BIGLERVILLE BOROUGH COUNCIL
33 MUSSELMAN AVENUE
BIGLERVILLE, PA 17307
(717) 677-9488 AND FAX NUMBER (717) 677-4027

Simplified Design Approach
Worksheet A

Property Owner's Name: _____

Applicant Name: _____

Applicant/Owner Address: _____

Phone Number: _____

Address of Property: _____

Tax Map Parcel ID# : _____

Parcel Size *(approx)*: _____

A Sketch Plan must be included and show the following:

Total existing impervious area on the property _____

New impervious area proposed _____

Total impervious area on the property after project completion _____

Are there any known existing drainage problems or the potential for the proposed project to create drainage problems?
(if yes, please explain)

Yes ☐   No ☐

_____

_____

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 understand that false information may result in a stop work or revocation of permits. Municipal representatives are also granted access to the property for review and/or inspection of this project if necessary.

Applicant Signature: _____   Date: _____

Notary: _____   Date: _____

My Commission Expires: _____

To be completed by authorized municipal official

Type of Storwater Management Required:

Exempt from stormwater management plan preparation _____
(Worksheet A and Sketch Plan)

Minor stormwater management site plan preparation _____
(Complete Worksheet B to determine necessary BMP's)

Formal stormwater management plan preparation _____
(Consult a professional)

Determined By: _____   Date: _____

Biglerville Borough
Simplified Design Approach
Worksheet B

Step 1: Determine the amount of impervious area created by the proposed projects. This includes any new surface area that inhibits the infiltration of stormwater into the ground. New stone and gravel area considered impervious. Existing impervious areas are not included in this calculation.

Table #1

Surface	Length	X	Width =	Total Impervious Area (SF)
Buildings				
Buildings				
Driveways				
Parking Areas				
Patio/Walkways				
Decks				
Others				
Total Proposed Impervious Area =				

Step 2: Determine the Disconnect Impervious Area (DIA). All or parts of proposed impervious surfaces may qualify as Disconnected Impervious Area if runoff is directed to the pervious area that allows for infiltration, filtration and increased time of concentration. The volume of stormwater that needs to be managed could be reduced through DIA. Prepare a Minor Stormwater Management Site Plan to determine DIA.

Determine Status of DIA

a) Determine contributing area of the roof/driveway to each disconnected discharge. If it's 500 ft² or less (for a roof) or 1000 ft² or less (for a driveway), continue to "b". If it's greater than these amounts , the area does not qualify as a DIA.

b) Determine the length of down slope pervious flow path available for each disconnected discharge

c) Determine the % slope of the pervious flow path, % slope = (rise/run) x 100. Must be 5% or less.

d) See the table on the next page to determine the percentage of the area that can be treated as disconnected. If the available length of the flow path is equal to or greater than 75 ft. the discharge qualifies as entirely disconnected.

Step 3: Calculate the volume of stormwater runoff created by proposed impervious surfaces.

Impervious Area (SF) to be Managed (Sum from table 2)	X	2.8in/12in = 0.233 (from 24 hr. rainfall)	=	Volume of Stormwater to be Managed (CF)
	X	0.233	=	

S tep 4: Select BMP's and size according to the volume of stormwater that needs to be managed in Step 3.

Table #3 - BMP Sizing Table*

BMP Type	Necessary Volume** (from Step 3 above)	Length	Width	Depth	Void Ratio	Volume***
Infiltration Bed or Trench					0.4	
Infiltration berm					1	
Rain Garden					0.4 in stone 1.0 above ground	
Rain Barrel or other usable storage		Use known volume of rain barrel, etc. 1 cubic foot is equal to 7.48 gallons.			1	
Other						

*Chart should only be used when a formal SWM Site Plan is not required
**Should not include areas that were proven to be 100% disconnected
***Volume = Length x Width x Depth x Void Ratio

Partial Disconnected		
Length of Pervious Flow Path * (ft) Lots 10,000 ft² and under	**Length of Pervious Flow path * (ft) Lots > 10,000 ft²**	**DIA Credit Factor**
0 - 7.9	0 - 14	1.0
8 - 15.9	15 - 29	0.8
16 - 22.9	30 - 44	0.6
12 - 29.9	45 - 59	0.4
30 - 34.9	60 - 74	0.2
35 or more	75 or more	0
*Pervious flow path must be at least 15 feet from any impervious surface and cannot include impervious surfaces.		

Using Step 2 calculations calculated from the minor stormwater site plan, complete the table below. This will determine the impervious area that may be excluded from the area that needs to be managed through stormwater management BMP's. If total impervious area to be managed is zero, the area can be considered entirely disconnected and further calculations are not needed.

Table #2

Suface	Area (SF)	X	DIA Credit =	Impervious Area to be Managed (SF)
Buildings				
Buildings				
Buildings				
Buildings				
Buildings				
Driveways				
Driveways				
Parking Areas				
Patio/Walkways				
Decks				
Others				
Total Proposed Impervious Surface Area to be Managed (SF) =				

*If total impervious surface area to be managed is greater than zero, continue to Step 3.