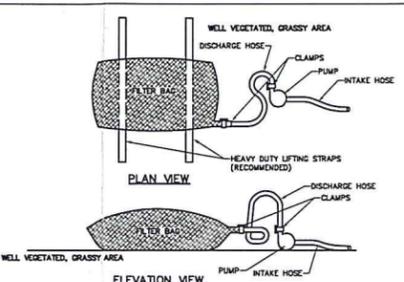


NOTES:
 REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
 ROCKFILL SHALL BE OVERTOPPED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
 MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CURBPIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF SITCH BEING CROSSED.
 MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SHEPHERD THE DEPOSITS INTO ROADWAY DITCHES, SPOURS, COLLECTORS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

**STANDARD CONSTRUCTION DETAIL #3-1
 ROCK CONSTRUCTION ENTRANCE**
 NOT TO SCALE

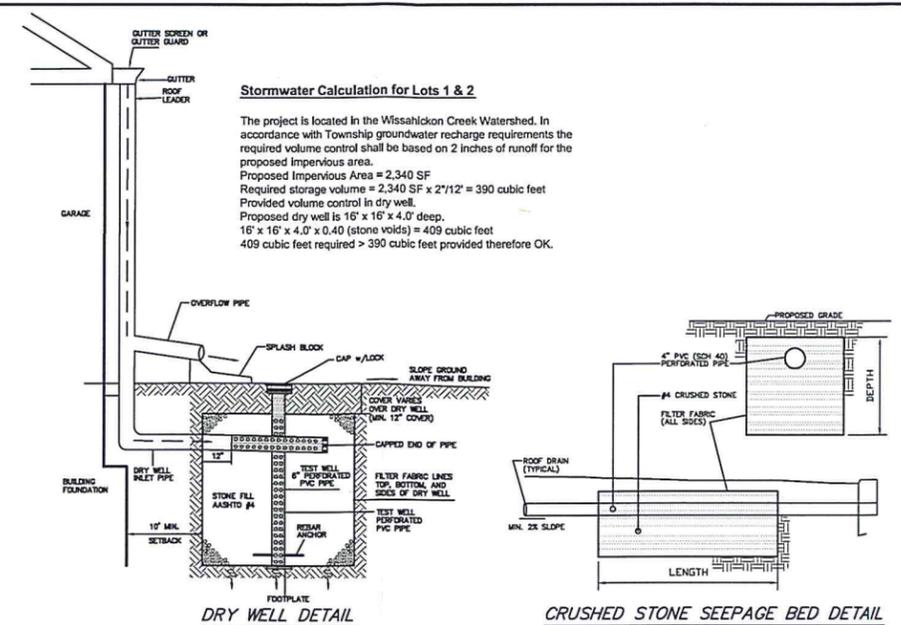


NOTES:
 LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED 1/2" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	80 LB/IN
GRAB TENSILE	ASTM D-4832	200 LB
PUNCTURE	ASTM D-4833	110 LB
MULLIN BURST	ASTM D-3786	350 PSF
UV RESISTANCE	ASTM D-4355	70%
ACE & RETAINED	ASTM D-4191	80 SOLE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FILLED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
 BAGS SHALL BE LOCATED IN WELL-VEGETATED GRASSY AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLayment AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN SIX PER CENT OR SLOPES EXCEEDING CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
 NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BEHIND BAGS LOCATED IN HO OR IV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
 THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
 THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
 FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

**STANDARD CONSTRUCTION DETAIL #3-16
 PUMPED WATER FILTER BAG**
 NOT TO SCALE



Stormwater Calculation for Lots 1 & 2
 The project is located in the Wissahickon Creek Watershed. In accordance with Township groundwater recharge requirements the required volume control shall be based on 2 inches of runoff for the proposed impervious area.
 Proposed Impervious Area = 2,340 SF
 Required storage volume = 2,340 SF x 2"/12" = 390 cubic feet
 Provided volume control in dry well
 Proposed dry well is 16' x 16' x 4.0' deep.
 16' x 16' x 4.0' x 0.40 (stone voids) = 409 cubic feet
 409 cubic feet required > 390 cubic feet provided therefore OK.

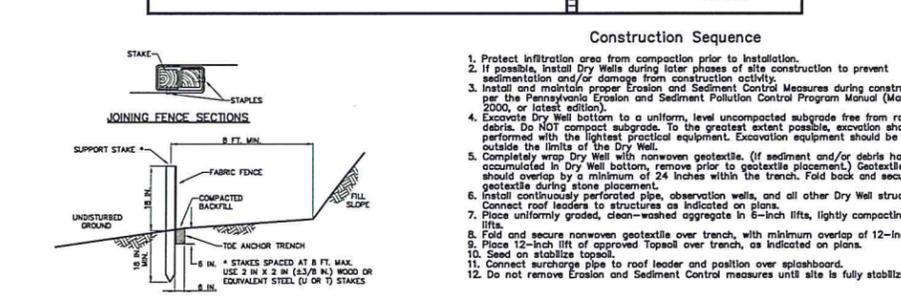
KEY DESIGN ELEMENTS

- MAINTAIN MINIMUM DISTANCE FROM BUILDING FOUNDATION (TYPICALLY 10 FEET)
- PROVIDE ADEQUATE OVERFLOW OUTLET FOR LARGE STORMS
- DEPTH OF DRY WELL AGGREGATE SHOULD BE BETWEEN 18 AND 48 INCHES DEEP
- AT LEAST ON OBSERVATION WELL: CLEAN OUT IS RECOMMENDED
- WRAP AGGREGATE WITH NONWOVEN GEOTEXTILE
- MAXIMUM DRAIN-DOWN TIME IS 72 HOURS
- PROVIDE PRETREATMENT FOR SOME SITUATIONS

RESIDENTIAL: YES
 COMMERCIAL: YES
 ULTRA URBAN: YES
 INDUSTRIAL: LIMITED
 RETAIL: YES
 HIGHWAY/ROAD: NO

STORMWATER FUNCTIONS
 VOLUME REDUCTION: MEDIUM
 RECHARGE: MEDIUM
 CONTROL: MEDIUM
 WATER QUALITY: MEDIUM

POLLUTANT REMOVAL
 TSS: 85%
 TP: 85%
 NO₂: 30%



Construction Sequence

- Protect infiltration area from compaction prior to installation.
- If possible, install Dry Wells during later phases of site construction to prevent sedimentation and/or damage from construction activity.
- Install and maintain proper Erosion and Sediment Control Measures during construction as per the Pennsylvania Erosion and Sediment Pollution Control Program Manual (March 2000, or latest edition).
- Excavate Dry Well bottom to a uniform, level uncompacted subgrade free from rocks and debris. Do NOT compact subgrade. To the greatest extent possible, excavation should be performed with the lightest practical equipment. Excavation equipment should be placed outside the limits of the Dry Well.
- Completely wrap Dry Well with nonwoven geotextile. (If sediment and/or debris have accumulated in Dry Well bottom, remove prior to geotextile placement.) Geotextile rolls should overlap by a minimum of 24 inches within the trench. Fold back and secure excess geotextile during stone placement.
- Install continuously perforated pipe, observation wells, and all other Dry Well structures. Connect roof leaders to structures as indicated on plans.
- Place uniformly graded, clean-washed aggregate in 6-inch lifts, lightly compacting between lifts.
- Fold and secure nonwoven geotextile over trench, with minimum overlap of 12-inches.
- Place 12-inch lift of approved Topsoil over trench, as indicated on plans.
- Seed on stabilize topsoil.
- Connect surcharge pipe to roof leader and position over splashboard.
- Do not remove Erosion and Sediment Control measures until site is fully stabilized.

Maintenance Issues

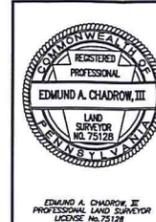
As with all infiltration practices, Dry Wells require regular and effective maintenance to ensure prolonged functioning. The following represent minimum maintenance requirements for Dry Wells:

- Inspect Dry Wells at least four times a year, as well as after every storm exceeding 1 inch.
- Dispose of sediment, debris/trash, and any other waste material removed from a Dry Well at suitable disposal/recycling sites and in compliance with local, state, and federal waste regulations.
- Regularly evaluate the drain-down time of the Dry Well to ensure the maximum time of 72 hours is not being exceeded. If drain-down times are exceeding the maximum, drain the Dry Well via pumping and clean out perforated piping, if included. If slow drainage persists, the system may need replacing.
- Regularly clean out gutters and ensure proper connections to facilitate the effectiveness of the dry well.
- Replace filter screen that intercepts rock runoff as necessary.
- If an intermediate sump box exists, clean it out at least once per year.

SOILS LIST: U1B - URBAN LAND-GLADSTONE COMPLEX, 0 TO 8 PERCENT SLOPES.
 U10B - URBAN LAND-LAWRENCEVILLE COMPLEX, 0 TO 8 PERCENT SLOPES.

LEGEND

±100.2	PROPOSED SPOT ELEVATION
±100.7	EXISTING SPOT ELEVATION
100	PROPOSED CONTOUR
-100-	EXISTING CONTOUR
■	PROPOSED CONCRETE MONUMENT
□	EXISTING CONCRETE MONUMENT
○	UTILITY POLE
—	CONCRETE CURB
—	EXISTING WATERLINE
—	EXISTING SANITARY SEWER
—	EXISTING STORM SEWER
—	EXISTING MANHOLE
○	EXISTING TYPE "A" INLET
○	EXISTING TYPE "B" INLET
—	CONCRETE SIDEWALK OR PAD
—	EDGE OF PAVING



SHEET 3 of 4

REV. 5-31-2016 PLAN OF LOTLINE CHANGE
 REV. 1-12-2016 AS PER TOWNSHIP LETTER IF 12-23-2015

GRADING, EROSION & SEDIMENTATION CONTROL PLAN
BLOCK 116, UNIT 42 AND BLOCK 116, UNIT 53
 ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
 MADE FOR
POPPER & DEACON, INC.

SCALE: 1"=20' 0 20 40 60 14 OCTOBER 2015

EASTERN/CHADROW ASSOCIATES, INC.
 333 E. STREET ROAD • WARMINGSTER, PA. 18974 • (215) 672-8071 FAX (215) 672-0765
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