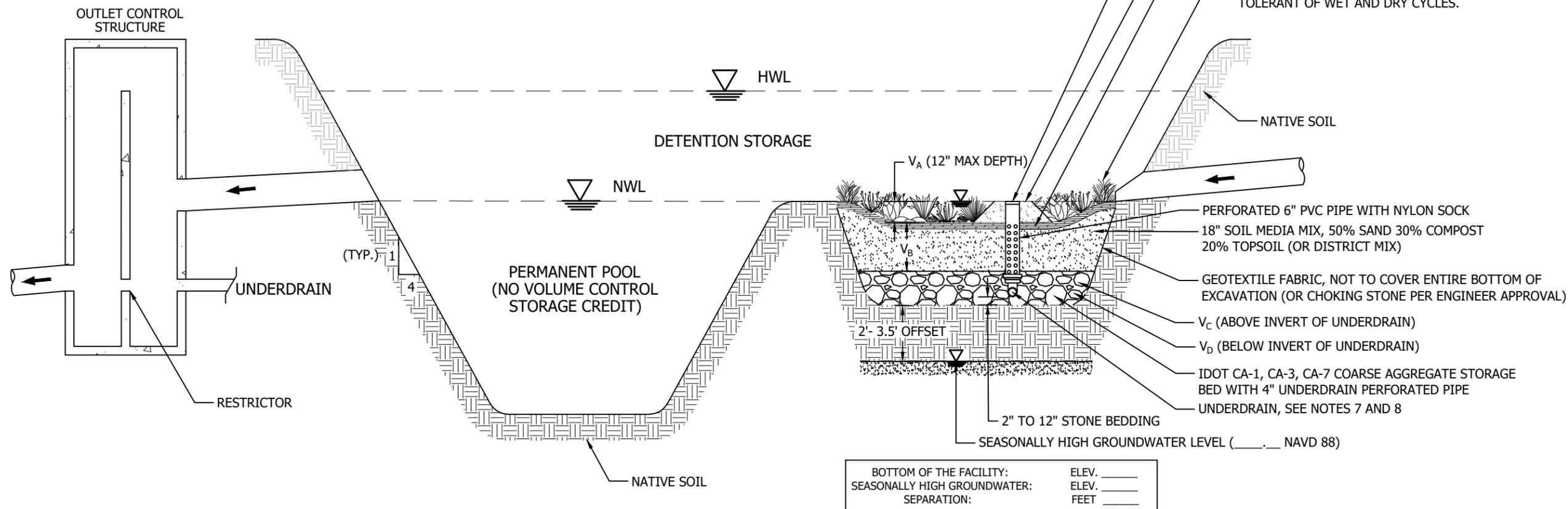


| VOLUME TYPE | DEPTH | POROSITY | STORAGE VOLUME | VOLUME PROVIDED |
|---|-------|----------|-------------------------------|-----------------|
| V_A : SURFACE STORAGE | | | $1.00 \times V_A$ | |
| V_B : SOIL MEDIA MIX | | | $0.50 \times 0.25 \times V_B$ | |
| V_C : COARSE AGGREGATE (ABOVE INVERT) | | | $0.50 \times 0.36 \times V_C$ | |
| V_D : COARSE AGGREGATE (BELOW INVERT) | | | $0.36 \times V_D$ | |
| TOTAL | | | | |



NOTES:

1. THE PERIMETER OF THE VOLUME CONTROL FACILITY SHALL MAINTAIN THE MINIMUM HORIZONTAL SEPARATION DISTANCE OF: 10 FEET FROM FOUNDATIONS, UNLESS WATERPROOFED; 20 FEET FROM ROADWAY GRAVEL SHOULDER; AND 100 FEET FROM POTABLE WATER WELLS, SEPTIC TANKS/FIELDS, OR OTHER UNDERGROUND TANKS.
2. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED WITHIN THE VOLUME CONTROL FACILITY. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED BELOW THE FOOTPRINT OF THE VOLUME CONTROL FACILITY. WHEN LOCAL CONDITIONS PREVENT THE SEWER FROM BEING LOCATED OUTSIDE THE FOOTPRINT OF THE FACILITY THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN QUALITY STANDARDS, AND IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
3. MINIMUM DISTANCE OF 2 FEET (3.5 FEET IN COMBINED SEWER AREAS) BETWEEN THE BOTTOM OF THE VOLUME CONTROL FACILITY AND SEASONALLY HIGH GROUNDWATER LEVEL IS REQUIRED.
4. STONE STORAGE OPTIONS ARE IDOT CA-1, CA-3, CA-7, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS.
5. BOTTOM OF VOLUME CONTROL FACILITY SHALL BE AS FLAT AS POSSIBLE. BOTTOM SLOPES SHALL NOT EXCEED 20:1. DETENTION BASIN SIDE SLOPES SHALL BE 3:1 MINIMUM.
6. THE DEPTH BELOW OUTLET SHALL NOT EXCEED 12 INCHES AND SHALL BE DEWATERED IN 72 HOURS OR LESS.
7. UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/HOUR. UNDERDRAIN SHOULD BE NO LARGER THAN 4 INCHES IN DIAMETER TO ENCOURAGE RETENTION, HAVE AN OBSERVATION WELL INSTALLED AT THE TERMINAL END AND BE SPACED NO MORE THAN 30 FEET ON CENTER ACROSS A RETENTION FIELD. ONE OBSERVATION WELL REQUIRED PER 6,000 SQUARE FEET OF SURFACE AREA.
8. VOLUME CONTROL FACILITY UNDERDRAIN SYSTEM SHALL BE CONNECTED TO A DOWNSTREAM STRUCTURE, UPSTREAM OF THE RESTRICTOR.

NOT TO SCALE



TECHNICAL GUIDANCE MANUAL

TYPICAL VOLUME CONTROL STORAGE BELOW DETENTION BASIN OUTLET

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