

**SMALL PROJECT APPLICATION  
AND  
STORMWATER MANAGEMENT  
DESIGN ASSISTANCE MANUAL**

**SWATARA TOWNSHIP  
LEBANON COUNTY, PENNSYLVANIA**

**SMALL PROJECTS  
SIMPLIFIED APPROACH**

# TABLE OF CONTENTS

SECTION	Page
I. SMALL PROJECTS STORMWATER CONTROL APPLICATION.....	2
II. SAMPLE SITE PLAN .....	4
III. SAMPLE PROPOSED CALCULATIONS .....	5
APPENDICES .....	7
APPENDIX A - STORMWATER CONTROL BMPS.....	8
APPENDIX B - STORMWATER CONTROL BMPs OPERATION AND MAINTENANCE PLAN.....	14
APPENDIX C - STORMWATER MANAGEMENT O&M AGREEMENT .....	16

Small Projects Stormwater Control Application

Application is hereby made to Swatara Township for the issuance of a Stormwater Management Site Plan approval as defined in the Swatara Township Subdivision and Land Development Ordinance. January 10, 2013 shall be the starting point from which the impervious or disturbed area for small project activity shall be cumulatively considered.

General Information from the Applicant

Name of Owner: \_\_\_\_\_ Date: \_\_\_\_\_  
Address of Owner: \_\_\_\_\_  
Name of Applicant (if different than owners): \_\_\_\_\_  
Address of Applicant: \_\_\_\_\_  
Contact Phone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_  
Address of Project: \_\_\_\_\_  
Brief Description of Project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Did the Applicant meet with the Township Staff concerning this project?  
 Yes  No When? \_\_\_\_\_

Distance from proposed project to the nearest water feature (stream, pond, lake, wetland)?  
Check one:  100 feet or less  More than 100 feet

Total amount of impervious cover (sq. ft.) \_\_\_\_\_

Area of earth to be disturbed with this project including stormwater management facilities (sq. ft.) \_\_\_\_\_

Is the applicant proposing to use a stone lined trench or dry well to control stormwater from the proposed impervious areas:  Yes  No

Has the applicant dug any test pits in the areas where the stone lined trench or dry well are proposed to be used in order to see if there is shallow bedrock, an elevated water table or other limiting zone that would make the use of the proposed stormwater control BMPs infeasible?  Yes  No

Simplified SWM Site Plan

Attach a Simplified SWM Site Plan (i.e. sketch plan); an example is shown on the next page.

This sketch plan should include:

1. The approximate location of the property lines.
2. Existing sidewalks, buildings, driveways, or other impervious areas with dimensions in feet and areas in square feet.
3. The location where the proposed impervious area is going to be located with dimensions in feet and areas in square feet.
4. Dimensions from the property line to the proposed impervious areas.
5. Arrows showing the general stormwater flow direction across the project area.
6. The location of the proposed stormwater control facilities with dimensions and distances from the existing/proposed structures.
7. The location of existing utilities (water, sewer, gas, etc.).
8. PA One Call serial number.
9. The area of disturbance delineated on the plan showing the area in square feet.

I acknowledge the Township's right to review the provided information, at my expense, and to deny this application or to revoke this permit application if any of the above statements are found to be false.

The Applicant assumes all risk and responsibilities for the design submitted. The manual is provided as a guide. However, it provides no specific design for any project.

The undersigned hereby represents that, to the best of his knowledge and belief, all information listed above and on the stormwater management site plan herewith submitted is true, correct and complete.

\_\_\_\_\_   
Date

\_\_\_\_\_   
Applicant

---

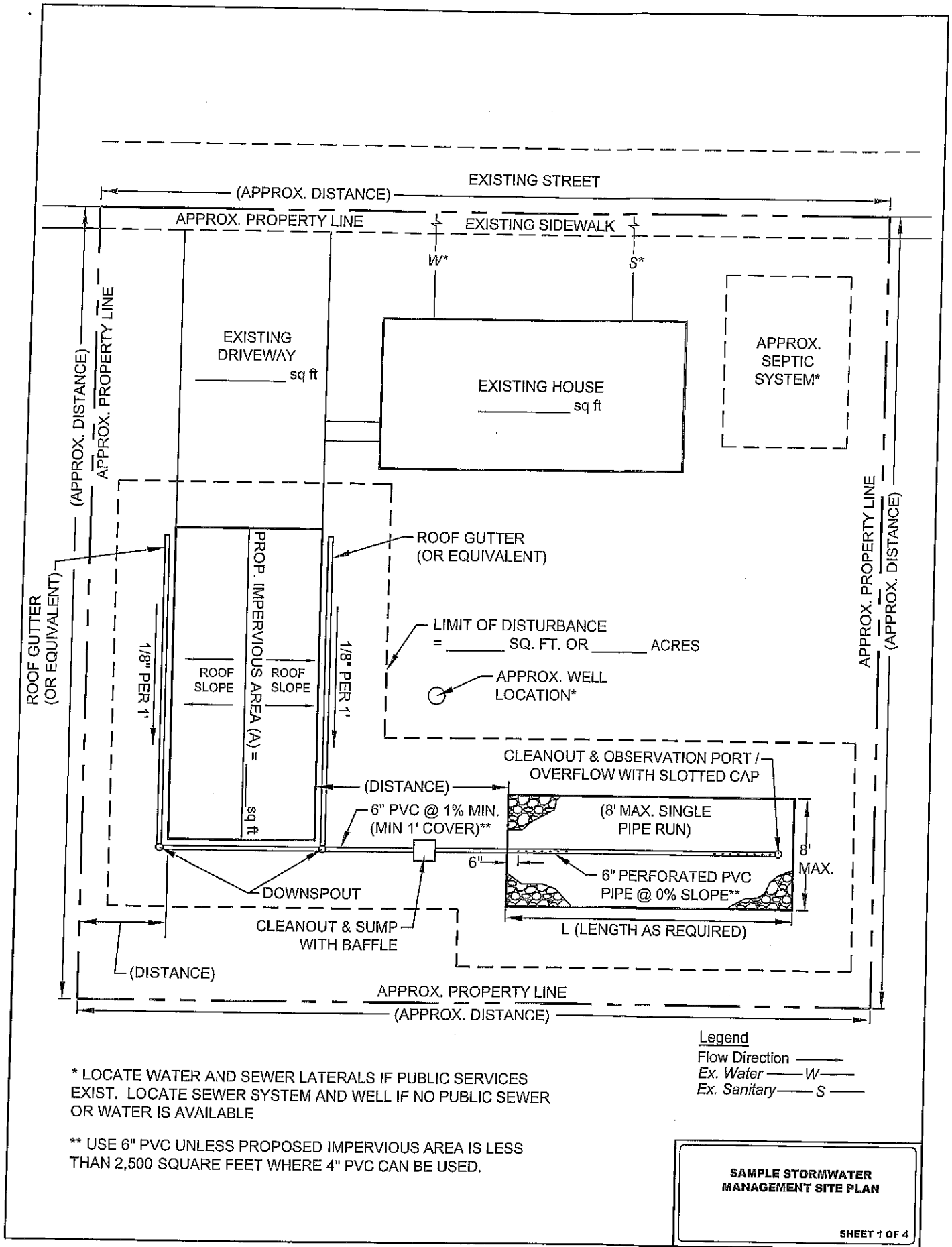
**OFFICE USE**

Date Received: \_\_\_\_\_ Township File No.: \_\_\_\_\_

Property Account No.: \_\_\_\_\_

Submission Fee: \_\_\_\_\_

Date of Application Approval: \_\_\_\_\_



\* LOCATE WATER AND SEWER LATERALS IF PUBLIC SERVICES EXIST. LOCATE SEWER SYSTEM AND WELL IF NO PUBLIC SEWER OR WATER IS AVAILABLE

\*\* USE 6" PVC UNLESS PROPOSED IMPERVIOUS AREA IS LESS THAN 2,500 SQUARE FEET WHERE 4" PVC CAN BE USED.

**Legend**  
 Flow Direction ———→  
 Ex. Water ———W———  
 Ex. Sanitary ———S———

**SAMPLE STORMWATER  
 MANAGEMENT SITE PLAN**

SHEET 1 OF 4

## SAMPLE WORKSHEET

### Proposed impervious and disturbed areas and Stormwater Control Volume Estimates:

1. What is the total proposed impervious area (A) in square feet? \_\_\_\_\_
2. What is the total earth disturbance area in square feet? \_\_\_\_\_
3. Take the total proposed impervious area (A) and determine the required stormwater runoff volume and BMP adjustments as required in the table below.

<b>Stormwater Volume Estimates and Volume Adjustments by BMP (2 inches of rain)</b>		
Proposed Impervious Area (A*) =		sq ft.
Stormwater Runoff Volume (B) =	(A)/6 =	(B) = cu ft.
Stormwater BMP	Stormwater Volume Adjustment	(C) Adjusted Stormwater Volume (cu ft)
Rain Gardens / Bioretention Areas / Non-Stone lined dry wells	No Volume Adjustment needed	cu ft.
Stone Lined Infiltration Trench or Dry Well	B (cu ft) x 2.5**	cu ft.

\* From Question 1 above. (Also see Sample Site Plan)

\*\* Conversion factor assuming volume of voids = 40% (i.e. dividing the volume by 0.4 is equivalent to multiplying the volume by 2.5).

### Example: 30'x50' Pole Building

Proposed Impervious Area = 1,500 sq ft

<b>Stormwater Volume Estimates and Volume Adjustments by BMP</b>		
Proposed Impervious Area (A*) =	1,500	sq ft.
Stormwater Runoff Volume (B) =	(A)/6 = (1,500)/6 =	(B) = 250 cu ft.
Stormwater BMP	Stormwater Volume Adjustment	(C) Adjusted Stormwater Volume (cu ft)
Rain Gardens / Bioretention Areas / Non-Stone lined dry wells	No Volume Adjustment needed	250 cu ft.
Stone Lined Infiltration Trench or Dry Well	(250 cu ft) x 2.5 =	625 cu ft.

### Conclusion:

1. A rain garden/bioretention area for surface water absorption of at least 10' wide x 21' long x 1' deep x SSF\*\*\* (10'x21'x1'x1.20 = 252 cu ft) could be used.  
\*\*\* SSF = Side Slope Factor; Factor is 1.10 for 0.5' deep, 1.20 for 1.0' deep rain gardens.
2. An underground infiltration stone lined trench of 10' wide x 32' long by 2' deep (10'x32'x2'=640 cu ft) could be used.

### APPLICANT'S WORKSHEET

<u>Stormwater Volume Estimates and Volume Adjustments by BMP</u>		
Proposed Impervious Area (A) =		sq ft.
Stormwater Runoff Volume (B) =	(A)/6 =      /6 =	(B) =      cu ft.
Stormwater BMP	Stormwater Volume Adjustment	(C) Adjusted Stormwater Volume (cu ft)
Rain Gardens / Bioretention Areas / Non-Stone lined dry wells	No Volume Adjustment needed	cu ft.
Stone Lined Infiltration Trench or Dry Well	(B)      (cu ft) x 2.5 =	cu ft.

I propose to use a \_\_\_\_\_ of \_\_\_\_\_  
(size)  
 for the stormwater control of my small project.

## APPENDICES

---

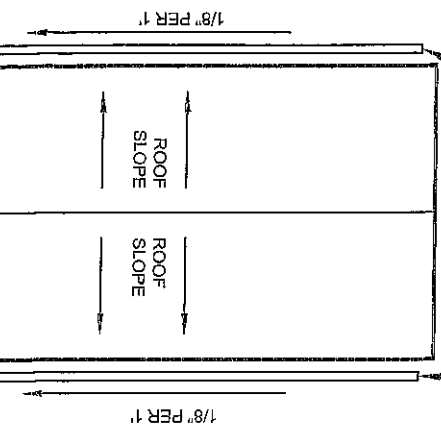
---



**APPENDIX - A**  
**Stormwater Control BMPs**

---

ROOF GUTTER

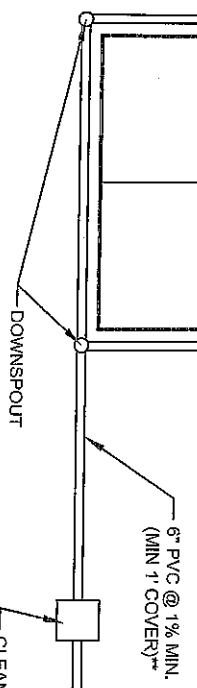


**STONE LINED INFILTRATION TRENCH SIZING CALCULATIONS**

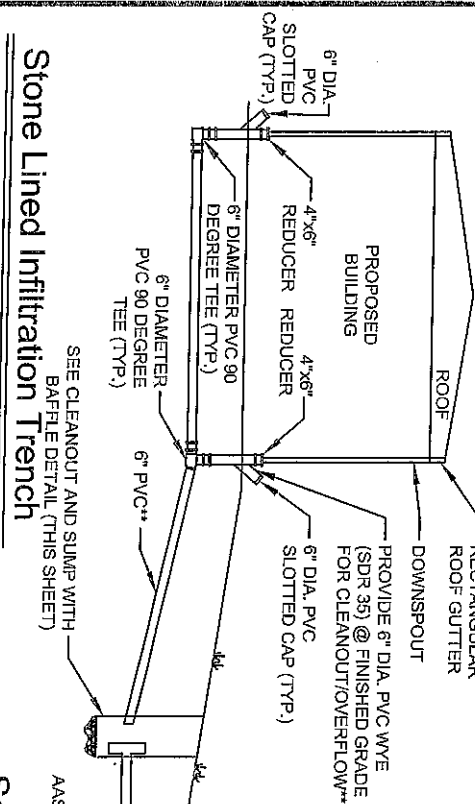
**EXAMPLE:**  
 STORMWATER RUNOFF VOLUME (B)\* = 250 cu ft  
 ADJUSTED STORMWATER VOLUME (C)\*  
 = (B) X 2.5 = 250 cu ft X 2.5 = 625 cu ft  
 W X L X D ≥ C  
 USER COULD PROVIDE W = 10', L = 32', D = 2'  
 W X L X D = 10' X 32' X 2' = 640 cu ft ≥ 625 cu ft

STORMWATER RUNOFF VOLUME (B)\* = \_\_\_\_\_ cu ft  
 ADJUSTED STORMWATER VOLUME (C)\* = (B) X 2.5 = \_\_\_\_\_ cu ft  
 = \_\_\_\_\_ ft L = \_\_\_\_\_ ft D = \_\_\_\_\_ ft  
 W X L X D = \_\_\_\_\_ cu ft ≥ \_\_\_\_\_ (C)

\* From page 6 of the Small Project Application



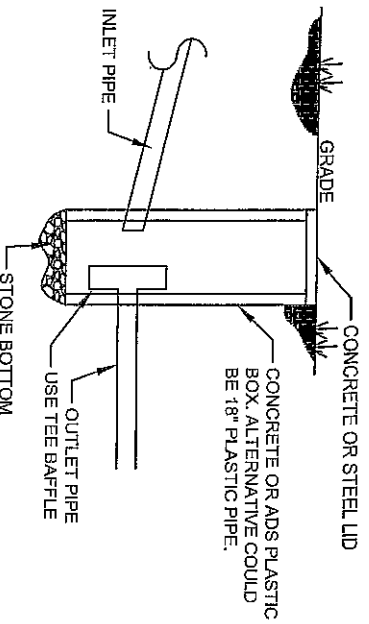
**Plan view**



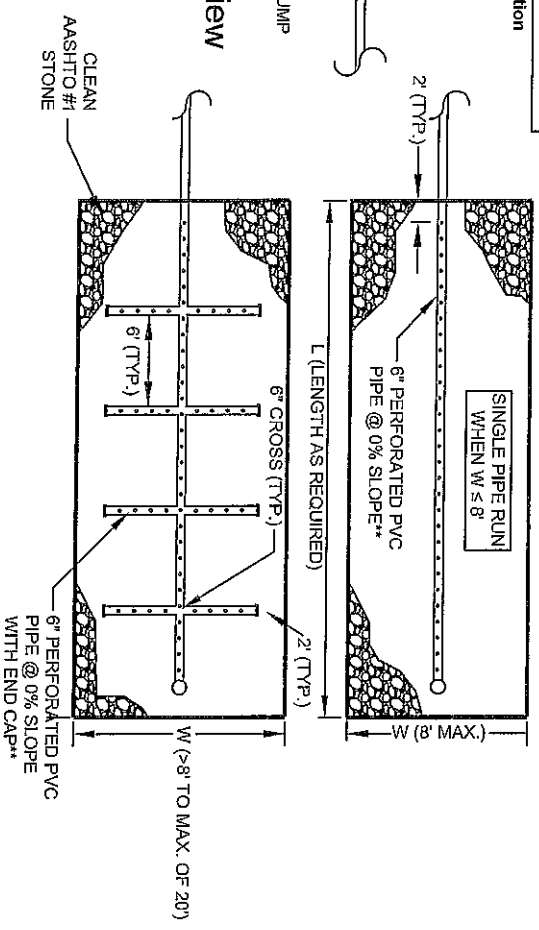
**Stone Lined Infiltration Trench**

Scale: N.T.S.

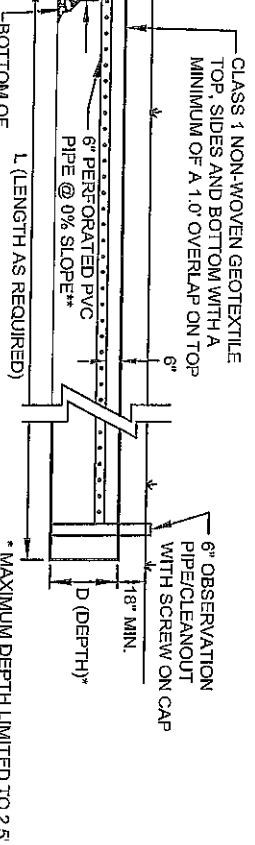
**Cleanout and Sump with Baffle Detail**



**STONE LINED INFILTRATION TRENCH DETAIL**



**Section view**



\*\* MAXIMUM DEPTH LIMITED TO 2.5 UNLESS APPROVED BY ENGINEER  
 \*\* USE 6\"/>

**STONE LINED INFILTRATION TRENCH  
SIZING CALCULATIONS**

**EXAMPLE:**

STORMWATER RUNOFF VOLUME (B)\* = 250 cu ft

ADJUSTED STORMWATER VOLUME (C)\*

= (B) X 2.5 = 250 cu ft X 2.5 = 625 cu ft

W X L X D ≥ C

USER COULD PROVIDE W = 10', L = 32', D = 2'

W X L X D = 10' X 32' X 2' = 640 cu ft ≥ 625 cu ft

STORMWATER RUNOFF VOLUME (B)\* = \_\_\_\_\_ cu ft

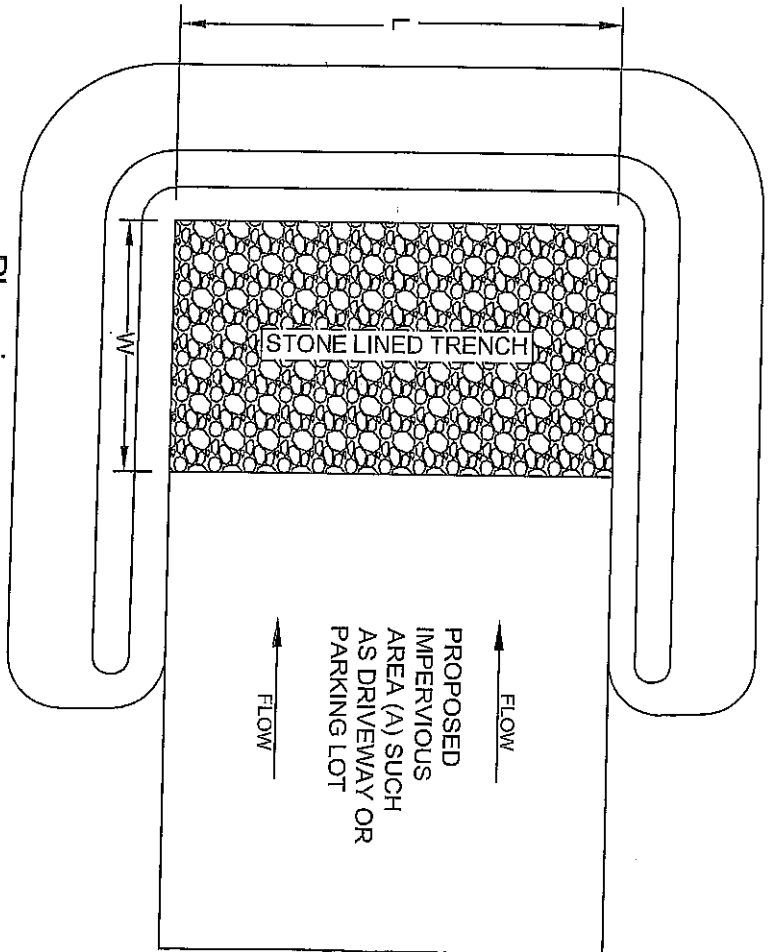
ADJUSTED STORMWATER VOLUME (C)\* = (B) X 2.5 = \_\_\_\_\_ cu ft

= \_\_\_\_\_ cu ft

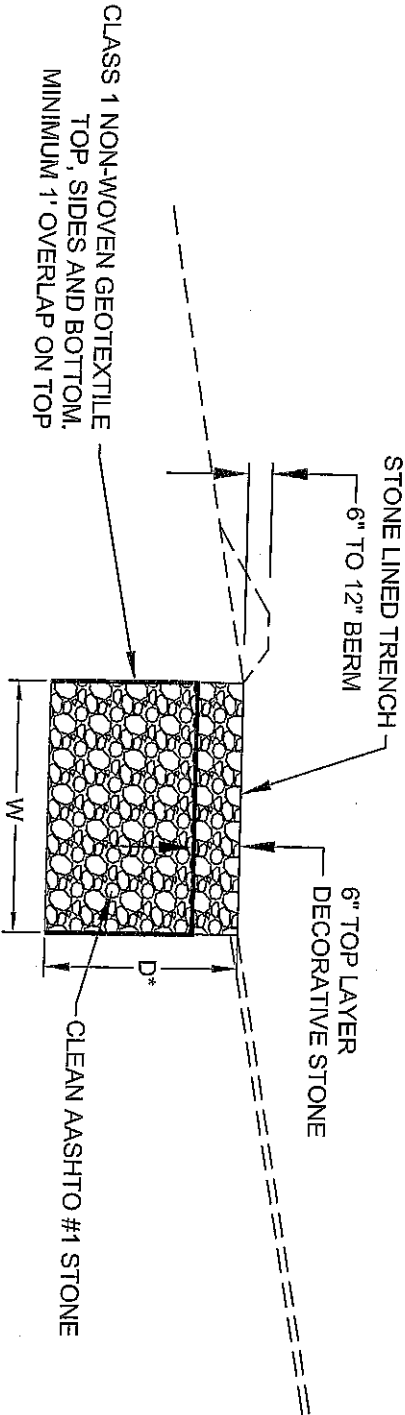
W = \_\_\_\_\_ ft L = \_\_\_\_\_ ft D = \_\_\_\_\_ ft

W X L X D = \_\_\_\_\_ cu ft ≥ \_\_\_\_\_ (C)

\* From page 6 of the Small Project Application



Plan view



Section view (Scale: N.T.S)

\* MAX. DEPTH LIMITED TO 2.5'  
UNLESS APPROVED BY ENGINEER

**STONE LINED INFILTRATION  
TRENCH AND BERM AT  
GRADE DETAIL**

**RAIN GARDEN / BIORETENTION AREA  
SIZING CALCULATIONS**

EXAMPLE:

STORMWATER RUNOFF VOLUME (B)\* = 250 cu ft  
(NO VOLUME ADJUSTMENT NEEDED)

W X L X D X SSF ≥ B

USER COULD PROVIDE W = 10', L = 21', D = 1'

W X L X D X SSF = 10' X 21' X 1' X 1.20 = 252 cu ft ≥ 250 cu ft

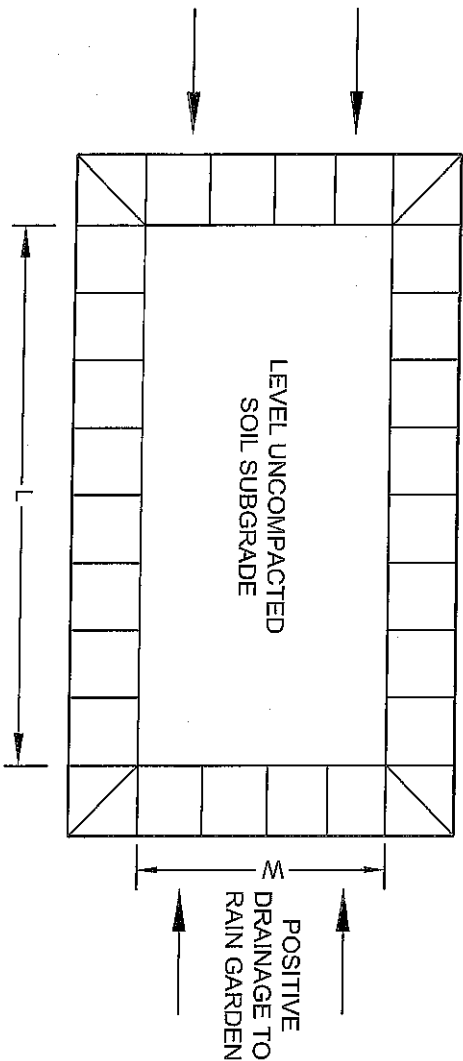
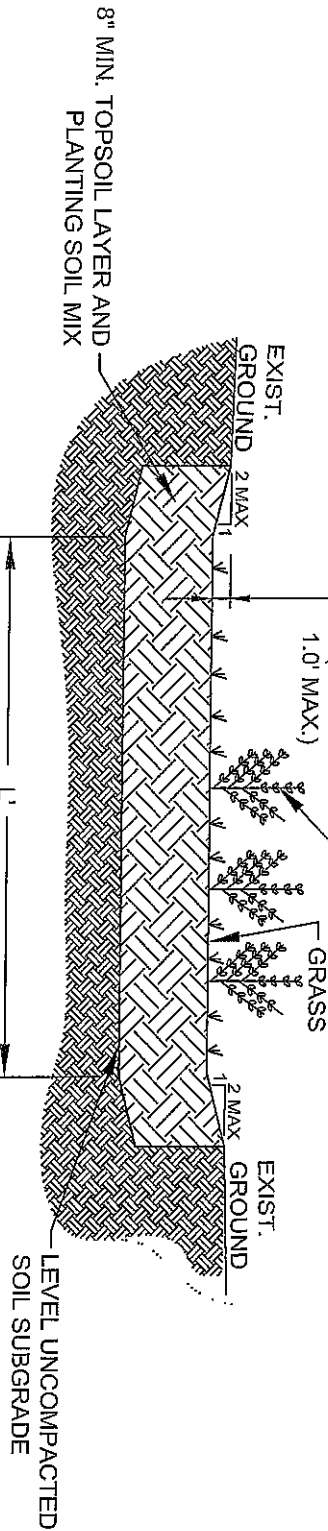
**SIDE SLOPE FACTORS (SSF):**

0.5' DEEP = 1.10

1.0' DEEP = 1.20

STORMWATER RUNOFF VOLUME (B)\* = \_\_\_\_\_ cu ft  
W = \_\_\_\_\_ ft L = \_\_\_\_\_ ft D = \_\_\_\_\_ ft SSF = \_\_\_\_\_  
W X L X D X SSF = \_\_\_\_\_ cu ft ≥ \_\_\_\_\_ (B)

NATIVE VEGETATION THAT CAN  
TOLERATE DRY AND WET  
CONDITIONS (SEE LIST)



**NOTE**  
LINE CREST AND SIDE SLOPES OF  
SPILLWAY W/ NORTH AMERICAN  
GREEN TYPE S75 EROSION CONTROL  
BLANKET (OR EQUAL).

Rain Garden/Bioretentention Area  
Scale: N.T.S.

RAINGARDEN / BIORETENTION  
AREA DETAIL

## Rain Garden/Bioretention Areas

A Rain Garden (Bioretention Area) is an excavated depression area on the surface of the land in which native vegetation is planted to filter and use stormwater runoff. Runoff ponds on top of the surface of the rain garden and then infiltrates into an enhanced soil/planting mix below the surface where plants can use the water to grow. Bioretention also improves water quality, vegetation filters the water, and the root systems encourage or promote infiltration. Key elements of a rain garden include:

- Ponding depths recommended to 1 foot or less.
- Native vegetation that can tolerate dry and wet weather.
- An overflow area where, if the bioretention area were to overflow, the overflow would flow over pervious area (i.e. grass, meadow), and would not cause harm to property, or;
- An overflow such as a domed riser to allow excess flow from large storms to travel to other substantial infiltration areas or pervious areas.
- For most areas, maximum 3:1 slopes are recommended, however, where space is limited, 2:1 side slopes may be acceptable with approval from the municipal engineer.
- The soil/planting mix depth should be between 1.5 feet to 6 feet deep.

## Rain Garden Native Planting List

### Perennials and Ferns:

Blue false indigo (*Baptisia australis*)  
Blue flag iris (*Iris versicolor*)  
Blue star (*Amsonia tabernaemontana*)  
Blue vervain (*Verbena hastata*)  
Boltonia (*Boltonia asteroides*)  
Boneset (*Eupatorium perfoliatum*)  
Bottlebrush grass (*Hystrix patula*)  
Broomsedge (*Andropogon virginicus*)  
Cardinal flower (*Lobelia cardinalis*)  
Cinnamon fern (*Osmunda cinnamomea*)  
Culvers root (*Veronicastrum virginicum*)  
Golden ragwort (*Senecio aureus*)  
Goldenrod (*Solidago patula*, *S. rugosa*)  
Great blue lobelia (*Lobelia siphilitica*)  
Green bullrush (*Scirpus atrovirens*)  
Horsetail (*Equisetum* species)  
Marsh marigold (*Caltha palustris*)  
Mistflower (*Eupatorium coelestinum*)  
Monkey flower (*Mimulus ringens*)  
New England aster (*Aster novae-angliae*)  
New York aster (*Aster novi-belgii*)  
Obedient plant (*Physotegia virginiana*)  
Royal fern (*Osmunda regalis*)  
Seedbox (*Ludwigia alternifolia*)  
Sensitive fern (*Onoclea sensibilis*)  
Sneezeweed (*Helianthus autumnale*)  
Soft rush (*Juncus effusus*)  
Swamp milkweed (*Asclepias incarnata*)  
Swamp rose mallow (*Hibiscus moscheutos*)  
Swamp sunflower (*Helianthus angustifolius*)  
Switchgrass (*Panicum virgatum*)  
Threadleaf coreopsis (*Coreopsis verticillata*)  
Tussock sedge (*Carex stricta*)  
White turtlehead (*Chelone glabra*)  
Woolgrass (*Scirpus cyperinus*)

### Shrubs:

American beautyberry (*Callicarpa americana*)  
Arrowwood (*Viburnum dentatum*)  
Black chokeberry (*Aronia melanocarpa*)  
Broad-leaved meadowsweet (*Spiraea latifolia*)  
Buttonbush (*Cephalanthus occidentalis*)  
Elderberry (*Sambucus canadensis*)  
Inkberry (*Ilex glabra*)  
Narrow-leaved meadowsweet (*Spiraea alba*)  
Ninebark (*Physocarpus opulifolius*)  
Possumhaw (*Viburnum nudum*)  
Red-osier dogwood (*Cornus sericea*)  
St. Johnswort (*Hypericum densiflorum*)  
Silky dogwood (*Cornus amomum*)  
Smooth alder (*Alnus serrulata*)  
Spicebush (*Lindera benzoin*)  
Swamp azalea (*Rhododendron viscosum*)  
Swamp rose (*Rosa palustris*)  
Sweet pepperbush (*Clethra alnifolia*)  
Wild raisin (*Viburnum cassinoides*)  
Winterberry (*Ilex verticillata*)  
Virginia sweetspire (*Itea virginica*)

**APPENDIX - B**  
**Stormwater Control BMPs Operation and Maintenance Plan**

### Sizing and design considerations for Stormwater Control BMPs

There are several different types of stormwater control BMPs the applicant can choose for their project needs. A combination of stormwater control BMPs may be needed to control stormwater runoff from the proposed impervious areas. The following is only a partial list of more common stormwater control BMPs and does not cover all of the BMPs available.

These BMPs are:

1. Stone Lined Infiltration Trench
2. Dry Wells
3. Rain Garden/Bioretenention Areas

### Stone Lined Infiltration Trench

An infiltration trench is a long, narrow, rock-filled trench with or without a perforated pipe that receives stormwater runoff and has no outlet. Runoff is stored in the void space between the stones and in the pipe, and infiltrates through the bottom and into the underlying soil matrix. Infiltration trenches perform well for removal of fine sediment and associated pollutants. Infiltration trenches shall incorporate or make provisions for the following elements:

- Perforated pipe is to be set level.
- The width is limited to between 3 to 8 feet for single pipe run and a maximum of 20 feet when using cross design.
- The depth is limited to 2.5' unless otherwise approved by the engineer.
- Trench should be wrapped in nonwoven geotextile (top, sides, and bottom).
- There should be a positive overflow that allows stormwater that cannot be stored or infiltrated to be discharged into a nearby vegetated area.
- Roof downspouts may be connected to infiltration trenches, but should contain a cleanout to collect sediment and debris before entering the infiltration area.
- Infiltration testing is recommended to ensure soil is capable of infiltrating the required stormwater volume. However, this testing may be required on a case by case basis by the Township or designated Engineer.
- A 2 foot clearance above the regularly occurring seasonal high water table and a minimum depth to bedrock of 2 feet below bottom of trench is recommended.
- The infiltration trench should be at least 50 feet from individual water supply wells, 100 feet from community or municipal water supply wells, and 50 feet from any septic system component. It should not be located near hotspots which are areas where land use or activities generate highly contaminated runoff, with concentrations of pollutants that are higher than those that are typically found in stormwater (e.g. vehicle salvage yards, recycling facilities, vehicle fueling stations, maintenance facilities, etc.).
- The infiltration trench should be located so that it presents no threat to sub-surface structures such as building foundations and basements.
- Protect infiltration areas from compaction by heavy equipment during and after construction.
- The ratio of the collected area to the footprint of the facility should be as small as possible with a ratio of less than 5:1 preferred.

### Maintenance

- Associated structures shall be inspected and cleaned at least 2 times per year.
- Regularly inspect to ensure proper infiltration.
- The vegetation along the surface of the Infiltration Trench should be maintained in good condition, and any bare spots revegetated as soon as possible.
- Vehicles should not be parked or driven on a vegetated Infiltration Trench, and care should be taken to avoid excessive compaction by mowers.

## Dry Wells

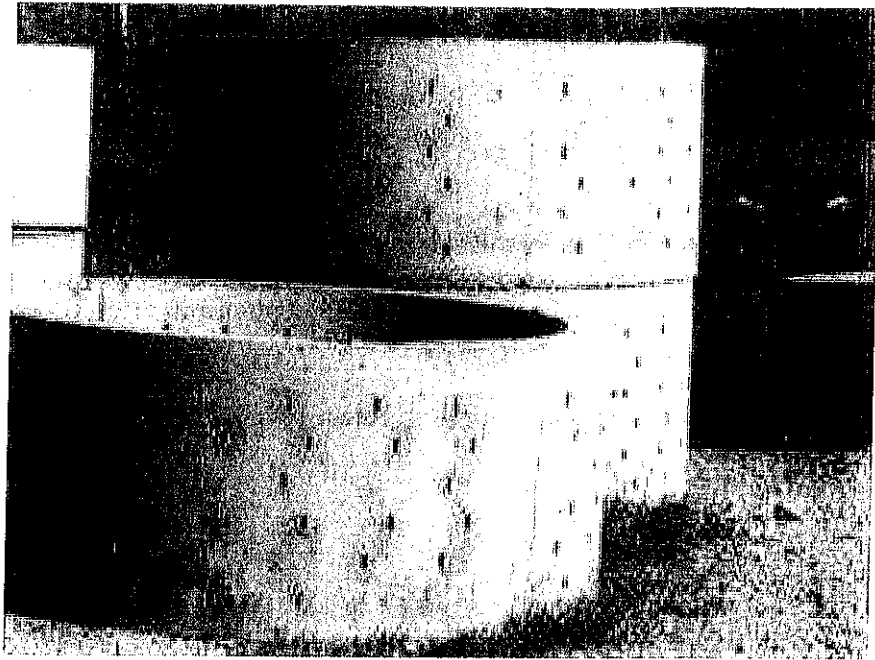
A dry well, also referred to as a seepage pit, is a subsurface storage facility that temporarily stores and infiltrates runoff from the roofs of buildings or other impervious surfaces. A dry well can be either a structural prefabricated chamber (Dry Well #1) or an excavated pit filled with stone fill (Dry Well #2). Dry Wells discharge the stored runoff via infiltration into the surrounding or underlying soils. Figure 4 shows a typical prefabricated dry well and a typical dry well configuration with stone fill. The following elements shall be incorporated into all dry well designs:

- These facilities should be located a minimum of ten (10) feet from the building foundation to avoid foundation seepage problems, and are not recommended if their installation would create a risk for basement flooding.
- Construction of a dry well should be performed after surface soils in all other areas of the site are stabilized to avoid clogging.
- During construction, compaction of the subgrade soil in the bottom of the dry well should be avoided and construction should be performed only with light machinery.
- For Dry Well #2 designs, the depth of dry well should be between **1.5 feet to 4 feet**. Gravel fill should consist of clean AASHTO #1 stone, with the gravel fill wrapped in a nonwoven geotextile that separates the stone fill from the surrounding soil.
- At least 1 foot of soil needs to be placed over the top of the dry well.
- Dry wells should be inspected at least four (4) times annually as well as after large storm events.
- Dry wells should have overflow pipes to allow high volumes of runoff to connect to other on-site substantial infiltration areas or pervious areas.
- Every dry well needs to have at least one monitoring well.
- Infiltration testing is recommended to ensure the underlying soil is capable of infiltrating the required stormwater volume. However, this testing may be required on a case by case basis by the Township or designated Engineer.

## Maintenance

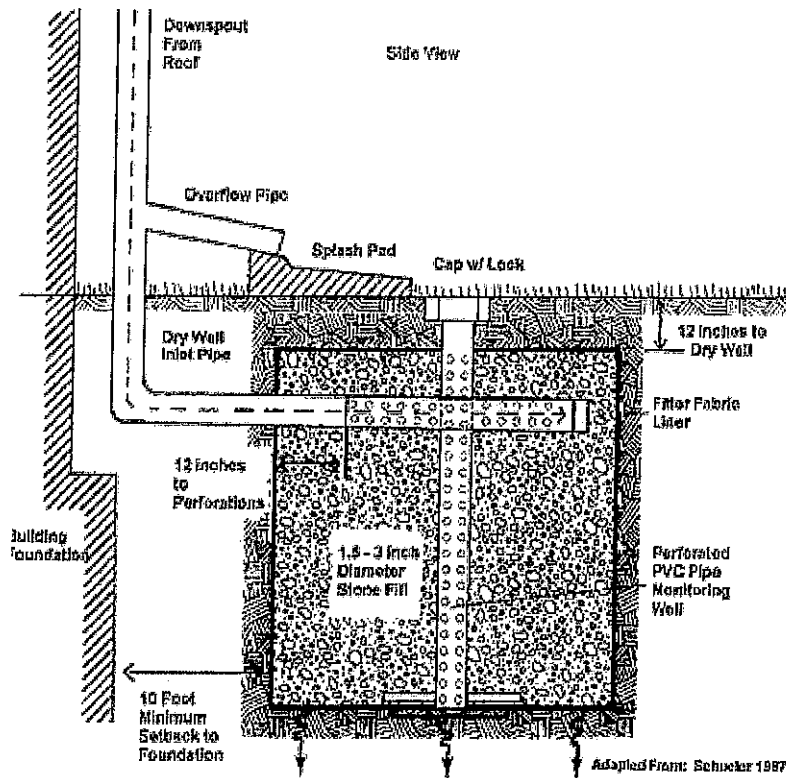
- Inspect Dry Wells at least four times a year, as well as after very storm exceeding 1 inch.
- Dispose of sediment, debris/trash, and any other waste material removed from a Dry Well at suitable disposal/recycling sites and in compliance with local, state, and federal waste regulations.
- Evaluate the 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 roof runoff as necessary.
- If an intermediate sump box exists, clean it out at least once per year.





**Dry Well #1**

Source (for photograph): <http://www.copelandconcreteinc.net/1800652.html>



**Dry Well #2**

Source (for photograph): <http://www.seagrant.sunysb.edu/cprocesses/pdfs/BMPsForMarinas.htm>

**Figure 4: Typical Dry Well Structural Prefabricated Chamber (Dry Well #1) and Typical Dry Well Configuration filled with Stone Fill (Dry Well #2)**

### Operation and Maintenance Agreement

Regardless of which storm water control BMPs the applicant chooses, an Operation and Maintenance Agreement will need to be signed, notarized, and submitted to Swatara Township.

Following approval and signature by Swatara Township, the Landowner must have the agreement recorded at the Lebanon County Office of the Recorder of Deeds, so that the agreement will be applicable to future Landowners, with a copy of the recorded agreement submitted to the Township.

See attached draft Operation and Maintenance Agreement (O&M Agreement) included as Appendix C.

**APPENDIX - C**

---

**STORMWATER MANAGEMENT O&M AGREEMENT**

**STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (SWM BMPs)  
OPERATION AND MAINTENANCE (O&M) AGREEMENT**

**THIS AGREEMENT**, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, (hereinafter the "Landowner"), and the subject municipality, Swatara Township; Lebanon County, Pennsylvania, (hereinafter "Township");

**WITNESSETH**

**WHEREAS**, the Landowner is the owner of certain real property more particularly described by deed dated \_\_\_\_\_ and recorded in the Office of the Recorder of Deeds in and for Lebanon County, Pennsylvania in Deed Book \_\_\_\_\_ at Page \_\_\_\_\_, and which has a property address of: \_\_\_\_\_ (hereinafter "Property"); and

**WHEREAS**, the Landowner is proceeding to build and develop the Property; and

**WHEREAS**, the Stormwater Management (SWM) Site Plan (hereinafter "Plan") for \_\_\_\_\_, which is expressly made a part hereof, as approved or to be approved by the Township, provides for management of stormwater within the confines of the Property; and

**WHEREAS**, the Stormwater Control BMPs Operation, Maintenance, and Inspection Plan (hereinafter referred to as the "O&M Plan") approved by the Township for the property identified herein, which is attached hereto and made part hereof, provides for management of stormwater within the confines of the Property through the use of BMPs; and

**WHEREAS**, the Township and the Landowner, his successors and assigns, agree that the health, safety, and welfare of the residents of the Township and the protection and maintenance of water quality require that onsite SWM Best Management Practices (BMPs) be constructed and maintained on the Property; and

**WHEREAS**, the Township requires that stormwater management facilities as shown on the Plan be constructed and adequately maintained by the Landowner, his successors and assigns; and

**WHEREAS**, the Township requires, through the implementation of the SWM Site Plan, that SWM BMPs as required by said Plan be constructed and adequately operated and maintained by the Landowner, his successors and/or assigns, in accordance with the O&M Plan which is attached hereto and made a part hereof.

**NOW, THEREFORE**, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The stormwater management BMPs shall be constructed by the Landowner, his successors and assigns, in accordance with the terms, conditions and specifications identified in the SWM Site Plan.

2. The Landowner, his successors and assigns, shall operate and maintain the stormwater management BMPs as shown on the SWM Site Plan in good working condition in accordance with the specific operation and maintenance requirements noted in the approved O&M Plan.
3. The Landowner, his successors and assigns, hereby grants permission to the Township and the Township Engineer, his authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the SWM BMPs whenever deemed necessary. Whenever possible, the Township or designated Engineer shall notify the Landowner prior to entering the Property. The purpose of the inspection is to assure safe and proper functioning of the SWM BMPs. The inspection shall cover the entire facilities, pipes, berms, outlet structures, pond areas, access roads, etc. When inspections are conducted, the Township or designated Engineer shall give the Landowner, his successors and assigns, copies of the inspection report with findings and evaluations. At a minimum, this agreement grants the Township or designated Engineer the right to perform inspections in accordance with the following schedule:
  - Annually for the first five (5) years after construction of the stormwater facilities,
  - Once every three (3) years thereafter, or
  - During or immediately upon the cessation of a 10-year or greater precipitation event.
4. All reasonable costs for said inspections shall be borne by the Landowner and payable to the inspecting agency.
5. The owner shall convey to the Township easements and/or rights-of-way to assure access for periodic inspections by the Township and maintenance, if required.
6. In the event the Landowner, his successors and assigns, fails to maintain the SWM BMPs in good working condition acceptable to the Township, or its representatives, may enter upon the Property and take such necessary and prudent action to maintain said SWM BMPs and to charge the costs of the maintenance and/or repairs to the Landowner, his successors and assigns. This provision shall not be construed as to allow the Township to erect any structure of a permanent nature on the land of the Landowner, outside of any easement belonging to the Township. It is expressly understood and agreed that the Township is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Township.
7. The Landowner, his successors and assigns, will perform maintenance in accordance with the maintenance schedule for the SWM BMPs including sediment removal as outlined in the approved schedule and/or SWM Site Plan.
8. In the event the Township, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like on account of the Landowner's or his successor's and assigns' failure to perform such work, the Landowner, his successors and assigns, shall reimburse the

Township upon demand, within 10 days of receipt of invoice thereof, for all costs incurred by the Township hereunder. If not paid within said ten-day period, the Township may enter a lien against the Property in the amount of such costs, or may proceed to recover his costs through proceedings in equity or at law as authorized under the applicable provision of the Pennsylvania Municipal Code.

9. The Landowner, his successors and assigns, shall indemnify the Township and its agents and employees against any and all damages, accidents, casualties, occurrences or claims, which might arise or be asserted against the Township for the construction, presence, existence or maintenance of the stormwater management facilities by the Landowner, his successors and assigns.
10. In the event a claim is asserted against the Township, its agents or employees, the Township shall promptly notify the Landowner, his successors and assigns, and they shall defend, at their own expense, any suit based on such claim. If any judgement or claims against the Township, its agents or employees shall be allowed, the Landowner, his successors and assigns shall pay all costs and expenses in connection therewith.
11. In the advent of an emergency or the occurrence of special or unusual circumstances or situations, the Township may enter the Property, if the Landowner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is in jeopardy. However, the Township shall notify the landowner of any inspection, maintenance, or repair undertaken within five days of the activity. The Landowner shall reimburse the agency undertaking the inspections, maintenance or repairs for any associated costs.
12. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMPs by the Landowner; provided, however, that this Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
13. The Landowner, its executors, administrators, assigns, and other successors in interests, shall release the Township from all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMPs by the Landowner, or Township.

This Agreement shall be recorded in the Office of the Recorder of Deeds of Lebanon County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs, and any other successors in interests, in perpetuity.

ATTEST:

WITNESS the following signature and seals:

(SEAL)

For Swatara Township:

\_\_\_\_\_

ON THIS, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ before me, the undersigned officer, personally appeared \_\_\_\_\_ of \_\_\_\_\_, and that he/she as such officer being authorized to do so, executed the foregoing instrument for the purposes herein contained by the signing the name of himself/herself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

MY COMMISSION EXPIRES:

\_\_\_\_\_  
Notary Public

(SEAL)

\_\_\_\_\_

For Landowners:

(SEAL)

\_\_\_\_\_

\_\_\_\_\_

ON THIS, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ before me, the undersigned land owners, personally appeared \_\_\_\_\_ and \_\_\_\_\_, and that he/she/they as such property owners being authorized to do so, executed the foregoing instrument for the purposes herein contained by the signing the name of himself/herself as such officer.

IN WITNESS WHEREOF, I hereunto set my and official seal.

MY COMMISSION EXPIRES:

\_\_\_\_\_  
Notary Public

(SEAL)

\_\_\_\_\_

