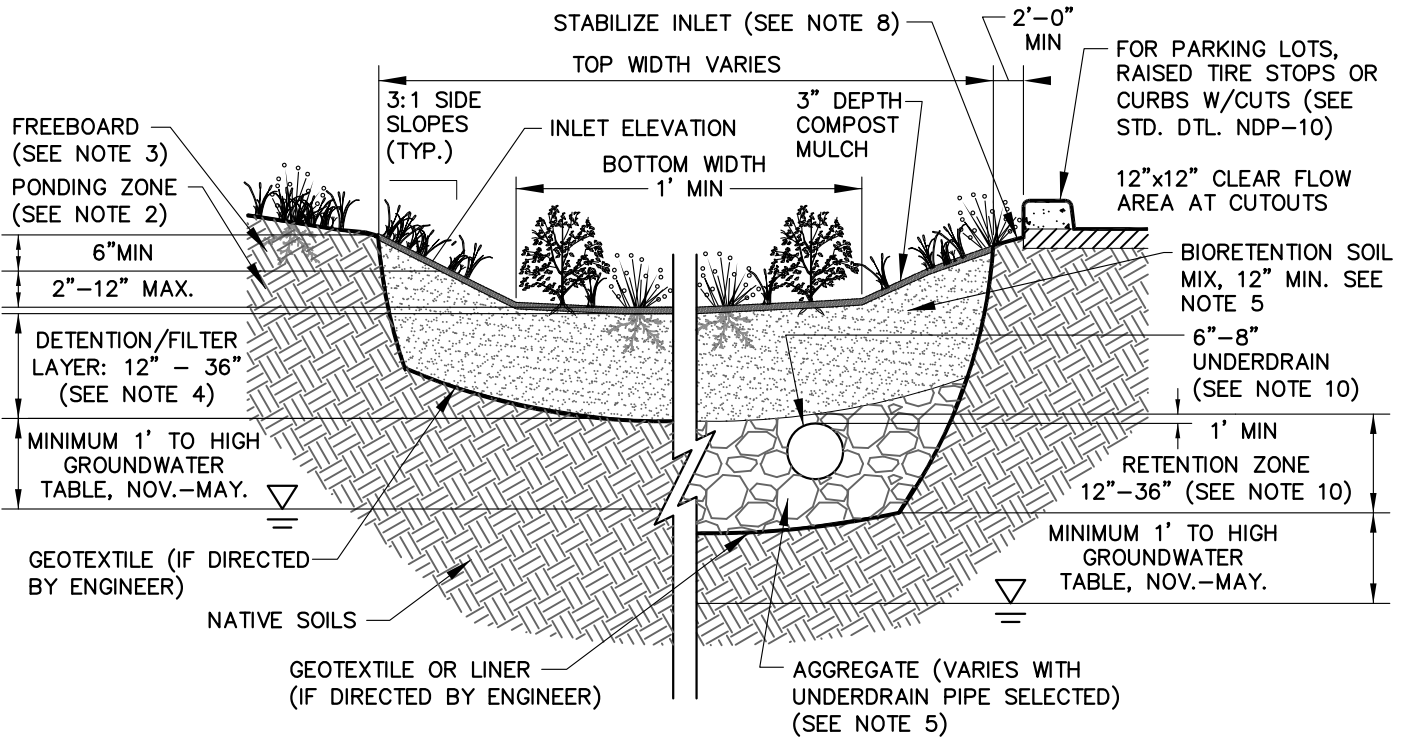


# WITHOUT UNDERDRAIN

# WITH UNDERDRAIN



## NOTES:

- PROVIDE PROTECTION FROM ALL VEHICLE TRAFFIC, EQUIPMENT STAGING, AND FOOT TRAFFIC IN PROPOSED INFILTRATION AREAS PRIOR TO, DURING, AND AFTER CONSTRUCTION.
- DIMENSIONS:
  - PONDING ZONE (FROM TOP OF GROWING MEDIUM TO OVERFLOW ELEVATION); 2"-6" MINIMUM AND 12" MAXIMUM DEPENDING ON INFILTRATION RATE AND DEVELOPMENT TYPE.
  - FLAT BOTTOM WIDTH: 1' MINIMUM.
  - PLANTED SIDE SLOPES OF BASIN: 2.5:1 MAXIMUM ADJACENT TO SIDEWALK, 4:1 MAXIMUM FOR SHEET FLOW INLET.
- OVERFLOW:
  - OVERFLOW REQUIRED (PIPE OR OVERLAND) SEE STANDARD DETAILS NDP-6, 7 & 8.
  - INLET ELEVATION MUST ALLOW FOR 6" OF FREEBOARD, MINIMUM.
  - PROTECT OVERFLOW INLET FROM DEBRIS AND SEDIMENT WITH STRAINER OR GRATE (PIPE ONLY).
  - DISCHARGE PER CITY OF BELLEVUE ENGINEERING STANDARDS.
- BIORETENTION SOIL MIX:
  - 18" MINIMUM DEPTH, FOR MR 5 ONLY OR RUNOFF TREATMENT.
  - 12" MINIMUM DEPTH FOR FLOW CONTROL.
  - COMPACT SUBSOILS MUST BE SCARIFIED TO 6" BELOW THE BIORETENTION SOIL LAYER.
- SEE CHAPTER D6-04 HEREIN FOR ALL MATERIALS AND SPECIFICATIONS.
- GEOTECHNICAL ANALYSIS AND STORM DRAINAGE REPORT REQUIRED PER SUBMITTAL REQUIREMENTS, CHAPTER D2 HEREIN.
- VEGETATION:
  - FLOOR OF PLANTING ISLAND SHOULD BE PLANTED WITH ZONE 1 TREES, SHRUBS AND GROUND COVER. SEE APPENDIX 3 IN THE *LID TECHNICAL GUIDANCE MANUAL FOR PUGET SOUND* (JANUARY 2005, OR AS AMENDED) OR "*RAIN GARDEN HANDBOOK FOR HOMEOWNERS*" FOR A PLANT LIST.
  - SIDE SLOPES SHOULD BE PLANTED WITH ZONE 2 OR 3 PLANTS.
  - USE AT LEAST 3 SPECIES OF EACH PLANT COVER TYPE, NOT INCLUDING TREES.
- INSTALL APPROXIMATELY 6" THICK LAYER WASHED DRAIN ROCK OR STREAMED COBBLE PER WSDOT 9-03.11(2) (2"-4" MIN) TO TRANSITION FROM INLET OR SPLASH PAD TO BIORETENTION SOIL MIX TO DISSIPATE ENERGY AND/OR DISPERSE FLOW.
- INSTALL OBSERVATION PORT PER STANDARD DETAIL NDP-9, IF FLOW CONTROL (MR7) AND OR RUNOFF TREATMENT (MR6) IS REQUIRED.
- RETENTION ZONE OPTIONAL - REQUIRED WITH UNDERDRAIN AND IF NATIVE SOIL INFILTRATION RATE IS LESS THAN 0.25"/HOUR. SEE NDP CHAPTER AND STANDARD DETAIL NDP-3, DETAIL A.



City of  
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STORM AND SURFACE  
WATER UTILITY

TITLE

BIORETENTION CELL