

FAWN TOWNSHIP  
YORK COUNTY, PENNSYLVANIA

ORDINANCE NO 2-2019

AN ORDINANCE OF FAWN TOWNSHIP, YORK COUNTY, PENNSYLVANIA, AMENDING  
THE STORMWATER MANAGEMENT ORDINANCE, ORDINANCE  
NO. 6-2002

WHEREAS, the Fawn Township Stormwater Management Ordinance, Ordinance No. 6-2002, was adopted on September 9, 2002; and

WHEREAS, the Fawn Township Board of Supervisors desire to amend the Stormwater Management Ordinance.

NOW THEREFORE BE IT ENACTED AND ORDAINED by the Board of Supervisors of Fawn Township as follows:

**SECTION 1: Amendment to Figure 1.** The second paragraph from the bottom of the page which presently reads "TRENCH SHALL BE LINED WITH PADOT CLASS 1 GEOTEXTILE MATERIAL PER PUBLICATION 408, SECTION 212.3b. ALLOW 1' OVERLAP, ACROSS BACKFILL AT TOP OF TRENCH AND ALSO AN OVERLAP OF 1' AT END OF ROLLS.", shall be amended to add the following phrase at the beginning:

"EXCEPT FOR THE BOTTOM OF THE TRENCH, THE"

**SECTION 2: Severability.** If any sentence, clause, section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this Ordinance.


**SECTION 3: Repealer.** Any and all ordinances or parts thereof inconsistent herewith are hereby repealed in whole or in part.

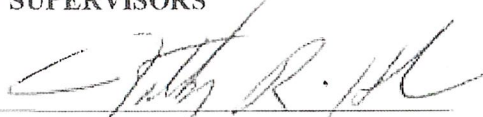
**SECTION 4: Effective Date.** This Ordinance shall become effective immediately.

ENACTED AND ORDAINED THIS 11<sup>th</sup> day of November 2019.

ATTEST:

FAWN TOWNSHIP BOARD  
OF SUPERVISORS

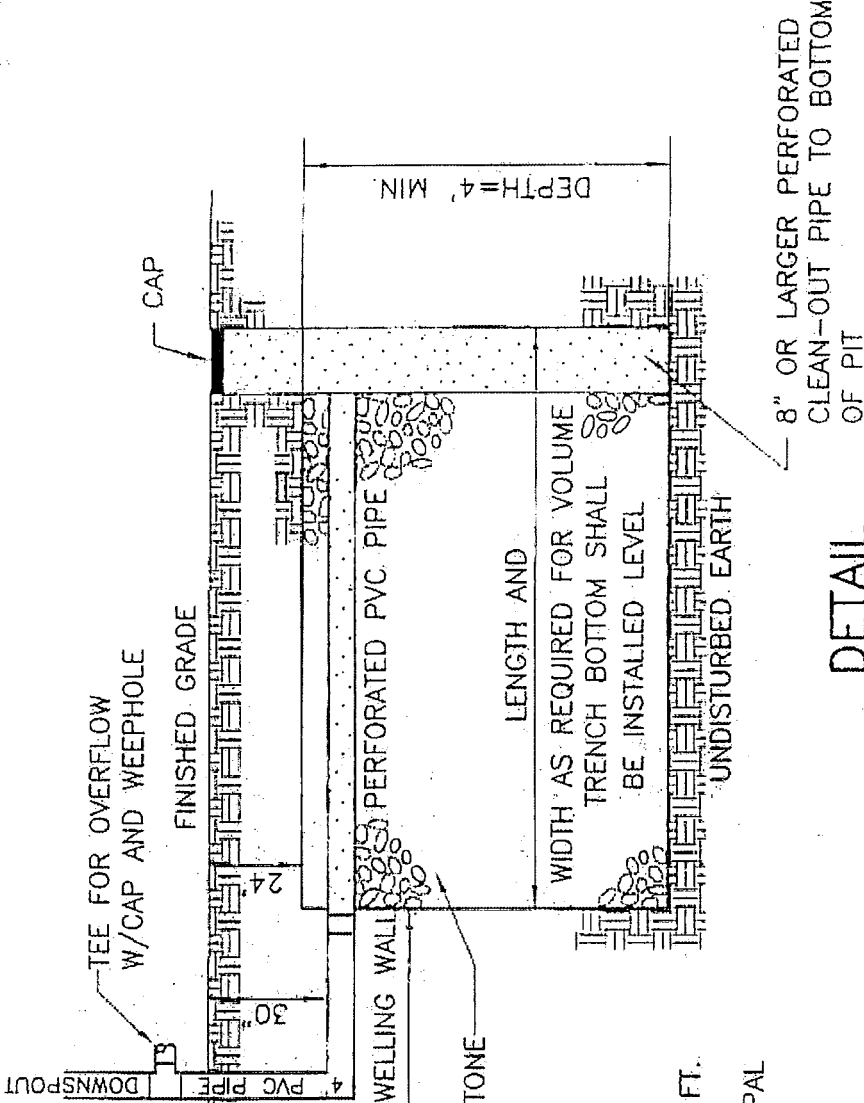
  
Secretary

  
Chairman

[TOWNSHIP SEAL]

ADAPTOR  
CAP WITH  
WEEPHOLE

SANITARY  
WYE



ALTERNATE

MIN. 10' FROM DWELLING WALL

DEPTH = 4' MIN.

\* AASHTO #1 (PENNDOT #4) STONE

VOLUME REQUIRED:  
1 CU. FT. OF SEEPAGE  
PIT FOR EVERY 2 SQ. FT.  
OF ROOF SURFACE OR  
AS SPECIFIED BY MUNICIPAL  
ENG., DUE TO SITE  
CONDITIONS.

### DETAIL TYP. ROOF DRAIN SEEPAGE PIT

SCALE: NONE

TRENCH SHALL BE LINED WITH PADOT CLASS 1 GEOTEXTILE MATERIAL PER PUBLICATION 408, SECTION 212.3b. ALLOW 1' OVERLAP ACROSS BACKFILL AT TOP OF TRENCH AND ALSO AN OVERLAP OF 1' AT END OF ROLLS.

\* TOP 12" OF STONE MAY BE 3/4" IN SIZE TO AID IN PIPE INSTALLATION

ALL DWELLINGS MUST UTILIZE ROOF DRAIN SEEPAGE PITS. A PERC TEST BY THE ZONING OFFICER MAY BE REQUIRED.

## FIGURE 1

**FAWN  
TOWNSHIP**

**STORMWATER  
MANAGEMENT  
ORDINANCE**

**ORDINANCE NO. 6-2002**

**ADOPTED SEPTEMBER 9, 2002**

Fawn Township  
245 Alum Road  
New Park, PA 17322  
(717) 382-4834

**FAWN TOWNSHIP**

**ORDINANCE 6-2002**

**AN ORDINANCE OF FAWN TOWNSHIP,  
YORK COUNTY, PENNSYLVANIA ADOPTING A  
STORMWATER MANAGEMENT ORDINANCE**

**WHEREAS**, Fawn Township (Township) is a political subdivision in the Commonwealth of Pennsylvania, being a second class township, which is governed by the Second Class Township Code, 53 P.S. §65101 et seq., Pennsylvania Municipalities Planning Code (MPC), 53 P.S. §10101, and the Stormwater Management Act, 32 P.S. §608.1 et seq., and

**WHEREAS**, the Township has updated or is in the process of updating its Subdivision and Land Development Ordinance; and

**WHEREAS**, in consultation with its professional consultants, the Township has determined that the health, safety, and welfare of its citizens will best be served by creating a separate Stormwater Management Ordinance:

**NOW, THEREFORE**, the within Fawn Township Stormwater Management Ordinance is hereby adopted.

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## **ARTICLE I**

### **GENERAL PROVISIONS**

#### **SECTION 101.     SHORT TITLE**

This Ordinance shall be known as the Fawn Township Stormwater Management Ordinance.

#### **SECTION 102.     STATEMENT OF FINDINGS**

The Board of Supervisors of Fawn Township finds that:

- A.     Inadequate management of accelerated runoff of stormwater resulting from development through a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control stormwater, undermines floodplain management and flood control efforts in downstream communities, reduces groundwater recharge, and threatens public health and safety.
  
- B.     A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety and welfare and the protection of the people of Fawn Township and for the protection of people and property in downstream communities.

#### **SECTION 103.     PURPOSE**

The purpose of this Ordinance is to promote the public health, safety, and welfare within Fawn Township by minimizing the damages described in Section 102(A) of this Ordinance by provisions designed to:

- A.     Control accelerated runoff and erosion and sedimentation problems at their source by regulating activities which cause such problems.
  
- B.     Utilize and preserve the desirable existing natural drainage systems.
  
- C.     Encourage recharge of groundwater where appropriate.
  
- D.     Maintain the existing flow and quality of streams and water courses in the municipality and the Commonwealth.

- E. Preserve and restore the flood carrying capacity of streams.
- F. Provide for proper maintenance of all permanent stormwater management structures which are constructed in the municipality.

**SECTION 104. STATUTORY AUTHORITY**

This Ordinance is enacted by East Hopewell Township pursuant to the Second Class Township Code, 53 P.E. §65101 et seq, the Pennsylvania Municipalities Code, 53 P.S. §10101 et seq, and to carry out the express intent of the Stormwater Management Act, No. 1978-167, 32 P.S. §680.1 et seq.

**SECTION 105. APPLICABILITY**

The following activities are defined as Regulated Activities and shall be regulated by this Ordinance, except those which meet the waiver specifications presented thereafter:

- A. Land development.
- B. Subdivision involving new impervious surfaces.
- C. Construction of new or additional impervious surfaces (driveways, parking lots, etc.).
- D. Construction of new buildings or additions to existing buildings.
- E. Diversion or piping of any natural or man-made stream channel.
- F. Installation of stormwater systems or appurtenances thereto.

Should any stormwater management facility qualify as a dam under PA DEP Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety. Construction or modification of any culvert, bridge, obstruction or encroachment shall be designed in accordance with applicable regulations and may require a permit from PA DEP and/or the U.S. Army Corps of Engineers. Any facility located within PennDOT right-of-way must meet PA DOT minimum design standards and permit submission requirements. Any earth disturbance activity must be conducted in accordance with PA DEP Chapter 102 regulations.



**SECTION 106. REPEALER**

Any ordinance of the municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

**SECTION 107. SEVERABILITY**

Should any section of provision of this Ordinance be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of any of the remaining provisions of the Ordinance.

**SECTION 108. COMPATIBILITY WITH OTHER ORDINANCE REQUIREMENTS**

Approvals issued pursuant to this Ordinance do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, and act or ordinance.

**SECTION 109. INTRODUCTORY RECITALS; TITLE PAGE; TABLE OF CONTENTS**

The introductory page, including the recitals, shall be considered a part of this Ordinance, and are incorporated herein. The title page and table of contents shall be considered a part of the Ordinance, but shall be given no controlling weight or presidential value, and are for convenience purposes only.

**ARTICLE II**

**DEFINITIONS**

**SECTION 201. DEFINITIONS**

- Any word or term not defined herein shall be used with a meaning of standard usage unless specifically defined in the Fawn Township Zoning Ordinance, in which case such definition shall apply.
- Accelerated Erosion - The removal of the surface of land through the combined action of man's activities and natural process at a rate greater than would occur because of the natural processes alone.
- Board of Supervisors - The governing body of Fawn Township.
- Cistern - An underground reservoir tank for storing rainwater.

- Concentrated Drainage Discharge - Flow following a defined path with depth and velocity. Aggregation of diffused flow and riverlets.
- Conservation District – The Conservation District serving York County.
- Culvert - A pipe, conduit or similar structure including appurtenant work which carries surface water.
- Design Storm - The magnitude of precipitation from a storm event measured in probability of occurrence (e.g., 50-year storm) and duration (e.g., 24 hours), and used in computing stormwater management control systems.
- Detention Basin - A basin designed to retard stormwater runoff by temporarily storing runoff and releasing it at a predetermined rate. A detention basin can be designed to drain completely after a storm event, or it can be designed to contain a permanent pool of water.
- Development Site - The specific tract of land for which a Regulated Activity is proposed.
- Diffused Drainage Discharge - Sheet Flow - An overland flow or downslope movement of water taking the form of a thin continuous film over relatively smooth soil, rock, paving, or vegetation, etc. and not concentrated into channels larger than non-erosive riverlets.
- Diversion Terrace - A channel and a ridge constructed to a predetermined grade across a slope, and designed to collect and divert runoff from slopes which are subject to erosion.
- Drainage Easement - A right granted by a land owner to a grantee, allowing the use of private land for stormwater management purposes.
- Drainage Plan - The documentation of the proposed stormwater management controls, if any, to be used for a given development site.
- Groundwater Recharge - Replenishment of existing natural underground water supplies.
- Infiltration Structures - A structure designed to direct runoff into the ground, e.g. french drains, seepage pits, seepage trench.

- Land Disturbance - Any activity involving grading, tilling, digging or filling of ground, or stripping of vegetation, or any other activity which causes land to be exposed to the danger of erosion, not including normal agricultural activities.
- Peak Discharge - The maximum rate of flow of water at a given point and time resulting from a specified storm event.
- Permittee - Any applicant for a permit pursuant to this Ordinance to whom a permit has been issued.
- Regulated Activities - Actions or proposed actions which impact upon proper management of stormwater runoff and which are governed by this Ordinance as specified in Section 104.
- Release Rate - The percentage of the pre-development peak rate of runoff for a development site to which the post-development peak rate of runoff must be controlled to protect downstream areas.
- Return Period - The average interval in years over which an event of a given magnitude can be expected to occur. For example, the twenty-five (25) year return period rainfall or runoff event would be expected to recur on the average once every twenty-five (25) years.
- Runoff - That part of precipitation which flows over the land.
- SCS - Soil Conservation Service, U.S. Department of Agriculture.
- Seepage Pit/Seepage Trench - An area of excavated earth filled with loose stone or similar material into which surface water is directed for infiltration into the ground.
- Soil-Cover Complex Method - A method of runoff computation developed by SCS and found in its publication "Urban Hydrology for Small Watersheds," Technical Release No. 55 Soil Conservation Service, U.S. Department of Agriculture, January 1986, or latest revision.
- Storage Indication Method - A reservoir routing procedure based on solution of the continuity equation (inflows minus outflow equals the change in storage for a given time interval) and based on outflow being a unique function of storage volume.
- Storm Sewer - A system of pipes or other conduits which carries intercepted surface runoff, street water and other wash water, or drainage, but excludes domestic sewage and industrial wastes.

- Stormwater Management Plan - The plan addressing stormwater management for a specific regulated activity, prepared in accordance with this Ordinance.
- Stream - A watercourse.
- Subarea - The smallest unit of watershed breakdown for hydrologic modeling purposes for which the runoff control criteria have been established in the Stormwater Management Plan.
- Swale - A low lying stretch of land which gathers or carries surface water runoff.
- Watercourse - Any channel of conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

### **ARTICLE III**

#### **STORMWATER MANAGEMENT REQUIREMENTS**

##### **SECTION 301. DUTY OF PERSONS ENGAGED IN DEVELOPMENT OF LAND**

Any person engaged in the subdivision, or development of land as defined in the Fawn Township Subdivision and Land Development Ordinance which may affect stormwater runoff characteristics in the Township shall implement such measures as are reasonably necessary to prevent injury to health, safety, or other property. Such measures shall include such actions as are required:

- A. To collect stormwater runoff from streets and other areas and convey same, as hereinafter provided, to a suitable point or points of discharge; and
- B. To assure that the maximum rate of stormwater runoff is no greater after development than prior to development activities; and
- C. To manage the quantity, velocity and direction of resulting stormwater runoff in a manner which otherwise adequately protects health and property from possible injury. Said measures shall be in accordance with the criteria hereinafter provided. Such measures may include, but are not limited to, the following:
  - 1. Detention basins.

2. Retention basins.
3. Roof-top storage.
4. Parking lot and street ponding.
5. Seepage pits, seepage trenches or other infiltration structures.
6. Grassed channels and vegetated strips.
7. Cisterns and underground reservoirs.
8. Routing flow over grass.
9. Decreased impervious area coverage.

The use of other control methods which meet the criteria in this section will be permitted when approved by the Fawn Township Engineer and the Board of Supervisors. Various combinations of methods may be tailored to suit the particular requirements of the type of development and the topographic features of the project area.

## **SECTION 302. GENERAL REQUIREMENTS**

- A. Maintenance of natural drainageways - All natural streams, channels, swales, drainage systems and/or areas of surface water concentration shall be maintained in their existing condition unless an alternative is approved by the municipality. All obstructions and encroachment activities shall comply with the requirements of Chapter 105 (Water Obstructions and Encroachments) of Title 25, Rules and Regulations of the Pennsylvania Department of Environmental Protection.
- B. The existing points of discharge onto adjacent property shall not be altered.
- C. Areas of existing diffused drainage discharge onto adjacent property shall be managed such that, at minimum, the peak diffused flow does not increase in the general direction of discharge, except as otherwise provided in this Ordinance. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that there are adequate downstream conveyance facilities to safely transport the concentrated discharge or otherwise demonstrate that no harm will result from the concentrated discharge. A release from the downstream property owners may be required. Areas of existing diffused drainage discharge shall be subject to any applicable release rate criteria in the general direction of

existing discharge whether they are proposed to be concentrated or maintained as diffused drainage areas.

- D. Where a subdivision or development is traversed by a water course, drainageway, channel, or stream, there shall be provided a drainage easement conforming substantially with the high water line of such a watercourse attributable to a flood of 100-year frequency, in order to preserve the unimpeded flow of natural drainage, and to provide for future possible widening, deepening, relocating, improving or protecting of such drainage facilities. This easement must be a minimum of 50' wide. Any changes in the existing drainageway shall be subject to the approval of the Township Engineer and the Pennsylvania Department of Environmental Protection.
- E. Any drainage facilities required by this Ordinance that are located on state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation.
- F. When it can be shown that, due to topographic conditions, natural drainage swales on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainage swales. Capacities and velocities of open channels shall be calculated using the Manning equation.
- G. Storm drainage facilities and appurtenances shall be so designed and provided to minimize erosion in water course channels and at all points of discharge.
- H. Consideration should be given to the design and use of volume controls for stormwater management, where geology permits.
- I. The roof runoff from the development of all single family lots must be directed to a seepage pit(s) in conformance with Figure 1, unless the roof runoff is directed to an approved stormwater management facility.

### **SECTION 303. EXEMPTIONS**

The following persons shall be exempted from the requirements of this Ordinance:

- A. Any person who has secured a building permit prior to the effective date of this Ordinance;
- B. Construction of sidewalks, driveways and curbing within public rights-of-ways existing and actually improved on the effective date of this Ordinance.

- C. Use of land for gardening for home consumption.
- D. Agriculture where operated in accordance with a conservation plan approved by the York County Conservation District.
- E. Any person who makes a request to pay a fee lieu of stormwater management facilities in accordance with the township's fee schedule which is granted by the Board of Supervisors in their sole discretion. These requests shall be evaluated by the Township and the Township Engineer and acted upon by the Township on a case-by-case basis.
  - 1. The amount of the fee, as established by resolution of the Board of Supervisors, shall be for each square foot of impervious material to be added to the site.
  - 2. The fee must be paid to the Township prior to issuance of any permits.

**SECTION 304. DESIGN CRITERIA: STORMWATER COLLECTION SYSTEM**

The stormwater collection system shall be designed and approved based upon the following criteria:

- A. General – Peak discharge shall be computed using the Rational Formula:

$$Q = CIA$$

where:

Q = Peak discharge in cubic feet per second.

C = Runoff factor expressed as a percent of the total water falling on an area.

I = The rate of rainfall for the time of concentration of the drainage area in inches per hour for a given storm frequency (Rainfall Intensity).

A = The drainage area expressed in acres.

The runoff factor "C" is a percentage factor which represents the proportion of the total quantity of water falling on the area that remains as runoff.

The runoff factors for various types of drainage areas, as presented in the following table, shall be used for design.

## RUNOFF FACTORS FOR THE RATIONAL EQUATION

<u>TYPE OF DRAINAGE AREA OR SURFACE</u>	RUNOFF FACTOR "C"
Impervious surfaces such as but not limited to roof surface, pavement, concrete or bituminous concrete, gravel (post-development)	0.95
Gravel (pre-development)	0.65
Cultivated fields	0.45
Lawn	0.25
Meadow	0.20
Wooded	0.15

### NOTES

1. Consideration should be given to future land use changes in the drainage area in selecting the "C" factor.
2. For drainage area containing several different types of ground cover, a weighted value of "C" factor must be used.
3. In special situations where sinkholes, stripped abandoned mines, etc. exist, careful evaluation shall be given to the selection of a suitable runoff factor with consideration given to possible reclamation of the land in the future.

Rainfall Intensity "I" curves are presented on Figure 2. The curves provide for variation in rainfall intensity according to:

1. Storm frequency:
  - a. The following storm frequency shall be used for design:
    - i. Local streets - 10 Year
    - ii. Culvert cross drains - 25 Year
    - iii. Swales - 100 Year
  - b. When a pipe or culvert is intended to convey the discharge from a stormwater management facility, its required capacity shall be computed by the rational method and compared to the peak outflow from the stormwater management facility for the 25-year storm. The greater flow shall govern the design of the pipe or culvert.
  - c. A 25-year design storm frequency may be required for design of the stormwater collection system to insure that the resultant stormwater runoff from the post-development design storm is directed into the stormwater management facility.



- d. In all cases where drainage is picked up by means of a head wall, the pipe shall be designed as a culvert. The minimum diameter of the culvert shall be 18 inches.
- e. Where the collection system may be under inlet or outlet control, the Township Engineer may request additional calculations.
- f. Greater design frequencies may be required on individual projects.

2. Storm Duration:

- a. A five (5) minute storm duration shall be used if this duration does not result in a maximum expected discharge that exceeds the capacity of a 30-inch pipe.
- b. If a five (5) minute storm duration results in a pipe size exceeding 30 inches, the time of concentration approach shall be used in determining storm duration.

3. Inlet Placement:

In general, catch basins shall be placed as required by hydraulic capacity. For design purposes, a capture ratio  $\frac{\text{design flow}}{\text{intercepted flow}}$  of 70% or greater is required. However, the width of flow in a street cannot exceed one-half ( $\frac{1}{2}$ ) of the travel lane. In any event, the maximum space between conveyed inlets shall not exceed 400 feet.

4. Pipe and Swale Capacity:

Manning's equation shall be used for the design of all storm sewer pipes and for open channel design:

$$V = \frac{1,486 R^{-1/2} S^{1/2}}{n}$$

where:

V = Velocity of the water in feet per second.

R = Hydraulic radius which is equal to the net effective areas (A) divided by the wetted perimeter (W.P.):

$$R = \frac{A}{W.P.}$$

The wetted perimeter is the lineal feet of the drainage facility cross-section which is wetted by the water.

S = Slope of the hydraulic gradient (for approximation, use water surface slope in wetted stream and stream bed slope in dry stream).

n = The roughness coefficient. Roughness coefficients are as follows:

**Values of Manning's Roughness Coefficient - *n***

Rip-rap	0.040
Grass-lined channel	0.035
Bare earth channel	0.020
Paved Bituminous channel	0.016
Concrete	0.012
Turf Reinforcement Matting (TRM)	Per manufacturer's recommendation

The maximum permitted velocity in a lined or unlined swale shall be in accordance with the USDA Engineering Field Manual and PA DEP, whichever is less.

The maximum permitted velocity in storm sewer pipe is 15 FPS. If 15 FPS is exceeded, the pipe must be anchored in accordance with the following table:

Velocity of Flow (FPS)	Anchor Spacing (FT)
15-20	30'
20-25	20'
25-30	10'

In any event flow velocity shall not exceed 30 FPS.

**SECTION 305. DESIGN CRITERIA: STORMWATER MANAGEMENT FACILITIES**

The plan shall be designed and approved based upon the following criteria:

- A. General - For drainage areas 320 acres or larger the peak discharge and runoff shall be computed using the soil-cover complex method contained in "Urban Hydrology for Small Water Sheds," Technical Release No. 55 published by Engineering Division, Soil Conservation Services, United States Department of Agriculture, dated June 1986 or latest revision, except as modified herein. For drainage areas less than 320 acres the Modified Rational Method may be utilized. Alternate methods of analysis may be considered if approved by the Township Engineer.
  
- B. Outflow determination. The maximum permitted stormwater discharge rate, in cubic feet per second, from any site shall not exceed the capacity of the receiving pipe or structure, nor the calculated peak discharge rate from the site at pre-development ground cover and soil conditions for all design storms specified below. For the purpose of this ordinance, pre-development ground cover conditions shall be assumed to be "meadow" as defined in "Urban Hydrology for Small Water Sheds," Technical Release No. 55 published by Engineering Division, Soil conservation service, United States Department of Agriculture, dated June 1986 or latest revision. The maximum permitted stormwater discharge rate shall be calculated using the SCS method or alternative method approved by the Township Engineer for rainfalls having recurrence intervals of 2, 5, 10, and 25 years. Time of Concentration (Tc) should be calculated using the SCS segmental approach in accordance with the current recommendations by SCS. For the purpose of this Ordinance, the following rainfall depths shall be used for design:

Recurrence Intervals (Yrs.)	24-Hour Rainfall Depth (In.)
2	3.0
5	3.9
10	4.8
25	5.3
100	6.8

The PennDOT Intensity-Duration Frequency (IDF) curves must be used to generate the proper rainfall intensity for design if using the Modified Rational Method. If alternate methods of analysis are utilized, the design storms recurrence interval in years shall be the same as used in the SCS TR-55 Method.

- C. Existing runoff volume. Existing runoff volume, in inches, shall be determined using the SCS method (or other method approved by the Township Engineer) at pre-development conditions for the 25-year recurrence interval design storm listed in Subsection B herein.
- D. Future runoff volume. The future runoff volume, in inches, shall be determined using the SCS method (or other method approved by the Township Engineer) at post-development conditions (including any future expansion) for the 25-year recurrence interval design storm listed in Subsection B above.
- E. Minimum required detention storage. The minimum required detention storage, shall be determined by routing the approved post-development hydrographs through the stormwater management facility, using either manual methods of computerized routing. Routing shall be based upon the modified PULS method; other routing methodologies shall be subject to the approval of the Township Engineer.
- F. Emergency spillway. Emergency spillways or overflow structures shall be designed to pass the peak flow resulting from a one hundred (100) year recurrence interval design storm computed at post-development conditions. All retention basins and detention basins shall provide an emergency spillway.
- G. Minimum bottom slope. All detention basins shall have a minimum bottom slope of 2 percent. If a paved low-flow channel is provided, the minimum bottom slope may be 1 percent.
- H. Side slopes. The maximum side slopes for detention or retention basins shall be 3 horizontal to 1 vertical in cut and 4 horizontal to 1 vertical in fill.
- I. Freeboard. The stormwater management facility shall have a minimum one foot of freeboard determined after routing the 100-year recurrence interval design storm listed in Subsection B above through the stormwater management facility.
- J. Seepage Trench. All stormwater management detention basins shall provide a 2' wide by 10' long by 6' deep seepage trench in accordance with Figure 3, unless field conditions deem the seepage trench non-functional and concurred by the Township Engineer.
- K. Fencing, trash racks and installation of child proof facilities may be required by the Township.

- L. All design shall be in accordance with standard engineering practice and procedures.

## **SECTION 306. EROSION AND SEDIMENTATION CONTROL**

All land disturbance activities shall be conducted in such a way as to minimize accelerated erosion and resulting sedimentation. Measures to control erosion and sedimentation shall be at a minimum to meet the standards of the Conservation District and Chapter 102 (Erosion Control) of Title 15, Rules and Regulations of the Pennsylvania Department of Environmental Protection and the East Hopewell Township Erosion and Sedimentation Ordinance.

## **ARTICLE IV**

### **PLAN REQUIREMENTS**

#### **SECTION 401. GENERAL REQUIREMENTS**

Prior to the final approval of subdivision and/or land development plan submitted pursuant to the Fawn Subdivision and Land Development Ordinance, the issuance of any permit, or the commencement of any land disturbance activity, the owner, subdivider, developer or his agent shall submit a stormwater management plan to the municipality for approval.

#### **SECTION 402. PLAN CONTENTS**

The plan shall be prepared by a professional engineer. The engineer shall certify that the plan meets the minimum design requirements of this Ordinance and shall include the following:

- A. Topographic features.
  - 1. The location of the project relative to highways, municipalities or other identifiable landmarks.
  - 2. Existing contours at intervals of two (2) feet. In areas of steep slopes (greater than 15%), five (5)-foot contour intervals may be used.
  - 3. Streams, lakes, ponds or other bodies of water within or near the project.

4. Other physical features including existing drainage swales and areas of natural vegetation to be preserved.
  5. Locations of proposed underground utilities, sewers, and waterlines.
- B. Soil types and boundaries within the area tributary to the site.
- C. Final topography.
1. Changes to land surface and vegetative cover.
  2. Areas to be cut or filled.
  3. Structures, roads, paved areas and buildings.
  4. Final contours at intervals of one (1) foot. In areas of steep slopes (greater than 15%), five (5)-foot contour intervals may be used.
- D. Stormwater Management Controls.
1. All stormwater management controls must be shown on the plan and described, including:
    - a. Groundwater recharge methods such as seepage pits, beds or trenches. If these structures are used, the locations of septic tank infiltration areas and wells must be shown.
    - b. Other control devices or methods such as rooftop storage, semi-pervious paving materials, grass swales, parking lot ponding, vegetated strips, detention or retention ponds, storm sewers, etc.
    - c. Schedule for installation of the control measures and devices.
  2. All calculations, assumptions and criteria used in the design of the control device or method must be submitted with the plan.
- E. Maintenance Program. A note must be provided on the final recorded plan for a maintenance program for all stormwater management facilities. The note must include who is responsible for the ownership of the stormwater management facilities and detail the financial responsibility for any required maintenance.

**SECTION 403. PLAN SUBMISSION**

- A. The plan shall be accompanied by the requisite fee, as set forth in Article V of this Ordinance.
- B. Three (3) copies of the completed plan must be submitted.

**SECTION 404. PLAN REVIEW AND APPROVAL**

- A. The Township shall forward one (1) copy of the plan to the Township Engineer for review. The Township Engineer shall recommend to the Township in writing whether the plan should be approved, disapproved or amended within sixty (60) days following its submission. Failure of the Township Engineer to render an opinion within the sixty (60) days time limit shall be deemed a favorable review unless the applicant has agreed in writing to an extension of time.
- B. At a scheduled public meeting the Board of Supervisors shall render its decision on the application and communicate its decision to the applicant not later than ninety (90) days after such application has been filed. The decision of the Board of Supervisors concerning plan approval, disapproval or amendment shall be in writing and shall be communicated to the applicant personally or mailed to him at this last known address not later than five (5) days following the decision.

**ARTICLE V**

**FEES AND EXPENSES**

**SECTION 501. GENERAL**

Fees covering costs to Fawn Township for plan reviews and inspections shall be established by resolution of the Township Board of Supervisors. No permit to begin any work on the project shall be issued until the required fees have been paid.

**SECTION 502. EXPENSE COVERED BY FEES**

- A. The fees paid by an applicant shall, at a minimum cover:
  - 1. The review of the stormwater management/erosion and sedimentation control plan.

2. The site inspection, if necessary.
- B. In addition to the fees required in subsections A.1 and A.2 of this Section, the applicant shall deposit with the Township, before a permit shall be issued, a sum set by resolution. The sum deposited by the applicant shall be used by the municipality to cover the following costs:
1. The inspection of required controls and improvements during construction;
  2. The final inspection upon completion of the controls and improvements required on the plan; and
  3. Any additional work required to enforce the permit provisions, correct violations, and assure the completion of stipulated remedial actions.
- C. Any additional cost incurred by Fawn Township in the administration of this Ordinance not paid by applicant pursuant to subsection B of this Section shall be charged to the applicant and shall be paid promptly by the applicant.
- D. Upon completion of the construction of the stormwater management facility and upon final approval thereof by the Township Engineer, any monies in excess of Township cost or expenses deposited by the applicant pursuant to subsection B. This Section shall be refunded to the applicant.

## **ARTICLE VI**

### **INSPECTIONS**

#### **SECTION 601. SCHEDULE OF INSPECTIONS**

- A. The Township Engineer or his designee shall periodically inspect the site during construction of the permanent stormwater facilities. It is the responsibility of the permittee to notify the Township Engineer 48 hours in advance of the beginning of construction of stormwater management facilities.
- B. Any portion of the work which does not comply with the approved plan must be promptly corrected by the permittee. No work may proceed on any



subsequent phase of the stormwater management plan, the subdivision or land development or building construction, until the required corrections have been made.

- C. After construction of the facility, the developer's engineer will certify to Fawn Township that the construction of the stormwater management facility was completed in accordance with the plans and specifications as approved by the Township. Plans which are not properly documented and certified or which do not accurately reflect correct site conditions will be rejected.

## **ARTICLE VII**

### **FINANCIAL GUARANTEES AND MAINTENANCE RESPONSIBILITIES**

#### **SECTION 701. PERFORMANCE BOND**

- A. The Township shall require a performance bond in favor of the Township in an amount equal to one hundred ten percent (110%) of the estimated cost of all stormwater management facilities. Said bond shall be conditioned upon the faithful performance of the control measures specified on the plan within the times specified or within any extension thereof granted by the Township. Said bond shall terminate when all control measures as shown on the approved plan are completed and approved by the Township Engineer.
- B. In lieu of the required bonds, the applicant may deposit funds or securities in an escrow account satisfactory to the Township Solicitor. Funds deposited in this account for guaranteeing the construction or maintenance of control measures shall be used for these purposes only. No bond will be required for a single-family residence application.
- C. Such bonds or escrowed funds required by this Section shall be governed, controlled by, and be administered and reduced pursuant to Article X of the Fawn Township Subdivision and Land Development Ordinance.

#### **SECTION 702. MAINTENANCE GUARANTEE**

- A. Maintenance by single entity. In cases where permanent control facilities are owned by a single entity (such as a homeowner's association), such entity shall be responsible for maintenance. In this case a legally binding agreement between the entity and the Township shall be made providing for

maintenance of all permanent control facilities, including the inspection by the Township of all such facilities deemed critical to the public welfare annually, and after each major flood event, and a means by which the Township can enforce the agreement.

B. Maintenance by individual lot owners. When stormwater management facilities are located on all individual lots, and when they are the responsibility of the land owner to maintain, a description of the facility or system and the terms of the required maintenance shall be recorded with the deed to the property.

1. If the Township determines at any time that any permanent stormwater management facility has been eliminated, altered or improperly maintained, the owner of the property shall be advised of corrective measures required and given a reasonable period of time to take necessary action. If such action is not taken by the property owner, the Township may cause the work to be done and a lien for costs may be placed against the property, or pursuant to any agreement entered into pursuant to subsection A.

C. Maintenance by Township. The Township is authorized, where in its sole discretion it deems such to necessary for the public welfare, to enter into contracts with persons whereby such persons will dedicate such stormwater management facilities to the Township; provided, however, before such stormwater management facility is dedicated to the Township and accepted by the Township such person shall have deposited a sum of money with the Township sufficient, in the opinion of the Township, to provide for future maintenance and repair of the stormwater facility for a period of twenty-five (25) years. This option for maintenance shall be entirely the choice of the Township.

## ARTICLE VIII

### CIVIL REMEDIES

#### SECTION 801. CIVIL REMEDIES

Any development activity conducted in violation of any provision of the Ordinance shall be subject to suits to restrain, prevent or abate violation of this Ordinance by the Township or by an aggrieved person. This remedy is cumulative with other remedies in this Ordinance.

## ARTICLE IX

### ENFORCEMENT AND PENALTIES

#### SECTION 901. RIGHT-OF-ENTRY

Upon presentation of proper credentials, duly authorized representatives of the Township may enter at reasonable times upon any property within the Township to investigate or ascertain the condition of the subject property in regard to any aspect regulated by this Ordinance.

#### SECTION 902. NOTIFICATIONS

In the event that an owner, subdivider, developer or his agent fails to comply with the requirements of this Ordinance, or fails to conform to the requirements of any permit issued thereunder, the Township shall provide written notification of violation.

Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s). Upon failure to comply within the time specified, the owner, subdivider, developer or his agent, or any combination thereof, shall be subject to the penalty provisions of this Ordinance as set forth in Section 903.

#### SECTION 903. PENALTIES

- A. Anyone violating the provisions of this Ordinance shall be guilty of a misdemeanor, and upon conviction shall be subject to a fine of not more than \$500.00 for each violation, recoverable with costs, or imprisonment of not more than thirty (30) days, or both. Each day that the violation continues shall be separate offense.
- B. In addition, the Township may institute injunctive, mandamus or any other appropriate action or proceeding at law or in equity for the enforcement of this Ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

**ARTICLE X**

**APPEALS**

**SECTION 1001. APPEALS**

- A. Any person aggrieved by any action of the Township or its agent may appeal to the Board of Supervisors within thirty (30) days of the action to be appealed from.
- B. Any person aggrieved by any decision of the Board of Supervisors may appeal to the Court of Common Pleas of York County within the time allowed by law for such an appeal.

**ARTICLE XI**

**ENACTMENT**

**SECTION 1101. EFFECTIVE DATE**

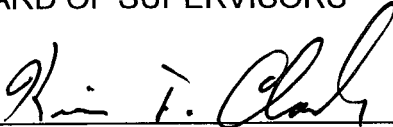
This Ordinance shall be effective five (5) days after its enactment.

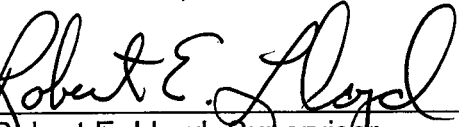
Ordained and enacted this 9th day of September, 2002.

ATTEST:

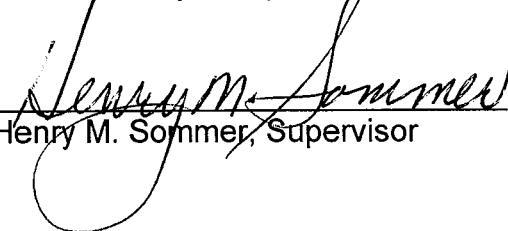
  
\_\_\_\_\_  
Asst. Sec.

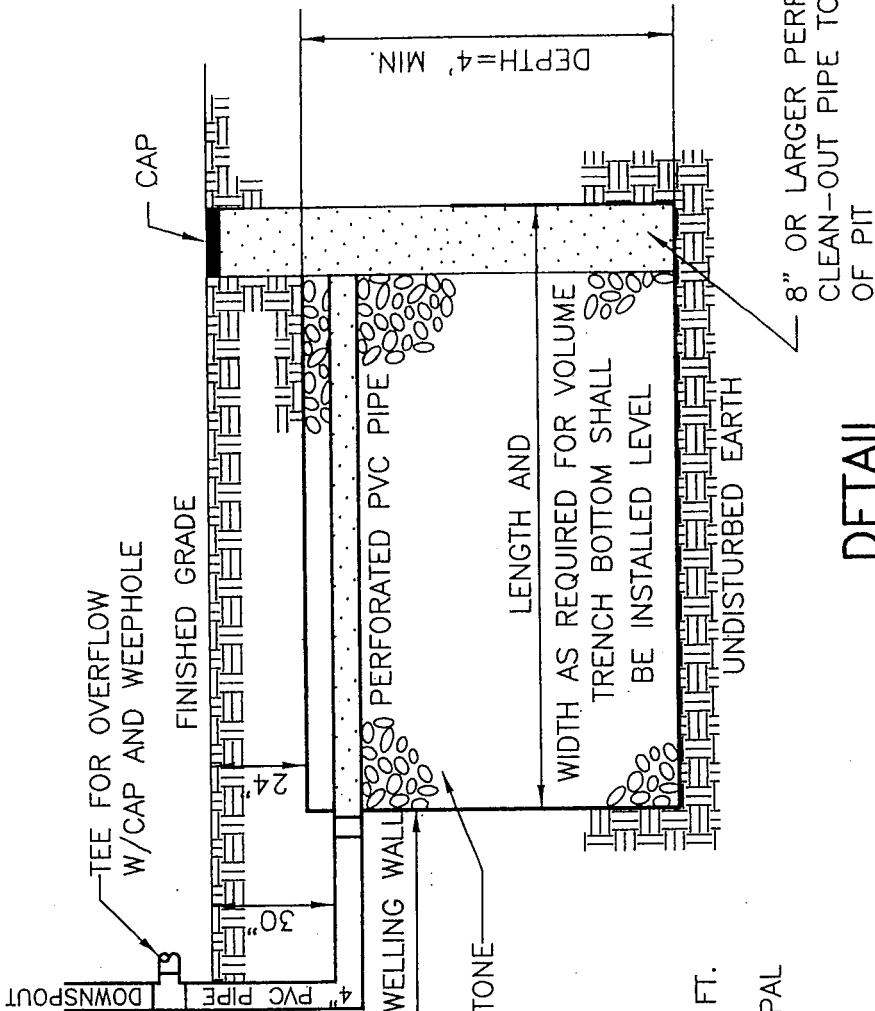
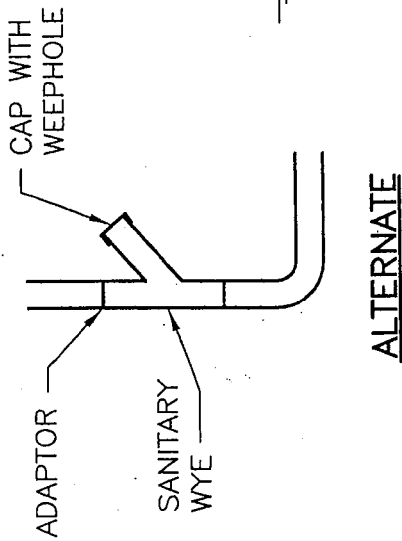
FAWN TOWNSHIP  
BOARD OF SUPERVISORS

By:   
\_\_\_\_\_  
Kevin F. Clark, Chairman

By:   
\_\_\_\_\_  
Robert E. Lloyd, Supervisor

(SEAL)

By:   
\_\_\_\_\_  
Henry M. Sommer, Supervisor



## DETAIL

### TYP. ROOF DRAIN SEEPAGE PIT

SCALE: NONE

TRENCH SHALL BE LINED WITH PADOT CLASS 1 GEOTEXTILE MATERIAL PER PUBLICATION 408, SECTION 212.3b. ALLOW 1' OVERLAP ACROSS BACKFILL AT TOP OF TRENCH AND ALSO AN OVERLAP OF 1' AT END OF ROLLS.

ALL DWELLINGS MUST UTILIZE ROOF DRAIN SEEPAGE PITS. A PERC TEST BY THE ZONING OFFICER MAY BE REQUIRED.

MIN. 10' FROM DWELLING WALL

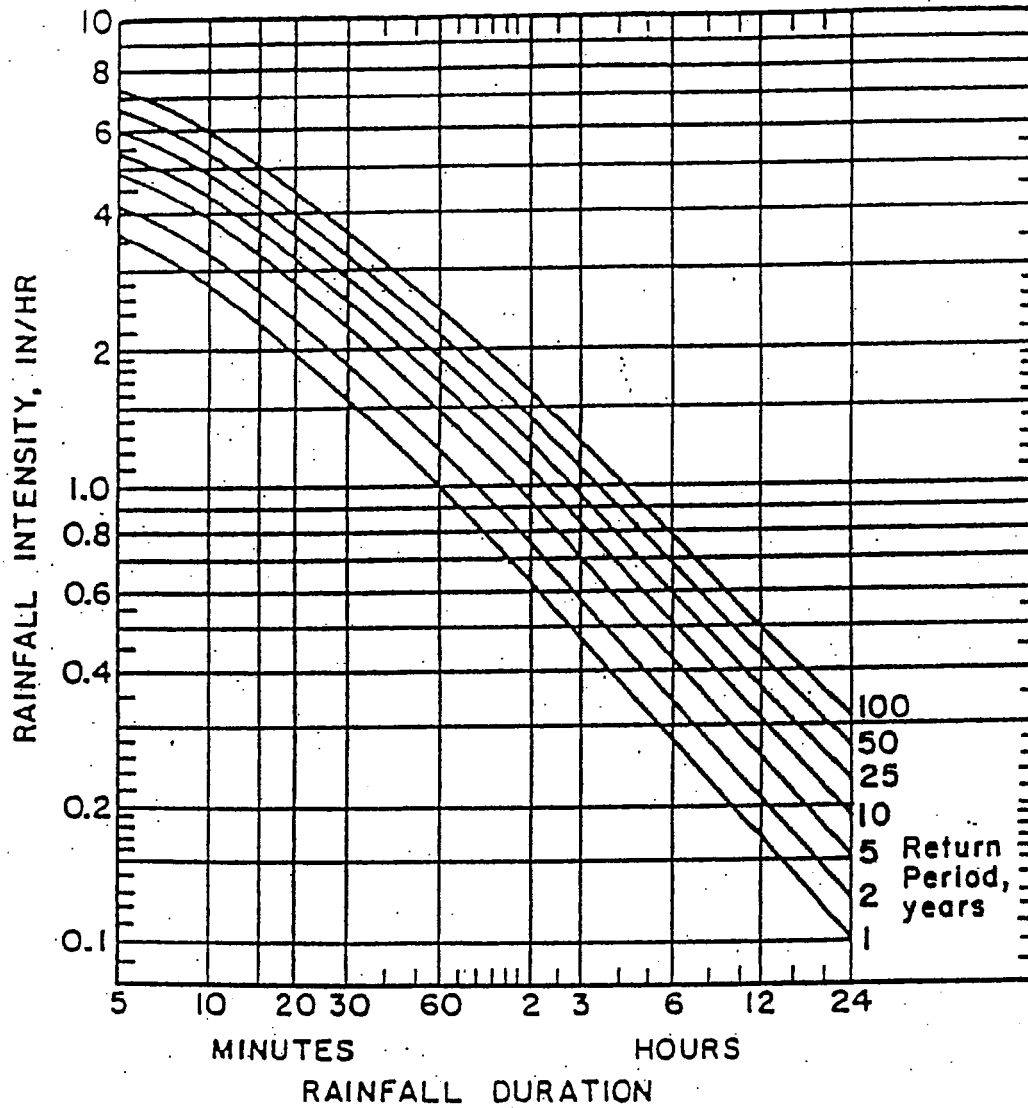
\* AASHTO #1 (PENNDOT #4) STONE

VOLUME REQUIRED:  
1 CU. FT. OF SEEPAGE  
PIT FOR EVERY 2 SQ. FT.  
OF ROOF SURFACE OR  
AS SPECIFIED BY MUNICIPAL  
ENG., DUE TO SITE  
CONDITIONS.

\* TOP 12" OF STONE MAY  
BE 3/4" IN SIZE TO AID IN  
PIPE INSTALLATION

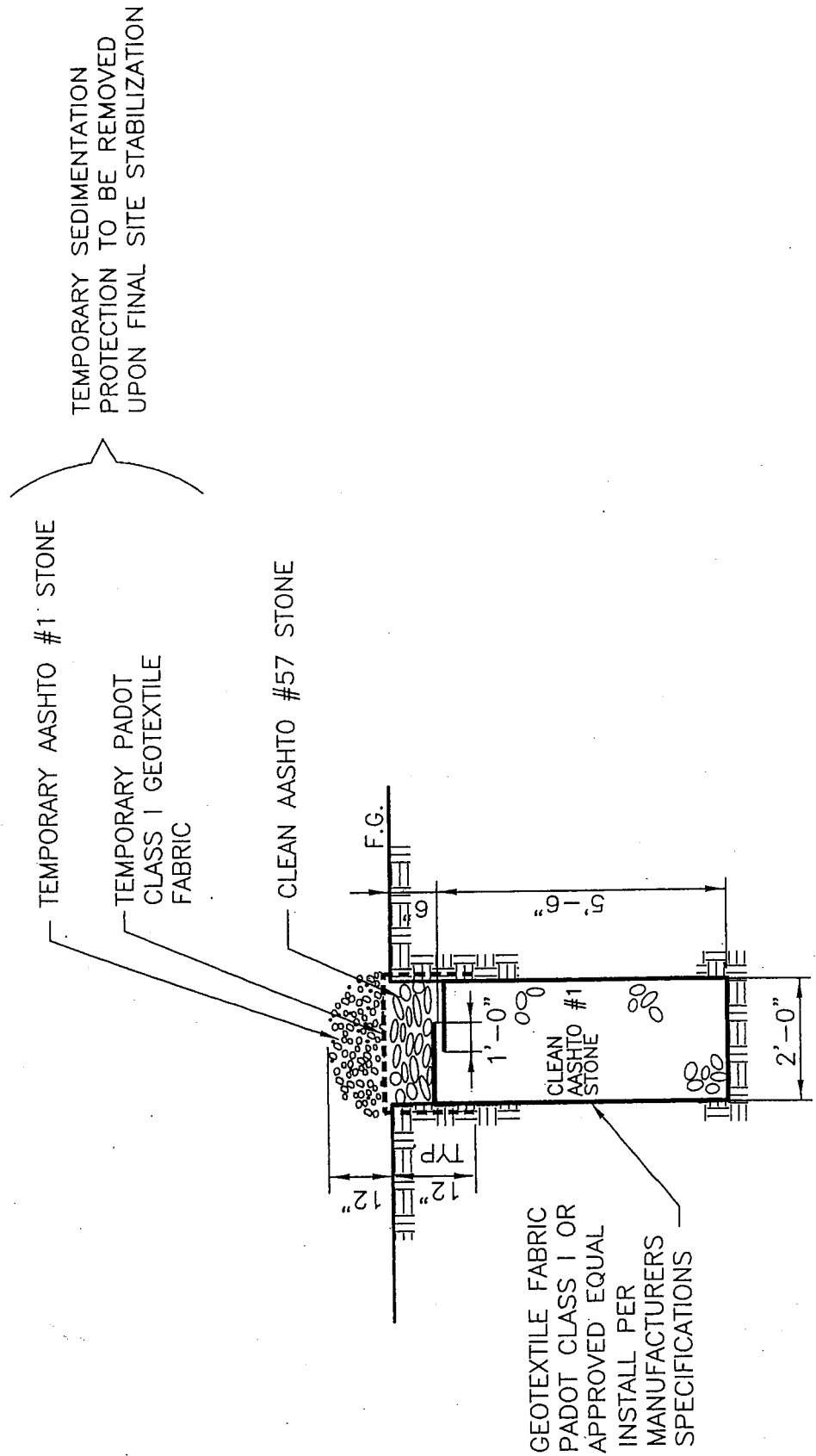
FIGURE 1

# REGION 4



STORM INTENSITY - DURATION - FREQUENCY  
CURVES FOR REGION 4

FIGURE 2



**TYPICAL SECTION  
SEEPAGE TRENCH**  
NO SCALE

**FIGURE 3**