BE ADDED AND RE-TILLED UNTIL INFILTRATION PERFORMANCE IS ENHANCED. A 2-INCH LAYER OF SHREDDED BARK MULCH (NOT BARK DUST OR BARK CHIPS) SHALL BE USED OVER THE AMENDED SOIL AND BETWEEN THE PLANTINGS TO COMPLETELY COVER THE SOIL AND PREVENT EROSION OR WEED INTRUSION.

ORGANIC COMPOST

ORGANIC COMPOST SHALL HAVE THE FOLLOWING PROPERTIES:

- 100% SHALL PASS A $\frac{1}{2}$ INCH SCREEN.
- pH BETWEEN 5.5 AND 7.0.
- CARBON NITROGEN RATIO BETWEEN 20:1 AND 35:1 (35:1 CN RATIO RECOMMENDED FOR NATIVE PLANTS.)
- ORGANIC MATTER CONTENT BETWEEN 40 AND 50 PERCENT.

ORGANIC COMPOST MAY CONSIST OF THE FOLLOWING:

MUSHROOM COMPOST - THE USED BEDDING MATERIAL FROM COMMERCIAL MUSHROOM PRODUCTION.

COMPOSTED YARD DEBRIS - COMMERCIALLY MANUFACTURED MATERIAL, MADE FROM DEAD PLANT MATERIAL SUCH AS GRASS CLIPPINGS, WEEDS, GREEN AND DEAD DRY LEAVES, GARDEN AND VEGETABLE MATERIAL, AND GROUND BRANCHES OF TREES AND SHRUBS. FURNISH A PRODUCT THAT IS COMPOSTED UNDER CONTROLLED AEROBIC DECOMPOSITION, WITH THE INTERNAL TEMPERATURE REACHING 57°C (135°F) FOR 15 DAYS, WITHOUT EXCEEDING 68°C (155°F). ENSURE THAT IT CONTAINS A MAXIMUM OF 10% BACTERIA AND 10% FUNGUS.

PEAT MOSS - HORTICULTURAL GRADE, NATURAL PEAT MOSS IN AIR-DRY CONDITION, FREE FROM WOODY SUBSTANCES, IN BALES OR BAGS LABELED FOR CONTENT AND VOLUME. ONLY PEAT MOSS USED IN COMBINATION WITH ONE OF THE ABOVE COMPOSTS IS ACCEPTABLE.

GRAVELLY SAND

GRAVELLY SAND SHALL BE FREE OF ORGANIC MATERIAL, CONTAMINANTS, AND HAZARDOUS MATERIALS, AND SHALL CONFORM TO THE FOLLOWING GRADATION:

U.S. SIEVE SIZE	PERCENT PASSING
2-INCH	100
$\frac{3}{4}$-INCH	70-100
$\frac{1}{4}$-INCH	50-80
NO. 40	15-40
NO. 200	0-3

MIXING

MIX COMPOST, SAND AND NATIVE SOIL TO A HOMOGENEOUS CONSISTENCY. DO NOT MIX COMPOST, SAND, AND NATIVE SOIL IN THE RAIN OR WET CONDITIONS.

STORAGE

STORE STOCK PILES OF ORGANIC SOIL MIX IN A MANNER THAT PREVENTS IT FROM BECOMING WET FROM RAIN, STORM WATER RUNOFF, OR OTHER SOURCES OF WATER, OR CONTAMINATED BY FINE SOIL OR OTHER UNDESIRABLE MATERIALS. ALL STOCKPILES OF MIXED SOIL MATERIAL SHALL BE PROTECTED AND COVERED.

PLACEMENT

PLACE AMENDED SOIL MIX IN RAIN GARDENS AND STORMWATER PLANTERS IN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS. AFTER ALL LIFTS HAVE BEEN PLACED, GRADE SOIL TO FINISH GRADES AS SPECIFIED ON THE PLANS. DO NOT OVER COMPACT SOIL MIX WITH MECHANICAL EQUIPMENT AFTER PLACEMENT.

MULCH

SHREDDED BARK MULCH (NOT BARK DUST OF BARK CHIPS) SHALL BE USED IN A 2-INCH LAYER MINIMUM OVER THE AMENDED SOIL MIX AND BETWEEN THE PLANTINGS TO COMPLETELY COVER THE SOIL AND PREVENT EROSION OR WEED INTRUSION.

INFILTRATION TESTING

WET THE SURFACE OF THE RAIN GARDEN OR STORMWATER PLANTER WITH A SPRINKLER OR HOSE UNTIL SATURATED. SMALL RAIN GARDENS AND PLANTERS (<100 SQUARE IN SURFACE) AREA CAN BE TESTED FULL-SCALE, WHILE LARGE RAIN GARDENS AND PLANTERS CAN UTILIZE ISOLATED FALLING HEAD TEST (MINIMUM 2 PER 100 SQUARE FEET OF AREA). FILL THE TESTING AREA TO A DEPTH OF 4-INCHES AND TRACK THE TIME IT TAKES TO COMPLETELY DRAW DOWN. REPEAT TEST 3 TIMES. IF THE WATER IN ANY OF THE TEST FAILS TO DRAW DOWN IN LESS THAN AN HOUR, ADD COMPOST AND GRAVELY SAND TO THE MIX AND RE-TILL. REPEAT THIS PROCEDURE UNTIL FAVORABLE TEST RESULTS ARE ACHIEVED.

FILTER FABRIC

LINQ 125EX; TNS E040; TNS R035; TNS R040; AMOCO 4535; MARAFI 140NL

SOIL AMENDMENT AND MULCH SPECIFICATION

City of West Linn

DATE: 2010

DRAWING NO. WL-617B

FILE NO.

MAINTENANCE AGREEMENT SHALL BE REQUIRED AND BE RECORDED WITH THE CITY

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.