

FACILITY: INFILTRATION - INFILTRATION BASIN (I-2)*



GENERAL MAINTENANCE CARD

Stormwater Coalition of Albany County
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PURPOSE AND FUNCTION

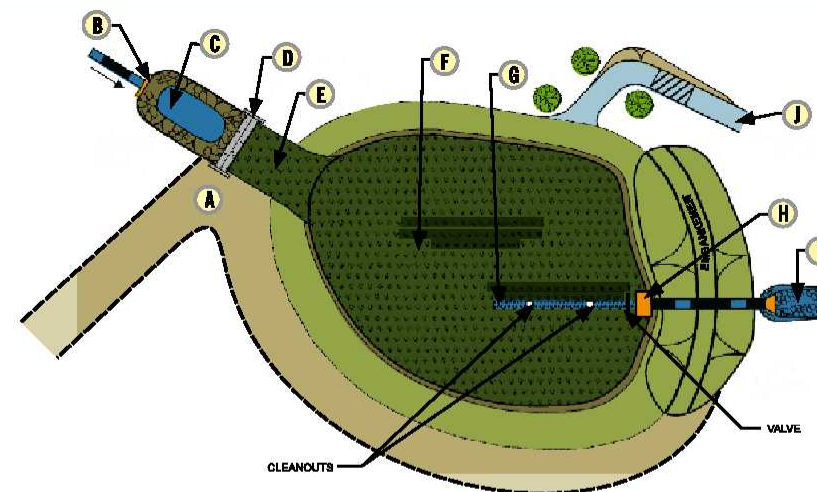
An infiltration practice that stores the water quality volume in a shallow depression, before it is infiltrated into the ground.

SHORT-TERM MEASURES (FREQUENCY: AT LEAST ONCE A MONTH)

Drainage Issues:

- Maintain contributing drainage area.**
 - Remove trash and debris and dispose off-site, as required.
 - Stabilize and mow area as required. Remove clippings.
 - Ensure that activities in the drainage area minimize oil/grease and sediment entry to the system.
- Inspect the inlet structure (Location B) and pretreatment devices, such as stilling basin (Location C), concrete level spreader (Location D), and grass channel (Location E).**
 - Remove debris manually and dispose off-site, as required.
 - Note any channels, soil exposure, or other evidence of erosion and stabilize for further maintenance.
 - Note any cracks in pipe, headwall/concrete pipe collar, and concrete level spreader.
 - Note any displaced field stone. Remove as required.
- Inspect the outlet structure (riser box at Location H) and outfall (Location I).**
 - Riser Box**
 - Remove debris manually and dispose off-site, as required.
 - Note any cracks/damage to riser/barrel (see critical maintenance issues box).
 - Outfall**
 - Remove accumulated debris/floatables near the outfall spillway approach and discharge channels manually or by other approved means; as required. Dispose of debris off-site.
 - Note any displaced field stone. Remove as required.
- Inspect infiltration basin (Location F).**
 - Remove debris manually and dispose off-site, as required.
 - Note dewatering time. Facility should drain completely within 24-48 hours of a storm event. If clogging occurs, remove sediment and cleanout underdrain (refer to Item 2 of Long-Term Measures).
- Inspect the emergency spillway (Location J).**
 - Vegetated emergency spillway channels should be mowed and should not be cut to less than 6 to 8 inches in height.
 - The emergency spillway approach and discharge channels should be cleared of brush and other woody growth.
 - After any flow has passed through the emergency spillway, the spillway crest (control section) and exit channel should be inspected for erosion. Note location of any eroded areas. Stabilize for further maintenance.
- Inspect adjacent catch basin grates and manhole covers.**
 - Remove accumulated debris; dispose off-site.

SIDE A
PLAN



MAJOR AREAS OF PRACTICE

- | | | |
|-----------------------------------|-----------------------------------|------------------------------|
| A. Maintenance Accessway | E. Grass Channel | I. Outfall |
| B. Inlet Structure | F. Infiltration Basin Area | J. Emergency Spillway |
| C. Stilling Basin | G. Underdrain | |
| D. Concrete Level Spreader | H. Outlet Structure | |

Landscaping:

- Inspect overall condition of vegetation onsite.**
 - Remove vegetative invasives manually, ensuring root removal, to the extent possible. Refer to Appendix 1: New York State Invasive Plants for key species. Note any significant establishment for future removal/maintenance.
 - Relocate rodents and/or provide exclusion devices, as required.
 - Trim shrubs and cut grass along street frontages, as required. Dispose of clippings off-site.
 - Mow grassed areas as required. Mow only when surface is dry to avoid rutting. Dispose of clippings off-site.

Perimeter Treatment (perimeter boundaries not shown on figures):

- Inspect overall condition of the perimeter treatment items.**
 - Remove accumulated litter/debris by hand, dispose off-site.
 - Secure gates, guiderails, signs, and boulders, as required.

MEDIUM-TERM MEASURES (FREQUENCY: ONCE EVERY SIX MONTHS)

Drainage Issues:

- Inspect the inlet structure (Location B), and pretreatment devices, such as stilling basin (Location C), concrete level spreader (Location D), and grass channel (Location E).**
 - Repair/reinforce eroded areas, as required.
 - Repair cracks/damaged stones on headwall, as required.
 - Repair cracks in pipe, concrete pipe collar, or concrete level spreader, as required.
 - Replace displaced field stone, as required.

Critical Maintenance Issues

- Risers and barrels**
 - Presence of corrosion
 - Weld joint weakness
 - Valves operational
 - Security key in known location
 - Clogging of barrel outlets
- Embankments**
 - No rodents
 - No trees and shrubs
 - No seepage and settlement

Albany County	City of Albany	Town of Bethlehem	City of Cohoes	Town of Colonie	Village of Colonie	Village of Green Island	Town of Guilderland	Village of Menands	Town of New Scotland	Village of Voorheesville	City of Watervliet	SUNY Albany
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* Facility abbreviations refer to 2003 NYSDEC Stormwater Design Manual practice labels

2. **Inspect the outlet structure (Location H).**
 - Repair cracks/damage to concrete riser box, as required.
 - Replace displaced field stone in outfall, as required.
3. **Inspect the emergency spillway (Location J).**
 - Repair and stabilize eroded areas in the exit channel as required.
4. **Inspect for unstable embankments.**
 - Repair/reinforce unstable embankments using field stone, plantings, etc.

Landscaping:

5. **Inspect for plant mortality.**
 - Remove dead plants by hand; dispose off-site; replant as required.
 - Remove trees that start to grow in the vicinity of the basin (Location F), and dispose off-site, as required.
 - Note any bare areas. Cultivate soil and revegetate as required. Introduce alternative plantings, as required.
6. **Inspect for significant establishment of invasives and develop an area-wide plan for removal.**
7. **Inspect for herbivore damage.**
 - Repair burrows/damage created by rodents, as required.
 - Introduce alternative plantings, as required.

Perimeter Treatment (perimeter boundaries not shown on figures):

8. **Lubricate locks and hinges on gates, as required.**
9. **Refurbish or mow accessway, as required.**
10. **Inspect and repair damaged sidewalks, fencing, guiderail, and signs, as required.**

LONG-TERM MEASURES (FREQUENCY: ONCE EVERY YEAR)

Drainage Issues:

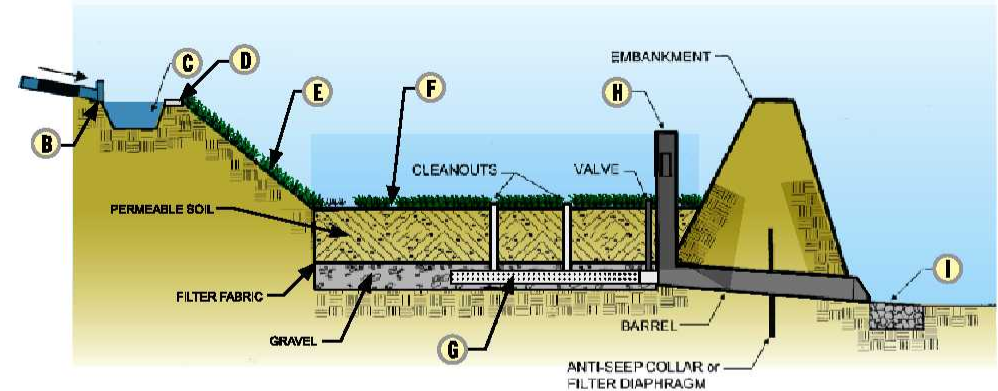
1. **Remove sediment from stilling basin and adjacent catch basins; "vactoring" recommended.**
2. **Inspect infiltration basin area (Location F) and underdrain (Location G).**
 - If water remains 24-48 hours following a storm event, cleanout underdrain (Location G) and cultivate soils, as required:
 - Close valve at end of underdrain pipe, near riser box.
 - Attach a standard compressor and fitting to first cleanout and run compressed air through pipe. Repeat for all remaining connections until grass turf above underdrain is sufficiently broken up.
 - Remove compressor hose and fitting. Restore valve to original setting.
 - Till and revegetate disturbed soil.
 - Note sediment accumulation. Remove sediment manually when sediment is dry (visible cracks) and readily separates from basin floor. Till and revegetate remaining soil.
 - Replace plantings or cultivate soils to ensure adequate filtration, as required.
3. **If severe clogging occurs and the above measures are not effective:**
 - Remove and replace all media to original specifications or to approved, revised specifications.
 - Underdrain piping may be reused if in good condition.

DEWATERING PROCEDURE AT PRETREATMENT DEVICE

The stilling basin or other pretreatment device must be dewatered before proceeding with "vactoring" operations.

Methodology:

1. Park the "vactor" truck along the maintenance accessway near the inlet (Location A). The boom should be extended in the direction of the stilling basin.
2. Ensure clear access for a two-person crew down the slope near the stilling basin (Location C).
3. Pump out the water from the stilling basin to the grass channel (Location E) downstream.
4. Proceed with "vactoring" operations.



MAJOR AREAS OF PRACTICE

- | | | |
|----------------------------|----------------------------|---------------------|
| B. Inlet Structure | E. Grass Channel | H. Outlet Structure |
| C. Stilling Basin | F. Infiltration Basin Area | I. Outfall |
| D. Concrete Level Spreader | G. Underdrain | |

"VACTORING" PROCEDURE AT PRETREATMENT DEVICE

Methodology:

1. Connect the "vactor" truck to an approved nearby source of clean water for "vactoring" purposes.
2. Unwind the water jet hose reel and place it down the slope of the stilling basin (Location C). Use hose to loosen the accumulated sediment.
3. Place the flexible suction hose into the stilling basin (Location C).
4. Perform "vactoring" operations by simultaneously using the suction arm and water jet hose to remove slurry until the rip-rap base is reached.
5. Continue slurry removal until capacity of "vactor" truck is reached.
6. Stop "vactoring" work. Dispose of slurry off-site.
7. Repeat Steps 1-6 until all the sediment has been removed.
8. After "vactoring" work is complete, carefully remove the flexible suction hose and the water jet hose from stilling basin, and transport them back to the truck.
9. Inspect the accessway and adjacent area for damage, such as dislodged field stone, wood chips, etc., and refurbish as required.

Note: Secure locks on gates as necessary prior to exiting site.

Paperwork and Reporting

- 1) Refer to site specific SWPPP and regulated MS4 for reporting requirements related to maintenance
- 2) Report practice failures to owner-operator and relevant regulated MS4

Maintenance Considerations During Design

- Erosion and Sediment Control
 - Inlet/Outlet Protection
 - Sediment Removal
- Pretreatment Devices
- Underdrains
- Landscaping
- Mechanical Issues
 - Riser/Barrel Outlet Structure
- Maintenance Access
- Cold Climate Considerations