

8. Energy dissipaters. Energy dissipaters shall be designed in accordance with the requirements in the DEP E&S Manual.
9. End treatments.
 - a. Where the connecting pipe has a diameter of 18 inches or greater, headwalls and endwalls shall be provided with a protective barrier device to prevent entry of the storm sewer pipe by unauthorized persons. Such protection devices shall be designed to be removable for cleaning.
 - b. Headwalls and endwalls shall be constructed of concrete.
 - c. Flared end sections shall be of the same material as the connecting pipe and be designed for the size of the connecting pipe.
- D. SWM Facilities which qualify as a dam per DEP regulations or facilities deemed a potential threat to the life, safety or welfare of the general public shall be subject to the following requirements:
 1. Facilities which qualify as a dam per DEP regulation shall obtain the required permit through DEP and be designed in accordance with DEP standards.
 2. Additional requirements and analysis may be required by the township to prove that the proposed facility has been designed to limit the potential risk to the life, safety or welfare of the general public.

ARTICLE IV - INFORMATION TO BE INCLUDED ON OR WITH STORMWATER MANAGEMENT SITE PLANS

Section 401. General Plan Requirements

- A. The SWM Site Plan shall consist of a narrative and all applicable calculations, maps, plans and supplemental information necessary to demonstrate compliance with this Ordinance.
- B. All landowners of land included in the SWM Site Plan shall be required to execute all applications and final documents.
- C. All SWM Site Plans shall be prepared by a Qualified Person.
- D. Where the regulated activity constitutes subdivision or land development as hereinabove defined, the SWM Site Plan shall be submitted with and form an integral part of the plans required under the applicable Subdivision and Land Development Ordinance.

Section 402. Drafting Standards

- A. The Plan should be clearly and legibly drawn.

- B. If the Plan is prepared in two (2) or more drawing sheets, a key map showing the location of the sheets and a match line shall be placed on each sheet.
- C. Each sheet shall be numbered to show the relationship to the total number of sheets in the Plan (e.g. Sheet 1 of 5).
- D. Drawings or maps of the project area shall be drawn at 1" = 50' or larger scale (i.e. 1" = 40', 1" = 30', etc.) and shall be submitted on 24-inch x 36-inch sheets.
- E. SWM Site Plans shall be prepared in a form that meets the requirements for recording for the Office of the Recorder of Deeds of Lancaster County.
- F. The total Development Site boundary and size with distances marked to the nearest foot and bearings to the nearest degree.

Section 403. SWM Site Plan Information

The following items shall be included in the SWM Site Plan:

- A. The date of the SWM Site Plan and latest revision, graphic scale, written scale and North arrow.
- B. The name of the development, the name and address of the owner of the property, and the name of the individual or firm preparing the Plan.
- C. The file or project number assigned by the firm that prepared the Plan.
- D. A statement, signed by the landowner, acknowledging the SWM Facilities to be permanent fixtures that cannot be altered or removed unless a revised Plan is approved by the Township.
- E. The following signature block for the Township:

Drumore Township SWM Site Plan Approval Certification

At a meeting on _____, 20____, the Drumore Township Board of Supervisors accepted this project. This acceptance includes a complete set of plans and information on file in Drumore Township File No. _____. Acceptance does not guarantee efficacy of any parts of the design or the implementation thereof, and Applicants and Property Owners shall, in all events, even with such acceptance, comply now and at implementation with all laws and Ordinances in effect in the Township.

Governing Body Signature

Governing Body Signature

- F. For SWM facilities located off-site:

1. A note on the Plan referencing a recorded Stormwater Operation and Maintenance (O&M) Agreement that indicates the location and responsibility for maintenance of the off-site facilities.
 2. All off-site SWM Facilities shall meet the performance standards specified in this Ordinance.
- G. A note informing the owner that the Township shall have the right of entry for the purposes of inspecting all stormwater conveyance, treatment, or storage facilities.
- H. A location map, drawn to a scale of a minimum of one inch equals two thousand feet (1" = 2,000'), relating the Plan to municipal boundaries, at least two (2) intersections of road centerline or other identifiable landmarks.
- I. Existing Features
1. In areas of disturbance, contours at intervals of one (1) or two (2) feet. In areas of steep slopes (greater than 15 percent) and areas undisturbed, five-foot contour intervals may be used. Contours shall be accompanied by the location of the benchmark and the datum utilized. Lidar and/or GIS Mapping shall not be accepted for areas proposed for disturbance.
 2. The locations of all existing utilities (including on lot disposal systems and wells), sanitary sewers, and water lines and associated easements.
 3. Physical features including overland drainage paths, flood hazard boundaries, wetlands, sinkholes, streams, lakes, ponds and other waterbodies, existing drainage courses, karst features, areas of native vegetation including trees greater than 6" diameter at breast height, woodlands, other environmentally sensitive areas and the total extent of the upstream area draining through the Development Site.
 4. An overlay showing soil names and boundaries.
 5. All existing man-made features within two hundred (200) feet of the Development Site boundary.
 6. Building setback lines and building envelope.
- J. Proposed Features
1. Detailed grading plan depicting changes to the land surface and vegetative cover, including final proposed contours at intervals of one (1) or two (2) feet in areas of disturbance. In areas of steep slopes (greater than 15 percent) and areas undisturbed, five-foot contour intervals may be used. Finished floor elevations for all buildings shall be provided.
 2. Proposed structures, roads, paved areas, buildings and other impervious and semi-impervious areas.

3. The location of any proposed on-lot disposal systems, replacement drainfield easements, and water supply wells.
 4. A note indicating existing and proposed land use(s) including the proposed amount of impervious surface proposed as well as the proposed amount of earth disturbance in acres or square feet.
 5. Plan and profile drawings of all proposed SWM facilities, including BMPs, drainage structures, pipes, open channels, and swales.
 6. Where pervious pavement is to be installed, pavement material and construction specifications shall be included.
 7. The location of all existing and proposed easements, including drainage easements, access easements and riparian corridor easements.
 8. A planting plan shall be provided for all vegetated BMPs in accordance with Section 301.N.
 9. The constructions specifications for the materials to be used for stormwater management facilities.
- K. The location of all E&S control facilities.
- L. A detailed schedule of inspections during construction, as generally outlined as follows, which is tailored for the site under consideration.
- (1) The Township shall inspect all phases of the installation of any temporary or permanent Storm Water Management facilities during construction. The developer shall pay the cost of any such inspection. The developer shall provide at least twenty-four (24) hours notice prior to the start of construction of any improvements that are subject to inspection. All inspections of completed items shall be requested, in writing, at least forty-eight (48) hours in advance of the inspection time and date.
 - (2) It is generally required that the following phases of site construction have mandatory inspection. This general list of phases may be amended by the Township when the site requires special construction procedures. The inspection schedule must be shown on the approved Storm Water Management Site Plan.
 - (3) General Site Construction
 - (a) Upon completion of preliminary site preparation including stripping of vegetation, stockpiling of topsoil and construction of temporary erosion and sedimentation control devices.

- (b) Upon completion of rough grading, but prior to placing topsoil, permanent drainage or other site development improvements and ground covers.
 - (c) During the construction of permanent stormwater management and BMP facilities.
 - (d) Upon the final completion of permanent storm water management and BMP facilities, including the establishment of ground covers and plantings.
 - (e) After review of the as-built drawings, required by Section 509, but prior to final release of the financial security for completion of final grading, vegetative controls required by the BMP standards, or other site restoration work.
- M. A note on the plan indicated that As-Built plans will be provided for all stormwater management facilities prior to occupancy, or the release of financial security.
- N. The zoning district, lot size, impervious coverage proposed and other applicable bulk requirements of the Zoning Ordinance.
- O. A statement on the plan indicating the granting of a prior zoning variance or special exception, if applicable, along with any prior or proposed modifications of this Ordinance.
- P. The names of all adjacent landowners; both adjoining and across existing rights of way along with plan record book numbers of all previously recorded plans for adjacent properties.
- Q. In the case of a plan which requires access to a highway under the jurisdiction of the Department of Transportation, the inclusion of the following plan note:
- “A Highway Occupancy Permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242, No. 428), known as the “State Highway Law”, before access to a state highway is permitted. Access to the state highway shall be as authorized by a Highway Occupancy Permit, and the Supervisors’ approval of this plan in no way implies that such permit can be acquired.”

Section 404. Additional Information

- A. General description of the Development Site, including a description of existing natural and hydrologic features and any environmentally sensitive areas.
- B. General description of the overall SWM concept for the project, including a description of permanent SWM techniques, non-structural BMPs to be employed and construction specifications of the materials to be used for structural SWM facilities. The narrative shall include a description of any treatment trains and how the facilities are meant to function with each other to manage stormwater runoff.

- C. The effect of the project (in terms of runoff volumes, water quality and peak flows) on adjacent properties and on any existing municipal stormwater management facilities that may receive runoff from the Development Site.
- D. Complete hydrologic, hydraulic, and structural computations for all SWM facilities.
- E. Expected project time schedule.

Section 405. Supplemental Information

- A. In areas of carbonate geology, a detailed geologic evaluation prepared by a registered Professional Geologist (PG) must be submitted as part of the SWM Site Plan. The report shall include, but not limited to the following:
 - 1. The location of the following karst features;
 - a. sinkholes
 - b. closed depressions
 - c. lineaments in carbonate areas
 - d. fracture traces
 - e. caverns
 - f. intermittent lakes
 - g. ephemeral disappearing streams
 - h. bedrock pinnacles (surface or subsurface)
 - 2. A plan for remediation of any identified karst features.
 - 3. Impacts of stormwater management facilities on adjacent karst features, and impacts of karst features on adjacent stormwater management facilities.
- B. An E&S Plan, including all approvals, as required by 25 Pa. Code Chapter 102, shall be provided to the Township prior to unconditional final plan approval.
- C. For any activities that require a DEP Joint Permit Application and are regulated under Chapter 105 or Chapter 106, require a Penn DOT Highway Occupancy Permit, or require any other permit under applicable state or federal regulations, the permit(s) shall be part of the SWM Site Plan and must be obtained prior to unconditional final plan approval.
- D. An Operation and Maintenance (O&M) Plan that addresses the requirements of Section 603.
- E. Where applicable, a recorded Stormwater Management Agreement for off-site facilities.
- F. Applicant shall identify the number of square feet of impervious surface coverage for which the stormwater management facilities have been designed. This number shall be placed in the Stormwater Management Agreement and Declaration of Easement referenced elsewhere herein, and shall also note the actual number of square feet of impervious surface coverage that is intended to exist following the completion of

construction. To the extent that the designed and implemented facilities exceed the required stormwater management (in excess of that needed for the proposed impervious coverage), the property owner (as part of the property owner's application) shall be given credit in the future against any additional coverage that the property owner may apply.

ARTICLE V - PLAN PROCESSING PROCEDURES

Section 501. Exemption from Plan Submission Requirements

- A. The following regulated activities are specifically exempt from the SWM Site Plan preparation and submission requirements articulated in Section 301.A and Articles IV and V of this Ordinance:
1. Agricultural activity (see definitions) provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
 2. Forest management and timber operations (see definitions) provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
 3. Conservation Practices being installed as part of the implementation of a Conservation Plan written by an NRCS certified planner.
 4. The installation of 1,000 or fewer square feet of Impervious Surface coverage proposed after the effective date of the Ordinance; provided that the activities meet the criteria of Section 501.C below and are conducted in accordance with all requirements of this Ordinance.
 5. Domestic landscape and/or vegetable gardening.
- B. The Township may deny or revoke any exemption pursuant to this Section at any time for any project that the Township believes may pose a threat to public health, safety, property or the environment.
- C. An Applicant proposing the cumulative installation of 1,000 square feet or less of Impervious Surface coverage may be exempt from the design, plan submittal, and processing requirements of Articles IV, and V of this Ordinance if the proposal meets the criteria in this Section. No person or activity is exempted from compliance with Section 605 and Articles VII, VIII, and IX of this Ordinance. Exemptions do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other code law regulation or ordinance. Exemption shall not relieve an applicant from implementing such measures as necessary to meet compliance with any NPDES Permit requirements.