

SIMPLIFIED APPROACH – STORMWATER MANAGEMENT FOR SMALL PROJECTS

Applicability:

1. Small projects with 2,000 Square Feet or less of Proposed Impervious Surfaces (as defined by the Honey Brook Township Stormwater Ordinance) and with 10,000 SF or less of proposed Earth Disturbance (as defined by the Honey Brook Township Stormwater Ordinance) may apply the “Simplified Approach to Stormwater Management for Small Projects”
2. Any project exceeding 2,000 Square Feet of Proposed Impervious Surface or 10,000 Square Feet of Earth Disturbance can NOT apply this simplified approach and must submit a formal Stormwater Management Plan in accordance with the provisions of the Township Stormwater Ordinance.
3. The applicant should first review the planned project with the Township Engineer prior to initiating the Simplified Approach to confirm the following:
 - a. The project is not otherwise exempt from the stormwater management control and the engineered Stormwater Management Site Plan requirements of the Township’s Stormwater Management Ordinance;
 - b. That the proposed project is eligible to use this Simplified Approach;
 - c. To determine which components of the proposed project must be included in the calculation of “impervious surfaces (areas)”;
 - d. Whether any local conditions are known to the Township Engineer that would preclude the use of any of the techniques included in this Simplified Approach.

Submittal and Approval Requirements:

Use of the Simplified Approach requires:

1. The applicant to submit to the Township, for review and approval prior to beginning construction:
 - a. A Simplified Stormwater Management Site Plan (sketch), accompanying worksheet and design detail
 - b. A completed, signed and notarized “Simplified Approach – Stormwater Best Management Practices Operation, Maintenance and Inspection Plan and Agreement” that will be recorded by the Township
2. The first 1-inch of rainfall from Proposed Impervious Surfaces (as defined by the Township’s Ordinance) must be captured and removed on the applicant’s property.
3. Inspections of the stormwater facility, as determined by the Township Engineer, will be conducted by the Township during construction and upon completion of construction.

Simplified SWM Site Plan Requirements:

1. Name and address of property owner and individual preparing the plan (if other than property owner), along with date of submission.
2. Location of all existing structures including buildings, driveways and roads within 50 feet of the project site. Indicate direction that property is sloped (ie show arrow from highest point to lowest point of the property).
3. Location of all proposed structures, driveways, or other impervious areas (including stone) with approximate size in square feet.
4. Location, and distance, of any existing surface water features, such as streams, lakes, ponds, wetlands or other natural waterbodies, within fifty (50) feet of the project site and/or stormwater facilities (Best Management Practices - BMPs). The Township may require proposed buildings and stormwater facilities to be setback a specified distance from the above-mentioned features, as required by the Zoning Ordinance.
5. Location, orientation, and dimensions of all proposed stormwater facilities (BMPs). For all infiltration trenches, the length, width and depth must be included on the plan and construction detail and the trench shall be a minimum of 25’ feet from all buildings and features with subgrade elements (eg basements, foundation walls, etc) unless otherwise approved by the Municipal Engineer. For rain barrels or cisterns, the volume must be included.
6. Location of any existing or proposed on-lot septic system and potable water wells showing approximate distance to proposed improvements and stormwater facilities.

Definitions:

Impervious Surface - A surface that has been compacted or covered with a layer of material so that it prevents or is resistant to infiltration of water, including but not limited to: structures such as roofs, buildings, storage sheds; other solid, paved or concrete areas such as streets, driveways, sidewalks, parking lots, patios, tennis or other paved courts; or athletic playfields comprised of synthetic turf materials. For the purposes of determining compliance with this Ordinance, compacted soils or stone surfaces used for vehicle parking and movement shall be considered impervious.

Earth Disturbance – A construction or other human activity which disturbs the surface of the land, including, but not limited to, clearing and grubbing; grading; excavations; embankments; road maintenance; land development; building construction; and the moving, depositing, stockpiling or storing of soil, rock, or earth materials.

**HONEY BROOK TOWNSHIP
SIMPLIFIED METHOD FOR SMALL PROJECTS
STORMWATER MANAGEMENT (SWM) APPLICATION**

Application is hereby made for review of a Simplified Stormwater Management Plan and related data as submitted herewith in accordance with Honey Brook Township's Stormwater Management Ordinance. This applies to small projects with less than 2,000 SF of Proposed Impervious Surface and less than 10,000 SF of proposed Earth Disturbance, as defined by the Township's Stormwater Management Ordinance. Any project with proposed impervious surface or earth disturbance exceeding the above quantities cannot apply this approach.

1. Date Of Submission: _____

2. Name of Property Owner(s): _____
Address: _____ Phone No.: _____
Tax Parcel No.: _____ Email: _____

Contractor Name: _____
Address: _____ Phone No.: _____
Email: _____

3. Name of Applicant (if other than owner): _____
Address: _____
Phone No.: _____ Email: _____

4. Proposed Improvements – Type/Size: _____
*Include Site Plan showing existing/proposed improvements & stormwater facilities

5. Area of Proposed and Existing Impervious Area On Entire Tract:
Existing (To Remain): _____ Existing (To Be Removed): _____
Proposed: _____

6. Stormwater Design
*Attached completed stormwater worksheet and applicable construction details
Type/Size of Facility Proposed: _____

7. Wetlands / Waterbodies
 - B. Do wetlands exist on or adjacent to the property? Yes (See Below) No (Continue to 7.B)
 - a. If yes, are wetlands being disturbed by this project? Yes No
 - b. If yes, distance from wetlands to proposed disturbance _____

 - C. Do any perennial or intermittent watercourses exist on the property?
 Yes (See below) No (Continue to 8)
 - a. Are any crossings necessary? Yes No
 - b. Distance from watercourse to proposed disturbance _____ (Feet)

8. Is the required \$750 escrow attached? Yes No

The undersigned hereby represents that, to the best of his knowledge and belief, all information listed above is true, correct, and complete.

_____, 20_____
Signature of Landowner or Applicant Date

FOR TOWNSHIP USE ONLY

Date Complete Application Received: _____ TEI project # _____

Fee required: \$750.00 Date Fees Paid: _____ Received by: _____

**HONEY BROOK TOWNSHIP
SIMPLIFIED METHOD FOR SMALL PROJECTS
STORMWATER MANAGEMENT WORKSHEET**

1. Determine the total area of all proposed impervious surface (contact Township Engineer if proposed impervious cover drains to different areas of the property – for example, driveway expansion drains to the front and the proposed house addition drains to the rear). Include proposed buildings, expanded parking areas/driveways, patios, etc. For total earth disturbance, include proposed impervious area plus the area around proposed improvements that will be disturbed in order to access/construct improvements.

Improvement	Dimensions	Total Impervious Cover (SF)
Example: Detached Garage	30' x 40'	1200 Square Feet
Total Proposed Impervious Surface		
Total Proposed Earth Disturbance Area		

2. Determine total stormwater volume required to handle 1" of runoff from all proposed impervious surfaces.

Total Proposed Impervious Surface (in square feet) / 12 = Cubic Feet of Runoff Volume

_____ / 12 = _____ CF Runoff Volume

3. Determine dimensions of proposed stormwater facility.
- a. Option 1: Underground Stone Infiltration Trench (assuming 40% stone void ratio)
 - i. Determine Required Trench Volume (in Cubic Feet) = Runoff Volume / 0.4
 _____ / 0.4 = _____ cubic feet of Trench Volume
 - ii. Trench volume is the minimum volume required for the facility. Assuming a 2' depth, determine the area of the facility (length x width); Area = Trench Volume / 2
 _____ (Trench Volume, in CF) / 2 = _____ Square Feet
 - iii. Determine dimensions of facility (For example, Area = 200 SF, Dimensions = 20' Long x 10' Wide, or 40' long by 5' wide)
 Proposed Bed Dimensions: _____ ft Long x _____ ft Wide x _____ ft Deep
 - b. Option 2: Up to 50% of the required volume can be provided in a rain barrel or cistern;
 - i. Size Stone Infiltration Trench per above calculation, utilizing 50% of the proposed Impervious Surface;
 - ii. Determine Rain Barrel/Cistern Size (cubic feet)= $\frac{0.5 * \text{Total Impervious Surface}}{9}$
 (0.5 * _____) / 9 = _____ Cubic Feet Rain Barrel/Cistern
 - iii. Determine Rain Barrel/Cistern Size (in gallons) = Volume (in CF) * 7.48
 _____ CF Rain Barrel/Cistern * 7.48 = _____ Gallon Cistern/Rain Barrel
 - iv. Provide construction detail/specification sheet for rain barrel/cistern; Detail must show
 1. Overflow pipe at top of cistern discharging to a splash block/stone area
 2. Overflow point must be minimum 50' from downslope property line and drain to grassed area that drains away from building.

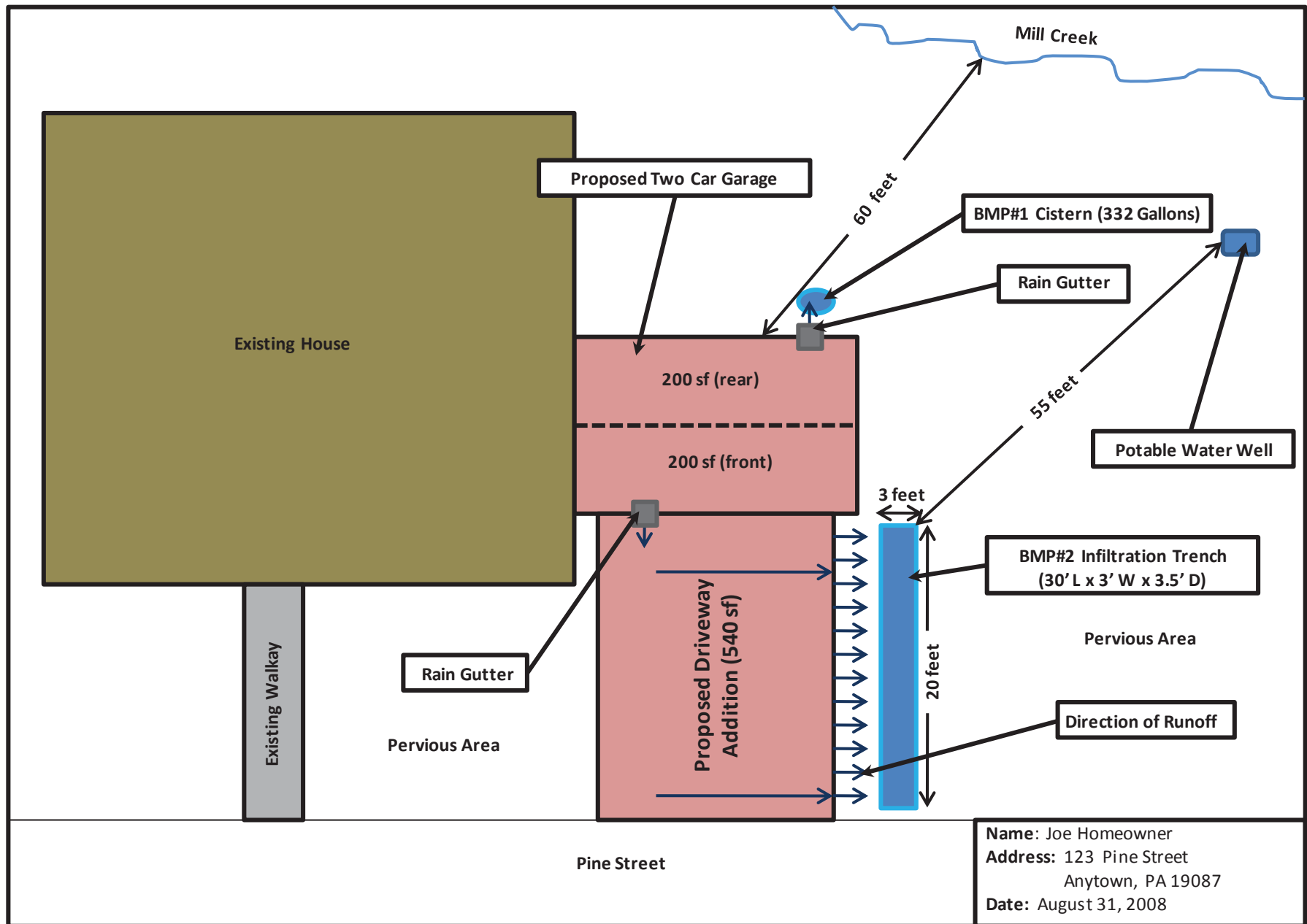
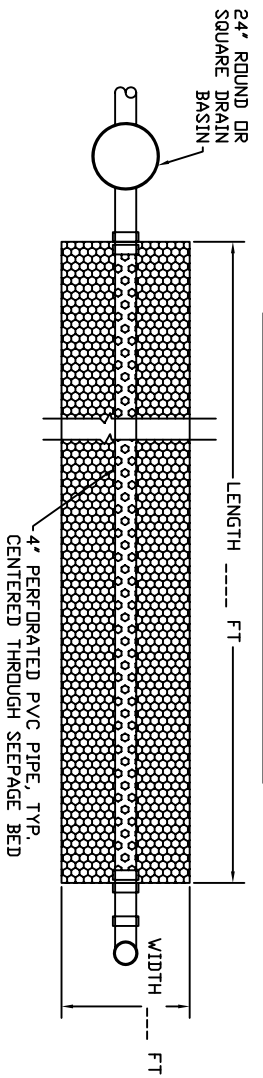


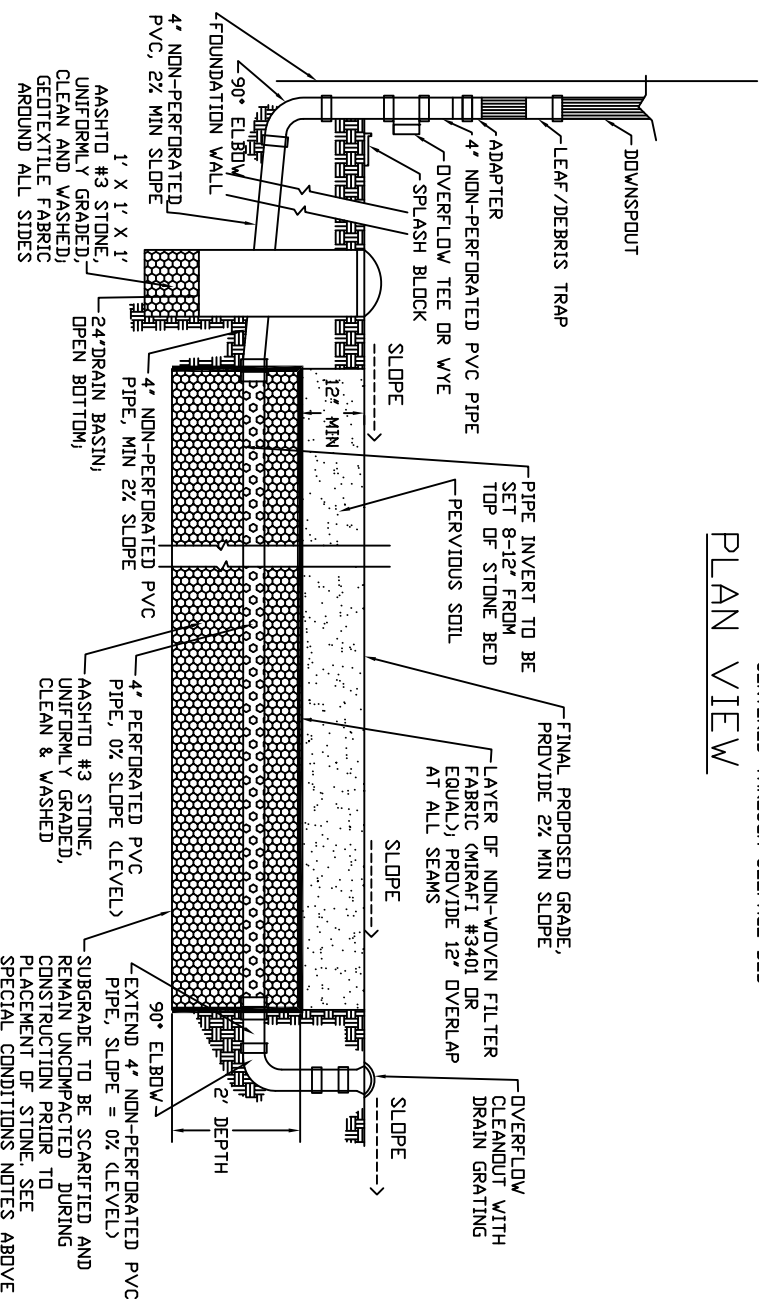
Figure 6: Example of Simplified Stormwater Management Site Plan for Joe Homeowner

SIMPLIFIED APPROACH TO STORMWATER MANAGEMENT

SIMPLIFIED APPROACH STONE INFILTRATION TRENCH CONSTRUCTION DETAIL



PLAN VIEW



CROSS SECTION

GENERAL NOTES:

1. STONE INFILTRATION BED SHALL BE SIZED PER PROPOSED IMPERVIOUS SURFACE DRAINING TO IT. STONE SHALL BE AASHTO #3 UNIFORMLY GRADED, CLEAN AND WASHED, WITH 40% VOID RATIO.
2. LEAF SCREENS SHALL BE INSTALLED OVER GUTTERS OR LEAF DEFLECTOR GUARDS INSTALLED IN THE DOWNSPOUT, OR OTHER APPROVED LEAF PROTECTION DEVICE.
3. PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF STORMWATER FACILITIES IN ACCORDANCE WITH THE HONEY BROOK TOWNSHIP STORMWATER ORDINANCE, CHAPTER 20, AND THE RECORDED OPERATIONS & MAINTENANCE AGREEMENT.

CONSTRUCTION NOTES:

1. INSTALLATION OF STONE INFILTRATION TRENCH SHALL BE INSPECTED BY THE TOWNSHIP ENGINEER OR DESIGNATED REPRESENTATIVE, WITH A MINIMUM 24 HOURS NOTICE.
2. REQUIRED INSPECTIONS INCLUDE EXCAVATION - PRIOR TO PLACEMENT OF STONE; STONE/PIPING PRIOR TO TOP LAYER OF FABRIC; AND FINAL GRADING AND SEEDING. ADDITIONAL INSPECTIONS MAY BE NECESSARY AS DETERMINED BY TOWNSHIP ENGINEER.
3. PRIOR TO PLACEMENT OF STONE IN THE INFILTRATION TRENCH, THE CONTRACTOR OR PROPERTY OWNER SHALL MAKE A TEST PIT 2 FEET BELOW THE BOTTOM OF INFILTRATION TRENCH TO ENSURE THAT BEDROCK AND/OR GROUNDWATER ARE NOT PRESENT IN THIS ZONE. IF GROUNDWATER/BEDROCK IS ENCOUNTERED, IMMEDIATELY CONTACT THE TOWNSHIP ENGINEER TO DISCUSS REDESIGN AND RELOCATION OF THE INFILTRATION TRENCH.
4. EXCAVATION FOR THE INFILTRATION TRENCH SHALL BE PERFORMED WITH EQUIPMENT THAT WILL NOT COMPACT THE BOTTOM OF THE BED AREA.
5. INFILTRATION TRENCHES SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL HAS ENTERED THE INFILTRATION TRENCH, THEN APPROPRIATE MEASURES (IE CLEANING OF SOIL FROM FABRIC/STONE ETC. AND REPLACEMENT OF FABRIC/STONE) SHALL BE ADDRESSED.
6. AFTER INFILTRATION TRENCH IS INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE TRENCH AREA TO ELIMINATE IMPACTS THAT MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPRISE THE FUNCTIONALITY OF THE INFILTRATION TRENCH, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.

TRENCH DIMENSIONS:

FINAL TRENCH DIMENSIONS MAY VARY ACCORDING TO SITE CONDITIONS BUT FINAL DIMENSIONS MUST PROVIDE THE REQUIRED TRENCH VOLUME (LENGTH * WIDTH * DEPTH) AND BE APPROVED BY THE TOWNSHIP.