

STORMWATER MANAGEMENT

17 Attachment 1

Borough of Elizabethtown

APPENDIX A

STORMWATER MANAGEMENT AND BMP PLAN APPLICATIONS

[Ord. 954, 12/19/2013]

STORMWATER MANAGEMENT

APPENDIX A-1
STORMWATER MANAGEMENT EXEMPTION APPLICATION

BOROUGH FILE NO. _____
DATE OF RECEIPT/FILING _____
(FOR BOROUGH USE ONLY)
PROPERTY NO.: 160_____

The undersigned hereby applies for an exemption under the Elizabethtown Borough Code, Chapter 17, Stormwater Management, for the proposed improvement(s) outlined in the application submitted herewith and described below:

1. Name of Property Owner(s): _____
2. Address: _____
3. Phone No.: Home: _____ Cell: _____
4. E-mail Address: _____
5. Application Date: _____
6. Total Property Acreage: _____
7. Description of Proposed Improvements: _____

8. Total Impervious Added (maximum 1,000 square feet) since December 19, 2013: ____

The undersigned hereby represents that, to the best of his/her knowledge and belief, all information listed above and on the land disturbance plan herewith submitted is true, correct, and complete. No part of the proposed construction is located within an existing easement or wetland area.

Signature of Applicant

Date

Attach Sketch of Project Site and Proposed Improvements to the application. Refer to Appendix A-5 for information to be included in site sketch.

STORMWATER MANAGEMENT

APPENDIX A-2
STORMWATER MANAGEMENT SMALL PROJECT PLAN/APPLICATION

Borough of Elizabethtown, Lancaster County, Pennsylvania

This application pertains to projects that qualify as a Small Project [between 1,001 and 2,000 square feet of impervious area (cumulative)]. If a formal Stormwater Management Plan is required in accordance with the Elizabethtown Borough Code of Ordinances, Chapter 17, Stormwater Management, **please consult a qualified person (ex., Engineer, Surveyor, Landscape Architect).**

Property Owner's Name _____
Address of Property _____
Parcel ID <u>160</u> -_____
Phone Number: Home: _____ Cell: _____
E-mail Address: _____
1,000 SF Exemption Used since December 19, 2013: ____ No ____ Yes: how much: _____
New Impervious Area Associated with this Project: _____
Lot Size (Sq. Ft.): _____
Existing Impervious Coverage (Sq. Ft.): _____
Total New Impervious Area since Adoption of SWM Ordinance _____
<p>Acknowledgement – I declare that I am the property owner, or representative of the owner, and that the information provided is accurate to the best of my knowledge. I understand that stormwater may not adversely affect adjacent properties or be directed onto another property without written permission. I also declare that the proposed construction is not within an existing easement or wetland area. I also understand that false information may result in a stop-work order or revocation of permits. Borough representatives are also granted reasonable access to the property for review and/or inspection of this project if necessary.</p>
Signature _____ Date _____

ELIZABETHTOWN CODE

Small Project Plan – Regulated activities on existing lots of record that, measured on a cumulative basis from December 19, 2013, create additional impervious areas of 1,001 sq. ft. to 2,000 sq. ft. or involve an Earth Disturbance Activity such as removal of ground cover, grading, filling or excavation of an area less than 5,000 sq. ft. and do not involve the alteration of SWM Facilities or watercourses.

- Small projects are not required to provide for Rate Control.
- Small projects are required to address at least the first one inch of runoff from new impervious surfaces or an equivalent volume shall be permanently removed from the runoff flow – i.e., it shall not be released into the surface Waters of this Commonwealth. Removal options include reuse, evaporation, transpiration and infiltration.

Disconnected Impervious Area (DIA) – An impervious or impermeable surface that is disconnected from any stormwater drainage or conveyance system and is redirected or directed to a pervious area, which allows for infiltration, filtration and increased time of concentration.

Step 1: Determine the amount of new impervious surface area created by the proposed project. This includes any new impervious surface area that prevents or decreases infiltration of stormwater into the ground. New stone and gravel areas are considered impervious. Impervious surface areas existing before December 19, 2013, are not included in this calculation. Use additional sheets if necessary.

Calculate new impervious area by completing this table.

Surface	Length (ft.)	X	Width (ft.)	=	Impervious area (ft ²)
Buildings		x		=	
Driveway		x		=	
Parking Areas		x		=	
Other		x		=	
Existing Impervious Area to be Removed (if applicable)					
Surface	Length (ft.)	x	Width (ft.)	=	Impervious area (ft ²)
		x		=	
Total Proposed Impervious Surface Area (Sum of all new impervious areas — all existing impervious area to be removed)					

- If the total new impervious surface area is between 0 and 1,000 SF and the Applicant has previously used any available exemptions or is deferring any available exemption use to a future project or the area is between 1,001 and 2,000 ft² and the Applicant has not previously used any available exemption as part of this permit application, the project is eligible to qualify as a Small Project. Continue to Step 2.

STORMWATER MANAGEMENT

- If total new impervious surface area is **greater than 2,000 ft²**, then a Stormwater Management Plan shall be submitted in accordance with the Elizabethtown Borough Code of Ordinances, Chapter 17, Stormwater Management.

Step 2: Determine Disconnected Impervious Area (DIA).

All or parts of new impervious surfaces may qualify as Disconnected Impervious Area if runoff is directed to a pervious area (grass) that allows for infiltration, filtration and increased time of concentration. The volume of stormwater that needs to be managed could be reduced through use of DIAs.

Rooftop Disconnection Criteria

- Overland flow path from the discharge area or impervious area has a positive slope of 5% or less.
- Runoff is not directed towards dwellings or other occupied structures.
- Soils are not classified as hydrologic soil group "D"
- The receiving pervious area shall not include another person's property unless written permission has been obtained and a copy is provided to the Borough from the affected property owner.

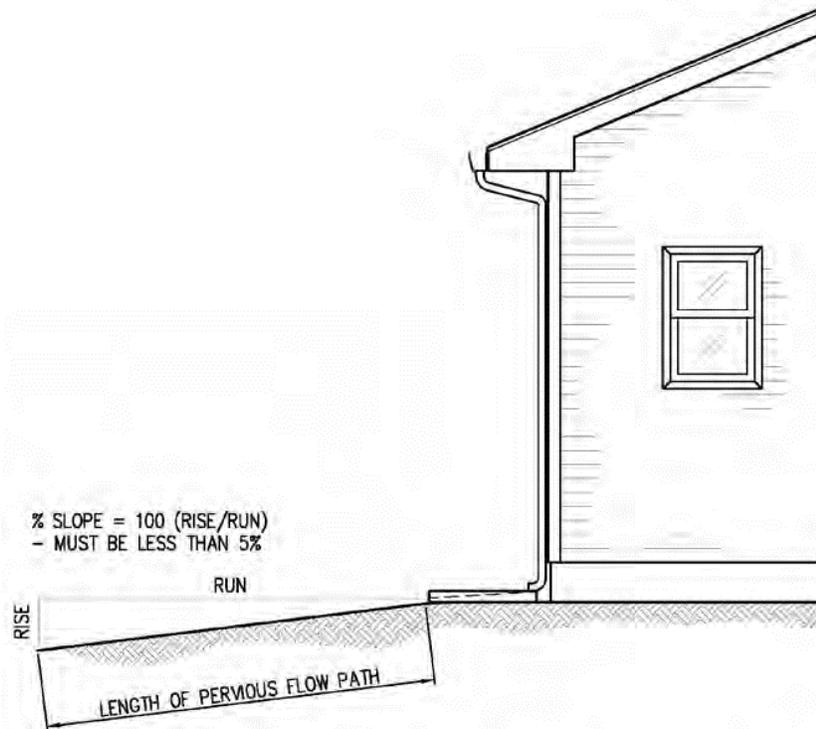
Partial Rooftop Disconnection	
Length of Pervious Flow Path (ft.)	DIA Credit Factor
75 or more	0
60 – 74	0.2
45 – 59	0.4
30 – 44	0.6
15 – 29	0.8
0 – 14	1.0

Pervious flow path must be at least 15 feet from any impervious surface

Paved Disconnection

Criteria: Other impervious surface (driveways, walkways, porches, decks with porous ground surface, etc., to be confirmed by Borough Engineer or Zoning Officer) and gravel can be considered disconnected if it meets the criteria above, and:

- Runoff does not flow over impervious area for more than 75 feet.
- The length of overland flow is greater than or equal to the contributing flow path.



Disconnected Impervious Area - Rooftop Disconnection

NOT TO SCALE

ELIZABETHTOWN CODE

- The slope of the contributing impervious areas is 5% or less.
- If discharge is concentrated at one or more discrete points, no more than 1,000 ft² may discharge to any one point. Nonconcentrated discharges along the entire edge of paved surface must include provisions for the establishment of vegetation along the paved edge and temporary stabilization of the area until the vegetation is established.
- If these criteria can be met, the DIA credit = 0.

Using the calculations from Step 1, complete the table below. This will determine the impervious area that may be excluded from the area that needs to be managed through stormwater BMPs. If the total impervious area to be managed = 0, the area can be considered entirely disconnected.

Surface	Proposed Impervious Area	x	DIA Credit	=	Impervious Area (ft ²) to be Managed
Buildings (area to each downspout)		x		=	
Driveway		x		=	
Parking Areas		x		=	
Patios/Walkways		x		=	
Other		x		=	
Total Proposed Impervious Surface Area to be managed					

- If the total new impervious surface area can be entirely disconnected, sign Acknowledgement and file the application with the Borough for review and approval.
- If the total new impervious surface area cannot be entirely disconnected, continue to Step 3.

Step 3: Calculate the volume of stormwater runoff created by new impervious surfaces. Use the following chart to determine this volume.

Impervious Area (ft ²) to be Managed (Sum of Step 2)	X	1.0 in/12 in = 0.083	=	Amount of Stormwater to be Managed (ft ³)
	X	0.083	=	

Step 4: Determine the techniques to be used to manage the stormwater volume calculated in Step 3. Use the following information to determine the BMPs to be used to manage the proposed stormwater volume.

Where permitted by the Borough of Elizabethtown, planting of new trees may be used to manage a portion of the proposed stormwater volume. First, calculate the cubic feet of stormwater that can be managed by planting new trees. If the criteria below can be met,

STORMWATER MANAGEMENT

planting of new trees can be used to manage a portion of the proposed stormwater volume:

Deciduous Trees = 6 ft³ per tree

Evergreen Trees = 10 ft³ per tree

Criteria:

- Trees must be PA native species (See PA Stormwater BMP Manual for a list).
- Trees shall be a minimum one inch caliper tree (min).
- Trees shall be adequately protected during construction.
- **No more than 25% of the required capture volume can be mitigated through the use of trees.**
- Dead trees shall be replaced by the property owner within 12 months.
- Please consider the specifications for each tree species when determining location and spacing.

Amount of Stormwater to be Managed (ft²) (Sum of Step 3)	-	Tree Planting Credit (ft³)	=	Amount of Stormwater to be Managed (ft³)
	-		=	

Second, subtract the stormwater volume that can be managed by tree planting from the overall stormwater volume calculated in Step 3. The remaining cubic feet of stormwater must be managed through the installation of properly sized Stormwater BMPs. Select BMPs and size according to the volume of stormwater that needs to be managed.

Alternatively, Stormwater BMPs may be sized using the following Simple BMP Sizing table.

BMP Type		Simple BMP Sizing – Amount New Impervious Area to be Managed (ft ²)											
		250	500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000
Bioretention	Ex., Rain garden, Vegetated swale	21	42	62	83	125	166	208	249	291	332	374	415
		ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³
		or	or	or	or	or	or	or	or	or	or	or	or
Infiltration	Ex., Dry well, Infiltration trench	53	105	155	208	313	415	520	623	728	830	935	1,038
		ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³	ft ³

(Source: Lycoming County Planning Department)

The Simple BMP Sizing table is used as follows: After subtracting the stormwater volume that can be managed through the planting of new trees (if desired), match the remaining stormwater volume to the “Amount of New Impervious Area to be Managed” in white boxes in the table (rounding up to the next value if the number is between two values). Then look in the light grey box to determine the required size of the type of Stormwater BMP (bioretention or infiltration) being considered. For example, 1,000 square feet of new impervious surface area could be accommodated by a 167 cubic foot bioretention system.

ELIZABETHTOWN CODE

Infiltration Trench/Bed Criteria

- Stone bed shall not be located within 10 feet of any On-lot Sewage Disposal Systems.
- Stone used in the infiltration trenches shall be “clean” stone, i.e., #67, #57, #5 or clean 2B stone for the smaller facilities, and #1 or #3 ballast or R-3 for larger deeper facilities. Copies of the receipt(s) shall be provided to the Borough for their records. **NO MODIFIED STONE MIXES SHALL BE UTILIZED FOR INFILTRATION.**
- The standard void ratio for stone is 0.40 (40% storage for each CF) if calculating by hand or follow the BMP sizing table above.
- It is recommended that the property owner verify that the ground will infiltrate water; this can be accomplished by excavating the trench or pit and placing a large amount of water into the pit to see how long it takes to infiltrate.

Once the sizing of necessary Stormwater BMPs has been determined, prepare the required information and submit to the Borough for review and approval. Bring the worksheets, BMP information (size, location, etc.), Owner Acknowledgement and BMP Facilities and Maintenance Agreement to the Borough.

If an area greater than 5,000 square feet of earth is disturbed, the project qualifies as a minor stormwater management plan and shall be prepared as outlined in the Borough Code of Ordinances, Chapter 17, Stormwater Management.

STORMWATER MANAGEMENT

OWNER ACKNOWLEDGMENT

- Development activities shall begin only after Borough of Elizabethtown approves the Small Project.
- The installed Stormwater BMPs will not adversely affect any property, septic systems or drinking water wells on this or any other property.
- The landowner shall keep on file with the Borough the name, address and telephone number of the person or company responsible for maintenance activities; in the event of a change, new information shall be submitted to the Borough within 10 days of the change.
- If, after approval of the Small Project by the Borough, the Applicant wishes to pursue alternative stormwater management measures in support of the project, the Applicant will submit revised Small Project information and worksheets to Borough of Elizabethtown for approval. If a site requires a more complex system or if problems arise, the Applicant may need the assistance of a licensed Professional Engineer, Landscape Architect or Surveyor.
- The Applicant acknowledges that the proposed Disconnected Impervious Area and/or Stormwater BMPs will be a permanent fixture of the property that cannot be altered or removed without approval by Borough of Elizabethtown.

I (we) _____, hereby acknowledge the above statements and agree to assume full responsibility for the implementation, construction, operation, and maintenance of the proposed Stormwater Management Facilities. Furthermore, I (we) also acknowledge that the steps, assumptions and guidelines provided in this submission, including, but not limited to: Borough of Elizabethtown Stormwater Worksheet, and the Stormwater Management/BMP Facilities and Maintenance Agreement, will be adhered to.

Applicant Acknowledgement of Submission

Signature: _____ Date: _____

Borough of Elizabethtown Acknowledgement of Receipt

Signature: _____ Date: _____

ELIZABETHTOWN CODE

Prepared By: _____

Return To: Same
Parcel ID # _____

**SMALL PROJECT STORMWATER MANAGEMENT AGREEMENT
AND DECLARATION OF EASEMENT**

THIS AGREEMENT AND DECLARATION OF EASEMENT made this ____ day of _____, 20____, by and between, _____ with a mailing address at _____ (hereinafter whether singular or plural referred to as the “Grantor”), and **ELIZABETH-TOWN BOROUGH**, Lancaster County, Pennsylvania, a municipal corporation duly organized under the laws of the Commonwealth of Pennsylvania, with its municipal office located at 600 South Hanover Street, Elizabethtown, Pennsylvania (hereinafter referred to as the “Borough”).

BACKGROUND

Grantor is the owner of premises located _____, in the Borough of Elizabethtown, Lancaster County, Pennsylvania, as more specifically described in a deed recorded in Deed or Record Book _____, Volume _____, Page _____, or at Document No. _____ in the Office of the Recorder of Deeds in and for Lancaster County, Pennsylvania, and as shown on the Small Project Application (hereinafter referred to as the “Premises”).

Prior to beginning construction on any subdivision or land development or Regulated Activity, Grantor is required, under the Elizabethtown Borough Code of Ordinances, Chapter 22, Subdivision and Land Development, and Chapter 17, Stormwater Management (collectively referred to as the “Ordinance”), to file an Application with Elizabethtown Borough. Pursuant to the Ordinance, Grantor must include stormwater management data in its subdivision and/or land development application. The Ordinance requires that Grantor’s plan reflect and/or be accompanied with supporting documentation which identifies the ownership of, and the method of administering and maintaining, all permanent stormwater management facilities. Drainage courses, swales, grassed waterways, stormwater inlets, pipes, conduits, detention basins, retention basins, infiltration structures and other stormwater management facilities, including Best Management Practices facilities (“BMPs”), shall be included under the term “stormwater management facilities” in this Agreement and Declaration of Easement.

The purpose of this Agreement and Declaration of Easement is to describe the ownership and maintenance responsibilities for the stormwater facilities which will be installed on the Premises and to impose the ownership and maintenance responsibilities upon Grantor, his heirs, personal representatives and assigns and upon successor owners of the Premises, and set forth the rights of the Borough.

STORMWATER MANAGEMENT

NOW, THEREFORE, intending to be legally bound hereby and in consideration of receiving approval of its Small Project Application from Borough Council, and in consideration of receiving permits from the Borough to develop the Premises, Grantor, for Grantor and the heirs, personal representatives, successors and assigns of Grantor, covenant and declare as follows:

1. The stormwater facilities will be owned by Grantor, his heirs, personal representatives, successors and assigns.
2. All drainage courses, swales, stormwater inlets, pipes, conduits, detention basins BMPs, and other stormwater facilities shall be installed, constructed and maintained by Grantor, his heirs, personal representatives, successors and assigns, in a first-class condition in conformance with the approved Final Plan, including any accompanying stormwater management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County, and in a manner sufficient to meet or exceed the performance standards and specifications set forth on the approved Final Plan, including any accompanying stormwater management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County. These responsibilities shall include, but not be limited to, the following:
 - (a) Liming, fertilizing, seeding and mulching of vegetated channels and all other unstabilized soils or areas according to the specifications in the "Erosion and Sediment Pollution Control Manual" published by the Pennsylvania Department of Environmental Protection, the Penn State Agronomy Guide, or such similar accepted standard.
 - (b) Reestablishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation has not been successfully established.
 - (c) Mowing as necessary to maintain adequate stands of grass and to control weeds. Chemical weed control may be used if federal, state and local laws and regulations are met. Selection of seed mixtures shall be subject to approval by the Borough.
 - (d) Removal of silt from all permanent structures which trap silt or sediment in order to keep the material from building up in grass waterways, pipes, detention or retention basins, infiltration structures, BMPs, and/or other facilities and thus reducing their capacity.
 - (e) Removal of silt from all permanent drainage structures, in particular BMPs, in order to maintain the design storage volumes. Regular programs shall be established and maintained.
 - (f) Regular inspection of the areas in question to assure proper maintenance and care, including but not limited to proper implementation of BMPs. **ADD ANY SPECIFIC INSPECTION REQUIREMENTS IN THE PCSM PLAN.**

ELIZABETHTOWN CODE

(g) Regular maintenance to insure that all pipes, swales and detention facilities shall be kept free of any debris or other obstruction. **ADD ANY SPECIFIC MAINTENANCE REQUIREMENTS IN THE PCSM PLAN.**

(h) Regular maintenance of all facilities designed to improve water quality to insure that such facilities function in accordance with their design. **ADD ANY SPECIFIC MAINTENANCE REQUIREMENTS IN THE PCSM PLAN SUCH AS IF APPLICABLE:** Maintenance of the infiltration bed and infiltration system by mowing grass regularly over the infiltration bed; keeping the yard drains and roof drains free of debris in good repair at all times; flushing the infiltration system using a water hose at the cleanouts once every 90 days to insure the infiltration system is clear of debris; keeping the sumps in the yard inlets and downspout sumps free of debris; and inspecting the infiltration bed four times per year or after each rain event exceeding one inch.

(i) Repair of any subsidence, including subsidence caused by sinkholes.

(j) **IF APPLICABLE:** Replacement of displaced riprap within the outlet energy dissipater immediately after it is displaced, particularly after major storm discharge events.

(k) **IF APPLICABLE:** Vacuum sweeping of areas of porous paving to keep surface free of sediment as needed, typically three to four times per year, and maintaining all areas of porous paving free from sealing, surfacing or repaving with nonporous materials.

(l) **IF APPLICABLE:** Aerate areas of amended soils annually. No impervious surfaces may be placed or installed on any area of amended soils.

(m) Removal of trash and debris on a regular basis. ***Include a statement that the approved Operations and Maintenance (O&M) Plan is attached as an exhibit if there are any requirements in addition to those in Paragraph 2. Paragraph 2 may be revised to simply incorporate an exhibit if all post-construction inspection, operations, and maintenance requirements are included on the exhibit.*** Grantor, his heirs, personal representatives, successors and assigns, shall be responsible for performing the foregoing maintenance.

3. Grantor, for himself, his heirs, personal representatives, successors and assigns, agrees that the failure to maintain all drainage courses, swales, stormwater inlets, pipes, conduits, detention basins, BMPs, and other stormwater management facilities in a first-class condition in conformance with this Agreement and approved Final Plan, including any accompanying stormwater management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County, shall constitute a nuisance and shall be abatable by the Borough as such.

4. Grantor, for himself, his heirs, personal representatives, successors and assigns, authorizes the Borough, at any time and from time to time, by its authorized representatives, to enter upon the Premises to inspect the stormwater facilities.

STORMWATER MANAGEMENT

5. The Borough may require that Grantor, and assigns or any future owner or occupier of the Premises or any part thereof, take such corrective measures as the Borough may deem reasonably necessary to bring the Premises into compliance with this Agreement and with the approved Final Plan, including any accompanying stormwater management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County.

6. Upon the failure of the owner or occupier of the Premises or any part thereof to comply with the terms of this Stormwater Management Agreement or to take corrective measures following reasonable notice from the Borough, the Borough, through its authorized representatives, may take such corrective measures as it deems reasonably necessary to bring the Premises into compliance with this Agreement and with the approved Final Plan, including any accompanying stormwater management plans and information, and as recorded in the Office of the Recorder of Deeds in and for Lancaster County, including, but not limited to, the removal of any blockage or obstruction from drainage pipes, swales, detention basins, and BMPs, and may charge the cost thereof to Grantor, his heirs, personal representatives, successors and assigns, or any owner of the Premises or any part thereof and, in default of such payment, may cause a municipal lien to be imposed upon the Premises or any part thereof. Any municipal lien filed pursuant to this Agreement shall be in the amount of all costs incurred by the Borough, plus a penalty of 10% of such costs, plus the Borough's reasonable attorneys' fees.

7. Grantor hereby imposes upon the Premises for the benefit of all present and future owners of the Premises or part of the Premises, the Borough, and all other property owners affected by the stormwater facilities, the perpetual right, privilege and easement for the draining of stormwater in and through the drainage courses, swales, stormwater inlets, pipes, conduits, detention basins, BMPs, and other stormwater facilities depicted on the plan or plans submitted to the Borough or hereafter made of record and now or hereafter installed on or constructed upon the Premises and, in addition, easements of access to the stormwater facilities.

8. Grantor agrees to indemnify the Borough and all of its elected and appointed officials, agents and employees (hereafter collectively referred to as the "Indemnitees") against and hold Indemnitees harmless from any and all liability, loss or damage, including attorneys' fees and costs of investigation and defense, as a result of claims, demands, costs or judgments against Indemnitees which arise as a result of the design, installation, construction or maintenance of the stormwater facilities.

9. Grantor's personal liability under this Agreement shall cease at such time as (a) all stormwater management facilities have been constructed in accordance with the specifications of the Borough Subdivision and Land Development Ordinance, the Borough Stormwater Management Ordinance and the approved plans; (b) the stormwater management facilities have been inspected and approved by the Borough Engineer; (c) all financial security, including any maintenance security, posted by Grantor has been released by the Borough; and (d) Grantor has transferred all lots to be created from the Premises to third parties. Notwithstanding the foregoing, Grantor's personal liability shall continue for any violations of this Agreement and Declaration of Easement which

ELIZABETHTOWN CODE

occurred during the time that Grantor owned the Premises or any lot created from the Premises or in the event the stormwater management facilities were not completed, inspected or approved as set forth in (a) through (c) herein.

10. It is the intent of the parties to this Agreement that personal liability and maintenance obligations shall pass to subsequent title owners upon change in ownership of the Premises or any lot created from the Premises, and such subsequent owners shall assume all personal liability and maintenance obligations for the time period during which they hold title. Personal liability shall remain for any violations of this Agreement and Declaration of Easement which occurred during the period in which an owner held title.

11. The Borough may, in addition to the remedies prescribed herein, proceed with any action at law or in equity to bring about compliance with the Borough Stormwater Management Ordinance, the Borough Subdivision and Land Development Ordinance and this Agreement.

12. This Agreement and Declaration of Easement shall be binding upon the Grantor, the successors and assigns of Grantor, and all present and future owners of the Premises or any part thereof and is intended to be recorded in order to give notice to future owners of the Premises of their duties and responsibilities with respect to the stormwater facilities. Grantor shall include a specific reference to this Agreement in any deed of conveyance for the Premises or any part thereof.

13. This Agreement and Declaration of Easement may be amended only by written instrument signed on behalf of all owners of the Premises and the Borough.

14. When the sense so requires, words of any gender used in this Agreement and Declaration of Easement shall be held to include any other gender, and the words in the singular number shall be held to include the plural, and vice versa.

IN WITNESS WHEREOF, the undersigned have caused this Agreement and Declaration to be executed on the day and year first above written.

ELIZABETHTOWN BOROUGH
Lancaster County, Pennsylvania

Attest: _____
(Assistant) Secretary

By: _____
(Vice) President
Borough Council

[BOROUGH SEAL]

(Individual or Husband and Wife Developer)

Witness:

_____(SEAL)
(Signature of Individual)

STORMWATER MANAGEMENT

(SEAL)
(Signature of Spouse if Husband and Wife
are Co-Developers)

IF APPLICABLE
Trading and doing business as:

(Partnership Developer*)

(Name of Partnership)

Witness:

By: _____ (SEAL)

By: _____ (SEAL)
Partner

By: _____ (SEAL)
Partner

*All Partners must execute this Agreement

(Corporation Developer)

(Name of Corporation)

ATTEST:

By: _____
(Assistant) Secretary

By: _____
(Vice) President

[CORPORATE SEAL]

ELIZABETHTOWN CODE

(Limited Liability Company Landowner***)

(Name of Limited Liability Company)

Witnesses:

_____ By:

Member

_____ By:

Member

_____ By:

Member

***All members must sign.

(MUNICIPALITY ACKNOWLEDGMENT)

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF LANCASTER)

On this ____ day of _____, 20____, before me, the undersigned officer, a notary public in and for the aforesaid Commonwealth and County, personally appeared _____, who acknowledged ____self to be (Vice) President of Borough Council of Elizabethtown Borough, Lancaster County, Pennsylvania, and that he/she, as such officer, being authorized to do so, executed the foregoing Stormwater Management Agreement and Declaration of Easement, for the purposes therein contained, by signing the name of such Borough by ____self as such officer.

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

Notary Public

My commission expires:

STORMWATER MANAGEMENT

(INDIVIDUAL OR HUSBAND AND WIFE DEVELOPER ACKNOWLEDGMENT)

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF LANCASTER)

On this the ___ day of ___, 20___, before me, the subscriber, a notary public in and for the aforesaid Commonwealth and County, came the above-named ___, known to me (or satisfactorily proven) to be the person(s) whose name(s) is/are subscribed on the within instrument and acknowledged the foregoing Stormwater Management Agreement and Declaration of Easement to be ___ act and deed and desired the same to be recorded as such.

Witness my hand and notarial seal.

Notary Public

My commission expires:

(PARTNERSHIP DEVELOPER ACKNOWLEDGMENT)

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF LANCASTER)

On this ___ day of ___, 20___, before me, a notary public, the undersigned officer, personally appeared ___, who acknowledged themselves to be all of the partners of ___, a ___ partnership, and that they, as such partners, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the partnership by themselves as such partners.

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

Notary Public

My commission expires:

ELIZABETHTOWN CODE

(CORPORATE DEVELOPER ACKNOWLEDGMENT)

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF LANCASTER)

On this ____ day of _____, 20____, before me, a notary public, the undersigned officer, personally appeared _____, who acknowledged ____ self to be the _____ of _____, a corporation, and that as such officer being authorized to do so, acknowledged the foregoing instrument for the purpose therein contained, by signing the name of the corporation by ____self as _____.

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

Notary Public

My commission expires:

(LIMITED LIABILITY COMPANY LANDOWNER ACKNOWLEDGMENT)

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF LANCASTER)

On this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, who acknowledged themselves to be all of the members of _____, a _____ limited liability company, and that they as such members, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of said limited liability company by themselves as such members.

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

Notary Public

My commission expires:

STORMWATER MANAGEMENT

JOINDER BY MORTGAGEE

_____ (“Mortgagee”), as holder of a certain mortgage on the premises of [NAME OF GRANTOR] within Elizabethtown Borough, Lancaster County, Pennsylvania, described in the Deed recorded _____ in/at _____, in the Office of the Recorder of Deeds in and for Lancaster County, Pennsylvania, which mortgage, in the amount of \$_____, dated _____, and recorded in the Recorder of Deeds’ Office in and for Lancaster County, Pennsylvania, as well as any other mortgages which Mortgagee may now or hereafter hold on the Premises (all such mortgages hereinafter collectively referred to as the “Mortgages”), joins in, consents to, and expressly approves the grant of easements and other rights and privileges described in the attached Stormwater Management Agreement and Declaration of Easement (the “Agreement”).

The Mortgagee, for itself, its successors and assigns (which shall include any assignee of the Mortgages and any purchaser of the Premises at a sale in foreclosure of the Mortgages or otherwise), hereby covenants and agrees that the rights and privileges herein granted with respect to the Premises shall not be terminated or disturbed by reason of any foreclosure or other action which may be instituted by the Mortgagee, its successors and assigns, as a result of any default under the Mortgages or the debt instruments that such Mortgages secure. Mortgagee by consenting to the Agreement shall not by virtue of its interest as Mortgagee be deemed to have undertaken any of the obligations of the Grantor under the Agreement, including but not limited to construction, maintenance, inspection or indemnification.

IN WITNESS WHEREOF, Mortgagee hereby joins in the execution of the Agreement as of this ____ day of _____, 20____.

(Name of Mortgagee)

ATTEST: _____
[SEAL]

By: _____

ELIZABETHTOWN CODE

(MORTGAGEE ACKNOWLEDGMENT)

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF LANCASTER)

On this, the ____ day of _____, 20____, before me, a notary public, the undersigned officer, personally appeared _____, who acknowledged ____self to be the _____ of _____, a corporation, and that as such officer being authorized to do so, acknowledged the foregoing instrument for the purpose therein contained by signing the name of the Bank by ____self as _____.

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

Notary Public

My Commission Expires:

STORMWATER MANAGEMENT

APPENDIX A-3

APPLICATION FOR A STORMWATER MANAGEMENT PERMIT
MINOR STORMWATER MANAGEMENT PLAN

Elizabethtown Borough
Lancaster County, Pennsylvania

File No. _____
Date Received _____
Property: 160- _____

Application is hereby made to Elizabethtown Borough for the issuance of a Minor Stormwater Management Permit pursuant to the specifications herewith submitted.

1. Name of Property Owner(s): _____

Address: _____

Phone: Home: _____ Cell: _____

E-mail Address: _____

2. Project Location: _____

3. Type of Earth Disturbance Activity:

A. New impervious or semi-impervious surface _____ (sq. ft./ac.)

B. Diversion or piping of natural or man-made watercourse _____ (linear ft.)

C. Installation of the following:

Culvert _____	Infiltration Seepage Bed _____
Detention basin _____	Cistern _____
Retention basin _____	Underground Detention Basin _____
Sediment basin _____	Infiltration Basin _____
Other _____	Rain Garden _____

D. Removal of ground cover, grading, filling or excavation ____ (sq. ft./ac.)

4. Land disturbance plan prepared by:

Name: _____

Address: _____ Phone _____

5. Name of Applicant (if other than owner): _____

ELIZABETHTOWN CODE

Address: _____

Phone _____

The undersigned hereby represents that, to the best of his/her knowledge and belief, all information listed above and on the land disturbance plan herewith submitted is true, correct and complete.

Signature of Applicant

Date

STORMWATER MANAGEMENT

APPENDIX A-4
APPLICATION FOR A STORMWATER MANAGEMENT PERMIT
MAJOR STORMWATER MANAGEMENT PLAN

Elizabethtown Borough
Lancaster County, Pennsylvania

File No. _____
Date Received _____
Property: 160- _____

Application is hereby made to Elizabethtown Borough for the issuance of a Major Stormwater Management Permit pursuant to the specifications herewith submitted.

1. Name of Property Owner(s): _____

Address: _____

Phone: Home: _____ Cell: _____

E-mail Address: _____

2. Project Location: _____

3. Type of Earth Disturbance Activity:

A. New impervious or semi-impervious surface _____ (sq. ft./ac.)

B. Diversion or piping of natural or man-made watercourse _____ (linear ft.)

C. Installation of the following:

Culvert _____	Infiltration Seepage Bed _____
Detention basin _____	Cistern _____
Retention basin _____	Underground Detention Basin _____
Sediment basin _____	Infiltration Basin _____
Other _____	Rain Garden _____

D. Removal of ground cover, grading, filling or excavation ____ (sq. ft./ac.)

4. Land disturbance plan prepared by:

Name: _____

Address: _____ Phone _____

5. Name of Applicant (if other than owner): _____

ELIZABETHTOWN CODE

Address: _____

Phone _____

The undersigned hereby represents that, to the best of his/her knowledge and belief, all information listed above and on the land disturbance plan herewith submitted is true, correct and complete.

Signature of Applicant

Date

STORMWATER MANAGEMENT

APPENDIX A-5
SITE PLAN FOR EXEMPTIONS OR SMALL PROJECTS

Property Owner: _____
Address: _____

Date: _____

Scale: 1" = (4 squares per inch)

The following shall be shown on the Plan:

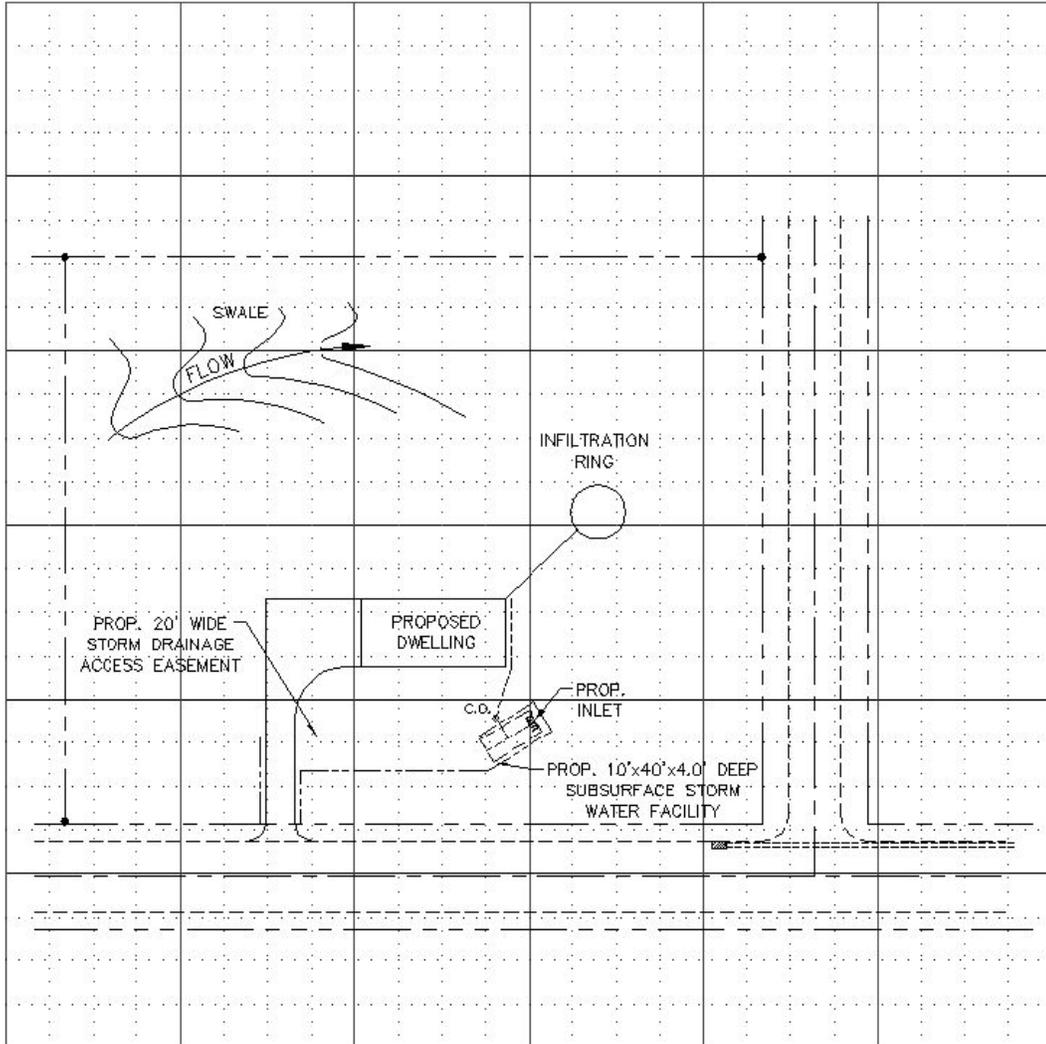
- | | | |
|-------------------------|------------------|---------------------|
| Lot Configuration | Berms | Infiltration System |
| Building Location | Terraces | Swales |
| Contours or Flow Arrows | Bridges | Watercourses |
| Storm Sewers | Dams | Floodplains |
| Detention Basins | Retention Basins | Inlets |
| Cisterns | Seepage Beds | Leach Rings |
| Sidewalks | Driveways | Patios |

STORMWATER MANAGEMENT

APPENDIX A-5a SITE PLAN FOR EXEMPTIONS OR SMALL PROJECTS (EXAMPLE)

Property Owner: _____
Address: _____

Date: _____



Scale: 1" = (4 squares per inch)

The following shall be shown on the Plan:

Lot Configuration
Building Location
Contours or Flow Arrows
Storm Sewers
Detention Basins
Cisterns
Sidewalks

Berms
Terraces
Bridges
Dams
Retention Basins
Seepage Beds
Driveways

Infiltration System
Swales
Watercourses
Floodplains
Inlets
Leach Rings
Patios

STORMWATER MANAGEMENT

APPENDIX A-6
CERTIFICATE OF APPROVAL BY BOROUGH COUNCIL

At a meeting on _____, 20____, the Elizabethtown Borough Council approved this project, and all conditions have been met. This approval includes the complete set of plans and information that are filed with Elizabethtown Borough in File No. _____, based upon its conformity with the standards of the Elizabethtown Borough Stormwater Management Ordinance and with any modification thereof approved by the Elizabethtown Borough Council.

Borough Manager Signature

Borough Council President Signature

CERTIFICATE FOR REVIEW BY THE PLANNING COMMISSION

Reviewed by the Borough of Elizabethtown Planning Commission this _____ day of _____, 20____

CERTIFICATE FOR REVIEW BY THE BOROUGH ENGINEER
(if required by the Borough)

Reviewed by the Borough of Elizabethtown Engineer this _____ day of _____, 20____

STORMWATER MANAGEMENT CERTIFICATION

I hereby certify that, to the best of my knowledge, the Stormwater Management Facilities shown and described hereon are designed in conformance with the Borough of Elizabethtown Stormwater Management and Earth Disturbance Ordinance, Chapter 17.

_____, 20____

**

**Signature and seal of the qualified professional responsible for the preparation of the plan.

STORMWATER MANAGEMENT

APPENDIX A-7
AS-BUILT PLAN REQUIREMENT CHECKLIST --
ELIZABETHTOWN BOROUGH

This checklist is compiled as a minimum list of information to be included on the required stormwater management as-built plans submitted to the Borough under this Chapter.

YES NO (n/a)

GENERAL REQUIREMENTS

- | | | | |
|-------|-------|-----|---|
| _____ | _____ | 1. | Name of the project (consistent with approved plan) |
| _____ | _____ | 2. | Name of the municipality |
| _____ | _____ | 3. | Plan Status — Identify as “AS-BUILT PLAN” |
| _____ | _____ | 4. | North point on each sheet |
| _____ | _____ | 5. | Written and graphic scale to match original approved plan submission |
| _____ | _____ | 6. | Date of plan and any subsequent revision dates |
| _____ | _____ | 7. | Name and address of record owner and developer |
| _____ | _____ | 8. | Name, address, seal, signature and certification of the registered surveyor responsible for plan |
| _____ | _____ | 9. | Design engineer’s name, project number, date, etc. (if different from as-built preparer) |
| _____ | _____ | 10. | Names, book and page numbers of any abutting subdivision or land development, or abutting property owners |
| _____ | _____ | 11. | Key Map if more than one sheet is needed |
| _____ | _____ | 12. | Tract boundary lines with bearings and distances |
| _____ | _____ | 13. | Right-of-way lines, lot lines and easement lines with bearings, distances, actual dimensions (width, radius, distance from center line) and descriptive labels (road names, type of easement or right-of-way) |
| _____ | _____ | 14. | Location and elevation of any actual monuments and pin locations |
| _____ | _____ | 15. | Tract and lot areas |
| _____ | _____ | 16. | Location and elevation of the benchmark which all site elevations tie into |

STREET REQUIREMENTS

- | | | | |
|-------|-------|----|---|
| _____ | _____ | 1. | Streets and other paved areas (cartway width, pavement markings, spot elevations as needed to show positive drainage) |
| _____ | _____ | 2. | Sidewalk and other concrete areas |

ELIZABETHTOWN CODE

STORM DRAINAGE

- _____ 1. Any field changes that were not shown on the approved plan/permit
- _____ 2. Stormwater Management easement boundaries
- _____ 3. Storm sewer system
 - type of structure with top and invert elevations
 - type of pipe, size, length, and slope
 - riprap location, actual swale contours and cross sections
- _____ 4. Floodplain by elevation and location from property line and any lot restrictions associated with the floodplain
- _____ 5. Seepage Bed location, dimensions and pipe connections, cleanouts
- _____ 6. Level spreader grading or structures
- _____ 7. Detention basins
 - Outlet structure information, top elevation, orifice size and invert, outfall culvert type, size, slope, and invert elevation
 - As-built contours and volume
 - Spillway type and location, dimensions, and invert
 - Verification of anti-seep collar and clay core installation
 - Low flow channel, width, slope and cross section
 - Fencing around basin
 - Underdrain pipe and cleanouts

OTHER SITE FEATURES

- _____ 1. Landscaping within 10 feet of any stormwater facility
 - Document single trees and planted areas showing compliance with approved landscape plan
 - Screen fencing
- _____ 2. Buildings
 - first-floor elevations, roof drains/leaders

When located within 25 feet of any stormwater facilities:

- _____ 3. Gas Line
 - valves, service, approx. depth = +-0.5'
- _____ 4. Electric Lines
 - electric transformer boxes, poles, manholes, approx. line location
- _____ 5. Telephone, TV Cable
 - junction boxes, poles, manholes, approx. line location

STORMWATER MANAGEMENT

ADDITIONAL PLAN REQUIREMENTS

- _____ 1. Sheet number located in the bottom right-hand corner of the drawings
- _____ 2. Manhole numbers
- _____ 3. Matchline information (if applicable)
- _____ 4. When located within 25 feet of any stormwater management facilities, any water and sewer lateral information (station, size, length, material, depth) within a box on the corresponding lot; alternatively, a chart can be used to show this information

PLAN NOTES TO BE INCLUDED ON AS-BUILT PLANS

- _____ 1. All required post-construction maintenance notes and property owner inspection schedule
- _____ 2. Note stating the amount of impervious coverage the stormwater facilities on site have been designed for

ADDITIONAL SUBMISSION REQUIREMENTS

- _____ 1. Provide two sets of prints initially; upon approval of plans, provide one electronic copy, two set of prints, and two sets of half-size prints
- _____ 2. Pipe material, diameter, slope, length, encasement location and dimensions
- _____ 3. Provide individual Plot Plans and legal descriptions for each lot impacted for all water and sanitary sewer rights-of-way/easements for processing of right-of-way agreements (not required on as-built drawing sheets)
- _____ 4. Drawings need to be readable when reduced to half size

The Borough Engineer and Borough Staff will review the plans for accuracy and completeness.

STORMWATER MANAGEMENT

Appendix A-8

Certificate of Completion

I, _____, certify that all permanent SWM Facilities have been constructed according to the plans, specification and revisions as approved for the property located at _____.

(Signature and seal of qualified person)