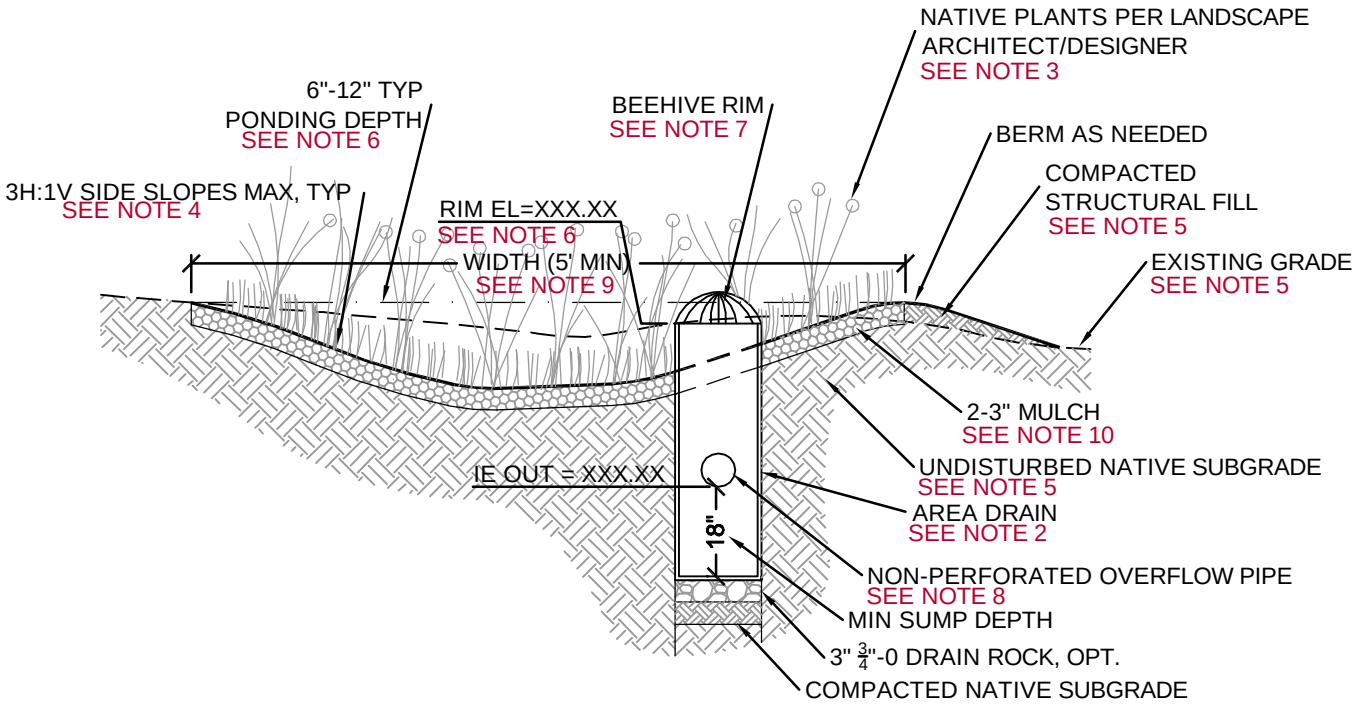


THESE NOTES IN RED ARE OFFERED AS A GUIDE FOR DECISION MAKING WHEN YOU WANT TO MAKE CHANGES TO THIS DETAIL.

1. **INFILTRATION RATE OF NATIVE SOILS:** INFILTRATION RAIN GARDEN DETAIL MAY BE USED WHEN NATIVE SOILS HAVE AN INFILTRATION RATE THAT DOES NOT EXCEED 12 INCHES/HOUR.
2. **LARGE STORM OVERFLOW:** AN AREA DRAIN OR OTHER STRUCTURAL OVERFLOW MAY NOT BE NEEDED WHERE OVERLAND FLOWS OVER A SIMPLE BERM WILL CONVEY LARGE VOLUME FLOWS SAFELY OVERLAND AWAY FROM STRUCTURES AND TOWARDS AN ALTERNATIVE CONVEYANCE SYSTEM.
3. **VEGETATION:** THE MORE PLANTS THE BETTER AND THE BIGGER THE BETTER. WHERE TREES AND SHRUBS CAN BE SAFELY (IE VISIBILITY CONSIDERATIONS) PLANTED IN THE BASIN, THEY SHOULD BE. FOR EROSION CONTROL, CONSIDER HYDROSEEDING WITH GRASS SPECIES SIMILAR TO THE SPECIES THAT WILL LIKELY BE PLANTED AS PLUGS TO STABILIZE SOILS FOR THE LONG-TERM.
4. **SIDE SLOPES:** DON'T EXCEED A SLOPE OF 3H:1V. PLANT ESTABLISHMENT IS DIFFICULT ABOVE THIS SLOPE BECAUSE SLOPES EXCEEDING THIS MUST BE COMPACTED. SIDE SLOPE COMPACTION REDUCES THE INFILTRATION CAPACITY OF THE FACILITY.
5. **THE IMPORTANCE OF CUT AND FILL FOR INFILTRATION FACILITIES:** THE BOTTOM OF AN INFILTRATION RAIN GARDEN MUST BE IN CUT IN NATIVE SOILS. FILL REQUIRES COMPACTION, WHICH INCREASES SOIL DENSITY AND GENERATES RUNOFF PATTERNS SIMILAR TO IMPERVIOUS SURFACES SUCH AS CONCRETE. ONE RULE OF THUMB IS THAT INFILTRATION FACILITIES MAY BE PLACED IN FILL AREAS THAT ARE OVER 5 YEARS OLD SINCE THESE SOILS WILL HAVE BE LOOSENED BY SOIL ANIMALS AND VEGETATION OVER TIME.
6. **APPROPRIATE VOLUMES:** RIM ELEVATION SHOULD BE SET SO THAT, AT A MINIMUM, THE VOLUME OF THE WATER QUALITY STORM IS RETAINED ON-SITE. DEPENDING ON THE CONDITIONS IN YOUR JURISDICTION (AVAILABILITY, AND CAPACITY OF EXISTING STORM SEWERS, RAINFALL DISTRIBUTIONS AND GOALS FOR WATERSHED PROTECTION,) A LARGER VOLUME MAY AND IS PROBABLY APPROPRIATE TO RETAIN ON-SITE. TO CHOOSE THE RIGHT VOLUME FOR CAPACITY OF THE RAIN GARDEN, MODEL/ACCOUNT FOR THE VOLUME OF RUNOFF THAT'S INFILTRATING DURING THE STORM (REQUIRES AN INFILTRATION TEST), THE STORAGE CAPACITY OF THE FACILITY, THE RIM ELEVATION, AND THE VOLUME LEFTOVER AT THE END OF THE STORM.A BEEHIVE RIM IS RECOMMENDED BECAUSE IT'S LESS LIKELY TO GET CLOGGED WITH LEAVES AND TRASH. OTHER OUTLETS (DITCH INLET, PLUMBING BENDS PER CITY OF PORTLAND OVERFLOW STRUCTURE,ETC) COULD BE FINE, BUT WE SUGGEST AVOIDING A FLAT RIM.
7. SIZE THIS PIPE TO CONVEY THE 25-YEAR PEAK FLOW AFTER ATTENUATION FROM THE RAIN GARDEN.
8. THE WIDTH OF THE FACILITY EQUALS THE PONDING AREA AND THE INFILTRATION AREA AS LONG AS THE SIDES SLOPES DON'T EXCEED 3H:1V..
9. BARK MULCH FLOATS AND WILL FLOAT RIGHT OUT OF THE FACILITY, SO DON'T USE IT. USE COURSE WOOD CHIPS OR ROCK MULCH INSTEAD.

Details created by a partnership of:

OSU Oregon State University Extension Service | Sea Grant Oregon | Greengirl Land Development Solutions

# Infiltration Rain Garden with Overflow Strucutre

SEE NOTE 1



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Scale: NTS