

Underground Detention Construction Checklist

This checklist has been designed for BMPs designed in accordance with the Delaware Sediment and Stormwater Program's Post Construction Stormwater BMP Standards and Specifications. Submit interim versions of this construction checklist to the approval agency weekly with the Certified Construction Reviewer report. Submit the final completed checklist with the PCVD.

PROJECT INFORMATION

Project Name/BMP Name: _____

Project Approval Number: _____ NOI number: _____

Location: _____

Contractor: _____

Construction Reviewer: _____

Supervising P.E.: _____

For each checklist item, enter in the blank the date (MM/DD/YY) the item is completed and verified by the construction reviewer. If an item is not applicable, enter "N/A" in the blank for that checklist item.

I. Pre-Construction

- A. _____ Underground detention field meeting with responsible person and person completing construction checklist.
- B. _____ Extents of underground detention facility location staked out.
- C. _____ Pervious areas draining to the underground detention stabilized in accordance with the approved plans.
- D. _____ Pipe and appurtenances on-site and dimensions and properties checked and confirmed to be in accordance with the approved plan if applicable.
- i. _____ Discharge pipe
 - ii. _____ Overflow collection pipe
 - iii. _____ Proprietary storage chambers
 - iv. _____ Inspection port(s)
 - v. _____ Other; list: _____
- E. _____ Materials on-site and dimensions and properties checked and confirmed to be in accordance with the approved plan. ***Submit materials invoice or delivery tickets to approval agency as part of PCVD for the following items:***
- i. _____ Clean, washed gravel (max dia. 2.5", min dia. 0.5", max 2.0% passing #200 sieve)
 - ii. _____ Geotextile fabric

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iii. _____ Other; list: _____

II. Excavation and Grading

- A. _____ Underground detention facility excavated to dimensions and at location as per the approved plan.
- B. _____ Underground detention excavated to design bottom elevation.
- C. _____ Groundwater not encountered during excavation. (Note: If groundwater is encountered during the excavation process, construction of the facility must cease, and the designer notified that a plan modification is necessary)
- D. _____ Sides of underground detention facility excavated vertically.
- E. _____ Bottom of excavation in accordance with the approved plan.
- F. _____ Geotextile fabric as specified on the approved plan.

III. Structural Components

- A. _____ Discharge pipe installed from overflow collection pipe to discharge point.
- B. _____ Rock outlet protection provided at all points of discharge and riprap stone size and dimension confirmed.
- C. _____ Large diameter pipes, arches, or proprietary storage chambers installed.
- D. _____ Watertight construction joints and pipe joints for vault and tank designs.
- E. _____ Inspection port(s) installed.
- F. _____ Underground storage stone (clean aggregate) placed with the depth of stone in accordance with the approved plan.
- G. _____ Pretreatment provided at underground detention facility inlets as specified on the approved plan.
- H. _____ Photo documentation of construction of structural components taken. ***Submit photo documentation to approval agency as part of PCVD.*** (Photo #: _____)

IV. Erosion and Sediment Control

- A. _____ Sediment prevented from entering underground detention facility by constructing the trench off-line or by using perimeter controls as specified on the approved plan.
- B. _____ Underground detention facility inspected and cleaned of sediment following site stabilization prior to facility acceptance.

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V. Maintenance Access

- A. _____ Maintenance access to the perimeter of the underground detention facility has minimum width of 15 feet.
- B. _____ Profile grade of maintenance access does not exceed 10H:1V.
- C. _____ Minimum 10H:1V cross slope on maintenance access.
- D. _____ Locked maintenance access to underground detention facilities.

VI. Post Construction Verification

Owner shall submit post construction verification documents to demonstrate that the underground detention practice has been constructed within allowable tolerances in accordance with the Approved Sediment and Stormwater Management Plan and accepted by the approving agency.

- A. _____ Diameter of all pipes and/or dimensions of chambers within underground detention facility constructed as shown on the plan.
- B. _____ Constructed weirs dimension within 10% of the design.
- C. _____ Constructed elevation of all structures confirmed to be within 0.15 foot of the design elevation for:
 - i. _____ Discharge pipe
 - ii. _____ Inflow pipes
 - iii. _____ Overflow collection pipe
 - iv. _____ Pipes or arches or proprietary storage chambers
 - v. _____ Grates
 - vi. _____ Other; list: _____

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VII. BMP Acceptance

- A. _____ Final BMP construction review complete.
- B. _____ All BMP punch list items addressed.
- C. _____ Underground detention basin is online (stabilized drainage area is entering underground detention basin)
- D. _____ As-built survey.
- E. _____ PCVD submitted to approval agency for review and approval. Submit the following pieces of PCVD documentation to the approval agency:
- Materials invoice or delivery tickets
 - Confirmatory infiltration testing report
 - Photo documentation
 - Soil test report
 - Lime, fertilizer, and seed tickets
 - As-built survey
 - Final, completed BMP Construction Checklist