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MANAGING PRINCIPALS
Kevin A. Brett, P.E.
Ned Mitrovich, P.E.
Jason E. Stanton, P.E.

September 23, 2022

S. O. No. 0525-05

VIA DIGITAL UPLOAD

Mr. Paul Livingston
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, Pennsylvania 15222-4745

Subject: **New Sewickley Township, Beaver County**
2022 Annual MS4 Status Update
Report Period: July 1, 2021 to June 30, 2022

Dear Mr. Livingston:

Transmitted herewith is one copy of the 2022 Annual MS4 Status Report for the Report Period from July 1, 2021 to June 30, 2022 submitted on behalf of New Sewickley Township.

Should you have questions, please contact John W. Valinsky, E.I.T. directly (Ext. 237).

Sincerely,

Kevin A. Brett, P.E.

KAB/als

Enclosures

cc/enc: Lawrie Borgman, Secretary - New Sewickley Township (secretary@newsewickley.com)

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT

FOR THE PERIOD JULY 1, 2021 TO JUNE 30, 2022

GENERAL INFORMATION			
Permittee Name:	New Sewickey Township	NPDES Permit No.:	PAG136280
Mailing Address:	233 Miller Road	Effective Date:	March 16, 2018
City, State, Zip:	Rochester, PA 15074	Expiration Date:	
MS4 Contact Person:	Brian O'Malley	Renewal Due Date:	
Title:	Township Manager	Municipality:	New Sewickley Township
Phone:	724-774-7822	County:	Beaver
Email:	manager@newsewickley.com		
Co-Permittees (if applicable):			

Appendix(ces) that permittee is subject to (select all that apply):

☐ Appendix A ☒ Appendix B ☒ Appendix C ☐ Appendix D ☒ Appendix E ☐ Appendix F

WATER QUALITY INFORMATION

Are there any discharges to waters within the Chesapeake Bay Watershed? ☐ Yes ☒ No

Identify all surface waters that receive stormwater discharges from the permittee's MS4 and provide the requested information (see instructions).

Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
Dutchmans Run	WWF	No	N/A	N/A	N/A
Crows Run	WWF	No	N/A	N/A	N/A
Wolfe Run	WWF	No	N/A	N/A	N/A
Pine Run	WWF	No	N/A	N/A	N/A
Brush Creek	WWF	Yes	Pathogens, Organic Enrichment / Low D.O.	N/A	N/A

GENERAL MINIMUM CONTROL MEASURE (MCM) INFORMATION

Have you completed all MCM activities required by the permit for this reporting period? ☐ Yes ☒ No

List the current entity responsible for implementing each MCM of your SWMP, along with contact name and phone number.

MCM	Entity Responsible	Contact Name	Phone
#1 Public Education and Outreach on Storm Water Impacts	New Sewickley Township	Brian O'Malley	724-774-7822
#2 Public Involvement/Participation	New Sewickley Township	Brian O'Malley	724-774-7822
#3 Illicit Discharge Detection and Elimination (IDD&E)	New Sewickley Township	Brian O'Malley	724-774-7822
#4 Construction Site Storm Water Runoff Control	New Sewickley Township	Brian O'Malley	724-774-7822
#5 Post-Construction Storm Water Management in New Development and Redevelopment	New Sewickley Township	Brian O'Malley	724-774-7822
#6 Pollution Prevention / Good Housekeeping	New Sewickley Township	Brian O'Malley	724-774-7822

MCM #1 – PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

BMP #1: Develop, implement and maintain a written Public Education and Outreach Program.

1. For new permittees only, has the written PEOP been developed and implemented within the first year of permit coverage?

   ☐ Yes ☐ No

2. Date of latest annual review of PEOP: June 2022 Were updates made? ☐ Yes ☒ No

3. What were the plans and goals for public education and outreach for the reporting period?

   Provide educational material to target audience groups within the Township

4. Did the MS4 achieve its goal(s) for the PEOP during the reporting period? ☒ Yes ☐ No

5. Identify specific plans and goals for public education and outreach for the upcoming year:

   The Township will continue distribution of educational material and stormwater information through the Township website, newsletter, and other forums. The Public Education and Outreach Program (PEOP) shall continue to be implemented and shall be re-evaluated and revised each permit year as necessary.

BMP #2: Develop and maintain lists of target audience groups present within the areas served by your MS4.

1. For new permittees only, have the target audience lists been developed and implemented within the first year of permit coverage?

   ☐ Yes ☐ No

2. Date of latest annual review of target audience lists: June 2022 Were updates made? ☐ Yes ☒ No

BMP #3: Annually publish at least one educational item on your Stormwater Management Program.

1. For new permittees only, were stormwater educational and informational items produced and published in print and/or on the Internet within the first year of permit coverage?

☐ Yes ☐ No

2. Date of latest annual review of educational materials: June 2022 Were updates made? ☐ Yes ☒ No

3. Do you have a municipal website? ☒ Yes ☐ No (URL: www.newsewickley.com)

If Yes, what MS4-related material does it contain?
Brochures, Information on Stormwater and links to other sites

4. Describe any other method(s) used during the reporting period to provide information on stormwater to the public:
Refer to BMP 4

5. Identify specific plans for the publication of stormwater materials for the upcoming year:
Publish educational and informational items including links to DEP's and EPA's stormwater websites on the Township website. Periodically review, distribute or republish stormwater information available from DEP, EPA and other sources. Continue implementation of the PEOP plan.

BMP #4: Distribute stormwater educational materials to the target audiences.

Identify the two additional methods of distributing stormwater educational materials during the previous reporting period (e.g., displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements, bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, or storm drain stenciling).

- Informational pamphlets are available at the Township office
- Informational packets are distributed with each building permit application
- The Township participates in the annual Beaver County COG Joint Advertisement
- An MS4 information presentation was provided by the Township Engineer at the June 7, 2022 Board of Supervisors Meeting.
- An information presentation was provided by the Township Engineer at the August 16, 2021 Planning Commission Meeting.
- The Township newsletter includes PRP Progress information
- The Township intends to inlcude stormwater information with building permit application packages
- Handouts were available at the Township Community Days Event
- BCCD provided a stormwater presentation on Agricultural and Foresty practices on February 17, 2022

MCM #1 Comments:

MCM #2 – PUBLIC INVOLVEMENT/PARTICIPATION

BMP #1: Develop, implement and maintain a written Public Involvement and Participation Program (PIPP)

1. For new permittees only, was the PIPP developed and implemented within one year of permit coverage?

☐ Yes ☐ No

2. Date of latest annual review of PIPP: June 2022 Were updates made? ☐ Yes ☒ No

BMP #2: Advertise to the public and solicit public input on ordinances, SOPs, Pollutant Reduction Plans (PRPs) (if applicable) and TMDL Plans (if applicable), including modifications thereto, prior to adoption or submission to DEP:

1. Was an MS4-related ordinance, SOP, PRP or TMDL Plan developed during the reporting period? ☒ Yes ☐ No

2. If Yes, describe how you advertised the draft document(s) and how you provided opportunities for public review, input and feedback:

The Ordinance was advertised in the Township Paper of Record at discussed at several Board of Supervisor meetings prior to adoption.

3. If an ordinance, SOP or plan was developed or amended during the reporting period, provide the following information:

Ordinance / SOP / Plan Name	Date of Public Notice	Date of Public Hearing	Date Enacted or Submitted to DEP
Stormwater Management Ordinance		September 6, 2022	September 6, 2022

BMP #3: Regularly solicit public involvement and participation from the target audience groups using available distribution and outreach methods.

1. At least one public meeting or other MS4 event must be held during the 5-year permit coverage period to solicit participation and feedback from target audience groups. Was this meeting or event held during the reporting period?

   ☒ Yes ☐ No If Yes, Date of Meeting or Event: June 7, 2022

2. Report instances of cooperation and participation in MS4 activities; presentations the permittee made to local watershed and conservation organizations; and similar instances of participation or coordination with organizations in the community.

   The Township cooperates with Beaver County COG for the annual joint MS4 ad.

3. Report activities in which members of the public assisted or participated in the meetings and in the implementation of the SWMP, including education activities or efforts such as cleanups, monitoring, storm drain stenciling, or others.

   -The Township holds a recycling program every other Saturday
   -The Township completed the Green Water Valley Park Stormwater Control and Pollution Reduction Project as a part of its MS4 PRP requirements
   -The Township provides designated recycling bins, and a designated area at the Municipal Building for residents to drop off leaves, branches and grass clippings.
   - Township residents attended an informational presentation was provided by the Township Engineer at the June 7, 2022 Board of Supervisors Meeting and August 16, 2021 Planning Commission Meeting.
   - Township residents participated in an electronic recycling day event on July 24, 2021 and May 14, 2022.
   - Residents participated in a stormwater presentation from BCCD on February 17, 2022
   - Residents participated in a tire recycling event on May 14, 2022
   - A cleanup day was held on May 7, 2022.

MCM #2 Comments:

MCM #3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)

BMP #1: Develop and implement a written program for the detection, elimination, and prevention of illicit discharges into the regulated small MS4.

1. For new permittees only, was the written IDD&E program developed within one year of permit coverage?

   ☐ Yes ☐ No

2. Date of latest annual review of IDD&E program: June 2022 Were updates made? ☐ Yes ☒ No

BMP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls and, if applicable, observation points, and the locations and names of all surface waters that receive discharges from those outfalls. Outfalls and observation points shall be numbered on the map(s).

1. Have you completed a map(s) that includes all components of BMP #2? ☒ Yes ☐ No

   If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.

   If No, date by which permittee expects map(s) to be completed:

2. Date of last update or revision to map(s): November 10, 2021

3. Total No. of Outfalls in MS4: 155 Total No. of Outfalls Mapped: 50

4. Total No. of Observation Points: Total No. of Observation Points Mapped:

5. During the reporting period, have you identified any existing outfalls that have not been previously reported to DEP in an NOI, application or annual report, or are any new MS4 outfalls proposed for the next reporting period?

☒ Yes ☐ No If Yes, select: ☒ Existing Outfall(s) Identified ☐ New Outfall(s) Proposed

BMP #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), the permittee shall develop and maintain map(s) that show the entire storm sewer collection system within the permittee's jurisdiction that are owned or operated by the permittee (including roads, inlets, piping, swales, catch basins, channels, and any other components of the storm sewer collection system), including privately-owned components of the collection system where conveyances or BMPs on private property receive stormwater flows from upstream publicly-owned components.

1. Have you completed a map(s) that includes all components of BMP #3? ☒ Yes ☐ No

   If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.

   If No, date by which permittee expects map(s) to be completed:

2. If Yes to #1, is the map(s) on the same map(s) as for outfalls and receiving waters? ☐ Yes ☐ No

3. Date of last update or revision to map(s): November 10, 2021

BMP #4: Conduct dry weather screenings of MS4 outfalls to evaluate the presence of illicit discharges. If any illicit discharges are present, the permittee shall identify the source(s) and take appropriate actions to remove or correct any illicit discharges. The permittee shall also respond to reports received from the public or other agencies of suspected or confirmed illicit discharges associated with the storm sewer system, as well as take enforcement action as necessary. The permittee shall immediately report to DEP illicit discharges that would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property.

For new permittees, all identified outfalls (and if applicable observation points) must be screened during dry weather at least twice within the 5-year period following permit coverage. For existing permittees, all identified outfalls (and if applicable observation points) must be screen during dry weather at least once within the 5-year period following permit coverage and, for areas where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls must be screened annually during each year of permit coverage.

1. How many unique outfalls (and if applicable observation points) were screened during the reporting period? 0

2. Indicate the percentage of all outfalls screened in the past five years. 100%

3. Indicate the percent of outfalls screened during the reporting period that revealed dry weather flows: 0%

4. Did any dry weather flows reveal color, turbidity, sheen, odor, floating or submerged solids? ☐ Yes ☒ No

5. If Yes for #4, attach all sample results to this report with a map identifying the sample location. Explain the corrective action(s) taken in the attachment.

6. Do you use the MS4 Outfall Field Screening Report form (3800-FM-BCW0521) provided in the permit?

   ☒ Yes ☐ No

   If No, attach a copy of your screening report form.

BMP #5: Enact a Stormwater Management Ordinance or SOP to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the regulated small MS4.

1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that prohibits non-stormwater discharges? ☒ Yes ☐ No

   If Yes, indicate the date of the ordinance or SOP: 9/6/22

2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) with respect to authorized non-stormwater discharges? ☒ Yes ☐ No

   If Yes to #2 and the ordinance or SOP has not been submitted to DEP previously, attach the ordinance or SOP.

3. Were there any violations of the ordinance or SOP during the reporting period? ☐ Yes ☒ No

If Yes to #3, complete the table below (attach additional sheets as necessary).

Violation Date	Nature of Violation	Responsible Party	Enforcement Taken

4. Did you approve any waiver or variance during the reporting period that allowed an exception to non-stormwater discharge provisions of an ordinance or SOP? ☐ Yes ☒ No

If Yes to #4, identify the entity that received the waiver or variance and the type of non-stormwater discharge approved.

BMP #6: Provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.

1. Was IDD&E-related information distributed to public employees, businesses, and the general public during the reporting period? ☒ Yes ☐ No

   If Yes, what was distributed? Annual training was given to Township Staff with regard to illicit discharges. Illicit discharge information is provided to the public as part of MCM #1.

2. Is there a well-publicized method for employees, businesses and the public to report stormwater pollution incidents?

   ☒ Yes ☐ No

3. Do you maintain documentation of all responses, action taken, and the time required to take action? ☒ Yes ☐ No

MCM #3 Comments:

MCM #4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Are you relying on PA's statewide program for stormwater associated with construction activities to satisfy this MCM?

☒ Yes ☐ No

(If Yes, respond to questions for BMP Nos. 1, 2 and 3 only in this section. If No, respond to questions for all BMPs in this section)

BMP #1: The permittee may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring an NPDES permit unless the party proposing the earth disturbance has valid NPDES Permit coverage (i.e., not expired) under 25 Pa. Code Chapter 102.

During the reporting period, did you comply with 25 Pa. Code § 102.43 (relating to withholding building or other permits or approvals until DEP or a county conservation district (CCD) has approved NPDES permit coverage)?

☐ Yes ☐ No ☒ Not Applicable (no building permit applications received)

BMP #2: A municipality or county which issues building or other permits shall notify DEP or the applicable CCD within 5 days of the receipt of an application for a permit involving an earth disturbance activity consisting of one acre or more, in accordance with 25 Pa. Code § 102.42.

During the reporting period, did you comply with 25 Pa. Code § 102.42 (relating to notifying DEP/CCD within 5 days of receiving an application involving an earth disturbance activity of one acre or more)?

☐ Yes ☐ No ☒ Not Applicable (no building permit applications received)

BMP #3: Enact, implement and enforce an ordinance or SOP to require the implementation and maintenance of E&S control BMPs, including sanctions for non-compliance, as applicable.

1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that requires implementation and maintenance of E&S control BMPs? ☒ Yes ☐ No

   If Yes, indicate the date of the ordinance or SOP: 9/6/22

2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☐ Yes ☒ No

3. If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.

BMP #4: Review Erosion and Sediment (E&S) control plans to ensure that such plans adequately consider water quality impacts and meet regulatory requirements.

Specify the number of E&S Plans you reviewed during the reporting period:

BMP #5: Conduct inspections regarding installation and maintenance of E&S control measures during earth disturbance activities. Maintain records of site inspections, including dates and inspection results, in accordance with the record retention requirements in this permit.

Specify the number of E&S inspections you completed during the reporting period:

BMP #6: Conduct enforcement when installation and maintenance of E&S control measures during earth disturbance activities does not comply with permit and/or regulatory requirements.

Specify the number of enforcement actions you took during the reporting period for improper E&S:

BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to construction site operators.

Specify the method(s) by which you are educating construction site operators on controlling waste at construction sites:

BMP #8: Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and information submitted by the public to the permittee regarding local construction activities.

1. A tracking system has been established for receipt of public inquiries and complaints. ☐ Yes ☐ No

2. Specify the number of inquiries and complaints received during the reporting period:

MCM #4 Comments:

MCM #5 – POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

BMP #1: Enact, implement and enforce an ordinance or SOP to require post-construction stormwater management from new development and redevelopment projects, including sanctions for non-compliance.

1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that requires implementation and maintenance of post-construction stormwater management (PCSM) BMPs? ☒ Yes ☐ No

   If Yes, indicate the date of the ordinance or SOP: 9/6/22

2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☒ Yes ☐ No

3. If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.

BMP #2: Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment. Measures should also be included to encourage retrofitting LID into existing development. Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices.

1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that encourages and expands the use of LID in new development and redevelopment? ☒ Yes ☐ No

   If Yes, indicate the date of the ordinance or SOP: 9/6/22

2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☒ Yes ☐ No

3. If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.

BMP #3: Ensure adequate O&M of all post-construction stormwater management BMPs that have been installed at development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

1. Do you have an inventory of all PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003? ☒ Yes ☐ No

   If Yes to #1, complete Table 1 on the next page.

2. Has proper O&M occurred during the reporting period for all PCSM BMPs? ☒ Yes ☐ No

3. If No to #2, explain what action(s) the permittee has taken or plans to take to ensure proper O&M.

   Reviews of stormwater facilities are completed by the Township and letters are issued to facility owners identiying maintenance items. In addition, facilities that are applied for credits towards the Township Stormwater Fee are reviewed to ensure facility is functioning as designed.

If you are relying on PA's statewide program for stormwater associated with construction activities, you may skip to MCM #6, otherwise complete all questions for BMPs #4 - #6 in this section.

BMP #4: Require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to the local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff conditions.

1. Specify the number of PCSM Plans reviewed during the reporting period for projects disturbing greater than or equal to one acre (including projects less than one acre that are part of a larger common plan of development or sale):

2. Has a tracking system been established and maintained to record qualifying projects and their associated BMPs?

   ☐ Yes ☐ No

PCSM BMP INVENTORY

Table 1. To complete the information needed for MCM #5, BMP #3, list all existing structural BMPs that discharge stormwater to the permittee's MS4 that were installed to satisfy PCSM requirements for earth disturbance activities under Chapter 102, and provide the requested information (see instructions).

BMP No.	BMP Name	DA (ac)	Entity Responsible for O&M	Latitude	Longitude	Date Installed	O&M Requirements	NPDES Permit No.
1	Liberty Hills		HOA	40°40'33"	80°11'35"	2008	PA DEP BMP Manual	
2				° ' "	° ' "			
3				° ' "	° ' "			
4				° ' "	° ' "			
5				° ' "	° ' "			
6				° ' "	° ' "			
7				° ' "	° ' "			
8				° ' "	° ' "			
9				° ' "	° ' "			
10				° ' "	° ' "			
11				° ' "	° ' "			
12				° ' "	° ' "			
13				° ' "	° ' "			
14				° ' "	° ' "			
15				° ' "	° ' "			
16				° ' "	° ' "			

BMP #5: Ensure that controls are installed that shall prevent or minimize water quality impacts. The permittee shall inspect all qualifying development or redevelopment projects during the construction phase to ensure proper installation of the approved structural PCSM BMPs. A tracking system (e.g., database, spreadsheet, or written list) shall be implemented to track the inspections conducted and to track the results of the inspections (e.g., BMPs were, or were not, installed properly).

1. During the reporting period have you inspected all qualifying development and redevelopment projects during the construction phase to ensure proper installation of approved structural BMPs?

   ☐ Yes ☐ No ☐ Not Applicable (no qualifying projects during reporting period)

2. Has a tracking system been established and maintained to record results of inspections?

   ☐ Yes ☐ No

BMP #6: Develop a written procedure that describes how the permittee shall address all required components of this MCM.

Have you developed a written plan that addresses: 1) minimum requirements for use of structural and/or non-structural BMPs in plans for development and redevelopment; 2) criteria for selecting and standards for sizing stormwater BMPs; and 3) implementation of an inspection program to ensure that BMPs are properly installed? ☐ Yes ☐ No

MCM #5 Comments:

MCM #6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING

BMP #1: Identify and document all operations that are owned or operated by the permittee and have the potential for generating pollution in stormwater runoff to the MS4. This includes activities conducted by contractors for the permittee.

1. Have you identified all facilities and activities owned and operated by the permitee that have the potential to generate stormwater runoff into the MS4? ☒ Yes ☐ No

2. When was the inventory last reviewed? June 2022

3. When was it last updated? June 2022

BMP #2: Develop, implement and maintain a written O&M program for all operations that could contribute to the discharge of pollutants from the MS4, as identified under BMP #1. This program shall address stormwater collection or conveyance systems within the regulated MS4.

1. Have you developed a written O&M program for the operations identified in BMP #1? ☒ Yes ☐ No

2. Date of last review or update to written O&M program: June 2022

BMP #3: Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from operations to the regulated small MS4. All relevant employees and contractors shall receive training.

1. Have you developed an employee training program? ☒ Yes ☐ No

2. Date of last review or update to training program: June 2022 Date of latest training: See below

3. Training topics covered:

   1. June 7, 2022: General MCM Information review and Permit Status Update
   2. August 27, 2021: General MCM Information, Good Housekeeping Protocols, Outfall Testing/Maintenance
   3. August 16, 2021: General MCM Information review and Permit Status Update

4. Name(s) of training presenter(s):

   1. Kevin A Brett, P.E., Lennon, Smith Souleret Engineering, Inc.
   2. John W. Valinsky, E.I.T., Lennon, Smith, Souleret Engineering, Inc.
   3. Kevin A Brett, P.E., Lennon, Smith Souleret Engineering, Inc.

5. Names of training attendees:

   1. Board of Supervisors, Secretary, Treasurer, Administrative Staff, Solicitor, Manager, Police Chief, Road Foreman, Township Residents.
   2. See attached sign-in sheet
   3. See attached sign-in sheet

MCM #6 Comments:

Staff training is scheduled for the fall of 2022

POLLUTANT CONTROL MEASURES (PCMs)

Indicate the status of implementing PCMs in Appendices A, B and/or C by completing the table below. Skip this section if PCMs are not applicable.

Task	Date Completed	Attached	Anticipated Completion Date
Storm Sewershed Map(s)	September 2019	☐	September 2019
Source Inventory	September 2020	☐	September 2020
Investigation of Suspected Sources	September 2022	☐	September 2022
Ordinance/SOP for Controlling Animal Wastes		☐	September 2022

PCM Comments:

There are no suspected sources of PCMs in the Township.

POLLUTANT REDUCTION PLANS (PRPs) AND TMDL PLANS

1. Complete this section if the development and submission of a PRP and/or TMDL Plan was required as an attachment to the latest NOI or application or was required by the permit, regardless of whether DEP has approved the plan(s).

Type of Plan	Submission Date	DEP Approval Date	Surface Waters Addressed by Plan
☐ Chesapeake Bay PRP (Appendix D)			Chesapeake Bay
☒ Impaired Waters PRP (Appendix E)	9/2017	4/9/2019	Brush Creek
☐ TMDL Plan (Appendix F)			

☐ Combined Chesapeake Bay / Impaired Waters PRP			Chesapeake Bay,
☐ Combined PRP / TMDL Plan			

☐ Joint Plan *(if checked, list the name of the MS4 group or names of all entities participating in the joint plan below)*

Joint Plan Participants:

2. Identify the pollutants of concern and pollutant load reduction requirements under the permit (see instructions).

Type of Plan	TSS Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)
☐ Chesapeake Bay PRP (Appendix D)			
☒ Impaired Waters PRP (Appendix E)	59,332		
☐ TMDL Plan (Appendix F)			
☐ Combined Chesapeake Bay / Impaired Waters PRP			
☐ Combined PRP / TMDL Plan			

3. Date Final Report Demonstrating Achievement of Pollutant Load Reductions Due: September 30, 2023

4. Have any modifications to the plan(s) occurred since DEP approval? ☐ Yes ☒ No

If Yes to #4, was the updated plan(s) submitted to DEP? ☐ Yes ☐ No

If Yes to #4, did you comply with the public participation requirements of the applicable appendix? ☐ Yes ☐ No

If Yes to #4, describe the plan modifications.

5. Summary of progress achieved during reporting period.

Construction of the first project has been completed

6. Anticipated activities for next reporting period.

Concepts and property acquisition has begun for the 2nd project

PRP/TMDL Plan Comments:

NEW BMPs FOR PRP/TMDL PLAN IMPLEMENTATION

Table 2. List all new structural BMPs installed and ongoing non-structural BMPs implemented during the reporting period that are being used toward achieving load reductions in the permittee's PRP and/or TMDL Plan (see instructions).

BMP No.	BMP Name	DA (ac)	% Imp.	BMP Extent	Units	Latitude	Longitude	Date Installed or Implemented	Planning Area?	Ch. 102?	Annual Sediment Load Reduction (lbs/yr)
1	Green Valley Park	6.79	20	9,500	SF	40°44'28"	80°11'51"	2022	☒	☐	2,440
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	

BMP INVENTORY FOR PRP/TMDL PLAN IMPLEMENTATION

Table 3. List all existing structural BMPs that have been installed in prior reporting periods and are eligible to use toward achieving load reductions in the permittee's PRP and/or TMDL Plan (see instructions).

BMP No.	BMP Name	DA (ac)	% Imp.	BMP Extent	Units	Latitude	Longitude	Date Installed	Annual Sediment Load Reduction (lbs/yr)	Date of Latest Inspect -ion	Satis-factory?
						° ' "	° ' "				☐
						° ' "	° ' "				☐
						° ' "	° ' "				☐
						° ' "	° ' "				☐
						° ' "	° ' "				☐
						° ' "	° ' "				☐

CERTIFICATION

For PAG-13 Permittees: I have read the latest PAG-13 General Permit issued by DEP and agree and certify that (1) the permittee continues to be eligible for coverage under the PAG-13 General Permit and (2) the permittee will continue to comply with the conditions of that permit, including any modifications thereto. I understand that if I do not agree to the terms and conditions of the PAG-13 General Permit, I will apply for an individual permit within 90 days of publication of the General Permit. I also acknowledge that any facility construction needed to comply with the General Permit requirements shall be designed, built, operated, and maintained in accordance with operative laws and regulations.

For All Permittees: I certify under penalty of law that this report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

BRIAN M. D'MALLEY
Name of Responsible Official

724-774-7922
Telephone No.

Signature

8/25/22
Date

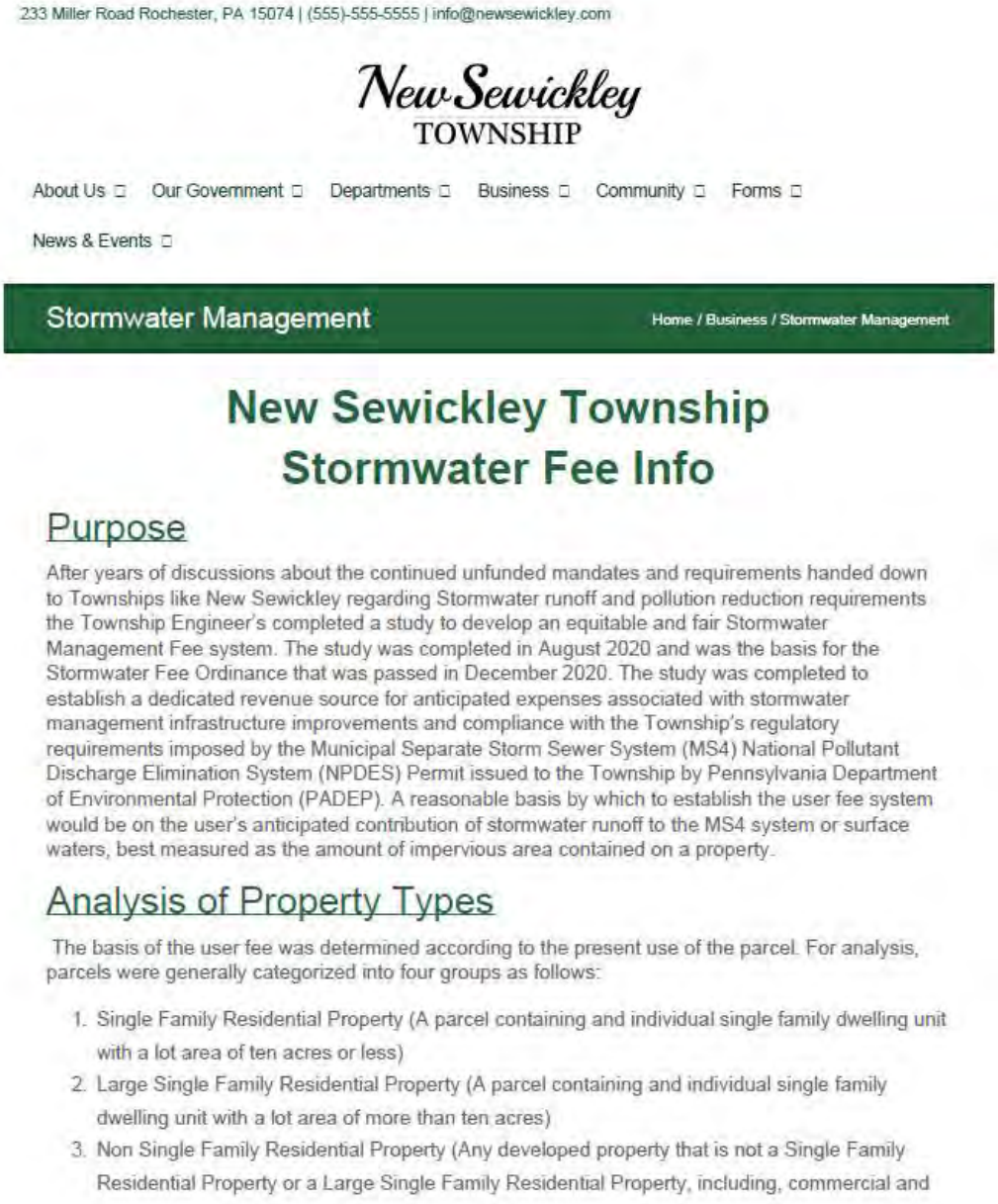
EDUCATIONAL MATERIAL AND PUBLIC PARTICIPATION

NEW SEWICKLEY TOWNSHIP

2022 MS4 REPORT

PUBLIC PARTICIPATION AMD INVOLVEMENT

1. New Sewickley Township Website Stormwater Information



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TOWNSHIP

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News & Events ☐

Stormwater Management — Home / Business / Stormwater Management

New Sewickley Township Stormwater Fee Info

Purpose

After years of discussions about the continued unfunded mandates and requirements handed down to Townships like New Sewickley regarding Stormwater runoff and pollution reduction requirements the Township Engineer's completed a study to develop an equitable and fair Stormwater Management Fee system. The study was completed in August 2020 and was the basis for the Stormwater Fee Ordinance that was passed in December 2020. The study was completed to establish a dedicated revenue source for anticipated expenses associated with stormwater management infrastructure improvements and compliance with the Township's regulatory requirements imposed by the Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit issued to the Township by Pennsylvania Department of Environmental Protection (PADEP). A reasonable basis by which to establish the user fee system would be on the user's anticipated contribution of stormwater runoff to the MS4 system or surface waters, best measured as the amount of impervious area contained on a property.

Analysis of Property Types

The basis of the user fee was determined according to the present use of the parcel. For analysis, parcels were generally categorized into four groups as follows:

1. Single Family Residential Property (A parcel containing and individual single family dwelling unit with a lot area of ten acres or less)
2. Large Single Family Residential Property (A parcel containing and individual single family dwelling unit with a lot area of more than ten acres)
3. Non Single Family Residential Property (Any developed property that is not a Single Family Residential Property or a Large Single Family Residential Property, including, commercial and

office buildings, public industrial and manufacturing buildings, well pads, oil and gas facilities, multi-family dwellings, places of worship, parking lots or garages, schools and other educational facilities, etc. This includes individual units in a condominium association).

4. Vacant Land (Properties with fewer than 600 square feet of impervious area and no dwelling)

Assessment of Fees for Individual Properties

To equitably assess fees for individual properties, an Equivalent Residential Unit (ERU) was established to represent the typical amount of impervious area on a Single-Family Residential Property in the Township. This value was based a statistical sample size of selected parcels. The ERU was determined to be 6,800 square feet. The intent of analysis of Single-Family Residential Properties was to establish a reasonable, representative value of all such properties for use as the ERU. This ERU is to be used as the fee basis for all Township properties as follows:

1. Single Family Residential Property – 1 ERU
2. Large Single-Family Residential Property – Determined based on actual impervious area proportionate to 1 ERU, rounded to the nearest one-half For example, a property with 25,000 square feet of impervious area would be assessed at 3.5 ERU.
3. Non Single Family Residential Property – Determined based on actual impervious area rounded to the nearest one-half
4. Vacant Land – No fee

Anticipated Expenses

Anticipated expenses were compiled in four categories for determination of revenues needed for the Township Stormwater Management Fund.

Administration	$16,762
Annual O&M	$101,436
Capital Improvements	$100,000
MS4 Permit Compliance	$100,000
Total Annual Expense	**$318,198**

Fee Recommendation

Distribution of anticipated annual expenses among the Township's total 4,508 ERUs when accounting for potential credits results in a monthly per ERU fee of $5.84. For implementation, a $6.00/month/ERU fee is recommend. This equates to a $72.00 annual fee per ERU and an annual

gross revenue of $324,558.00 collected for the Township Stormwater Fund. You can read the full report here.

General Information about Stormwater and the Township's Pollutant Reduction Projects that are required to be completed.

In the case of stormwater, the amount of polluted water running off someone's property is related to how much of the land is covered in hard surfaces—for example, rooftops, driveways, and patios—and for commercial properties, paved parking lots and service roads. More hard surfaces result in more runoff. Stormwater fees are therefore charged based on the area of these surfaces that exist on a property.

Stormwater fees help local governments pay for infrastructure projects and services that clean up pollution and reduce the amount of stormwater runoff reaching nearby streams and rivers as required by the DEP and EPA. While there is a wide range of solutions, most projects aim to slow down the runoff from developed areas by creating ways for more of it to soak into the ground, instead of rushing down driveways and streets directly into sewers and streams. When runoff can soak into the ground, there is less of it to cause flooding. In addition, it is cleaned as it filters through the soil.

Examples of practices that accomplish this include rain gardens, bioswales, green roofs, forested streamside buffers, permeable pavements, among others. In other parts of Pennsylvania, communities have plans—or are in the process of creating plans—that outline specific, on-the-ground projects to reduce stormwater pollution. Each of these projects has identifiable costs for which the stormwater fees will be used.

The fees stay local; they are used to fund stormwater projects that reduce pollution and decrease local flooding in the communities where they are collected. The fees are a dedicated funding source to help communities meet their stormwater permit requirements. They may not be used for other purposes.

Stormwater fees are not a "tax" on the rain. Property owners are not charged related to how much rain or snow falls; they are charged based on the area of their property that can't soak up water. In other words, properties with more hard surfaces pay more in stormwater fees because they contribute to more of the problem. Properties with fewer hard surfaces pay less, because they contribute less to the problem.

New Sewickley Stormwater Fee Questions and Answers

Will this bill be yearly?

Yes, to meet the PA DEP and US EPA requirements, the Township will be required to continue yearly pollution reduction projects, maintenance of those pollution reduction structures, testing and maintenance of our storm water conveyance systems and other stormwater related projects.

Can I appeal the amount?

Yes, you can appeal the calculation of the Equivalent Residential Units (ERUs) on your property by using this form. All applications will be reviewed by the Township Engineer. Also, you can request a copy of the calculation of your properties ERUs to understand how the Township Engineering firm calculated your stormwater fee.

Can I get credits for stormwater projects on my property?

Yes, you can apply for credits by using this form. All applications will be reviewed by the Township Engineer. New Sewickley's ordinance includes the ability to get credit for installing stormwater retention projects like rain barrels or rain gardens, or making driveways and parking areas out of materials that allow water to soak into the ground.

How was my property's ERU calculated?

The minimum amount is $6 per month ($72 per year). The measure of impervious ground cover for a typical single-family residential Property used in assessing the fees for each parcel of Property, and which has been determined to be 6,800 square feet. Every property in New Sewickley that has at least 600 square feet of impervious surfaces will receive a minimum stormwater fee of $6 per month.

What is an impervious surface?

An impervious surface is a surface that has been compacted or covered with a layer of material preventing water from soaking into the ground. Impervious surfaces increase stormwater runoff and contribute pollutants. Example of impervious areas include; sidewalks, rooftops, compacted soils, gravel surfaces, roadways, parking lots, buildings, and other man-made structures.

Who is collecting this Fee?

The Township asked the Township Tax Collector to handle the process. The Township Tax Collector was not involved in the enactment of the Stormwater Fee just like the Tax Collector doesn't set the Property Tax Millage rates by the Township or the School District.

What if I don't pay the Stormwater Fee?

Just like a utility bill such as water or sewer, the Township can lien the property for unpaid stormwater fees.

Click here for a printable PDF of this information.

References

Ordinance 222 – Stormwater Fee Ordinance – December 2020

Stormwater Fee Report and Study – August 2020

2020 Annual MS4 Status Report

NDPES MS4 Permit issued by DEP in 2018

Pollution Reduction Plan – Approved by PA DEP in 2018

Ordinance 202 – New Sewickley Township MS4 Operation and Maintenance Ordinance –

December 2015

Ordinance 166 – Stormwater Management Ordinance – September 2004

Developing a Stormwater Fee – Southwestern Pennsylvania Commission

What can I do to help with Stormwater?

What is Stormwater

Stormwater is water from precipitation that flows across the ground and pavement when it rains or when snow and ice melt. The water seeps into the ground or drains into what we call storm sewers. These are the drains you see at street corners or at low points on the sides of streets. Collectively, the draining water is called storm water runoff.

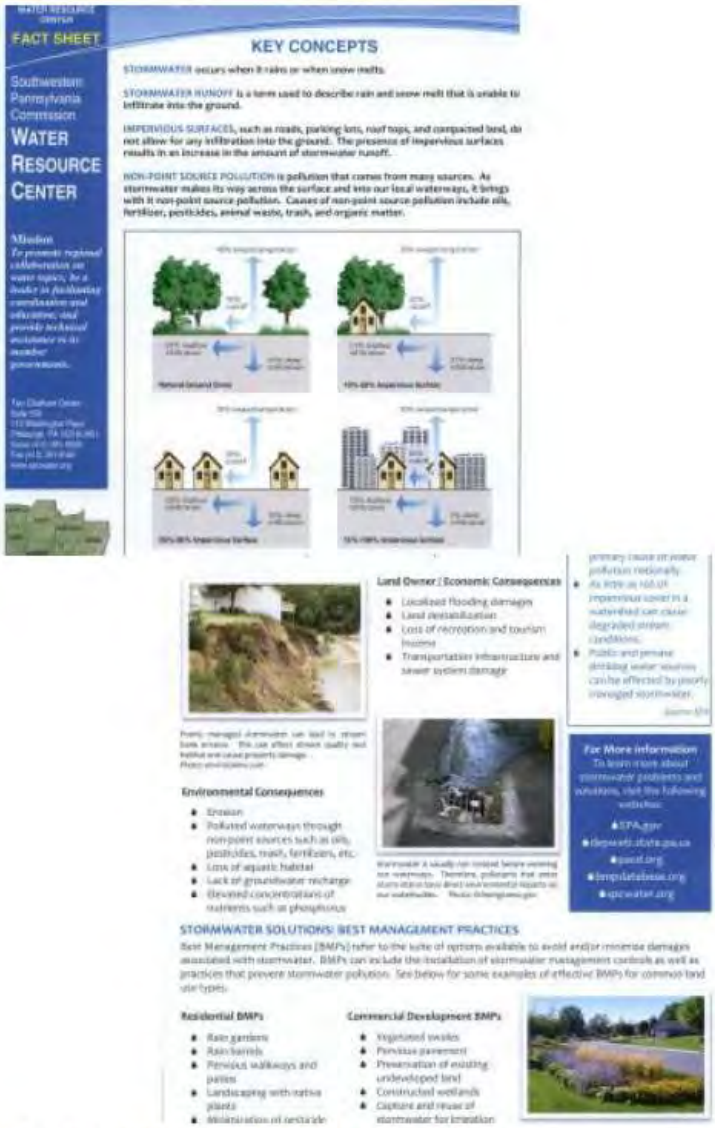
Stormwater becomes a problem when it picks up debris, chemicals, dirt and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal

water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing and providing drinking water.

Federal stormwater Regulations and the Pennsylvania Stormwater Management Act require counties and municipalities to develop and implement a stormwater management program. These regulations, along with the Federal Cleanwater Act, govern what local municipalities must do to reduce discharge of pollutants into local rivers, streams, lakes and water sheds.

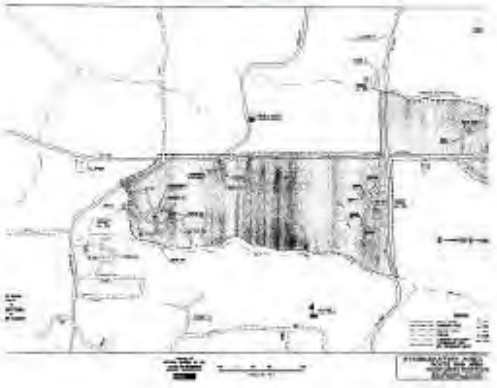
Communities that discharge stormwater into any waterway that the DEP identifies as "impaired", are required to develop a "Pollutant Reduction Plan" (PRP). New Sewickley Township falls into that category. Because every MS4 faces unique stormwater challenges, each management plan is unique. This is a non-funded federally mandated program. Each of the "Pollutant Reduction Plans" (PRP) must be designed by our Township Engineers, constructed by our township employees and outside experts for many years to come. It is going to be expensive and get increasingly expensive in the years to come as the number of PRP sites increases.

Four specific areas of the Township have been identified by DEP as stormwater management areas. They are designated as MS4-1 9th Ext. Street Area, MS4-2 Northern Portion of Rt. 989, MS4-2 Southern Portion of Rt. 989 and MS4-3 Sunflower Corners Area. See the maps below

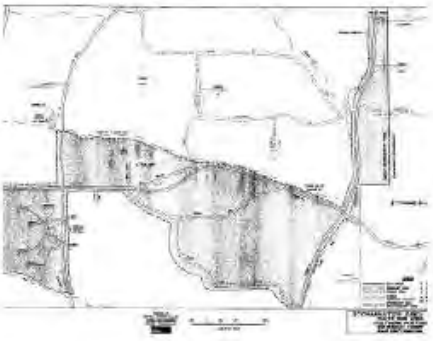


MS4-1 Area (Harvey Run Road & 9th Street Area)

MS4 – 2 Area (Route 989 Northern Portion)



MS4 – 2 Area (Route 989 Southern Portion)



MS4 – 3 Area (Sunflower Corners)

On-Lot Septic Systems

Does your property have an on-lot septic system? If you do, it is recommended that you have your system inspected and serviced by a professional technician at least once every two years. Failing septic systems can send harmful plumes of nitrogen, phosphorous, and bacteria into nearby waterways, threatening plant and animal life and endangering local water supplies.

For more information visit:

http://www.spcwater.org

https://www.epa.gov/

http://www.dep.pa.gov

2. **New Sewickley Township 2021-2022 Green Valley Park Stormwater Control and Pollution Reduction Project**

2021-2022 GREEN VALLEY PARK STORMWATER CONTROL AND POLLUTION REDUCTION PROJECT

New Sewickley Township is completing the first project as part of its MS4 Permit Pollutant Reduction Plan requirements. The improvements being completed at Green Valley Park will improve the water quality of Brush Creek as well as help control the runoff in the park. The Township is currently installing 16 new storm sewer inlets and approximately 2,100 linear feet of new storm sewer conveyance pipe. This additional infrastructure will capture the stormwater runoff and better convey it to Brush Creek. Additionally, the improvements include construction of a new rain garden, including a Focal Point system. This new rain garden will control the discharge of the stormwater throughout the park by detaining it for a longer period of time. Additionally, the Focal Point is a Biofiltration System that filters the stormwater through its designed media, removing pollutants that are within the stormwater, improving the overall water quality that reaches Brush Creek.

The New Sewickley Township Board of Supervisors authorized the award of Contract No. 21-SW1 – 2021 Stormwater Improvements (Green Valley Park) to A. Liberoni, Inc. in the total amount of $330,114.25 at the December 6, 2021 Board of Supervisors Meeting.

The Township received a grant for up to $230,000 for this project through the Commonwealth of Pennsylvania. Thank you to State Senator Elder Vogel Jr. and State Representative Jim Marshall for their support for this project and our Township.

3. New Sewickley Township Website Garbage Collection Information

233 Miller Road Rochester, PA 15074 | (555)-555-5555 | info@newsewickley.com

New Sewickley
TOWNSHIP

Garbage Collection

New Sewickley Township does not have a contract with any specific garbage hauler. Residents wishing to receive garbage service are advised to contact any local garbage haulers providing services within the municipal boundaries of New Sewickley Township and enter into a contract with the company of their choice. Listed below are two companies that service New Sewickley Township.

Name	Phone
Joseph J. Brunner, Inc.	724-775-6665
Valley Waste Services	724-843-9373

Changes to the Burning Ordinance

New Sewickley Township has been fortunate each year to receive a grant under Act 101 for our recycling program. The amount varies each year depending on the volume of tonnage reported from the refuse haulers. Amounts have ranged from $8,000.00 to approximately $14,000.00.

It has been brought to the Township's attention that there are additional grants available for a considerable amount of funding. However, to be eligible to receive a grant, DEP said that the

Township needed to make changes to our Burning Ordinance.

On July 11, 2017, upon the recommendation of the Department of Environmental Protection (DEP), the Board of Supervisors amended the Township Burning Ordinance to include the following.

- Residents are no longer permitted to burn any materials that the Township recycles, such as paper or cardboard. (*Recycling bins are located in the Municipal Parking Lot*)
- Days of burning have been limited to Thursday, Friday and Saturday. (*Recreational fires for cookouts are permitted at all times).*
- You are no longer permitted to burn leaves, branches or grass clippings. *(The Township has made available a designated area at the municipal building for Township residents to bring their leaves, branches and grass clippings).*

Ord 209

4. New Sewickley Township Website Recycling Information

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News & Events □

Recycling

Home / Business / Recycling

Recycling is held at the Township Building the second and fourth Saturday of each month from 9 a.m. to 12 noon. There are volunteers here those two days to assist any resident who may need help.

Our containers are open 24 hours if those two Saturdays are not convenient for you.

How To Prepare Your Recycled Materials

Glass – Clear, Brown, Green Bottles and Jars
1. Rinse – Remove styrofoam labels.
2. Remove metal lids and rings.
3. Do not break glass
4. Do not include auto glass, light bulbs, procelain, ceramic, plate glass, crystal or mirrors.

Aluminum, Bi-Metal & Tin Food and Beverage Container and Aluminum Foil
1. Rinse thoroughly, crush cans. Plastic Bottles and Jugs Only
1. Rinse throughly, remove caps.
2. Flatten to save space
3. Containers must have the three arrow recycling logo, with the numbers 1 or 2 inside it.

Newspapers and Cardboard
1. Newspapers are to be in paper bags.
2. No plastic bags.
3. Corragated cardboard only.

If you or a group (church, organization, etc.) are looking to volunteer your time, please call Laura Miles at 724-624-0187, to help oversee the recycling program on the 2nd and 4th Saturdays each month.

Changes to the Burning Ordinance

On July 11, 2017, the Board of Supervisors amended the Township Burning Ordinance to include the following.

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- Days of burning have been limited to Thursday, Friday and Saturday. (*Recreational fires for cookouts are permitted at all times).*
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Ord 209

The Township has made available a designated area at the municipal building for Township residents to bring their leaves, branches and grass clippings).

Recycling Grant Awarded

The Township is excited to announce that in 2019 we received a Recycling Development and Implementation Grant from the Pennsylvania Department of Environmental Protection in the amount of $166,500.00 with the Township's matching cost of $18,500.00.

With this funding, the Township was approved to purchase a Mack Truck with tarp to be used for hauling grass and wood ships to the Beaver County Waste Management Compost Site. We were also approved to purchase a wood chipper, a new utility trailer for newspapers, a front load cardboard bin and approved to expand our yard waste area.

We received notification that we are eligible to apply for another grant up to $350,00.00. If awarded, we will be asking for additional equipment and reimbursement for our current recycling bins and equipment that has been purchased over the past two years that is used in our recycling program.

We would like to thank our residents for taking the time to recycle. With your help we have been able to expand our recycling program.

Oops! We could not locate your form.

New Sewickley Township Newsletter

FALL 2021

a message from the manager

Brian O'Malley

I would like to thank the community of New Sewickley Township for being so welcoming to my arrival as the new Township Manager this past spring. One thing that I quickly learned is that the people of this community are what make it great. I have seen this community rally around each other to a level I have rarely seen before. The dedicated employees, Board of Supervisors, and appointed Board members have made this transition very smooth for me. I especially want to thank Walt Beighey for putting the Township in a position for future success. I look forward to continuing to make this Township a wonderful place to live and helping the Township offer responsible municipal services to our residents and businesses.

CHANGES TO THE BOARD OF SUPERVISORS

Due to the resignation of Tom Applequist on the Board of Supervisors in September, Martin Bonzo was appointed in October to fill the opening. Martin will complete the term that will end December 2023.

We would like to thank Tom Applequist for his 26 years of service to the Township. Tom served on the Planning Commission for 22 years and was elected to the Board of Supervisors in 2019. He was a very involved and dedicated servant to our community and the residents it serves. Thank you, Tom, you will be greatly missed.

We would also like to welcome Martin Bonzo to the Board of Supervisors. Martin Bonzo grew up on a fourth-generation family farm, where he and his wife, Jennifer, raised 3 boys and now 2 grandchildren. He worked in the construction industry for quite a few years, working as a laborer and leadman in Pennsylvania and then a leadman and foreman in the fast-paced production of Phoenix, AZ, and then as an assistant Superintendent and Superintendent in the dynamic construction industry of Southern California. He worked on several 100 house tracts from start to completion with many being simultaneous. He then relocated back here to New Sewickley Township to raise his boys on the farm, which proved to be invaluable. He again worked for several local developers for several years. For the last 25 years he has been helping people buy and sell Real Estate in the local and surrounding communities as an agent for Achieve Realty in Wexford, PA.

Martin has also served on the Township's Recreation Board and the Zoning Hearing Board for many years for the Township.

IN THIS ISSUE:

Halloween

TRICK OR TREAT TRAIL

Saturday, October 30, 2021

The New Sewickley Township Recreation Board, in conjunction with the New Sewickley Township Police Department, will hold the annual Trick or Treat Trail on Saturday, October 30, 2021. The Trick or Treat Trail is part of the Police Department's efforts and commitment to keep the children of our community safe. The purpose of this event is to provide a safe alternative to trick or treating in our rural community.

Bring your little ghosts and goblins to Green Valley Park on Saturday October 30th starting at 6:00 p.m.

VOLUNTEERS ARE NEEDED. Parents and members of our community are needed to sit along the trail to hand out candy as the children trick or treat. Please plan to arrive by 5:30 p.m. to allow time to set up. Anyone who is unable to attend and would like to drop off candy donations, can do so Monday through Friday at the Township Building or candy donations will be accepted the evening of the Trick or Treat Trail.

Weather permitting, the Recreation Board will be showing Halloween flicks on their big screen from 6:00 p.m. to 8:00 p.m.

Crime Watch Officer, Jim Kopaz, will be presenting awards for the best four costumes in age groups 1 through 2, 3 through 6, 7 through 11 and 12 through 17. He will also be presenting awards to the best three displays along the trail.

Trick or Treat throughout the Township will be observed on Thursday, October 28, 2021 from 6:00 – 8:00 p.m.

FREEDOM ROAD UPGRADE PROJECT

This project is located from approximately 1.5 miles east of S.R. 65 starting at Park Quarry Road to S.R. 989. The scope of work consists of roadway reconstruction, widening and realignment of the roadway, two culvert replacements, new shoulders, guide rail updates, drainage improvements, additional turn lanes, and utility relocations. This project will also contract a roundabout at the R.R. 989 and S.R. 2004 intersection. The anticipated schedule for this project is a contract bidding in late spring/early summer of 2021, with construction to occur from Fall / Winter 2021 through the spring of 2024.

The project will be constructed under multiple detours, single-lane restrictions, lane narrowing, and alternating traffic during different stages of construction. Once a contract is executed, the contractor is required to complete their specific schedule and more information will be available at the time as to when the detours will occur.

THANKSGIVING PIE ORDER FORMS

BIG KNOB GRANGE IS ACCEPTING THANKSGIVING PIE ORDERS TO MAKE YOUR HOLIDAY EASIER AND THROUGH THE FUNDS RAISED, WE WILL HELP SEVERAL AREA FAMILIES OR ORGANIZATIONS IN NEED.

ORDERS WILL BE ACCEPTED UNTIL **NOV 20TH** OR UNTIL OUR LIMIT OF 150 PIES IS REACHED.

PIES MUST BE PICKED UP AT THE BIG KNOB GRANGE, 336 GRANGE ROAD, NEW SEWICKLEY TWP BETWEEN 1 AND 4 P.M. ON WEDNESDAY, NOV 24TH.

WE ARE OFFERING THE FOLLOWING:

_____APPLE @ $10.00

_____DUTCH APPLE @ $10.00

_____PUMPKIN@ $10.00

_____MINCEMEAT @ $12.00

_____ BLUEBERRY @$10.00

_____CHERRY @ $10.00

_____COCONUT CREAM @ $12.00

_____LEMON MERINGUE @ $12.00

THE FOLLOWING SUGARFREE PIES MADE WITH SPLENDA:

_____SUGARFREE APPLE @ $10.00

_____SUGARFREE PUMPKIN @ $10.00

MAIL ORDER WITH PAYMENT TO: Janet Fishovitz, 227 Brewer Road, Freedom 15042 – 724-494-5472
Or Alternate Number – Bill Steel 724-462-5524

MAKE CHECKS PAYABLE TO: BIG KNOB GRANGE

NAME_____

PHONE _____

THANK YOU FOR HELPING US TO HELP OTHERS!

Awards and Honors

On July 6, 2021, at the Board of Supervisors meeting, the New Sewickley Township Police Department honored officers, emergency personnel and residents with awards for criminal investigations, life-saving, and civilian medal of appreciation.

On March 16, 2021, the New Sewickley Township Police Department received a 911 call. The call came in as an unresponsive male, as the dispatcher asked for more details, it was found to be a homicide. With the officer's fast response and investigation skills, an arrest was made. The New Sewickley Township Police Department honored these officers and a Beaver County Detective with the Merit Award for Excellent Arrests. EMT Jeremy Brown and Dispatcher Kayla Troy were awarded with the Honor Award for Public Service, for their assistance in the homicide.

(Left to Right—Officer Ethan Fuchs, Beaver County Detective Bonnie Sedlacek, EMT Jeremy Brown, Corporal Tim Sovich, Sergeant Dan Swab, Corporal Greg Carney, Patrolman Jacob Moldovan, Patrolman Keith Haburjak, Dispatcher Kayla Troy, Not Pictured Detective Greg Pullen)

The New Sewickley Township Police Department also honored three individuals for their fast action in saving a life. During a softball game at the Freedom High School, a bystander had a heart attack and was not responding. Amy Speicher, Greg Scheck, and Alex Rawding responded quickly and performed CPR, resulting in saving the life of the bystander.

(Amy Speicher, Greg Scheck, not pictured Alex Rawding)

The New Sewickley Township Police Department also honored a few residents with the Honor Award of Public Services. These individuals and groups have helped improve the community by either, building a convenience store, donating money to fundraisers and other projects that improve or support the community and have volunteered their time to help improve the community park. These individuals and groups are Mr. & Mrs. Roger Novak, Mr. & Mrs. Gary Guy and the New Sewickley Township Recreation Board.

(Rodger & Penny Novak)

(Gary & Ginny Guy)

(Lisa Bauman—representing the Recreation Board)

At the July 6, 2021, Board of Supervisors Meeting, the New Sewickley Township Police Department swore in three new part-time officers and promoted three part- time officers to full-time.

(Left to Right- Ron Heitzenrater, Ryan Kozlowski, Chuck Speicher, Markus DeNapoli, Jeff Lizzi, Alexandra Lizzi, Ethan Fuchs, Roy Yeck, Jacob Moldovan, PJ Moldovan, Samantha Vinson, Maria Stewart)

Part-time officers:

Ryan Kozlowski

Marcus DeNapoli

Alexandra Lizzi

Promoted to Full-time officers:

Ethan Fuchs

Jacob Moldovan

Samantha Vinson

On July 20th, 2021, the New Sewickley Township Police Department launched the official Facebook page, New Sewickley Township Police Department. As our community and the general public turn to the internet and social media to keep informed, Chief Leindecker felt having a social media presence was of the most importance for the police department mission to keep our community in touch with the workings of the Department and current events. The Facebook page will also be utilized to provide new, crime prevention tips, as well as highlights of the Department and our community. Please visit and like our page https://www.facebook.com/NSTPD.

Pine Run Fire Department

1691 9th Street Extension, Freedom, PA 15042
Phone: (724)774-1909 Fax: (724)774-1990

It has been a busy spring and summer for the Pine Run Fire Department. Our new fire station on Harvey Run Road is moving right along and we anticipate moving in by year's end. The year 2022 is a milestone event for our department as we will be celebrating our 75th year of operation in the township. How fitting that we will be able to celebrate this anniversary in a new fire station.

Please stay tuned for future announcements as we will be planning a grand opening ceremony to introduce all of you to the new station. For now, we would like to sincerely express our thanks and gratitude for your generous and continued support over the past 75 years. We are also grateful for the support received by the Township's Supervisors in the planning and execution of our new building.

We will also be dedicating a new memorial plaque inside our new station to honor all the former members of the department who have served the township. The plaque will be in the form of a Florian cross and will have engraved tags in honor and memory of former members. We would like to ask any residents who have had family members serve the department to contact us to help ensure that our rolls are accurate, and no one is left out.

In closing we would also like to let everyone know how much we enjoyed meeting and speaking with the residents of our township during our local events over the past year: Community Days, National Night Out, Big Knob Grange Fair, and the Gun Bash held by our sister department -Big Knob Fire Department.

Thanks to all,

Fire Chief, President, and the membership of the Pine Run Fire Department.

Some Interesting History We Would Like to Share with You...

The cornerstone in our new building is 75 years old. Like many of you, it has been a lifelong fixture of the township and been on the property where our new station is located. This stone was on the façade of the former Padezanin's Inn building and was engraved with the year 1947 which happens to coincide with the date of the charter for the Pine Run Fire Department. Our members removed and saved the stone during a training exercise prior to demolition of the former Padezanin Inn. We had the stone engraved with our department name, station number, and construction year

National Night Out Brings Community Together

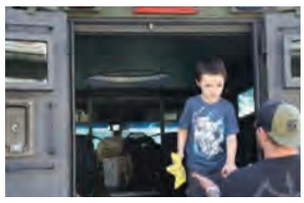
On the evening of Tuesday, August 3, 2021, the New Sewickley Township Police Department held its National Night Out Event. Hundreds of neighbors, along with, Law Enforcement came together to celebrate our community and strengthen our relationships. The police department's idea behind this event was to introduce our residents to the teams of first responders, which service the community. Big Knob and Pine Run Fire Department; as well as Cranberry EMS, Economy Ambulance, and Medic Rescue joined us in our celebration and provided educational displays to showcase their services. New Sewickley Police Department also works with various agencies throughout the county. We were joined by Beaver County Emergency Services, Beaver County Sheriff's Department, Beaver County Emergency Service Unit, Beaver County District Attorney's Drug Task Force, and STAT MedEvac. All these agencies when asked for assistance do not hesitate to help the community. Police Departments provide mutual aid to one another when incidents occur; therefore, New Sewickley Police Department was joined by Hopewell Township, Rochester Township, Marion Township, and Borough of Ambridge Police Departments all representing the law enforcement community.

The most important duty of law enforcement is to serve their community and neighbors. One way New Sewickley Police Department seeks to serve is by connecting our residents to various resources. Another idea behind National Night Out was to showcase those resources. Informational tables were setup by various county organizations, such as: Head Start, Early Head Start, Mental Health, Job Training, Women's Center, Cornerstone, Pressley Ridge, Community and Law Enforcement Coalition, Relay for Life, and Riders Advocating Against Child Abuse. These organizations seek to help better the lives of all Beaver County residents.




The final idea behind National Night Out was a celebration. No celebration is complete without entertainment and good food. There were food trucks, live music, and various first responder demonstrations. For children there were airbrush tattoos, a bounce house, and a Drunk Busters course.

National Night Out is an annual community-building campaign that promotes strong police-community partnership and neighborhood camaraderie. This event is New Sewickley Township Police Department's opportunity to show we are more than law enforcement officers and to spend time with our neighbors under positive circumstance. Henry Ford once said, "Coming together is a beginning, keeping together is progress, working together is success". This is our beginning and with each year we will enhance the relationships between our neighbors and law enforcement, creating a true community.


The Recreation Board will be accepting shelter reservations for Green Valley Park on Saturday, February 26, 2022 from 9 to 10 a.m. at the Township Building. If you would like to rent a pavilion at Green Valley Park, please contact Mandy Larrick at 724-622-4336.

NEW SEWICKLEY TAX NEWS

Samantha Sharpless, Tax Collector, tax@newsewickley.com
233 Miller Road, Rochester PA 15074 – Phone: 724-774-7826 – Fax: 724-774-7825

The Tax Collector collects:
New Sewickley Township Real Estate Tax (11.5 mills)
New Sewickley Township Fire Protection Tax (2 mills)
Freedom Area School District Tax (69.4 mills)
Local Service Tax

Checks should be made payable to: New Sewickley Township Tax Collector and can be mailed to her office located in the Township building. If you mail your payment, include both copies of your bill, your check and a self-addressed stamped envelope, if you want a return receipt. Credit or debit cards are not accepted.

Office Open Hours:	July 15-Sept 14:	Tues/Wed/Thurs/Fri - 9:30 am – 3:00 pm
		Tues evening – 5:00 - 7:00 pm (Discount Only)
	Sept 15-Nov 14:	Tues/Wed/Thurs – 9:30 am – 3:00 pm
	Nov 15-Feb 28, 2022	Tues/Wed – 9:30 am – 3:00 pm

The tax collector works additional hours permforming data entires, posting bills, preparing deposits and required reports during hours other than those listed above, so if you need to see her at a time other than the office open hours, please call to schedule an appointment.

Some mortgage companies do not advise the tax collector to forward their client's bills to them for payment from escrow accounts. If this occurs, the tax collector sends the bills to the resident's home to ensure the resident is aware the taxes have not been paid. If you receive a bill and believe your mortgage company is to pay it from your escrow account, forward your bill immediately to the mortgagor upon your receipt of same.

REAL ESTATE TAXES – Mailed first week of March. If you did not receive a statement and taxes are owed, it is your reponsibility to advise the tax collector so that she can send you a statement. By law, non-receipt of a tax statement does not absolve you from paying taxes that are your responsibility.

Taxes due at:	Discount:	March 1- April 30
	Face:	May 1 - June 30
	Penalty:	July 1 – March 31, 2022

******Township Tax dates have changed-please take note.**

Township taxes not paid by April 1, 2021 are turned into the Beaver County Tax Assessment Office for filing.

SCHOOL TAXES – Mailed first week of July. If you did not receive a statement and taxes are owed, it is your responsibility to advise the tax collector so that she can send you a statement. By law, non-receipt of a tax statement does not absolve you from paying taxes that are your responsibility.

Taxes due at:	Discount:	July 1 – September 14
	Face:	September 15 – November 14
	Penalty:	November 15 – January 24, 2022

******School Tax dates have changed-please take note.**

Taxes not paid by March 30, 2022 are turned into the Beaver County Tax Assissment Office for filing.

******There is a new outside locked drop box now. It is located in front of the Road Deparmtent Building and next to the regular mailbox. It is white in color and says New Sewickley Tax Dept. on the sides and top. Please feel free to use this as it is checked daily.**

Commercial Entities who require duplicate bills or information contained in tax receipts are charged $5.00 per parcel. Tax Certification fee is $15.00 per parcel

Earned income taxes are collected by Berkheimer Tax Administrator, 610-599-3139.

Sign Up for Text Message Alerts

As an additional tool to keep in communication with its residents, the Township has a program to send out text message alerts to those who sign up. Text message notifications are used to pass along emergency alerts, news on local closures, updates on community events, and any other important information in an instant.

Please email secretary@newsewickley.com your name and phone number if interested in signing up.

FYI FOR YOUR INFORMATION

Refuse Haulers:

Brunners – 724-775-6665
Valley Waste – 724-843-9373

Township e-mail addresses:

Manager - manager@newsewickley.com
Secretary - secretary@newsewickley.com
Treasurer - treasurer@newsewickley.com
Police Chief - chief@newsewickley.com
Municipal Auth - authority@newsewickley.com
Tax Collector - tax@newsewickley.com

Phone: 724-774-7822 Fax: 724-774-7825

Monthly Meetings:

Regular Supervisors – 1st Tuesday @ 6:30 p.m.
Agenda Meeting – Last Tuesday @ 6:30 p.m.
Workshop – 2nd Tuesday (if necessary) @ 6:30 p.m.
Zoning Hearing – 4th Tuesday (if necessary) @ 7 p.m.
Planning – 3rd Thursday @ 6:30 p.m.
Planning Workshop – 1st Wednesday (if necessary) @ 6:30
Recreation – 2nd Monday @ 7 p.m.
Municipal Authority – 1st Monday @ 6:30 p.m.
MA Workshop – 3rd Monday, if necessary, @ 6:30

All meetings are held at the Township building.

Township Offices Closed

The Township Offices will be closed for the following holidays:

Columbus Day
Monday, October 11, 2021

Thanksgiving
Thursday, November 25, 2021
Friday, November 26, 2021

Christmas Holiday
Thursday, December 23, 2021
Friday, December 24, 2021

New Year's Day
Friday December 31, 2021

Recycling is held at the Township Building the second and fourth Saturday of each month from 9 a.m. to 12 noon. Thank you to the Big Knob Livestock Club for their continued help and support.

HOW TO PREPARE YOUR RECYCLED MATERIALS

Glass – Clear, Brown, Green Bottles and Jars

1. Rinse – remove Styrofoam labels.
2. Remove metal lids and rings.
3. Do not break glass.
4. Do not include auto glass, light bulbs, porcelain, ceramic, plate glass, crystal or mirrors.

Plastic Bottles and Jugs Only

1. Rinse thoroughly, remove caps.
2. Flatten to save space.
3. Containers must have the three-recycling arrow recycling logo with the numbers 1 or 2 inside it.

Aluminum, Bi-Metal & Tin Food and Beverage Containers and Aluminum Foil

1. Rinse thoroughly, crush cans.

PLEASE REMOVE CAPS!!!

Newspapers and Cardboard

1. Newspapers are to be in paper bags.
2. No plastic bags.
3. Corrugated cardboard only. No pizza boxes!

RESIDENTS CAN DROP OFF GRASS CLIPPINGS, LEAVES AND TREE BRANCHES AT THE TOWNSHIP BUILDING. COLLECTION AREA IS LOCATED BESIDE THE RECYCLING BINS. THE AREA IS MARKED GRASS & LEAVES AND TREE BRANCHES. DROP OFF ANY TIME. PLEASE NO BUILDING MATERIALS.

BIG KNOB GRANGE FAIR A SUCCESS!

Thanks to all who assisted in any way to make the 2021 Fair happen and be a success. Rain played havoc on Tuesday and Wednesday, but the rest of the week was beautiful and many people enjoyed the fair activities.

GRANGE TO HOST FARM-CITY BANQUET

The 65th Annual Beaver County Farm-City Banquet will be held on Wednesday, November 17th from 6:00-9:30 at the Big Knob Grange. As a result of the generous donations made by the Farmers Markets growers and the Grange, $13.00 of the $15.00 dinner cost will go to UNCOMMON GROUNDS CAFÉ in Aliquippa. Herb Bailey, Executive Director, will be the featured speaker. The loaded buffet will include roast beef and a wide variety of vegetables donated by the growers.

Paid reservations are required and need to be made by November 5th with Becky Beckert, 323 Silver Slipper Road, Hookstown, PA 15050. Cost for adults is $15.00 and children are $7.00.

MS4 PROJECTS

In the case of stormwater, the amount of polluted water running off someone's property is related to how much of the land is covered in hard surfaces—for example, rooftops, driveways, and patios—and for commercial properties, paved parking lots and service roads. More hard surfaces result in more runoff. Stormwater fees are therefore charged based on the area of these surfaces that exist on a property.

Stormwater fees help local governments pay for infrastructure projects and services that clean up pollution and reduce the amount of stormwater runoff reaching nearby streams and rivers as required by the DEP and EPA. While there is a wide range of solutions, most projects aim to slow down the runoff from developed areas by creating ways for more of it to soak into the ground, instead of rushing down driveways and streets directly into sewers and streams. When runoff can soak into the ground, there is less of it to cause flooding. In addition, it is cleaned as it filters through the soil.

Examples of practices that accomplish this include rain gardens, bioswales, green roofs, forested streamside buffers, permeable pavements, among others. It is important to have plans that outline specific, on-the-ground projects to reduce stormwater pollution. Each of these projects has identifiable costs for which the stormwater fees will be used.

The fees stay local; they are used to fund stormwater projects that reduce pollution and decrease local flooding in the communities where they are collected. The fees are a dedicated funding source to help communities meet their stormwater permit requirements. They may not be used for other purposes.

Stormwater fees are not a "tax" on the rain. Property owners are not charged related to how much rain or snow falls; they are charged based on the area of their property that can't soak up water. In other words, properties with more hard surfaces pay more in stormwater fees because they contribute to more of the problem. Properties with fewer hard surfaces pay less, because they contribute less to the problem. For more information, please go to https://www.newsewickley.com/business/stormwater-management/

The Township completed a Stormwater related project on Powell Road this summer with the help of a grant through the Beaver County Conservation District and the Commonwealth of Pennsylvania. The New Sewickley Township Road Department installed a retaining wall and added multiple catch basins, new pipe, and created stabilization around outfalls to stop an ongoing slide that was threatening the long-term use of the road. Thank you to our partners at the state of Pennsylvania for helping us attain funding for this project, especially State Senator Elder Vogel and State Representative Jim Marshall. The Township is expected to begin our first DEP required Pollution Reduction Project, a rain garden at Green Valley Park, in the spring of 2022. Look for more information and photos in the Spring newsletter!

Big Knob Volunteer Fire Department

The Big Knob VFD would like to thank everyone that purchased a ticket in support of our 2021 Sportsman's Bash. We had another fantastic year and planning is in motion for the 2022 event. As soon as tickets are available, it will be broadcast throughout social media.

The colder weather will be upon us before we know it, with that in mind, please remember to have your chimneys cleaned and perform necessary maintenance to your furnaces and wood stoves. These few tips can greatly reduce the risk of having an emergency. October is fire safety month and we will be making our rounds to a few local preschool classes to teach the youngsters about fire prevention. We would like to remind all of our township residents to please check to see if your smoke/carbon monoxide detectors are functioning properly. These detectors do have expiration dates and some will require the battery to be changed. If you have one with a replaceable battery, we recommend doing so twice a year, every time you change the clocks is a good way to remember.

We are also always looking for new members. There is a job for everyone in our firehouse! If you have some time and would like to volunteer, please reach out to us. We are on Facebook @ **Big Knob Fire & Rescue** or feel free to call 724-774-6910. We sincerely appreciate all of the support we receive from our community!

The following is a list of current leadership and apparatus.

Chief	John Murtha
Asst. Chief	Matt Johnston
Captain	Jim Scheck
Rescue Capt.	Greg Scheck
1st LT	Brandon Vargo
2nd LT	Greg Beglin
FP Capt.	Woody Young
President	Brian Perry
Vice Pres.	Brian Delebosich
Treasurer	Eric Brewer
Secretary	Mark Carrier
Trustees	Cory Libinoti
	Anthony Chambers
	Lonnie Vodenichar

2014 Pierce Fire Engine (1000 gallons)
2004 Pierce Rescue Truck
2014 Pierce Tanker (3600 gallons)
2003 Pierce Tanker (2600 gallons)
2017 F-250 Squad/QRS Truck
2018 F-350 Brush Truck (250 gallons)
2017 Ford Explorer Incident Command Vehicle

Santa Claus is coming to the Township

Join the New Sewickley Township Recreation Board to Celebrate the season with

"Milk and Cookies with Santa"

December 12, 2021

BIG KNOB GRANGE

336 Grange Road, Rochester PA 15074

12:00 p.m. 2:00 p.m.

New Sewickley Township

233 Miller Road

Rochester, Pennsylvania 15074

FOLLOW NEW SEWICKLEY TOWNSHIP ON ~ FACEBOOK, TWITTER AND INSTAGRAM!

Keep updated and informed on emergencies and things happening around you via social media – follow New Sewickley Township today!

OUTFALL SCREENING RESULTS

LSSE Civil Engineers and Surveyors
846 Fourth Avenue, Coraopolis, PA 15108
(412) 264-4400 • (412) 264-1200 Fax

MEMO

TO:	Brian O'Malley, Manager	DATE:	November 10, 2021
COMPANY:	New Sewickley Township	S. O. NO.:	0525-05-133
FROM:	Kevin A. Brett, P.E. John W. Valinsky, E.I.T.	cc:	R.J. Kraus, Road Foreman MS4 File (MCM #3)
SUBJECT:	**Year 4 Outfall Screening** **MS4 Status Update** **New Sewickley Township**		

The purpose of this memo is to list the findings of MS4 testing during Permit Year 4 in New Sewickley Township.

OVERALL TESTING STATISTICS

Total municipal outfalls mapped = 50
Outfalls tested in 2021 (MS4 Year 4) = 20
Total MS4 Year 4 outfalls with flow = 6
Total MS4 Year 4 outfalls without flow = 14
Total outfalls tested to date = 50

YEAR 4 FINDINGS

There was 1 outfall with new dry weather flow identified during MS4 Year 4.

Outfall 305 – 6 pH; 0.25 ppm Detergents

ANNUAL WET TESTING

The following outfalls identified during screening in previous permit years contain continuous dry weather flow and are screened annually. Year 4 screening results for these outfalls are as follows:

Outfall 121 – 5 pH; 0.25 ppm Detergents
Outfall 412 – 6 pH; 0.25 ppm Detergents
Outfall 607 – 4 pH; 0.25 ppm Detergents
Outfall 609 – 7 pH; 0.25 mg/L Ammonia-Nitrogen, 2.0 ppm Detergents
Outfall 611 – 6 pH; 0.25 ppm Detergents

The field sample/test sheets for the MS4 Year 4 sampling are attached.

YEAR 4 MAINTENANCE OBSERVATIONS

All outfalls should be visited each year to ensure a clear right-of-way for access. Brush should be removed as needed. Additionally, below is maintenance related observations, which were made during field sampling. The following maintenance items should be placed on a schedule to be addressed:

Outfall 304 – Outfall partially submerged in sediment.

YEAR 4 FOLLOW-UP RECOMMENDATIONS

1. Outfall 304 should be cleared of sediment / debris / vegetation and have the drainage channel re-established.

Once follow-up has been completed, proper documentation, including narrative and photographic evidence, should be provided and properly filed for submission in the Annual Progress Report.

Attachments:

1. **MS4 Year 4 Field Sample/Test Sheets**
2. **MS4 Progress Report - Year 4**

KAB/JWV: als

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 10:05 AM	Outfall ID No.: 121
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 40 ' 50.54 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 13. ' 44.93 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: halfway up Romigh Road	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☒ Yes ☐ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☒ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☒ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☒ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☒ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☒ Yes ☐ No (If Yes, No. Samples: 1)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate	.01	GPM	Fecal Coliform		No./100 mL
pH	5	S.U.	COD		mg/L
Total Residual Chlorine (TRC)	0	mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen	0	mg/L	TDS		mg/L
Other: Temperature	36	°F	Oil and Grease		mg/L
Other: Detergents	.75	ppm	Other:		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 8:57 AM	Outfall ID No.: 303
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 30.01 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 11 ' 24.86 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: Side of Road	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 30 in	☒ In Water ☒ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

pipe is conveying stream

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name	Signature
Telephone No.	Date

Photo 1

Photo 2

Photo 3

Photo 4

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05

NPDES Permit No.: PA PAG136280

Date of Inspection: 2021/11/03 9:09 AM

Outfall ID No.: 304

Land Uses in Outfall Drainage Area (Select All):

☐ Industrial ☐ Urban Residential

☐ Commercial ☒ Suburban Residential

☐ Open Space ☐ Other:

Location Description: 643 Landis Road

Latitude: 40 ° 41 ' 25.41 "

Longitude: 80 ° 11 ' 27.63 "

Dry Weather Inspection? ☒ Yes ☐ No

Date of Previous Precipitation: 2021/10/31

Amount of Previous Precipitation: .2 in

Inspector Name(s):

JWV

Were Photographs Taken? ☒ Yes ☐ No

Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☒ In Water ☒ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:07 AM	Outfall ID No.: 305
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 21.11 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 11 ' 28.39 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: intersection of Baker and Landis	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☒ Yes ☐ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☒ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☒ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☒ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☒ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☒ Yes ☐ No (If Yes, No. Samples: 1)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate	.35	GPM	Fecal Coliform		No./100 mL
pH	6	S.U.	COD		mg/L
Total Residual Chlorine (TRC)	0	mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen	.25	mg/L	TDS		mg/L
Other: Temperature	31	°F	Oil and Grease		mg/L
Other: Detergents	.5	ppm	Other:		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:07 AM	Outfall ID No.: 306
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 20.98 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 11 ' 28.37 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: _____	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:16 AM	Outfall ID No.: 307
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 8.7 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 11 ' 27.92 "
☐ Commercial ☐ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☒ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: bend of Landis Road	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:18 AM	Outfall ID No.: 308
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 1.78 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 11 ' 20.21 "
☐ Commercial ☐ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☒ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: bend on Landis Road	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05

NPDES Permit No.: PA PAG136280

Date of Inspection: 2021/11/03 9:20 AM

Outfall ID No.: 309

Land Uses in Outfall Drainage Area (Select All):

☐ Industrial ☐ Urban Residential

☐ Commercial ☒ Suburban Residential

☐ Open Space ☐ Other:

Location Description: opposite 798 Landis Road

Latitude: 40 ° 40 ' 55.89 "

Longitude: 80 ° 11 ' 26.69 "

Dry Weather Inspection? ☒ Yes ☐ No

Date of Previous Precipitation: 2021/10/31

Amount of Previous Precipitation: .2 in

Inspector Name(s):

JWV

Were Photographs Taken? ☒ Yes ☐ No

Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:30 AM	Outfall ID No.: 349
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 40 ' 38.43 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 9 ' 11.05 "
☒ Commercial ☐ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: Commerce Drive cul-de-sac	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 24 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:33 AM	Outfall ID No.: 407
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 40 ' 41.29 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 9 ' 7.39 "
☒ Commercial ☐ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: Tricounty Drive	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:00 AM	Outfall ID No.: 412
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 42 ' 57.94 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 12 ' 0.50 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: adjacent driveway to House 1127	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☒ Yes ☐ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☒ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☒ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☒ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☒ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☒ Yes ☐ No (If Yes, No. Samples: 1)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate	.25	GPM	Fecal Coliform		No./100 mL
pH	5	S.U.	COD		mg/L
Total Residual Chlorine (TRC)	0	mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen	0	mg/L	TDS		mg/L
Other: Temperature	29	°F	Oil and Grease		mg/L
Other: Detergents	.25	ppm	Other:		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:38 AM	Outfall ID No.: 416
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 4.81 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 8 ' 59.30 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: pond adjacent Saddle Court	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:43 AM	Outfall ID No.: 417
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 3.76 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 8 ' 59.34 "
☐ Commercial ☐ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: pond adjacent Saddle Court	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:41 AM	Outfall ID No.: 418
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 3.71 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 9 ' 0.96 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: pond adjacent Saddle Court	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 24 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:45 AM	Outfall ID No.: 419
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 41 ' 4.16 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 9 ' 1.45 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: pond adjacent Saddle Court	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 24 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:49 AM	Outfall ID No.: 420
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 40 ' 55.22 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 9 ' 6.77 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: intersection of Carriage and Danbury	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 9:52 AM	Outfall ID No.: 421
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 40 ' 52.06 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 9 ' 5.15 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: Intersection of Danbury and Freedom Crider	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 18 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☐ Yes ☒ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☐ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☐ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☐ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☐ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☐ Yes ☐ No (If Yes, No. Samples: _____)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: Temperature		°F	Oil and Grease		mg/L
Other: Detergents		ppm	Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

no flow coming from Township inlets

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name | Signature

Telephone No. | Date

Photo 1

Photo 2

Photo 3

Photo 4

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 10:30 AM	Outfall ID No.: 607
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 44 ' 51.34 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 12 ' 50.88 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: adjacent house No. 162	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☒ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 15 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☒ Yes ☐ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☒ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☒ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☒ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☒ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☒ Yes ☐ No (If Yes, No. Samples: 1)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate	.05	GPM	Fecal Coliform		No./100 mL
pH	7	S.U.	COD		mg/L
Total Residual Chlorine (TRC)	0	mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen	.25	mg/L	TDS		mg/L
Other: Temperature	42	°F	Oil and Grease		mg/L
Other: Detergents	0	ppm	Other:		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name	Signature
Telephone No.	Date

Photo 1

Photo 2

Photo 3

Photo 4

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 10:36 AM	Outfall ID No.: 609
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 44 ' 57.46 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 12 ' 51.67 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: across House No. 199	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☒ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 8 in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☒ Yes ☐ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☒ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☒ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☒ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☒ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☒ Yes ☐ No (If Yes, No. Samples: 1)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate	.34	GPM	Fecal Coliform		No./100 mL
pH	4	S.U.	COD		mg/L
Total Residual Chlorine (TRC)	0	mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen	0	mg/L	TDS		mg/L
Other: Temperature	46	°F	Oil and Grease		mg/L
Other: Detergents	.25	ppm	Other:		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name	Signature
Telephone No.	Date

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Photo 2

Photo 3

Photo 4

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: New Sewickley Township 525-05	NPDES Permit No.: PA PAG136280
Date of Inspection: 2021/11/03 10:45 AM	Outfall ID No.: 611
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40 ° 44 ' 57.16 "
☐ Industrial ☐ Urban Residential	Longitude: 80 ° 12 ' 37.64 "
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: 2021/10/31
Location Description: adjacent House 402	Amount of Previous Precipitation: .2 in
Inspector Name(s): JWV	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other VCP	☒ Circular ☐ Single ☐ Elliptical ☒ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: 8 in	☒ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

Dry Weather Flow Present at Outfall During Inspection? ☒ Yes ☐ No *(If No, skip to Certification Section)*

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? ☐ Yes ☒ No If Yes, provide a description below.

Does the dry weather flow contain an odor? ☐ Yes ☒ No If Yes, provide a description below.

Is there an observed change in the receiving waters as a result of the discharge? ☐ Yes ☒ No
If Yes, provide a description below.

Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? ☐ Yes ☒ No
If Yes, provide a description below.

Were sample(s) collected of the dry weather flow? ☒ Yes ☐ No (If Yes, No. Samples: 1)

FIELD / LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate	.01	GPM	Fecal Coliform		No./100 mL
pH	6	S.U.	COD		mg/L
Total Residual Chlorine (TRC)	0	mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen	.25	mg/L	TDS		mg/L
Other: Temperature	44	°F	Oil and Grease		mg/L
Other: Detergents	2.0	ppm	Other:		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

GENERAL COMMENTS

611

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name	Signature
Telephone No.	Date

Photo 1

Photo 2

Photo 3

Photo 4

MS4 PROGRESS REPORT MAP

MS4 Progress Report

New Sewickley Township

233 Miller Rd
Rochester, PA 15074

Information provided is subject to update/revisions as the mapping process is completed. Storm System designation, connectivity and locations approximate only, based on best available data.

Base map data was provided by PASDA. LSSE provides no guarantee, expressed or implied, regarding the timeliness, accuracy, or use of these data nor does the act of distribution constitute or imply any such warranty.

Permit 3 - Year 4

Revision Number	Description	By	Date
1	Year 1		
2	Year 2		
3	Year 3	SML	11/10/2021
4	Year 4	SML	11/10/2021

LSSE
Civil Engineers and Surveyors
Est. 1995
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412-264-4400
Fax: 412-264-1200
email: info@lsse.com

Non-Test Outfall: Inaccessible, located on private property or infrastructure owned by others. Outfall screening conducted at upstream observation permits.

Current Storm Outfall Testing Results
- Negative
- Positive

Prior Storm Outfall Testing Results
- Negative
- Positive

Storm Outfalls
- Municipal
- Municipal Unregulated
- Private

Storm Manholes
- Municipal
- Private

Storm Inlets
- Municipal
- State
- Private

Storm Lines
- Municipal
- State
- Private

- Headwall/Endwall
- Culvert
- Natural Channel
- Swale
- Streams
- Private Storm Pond

- Watersheds
- Urban Area
- Municipal Site
- Municipal Boundary
- County Boundary

Contours
- Index (100')
- Intermediate (20')

N W E S

0 1,200 2,400 4,800 7,200

1 inch = 1,200 feet

Path: N:\PROJ\2020\2054\MS4 Mapp\New Sewickley MS4 Testing Permit 3\Year 4.mxd - 11/10/2021

PCSM BMP REVIEWS

TRAINING

MS 4 - Training Supervisors

8/3/2021

1. Keun Bieth
2. Fritz Retsch
3. Mike Phiaps
4. Greg Happ
5. Jim Applequist
6. ~~Douglas Voith~~
7.
8.
9.
10.
11.
12.

New Sewickley Township
Board of Supervisors

Annual MS4 Update

AUGUST 3, 2021

LSSE Civil Engineers and Surveyors

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Agenda:**
  - Permit Overview
  - Annual MS4 Tasks
    - Stormwater Management Program (Minimum Control Measures)
  - PADEP Compliance Evaluation
    - Annual Report
    - DEP Inspection
      - Current cycle of inspections for 2018 Permit is underway
  - Pollutant Reduction Plans

LSSE Civil Engineers and Surveyors

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Permit Overview – NPDES Permit for Stormwater Discharges from Small MS4s**
  - Municipal Separate Storm Sewer System (MS4) - Permit applies to stormwater infrastructure that is:
    - Used for collecting and/or conveying stormwater
    - Owned by a municipality or any other public body
    - Not used as a combined sewer
    - Not part of Publicly Owned Treatment Works (i.e. sewage treatment plant)
  - NPDES MS4 Permit authorizes discharge of stormwater from the MS4 to the Waters of the Commonwealth
  - NPDES MS4 Permit issued by PADEP in Pennsylvania. The program is administered nationally by EPA.
  - Primary goal of the permit: Protecting water quality and limiting stormwater pollution

LSSE Civil Engineers and Surveyors

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Annual MS4 Tasks**
  - Update and Implement Stormwater Management Program (Written Plan) addressing each MCM:
    - MCM #1 - Public Education and Outreach on Stormwater Impacts
    - MCM #2 - Public Involvement/Participation
    - MCM #3 - Illicit Discharge Detection and Elimination
    - MCM #4 - Construction Site Stormwater Runoff Control
    - MCM #5 - Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities
    - MCM #6 - Pollution Prevention/Good Housekeeping
  - The Stormwater Management Program must:
    - Reduce the discharge of pollutants from the MS4 to the maximum extent practicable,
    - Protect water quality, and
    - Satisfy appropriate water quality requirements of the Clean Water Act and the Pennsylvania Clean Streams Law

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Minimum Control Measures**
  - MCM #1 - Public Education and Outreach on Stormwater Impacts
    - Maintain and Implement a written plan
    - Maintain a Target Audience list
    - Distribute of Educational Materials to Target Audiences (Public Meetings, Website, Flyers/Newsletters, School/Community Events)
  - MCM #2 - Public Involvement/Participation
    - Maintain and Implement a written plan
    - Allow for public input of stormwater policy (i.e. Ordinances)
    - Solicit Public Involvement and Participating in Stormwater Activities – Public Meetings, Recycling Events, Public Comment, Litter Cleanups, School/Community Events

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Minimum Control Measures**
  - MCM #3 - Illicit Discharge Detection and Elimination
    - Maintain and Implement a written plan
    - Maintain a map of the MS4
    - Complete annual outfall screening. Take measures to eliminate illicit discharges discovered during screening through annual follow up of screening results.
    - Implement and enforce an Ordinance prohibiting illicit discharges. Maintain records of complaints, violations and enforcement activities related to illicit discharges.
  - MCM #4 - Construction Site Stormwater Runoff Control
    - Implement and enforce an Ordinance requiring erosion and sedimentation controls.
    - Maintain records of complaints, violations and enforcement activities related to illicit discharges.

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Minimum Control Measures**
  - MCM #5 - Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities
    - Implement and enforce an Ordinance requiring Post Construction Stormwater Management BMPs
    - Develop and maintain an inventory of PCSM BMPs
    - Ensure adequate operation and maintenance of all municipal-owned stormwater facilities and facilities that were constructed under NPDES Permit
  - MCM #6 - Pollution Prevention/Good Housekeeping
    - Develop a list of municipal facilities and activities.
    - Implement an operation and maintenance plan for each facility and activity (i.e. spill-kits, proper disposal of waste, vehicle washing/maintenance etc.)
    - Training of Township Staff, proper maintenance of municipal-owned facilities (spill-kits, proper disposal of waste, etc.)



LSSE Civil Engineers and Surveyors

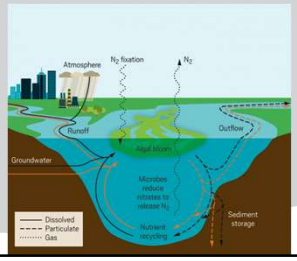
Municipal Separate Storm Sewer System (MS4)

- **Annual Reports**
  - Due September 30 of each year
  - Self reporting on progress made for each MCM, along with PRP and PCM progress
  - $500 renewal fee due annually
- **DEP or EPA Inspections**
  - DEP Inspects each permittee at least once every 5 years
  - Inspections for 2018 Permit are underway
    - Office Review - Thorough review of written plans and documentation of compliance with required Minimum Control Measures. Documentation of all MS4 related activities (event flyers, distributed materials, work logs, complaint resolution tracking, outfall screening etc.)
    - Field Review – Evaluation of municipal facilities including Public Works yard, garage, salt storage and other facilities. Field review of BMPs and outfalls

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Pollutant Reduction Plans (PRPs) were developed in 2017 and submitted to PADEP to meet the following requirements:**
  - The following reductions must be achieve within 5 years of permit issuance (March 2023 for General Permits):
    - Achieve 10% reduction in pollutant loading of sediment
    - Achieve 5% reduction in pollutant loading of total phosphorus
- **PRPs approved by PADEP established:**
  - Total pollutant loading required to be addressed in permit term
  - Potential BMPs to be constructed to achieve required pollutant reduction goals.



LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **BMPs identified in the Pollutant Reduction Plan must be constructed and the required pollutant reduction achieved by March 2023**
- **Municipal budget for each year must include funds for:**
  - Final Design of BMPs
  - Acquisition of property, as needed for BMP construction
  - Construction costs for installation of new BMPs or retrofit of existing BMPs, including bidding costs if constructed by a contractor
  - Annual maintenance of all BMPs
- **Each Annual Report will include documentation and supporting calculations for reductions achieved through implementation of the Pollutant Reduction Plan.**

LSSE Civil Engineers and Surveyors

PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

- **Vegetation**
  - Different than detention basins, rain gardens often have specific plantings (grasses, shrubs, trees) installed as part of the BMP design
  - Maintenance of vegetation is specific to the planting and identified in the facility's O&M Plan
  - Routine mowing, like done to detention basins, should not be assumed to be the proper maintenance

LSSE Civil Engineers and Surveyors

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PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

- **Vegetation**
  - While vegetation is being established, pruning and weeding is required to prevent establishment of invasive species
  - Trim perennial plantings at the end of each growing season
  - Replace dead or dying plantings during establishment period

LSSE Civil Engineers and Surveyors

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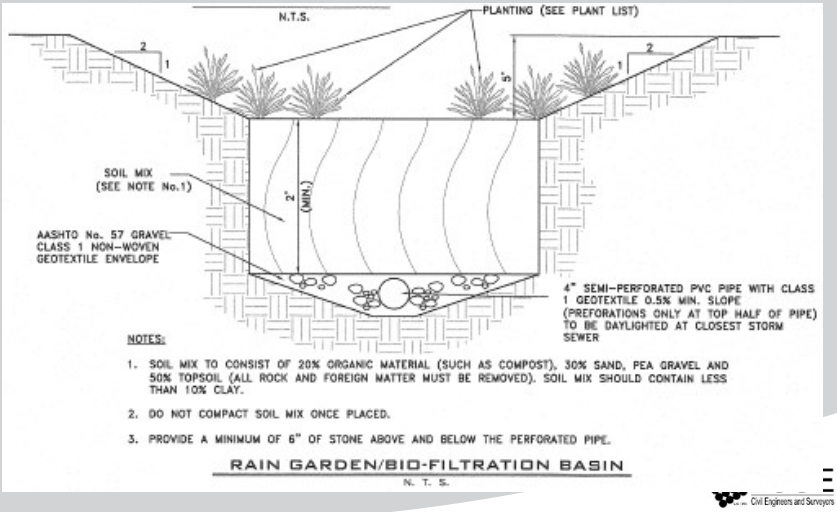
PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

LSSE Civil Engineers and Surveyors

-13-

PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

- **Soil Mix/Infiltrative Media**



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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Structural BMPs**
  - Park Rain Garden - Anticipated Schedule
    - Surveys have been completed
    - LSSE preparing concept plan
    - Project to be bid Fall/Winter 2021
    - Construction Spring 2022

LSSE Civil Engineers and Surveyors

CONTACTS

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kbrett@lsse.com

Shawn R. Wingrove, P.E.
LSSE Civil Engineers and Surveyors
swingrove@lsse.com

LSSE Civil Engineers and Surveyors

NEW SEWICKLEY TOWNSHIP
MS4 ANNUAL TRAINING

PLANNING COMMISSION

AUGUST 19, 2021

SIGN-IN SHEET

NAME	DEPARTMENT
1. Jenny Fessler	Planning
2. Ed Majors	Planning
3. Albert E. Horn	Planning
4. MIKE PHIPPS	PLANNING
5. Ed Eisenbrown	Planning
6. GARY BROWN	PLANNING
7. Laurie Bozman	~~Planning~~ Admin
8. Elois Nadzak	Admin
9. Doug Martin	Supervisor
10. Art Craig	Planning
11.	
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New Sewickley Township
Board of Supervisors

Annual MS4 Update

AUGUST 16, 2021

LSSE Civil Engineers and Surveyors

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Agenda:**
  - Permit Overview
  - Annual MS4 Tasks
    - Stormwater Management Program (Minimum Control Measures)
  - PADEP Compliance Evaluation
    - Annual Report
    - DEP Inspection
      - Current cycle of inspections for 2018 Permit is underway
  - Pollutant Reduction Plans

LSSE Civil Engineers and Surveyors

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Permit Overview – NPDES Permit for Stormwater Discharges from Small MS4s**
  - Municipal Separate Storm Sewer System (MS4) - Permit applies to stormwater infrastructure that is:
    - Used for collecting and/or conveying stormwater
    - Owned by a municipality or any other public body
    - Not used as a combined sewer
    - Not part of Publicly Owned Treatment Works (i.e. sewage treatment plant)
  - NPDES MS4 Permit authorizes discharge of stormwater from the MS4 to the Waters of the Commonwealth
  - NPDES MS4 Permit issued by PADEP in Pennsylvania. The program is administered nationally by EPA.
  - Primary goal of the permit: Protecting water quality and limiting stormwater pollution

LSSE Civil Engineers and Surveyors

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Annual MS4 Tasks**
  - Update and Implement Stormwater Management Program (Written Plan) addressing each MCM:
    - MCM #1 - Public Education and Outreach on Stormwater Impacts
    - MCM #2 - Public Involvement/Participation
    - MCM #3 - Illicit Discharge Detection and Elimination
    - MCM #4 - Construction Site Stormwater Runoff Control
    - MCM #5 - Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities
    - MCM #6 - Pollution Prevention/Good Housekeeping
  - The Stormwater Management Program must:
    - Reduce the discharge of pollutants from the MS4 to the maximum extent practicable,
    - Protect water quality, and
    - Satisfy appropriate water quality requirements of the Clean Water Act and the Pennsylvania Clean Streams Law

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Minimum Control Measures**
  - MCM #1 - Public Education and Outreach on Stormwater Impacts
    - Maintain and Implement a written plan
    - Maintain a Target Audience list
    - Distribute of Educational Materials to Target Audiences (Public Meetings, Website, Flyers/Newsletters, School/Community Events)
  - MCM #2 - Public Involvement/Participation
    - Maintain and Implement a written plan
    - Allow for public input of stormwater policy (i.e. Ordinances)
    - Solicit Public Involvement and Participating in Stormwater Activities – Public Meetings, Recycling Events, Public Comment, Litter Cleanups, School/Community Events

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Minimum Control Measures**
  - MCM #3 - Illicit Discharge Detection and Elimination
    - Maintain and Implement a written plan
    - Maintain a map of the MS4
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    - Implement and enforce an Ordinance requiring erosion and sedimentation controls.
    - Maintain records of complaints, violations and enforcement activities related to illicit discharges.

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Minimum Control Measures**
  - MCM #5 - Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities
    - Implement and enforce an Ordinance requiring Post Construction Stormwater Management BMPs
    - Develop and maintain an inventory of PCSM BMPs
    - Ensure adequate operation and maintenance of all municipal-owned stormwater facilities and facilities that were constructed under NPDES Permit
  - MCM #6 - Pollution Prevention/Good Housekeeping
    - Develop a list of municipal facilities and activities.
    - Implement an operation and maintenance plan for each facility and activity (i.e. spill-kits, proper disposal of waste, vehicle washing/maintenance etc.)
    - Training of Township Staff, proper maintenance of municipal-owned facilities (spill-kits, proper disposal of waste, etc.)



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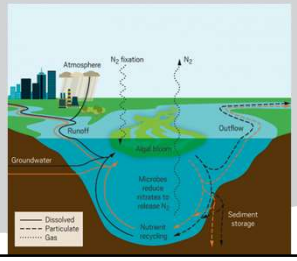
Municipal Separate Storm Sewer System (MS4)

- **Annual Reports**
  - Due September 30 of each year
  - Self reporting on progress made for each MCM, along with PRP and PCM progress
  - $500 renewal fee due annually
- **DEP or EPA Inspections**
  - DEP Inspects each permittee at least once every 5 years
  - Inspections for 2018 Permit are underway
    - Office Review - Thorough review of written plans and documentation of compliance with required Minimum Control Measures. Documentation of all MS4 related activities (event flyers, distributed materials, work logs, complaint resolution tracking, outfall screening etc.)
    - Field Review – Evaluation of municipal facilities including Public Works yard, garage, salt storage and other facilities. Field review of BMPs and outfalls

LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **Pollutant Reduction Plans (PRPs) were developed in 2017 and submitted to PADEP to meet the following requirements:**
  - The following reductions must be achieve within 5 years of permit issuance (March 2023 for General Permits):
    - Achieve 10% reduction in pollutant loading of sediment
    - Achieve 5% reduction in pollutant loading of total phosphorus
- **PRPs approved by PADEP established:**
  - Total pollutant loading required to be addressed in permit term
  - Potential BMPs to be constructed to achieve required pollutant reduction goals.



LSSE Civil Engineers and Surveyors

Municipal Separate Storm Sewer System (MS4)

- **BMPs identified in the Pollutant Reduction Plan must be constructed and the required pollutant reduction achieved by March 2023**
- **Municipal budget for each year must include funds for:**
  - Final Design of BMPs
  - Acquisition of property, as needed for BMP construction
  - Construction costs for installation of new BMPs or retrofit of existing BMPs, including bidding costs if constructed by a contractor
  - Annual maintenance of all BMPs
- **Each Annual Report will include documentation and supporting calculations for reductions achieved through implementation of the Pollutant Reduction Plan.**

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PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

- **Vegetation**
  - Different than detention basins, rain gardens often have specific plantings (grasses, shrubs, trees) installed as part of the BMP design
  - Maintenance of vegetation is specific to the planting and identified in the facility's O&M Plan
  - Routine mowing, like done to detention basins, should not be assumed to be the proper maintenance

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PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

- **Vegetation**
  - While vegetation is being established, pruning and weeding is required to prevent establishment of invasive species
  - Trim perennial plantings at the end of each growing season
  - Replace dead or dying plantings during establishment period

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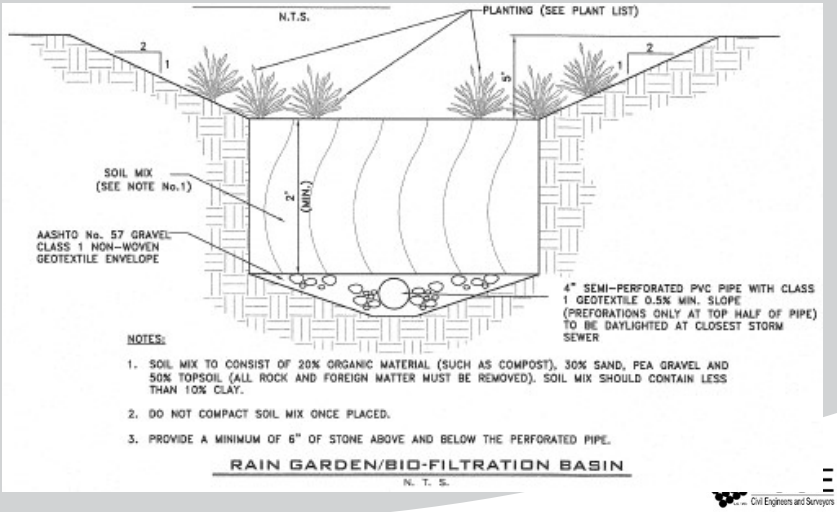
PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

LSSE Civil Engineers and Surveyors

-13-

PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas

- **Soil Mix/Infiltrative Media**



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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Structural BMPs**
  - Park Rain Garden - Anticipated Schedule
    - Surveys have been completed
    - LSSE preparing concept plan
    - Project to be bid Fall/Winter 2021
    - Construction Spring 2022

LSSE Civil Engineers and Surveyors

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LSSE Civil Engineers and Surveyors

NEW SEWICKLEY TOWNSHIP
BOARD OF SUPERVISORS

MS4 ANNUAL TRAINING

JUNE 7, 2022

SIGN-IN SHEET

NAME	DEPARTMENT
1. Kevin Bish	LSSE Twp Engineer
2. MIKE PHIPPS	SUPERVISOR
3. Fritz Retsch	Supervisor
4. Greg Happ	Supervisor
5. Doug Merta	Supervisor
6. MARTIN BONZO	SUPERVISOR
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New Sewickley Board of Supervisors

Annual MS4 Update

JUNE 7, 2022

LSSE
Civil Engineers and Surveyors
Est. 1985

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Agenda:**
  - Permit Overview
  - Annual MS4 Tasks
    - Stormwater Management Program (Minimum Control Measures)
  - PADEP Compliance Evaluation
    - Annual Report
    - DEP Inspection
      - Current cycle of inspections for 2018 Permit is underway
  - Pollutant Reduction Plans
  - Permit Renewal

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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Permit Overview – NPDES Permit for Stormwater Discharges from Small MS4s**
  - Municipal Separate Storm Sewer System (MS4) - Permit applies to stormwater infrastructure that is:
    - Used for collecting and/or conveying stormwater
    - Owned by a municipality or any other public body
    - Not used as a combined sewer
    - Not part of Publicly Owned Treatment Works (i.e. sewage treatment plant)
  - NPDES MS4 Permit authorizes discharge of stormwater from the MS4 to the Waters of the Commonwealth
  - NPDES MS4 Permit issued by PADEP in Pennsylvania. The program is administered nationally by EPA
  - Primary goal of the permit: Protecting water quality and limiting stormwater pollution

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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Annual MS4 Tasks**
  - Update and Implement Stormwater Management Program (Written Plan) addressing each MCM:
    - MCM #1 - Public Education and Outreach on Stormwater Impacts
    - MCM #2 - Public Involvement/Participation
    - MCM #3 - Illicit Discharge Detection and Elimination
    - MCM #4 - Construction Site Stormwater Runoff Control
    - MCM #5 - Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities
    - MCM #6 - Pollution Prevention/Good Housekeeping
  - The Stormwater Management Program must:
    - Reduce the discharge of pollutants from the MS4 to the maximum extent practicable,
    - Protect water quality, and
    - Satisfy appropriate water quality requirements of the Clean Water Act and the Pennsylvania Clean Streams Law

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Municipal Separate Storm Sewer System (MS4)

- **Annual Reports**
  - Due September 30 of each year
  - Self reporting on progress made for each MCM, along with PRP and PCM progress
  - $500 renewal fee due annually
- **DEP or EPA Inspections**
  - DEP Inspects each permittee at least once every 5 years
  - Inspections for 2018 Permit are underway (last completed in 2017)
    - Office Review - Thorough review of written plans and documentation of compliance with required Minimum Control Measures. Documentation of all MS4 related activities (event flyers, distributed materials, work logs, complaint resolution tracking, outfall screening etc.)
    - Field Review – Evaluation of municipal facilities including Public Works yard, garage, salt storage and other facilities. Field review of BMPs and outfalls

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Municipal Separate Storm Sewer System (MS4)

- **Pollutant Reduction Plans (PRPs) were developed in 2017 and submitted to PADEP to meet the following requirements:**
  - The following reductions must be achieve within 5 years of permit issuance (March 2023 for General Permits):
    - Achieve 10% reduction in pollutant loading of sediment
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- **Each Annual Report will include documentation and supporting calculations for reductions achieved through implementation of the Pollutant Reduction Plan.**
- **PRPs approved by PADEP established:**
  - Total pollutant loading required to be addressed in permit term
  - Potential BMPs to be constructed to achieve required pollutant reduction goals

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Municipal Separate Storm Sewer System (MS4)

- **Township PRP Status (5,900 lb/year reduction)**
  - Green Valley Park – Construction completed (2,440 lb credit)
  - Willowmere Park – Project planning phase (3,700 lb credit)

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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Permit Renewal**
  - Current Permit expires March 2023
    - Notice of Intent not required as long as Annual Progress Report is submitted each September unless otherwise directed by DEP
    - Coverage under current Permit will renew unless otherwise notified by DEP
    - DEP has not issued any information regarding future PRP Requirements

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NEW SEWICKLEY TOWNSHIP
MS4 ANNUAL TRAINING

AUGUST 26, 2021

SIGN-IN SHEET

NAME	DEPARTMENT
1. BRIAN O'MALLEY	ADMIN
2. James Borgman	Adm
3. RJ Kraus	
4. Paul Mochnik	Road
5. Calvin Stoffler	Road
6.	
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New Sewickley Township

MS4 Annual Training

AUGUST 27, 2021

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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Annual MS4 Tasks**
  - Update and Implement Stormwater Management Program (Written Plan) addressing each MCM:
    - MCM #1 - Public Education and Outreach on Stormwater Impacts
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    - MCM #6 - Pollution Prevention/Good Housekeeping
  - The Stormwater Management Program must:
    - Reduce the discharge of pollutants from the MS4 to the maximum extent practicable,
    - Protect water quality, and
    - Satisfy appropriate water quality requirements of the Clean Water Act and the Pennsylvania Clean Streams Law

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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- **Minimum Control Measures**
  - MCM #1 - Public Education and Outreach on Stormwater Impacts
    - Maintain and implement a written plan
    - Maintain a target audience list
    - Distribute educational materials to target audiences (Public Meetings, Website, Flyers/Newsletters, School/Community Events)
    - Goal is to promote public awareness of stormwater management and stormwater quality
  - MCM #2 - Public Involvement/Participation
    - Maintain and implement a written plan
    - Allow for public input on stormwater policy (i.e. Ordinances). Hold a public meeting
    - Solicit public involvement and participation in stormwater activities – Public Meetings, Recycling Events, Public Comment, Litter Cleanups, School/Community Events

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MCM No. 3 – Illicit Discharge Detection and Elimination

- **Illicit Discharge Detection and Elimination**
  - Develop Written IDD&E Program
  - Develop and Maintain a Map of Regulated Small MS4 Outfalls, collection and conveyance facilities
  - Complete annual outfall screening program
  - Implement a complaint/incident resolution tracking system.
  - Enact a Stormwater Ordinance to prohibit illicit discharge to the MS4.

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MCM No. 3 – Outfall Screening

- **Outfall Screening**
  - Each outfall must be tested once during the 5-year permit cycle. Outfalls with continual dry weather flow are screened annually.
  - Outfalls are visually inspected 48 hours after a precipitation event.
  - If dry weather flow is evident, sampling for pollutants is typically conducted
  - Document follow up completed on outfalls with illicit discharges

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MCM No. 3 – Illicit Discharge Follow up

- **Outfall Screening Procedure**
  - Wet Testing Field Tests
    - Ammonia
    - Chlorine
    - pH
    - Detergents
  - Potential Causes of Different Results
    - Ammonia – Organic Matter (fecal matter, dead animal)
    - Chlorine – Waterline leak, pool draining
    - pH – Acid Mine Drainage (low pH), Chemicals (high pH)
    - Detergents – Wash Water (Car Wash, Bath Soaps, Laundry)
- **Follow up - Illicit Discharges**
  - Determining Cause of Illicit Discharge
    - Determine Source of Flow (Field Review, CCTV, Smoke/Dye Testing, etc.)
  - Determine location of where flow starts, can determine if illicit discharge is present and if action is needed (i.e., illegal connection, illegal dumping, etc.)

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MCM No. 3 - Illicit Discharge Follow up

- **Once Identified Illicit Discharge Correction**
  - Determine if flow is from illegal dumping or improper connections
  - Take appropriate action to correct discharge
    - If a violation is found, notify the property owner and set a timeframe for correction of violation.
  - Document all measures taken to correct illicit discharge
  - Council may need to create policy for how to handle non-compliant entities, i.e. Homeowners Associations, residents, etc. Staff will need direction on procedures to implement.
    - Written Notification
    - Notice of Violation
    - Take to Magistrate
    - Complete work and lien property

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MCM No. 4 – Construction Site Stormwater Runoff Control

- **Construction Site Stormwater Runoff Control**
  - Hold issuance of building permits for site proposing disturbance of greater than one acre until an NPDES permit is issued.
  - Notify the Conservation District of Permit applications received for earth disturbances greater than one acre
  - Enact, Implement and Enforce an Ordinance to require implementation and maintenance of E&S control BMPs
    - Monitor active construction sites for proper E&S measures.
    - Enact enforcement measures for violations
    - Coordinate with Conservation District.

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MCM No. 4 – Construction Site Stormwater Runoff Control

- **Typical E&S Controls: Silt sock or silt fence**
  - Purpose: Control overland sediment laden runoff

MCM No. 4 – Construction Site Stormwater Runoff Control

- **Typical E&S Controls: Silt Sacks**
  - Purpose: Collect sediment to prevent discharge to inlets

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MCM No. 4 – Construction Site Stormwater Runoff Control

- **Typical E&S Controls: Rock Construction Entrance**
  - Purpose: Prevent tracking of mud onto adjacent roadway

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MCM No. 5 – Post Construction Stormwater Management In New and Re-Development Activities

- **Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities**
  - Enact, Implement, and Enforce an Ordinance requiring post-construction stormwater management for development and redevelopment
  - Encourage use of Low Impact Development
  - Ensure adequate operation and maintenance of PCSM BMPs (detention ponds, infiltration facilities, rain gardens, bioretention facilities, etc.)
    - Public Facilities – Township to complete annual maintenance
    - Private Facility – Township to ensure proper operation through annual inspections. Notice of deficiencies to be provided to entity responsible for maintenance. Enforcement of non-compliance is required.

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Pollution Prevention/Good Housekeeping**
  - Develop and maintain a listing of all facilities and operations that contribute to stormwater runoff
  - Operations
    - Street sweeping
    - Snow Removal
    - Inlet/Outfall Cleaning
    - Grounds Care
    - Storm Sewer Maintenance
    - Building Maintenance
    - Vehicle Operation, Maintenance, Washing
  - Facilities
    - Roads
    - Storage Yard
    - Waste Transfer Station
    - Parks
    - Stormwater Conveyances
    - Stormwater BMPs
    - Maintenance/Storage Facilities/Shops

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Pollution Prevention/Good Housekeeping**
  - Develop and implement and operations and maintenance plan for each facility or operation.
  - By Following Operations and Maintenance Program you should:
    - Reduce/eliminate discharges to storm drains
    - Reduce discharge from Streets, Roads, Highways, Parking Lots, etc.
    - Reduce/eliminate discharge of pollutants to the MS4 system
    - Improve water quality of runoff discharged to Waters of the Commonwealth

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Operation, Maintenance, and Inspection Program**
  - Catch Basin/Inlets
    - Inspect and clean all municipal-owned Catch Basins / Inlets annually
    - Develop a long-term schedule for inlet repair and replacement
    - Document (with written forms and photographs) inspections, cleaning, and repairs
    - Jet clean and televise pipes if it is apparent that pipes are clogged or deteriorating
- **Disposal of Waste Material**
  - Properly dispose of waste material from street sweeping, inlet cleaning and spill cleanups in a lined dumpster with testing as required by the disposal site.
  - Waste oil should be collected, stored and disposed of at proper dispensary

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Fertilizing**
  - Evaluate fertilizers before use and control amount used
  - Properly apply fertilizer and properly dispose of waste
  - Utilize plantings that require minimal care and fertilizers
  - Limit excessive watering of lawn areas
- **Mowing**
  - Mulch clippings in place
  - Properly clean grass clippings and debris from mowing equipment
  - If mowers are washed with water, wash on a pervious surface (grass area)
- **Dumpsters**
  - Keep lids closed when not using
  - Maintain distance from inlets

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Material Storage**
  - Store materials under cover
  - Properly label all liquid storage containers
  - Provide secondary containment for liquid storage
  - Periodically review containers for leaks
  - Maintain a spill kit in close proximity to storage areas

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Salt Storage**
  - Complete coverage for salt storage
  - Unload and load trucks inside the storage facility as best as can be done
  - Locate storage building away from areas prone to flooding

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Spill Cleanup**
  - Install spill kits throughout municipal facilities – identify locations with signage
  - Utilize dry cleanup procedures only to clean up spills
  - Maintain a log of spills; document the procedure used in cleanup of a spill
  - Assist Fire Department and Police Department in vehicle spills from car accidents

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Street Sweeping**
  - Check equipment for leaks before use
  - Limit water usage for dust control only
  - Deposit sweepings in designated areas
  - Implement sweeping routes to limit debris from entering inlets
- **Snow Removal**
  - Calibrate salt spreaders to prevent over application
  - Use minimum amount of salt
  - Minimize salt spillage by not overloading trucks
  - Operate trucks at speeds to prevent spillage of salt from truck bed
  - Use interior wash bays to clean trucks, spreaders, plows after use

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Vehicle Maintenance, Fueling, and Washing**
  - Vehicle Maintenance
    - Fluids stored in a proper manner
    - Commercial car washes for police and smaller vehicles
    - Phosphate-free soaps and detergents
    - Vehicles washed in designated area, storm connections blocked off using inserts and drain onto permeable area
  - Municipal-Owned Fuel Site
    - Discourage “Topping-Off”, spills controlled immediately
    - Emergency Shut-off clearly marked
    - Emergency procedures posted
    - Remain at pump while fueling
    - Maintain accessible spill kit

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Documentation of O&M Procedures**
  - Implement a site specific checklist for routine reviews of the Municipal and Public Works Facilities
    - Are spill kits properly stocked with supplies and accessible?
    - Are any drum or containers storing liquid materials leaking?
    - Are drip pans or absorbent pads in place for leaking equipment?
    - Are the inlets in the parking area free of debris?
    - Is the salt stockpile property contained and covered?
    - Is the facility free of debris, litter and waste?
    - Are dumpsters covered?
    - Are there remnants of spills at the fueling area?
    - Are MSDS sheets and other chemical documentation posted?
    - Are fuel cans and other hazardous materials properly stored?
  - DEP has requested documentation of routine (i.e. weekly, monthly, etc.) facility reviews during inspections.

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MCM No. 6 – Pollution Prevention and Good Housekeeping

- **Documentation of O&M Procedures**
  - Documentation of annual storm sewer infrastructure maintenance
    - Quantification of in-house and bid maintenance
    - Documentation of resources expended – manhours, materials, contract values, etc.
  - Documentation of disposal of waste material
    - Used Oil
    - Spill clean up waste
    - Contaminated waste such as debris from inlets
  - Spill Cleanup
    - Cleanup of significant spills, including vehicle accidents
  - Documentation of BMP maintenance
    - Quantification of in-house and bid maintenance
    - Documentation of resources expended – manhours, materials, contract values, etc.

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Municipal Separate Storm Sewer System (MS4)

- **Pollutant Reduction Plans (PRPs) were a new requirement of the 2018 MS4 Permit:**
  - All permittees that discharge to waters impaired for the following pollutants require PRPs:
    - Nutrients (Nitrogen and Phosphorus)
    - Sediment
  - The following reductions must be achieved within 5 years of permit issuance (March 2023 for General Permits):
    - Achieve 10% reduction in pollutant loading of sediment
    - Achieve 5% reduction in pollutant loading of total phosphorus
- **PRPs approved by PADEP established:**
  - Total pollutant loading required to be addressed in permit term
  - Potential BMPs to be constructed to achieve required pollutant reduction goals.

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Municipal Separate Storm Sewer System (MS4)

- **BMPs identified in the Pollutant Reduction Plan must be constructed and the required pollutant reduction achieved by March 2023**
- **Municipal budget for each year must include funds for:**
  - Final Design of BMPs
  - Acquisition of property, as needed for BMP construction
  - Construction costs for installation of new BMPs or retrofit of existing BMPs, including bidding costs if constructed by a contractor
  - Annual maintenance of all BMPs
- **Pollutant Reduction Plans will result in new BMPs that will require continued maintenance.**

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Municipal Separate Storm Sewer System (MS4)

- **Annual Reports**
  - Due September 30 of each year
  - Self reporting on progress made for each MCM, along with PRP progress
  - $500 renewal fee due annually
- **DEP or EPA Inspections**
  - DEP Inspects each permittee at least once every 5 years
  - Inspections for 2018 Permit are underway
    - Office Review - Thorough review of written plans and documentation of compliance with required Minimum Control Measures. Documentation of all MS4 related activities (event flyers, distributed materials, work logs, complaint resolution tracking, outfall screening etc.)
    - Field Review – Evaluation of municipal facilities including Public Works yard, garage, salt storage and other facilities. Field review of BMPs and outfalls

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PCSM BMP Maintenance

- **What is a PCSM BMP?**
  - Post Construction Stormwater Management (PCSM) Best Management Practice (BMP)
  - Activities, facilities, designs, measures, or procedures used to manage stormwater impacts
  - MCM #5 primarily relates to structural PCSM BMPs such as:
    - Detention Basins
    - Retention Basins/Wet Ponds
    - Underground Storage Tanks
    - Infiltration Facilities (sumps, trenches, galleries, etc.)
    - Rain Gardens/Bio-Retention Basins and Swales
    - Permeable or Porous Paving
    - Filter strips
    - Inlet Filters
    - Riparian Buffers

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PCSM BMP Maintenance – Detention Basin

- **Detention Basin Maintenance Summary – Typical Maintenance**
  - Review outlet structure, clear blockages and accumulated debris
  - Maintain vegetation to reduce erosion. Vegetative cover should be maintained at 95%
  - Manage overgrowth through annual mowing
  - Prevent establishment of woody vegetation along the embankment
  - Walk the embankment to evaluate its condition. Identify and address erosion, burrow holes, slides or other conditions impacting stability.
  - Remove sediment accumulation as necessary.
  - Review endwalls and discharges for erosion.

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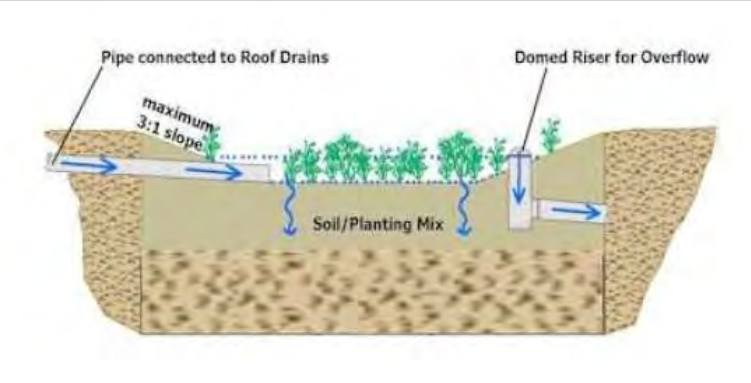
PCSM BMP Maintenance – Rain Gardens/Bio-Retention Areas



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PCSM BMP Maintenance – Detention Basin

- **Rain Garden/Bio Retention Maintenance Summary – Typical Maintenance**
  - Review outlet structure, clear blockages and accumulated debris
  - Monitor vegetation, especially during establishment period. Pruning, weeding and removal of invasive species is typically necessary
  - Implement specific maintenance plan for plantings once established. Typical rain gardens do not require mowing, but may required trimming of perennial plantings at year's end.
  - Remove sediment accumulation as necessary.
  - Monitor effectiveness of infiltrative media. Rain gardens should dewater in less than 72 hours.
    - Replace and replenish mulch layer where present.
    - Long term replacement of filter media will be necessary
  - Remove and dispose of trash and other debris

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Permit Requirements - PCSM BMP Maintenance

- **BMP Maintenance must be completed for multiple permit requirements**
  - MCM 5: "Ensure adequate O&M of all post-construction stormwater management BMP…"
  - MCM 6: "Develop, implement and maintain a written O&M program"
  - Pollutant Reduction Plans: Proper O&M of BMPs constructed to address PRP must be documented in each annual report
- **Documentation**
  - Completion of Inspection Reports
  - Reports to be completed for all borough facilities
  - Monthly Reports
    - Municipal Maintenance Yard Review: salt storage, material storage, and Vehicle/Equipment Fueling Area
  - Task Reports
    - Vehicle Washing and Vehicle Maintenance
  - Incident Reports
    - Spill Cleanup

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THANK YOU

Questions?

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PRP
CONSTRUCTION
PLANS

Green Valley Park Improvements

Contract No. 21-SW1

Situate In

New Sewickley Township
Beaver County, Pennsylvania

Prepared For

New Sewickley Township

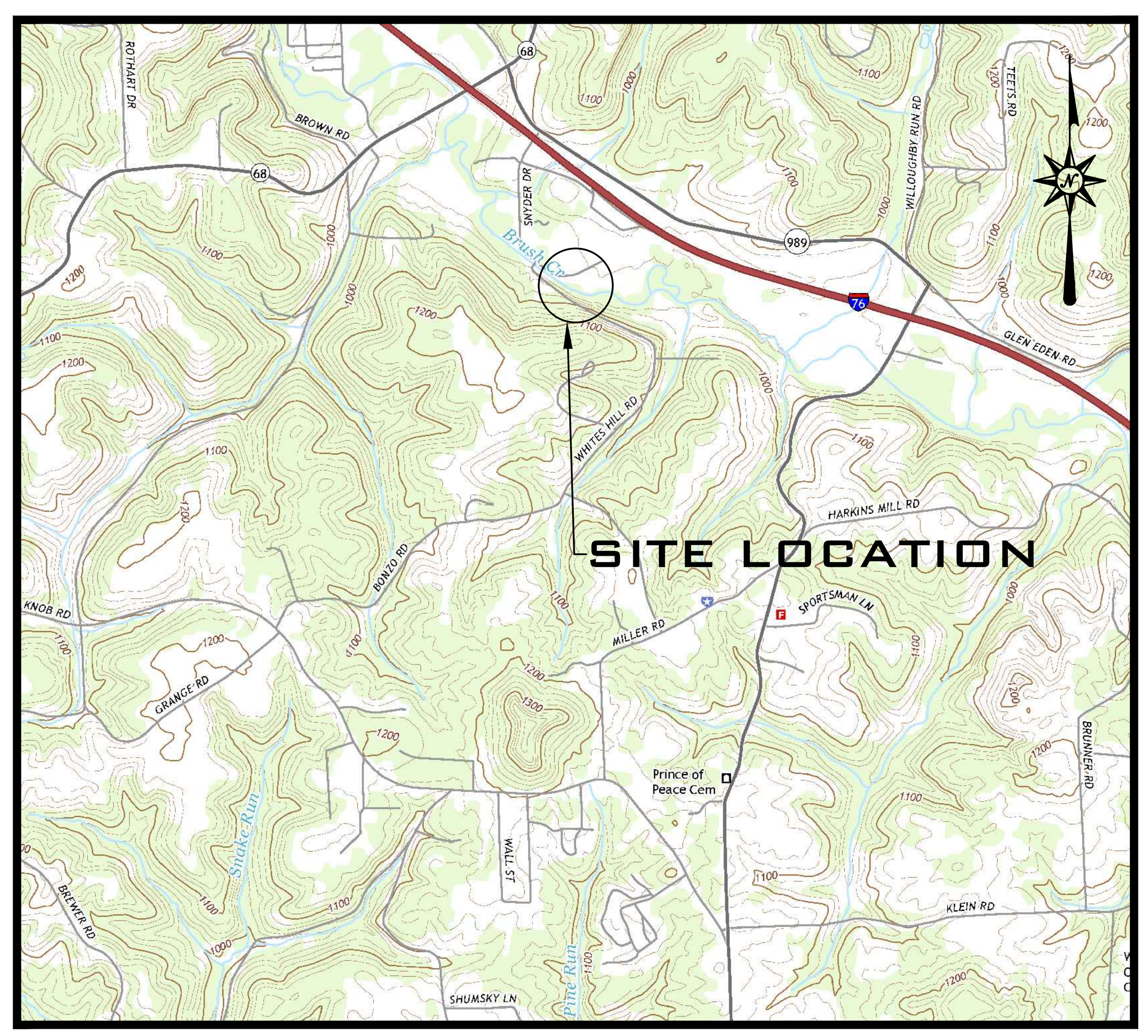
233 Miller Road
Rochester, Pennsylvania 15074

October 2021

One Call Respondents

Information as to the location and type of underground utilities and structures shown are approximate. Contractor(s) shall verify all such information in the field. Prior to any excavation, the Contractor(s) shall notify the Pennsylvania One Call System by calling 811. Locations of the utilities shown on the drawings or within the construction area are based on information provided through the Pennsylvania One Call System, Inc, Serial No. 20212860587. The respondents to the One Call notification were:

PA One Call Contacts			
Utility	Company	Address	Contact No.
Phone	VERIZON PENNSYLVANIA LLC CONTACT: DEBORAH BARUM	1026 Hay Street Pittsburgh, PA 15221	deborah.d.delia@verizon.com
Electric	DUQUESNE LIGHT COMPANY CONTACT: KYLIE PARISON	2645 New Beaver Avenue PA–TD Pittsburgh, PA 15233	kparison@duqlight.com
Electric	PENNSYLVANIA POWER COMPANY CONTACT: ERIC POWELL	730 South Avenue Youngstown, Ohio 44502	epowell@firstenergycorp.com
Sewer	NEW SEWICKLEY TOWNSHIP MUNICIPAL AUTHORITY/NEW SEWICKLEY TOWNSHIP CONTACT: LAWRIE BORGMAN	233 Miller Road Rochester, PA 15074	secretary@newsewickley.com
ALL EXISTING SUBSURFACE UTILITY INFORMATION PRESENTED ON THE CONTRACT DRAWINGS IS CHARACTERIZED AS UTILITY QUALITY LEVEL C OR D PER "CI/ASCE 38–02 – STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" UNLESS SPECIFICALLY NOTED OTHERWISE.			



Base Map taken from the U.S.G.S. Quadrangle:

Location Map

N. T. S.

Sheet Index		
Sheet No.	Description	Drawing No.
--	Title Sheet	--
1 of 5	Existing Conditions Plan	525–03–19–1
2 of 5	Overall Site Plan	525–03–19–2
3 of 5	Storm Sewer Profiles	525–03–19–3
4 of 5	Standard Details	525–03–19–4
5 of 5	Standard Details	525–03–19–5
ES1 of ES3	Erosion & Sedimentation Control Plan	525–03–19–ES1
ES2 of ES3	Erosion & Sedimentation Control Detail	525–03–19–ES2
ES3 of ES3	Erosion & Sedimentation Control Detail	525–03–19–ES3

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CONSTRUCTION PHASE AND 10 WORKING
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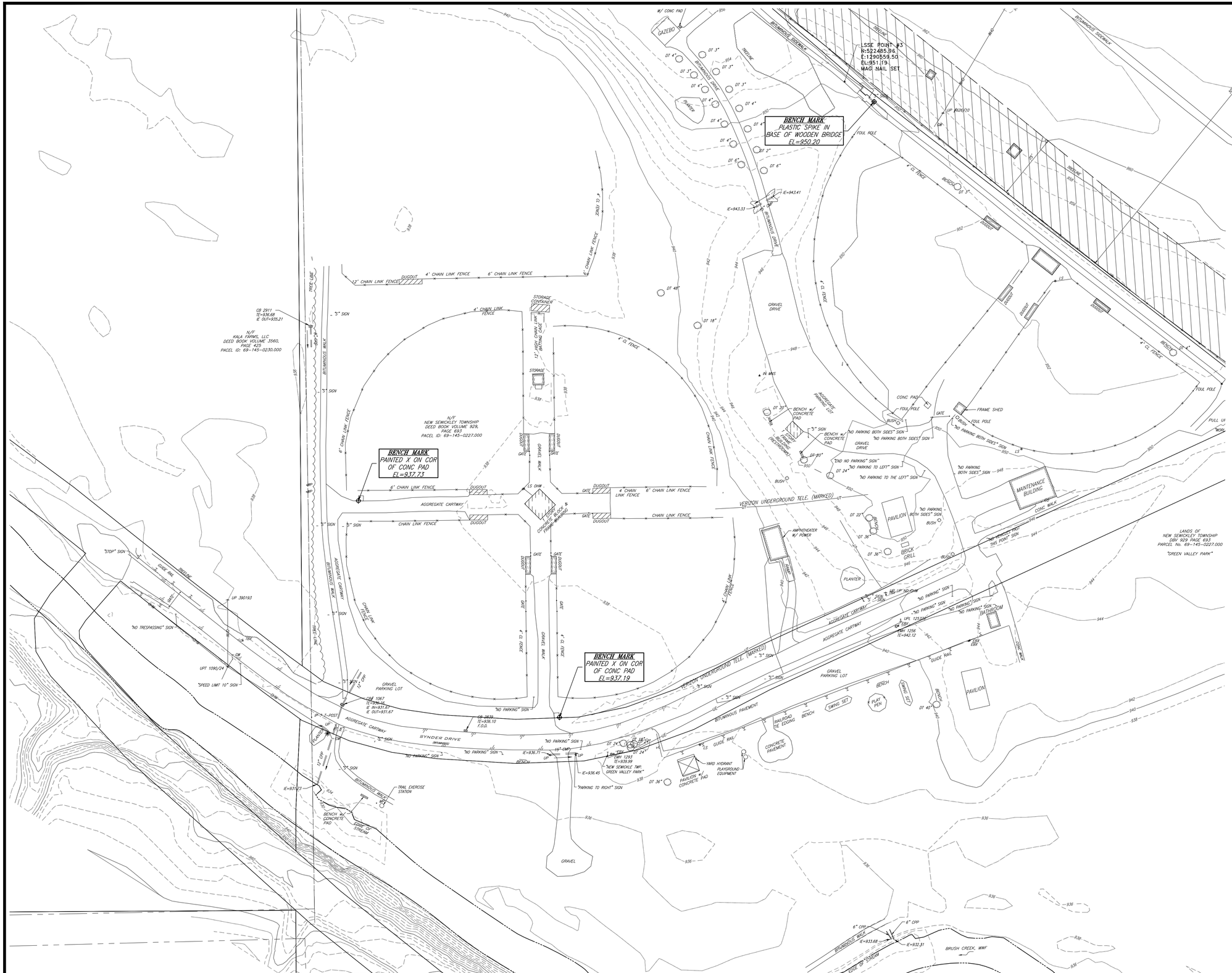
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
KEVIN ALLEN BRETT

LSSE
Civil Engineers and Surveyors
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412-264-4400
Fax: 412-264-1200
email: info@lsse.com



EXISTING CONDITION NOTES:

1. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED BY FIELD SURVEY OF MARKINGS MADE IN THE FIELD BY THE RESPECTIVE UTILITY COMPANY OR TAKEN FROM DRAWINGS OF THE EXISTING UTILITIES PROVIDED BY THE UTILITY COMPANIES. ALL EXISTING SUBSURFACE UTILITY INFORMATION PRESENTED ON THE CONTRACT DRAWINGS IS CHARACTERIZED AS UTILITY QUALITY LEVEL C OR D PER "CI/ASCE 38-02 - STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" UNLESS SPECIFICALLY NOTED OTHERWISE.

2. THE ENGINEER OR SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.

3. FURTHERMORE, THE ENGINEER OR SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THEY ARE LOCATED USING ORDINARY STANDARDS OF CARE AND PRACTICE AND SHOWN HEREON BASED UPON AVAILABLE INFORMATION.

4. THE ENGINEER OR SURVEYOR HAS NOT PHYSICALLY LOCATED ANY OF THE UNDERGROUND UTILITIES.

5. PROPERTY LINES SHOWN HEREIN ARE PREPARED FROM DEED PLOTS AND/OR FROM TAX MAP INFORMATION. NO FIELD PROPERTY SURVEYS WERE PERFORMED. PROPERTY LINES NOT FIELD VERIFIED.

EXISTING LEGEND

◆	BENCHMARK
– – – –	CONTOUR (2–ft)
——1220——	CONTOUR (10–ft)
—— ——	DITCH
–×–×– FP	FENCELINE W/ POST
	GUIDERAIL
✱ LS	LIGHT STANDARD
Ⓢ ● ● ●	MANHOLES: SANITARY, STORM, TELEPHONE, MISC
▫ PM	PARKING METER
	PAVEMENT EDGE
	PROPERTY LINE (Parcel)
	PROPERTY LINE (ROW)
S	SIGN
	STREAM
✱	CONIFEROUS TREE
○	DECIDUOUS TREE
——UE——	UTILITY LINE (Electric)
——UT——	UTILITY LINE (Underground Telephone)
GB GM —G— GLM GV	UTILITY LINE (Gas) W/ BOX, METER, MARKER, AND VALVE
8" PVC —FM—	UTILITY LINE (Sanitary ForceMain) W/ MANHOLES
8" PVC	UTILITY LINE (Sanitary Sewer) W/ MANHOLES
15" CPP	UTILITY LINE (Storm) W/ CATCH BASIN AND MANHOLE
UP —OHW— GW	UTILITY LINE (Telephone) W/ POLE, OVERHEAD WIRE AND GUY WIRE
WB WM —W— WV HYD	UTILITY LINE (Water) W/ BOX, METER, HYDRANT AND VALVE

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0' 50' 100' 150'

KEVIN ALLEN BRETT

Scale: 1"=50'	No.	Date	Description	By	No.	Date	Description	By	No.	Date	Description	By
Drawn By / Checked By / Approved By												

LSSE
Civil Engineers and Surveyors
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412-264-4400
Fax: 412-264-1200
email: info@lsse.com

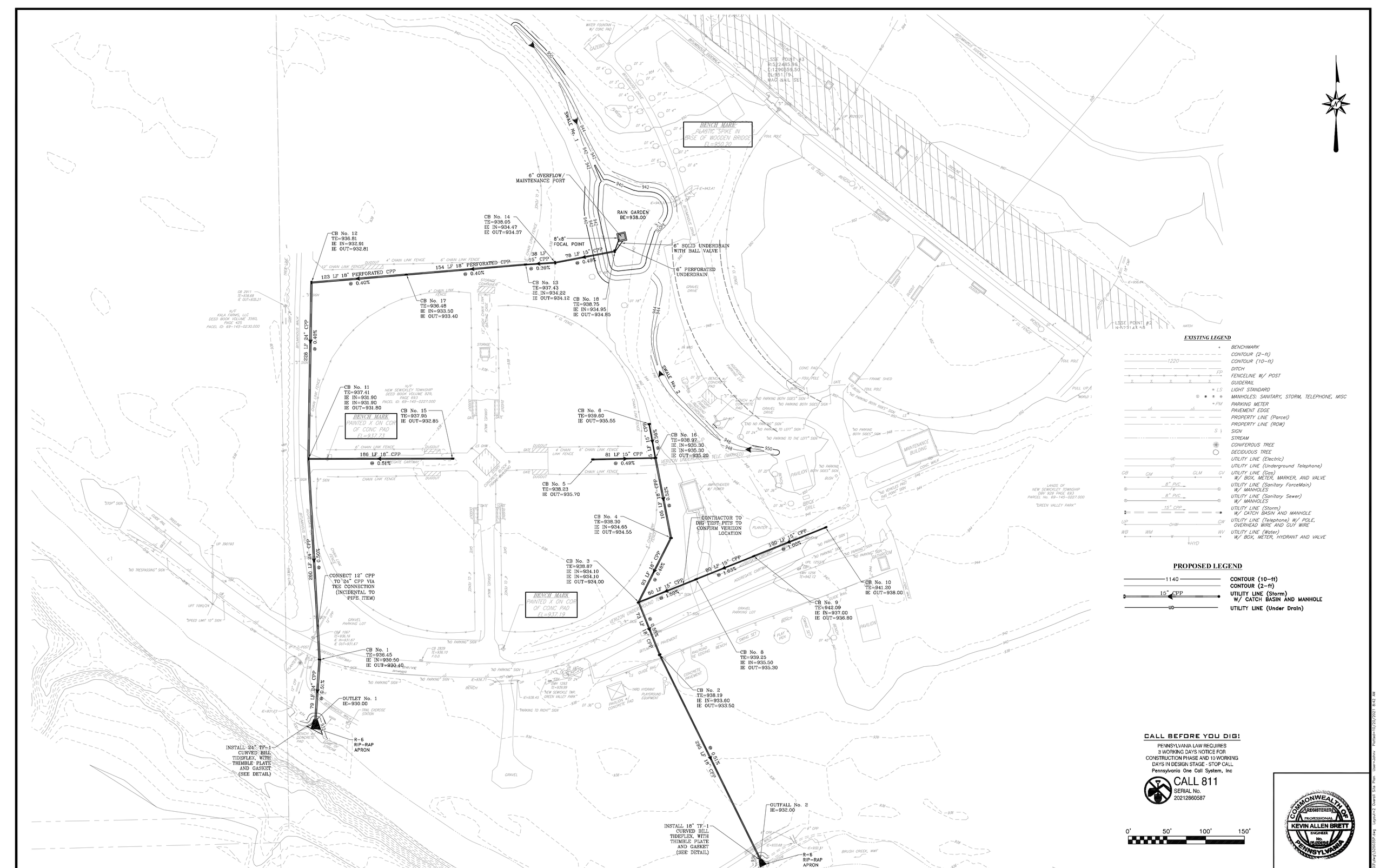
Filename: 52503Tp--.dwg
Date: October 2021

New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

Green Valley Park Improvements
Contract No. 21-SW1
Situate In
New Sewickley Township, Beaver County, Pennsylvania

Sheet Title: Existing Conditions Plan
Drawing No. 525-03-19-1
Sheet No. 1 of 5

n:\PROJ\525\03\19\03\dwg\52503Tp--.dwg Layout=1 Existing Conditions Plan User=John W. Valinsky Plotted=10/19/2021 6:29 PM



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1" = 50'												
Drawn By / Checked By / Approved By												

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Fax: 412-264-1200
email: info@lsse.com

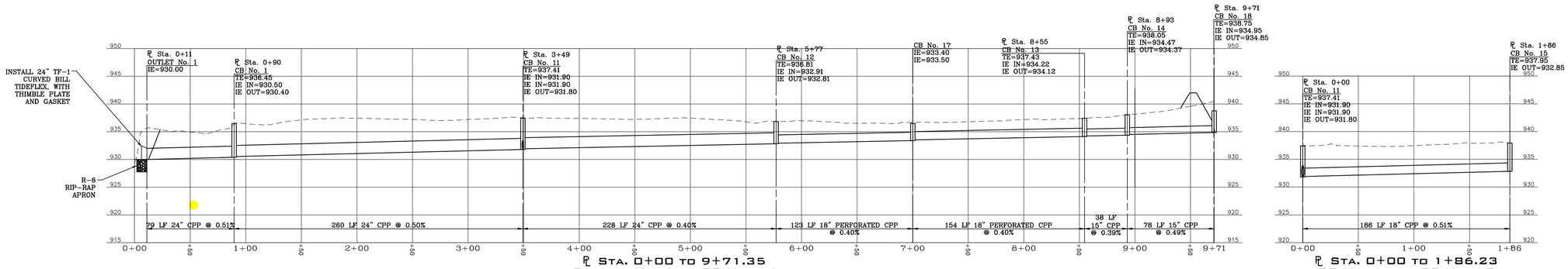
Filename: 52503SP.dwg
Date: October 2021

New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

Green Valley Park Improvements
Contract No. 21-SW1
Situate In
New Sewickley Township, Beaver County, Pennsylvania

Sheet Title: Overall Site Plan
Drawing No. 525-03-19-2
Sheet No. 2 of 5

N:\PROJ\525\03\19\03\dwg\52503SP.dwg Layout=2 Overall Site Plan User=Johnv Plotted=10/20/2021 8:42 AM



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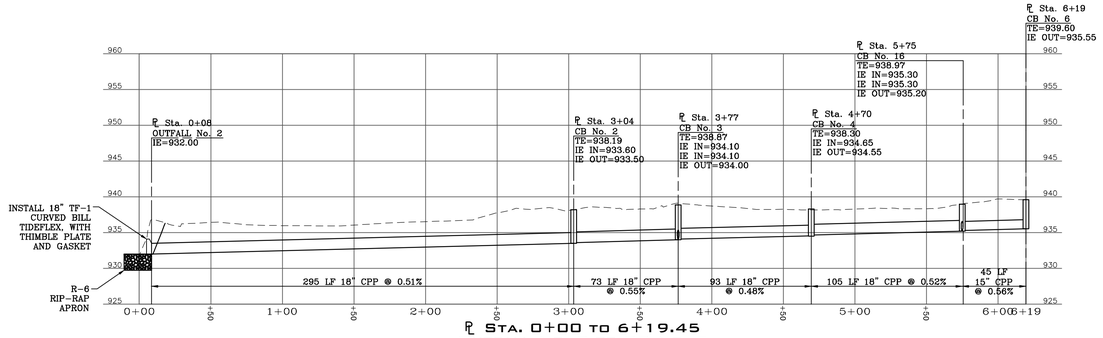
Outfall No. 1 to CB No. 14
Horiz: 1"=50'
Vert: 1"=10'

℄ Sta. 0+00 to 1+86.23
CB No. 11 to CB No. 15
Horiz: 1"=50'
Vert: 1"=10'



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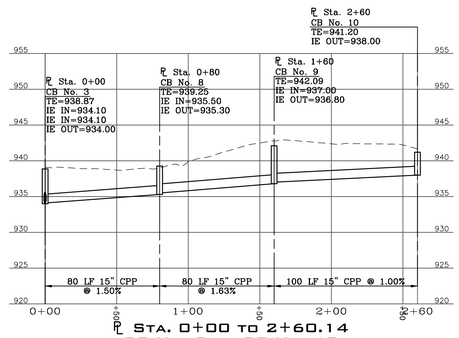
Vert: 1"=10'



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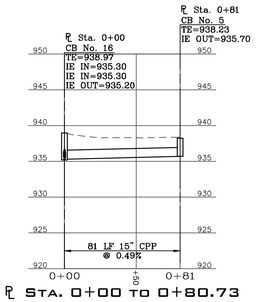
Vert: 1"=10'



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STMH No. 1 to CB No. 5
Horiz: 1"=50'
Vert: 1"=10'

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — KEVIN ALLEN BRETT — No. PE090114

Scale: H:1"=50' V:1"=10'	Drawn By	Checked By	Approved By

No.	Date	Description	By

No.	Date	Description	By

No.	Date	Description	By

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Phone: 412-264-4400
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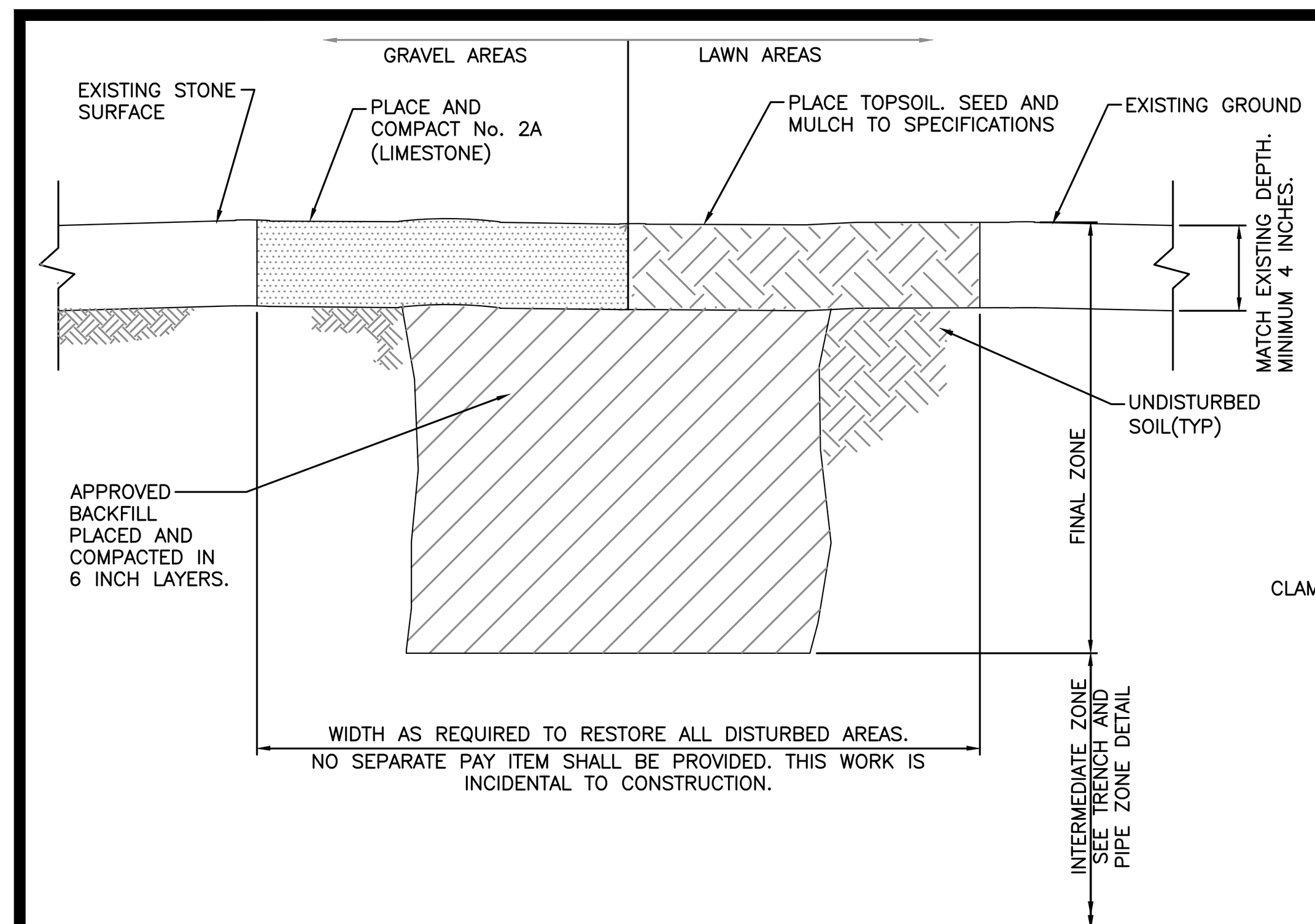
Date: October 2021

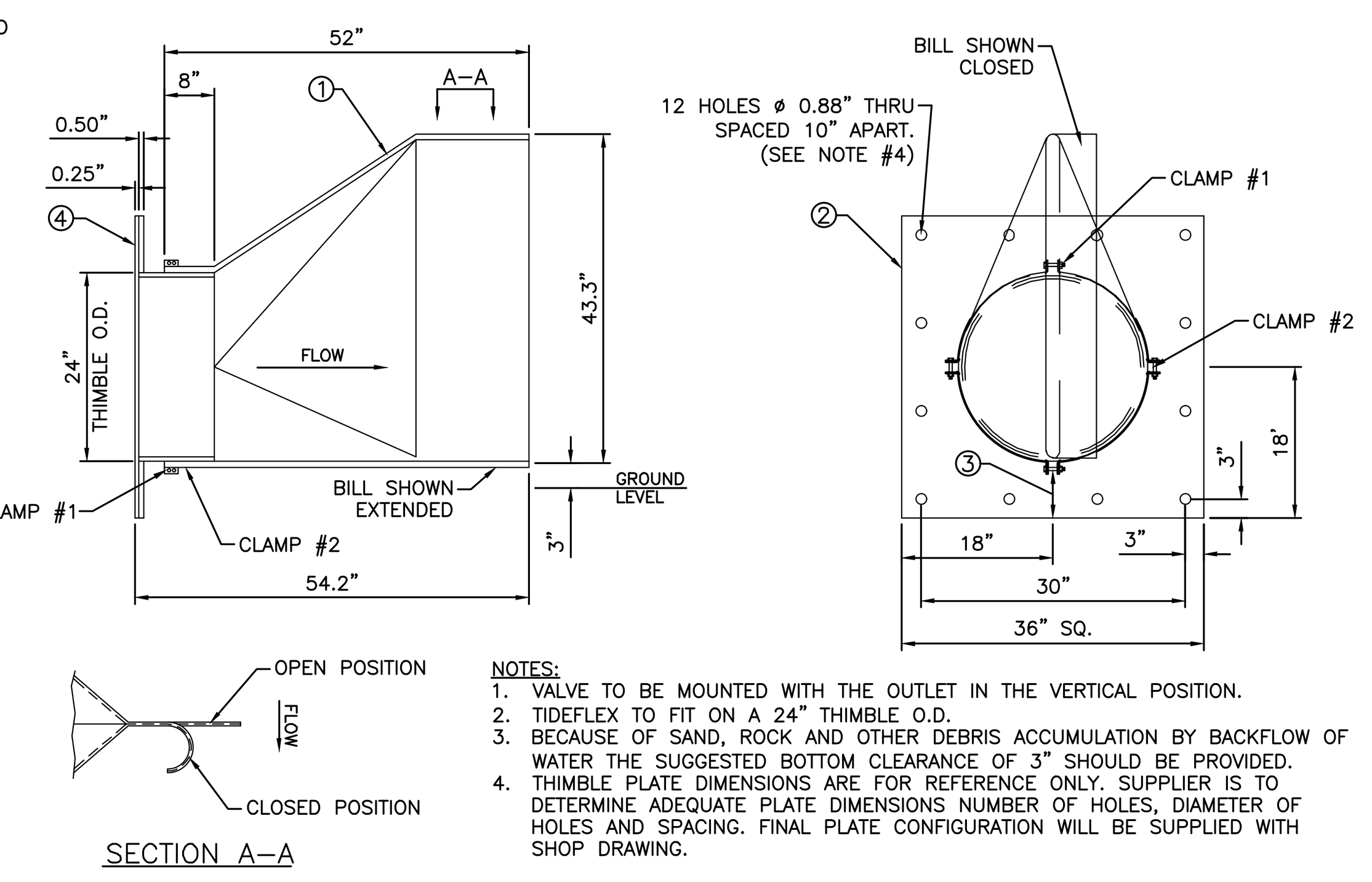
New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

Green Valley Park Improvements
Contract No. 21-SW1
Situate In
New Sewickley Township, Beaver County, Pennsylvania

Sheet Title: Storm Sewer Profiles
Drawing No.: 525-03-19-3
Sheet No.: 3 of 5

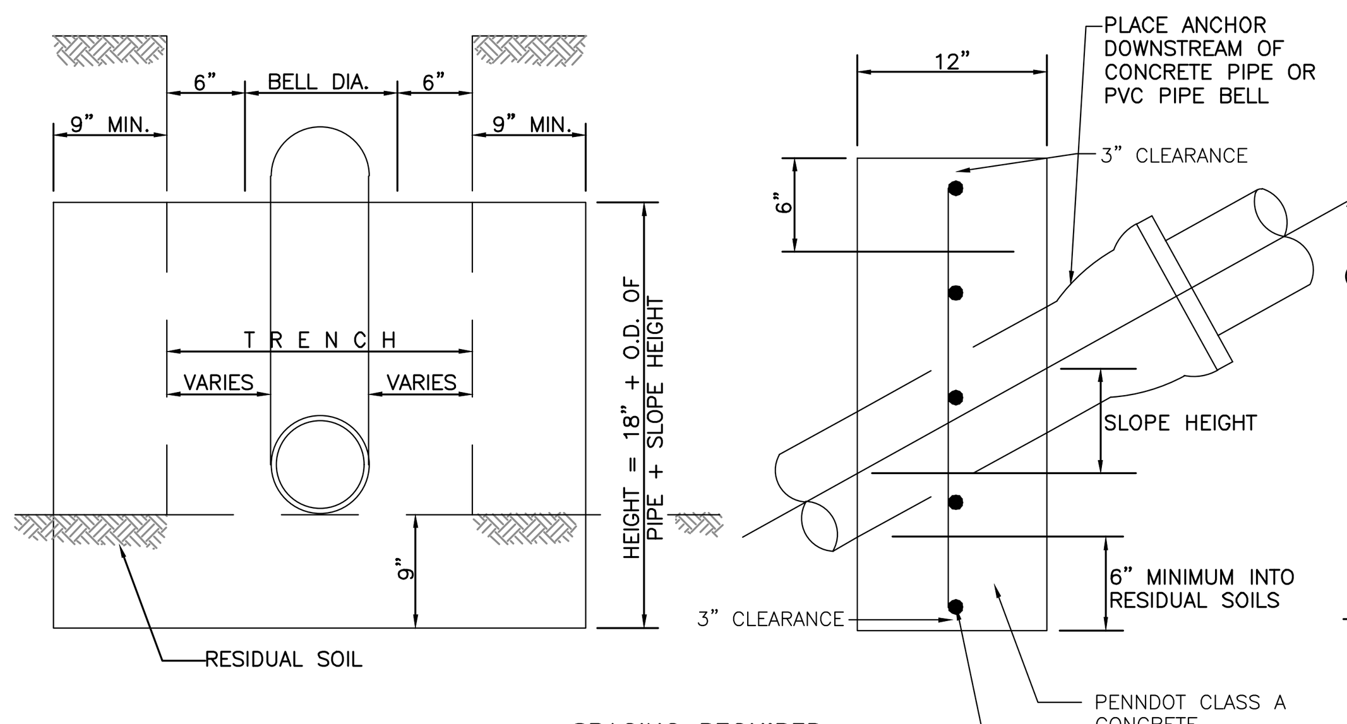


Unimproved Area
Surface Restoration
N. T. S.



NOTES:
1. VALVE TO BE MOUNTED WITH THE OUTLET IN THE VERTICAL POSITION.
2. TIDEFLEX TO FIT ON A 24" THIMBLE O.D.
3. BECAUSE OF SAND, ROCK AND OTHER DEBRIS ACCUMULATION BY BACKFLOW OF WATER THE SUGGESTED BOTTOM CLEARANCE OF 3" SHOULD BE PROVIDED.
4. THIMBLE PLATE DIMENSIONS ARE FOR REFERENCE ONLY. SUPPLIER IS TO DETERMINE ADEQUATE PLATE DIMENSIONS NUMBER OF HOLES, DIAMETER OF HOLES AND SPACING. FINAL PLATE CONFIGURATION WILL BE SUPPLIED WITH SHOP DRAWING.

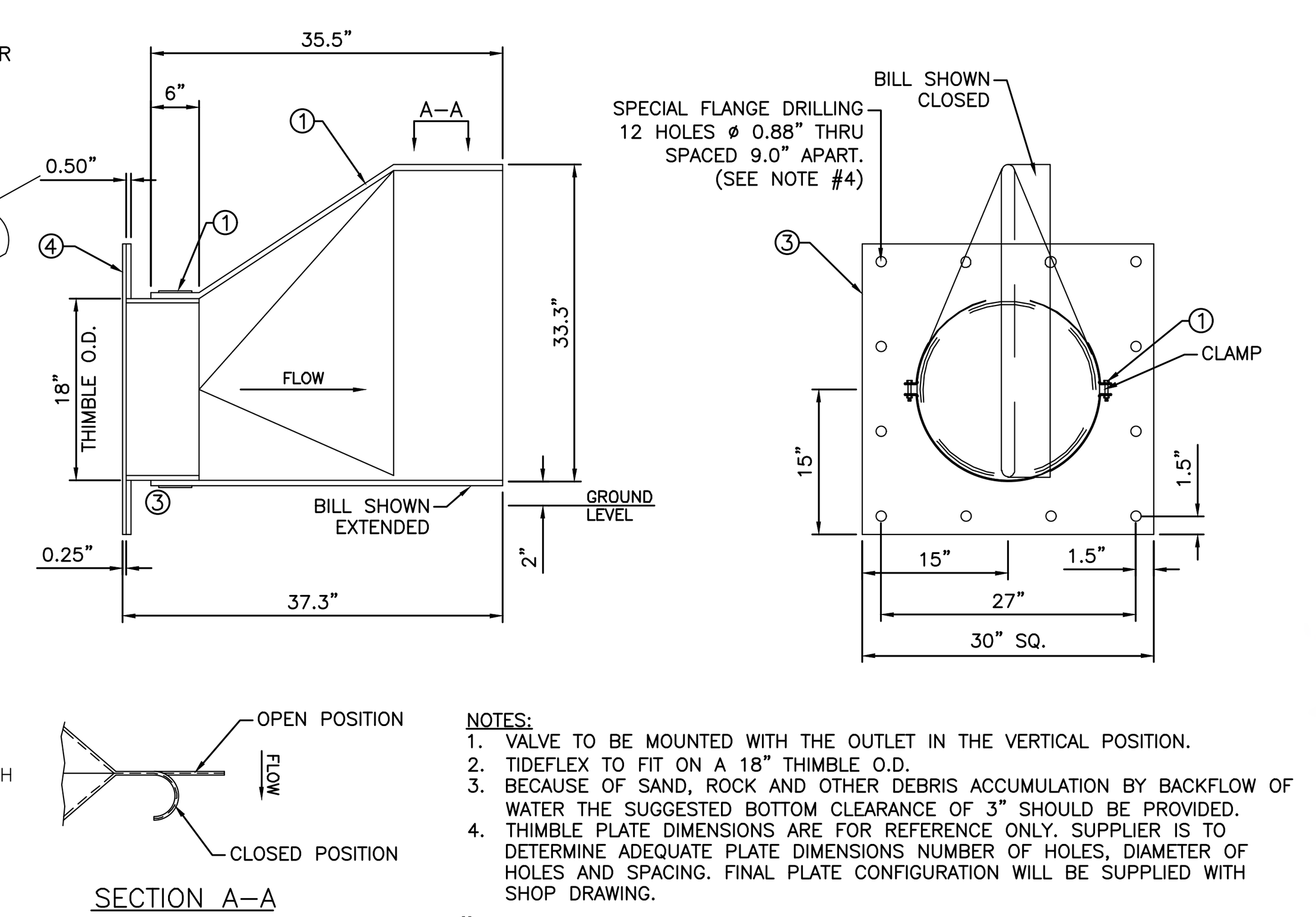
24" TIDEFLEX DETAIL
N.T.S.



SPACING REQUIRED

% GRADE	DISTANCE CENTER TO CENTER
20% TO 35%	36' C. to C.
35% TO 50%	24' C. to C.
50% +	16' C. to C.

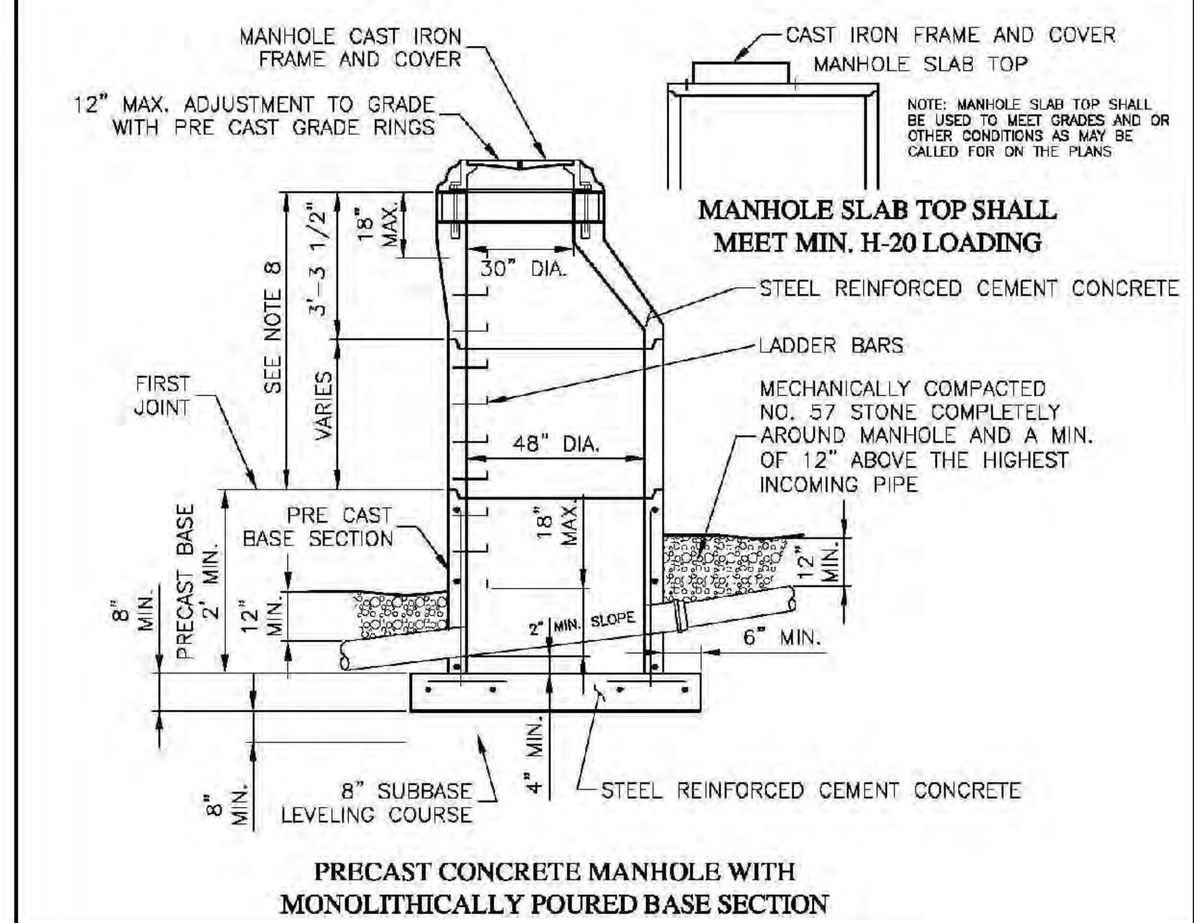
Concrete Anchor
N. T. S.



NOTES:
1. VALVE TO BE MOUNTED WITH THE OUTLET IN THE VERTICAL POSITION.
2. TIDEFLEX TO FIT ON A 18" THIMBLE O.D.
3. BECAUSE OF SAND, ROCK AND OTHER DEBRIS ACCUMULATION BY BACKFLOW OF WATER THE SUGGESTED BOTTOM CLEARANCE OF 3" SHOULD BE PROVIDED.
4. THIMBLE PLATE DIMENSIONS ARE FOR REFERENCE ONLY. SUPPLIER IS TO DETERMINE ADEQUATE PLATE DIMENSIONS NUMBER OF HOLES, DIAMETER OF HOLES AND SPACING. FINAL PLATE CONFIGURATION WILL BE SUPPLIED WITH SHOP DRAWING.

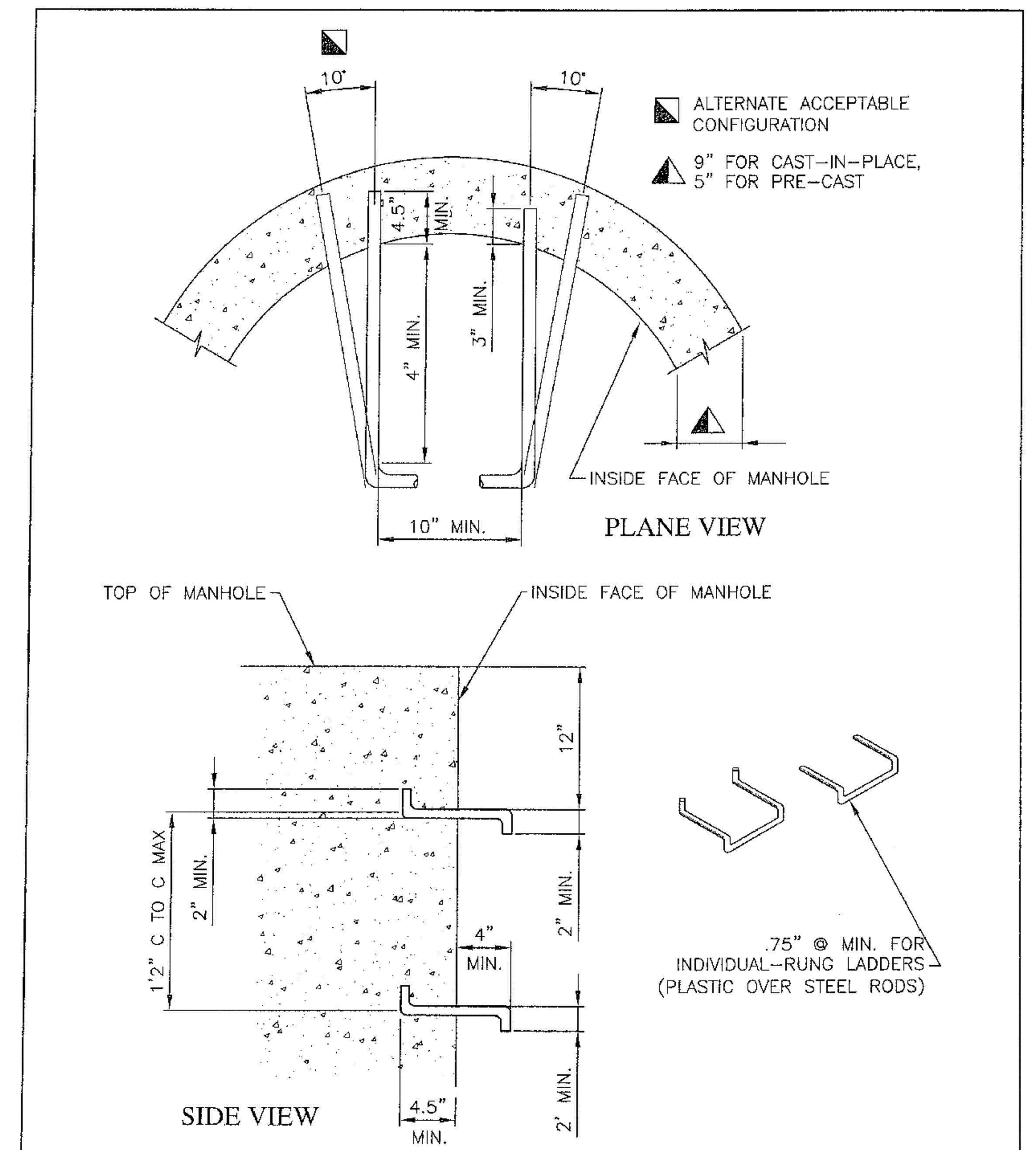
18" TIDEFLEX DETAIL
N.T.S.

GENERAL NOTES:
1. ALL CONCRETE SHALL BE CLASS AA CONCRETE, 4000 PSI MIN. 5% AIR ENTRAINED, MEETING PaDOT RC-39 AND PUBLICATION 408 SPECIFICATIONS.
2. MANHOLE BARREL JOINTS TO BE SEALED WITH NON-SHRINK GROUT OR WITH 1" DIA. FLEXIBLE BUTYL RUBBER JOINT SEALANT, USE 1/2" DIA. FOR FRAME AND COVER.
3. FRAME AND COVER TO BE ANCHORED WITH (2) 3/4" DIA. S.S. ANCHOR BOLTS SET 6 INCHES INTO CONCRETE.
4. LIFTING HOLES TO BE POINTED WITH NON-SHRINK GROUT, AND LEFT WATERTIGHT, NEAT AND SMOOTH.
5. MAXIMUM ADJUSTMENT TO FINISHED GRADE USING PRE CAST GRADE RINGS SHALL NOT EXCEED TWELVE INCHES (12").
6. PRE CAST SECTIONS SHALL CONFORM TO ASTM C-478 AS REVISED.
7. MANHOLE INVERT SHALL BE CONCRETE TO THE SPRING LINE OF PIPE WITH SIDES SLOPING 1" PER 1'-0" TO INSIDE FACE OF PRE CAST BASE SECTION.
8. IF THIS DIMENSION IS LESS THAN 3'-3" USE PRE CAST SLAB TOP DESIGNED TO MEET LOAD CONDITIONS.
9. FOR PIPES OF 30" I.D. OR GREATER, PROVIDE "MODIFIED" MANHOLE PER PaDOT RC-39.



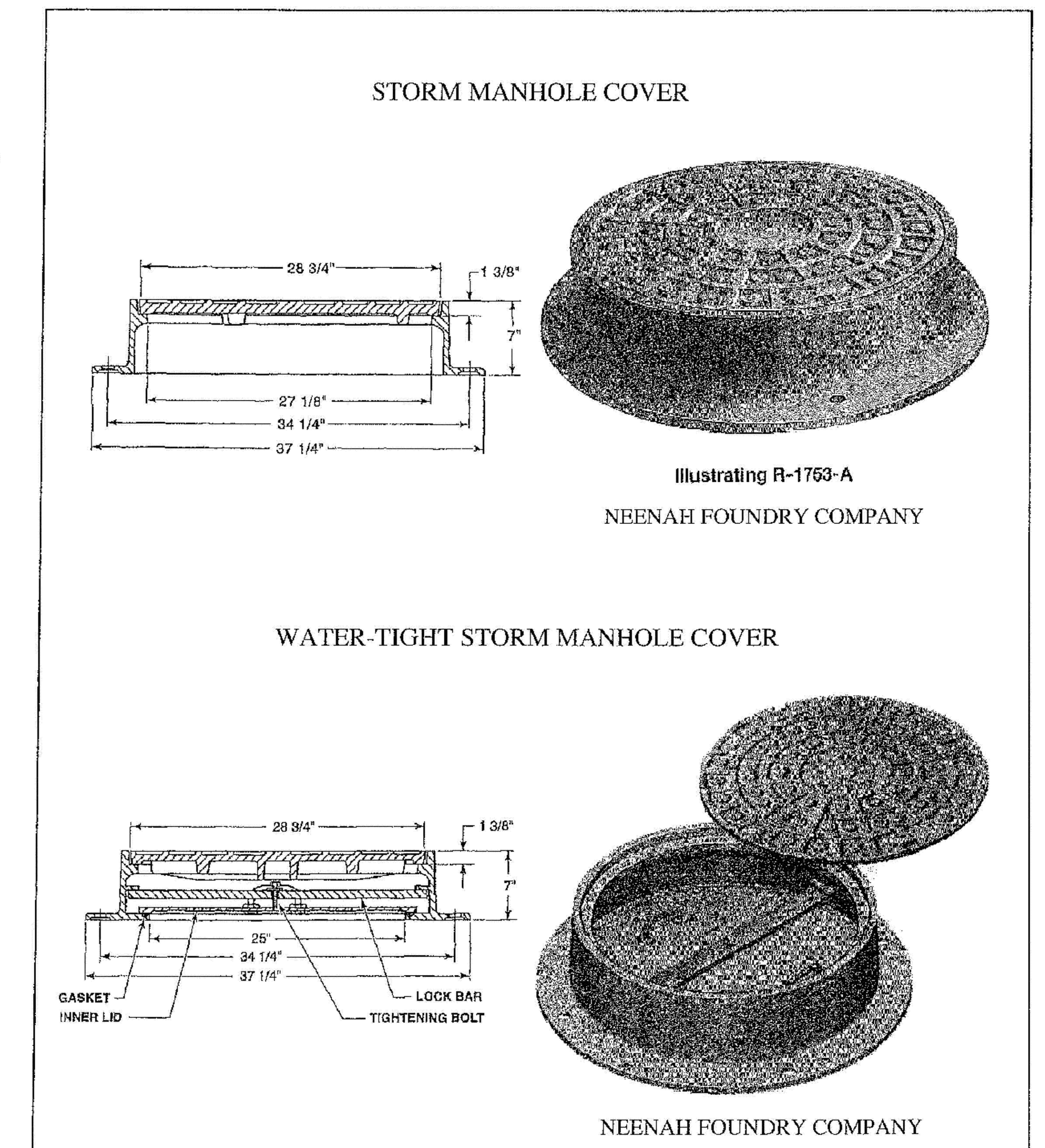
NEW SEWICKLEY TOWNSHIP
PRECAST CONCRETE STORM MANHOLE (UP TO 18')
STANDARD DETAIL 7

OLSEN & ASSOCIATES, LLC
PROJECT NO. 2007998



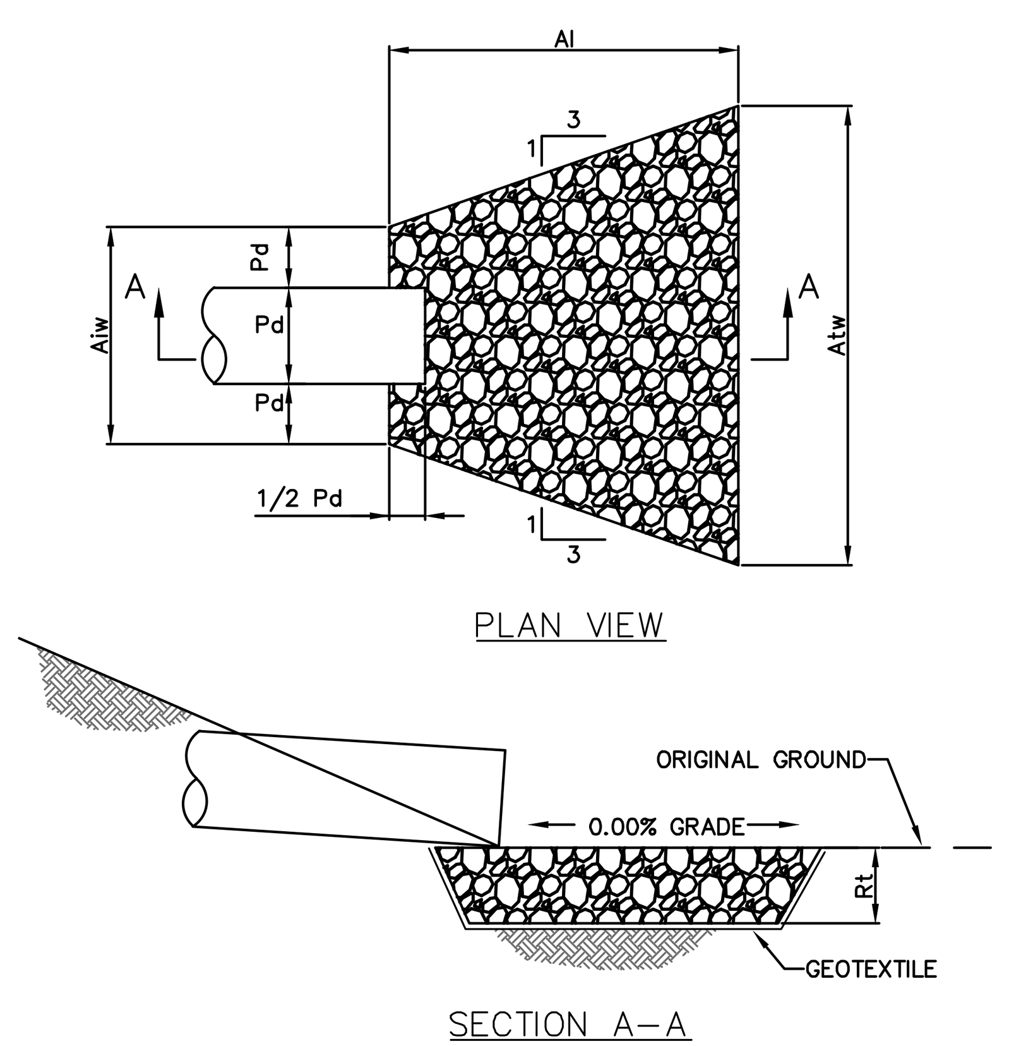
NEW SEWICKLEY TOWNSHIP
MANHOLE LADDER BARS
STANDARD DETAIL 16

OLSEN & ASSOCIATES, LLC
PROJECT NO. 2007998



NEW SEWICKLEY TOWNSHIP
STORM MANHOLE COVERS
STANDARD DETAIL 15

OLSEN & ASSOCIATES, LLC
PROJECT NO. 2007998



OUTFALL	3Do (ft)	La (ft)	W (ft)	Tailwater Conditions	Rip-Rap	Thickness (ft)
1	6	9	10	Maximum	R-6	3.00
2	5	19	12	Maximum	R-6	3.00

NOTES:

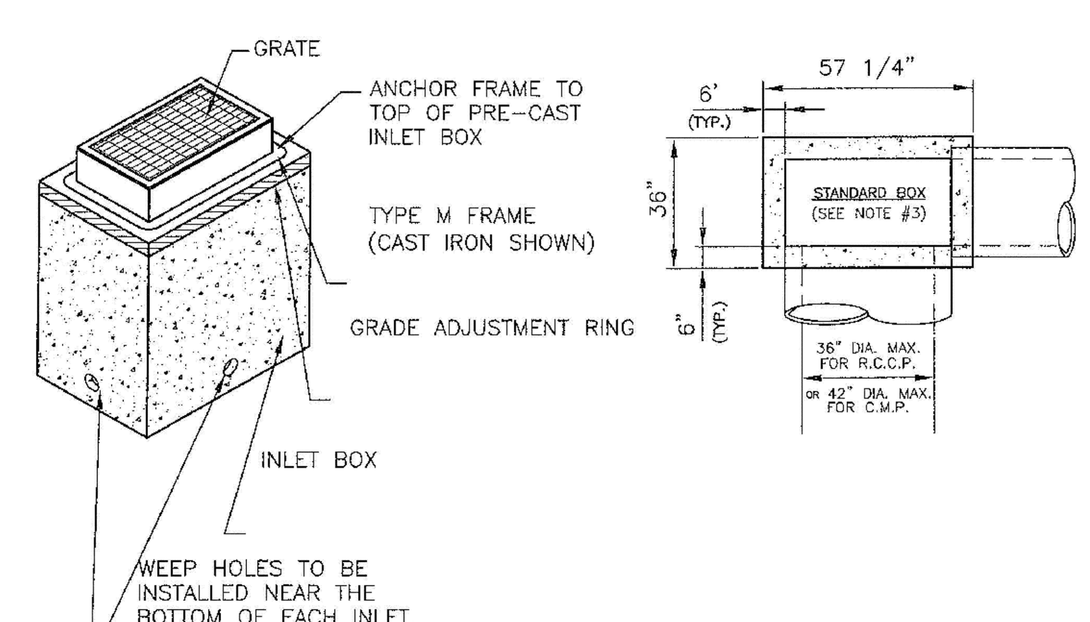
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

STANDARD CONSTRUCTION DETAIL #9-2
RIPRAP APRON AT PIPE OUTLET
NO FLARED ENDWALL
NOT TO SCALE

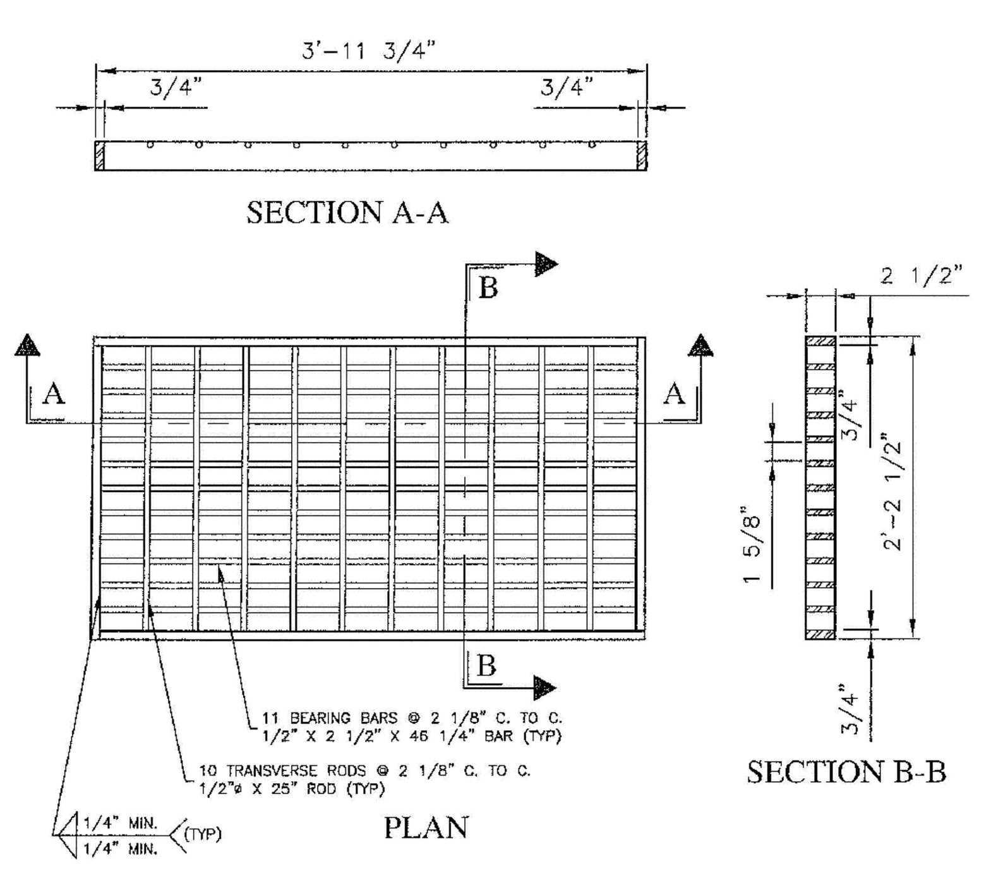
GENERAL NOTES:
1. CONSTRUCT INLET BOXES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 713.2(d), FOR PRECAST CEMENT CONCRETE UNITS.
2. ONLY PRECAST INLET BOXES SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15 SHALL BE PERMITTED.
3. PROVIDE STANDARD INLET BOXES AND COVER ADJUSTMENT SLABS WITH A 24" X 45 1/4" OPENING TO ACCOMMODATE STANDARD TOP COMPONENTS.
4. INLETS THAT EXCEED THE MAXIMUM HEIGHT SHOWN SHALL REQUIRE A SPECIAL DETAIL AND DESIGN FOR THE INLET WALLS AND BASE. CONSTRUCT INLETS THAT EXCEED 4 FEET IN HEIGHT WITH STEPS SIMILAR TO MANHOLES.
5. LOCATE PIPE OR PIPES, AS INDICATED, WITH THE INLET BOTTOM SHAPED TO CHANNEL THE FLOW TOWARD THE OUTLET PIPE.
6. PLACE SUBBASE MATERIAL MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 350.2, IN 4 INCH LAYERS, COMPACTED TO A 95% MODIFIED PROCTOR STANDARD DENSITY.
7. FOR PIPE DIAMETERS LARGER THAN 36" IN THIS WALL FOR A TYPE 1, USE A MODIFIED TYPE I INLET BOX.
8. FOR PIPE DIAMETERS LARGER THAN 48" R.C.C.P. OR 54" C.M.P. IN THIS WALL FOR A TYPE 2, USE A MODIFIED TYPE II INLET BOX.
9. FOR PIPE DIAMETERS LARGER THAN 48" R.C.C.P. OR 54" C.M.P. IN THE LONG DIRECTION OR LARGER THAN 36" IN THE SHORT DIRECTION, A SPECIAL DETAIL AND DESIGN IS REQUIRED.



NEW SEWICKLEY TOWNSHIP
TYPE M INLET
STANDARD DETAIL 13

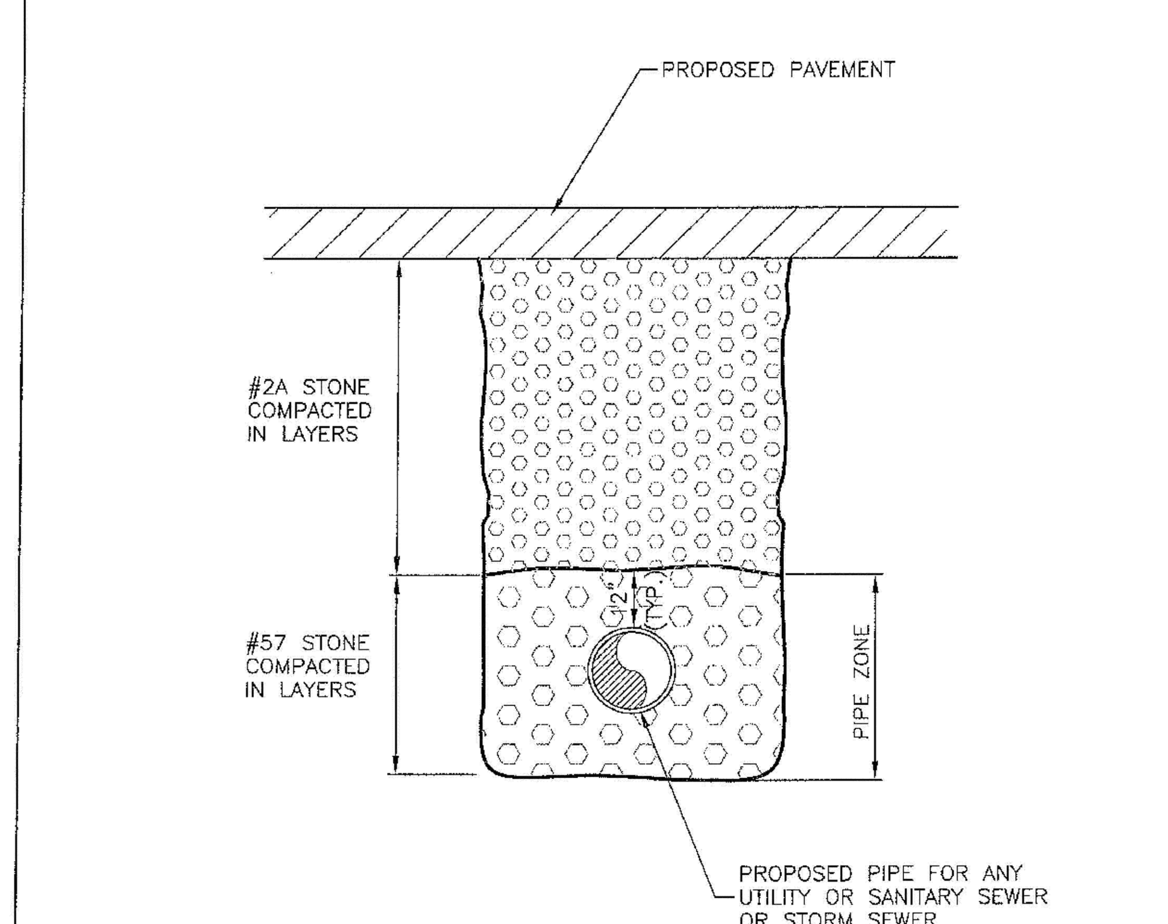
OLSEN & ASSOCIATES, LLC
PROJECT NO. 2007998

GENERAL NOTES:
1. THIS SHEET DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGEABILITY. IT DOES NOT INCLUDE DETAILS REQUIRED FOR FABRICATION OR MANUFACTURING. ONLY GRATES SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15 SHALL BE PERMITTED. FOR A BULLETIN 15 LISTING, SUBMIT A 22" x 36" REPRODUCIBLE SHOP DRAWING TO THE BUREAU OF CONSTRUCTION AND MATERIALS, MATERIALS AND TESTING DIVISION FOR REVIEW AND APPROVAL.
2. WELD STRUCTURAL STEEL GRATES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408 SECTION 1105.03(R). WELDING SHOPS ARE NOT REQUIRED TO BE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CERTIFIED.
3. PROVIDE TRANSVERSE RODS, MEETING THE REQUIREMENTS OF AASHTO-M227 OR M255 , GRADE 70 , 75 OR 80 , FLUSH WITH THE GRATE SURFACE.
4. PROVIDE BICYCLE-SAFE, STRUCTURAL STEEL OR CAST IRON VANE GRATES FOR INSTALLATION ONLY WHERE BICYCLE TRAFFIC IS ANTICIPATED SUCH AS CURBED ROADWAYS IN URBAN AREAS OR ROADWAYS SPECIFICALLY ESTABLISHED AND SIGNED AS BIKEWAYS OR HAVING BIKE LANES. ALTERNATE BLCYCLE-SAFE GRATE DESIGNS SHALL REQUIRE A SHOP DRAWING SUBMISSION, AS SPECIFIED IN NOTE 1, AND SHALL CONFORM TO THE DIMENSIONAL REQUIREMENTS FOR PROPER INSTALLATION WITH THE CURRENT CONCRETE TOP UNITS.
5. FABRICATE SLOTS BY BURNING, DRILLING, SHEARING OR PUNCHING. HAVE THE BOTTOM OF ALL BURNED OR DRILLED SLOTS CONFORM TO THE SHAPE OF THE ROD.
6. INSTALL STRUCTURAL STEEL GRATES WITH THE GRATE SPACERS LOCATED FLUSH ALONG THE TOP SURFACE OF THE GRATE.



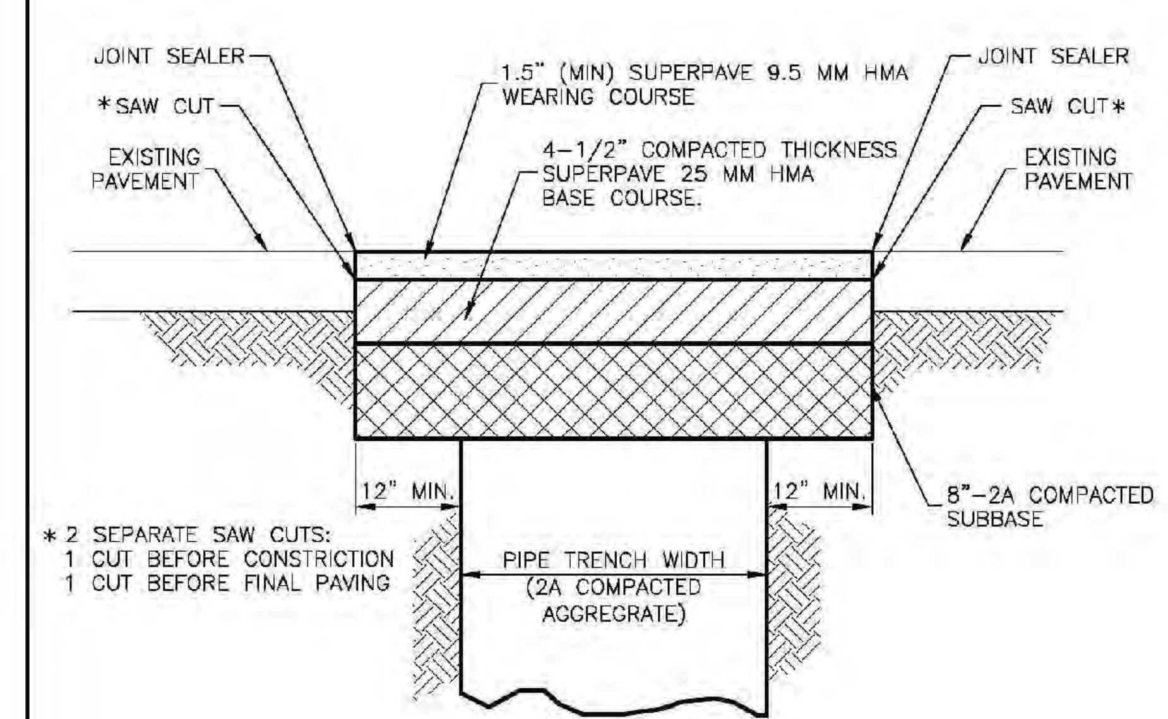
NEW SEWICKLEY TOWNSHIP
STRUCTURAL STEEL GRATE BICYCLE SAFE
STANDARD DETAIL 14

OLSEN & ASSOCIATES, LLC
PROJECT NO. 2007998



NEW SEWICKLEY TOWNSHIP
TRENCH BACKFILL
STANDARD DETAIL 10

OLSEN & ASSOCIATES, LLC
PROJECT NO. 2007998



GENERAL NOTES:
1. DURING COLD WEATHER MONTHS PROVIDE AND MAINTAIN A TEMPORARY BITUMINOUS COLD PATCH SURFACE UNTIL WEATHER PERMITS HOT ASPHALT PAVING.
2. THE TOWNSHIP MUST BE NOTIFIED 48 HOURS IN ADVANCE OF ROAD OPENING AND SURFACING.
3. SUBBASE COURSE SHALL BE AS THICK AS EXISTING OR 8"-2A COMPACTED SUBBASE, (AFTER COMPACTION) WHICH EVER IS GREATER.
4. SUPERPAVE BASE COURSE SHALL BE AS THICK AS EXISTING OR 4-1/2" MINIMUM, (AFTER COMPACTION) WHICH EVER IS GREATER.
5. SUPERPAVE WEARING COURSE SHALL BE AS THICK AS EXISTING OR 1.5" MINIMUM, (AFTER COMPACTION) WHICH EVER IS GREATER.

NEW SEWICKLEY TOWNSHIP
ASPHALT PAVEMENT REPLACEMENT
STANDARD DETAIL 17

OLSEN & ASSOCIATES, LLC
PROJECT NO. 2007998

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEVIN ALLEN BRETT
ENGINEER

Scale: N.T.S.	No.	Date	Description	By	No.	Date	Description	By	No.	Date	Description	By
Drawn By / Checked By / Approved By												

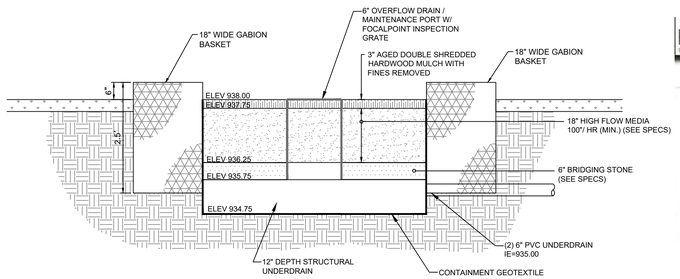
LSSE Civil Engineers and Surveyors
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412-264-4400
Fax: 412-264-1200
email: info@lsse.com

Filename: 525030DT.dwg
Date: October 2021

New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

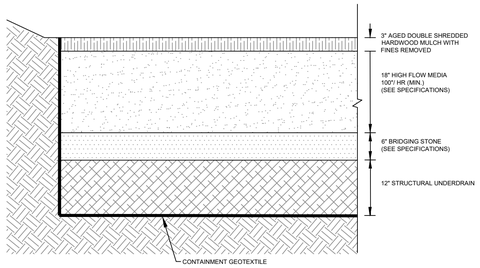
Green Valley Park Improvements
Contract No. 21-SW1
Situate In New Sewickley Township, Beaver County, Pennsylvania

Sheet Title: Standard Details
Drawing No. 525-03-19-4



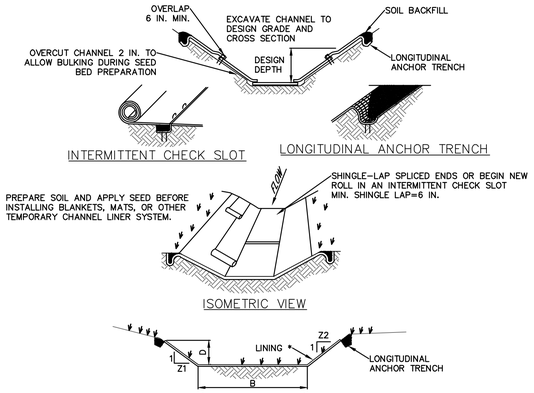
FOCALPOINT HP WITH EXPANDED R-TANK BELOW

BY ACF ENVIRONMENTAL OR EQUAL



FOCALPOINT HP DETAILED CROSS SECTION

FOCAL POINT HP CONSTRUCTION GUIDE		
A	FOCALPOINT LENGTH	8'
B	UNDERDRAIN LONG	9
C	FOCALPOINT WIDTH	8'
D	UNDERDRAIN WIDE	5
E	WATER QUALITY VOLUME	109 CF
F	OVERFLOW ELEVATION	938.00
G	OUTLET FLOWLINE	935.00
H	TOP OF MULCH	938.00
I	TOP OF GABION (OPTIONAL)	938.50
J	UNDERDRAIN HEIGHT	9.45"



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

Channel Section	Bottom Width (ft)	Side Slope (x:1)	Depth (ft)	Slope (ft/ft)	Length (ft)	Channel Lining
SWALE 1	6	3	2	0.20	250	LANDLOK TRM 450
SWALE 2	6	3	2	0.20	325	LANDLOK TRM 450

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NOT TO SCALE

TEMPORARY SEED MIXTURE (ALL AREAS)					
FORMULA AND SPECIES	% BY WEIGHT	MINIMUM % PURITY	MINIMUM % GERMINATION	MAX % WEED SEED	SEEDING RATE LBS. PER 1000 SY
FORMULA E					
• RYEGRASS (VAR. KENTUCKY)	100	98	90	0.15	10.0

SPREAD SEED AS FOLLOWS:
FORMULA E - MARCH 15 TO OCTOBER 15

SEEDING FORMULA MUST COMPLY WITH PaDOT FORM 408, SECTION 804

PERMANENT SEED MIXTURE (LAWN/YARD AREAS)					
FORMULA AND SPECIES	% BY WEIGHT	MINIMUM % PURITY	MINIMUM % GERMINATION	MAX % WEED SEED	SEEDING RATE LBS. PER 1000 SY
FORMULA B					21.0 TOTAL
• PERENNIAL RYEGRASS MIXTURE	20	98	90	0.15	4.0
• CREEPING RED FESCUE OR CHEWING FESCUE	30	98	85	0.15	6.0
• KENTUCKY BLUEGRASS MIXTURE	50	98	80	0.20	11.0

SPREAD SEED AS FOLLOWS:
FORMULA B - MARCH 15 TO JUNE 1
AUGUST 1 TO OCTOBER 15

SEEDING FORMULA MUST COMPLY WITH PaDOT FORM 408, SECTION 804

PERMANENT SEED MIXTURE (NON-LAWN/YARD AREAS)					
FORMULA AND SPECIES	% BY WEIGHT	MINIMUM % PURITY	MINIMUM % GERMINATION	MAX % WEED SEED	SEEDING RATE LBS. PER 1000 SY
FORMULA W, MODIFIED (Slopes > 3 to 1)					35.1 TOTAL
• ANNUAL RYEGRASS MIXTURE	10	99	90	0.15	1.45
• HARD FESCUE MIXTURE (FESTUCA LONGIFOLIA) A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE ONE VARIETY EXCEETING 50% OF THE TOTAL HARD FESCUE COMPONENT	40	97	85	0.10	28.40
• CREEPING RED FESCUE (FESTUCA RUBRA COMMUTATA) A MIXTURE OF 1/2 VIKING AND 1/2 OF EITHER EMPIRE, NORDEN, OR LEO.	40	98	80*	0.10	5.80
• REDTOP (AGROSTIS ALBA)	10	92	80	0.15	1.45
FORMULA D (Slopes < 3 to 1)					32.4 TOTAL
• HARD FESCUE MIXTURE (FESTUCA LONGIFOLIA) A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE ONE VARIETY EXCEETING 50% OF THE TOTAL HARD FESCUE COMPONENT	70	97	85	0.10	28.40
• CREEPING RED FESCUE OR CHEWINGS FESCUE	30	98	85	0.15	6.0

SPREAD SEED AS FOLLOWS:
FORMULA W - APRIL 1 TO JUNE 15
AUGUST 16 TO SEPTEMBER 15
FORMULA D - MARCH 15 TO JUNE 1
- AUGUST 1 TO OCTOBER 15

SEEDING FORMULA MUST COMPLY WITH PaDOT FORM 408, SECTION 804

MULCHES	
HAY:	TIMOTHY HAY, MIXED CLOVER AND TIMOTHY HAY, OR OTHER ACCEPTABLE NATIVE OR FORAGE GRASSES, WELL-CURED TO LESS THAN 20% MOISTURE CONTENT, BY WEIGHT.
STRAW:	OTHER WHEAT OR OAT STRAW, REASONABLY FREE OF VIABLE SEED, WELL-CURED TO LESS THAN 20% MOISTURE CONTENT, BY WEIGHT.
PLACE MULCH IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. PLACE HAY OR STRAW UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 1200 POUNDS PER 1000 SQ. YDS. (3 TON PER ACRE). A MULCH BINDER SHALL BE APPLIED ON ALL SLOPES GREATER THAN 3:1. THE MULCH BINDER SHALL BE RECYCLED CELLULOSE FIBER CONFORMING TO PaDOT FORM 408, SECTION 805.2(b). THE APPLICATION RATE FOR THE RECYCLED CELLULOSE FIBER BINDER SHALL BE 160 lbs/1,000 SQ. YDS.	

MULCH MUST COMPLY WITH PaDOT FORM 408, SECTION 805

FERTILIZER AND LIME
FERTILIZER: APPLY FERTILIZER OF ANALYSIS 10-10-10 AT A RATE OF 500LBS PER ACRE FOR TEMPORARY SEEDING APPLICATIONS. APPLY FERTILIZER OF ANALYSIS 10-20-20 AT A RATE OF 500-1000 POUNDS PER ACRE FOR PERMANENT APPLICATIONS. LIME: APPLY AGRICULTURAL LIMESTONE AT A RATE OF 1 TON PER ACRE FOR TEMPORARY SEED MIXTURES AND 2 TONS PER ACRE FOR PERMANENT SEED MIXTURES.

NOTES:

1. ABOVE RATES MAY VARY IF SOIL TEST COMPLETED.
2. ALL LAWN AREAS SHALL HAVE A MINIMUM OF 4" TOPSOIL INSTALLED.

SEEDING CHART
N. T. S.

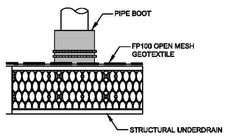
DETENTION BASIN BOTTOM SEEDING SCHEDULE

BASIN	QTY.	BOTANICAL NAME	SEEDING RATE
RAIN GARDEN	9,600 S.F.	Retention Basin Wildlife Mix (ERNMIX-126)	1/3-1/2lb per 1,000 S.F.

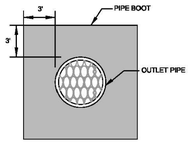
PLANT LIST - FOCAL POINT

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
	64 S.F.	Retention Basin Wildlife Mix (ERNMIX-127)	N/A	N/A	SEEDING RATE: 1/3-1/2lb per 1,000 S.F.
	8	Erianthus contortus	Shortbeard Plumegrass	1 Gal. Cont.	3' O.C.

OBSERVATION/ MAINTENANCE PORT CONNECTION

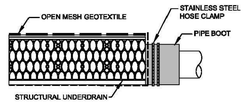


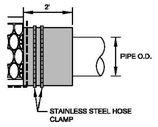
PIPE BOOT DETAIL



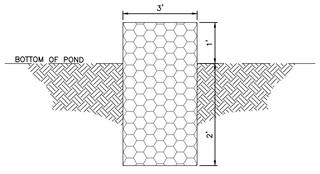
FRONT VIEW

OUTLET/ INLET PIPE CONNECTION



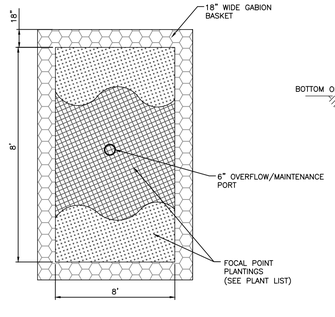


SIDE VIEW

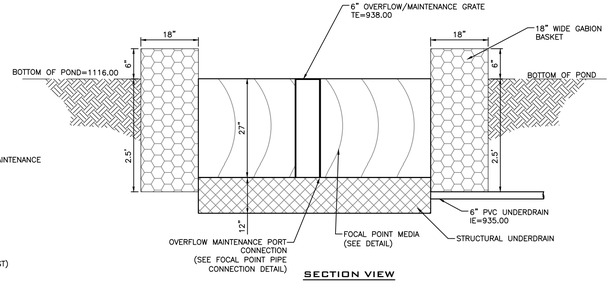


TYPICAL SECTION
GABION BAFFLE
N. T. S.

FOCALPOINT PIPE CONNECTION



TOP VIEW



SECTION VIEW

FOCAL POINT CONFIGURATION
N. T. S.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
KEVIN ALLEN BRETT
No. PE-062174

Scale: N.T.S.	Drawn By	Checked By	Approved By

No.	Date	Description	By

LSSE Civil Engineers and Surveyors
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412-264-4400
Fax: 412-264-1200
email: info@lsse.com

Filename: 52503DT.dwg
Date: October 2021

New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

Green Valley Park Improvements
Contract No. 21-SW1
Situate In
New Sewickley Township, Beaver County, Pennsylvania

Sheet Title: Standard Details
Drawing No.: 525-03-19-5
Sheet No.: 5 of 5

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NOTES:

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 811 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS (SPECIFY LOT NUMBERS) ONTO (SPECIFY ROAD NAMES).
15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOP SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
21. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS, DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
22. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
23. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
24. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
25. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
26. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
27. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
28. THE CONTRACTOR IS TO PROVIDE A CONCRETE WASHOUT AREA APPROVED BY THE BEAVER COUNTY CONSERVATION DISTRICT FOR ALL SITES WHICH REQUIRE CONCRETE TO BE MIXED OR POURED ONSITE.
29. COMPOST FILTER SOCKS IN AREAS THAT CANNOT BE STAKED (I.E. PAVED AREAS) SHALL BE BACKED WITH CONCRETE BLOCKS PER THE MANUFACTURER'S RECOMMENDATIONS.
30. INLET FILTER MATS TO BE INSTALLED IN ALL EXISTING AND PROPOSED INLETS THAT ARE TO RECEIVE RUNOFF. SILT SACKS ARE TO REMAIN IN PLACE UNTIL SITE HAS ACHIEVED A UNIFORM 70% PERENNIAL VEGETATIVE COVER OR STONE/PAVEMENT COVER.
31. ALL AREAS DISTURBED BY BMP MAINTENANCE ACTIVITIES SHALL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH.
32. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
33. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER (100 FEET OF SPECIAL PROTECTION WATERSHEDS) AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

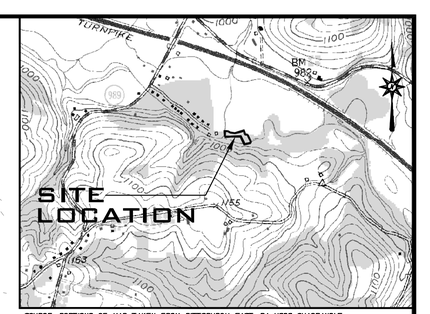
EXISTING CONDITION NOTES:

1. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED BY FIELD SURVEY OF MARKINGS MADE IN THE FIELD BY THE RESPECTIVE UTILITY COMPANY OR TAKEN FROM DRAWINGS OF THE EXISTING UTILITIES PROVIDED BY THE UTILITY COMPANIES. ALL EXISTING SUBSURFACE UTILITY INFORMATION PRESENTED ON THE CONTRACT DRAWINGS IS CHARACTERIZED AS UTILITY QUALITY LEVEL C OR D PER CI/ASCE 38-02 - STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA "UNLESS SPECIFICALLY NOTED OTHERWISE".
2. THE ENGINEER OR SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
3. FURTHERMORE, THE ENGINEER OR SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THEY ARE LOCATED USING ORDINARY STANDARDS OF CARE AND PRACTICE AND SHOWN HEREON BASED UPON AVAILABLE INFORMATION.
4. THE ENGINEER OR SURVEYOR HAS NOT PHYSICALLY LOCATED ANY OF THE UNDERGROUND UTILITIES.
5. PROPERTY LINES SHOWN HEREIN ARE PREPARED FROM DEED PLOTS AND/OR FROM TAX MAP INFORMATION. NO FIELD PROPERTY SURVEYS WERE PERFORMED. PROPERTY LINES NOT FIELD VERIFIED.

CALL BEFORE YOU DIG!

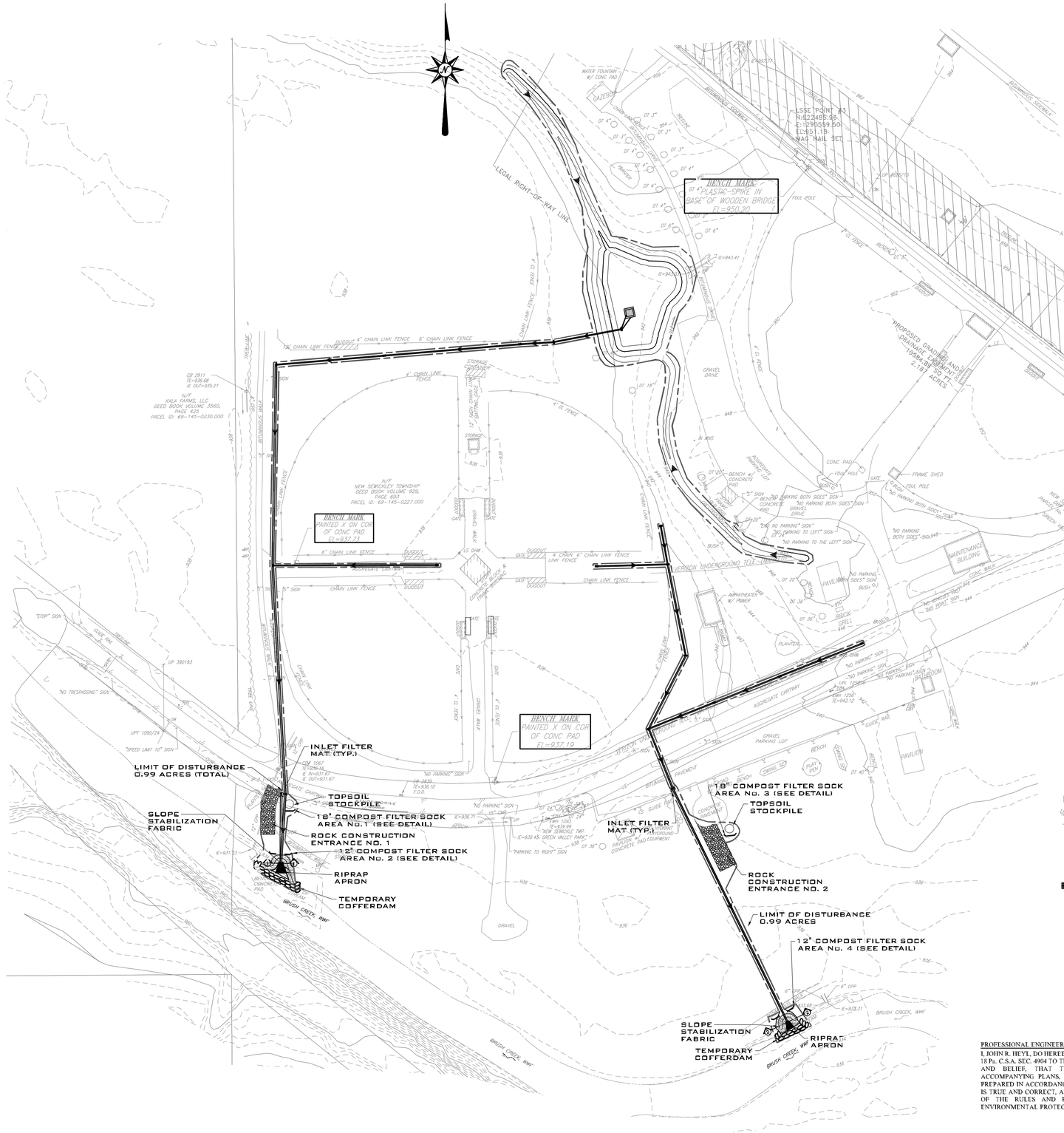
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE - STOP CALL
Pennsylvania One Call System, Inc

CALL 811
SERIAL No.
20212860587



SOURCE: PORTIONS OF MAP TAKEN FROM PITTSBURGH EAST, PA USGS QUADRANGLE

Location Map
1" = 2000'



EXISTING LEGEND

- CONTOUR (2-ft)
- CONTOUR (10-ft)
- CURB
- FENCELINE W/ POST
- GUIDERAIL
- LIGHT STANDARD
- PAVEMENT EDGE
- SIGN
- STREAM
- CONIFEROUS TREE
- UTILITY LINE (Storm) W/ CATCH BASIN AND MANHOLE
- UTILITY LINE (Telephone) W/ POLE, OVERHEAD WIRE AND GUY WIRE
- 100 YEAR FLOODWAY EXTENDS ACROSS SITE
- SOIL BOUNDARIES
- SOIL TYPES

PROPOSED LEGEND

- UTILITY LINE (Storm) W/ CATCH BASIN AND MANHOLE
- INLET FILTER MAT
- COMPOST FILTER SOCK
- LIMIT OF DISTURBANCE
- ROCK CONSTRUCTION ENTRANCE
- SLOPE STABILIZATION FABRIC
- RIPRAP APRON

PROFESSIONAL ENGINEERS CERTIFICATION

I, JOHN R. HEYL, DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 Pa. C.S.A. SEC. 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THAT THE INFORMATION CONTAINED IN THE ACCOMPANYING PLANS, SPECIFICATIONS, AND REPORTS HAS BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE, IS TRUE AND CORRECT, AND IS IN CONFORMANCE WITH CHAPTER 105 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

John R. Heyl, P.E., CPESC — Date

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEVIN ALLEN BRETT — ENGINEER — No. PE090184

0' 30' 60' 90'

Scale:	No.	Date	Description	By	No.	Date	Description	By	No.	Date	Description	By
1"=50'												
Drawn By / Checked By / Approved By												

Lennon, Smith, Souleret Engineering, Inc.
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412-264-4400
Fax: 412-264-1200
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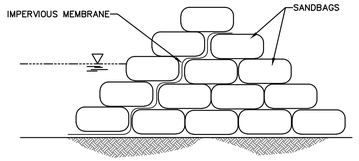
Filename: 52503ES.dwg
Date: October 2021

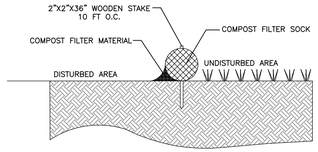
New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

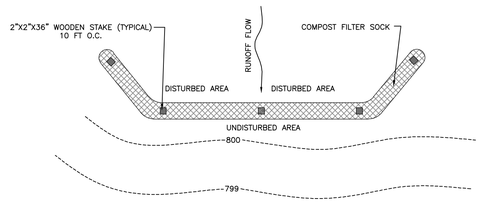
Green Valley Park Improvements
Contract No. 21-SW1
Situate In
New Sewickley Township, Beaver County, Pennsylvania

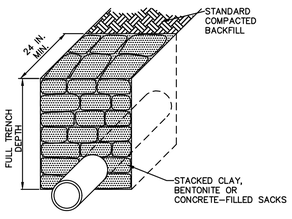
Sheet Title: Erosion & Sedimentation Control Plan
Drawing No. 525-03-19-ES1
Sheet No. ES1 of ES3

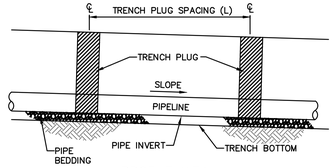
N:\PROJ\525\03\19\03\dwg\52503ES.dwg Layout=ES1 Erosion & Sedimentation Control Plan User=John W. Vallinsky Plotted=10/20/2021 8:41 AM











102.4(B)(5)(VII) SEQUENCE OF BMP INSTALLATION AND REMOVAL

CRITICAL STAGE BEST MANAGEMENT PRACTICES (PCSM BMPS)

DISTURBED AREAS WILL BE RETURNED TO APPROXIMATE ORIGINAL CONTOURS AND PRE-CONSTRUCTION COVER CONDITIONS; THEREFORE, CRITICAL STAGE BMPS ARE NOT REQUIRED.

DETAILED EROSION CONTROL PLAN AND PHASING

REFER TO THE SITE GRADING PLAN AND THE SOIL EROSION AND SEDIMENTATION CONTROL PLANS WHICH ARE REFERENCED IN THE FOLLOWING NARRATIVE:

CONSTRUCTION PHASING

THE WORK CONSISTS OF APPROXIMATELY 0.27 ACRES OF DISTURBED AREA WHICH CONSISTS OF STORM SEWERS, INCLUDING TWO OUTFALL STRUCTURES, GRADING, EROSION CONTROL FACILITIES, AND ALL OTHER APPURTENANCES NECESSARY. ALL DISTURBED SLOPES 3:1 H:V OR GREATER SHALL BE STABILIZED WITH SEED, MULCH AND SLOPE STABILIZATION FABRIC. ANY BUILDING MATERIALS ENCOUNTERED DURING EXCAVATION MUST IMMEDIATELY BE TAKEN TO A PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) APPROVED OR PERMITTED LANDFILL. MATERIAL DISPOSED OF OFFSITE MUST BE TAKEN TO A SITE WITH AN APPROVED EROSION AND SEDIMENTATION CONTROL PLAN OR A PADEP APPROVED SITE. ALL EROSION AND SEDIMENTATION CONTROL BMPS THAT ARE INSTALLED MUST BE COMPLETE AND FUNCTIONING BEFORE THEIR TRIBUTARY AREAS ARE DISTURBED. ALL AREAS DISTURBED BY BMP MAINTENANCE ACTIVITIES SHALL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA SHALL REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS. CESSATION OF ACTIVITY FOR AT LEAST 4 DAYS REQUIRES TEMPORARY STABILIZATION. IT IS PROPOSED TO PROCEED WITH THE PROJECT IN THE FOLLOWING SEQUENCE:

1. CLEAR AND GRUB AREA FOR THE ROCK CONSTRUCTION ENTRANCES. STRIP AND STOCKPILE TOPSOIL FOR THE ROCK CONSTRUCTION ENTRANCE AND PLACE AT LOCATION SHOWN ON THE PLAN. SEED AND MULCH SOIL STOCKPILE. INSTALL ROCK CONSTRUCTION ENTRANCE NOS. 1 AND 2. CONSTRUCT THE ENTRANCES AS SHOWN ON THE PLAN AND DETAIL. THESE WILL BE THE ONLY ENTRANCES USED BY CONSTRUCTION VEHICLES.
2. INSTALL COMPOST FILTER SOCKS AREA NOS. 1 THROUGH 4 AS SHOWN ON THE PLANS.
3. EARTHWORK WITHIN STREAM CHANNELS SHOULD BE SCHEDULED FOR LOW FLOW SEASONS WHENEVER POSSIBLE. **ALL WORK IS TO BE PERFORMED FROM THE TOP OF BANK.**
4. INSTALL THE COFFERDAM AS SHOWN ON THE PLAN AND DETAILS.
5. INSTALL PROPOSED STORM SEWER FROM OUTFALL NO. 1 TO CB NO. 1, AND FROM OUTFALL NO. 2 TO CB NO. 2, INCLUDING OUTLET PROTECTION AND INLET FILTER MATS AS SHOWN ON THE PLANS. PLACE EXCAVATED MATERIAL ON THE UPSLOPE SIDE OF THE TRENCH.
6. DURING THE ABOVE CONSTRUCTION PROCESS, EXCAVATE UTILITY LINE TRENCHES ONLY AS REQUIRED. LIMIT THE ADVANCE OF CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION, AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. TRENCH PLUGS, AS SHOWN IN THE DETAILS, ARE TO BE INSTALLED PER PADEP CHAPTER 102 REQUIREMENTS. ANY ACCUMULATED WATER SHALL BE REMOVED BY PUMPING THROUGH A PUMPED WATER FILTER BAG. ON THE DAY FOLLOWING THE PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL SUBGRADE AND SEEDED AND MULCHED OR STABILIZED WITH STONE PER THE PERMANENT SEEDING SCHEDULE.
7. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA IS TO REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS. CESSATION OF ACTIVITY FOR 4 DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION.
8. ONCE OUTFALL NO. 1 AND OUTFALL NO. 2 CONSTRUCTION IS COMPLETE, REMOVE COFFERDAM. NO EARTH DISTURBANCE SHALL OCCUR WHEN REMOVING THE COFFERDAM.
9. REMOVE ROCK CONSTRUCTION ENTRANCE. SEED AND MULCH ALL DISTURBED AREAS.
10. ONCE THE SITE HAS ACHIEVED A UNIFORM 70% PERENNIAL VEGETATIVE COVER AND SITE IS STABILIZED, REMOVE COMPOST FILTER SOCK AREA AND ALL INLET FILTER MATS. DISPOSE OF ANY REMAINING SILT, COMPOST FILTER SOCKS AND INLET FILTER MATS AS STATED IN THE RECYCLING AND DISPOSAL OF MATERIALS SECTION OF THIS REPORT. SEED AND MULCH ALL REMAINING DISTURBED AREAS.

102.4(B)(5)(VIII) SUPPORTING CALCULATIONS

SEE APPENDICES OF THIS REPORT.

102.4(B)(5)(IX) PLAN DRAWINGS

SEE ATTACHED PLANS.

102.4(B)(5)(X) MAINTENANCE OF CONTROL FACILITIES

MAINTENANCE OF CONTROL FACILITIES

INSPECTION AND MAINTENANCE PROGRAMS WILL BE IMPLEMENTED DURING AND AFTER CONSTRUCTION TO ASSURE THAT EROSION AND SEDIMENTATION MEASURES ARE MAINTAINED. ALL EROSION AND SEDIMENTATION CONTROL FACILITIES WILL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF EVENT. INSPECTIONS AND MAINTENANCE ARE TO BE DOCUMENTED ON THE PADEP VISUAL INSPECTION FORM 3800-FM-BCW0271D IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE BEAVER COUNTY CONSERVATION DISTRICT GUIDELINES. REPAIRS AND MAINTENANCE WILL BE PERFORMED BY THE CONTRACTOR AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE MEASURES AND FACILITIES. ANY DEFICIENCIES MUST BE CORRECTED BY THE CONTRACTOR WITHIN 24 HOURS UPON IDENTIFICATION OF THE DEFICIENCY. ALL AREAS DISTURBED BY BMP MAINTENANCE ACTIVITIES SHALL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH. SPECIFIC MAINTENANCE PROGRAMS FOR EROSION CONTROL BMPS ARE DESCRIBED BELOW. ALL MAINTENANCE MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND OF THE INDIVIDUAL PERMIT HOLDER.

ROCK FILTERS

ROCK FILTERS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF EVENT AND CLEANED WHEN THEY REACH 1/2 OF THEIR CAPACITY. ANY REPAIRS WILL BE MADE WITHIN 24 HOURS.

SANDBAG DAM

SANDBAG DAMS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF EVENT. ANY REPAIRS WILL BE MADE WITHIN 24 HOURS.

COMPOST FILTER SOCKS

COMPOST FILTER SOCKS WILL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF EVENT AND ANY REQUIRED REPAIRS, SUCH AS REPLACING OR RE-STAKING, WILL BE MADE WITHIN 24 HOURS. SEDIMENT DEPOSITS WILL BE REMOVED WHEN IT REACHES 1/2 OF THE HEIGHT OF THE FILTER SOCK.

INLET PROTECTION

INLET FILTER MATS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF EVENT AND LIFTED, RINSED OR REPLACED AS NEEDED. WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET, OR THE INLET FILTER MAT BECOMES COMPRESSED DUE TO HEAVY TRAFFIC, REPLACEMENT IS REQUIRED. ANY REPAIR WILL BE MADE WITHIN 24 HOURS.

ROCK FILTER OUTLETS

ROCK FILTER OUTLETS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF EVENT AND CLEANED WHEN THEY REACH 1/3 OF THEIR CAPACITY. SEDIMENT WILL BE REMOVED FROM THE FILTER FABRIC ON THE ROCK FILTER WHEN THE FABRIC BECOMES CLOGGED WITH SEDIMENT. IF SEDIMENT MIGRATES INTO THE ROCK PORTION OF THE FILTER TO THE EXTENT THAT IT BECOMES CLOGGED, THE ROCK MATERIALS MUST BE COMPLETELY REMOVED AND WASHED FREE OF ALL FOREIGN MATERIAL OR NEW ROCK MUST BE USED TO REBUILD THE FILTER. ROCK FILTER OUTLETS SHALL BE INSPECTED AND CLEANED AFTER EVERY STORM EVENT. ANY REPAIRS WILL BE MADE WITHIN 24 HOURS.

TRENCH PLUGS

TRENCH PLUGS ARE TO BE INSTALLED AS NECESSARY ON ALL STORM SEWER AND WATER LINES AND AT ALL STREAM, RIVER, OR WATERBODY CROSSINGS REGARDLESS OF TRENCH SLOPE. TOPSOIL MAY NOT BE USED TO FILL SACKS.

ROCK CONSTRUCTION ENTRANCE

THE STRUCTURE'S THICKNESS WILL BE CONSTANTLY MAINTAINED ON THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIALS WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. PUBLIC ROADWAYS WILL NOT BE WASHED WITH WATER. ANY REPAIRS WILL BE MADE WITHIN 24 HOURS.

FILTER BAG

THE PURPOSE OF A FILTER BAG IS TO REMOVE SEDIMENT FROM RUNOFF OR GROUNDWATER WHICH IS PUMPED FROM THE WORK AREA. THE BAG MUST BE LOCATED IN AN AREA THAT IS WELL-VEGETATED AND HAS A LAND SLOPE OF LESS THAN FIVE PERCENT (5%) OR ON A BED OF AASHTO NO. 57 STONE. THE FILTER BAG SHALL BE CONSTRUCTED OF NON-WOVEN GEOTEXTILE. THE BAG MUST TRAP PARTICLES LARGER THAN 150 MICRONS. THE PUMPING RATE SHOULD NOT EXCEED 1/2 OF THE MAXIMUM RECOMMENDED BY THE BAG MANUFACTURER. FILTER BAGS MUST DISCHARGE INTO STABLE, EROSION RESISTANT AREAS. THE FILTER BAG SHOULD BE INSPECTED DAILY AND AFTER EACH PRECIPITATION EVENT. ANY REQUIRED REPAIRS, SUCH AS REPLACING OF THE FILTER BAG, WILL BE MADE WITHIN 24 HOURS OF RECOGNITION OF THE FAILURE. THE FILTER BAG AND TRAPPED SEDIMENT SHALL BE DISPOSED OF OFF-SITE WHEN THE BAG IS 1/2 FULL AT A DUMP SITE APPROVED BY THE BEAVER COUNTY CONSERVATION DISTRICT.

CONCRETE WASHOUT

FOR ANY PROJECT ON WHICH CONCRETE WILL BE POURED OR OTHERWISE FORMED ON SITE, A SUITABLE WASHOUT FACILITY MUST BE PROVIDED FOR THE CLEANING OF CHUTES, MIXERS, AND HOPPERS OF THE DELIVERY VEHICLES UNLESS SUCH A FACILITY WILL BE USED AT THE SOURCE OF THE CONCRETE. UNDER NO CIRCUMSTANCES MAY WASH WATER FROM THESE VEHICLES BE ALLOWED TO ENTER ANY SURFACE WATERS. MAKE SURE THAT PROPER SIGNAGE IS PROVIDED TO DRIVERS SO THAT THEY ARE AWARE OF THE PRESENCE OF WASHOUT FACILITIES. WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS. THEY SHOULD BE IN A CONVENIENT LOCATION FOR THE TRUCKS, PREFERABLE NEAR THE PLACE WHERE THE CONCRETE IS BEING POURED, BUT FAR ENOUGH FROM OTHER VEHICULAR TRAFFIC TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL DAMAGE OR SPILLS. WHEREVER POSSIBLE, THEY SHOULD BE LOCATED ON SLOPES NOT EXCEEDING A 2% GRADE.

VEGETATION

INSPECT ALL SEEDED AREAS WEEKLY AND AFTER EVERY RUNOFF EVENT. RESEED ALL AREAS THAT VEGETATION HAS FAILED TO ESTABLISH. REPAIR ALL ERODED SLOPES, SEED AND MULCH AS NECESSARY.

DISTURBED AREAS

AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE THEY MUST BE PERMANENTLY STABILIZED. TEMPORARY STABILIZATION SHALL BE ESTABLISHED IN ANY AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR FOUR (4) DAYS OR MORE AND WHERE CONSTRUCTION ACTIVITIES WILL NOT RESUME WITHIN FOUR (4) DAYS. A PERMANENT COVER SHALL BE INSTALLED IN ANY AREA WHERE CONSTRUCTION IS TO BE HALTED FOR MORE THAN ONE YEAR. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA SHALL REACH FINAL GRADE BEFORE INITIATING STABILIZATION OPERATIONS. ALL DISTURBED SLOPES 3:1 H:V OR GREATER SHALL BE STABILIZED WITH SEED, MULCH, AND SLOPE STABILIZATION FABRIC.

SEDIMENT DISPOSAL

ALL SEDIMENT TAKEN FROM THE EROSION CONTROL FACILITIES WILL BE SPREAD AND DRIED FOR USE IN ONSITE GRADING OR DISPOSAL OFF SITE. UNSUITABLE MATERIAL SHALL BE HAULED FROM THE SITE FOR PROPER DISPOSAL. AS CONSTRUCTION IS COMPLETED, VEGETATION ESTABLISHED AND STABILIZATION MEASURES FINISHED, TEMPORARY EROSION CONTROL FACILITIES WILL BE REMOVED.

PERMANENT CONTROL MEASURES WILL INCLUDE, BUT ARE NOT LIMITED TO: PERMANENT SEEDING AND LANDSCAPING. THESE FACILITIES WILL BE IMPLEMENTED AND MAINTAINED AS CONSTRUCTION IS COMPLETED. THE OWNER WILL MAINTAIN THE PERMANENT FACILITIES.

TOPSOIL APPLICATION

BEFORE THE SEEDING BEGINS, TOPSOIL SHOULD BE APPLIED AND ANY REQUIRED SOIL AMENDMENTS WORKED INTO THE SOIL TO A DEPTH OF 4 TO 6 INCHES. IF COMPOST IS TO BE ADDED TO THE TOPSOIL, IT SHOULD BE WORKED INTO THE SOIL WITH OTHER SOIL AMENDMENTS UNLESS IT IS BEING APPLIED AS AN EROSION CONTROL BMP.

GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE.

TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 TO 8 INCHES MINIMUM -- 2 INCHES ON FILL OUTSLOPES. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.

TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

SEEDING AND MULCHING MATERIALS

a) TEMPORARY VEGETATIVE COVER. FROM MARCH 15 TO OCTOBER 15, APPLY ANNUAL RYEGRASS AT THE RATE OF 48.4 POUNDS PER ACRE (10 POUND PER 1,000 SQUARE YARDS) BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION. ANY OTHER TIME, USE ANNUAL RYEGRASS PLUS A STRAW MULCH ANCHORED TO PREVENT LOSS. IN THE ABSENCE OF A SOIL TEST, LIME SHOULD BE APPLIED AT THE RATE OF 1 TON PER ACRE, AND FERTILIZER SHOULD BE APPLIED AT THE RATE OF 50 POUNDS OF NITROGEN, 50 POUNDS OF P_2O_5 AND 10 POUNDS OF K_2O PER ACRE (E.G. 500 POUNDS OF 10-10-10 PER ACRE).

b) PERMANENT VEGETATIVE COVER. SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING. FROM MARCH 15 TO JUNE 1 AND AUGUST 1 TO OCTOBER 15, APPLY FORMULA D AT A RATE OF 101.6 POUNDS PER ACRE (21.0 POUNDS PER 1,000 SQUARE YARDS). REPLACE ALL TALL FESCUE WITH HARD FESCUE.

SEED AND SOIL SUPPLEMENTS (EXCEPT LIME) SHALL CONFORM TO THE REQUIREMENTS OF FORMULAS D AND E IN SECTION 804 OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408 (APPENDED). LIMING SHALL CONFORM TO THE REQUIREMENTS LISTED ON PAGE 5.40 OF THE EROSION AND SEDIMENTATION POLLUTION CONTROL PROGRAM MANUAL (APPENDED). ALL AREAS ARE TO BE TEMPORARILY SEEDED WITH FORMULA E SEED MIX.

MULCH SHALL CONFORM TO THE REQUIREMENTS OF SECTION 805 OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408.

IN THE ABSENCE OF A SOIL TEST, LIME SHOULD BE APPLIED AT THE RATE OF 6 TONS PER ACRE, AND FERTILIZER SHOULD BE APPLIED AT THE RATE OF 100 POUNDS OF NITROGEN, 200 POUNDS OF P_2O_5 AND 200 POUNDS OF K_2O PER ACRE (E.G. 1,000 POUNDS OF 10-20-20 PER ACRE).

102.4(B)(5)(XI) RECYCLING AND DISPOSAL OF MATERIALS

INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, EROSION AND SEDIMENTATION CONTROL BMPS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL AT AN APPROVED PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION WASTE SITE.

EXCAVATED EXCESS SOIL MATERIAL DISPOSED OF OFFSITE MUST BE DISPOSED OF AT A SITE WITH AN APPROVED EROSION AND SEDIMENTATION CONTROL PLAN OR A PADEP APPROVED SITE. IMPORTED FILL MATERIAL MUST BE OBTAINED FROM A SITE WITH AN APPROVED EROSION AND SEDIMENTATION CONTROL PLAN OR A PADEP APPROVED BORROW SITE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE STATUS OF ALL BORROW AND DISPOSAL SITES PRIOR TO PROCEEDING WITH THE IMPORT OR EXPORT OF SOIL MATERIAL ON SITE.

102.4(B)(5)(XII) IDENTIFICATION OF NATURALLY OCCURRING GEOLOGICAL FORMATIONS OR SOIL CONDITIONS

NO KNOWN NATURALLY OCCURRING GEOLOGICAL FORMATIONS OR SOIL CONDITIONS WITH THE POTENTIAL TO CAUSE POLLUTION ARE EVIDENT ONSITE.

102.4(B)(5)(XIII) IDENTIFICATION OF POTENTIAL THERMAL IMPACTS

ALL DISTURBED AREAS WILL BE RETURNED TO APPROXIMATE ORIGINAL CONTOURS AND PRE-CONSTRUCTION COVER CONDITIONS; THEREFORE, NO INCREASE IN THERMAL IMPACTS ARE ANTICIPATED.

102.4(B)(5)(XIV) EROSION CONTROL PLAN MUST BE CONSISTENT WITH THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

ALL DISTURBED AREAS WILL BE RETURNED TO APPROXIMATE ORIGINAL CONTOURS AND PRE-CONSTRUCTION COVER CONDITIONS; THEREFORE, A POST CONSTRUCTION STORMWATER MANAGEMENT PLAN IS NOT REQUIRED.

102.4(B)(5)(XV) IDENTIFICATION OF EXISTING AND PROPOSED RIPARIAN FOREST BUFFERS

NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS ARE PRESENT ONSITE.

CONCLUSION

THE EROSION AND SEDIMENTATION CONTROL PLAN HAS BEEN DEVELOPED TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE; MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION TO THE EXTENT PRACTICAL; MINIMIZE SOIL COMPACTION TO EXTENT PRACTICAL AND IMPLEMENT BMPS TO PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF.

NOTE: 2 BAG MIN. HEIGHT ABOVE NORMAL BASE FLOW

SANDBAG DIVERSION DAM DETAIL

N. T. S.

BARRIER NO.	LOCATION	SLOPE-PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
1 (18")	Downslope of topsoil stockpile	50	35
2 (12")	North of Outfalll No. 1	3	72
3 (18")	Downslope of topsoil stockpile	50	35
4 (12")	North of Outfall No. 2	1	285

NOTES:
1. SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1 (PAGE 63 OF THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL MANUAL MARCH 2012).
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED AS STATED IN THE RECYCLING AND DISPOSAL OF MATERIALS SECTION OF THE REPORT.
5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER ONE YEAR.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCKS MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IF LEFT IN PLACE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
8. COMPOST FILTER SOCKS PLACED ON PAVED SURFACE OR SURFACES THAT CANNOT BE STAKED SHALL BE BACKED WITH CONCRETE BLOCK.

Table 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply systems					
Inner Containment Netting			HDPE biaxial net Continuously wound Fusion-welded junctures 3/4" X 3/4" Max. aperture size		
Outer Filtration Mesh			Composite Polypropylene Fabric (Woven layer and non-woven fleece Mechanically fused via needle punch) 3/16" Max. aperture size		
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					

Table 4.2
Compost Standards

Organic Matter Content	25% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.5
Moisture Content	30% - 60%
Particle Size	30% - 50% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

COMPOST FILTER SOCK

N. T. S.

TEMPORARY SEED MIXTURE (ALL AREAS)

FORMULA AND SPECIES	% BY WEIGHT	MINIMUM % PURITY	MINIMUM % GERMINATION	MAX % WEED SEED	SEEDING RATE LBS. PER 1000 SY
FORMULA E					
• RYEGRASS VAR. KENTUCKY)	100	98	90	0.15	10.0

SPREAD SEED AS FOLLOWS:
FORMULA E – MARCH 15 TO OCTOBER 15

SEEDING FORMULA MUST COMPLY WITH PaDOT FORM 408, SECTION 804

PERMANENT SEED MIXTURE (LAWN/YARD AREAS)

FORMULA AND SPECIES	% BY WEIGHT	MINIMUM % PURITY	MINIMUM % GERMINATION	MAX % WEED SEED	SEEDING RATE LBS. PER 1000 SY
FORMULA B					21.0 TOTAL
* PERENNIAL RYEGRASS MIXTURE	20	98	90	0.15	4.0
* CREEPING RED FESCUE OR CHEWING FESCUE	30	98	85	0.15	6.0
* KENTUCKY BLUEGRASS MIXTURE	50	98	80	0.20	11.0

SPREAD SEED AS FOLLOWS:
FORMULA B – MARCH 15 TO JUNE 1
AUGUST 1 TO OCTOBER 15

SEEDING FORMULA MUST COMPLY WITH PaDOT FORM 408, SECTION 804

PERMANENT SEED MIXTURE (NON–LAWN/YARD AREAS)

FORMULA AND SPECIES	% BY WEIGHT	MINIMUM % PURITY	MINIMUM % GERMINATION	MAX % WEED SEED	SEEDING RATE LBS. PER 1000 SY
FORMULA W, MODIFIED (Slopes > 3 to 1)					35.1 TOTAL
• ANNUAL RYEGRASS MIXTURE	10	99	90	0.15	1.45
• HARD FESCUE MIXTURE (FESTUCA LONGIFOLIA) A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE ONE VARIETY EXCEETING 50% OF THE TOTAL HARD FESCUE COMPONENT	40	97	85	0.10	26.40
• BIRDSFOOT TREFOIL MIXTURE (LOTUS CORNICULATUS) A MIXTURE OF 1/2 VIKING AND 1/2 OF EITHER EMPIRE, NORCEN, OR LEO.	40	98	80*	0.10	5.80
• REDTOP (AGROSTIS ALBA)	10	92	80	0.15	1.45
FORMULA D (Slopes < 3 to 1)					32.4 TOTAL
• HARD FESCUE MIXTURE (FESTUCA LONGIFOLIA) A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE ONE VARIETY EXCEETING 50% OF THE TOTAL HARD FESCUE COMPONENT	70	97	85	0.10	26.40
• CREEPING RED FESCUE OR CHEWINGS FESCUE	30	98	85	0.15	6.0

SPREAD SEED AS FOLLOWS:
FORMULA W – APRIL 1 TO JUNE 15
AUGUST 16 TO SEPTEMBER 15
FORMULA D – MARCH 15 TO JUNE 1
– AUGUST 1 TO OCTOBER 15

SEEDING FORMULA MUST COMPLY WITH PaDOT FORM 408, SECTION 804

MULCHES

HAY:	TIMOTHY HAY, MIXED CLOVER AND TIMOTHY HAY, OR OTHER ACCEPTABLE NATIVE OR FORAGE GRASSES, WELL–CURED TO LESS THAN 20% MOISTURE CONTENT, BY WEIGHT.
STRAW:	EITHER WHEAT OR OAT STRAW, REASONABLY FREE OF VIABLE SEED, WELL–CURED TO LESS THAN 20% MOISTURE CONTENT, BY WEIGHT.

PLACE MULCH IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. PLACE HAY OR STRAW UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 1200 POUNDS PER 1000 SQ. YDS. (3 TON PER ACRE). A MULCH BINDER SHALL BE APPLIED ON ALL SLOPES GREATER THAN 3:1. THE MULCH BINDER SHALL BE RECYCLED CELLULOSE FIBER CONFORMING TO PaDOT FORM 408, SECTION 805.2(b). THE APPLICATION RATE FOR THE RECYCLED CELLULOSE FIBER BINDER SHALL BE 160 lbs/1,000 SQ. YDS.

MULCH MUST COMPLY WITH PaDOT FORM 408, SECTION 805

FERTILIZER AND LIME

FERTILIZER: APPLY FERTILIZER OF ANALYSIS 10–10–10 AT A RATE OF 500LBS PER ACRE FOR TEMPORARY SEEDING APPLICATIONS. APPLY FERTILIZER OF ANALYSIS 10–20–20 AT A RATE OF 900–1000 POUNDS PER ACRE FOR PERMANENT APPLICATIONS.. LIME: APPLY AGRICULTURAL LIMESTONE AT A RATE OF 1 TON PER ACRE FOR TEMPORARY SEED MIXTURES AND 6 TONS PER ACRE FOR PERMANENT SEED MIXTURES.

NOTES:
1. ABOVE RATES MAY VARY IF SOIL TEST COMPLETED.
2. ALL LAWN AREAS SHALL HAVE A MINIMUM OF 4" TOPSOIL INSTALLED.

SEEDING CHART

N. T. S.

SECTION VIEW

PROFILE VIEW

PA DEP EROSION CONTROL MANUAL TABLE 13.1
MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 5	1000	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
5 – 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15 – 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
25 – 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
35 – 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
> 100	50	CEMENT BAGS (WETTED) OR MORTARED STONE

* TOPSOIL MAY NOT BE USED TO FILL SACKS

NOTES:

IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS.

STANDARD CONSTRUCTION DETAIL #13-4
TRENCH PLUG INSTALLATION

NOT TO SCALE

KEVIN ALLEN BRETT

Scale:	No.	Date	Description	By	No.	Date	Description	By	No.	Date	Description	By
N.T.S.												
Drawn By / Checked By / Approved By												

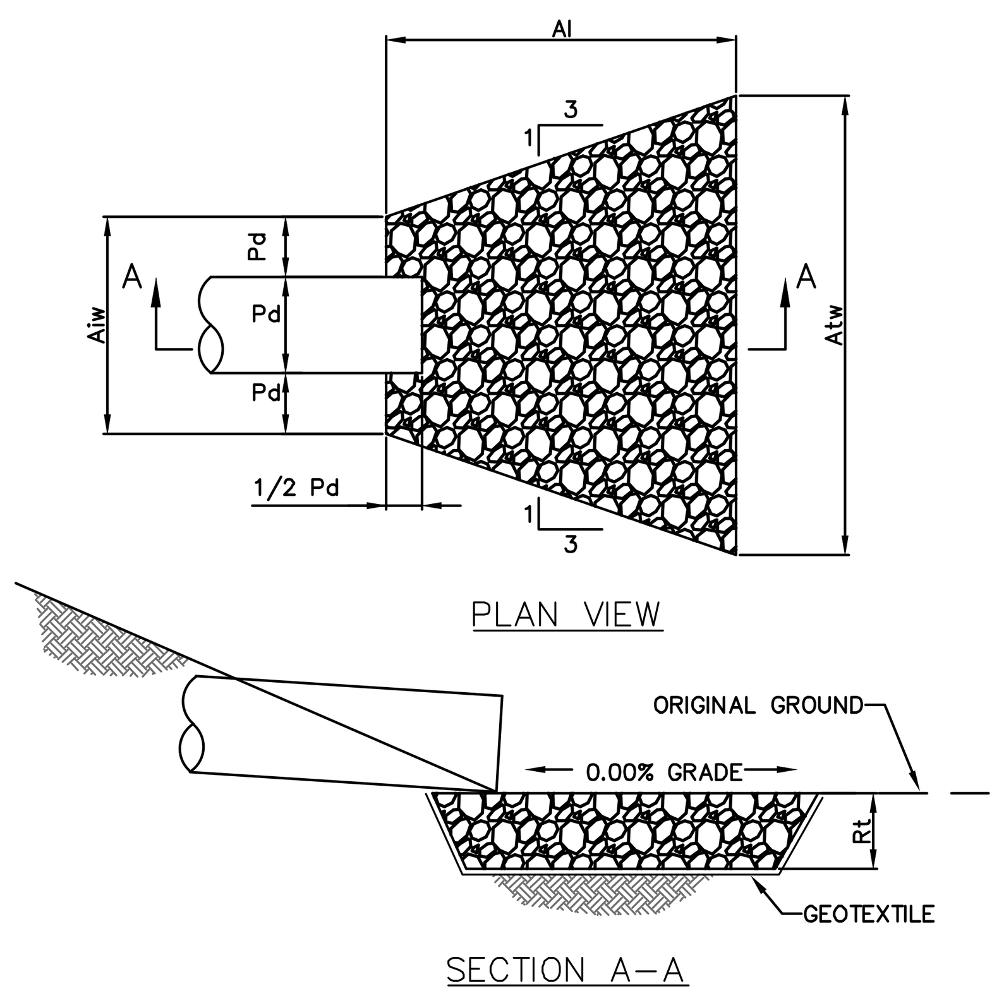
Lennon, Smith, Souleret
Engineering, Inc.
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412–264–4400
Fax: 412–264–1200
email: info@lsse.com

Filename: 52503ES.dwg
Date: October 2021

New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

Green Valley Park Improvements
Contract No. 21–SW1
Situate In
New Sewickley Township, Beaver County, Pennsylvania

Sheet Title: Erosion & Sedimentation Control Detail
Drawing No. 525-03-19-ES2
Sheet No. ES2 of ES3



OUTFALL	3Do (ft)	La (ft)	W (ft)	Tailwater Conditions	Rip-Rap	Thickness (ft)
1	6	9	10	Maximum	R-5	2.25
2	5	19	12	Maximum	R-5	2.25

NOTES:

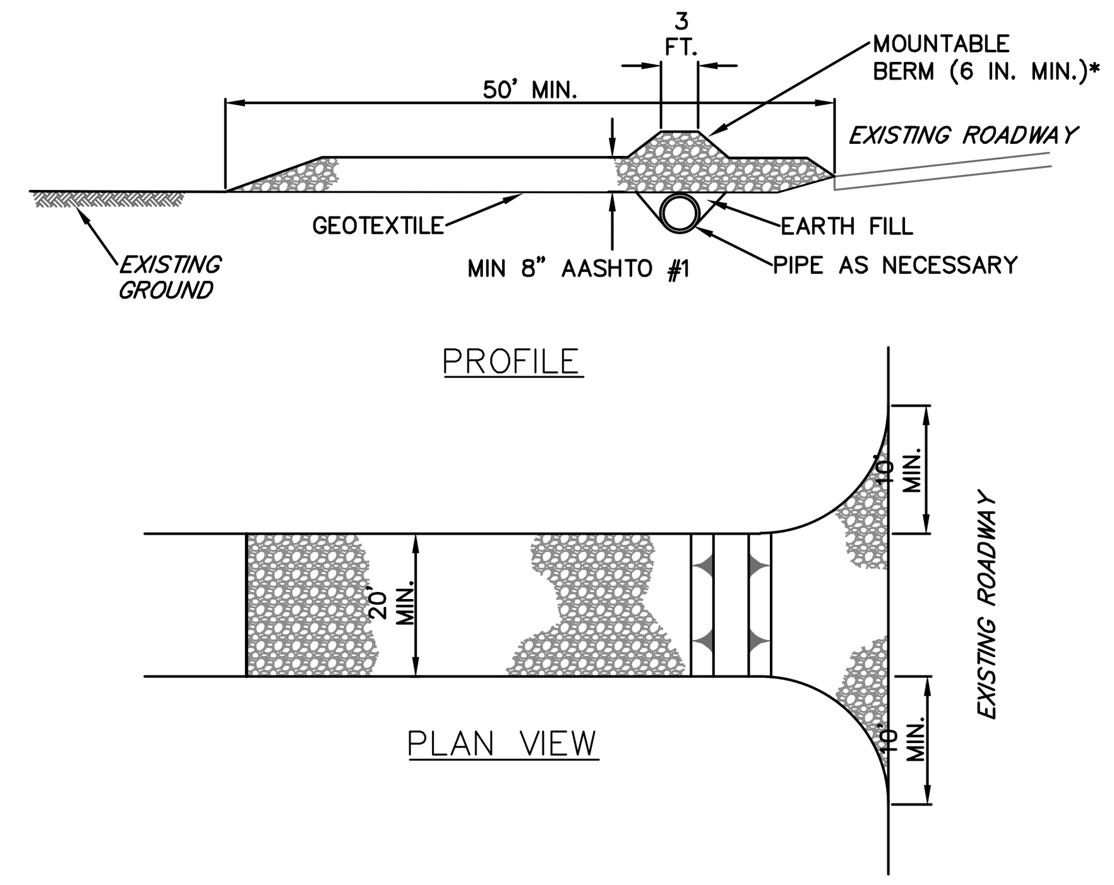
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

STANDARD CONSTRUCTION DETAIL #9-2
RIPRAP APRON AT PIPE OUTLET
NO FLARED ENDWALL

NOT TO SCALE



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

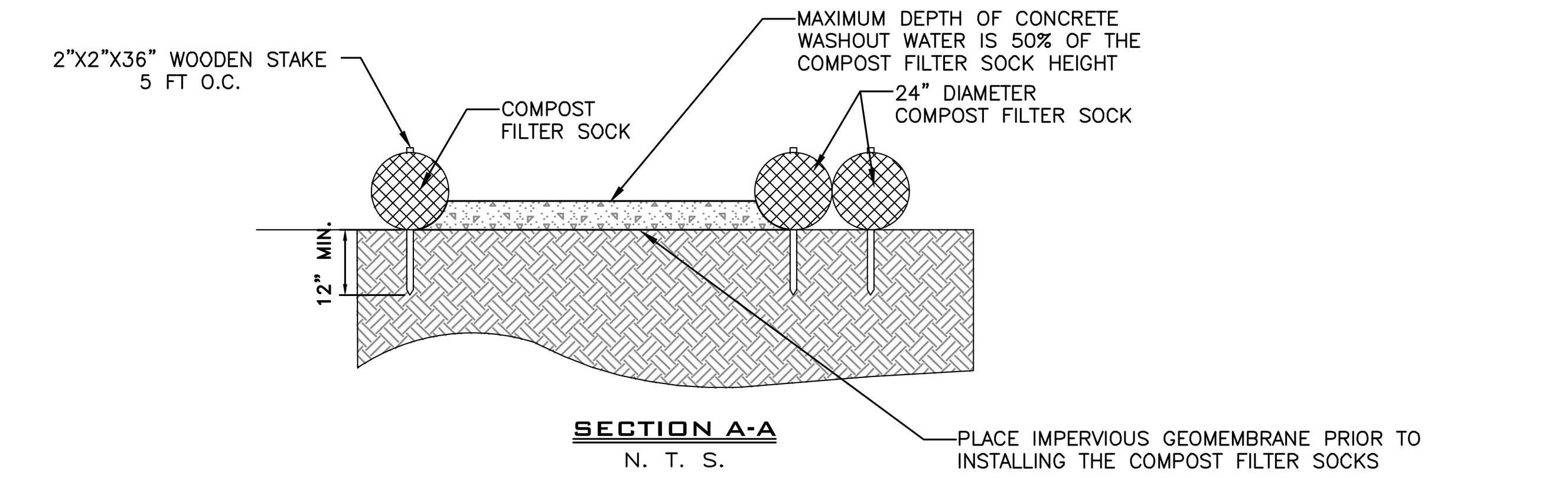
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

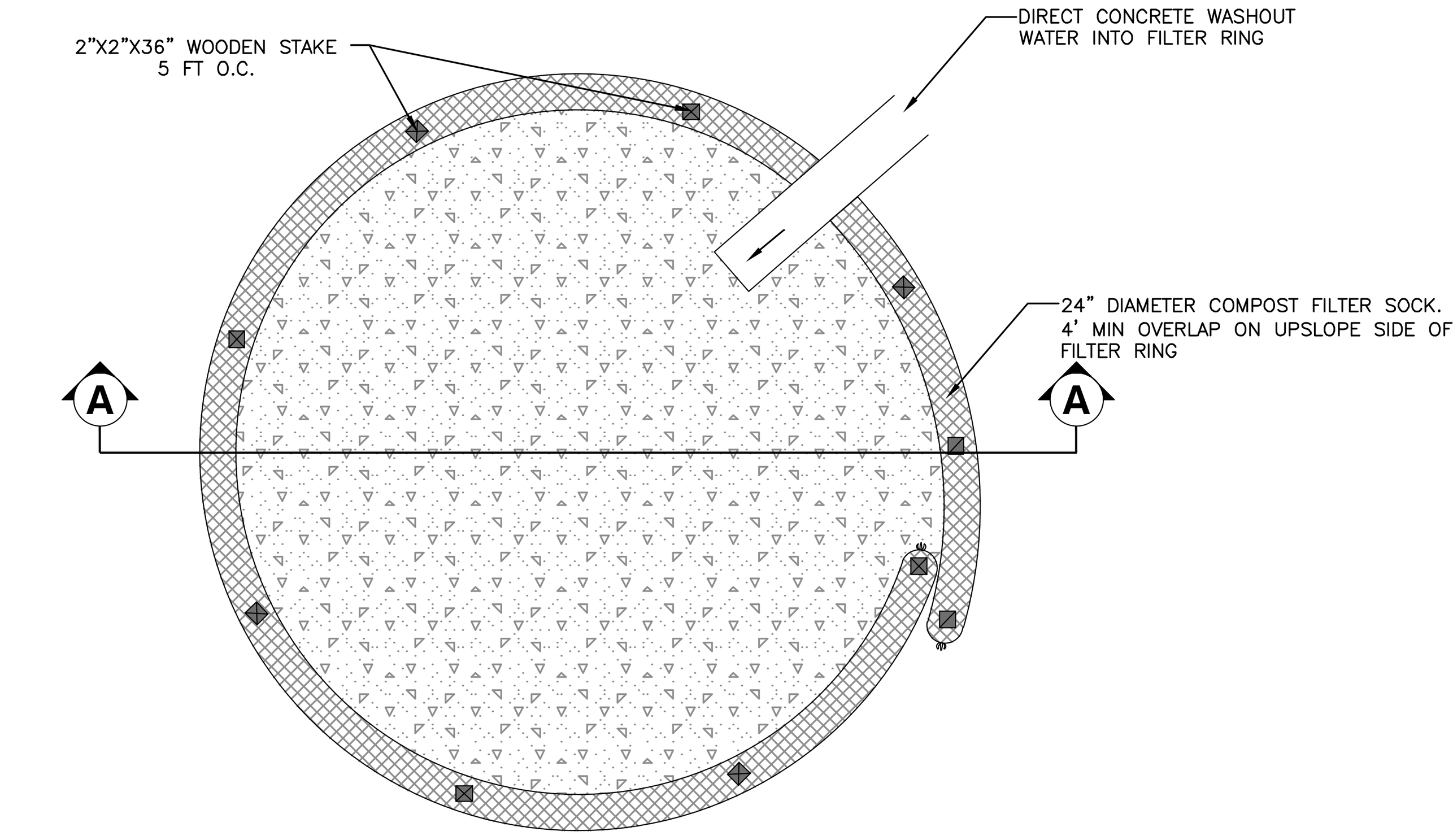
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE



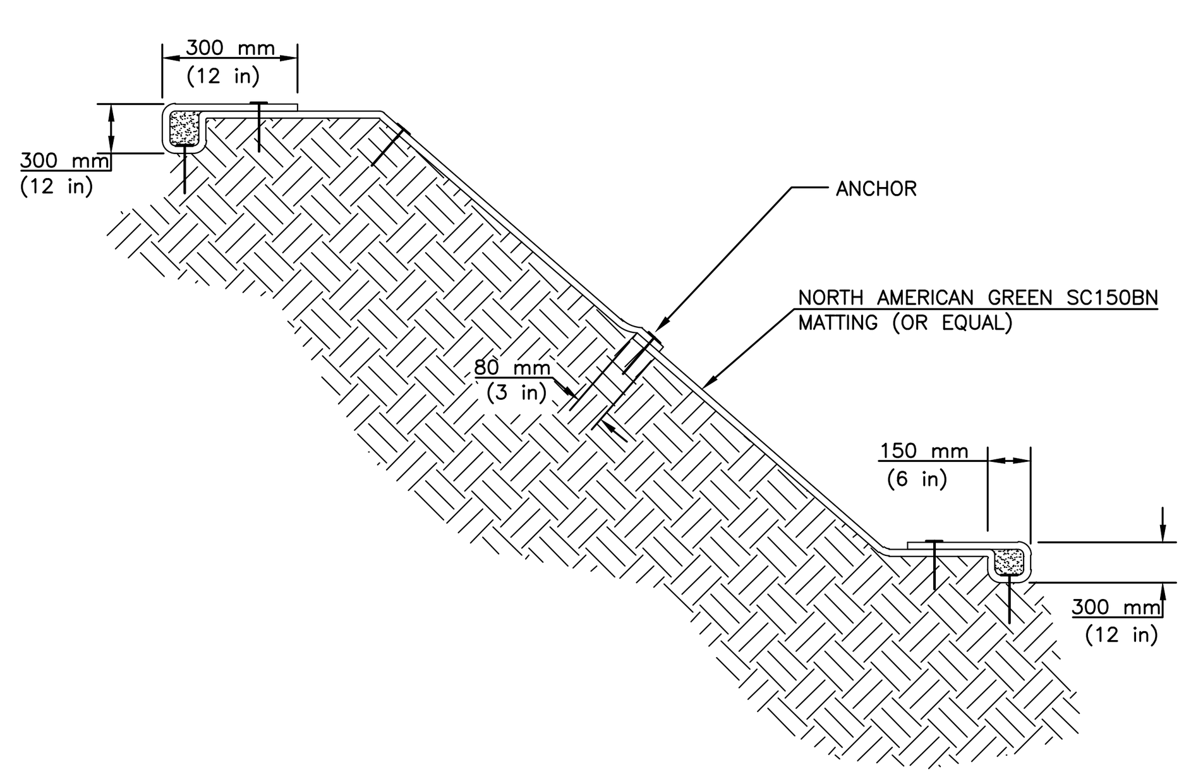


NOTES:

1. INSTALL ON FLAT GRADE WHERE POSSIBLE
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

CONCRETE WASHOUT AREA

N. T. S.

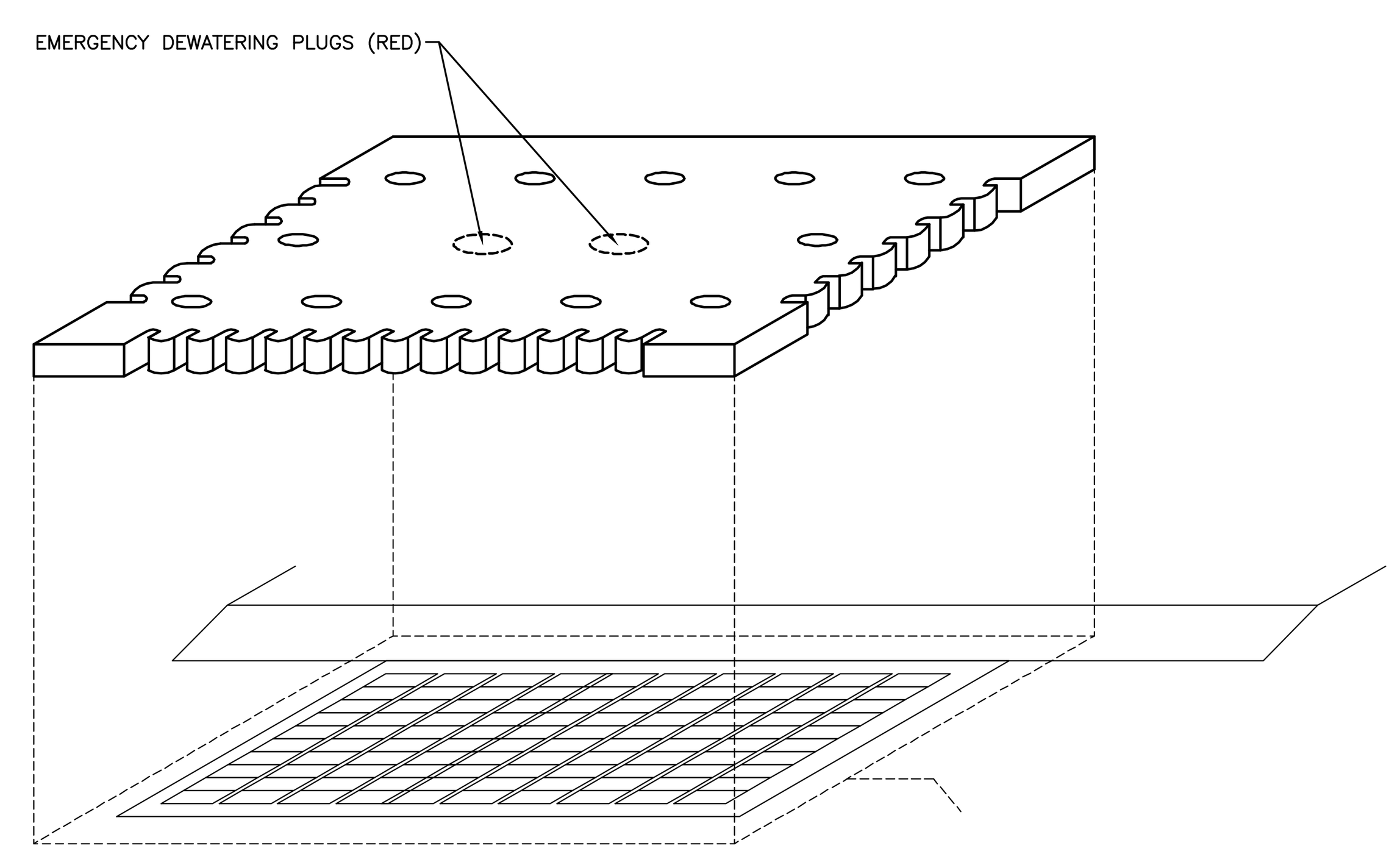


NOTE:

1. UTILIZE CORRECT ANCHOR PATTERN FOR SLOPE GRADIENT (SEE ANCHOR PATTERN FOR DETAILS).
2. INSTALL NORTH AMERICAN GREEN SC150BN MAT (OR EQUAL) AND SOIL FILL.
3. ALL CUT AND FILL SLOPES SHALL BE REDRESSED WITH TOPSOIL PRIOR TO BLANKET INSTALLATION.
4. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
5. PROVIDE ANCHOR TRENCH AT THE TOE OF SLOPE IN SIMILAR FASHION AS AT THE TOP OF SLOPE.
6. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS
7. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH THE UNDERLYING SOIL THROUGHOUT THE ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH BLANKET.
8. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
9. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN FOUR (4) CALENDAR DAYS.

SLOPE STABILIZATION FABRIC

N. T. S.



NOTES;

– PRIOR TO INSTALLATION, INLET GRATE SURFACE AND SURROUNDING AREA SHALL BE CLEANED AND CLEARED OF DEBRIS. INLET FILTER MAT SHALL BE INSTALLED WITH A MINIMUM 2" OVERLAP FROM EDGE OF GRATE TO EDGE OF MAT. ADJUST MAT BY HAND UNTIL PLACEMENT ALLOWS FOR OPTIMAL MAGNETIC ADHESION TO GRATE SURFACE.

– PREINSTALLED RED EMERGENCY DEWATERING PLUGS CAN REMOVED IN THE EVENT OF FLOODING TO ALLOW FOR RAPID DEWATERING. AFTER DEWATERING, THE INLET FILTER MAT SHALL BE LIFTED AND THOROUGHLY CLEANED OR REPLACED AND THE EMERGENCY OVERFLOW PLUGS SHALL BE REINSTALLED. IF GRATE IS AT LOWEST POINT OF STREET, REMOVAL OF ONE PLUG WILL ALLOW FOR EXPEDITED DEWATERING AT ALL TIMES.

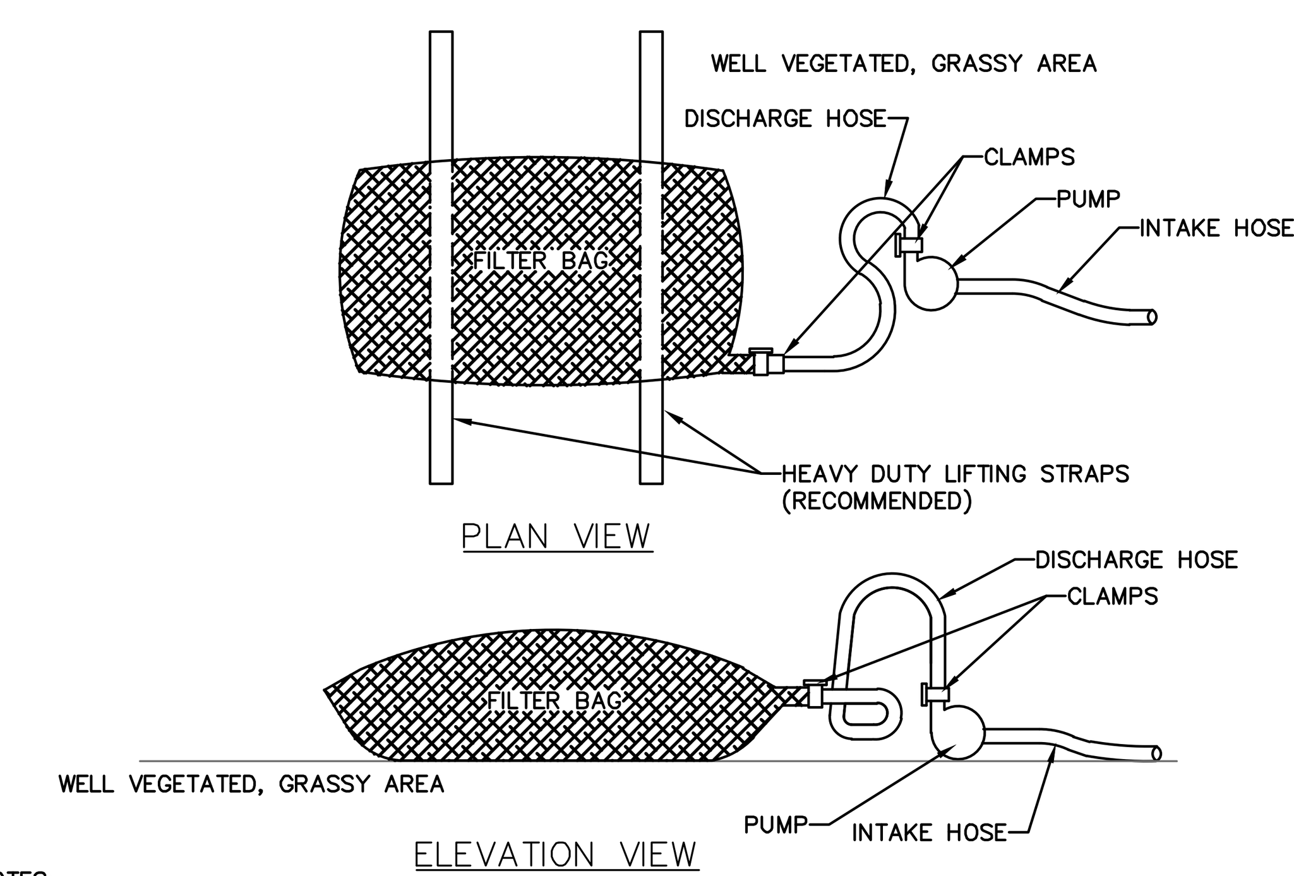
– INLET FILTER MATS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. AS NEEDED, INLET FILTER MATS SHALL BE LIFTED AND RINSED OR REPLACED. WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET OR THE INLET FILTER MAT BECOMES COMPRESSED DUE TO HEAVY TRAFFIC, REPLACEMENT IS REQUIRED.

– A SUPPLY OF SPARE INLET FILTER MATS SHALL BE MAINTAINED ON SITE. ALL NECESSARY REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED MATS ACCORDING TO THE PLAN NOTES.

– INLET FILTER MATS ARE MADE FROM A COMPOSTABLE COCONUT COIR. MAGNETS ARE RUBBER WITH FERROUS OXIDE SIZES OF GRATES CAN VARY. INLET FILTER MAT CAN BE CUSTOM FIT ACCORDING TO APPLICATION

BLACKHAWK INLET FILTER MAT - TYPE M 2'x4'

N. T. S.



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON–WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D–4884	60 LB/IN
GRAB TENSILE	ASTM D–4632	205 LB
PUNCTURE	ASTM D–4833	110 LB
MULLEN BURST	ASTM D–3786	350 PSI
UV RESISTANCE	ASTM D–4355	70%
AOS % RETAINED	ASTM D–4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL–VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON–ERODIBLE AND NON–POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
KEVIN ALLEN BRETT

Scale: N.T.S.
Drawn By | Checked By | Approved By

No.	Date	Description	By	No.	Date	Description	By	No.	Date	Description	By

Lennon, Smith, Souleret Engineering, Inc.
846 4th Avenue
Coraopolis, Pennsylvania 15108
Phone: 412–264–4400
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email: info@lsse.com

Filename: 52503ES.dwg
Date: October 2021

New Sewickley Township
233 Miller Road
Rochester, Pennsylvania 15074

Green Valley Park Improvements
Contract No. 21–SW1
Situate In
New Sewickley Township, Beaver County, Pennsylvania

Sheet Title: Erosion & Sedimentation Control Detail
Drawing No. 525-03-19-ES3
Sheet No. ES3 of ES3

STORMWATER MANAGEMENT ORDINANCE

STORMWATER MANAGEMENT ORDINANCE

ORDINANCE NO. 228

TOWNSHIP OF NEW SEWICKLEY

BEAVER COUNTY, PENNSYLVANIA

Adopted at a Public Meeting Held on

September 6, 2022

TABLE OF CONTENTS

ARTICLE I - GENERAL PROVISIONS

Section 101. Short Title

This Ordinance shall be known and may be cited as the “New Sewickley Township Stormwater Management Ordinance.”

Section 102. Statement of Findings

The governing body of the Municipality finds that:

A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases runoff volumes, 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 flood plain management and flood control efforts in downstream communities, reduces groundwater recharge, threatens public health and safety, and increases nonpoint source pollution of water resources.

B. A comprehensive program of stormwater management (SWM), including regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety, and welfare and the protection of people of the Commonwealth, their resources, and the environment.

C. Stormwater is an important water resource that provides groundwater recharge for water supplies and supports the base flow of streams.

D. The use of green infrastructure (GI) and low impact development (LID) are intended to address the root cause of water quality impairment by using systems and practices which use or mimic natural processes to: 1) infiltrate and recharge, 2) evapotranspire, and/or 3) harvest and use precipitation near where it falls to earth. Green infrastructure practices and LID contribute to the restoration or maintenance of pre-development hydrology.

E. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems under the National Pollutant Discharge Elimination System (NPDES) program.

Section 103. Purpose

The purpose of this Ordinance is to promote health, safety, and welfare within the Municipality and its watershed by minimizing the harms and maximizing the benefits described in Section 102 of this Ordinance, through provisions designed to:

A. Meet legal water quality requirements under state law, including regulations at 25 Pa. Code 93 to protect, maintain, reclaim, and restore the existing and designated uses of the waters of this Commonwealth.

B. Preserve natural drainage systems.

C. Manage stormwater runoff close to the source, reduce runoff volumes and mimic predevelopment hydrology.

D. Provide procedures and performance standards for stormwater planning and management.

E. Maintain groundwater recharge to prevent degradation of surface and groundwater quality and to otherwise protect water resources.

F. Prevent scour and erosion of stream banks and streambeds.

G. Provide proper operation and maintenance of all stormwater best management practices (BMPs) that are implemented within the Municipality.

H. Provide standards to meet NPDES permit requirements.

Section 104. Statutory Authority

The Municipality is empowered to regulate land use activities that affect runoff by the authority of the Act of July 31, 1968, P.L. 805, No. 247, The Pennsylvania Municipalities Planning Code, as amended, and/or the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, The Stormwater Management Act.

Section 105. Applicability

All regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this Ordinance.

Section 106. Repealer

Any other ordinance provision(s) or regulation 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

In the event that a court of competent jurisdiction declares any section or provision of this Ordinance invalid, such decision shall not affect the validity of any of the remaining provisions of this Ordinance.

Section 108. Compatibility with Other Requirements

Approvals issued and actions taken under this Ordinance 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.

Section 109. Erroneous Permit

Any permit or authorization issued or approved based on false, misleading or erroneous information provided by an applicant is void without the necessity of any proceedings for revocation. Any work undertaken or use established pursuant to such permit or other authorization is unlawful. No action may be taken by a board, agency or employee of the Municipality purporting to validate such a violation.

Section 110. Waivers

A. If the Municipality determines that any requirement under this Ordinance cannot be achieved for a particular regulated activity the Municipality may, after an evaluation of alternatives, approve measures other than those in this Ordinance, subject to Section 110, paragraph B. **The proposed area of disturbance shall be less than one (1) acre.** The request for a modification or waiver shall originate with the Landowner, shall be in writing, and shall accompany the Stormwater Management Site Plan submitted to the Municipality. The request shall provide the facts on which the request is based, the provisions of the Ordinance involved, and the proposed modification. The Municipality shall review the request to determine if it meets the requirements of the Ordinance, including paragraph B below. If acceptable to the Municipality, the Municipality may grant the waiver or modification.

B. Waivers or modifications of the requirements of this Ordinance may be approved by the Municipality if enforcement will exact undue hardship because of unique physical circumstances or conditions peculiar to the land in question, provided that the modifications will not be contrary or detrimental to the public interest and will achieve the intended outcome, and that the purpose of the Ordinance is preserved. Hardship must be due to such unique physical circumstances or conditions and not to circumstances or conditions generally created by the provisions of the Stormwater Management Ordinance. Cost or financial burden shall not be considered a hardship. Modifications shall not substantially or permanently impair the appropriate use or development of adjacent property. A request for modifications shall be in writing and accompany the Stormwater Management Site Plan submission, as directed in Section 110, paragraph A above.

C. No waiver or modification of any regulated stormwater activity involving earth disturbance greater than or equal to one (1) acre may be granted by the Municipality.

D. This Section shall not apply to requests for waiver or modification to the provisions of Section V – Design Criteria. All requests for waivers or modifications from Section V shall be reviewed by the Municipality for applications of

any size earth disturbance.

Section 111. Version of Regulations and Standards

Any reference to a statute, regulation or standard, shall be interpreted to refer to the latest or most current version of that document.

Section 112. Disclaimer of Liability

A. For regulatory purposes, the degree of stormwater management sought by the provisions of this Chapter is considered reasonable. This Chapter shall not impose upon the Municipality any legal duty in addition to those duties otherwise imposed under the Stormwater Management Act upon the Municipality, any appointed or elected official, employee or representative of the Municipality. It is not the intention of the Municipality to guarantee the elimination of harm resulting from stream flow, floods, rain, snow, or stormwater runoff; or erosion resulting therefrom. It is the intention of the Municipality to create reasonable stormwater management regulations which balance several competing interests in an appropriate fashion with the emphasis on public safety.

B. This Chapter does not imply that areas within or outside any identified flood-prone area will be free from flooding or flood damages.

C. Neither the granting of any approval under this Ordinance, nor the compliance with the provisions of this Ordinance, or with any condition imposed by the Municipality or a Municipality official hereunder, shall relieve any person from any responsibility for damage to persons or property resulting therefrom, or as otherwise imposed by law, nor impose any liability upon the Township for damages to person or property.

D. The granting of a permit which includes any stormwater management facilities shall not constitute a representation, guarantee, or warranty of any kind by the Municipality, or by an official, employee, or consultant thereof, of the practicability or safety of any structure, use, or other plan proposed, and shall create no liability upon or cause of action against the Township, or an official, employee, or consultant thereof, for any damage that may result pursuant thereto.

ARTICLE II – DEFINITIONS

For the purposes of this Ordinance, certain terms and words used herein shall be interpreted as follows:

A. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.

B. The word “includes” or “including” shall not limit the term to the specific example but is intended to extend its meaning to all other instances of like kind and character.

C. The words “shall” and “must” are mandatory; the words “may” and “should” are permissive.

These definitions do not necessarily reflect the definitions contained in pertinent regulations or statutes and are intended for this Ordinance only.

Act 167 - The Municipality is empowered to regulate land use activities that affect runoff and surface and groundwater quality and quantity by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, the “Storm Water Management Act.”

Agricultural Activity – Activities associated with agriculture such as agricultural cultivation, agricultural operation, and animal heavy use areas. This includes the work of producing crops including tillage, land clearing, plowing, disking, harrowing, planting, harvesting crops or pasturing and raising of livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

Applicant – A landowner, developer, or other person who has filed an application to the Municipality for approval to engage in any regulated activity at a project site in the Municipality.

Best Management Practice (BMP) – Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: “structural” or “non-structural.” In this Ordinance, non-structural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff, whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

Conservation District – A conservation district, as defined in Section 3(c) of the Conservation District Law (3 P. S. § 851(c)) that has the authority under a delegation agreement executed with DEP to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code 102.

Design Storm – The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., a 5-year storm) and duration (e.g., 24 hours) used in the design and evaluation of stormwater management systems. Also see Return Period.

Detention Basin – An impoundment designed to collect and retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. Detention basins are designed to drain completely in a designed period after a rainfall event, and to become dry until the next rainfall event.

Detention Volume – The volume of runoff that is captured and released into the waters of the Commonwealth at a controlled rate.

DEP – The Pennsylvania Department of Environmental Protection.

Development Site (Site) – See Project Site.

Disturbed Area – An unstabilized land area where an earth disturbance activity is occurring or has occurred.

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

Erosion – The natural process by which the surface of the land is worn away by water, wind, or chemical action.

Existing Condition – The dominant land cover during the 5-year period immediately preceding a proposed regulated activity.

FEMA – Federal Emergency Management Agency.

Floodplain – Any land area susceptible to inundation by water from any natural source or delineated by applicable FEMA maps and studies as being a special flood hazard area. Also includes areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania DEP Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by DEP).

Floodway – The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the 100-year flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year floodway, it is assumed--absent evidence to the contrary--that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

Forest Management/Timber Operations – Planning and activities necessary for the management of forestland. These include conducting a timber inventory, preparation of forest management plans, silvicultural treatment, cutting budgets, logging road design and construction, timber harvesting, site preparation, and reforestation.

Green Infrastructure – Systems and practices that use or mimic natural processes to infiltrate, evapotranspire, or reuse stormwater on the site where it is generated.

Groundwater – Water beneath the earth's surface that supplies wells and springs and is within the saturated zone of soil and rock.

Groundwater Recharge – The replenishment of existing natural underground water supplies from precipitation or overland flow.

Hydrologic Soil Group (HSG) – Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The NRCS defines the four groups and provides a list of most of the soils in the United States and their group classification. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HSG varies from A to D (NRCS[1,2]).

Impervious Surface (Impervious Area) – A surface that prevents the infiltration of water into the ground. Impervious surfaces (or areas) shall include, but not be limited to: roofs; additional indoor living spaces, patios, garages, storage sheds and similar structures; and any new streets or sidewalks. Decks, parking areas, and driveway areas are counted as impervious areas if they directly prevent infiltration. Any surface areas designed to initially be gravel or crushed stone shall be assumed to be impervious surfaces. In addition, any surface designed to be constructed of permeable, pervious or porous concrete, asphalt, or pavers shall be considered an impervious surface.

Invasive Species – DCNR defines invasive plants as those species that are not native to the state, grow aggressively, and spread and displace native vegetation. (see http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_010314.pdf for a list of invasive species.

Infiltration – Movement of surface water into the soil, where it is absorbed by plant roots, evaporated into the atmosphere, or percolated downward to recharge groundwater.

Land Development (Development) – Inclusive of any or all of the following meanings: () the improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving (a) a group of two or more buildings or (b) the division or allocation of land or space between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups, or other features; (ii) any subdivision of land; (iii) development in accordance with Section 503(1.1) of the PA Municipalities Planning Code.

Low Impact Development (LID) – Site design approaches and small-scale stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater. LID can be applied to new development, urban retrofits, and revitalization projects. LID utilizes design techniques that infiltrate, filter, evaporate, and store runoff close to its source. Rather than rely on costly large-scale conveyance and treatment systems, LID addresses stormwater through a variety of small, cost-effective landscape features located on-site.

Municipality – New Sewickley Township, Beaver County, Pennsylvania.

Native Vegetation – Plant species that have historically grown in Pennsylvania and are not invasive species as defined herein.

NRCS – USDA Natural Resources Conservation Service (previously SCS).

Peak Discharge – The maximum rate of stormwater runoff from a specific storm event.

Pervious Area – Any area not defined as impervious.

Project Site – The specific area of land where any regulated activities in the Municipality are planned, conducted, or maintained.

Qualified Professional – Any person licensed by the Pennsylvania Department of State or otherwise qualified under Pennsylvania law to perform the work required by this Ordinance.

Regulated Activities – Any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.

Regulated Earth Disturbance Activity – Activity involving earth disturbance subject to regulation under 25 Pa. Code 92, 25 Pa. Code 102, or the Clean Streams Law.

Release Rate – The percentage of existing conditions peak rate of runoff from a site or subarea to which the proposed conditions peak rate of runoff must be reduced to protect downstream areas.

Release Rate District – A watershed or portion of a watershed for which a release rate has been established by an adopted Act 167 Stormwater Management Plan.

Retention Volume/Removed Runoff – The volume of runoff that is captured and not released directly into the surface waters of this Commonwealth during or after a storm event.

Return Period – The average interval, in years, within which a storm event of a given magnitude can be expected to occur one time. For example, the 25-year return period rainfall would be expected to occur on average once every 25 years; or stated in another way, the probability of a 25-year storm occurring in any one year is 0.04 (i.e., a 4% chance).

Riparian Buffer – A permanent vegetated area of trees and shrubs located adjacent to streams, lakes, ponds and wetlands.

Runoff – Any part of precipitation that flows over the land.

Sediment – Soils or other materials transported by surface water as a product of erosion.

State Water Quality Requirements – The regulatory requirements to protect, maintain, reclaim, and restore water quality under Title 25 of the Pennsylvania Code and the Clean Streams Law.

Stormwater – Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

Stormwater Management Facility – Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff. Typical stormwater management facilities include, but are not limited to: detention and retention basins; open channels; storm sewers; pipes; and infiltration facilities.

Stormwater Management Site Plan – The plan prepared by the developer or the developer's representative indicating how stormwater runoff will be managed at the development site in accordance with this Ordinance. **Stormwater Management Site Plan** will be designated as **SWM Site Plan** throughout this Ordinance.

Stream - A channel or conveyance of surface water having a defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

Subdivision – As defined in The Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247.

USDA – United States Department of Agriculture.

Waters of this Commonwealth – Any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.

Watercourse – See Stream.

Watershed – Region or land area drained by a river, watercourse, or other surface water of this Commonwealth to a downstream point.

Wetland – Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

ARTICLE III – STORMWATER MANAGEMENT STANDARDS

Section 301. General Requirements

A. For all regulated activities, unless preparation of an SWM Site Plan is specifically exempted in Section 302:

   1. Preparation and implementation of an approved SWM Site Plan is required.

   2. No regulated activities shall commence until the Municipality issues written approval of an SWM Site Plan, which demonstrates compliance with the requirements of this Ordinance.

B. SWM Site Plans approved by the Municipality, in accordance with Section 406, shall be on site throughout the duration of the regulated activity.

C. These standards apply to the landowner and any person engaged in regulated activities.

D. For all regulated earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities (e.g., during construction) to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. Various BMPs and their design standards are listed in the *Erosion and Sediment Pollution Control Program Manual* (E&S Manual[4]), No. 363-2134-008, as amended and updated. Comment on the adequacy of the Erosion and Sedimentation Controls may be provided by the Municipality per the requirements of Beaver County Conservation District.

E. Impervious areas:

   1. The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in stages.

   2. For development taking place in stages, the entire development plan must be used in determining conformance with this Ordinance.

   3. For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this Ordinance; except that the volume controls in Section 303 and the peak rate controls of Section 304 do not need to be retrofitted to existing impervious areas that are not being altered by the proposed regulated activity.

F. Stormwater flows onto adjacent or downstream property shall not be created, increased, decreased, relocated, impeded, or otherwise altered without written notification of the affected property owner(s). Notification shall include a description of the proposed development and the stormwater flows that are being created, increased, decreased, relocated, impeded, or otherwise altered. Adjacent property shall at a minimum include any property having a shared boundary with the subject property of the SWM Site Plan, however, if in the judgement of the Municipality additional properties are being affected, additional notifications may be required. Proof of notification (signed postal receipt for example) shall be included as part of the SWM Plan submission to the Municipality. Such stormwater flows shall be subject to the requirements of this Ordinance.

G. All regulated activities shall include such measures as necessary to:

   1. Protect health, safety, and property.

   2. Meet the water quality goals of this Ordinance by implementing measures to:

      a. Minimize disturbance to floodplains, wetlands, and wooded areas.

      b. Maintain or extend riparian buffers.

      c. Avoid erosive flow conditions in natural flow pathways.

      d. Minimize thermal impacts to waters of this Commonwealth.

e. Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.

3. Incorporate methods described in the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual[3]). If methods other than green infrastructure and LID methods are proposed to achieve the volume and rate controls required under this Ordinance, the SWM Site Plan must include a detailed justification, acceptable to the Municipality, demonstrating that the use of LID and green infrastructure is not practicable.

H. Infiltration BMPs should be dispersed throughout the project site at strategic locations, made as shallow as practicable, and located to maximize use of natural on-site infiltration features while still meeting the other requirements of this Ordinance.

I. Normally dry, open top, storage facilities should completely drain both the volume control and rate control capacities over a period of time not less than 24 and not more than 72 hours from the end of the design storm. Infiltration tests performed at the facility locations and proposed basin bottom depths, in accordance with the BMP Manual, must support time-to-empty calculations if infiltration is a factor.

J. The design storm precipitation depths to be used in the analysis of peak rates of discharge shall be as obtained in PennDOT's Drainage Manual, Publication 584, Appendix 7A; or obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland. NOAA's Atlas 14[5] can be accessed at: http://hdsc.nws.noaa.gov/hdsc/pfds/.

K. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act.

L. Various BMPs and their design standards are listed in the BMP Manual[3].

M. The municipality may, after consultation with DEP, approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with, state law including, but not limited to, the Clean Streams Law.

Section 302. Exemptions

A. Regulated activities that propose an increase in impervious area of less than 1,000 square feet are exempt from the requirements of this ordinance. Documentation of proposed impervious area increase must be provided.

B. Regulated activities that propose an increase in impervious area of at least 1,000 square feet but less than 10,000 square with an earth disturbances less than one (1) acre (43,560 square feet) must submit a SWM Site Plan to the Municipality which shall consist of the following items and related supportive material needed to determine compliance with Sections 303 through 305. The applicant can use the protocols in the Small Project Stormwater Management Site Plan (Appendix C, pages 45-49).

   a. General description of proposed stormwater management techniques, including construction specifications of the materials to be used for stormwater management facilities.
   b. An erosion and sediment control plan, including all reviews and letters of adequacy from the Conservation District where appropriate.
   c. Limits of earth disturbance, including the type and amount of impervious area that is proposed; proposed structures, roads, paved areas, and buildings; and a statement, signed by the Applicant, acknowledging that any revision to the approved drainage plan must be approved by the Municipality, and that a revised erosion and sediment control plan must be submitted to the Municipality or Conservation District for approval.
   d. All stormwater management facilities must be located on a plan and described in detail; and all calculations, assumptions, and criteria used in the design of the stormwater management facilities must be shown.

C. Single Family Residential Activities are exempt from the requirements of this Ordinance provided that:
   a. There is an increase in impervious area of less than 15,000 square feet.
   b. The first page of the Small Project Stormwater Application must be provided to document the increase in impervious area (Appendix C, page 45)

c. Buildings are constructed with applicable Zoning District setbacks.
d. Runoff from driveways must discharge onto a pervious surface with a gravel strip or other spreading device to promote sheet flow
e. No more than 1,000 square feet of any paved surface may discharge to a single point.
f. The Township may require additional information or mitigation of certain impacts through installation of stormwater BMPs if there is a threat to property, health, or safety.

D. The following Agricultural activities are exempt from the SWM Site Plan preparation requirements of this Ordinance:
   a. Agricultural activities that are performed according to the requirements of 25 Pa. Code Chapter 102.
   b. Agricultural activities that have an Agricultural Erosion and Sedimentation (E&S) Control Plans as deemed adequate by the Beaver County Conservation District
   c. Agricultural activities that have a Manure/Nutrient Management Plans as deemed adequate by the Beaver County Conservation District
   d. Agricultural activities that have a Conservation Plan as deemed adequate by NRCS/USDA

E. Forest management and timber operations are exempt from the SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.

F. Roadway resurfacing and maintenance projects, which do not increase impervious area, and underground infrastructure projects are exempt from the provisions of this Ordinance, provided the activities meet the requirements of all other Municipal, State and Federal requirements. Exemptions from any provisions of this Ordinance shall not relieve the applicant from the requirements in Sections 301.D. through J.

G. The Municipality may deny or revoke any exemption pursuant to this Section at any time for any project that the Municipality believes may pose a threat to public health and safety or the environment.

H. Voluntary Green Stormwater Infrastructure (GSI) retrofit projects that are solely intended to better manage runoff from existing development and are not part of new development or redevelopment, are exempt from the stormwater management provisions of this Ordinance. This does not exempt such projects from any other municipal, state, or federal regulation.

Section 303. Volume Controls

The green infrastructure and low impact development practices provided in the BMP Manual[3] shall be utilized for all regulated activities wherever possible. Water volume controls shall be implemented using the *Design Storm Method* in Subsection A or the *Simplified Method* in Subsection B below. Water volume controls shall be implemented using the Design Storm Method in Subsection A or the Simplified Method in Subsection B below, or alternative design criteria as allowed by PA Code Title 25, Chapter 102.

A. The *Design Storm Method* (CG-1 in the BMP Manual[3]) is applicable as a method to any size of regulated activity. This method requires detailed modeling based on site conditions. The following shall be incorporated into the CG-1 method:

   1. Do not increase the post-development total runoff volume for all storms equal to or less than the 2-year 24-hour duration precipitation.

   2. At least the first one inch of runoff from the net increase in impervious surfaces 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. If the developer provides justification that the listed removal options are not feasible, and the Municipality agrees, runoff shall be detained in a facility designed for a 48 to 72 hour dewatering time in an area with a dedicated stormwater system (not contributory to a combined sewer system) and shall be detained in a facility designed for a 72 hour dewatering time in an area contributory to a combined sewer system before discharge to local stormwater systems or the environment. Justification, as prepared and sealed by a qualified professional, for assertion that permanent removal is not feasible must be provided, at a minimum, in the form of field measured infiltration rate testing and geotechnical evaluation of the existing site soils with regard to the impact of proposed infiltration. Applications omitting this justification, including infiltration rate testing will be considered incomplete. BMPs proposing use of extended detention in lieu of permanent reduction through the listed methods shall include a valve to adjust or regulate dewatering time to achieve the performance standards noted herein. The valve system shall include an inspection/monitoring port for review of dewatering.

3. For modeling purposes:

   a. Existing (predevelopment) non-forested pervious areas must be considered meadow in good condition.

   b. 20% of existing impervious area, when present, shall be considered meadow in good condition in the model for existing conditions.

B. The *Simplified Method* (CG-2 in the BMP Manual[3]) provided below is independent of site conditions and should be used if the *Design Storm Method* is not followed. This method is not applicable to regulated activities greater than one acre or for projects that require design of stormwater storage facilities. For new impervious surfaces:

   1. Stormwater facilities shall capture at least the first two (2) inches of runoff from the net increase in impervious surfaces.

   2. At least the first one inch of runoff from the net increase in impervious surfaces 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. If the developer provides justification that the listed removal options are not feasible, and the Municipality agrees, runoff shall be detained in a facility designed for a 24 hour dewatering time in an area with a dedicated stormwater system (not contributory to a combined sewer system) and shall be detained in a facility designed for a 72 hour dewatering time in an area contributory to a combined sewer system before discharge to local stormwater systems or the environment.

   3. Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first 0.5 inch of the permanently removed runoff should be infiltrated.

   4. This method is exempt from the requirements of Section 304, Rate Controls, if the project qualifies for exemption by the provisions of Section 302.A.

Section 304. Rate Controls

A. For areas not covered by a release rate map from an approved Act 167 Stormwater Management Plan:

A. Post-development discharge rates shall not exceed the pre-development discharge rates for the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hour storm events. This is the equivalent to a 100% release rate area when compared to those rates shown in the maps contained in Appendix A (Release Rate Management Districts). This Pre-development to Post-development control is not to be misconstrued as the same as the “Conditional Direct Discharge” areas on the Release Rate maps. For comparison of peak flow rates, flows shall be rounded to a tenth of a cubic foot per second (cfs). If it is shown that the peak rates of discharge indicated by the post- development analysis are less than or equal to the peak rates of discharge indicated by the pre-development analysis for 1-, 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hour storms, then the requirements of this section have been met. Otherwise, the applicant shall provide additional controls as necessary to satisfy the peak rate of discharge requirement. Peak flows should be computed using the methods included in the Chapter titled “Stormwater Calculations and Methodology” of the PADEP Stormwater Management BMP Manual. Except, however, where documented downstream flooding problems exist, the Municipality may impose a reduced release rate criteria.

B. For areas covered by a release rate map from an approved Act 167 Stormwater Management Plan:

   For the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hour storm events, the post-development peak discharge rates will follow the applicable approved release rate maps. These maps are contained in Appendix A (Release Rate Management Districts) of this Ordinance For comparison of peak flow rates, flows shall be rounded to a tenth of a cubic foot per second (cfs). For any areas not shown on the release rate maps, the post-development discharge rates shall not exceed the pre-development discharge rates for the specified design events. Peak flows should be computed using the methods included in Chapter 8 of the PADEP Stormwater Management BMP Manual.

Section 305. Riparian Buffers

A. In order to protect and improve water quality, a Riparian Buffer Easement shall be created and recorded as part of any subdivision or land development that encompasses a Riparian Buffer. The intent of this ordinance in

establishing a Riparian Buffer is to protect and improve stream water quality. The Riparian Buffer is intended to slow overland flow to the stream through the presence of native grasses, trees and shrubs, allowing infiltration/groundwater recharge; causing deposition of sediment, nutrients, pesticides, and other pollutants in the buffer rather than in the stream; and reducing erosion by providing stream bank stabilization. The trees provide shade for streams; keeping waters cooler and reducing evaporation.

B. Except as required by PA Code Title 25 Chapter 102, the Riparian Buffer Easement shall be required for all streams (as defined in Article II) with a contributing watershed area of greater than 10 acres. The Riparian Buffer Easement shall be measured to be a minimum of 35 feet from the top of the streambank (on each side).

C. Minimum Management Requirements for Riparian Buffers.

1. No use or construction within the Riparian Buffer shall be permitted that is inconsistent with the intent of the Riparian Buffer as described in Section 305.A.

2. Existing native vegetation shall be protected and maintained within the Riparian Buffer Easement.

3. Whenever practicable, invasive vegetation shall be actively removed and the Riparian Buffer Easement shall be planted with native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site.

D. The Riparian Buffer Easement shall be enforceable by the Municipality and shall be recorded in the appropriate County Recorder of Deeds Office, so that it shall run with the land and shall limit the use of the property located therein. The easement shall allow for the continued private ownership and shall count toward the minimum lot area required by Zoning, unless otherwise specified in the municipal Zoning Ordinance.

E. Any permitted use within the Riparian Buffer Easement shall be conducted in a manner that will maintain the extent of the existing 100-year floodplain, improve or maintain the stream stability, and preserve and protect the ecological function of the floodplain.

F. Roadway crossings, when authorized by PA Chapter 105 Permitting as issued by DEP (unless otherwise exempt) and stormwater drainage pipes shall be permitted within the Riparian Buffer Easement, but they shall cross the Easement in the shortest practical distance. Other structural stormwater management facilities are not permitted within the Riparian Buffer Easement.

G. The following conditions shall apply when public and/or private recreation trails are permitted by the Municipality within Riparian Buffers:

1. It is preferred that trails be designed to be permeable and for non-motorized use only; however, impermeable trails are permitted provided they have adequate drainage

2. Trails shall be designed to have the least impact on native plant species and other sensitive environmental features.

H. Septic drainfields and sewage disposal systems shall not be permitted within the Riparian Buffer Easement and shall comply with setback requirements established under 25 Pa. Code Chapter 73.

I. Underground utilities shall be permitted within the Riparian Buffer Easement; however, work shall be performed to minimize disturbance area and removal of trees. Restoration within the Riparian Buffer Easement shall be with native species of trees, grasses, and other plantings. One tree shall be planted for each tree removed and the restoration shall be designed by a Registered Professional with the requisite experience. Aboveground utilities shall only be permitted to cross the Easement perpendicular to the Easement or in the shortest practical distance. Existing utilities may remain and be maintained as required.

ARTICLE IV – STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

Section 401. Plan Requirements

Appropriate sections from the Municipality's Subdivision and Land Development Ordinance, and other applicable local ordinances, shall be followed in preparing the SWM Site Plans.

The Municipality shall not approve any SWM Site Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a SWM Site Plan is found to be deficient, the Municipality may either disapprove the submission and require a resubmission, or in the case of minor deficiencies, the Municipality may accept submission of modifications.

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

A. Provisions for permanent access or maintenance easements for all physical SWM BMPs, such as ponds and infiltration structures, as necessary to implement the Operation and Maintenance (O&M) Plan discussed in paragraph C.9 below.

B. The following signature block for the Municipality:

"(Municipal official (Section 403.A)), on this date (Signature date), has reviewed and hereby certifies that the SWM Site Plan meets all design standards and criteria of the Municipal Ordinance No. _____ , except where waivers have been granted as noted on the Plan. The review is based on a survey and plan prepared by others and assumes that all information is correct and valid as submitted."

C. The SWM Site Plan shall provide the following information:

1. The overall stormwater management concept for the project.

2. A determination of site conditions in accordance with the BMP Manual[3]. A detailed site evaluation shall be completed for projects proposed in environmentally sensitive areas, such as brownfields.

3. A key map showing the development site's location within the Municipality's stormwater management districts, watersheds and subareas. On all site drawings, show the boundaries of the district(s), watershed(s) and subarea(s) as they are located on the development site and identify their district and watershed names and applicable subarea numbers.

4. Location of the one hundred year floodplain on the development site based on the municipal current Flood Insurance Rate Maps.

5. Stormwater runoff design computations and documentation as specified in this Ordinance, or as otherwise necessary to demonstrate that the maximum practicable measures have been taken to meet the requirements of this Ordinance, including the recommendations and general requirements in Section 301.

6. Expected project time schedule.

7. A soil erosion and sediment control plan, where applicable, as prepared for and submitted to the approval authority.

8. The effect of the project (in terms of runoff volumes, water quality, and peak flows) on surrounding properties and aquatic features and on any existing stormwater conveyance system that may be affected by the project.

9. Plan and profile drawings and details of all SWM BMPs, including drainage structures, pipes, open channels, and swales.

10. SWM Site Plan shall show the property lines, dimensions of the site and the locations of existing and proposed on-lot wastewater facilities and water supply wells, property boundaries, existing and proposed

topography, point(s) of interest, utilities, and potential utility conflicts.

11. The SWM Site Plan shall include an O&M Plan for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M including type and schedule/frequency of maintenance activities, personnel and equipment requirements, estimated annual maintenance costs, and method of financing continuing O&M.

12. A justification, acceptable to the Municipality, must be included in the SWM Site Plan if BMPs other than green infrastructure methods and LID practices are proposed to achieve the volume, rate and water quality controls under this Ordinance.

13. Certification and seal of the qualified professional responsible for the preparation of the plans and report.

14. Watershed maps delineating pre-development and post-development watershed boundaries and land cover conditions, as well as the flow path and segments used to determine time of concentrations for each watershed

15. Storm sewer calculations and watershed maps delineating all sub-areas used to size and compute flow for storm sewer system.

16. Existing contours at intervals of two (2) feet except in areas with slopes greater than fifteen percent (15%), in which case five (5) foot contour intervals may be used.

17. Contours of the finished project site at intervals of two (2) feet, except in areas with slopes greater than fifteen percent (15%), in which case, five (5) foot contour intervals may be used.

Section 402. Plan Submission

Up to five copies of the SWM Site Plan shall be submitted as follows:

1. Two copies to the Municipality.

2. One copy to the municipal engineer (when applicable).

3. One copy to the Beaver County Conservation District (when requested by the District).

Section 403. Plan Review

A. SWM Site Plans shall be reviewed by the Municipality for consistency with the provisions of this Ordinance.

B. The Municipality shall notify the applicant in writing within 45 days whether the SWM Site Plan is approved or disapproved or requires additional documentation. If the SWM Site Plan involves a Subdivision and Land Development Plan, the notification shall occur within the time period allowed by the Municipalities Planning Code (90 days). If a longer notification period is provided by other statute, regulation, or ordinance, the applicant will be so notified by the Municipality.

C. For any SWM Site Plan that proposes to use any BMPs other than green infrastructure and LID practices to achieve the volume and rate controls required under this Ordinance, the Municipality will not approve the SWM Site Plan unless it determines that green infrastructure and LID practices are not practicable.

D. If the Municipality disapproves the SWM Site Plan, the Municipality will state the reasons for the disapproval in writing. The Municipality also may approve the SWM Site Plan with conditions and, if so, shall provide the acceptable conditions for approval in writing.

E. The applicable review fee, in accord with Article VII, must accompany a resubmission of a disapproved SWM site plan.

Section 404. Modification of Plans

A modification to a submitted SWM Site Plan that involves a change in SWM BMPs or techniques, or that involves the relocation or redesign of SWM BMPs, or that is necessary because soil or other conditions are not as stated on the SWM Site Plan, as determined by the Municipality, shall require a resubmission of the modified SWM Site Plan in accordance with this Article.

Section 405. Resubmission of Disapproved SWM Site Plans

A disapproved SWM Site Plan may be resubmitted, with the revisions addressing the Municipality's concerns, to the Municipality in accordance with this Article. The applicable review fee, in accord with Article VI, must accompany a resubmission of a disapproved SWM Site Plan.

Section 406. Authorization to Construct and Term of Validity

The Municipality's approval of an SWM Site Plan authorizes the regulated activities contained in the SWM Site Plan for a maximum term of validity of 5 years following the date of approval. The Municipality may specify a term of validity shorter than 5 years in the approval for any specific SWM Site Plan. Terms of validity shall commence on the date the Municipality signs the approval for an SWM Site Plan. If an approved SWM Site Plan is not completed according to Section 407 within the term of validity, then the Municipality may consider the SWM Site Plan disapproved and may revoke any and all permits. SWM Site Plans that are considered disapproved by the Municipality shall be resubmitted in accordance with Section 405 of this Ordinance.

Section 407. Record Drawings, Completion Certificate, and Final Inspection

A. The developer shall be responsible for providing record drawings of all SWM BMPs included in the approved SWM Site Plan, including, but not limited to BMP grading, outlet structure configuration and emergency spillway configuration. The record drawings and an explanation of any discrepancies with the construction plans shall be submitted to the Municipality.

B. The record drawing submission shall include a certification of completion signed by a qualified professional verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications. The latitude and longitude coordinates for all permanent SWM BMPs must also be submitted, at the central location of the BMPs. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate. The certification shall include documentation confirming field reviewed dewatering times for rate and volume control BMPs. Record Drawings shall be provided in both hard copy and electronic (AutoCAD, latest edition) format.

C. The Municipality may conduct inspections during construction as it deems appropriate. If inspections performed by the Municipality reveal deficiencies from the submitted and approved SWM Site Plan, the Municipality may request corrective actions. Any corrective action shall be at the cost of the stormwater facility owner.

D. After receipt of the completion certification by the Municipality, the Municipality may conduct a final inspection.

ARTICLE V – DESIGN CRITERIA

Section 501. Calculation Methodology

A. All computations used in conjunction with the analysis and design of stormwater management facilities shall be based on one (1) or more of the following methods, or as otherwise approved in advance by the Municipality:

1. TR-55-Soil Conservation Service (SCS) Technical Release No. 55

2. TR-20-Soil Conservation Service (SCS) Technical Release No. 20

3. Penn State Runoff Model

4. Virginia Tech / Penn State Runoff Model

B. These methods for determining peak discharge shall be used to:

1. Determine pre-development runoff conditions;

2. Analyze the impact of development; and

3. Perform calculations in the design of any detention/retention facilities used in controlling runoff.

C. The SCS, Type II Rainfall Distribution shall be used for all analyses. The design storm frequencies for the watershed are:

Design Storm	24 Hour Rainfall Depth
1-Year	1.98
2-Year	2.36
5-Year	2.88
10-Year	3.31
25-Year	3.91
50-Year	4.41
100-Year	4.92

D. Pre-Development Conditions: The cover type for all sites will be considered to be the dominant land cover during the 5-year period immediately preceding a proposed regulated activity; these assumptions are to be applied to the disturbed areas:

1. For the purposes of pre-development peak flow rate and volume determination, existing non-forested pervious areas conditions shall be considered as meadow (good condition). Forested land areas shall be considered in good condition.

2. For the purposes of pre-development peak flow rate and volume determination, 20 percent of existing disturbed impervious area, when present, shall be considered meadow (good condition).

E. Gravel driveways: An existing gravel driveway is considered semipervious, and the conversion of an existing gravel driveway to a conventional paved driveway that is less than 1,000 square feet shall be exempt from the requirements of this chapter to implement SWM BMPs. The conversion of an existing gravel driveway to a conventional paved driveway that is at least 1,000 square feet but not more than 5,000 square feet may be accomplished using standardized BMPs. The Stormwater Management Planning Guidelines for Existing Gravel Driveways document provided in Appendix D contains two tables labeled "Gravel Driveways" and has been prepared to assist applicants in meeting this requirement for individual lots only

F. Post-Development Conditions: The hydrologic parameters used to develop peak flow rates shall be reflective of anticipated soil runoff characteristics following grading and development of the site.

G. Time of Concentration: The minimum time of concentration for any watershed shall be 6 minutes. A minimum 6-minute time of concentration may be assumed for any post development watershed. Calculations must be provided for all pre-development times of concentrations. A minimum time of concentration cannot be assumed for predevelopment conditions.

H. The use of the Basic Rational Method in estimating runoff may be employed in the design of the storm sewer conveyance system within the development. The storm sewer system shall be interpreted as the conduits, culverts, inlets and appurtenant features for the conveying of stormwater to, through or from a development site to the point of final discharge or control facility. The Rational Method shall not be used in the analysis of stormwater runoff from the development in its entirety or in conjunction with the design of any retention/detention facilities or other runoff control measures.

I. Points of interest for analysis of pre- and post-development runoff must be selected to demonstrate compliance with the requirements of Sections 303 and 304 is achieved at all points where runoff exits the perimeter of the property.

J. Stormwater runoff shall not be transferred from one watershed to another unless the watersheds are sub-areas of a larger watershed that are tributary to a common point of interest within or near the perimeter of the property. Transfer of runoff from one watershed to another under any other circumstances shall only be approved at the discretion of the Municipality. Documentation shall be provided that peak flow rates are not increased following development and there will be no detrimental impact in downstream areas.

K. The Stormwater Management Plan shall consider all of the stormwater runoff flowing over the project site. Runoff calculations shall be made to ensure that runoff from the upstream watershed area can be accommodated by the pipes, drainage easements and watercourses, etc. on the site.

Section 502. Design and Construction Standards – Collection and Conveyance Facilities

A. All stormwater collection and conveyance facilities (pipes, swales, and structures) shall be designed for a 100-year design storm event, unless the runoff would naturally drain overland to a stormwater detention facility, in which case a 25-year design storm event may be used. The hydraulic gradeline must be a minimum of two (2) feet below the surface elevation in structures and within the pipe. Swales and channels shall provide at least one foot of freeboard above the energy gradeline. Backwater effects of pipes discharging under surcharge conditions shall be included.

B. Runoff calculations shall include complete hydrology and hydraulic analysis of all downstream swales and pipe facilities to permanent stream discharge point, to the municipal boundary or connection to a State or County owned conveyance system.

C. Manholes shall not be spaced more than three hundred (300) feet apart for pipe sizes up to twenty-four (24) inches in diameter and not more than four hundred fifty (450) feet apart for larger pipe sizes.

D. No public stormwater pipe shall be less than 15-inches in diameter that conveys surface runoff. The minimum pipe slope shall be 1.0% grade or maintain velocity of 2 ft/s. For public storm sewer systems, only pipes related to construction of stormwater BMPs may be less than 15 inches in diameter.

E. All workmanship and materials shall conform to the Municipality's Construction Standards. In addition, all workmanship and materials shall conform to the latest edition of PennDOT Form 408 and be supplied by manufacturers or suppliers listed in PennDOT's Bulletin 15.

F. Manhole and inlet castings shall conform to the Pennsylvania Department of Transportation Form 408 and PennDOT Standards for Roadway Construction. Inlet grates shall be bicycle safe. Frames and grates shall be cast iron or structural steel. Concrete frames shall not be permitted.

G. All connections to existing storm sewer pipes shall be made by construction of a suitable junction box (inlet or manhole) to provide access for cleanout. No blind connections shall be permitted.

H. The discharge of stormwater runoff shall be to a well-defined drainage course, which has a defined bed and bank. If stormwater runoff cannot be discharged to a defined drainage course, documentation of written

permission from each downstream property owner shall be provided for all properties between the source of discharge and the defined drainage course. The use of level spreaders or similar BMPs that promote sheet flow may be permitted if the applicant provides documentation that the peak post-development 100-year discharge is no greater than pre-development 2-year discharge and a letter from the Geotechnical Engineer of Record regarding slope stability of the downstream area is provided. Use of a level spreader requires a waiver to be granted by the Municipality.

I. There shall be no stormwater from any conveyance or detention facility discharged directly towards a roadway.

Section 503. Design and Construction Standards – Stormwater Detention Facilities

A. All retention/detention facilities shall be equipped with multistage outlet structures to provide discharge control for each designated storm frequency. Provisions shall also be made to safely pass the post-development one-hundred year storm runoff in the event of an outlet structure failure without damaging or impairing the continued function of the facilities (i.e., impairing the continued function of) the facilities. The facility(ies) must have an emergency outlet which is able to discharge the post-development one-hundred year peak flow. Should any stormwater management facilities qualify as a dam under PaDEP Chapter 105 criteria, the facility shall be designed in accordance with those regulations and meet the regulations concerning dam safety.

B. Any stormwater management facility designed to store runoff shall provide an emergency spillway designed to convey the unattenuated 100-year post- development peak rate flow with a blocked primary outlet structure and an inundation stormwater to the invert elevation of the spillway, with a minimum one-foot freeboard to the crest of the embankment.

C. Woody vegetation shall not be permitted on the embankments or within 25 feet of the emergency spillway.

D. The water depth of a storage facility which is not fenced shall be limited to 2 feet unless approved by the Municipality. Otherwise, appropriate fencing at least 4 feet in height shall be required.

E. Side slopes of storage facilities shall not exceed a ratio of three to one (3:1) horizontal to vertical dimension. The crest of the embankment shall have a minimum width of not less than 10 feet.

F. The facility shall be equipped with an access road at least ten (10) feet wide and with a maximum of grade of 15 percent. Access roads greater than 12% grade must be paved. Access roads 12% or less shall have a minimum 6” depth non-eroding aggregate surface. A gate with a minimum opening of 10 feet shall be provided for maintenance access. An access easement with a minimum width of 20 feet to all stormwater detention facilities shall be provided. The access easement shall include a statement on the recorded plan from the owner/operator of the facility granting access to the Municipality.

G. All stormwater facility outlet structures shall have suitable gaskets to prevent leakage and piping of water through the facility embankment. All storm pipe installed through the facility embankment must be constructed of reinforced concrete pipe. Use of high-performance polypropylene pipe may be permitted with documentation of pipe manufacturer’s backfill requirements.

H. A geotechnical investigation report for the construction of the stormwater detention/retention and infiltration facilities must be provided including design recommendation for embankment construction, interior and exterior slopes, drainage swales and infiltration areas.

I. Basin outlet structures shall have non-clogging trash racks over all design openings. Periodic cleaning of debris from trash racks shall be included in the operation and maintenance plan.

J. Inlet structures and outlet structures shall be separated to the greatest extent possible in order to maximize the flow path through the basin.

K. BMPs must be designed to protect and maintain existing uses (e.g., drinking water use; cold water fishery use) and maintain the level of water quality necessary to protect those uses in all streams, and to protect and maintain water quality in "Special Protection" streams, as required by statewide regulations at 25 Pa.Code, Chapter 93 (collectively referred to herein as "State Water Quality Requirements").

ARTICLE VI – OPERATION AND MAINTENANCE

Section 601. Responsibilities of Developers and Landowners

A. The Municipality shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM Site Plan. The Municipality may require a dedication of such facilities as part of the requirements for approval of the SWM Site Plan. Such a requirement is not an indication that the Municipality will accept the facilities. The Municipality reserves the right to reject or accept the ownership and operating responsibility for any portion of the stormwater management controls.

B. Facilities, areas, or structures used as SWM BMPs shall be enumerated as permanent real estate appurtenances and recorded as deed restrictions or conservation easements that run with the land.

C. The O&M Plan shall be recorded as a restrictive deed covenant that runs with the land.

D. The Municipality may take enforcement actions against an owner for any failure to satisfy the provisions of this Article.

Section 602. Operation and Maintenance Agreements

A. Prior to final approval of the SWM Site Plan, the property owner shall sign and record an Operation and Maintenance (O&M) Agreement (see Appendix B) covering all stormwater control facilities which are to be privately owned.

    1. The owner, successor and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Agreement.

    2. The owner shall convey to the Municipality conservation easements to assure access for periodic inspections by the Municipality and maintenance, as necessary.

    3. The owner shall keep on file with the Municipality 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 by the owner to the Municipality within ten (10) working days of the change.

B. The owner is responsible for operation and maintenance (O&M) of the SWM BMPs. If the owner fails to adhere to the O&M Agreement, the Municipality may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

Section 603. Performance Guarantee

For SWM Site Plans that involve subdivision and land development, the applicant shall provide a financial guarantee to the Municipality for the timely installation and proper construction of all stormwater management controls as required by the approved SWM Site Plan and this Ordinance in accordance with the provisions of Sections 509, 510, and 511 of the Pennsylvania Municipalities Planning Code.

ARTICLE VII – FEES AND EXPENSES

Section 701. General

The Municipality may include all costs incurred into the review fee charged to an applicant.

The review fee may include, but not be limited to, costs for the following:

A. Administrative/clerical processing.

B. Review of the SWM Site Plan.

C. Review of a SWM Site Plan resubmission.

D. Attendance at meetings.

E. Inspections.

ARTICLE VIII – PROHIBITIONS

Section 801. Prohibited Discharges and Connections

A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter a regulated small MS4 or to enter the surface waters of this Commonwealth is prohibited.

B. No person shall allow, or cause to allow, discharges into a regulated small MS4, or discharges into waters of this Commonwealth, which are not composed entirely of stormwater, except (1) as provided in paragraph C below and (2) discharges authorized under a state or federal permit.

C. The following discharges are authorized unless they are determined to be significant contributors to pollution of a regulated small MS4 or to the waters of this Commonwealth:

1. Discharges or flows from firefighting activities.

2. Discharges from potable water sources including water line flushing and fire hydrant flushing, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC).

3. Non-contaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands.

4. Diverted stream flows and springs.

5. Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps.

6. Non-contaminated HVAC condensation and water from geothermal systems.

7. Residential (i.e., not commercial) vehicle wash water where cleaning agents are not utilized.

8. Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.

9. Dechlorinated swimming pool and hot tub discharges, as long as the PADEP guidelines for swimming pool water discharge are followed.

D. In the event that the Municipality or DEP determines that any of the discharges identified in Subsection C significantly contribute pollutants to a regulated small MS4 or to the waters of this Commonwealth, the Municipality or DEP will notify the responsible person(s) to cease the discharge.

Section 802. Roof Drains and Sump Pumps

A. Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs wherever feasible.

B. Unless otherwise approved by the Municipality, no stormwater from roofs or driveway drains shall be discharged to the street surface or curb.

Section 803. Alteration of SWM BMPs

No person shall modify, remove, fill, landscape, or alter any SWM BMPs, facilities, areas, drainage easements, or structures that were installed as a requirement of this Ordinance without the written approval of the Municipality.

ARTICLE IX – ENFORCEMENT AND PENALTIES

Section 901. Right of Entry

Upon presentation of proper credentials, the Municipality or its designated agent may enter at reasonable times upon any property within the Municipality to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Ordinance.

Section 902. Inspection

The landowner or the owner's designee (including the Municipality for dedicated and owned facilities) shall inspect SWM BMPs, facilities and/or structures installed under this Ordinance according to the following frequencies, at a minimum, to ensure the BMPs, facilities and/or structures continue to function as intended:

a. Annually for the first 5 years.

b. Once every 3 years thereafter.

c. During or immediately after the cessation of a 10-year or greater storm.

Inspections should be conducted during or immediately following precipitation events. A written inspection report shall be created to document each inspection. The inspection report shall contain the date and time of the inspection, the individual(s) who completed the inspection, the location of the BMP, facility or structure inspected, observations on performance, and recommendations for improving performance, if applicable. Inspection reports shall be submitted to the Municipality within 30 days following completion of the inspection.

Section 903. Enforcement

A. It shall be unlawful for a person to undertake any regulated activity except as provided in an approved SWM Site Plan, unless specifically exempted in Section 302.

B. It shall be unlawful to violate Section 803 of this Ordinance.

C. Inspections regarding compliance with the SWM Site Plan are a responsibility of the Municipality.

Section 904. Suspension and Revocation

A. Any approval or permit issued by the Municipality pursuant to this Ordinance may be suspended or revoked for:

1. Non-compliance with or failure to implement any provision of the approved SWM Site Plan or O&M Agreement.

2. A violation of any provision of this Ordinance or any other applicable law, ordinance, rule, or regulation relating to the Regulated Activity.

3. The creation of any condition or the commission of any act during the Regulated Activity which constitutes or creates a hazard, nuisance, pollution, or endangers the life or property of others.

B. A suspended approval may be reinstated by the Municipality when:

1. The Municipality has inspected and approved the corrections to the violations that caused the suspension.

2. The Municipality is satisfied that the violation has been corrected.

C. An approval that has been revoked by the Municipality cannot be reinstated. The applicant may apply for a new approval under the provisions of this Ordinance.

D. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, the Municipality may provide a limited time period for the owner to correct the violation. In these cases, the Municipality will provide the owner, or the owner's designee, with a written notice of the violation and the time period allowed for the owner to correct the violation. If the owner does not correct the violation within the allowed time period, the Municipality may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

Section 905. Penalties

A. Anyone violating the provisions of this Ordinance shall be guilty of a summary offense, and upon conviction, shall be subject to a fine of not more than $500.00 for each violation, recoverable with costs. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.

B. In addition, the Municipality 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.

Section 906. Appeals

A. Any person aggrieved by any action of the Municipality or its designee, relevant to the provisions of this Ordinance, may appeal to the Municipality within 30 days of that action.

B. Any person aggrieved by any decision of the Municipality, relevant to the provisions of this Ordinance, may appeal to the County Court of Common Pleas in the county where the activity has taken place within 30 days of the Municipality's decision.

ARTICLE X – REFERENCES

1. U.S. Department of Agriculture, National Resources Conservation Service (NRCS). *National Engineering Handbook.* Part 630: Hydrology, 1969-2001. Originally published as the *National Engineering Handbook*, Section 4: Hydrology. Available from the NRCS online at: http://www.nrcs.usda.gov/.

2. U.S. Department of Agriculture, Natural Resources Conservation Service. 1986. *Technical Release 55: Urban Hydrology for Small Watersheds*, 2nd Edition. Washington, D.C.

3. Pennsylvania Department of Environmental Protection. No. 363-0300-002 (December 2006), as amended and updated. *Pennsylvania Stormwater Best Management Practices Manual*. Harrisburg, PA.

4. Pennsylvania Department of Environmental Protection. No. 363-2134-008 (March 31, 2012), as amended and updated. *Erosion and Sediment Pollution Control Program Manual.* Harrisburg, PA.

5. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Hydrometeorological Design Studies Center. 2004-2006. *Precipitation-Frequency Atlas of the United States, Atlas 14*, Volume 2, Version 3.0, Silver Spring, Maryland. Internet address: http://hdsc.nws.noaa.gov/hdsc/pfds/.

New Sewickley Township Stormwater Management Ordinance

Ordinance Number 228

ENACTED and **ORDAINED** at a regular meeting of the

New Sewickley Township Board of Supervisors

on this 6th day of September, 2022.

This Ordinance shall take effect immediately.

(Name)	Supervisor
(Name)	Supervisor
(Name)	Supervisor

ATTEST:

Secretary

* See last page for signature page

APPENDIX A

RESERVED

APPENDIX B

OPERATION AND MAINTENANCE (O&M) AGREEMENT
STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (SWM BMPs)

THIS AGREEMENT, made and entered into this day of_____, 20_____, by and between_____(hereinafter the "Landowner"), and_____,_____County, Pennsylvania (hereinafter "Municipality");

WITNESSETH

WHEREAS, the Landowner is the owner of certain real property situate in _____, _____County, Pennsylvania as recorded by deed in the land records of_____ _____County, Pennsylvania, Deed Book __at page_____, (hereinafter "Property").

WHEREAS, the Landowner is proceeding to build and develop the Property; and

WHEREAS, the SWM BMP Operation and Maintenance (O&M) Plan approved by the Municipality (hereinafter referred to as the "O&M Plan") for the property identified herein, which is attached hereto as Appendix A and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of BMPs; and

WHEREAS, the Municipality, and the Landowner, his successors and assigns, agree that the health, safety, and welfare of the residents of the Municipality and the protection and maintenance of water quality require that on-site SWM BMPs be constructed and maintained on the Property; and

WHEREAS, the Municipality requires, through the implementation of the SWM Site Plan, that SWM BMPs as required by said SWM Site Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Landowner, successors, and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The Landowner shall construct the BMPs in accordance with the plans and specifications identified in the SWM Site Plan.

2. The Landowner shall operate and maintain the BMPs as shown on the SWM Site Plan in good working order in accordance with the specific operation and maintenance requirements noted on the approved O&M Plan.

3. The Landowner hereby grants permission to the Municipality, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper credentials, to inspect the BMPs whenever necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.

4. In the event the Landowner fails to operate and maintain the BMPs per paragraph 2, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to maintain said BMP(s). It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.

5. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Municipality for all expenses (direct and indirect) incurred within 10 days of receipt of invoice from the Municipality.

6. The intent and purpose of this Agreement is to ensure the proper maintenance of the on-site BMPs by the Landowner; provided, however, that this Agreement shall not be deemed to create any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.

7. The Landowner, its executors, administrators, assigns, and other successors in interests, shall release the Municipality from all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMP(s) by the Landowner or Municipality.

8. The Municipality intends to inspect the BMPs at a minimum of once every three years to ensure their continued functioning.

This Agreement shall be recorded at the Office of the Recorder of Deeds of_____County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs, and any other successors in interests, in perpetuity.

ATTEST:

WITNESS the following signatures and seals:

(SEAL)

For the Municipality:

_____

For the Landowner:

_____

ATTEST:

_____(City, Borough, Township)

County of_____, Pennsylvania

I,_____, a Notary Public in and for the county and state aforesaid, whose commission expires on the_____day of_____, 20_____, do hereby certify that_____whose name(s) is/are signed to the foregoing Agreement bearing date of the_____day_____, 20__, has acknowledged the same before me in my said county and state.

GIVEN UNDER MY HAND THIS_____day of_____, 20__.

_____ _____

NOTARY PUBLIC **(SEAL)**

APPENDIX C

SMALL PROJECT STORMWATER MANAGEMENT SITE PLAN GUIDANCE

This small project stormwater site plan has been developed to assist those proposing residential projects to meet the requirements of the Ordinance without having to hire professional services to draft a formal stormwater management plan. This small project site plan is only permitted for projects with an increase of impervious area greater than 1,000 square feet and less than 5,000 square feet (Section 302.B) and using *The Simplified Method* (CG-2 in the BMP Manual[3]) for Volume Control as described in Section 303.B. Additional information can be found in Chapter 6 of the Pennsylvania Stormwater Best Management Practices Manual. Applicants proposing use of this methodology shall complete and submit for review a Small Development Stormwater Management Plan Application, as included herein.

A. What is an applicant required to submit?

All requirements of Section 302.B including a brief description of the proposed stormwater facilities, including types of materials to be used, total square footage of proposed impervious areas, volume calculations, and a simple sketch plan showing the following information:

- Location of proposed structures, driveways, or other paved areas with approximate surface area in square feet.
- Location of any existing or proposed onsite septic system and/or potable water wells showing proximity to infiltration facilities.
- County Conservation District erosion and sediment control "Adequacy" letter as may be required by Municipal, County or State regulations.

B. Determination of Required Volume Control and Sizing Stormwater Facilities

By following the simple steps outlined below in the provided example, an applicant can determine the runoff volume that is required to be controlled and how to choose the appropriate stormwater facility to permanently remove the runoff volume from the site. Impervious area calculations must include all areas on the lot proposed to be covered by roof area or pavement which would prevent rain from naturally percolating into the ground, including impervious surfaces such as sidewalks, driveways, parking areas, patios or swimming pools. Sidewalks, driveways or patios that are designed and constructed to allow for infiltration are not included in this calculation.

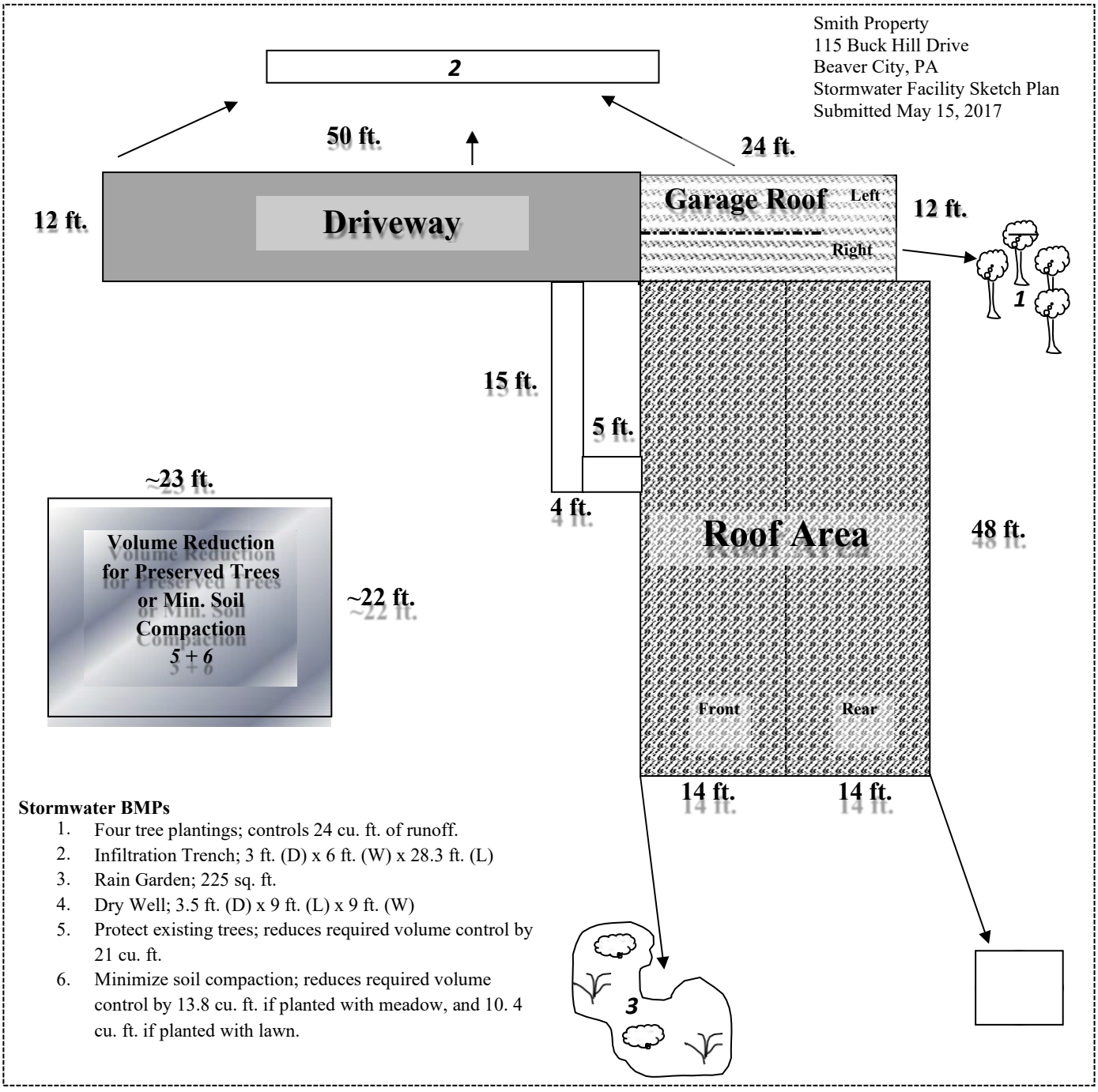
Site Plan Example: Controlling runoff volume from a proposed home site

Step 1: Determine Total Impervious Surfaces

Impervious Surface			Area (sq. ft.)
House Roof (Front)	14 ft. x 48 ft.	=	672 sq. ft.
House Roof (Rear)	14 ft. x 48 ft.	=	672 sq. ft.
Garage Roof (Left)	6ft. x 24 ft.	=	144 sq. ft.
Garage Roof (Right)	6 ft. x 24 ft.	=	144 sq. ft.
Driveway	12 ft. x 50 ft.	=	1000 sq. ft.
Walkway	4 ft. x 20 ft.	=	80 sq. ft.

	Total Imp.		3000 sq. ft.

Figure 1: Sample Site Sketch Plan



Step 2: Determine Required Volume Control (cubic feet) using the following equation:

Volume (cu. ft.) = (Total impervious area in square feet x 2 inches of runoff) /12 inches

(3,000 sq. ft. x 2 inches of runoff) /12 inches = 500 cu. ft.

Example continued:

Step 3: Sizing the Selected Volume Control BMP

Several Best Management Practices (BMPs), as described below, are suitable for small stormwater management projects. However, their application depends on the volume required to be controlled, how much land is available, and the site constraints. Proposed residential development activities can apply both nonstructural and structural BMPs to control the volume of runoff from the site. A number of different volume control BMPs are described below. Note that Figure 1 is an example of how these BMPs can be utilized in conjunction to control the total required volume on one site.

Structural BMPs

1. Infiltration Trench

An Infiltration Trench is a linear stormwater BMP consisting of a continuously perforated pipe at a minimum slope in a stone-filled trench. During small storm events, infiltration trenches can significantly reduce volume and serve in the removal of fine sediments and pollutants. Runoff is stored between the stones and infiltrates through the bottom of the facility and into the soil matrix. Runoff should be pretreated using vegetative buffer strips or swales to limit the amount of coarse sediment entering the trench which can clog and render the trench ineffective. In all cases, an infiltration trench should be designed with a positive overflow.

Design Considerations:

- Although the width and depth can vary, it is recommended that Infiltration Trenches be limited in depth to not more than six (6) feet of stone.
- Trench is wrapped in nonwoven geotextile (top, sides, and bottom).
- Trench needs to be placed on uncompacted soils.
- Slope of the Trench bottom should be level or with a slope no greater than 1%.
- A minimum of 6" of topsoil is placed over trench and vegetated.
- The discharge or overflow from the Infiltration Trench should be properly designed for anticipated flows.
- Cleanouts or inlets should be installed at both ends of the Infiltration Trench and at appropriate intervals to allow access to the perforated pipe.
- Volume of facility = Depth x Width x Length x Void Space of the gravel bed (assume 40%).

Maintenance:

- Catch basins and inlets should be inspected and cleaned at least two times a year.
- The vegetation along the surface of the infiltration trench should be maintained in good condition and any bare spots should be re-vegetated as soon as possible.
- Vehicles should not be parked or driven on the trench and care should be taken to avoid soil compaction by lawn mowers.

Figure 2: Infiltration Trench Diagram

Source: PA BMP Guidance Manual, Chapter 6, page 42.

Figure 3: Example of Infiltration Trench Installation

Source: PA BMP Guidance Manual, Chapter 6, Page 46.

Sizing Example for Infiltration Trench

1. Determine Total Impervious Surface to drain to Infiltration Trench:

Garage Roof (Left)	6 ft. x 24 ft.	=	144 sq. ft.
Driveway	12 ft. x 50 ft.	=	1000 sq. ft.
Walkway	4 ft. x 20 ft.	=	80 sq. ft.

2. Determine the required infiltration volume:
   (1224 sq. ft. x 2 inches of runoff)/12 ft. = 204 cu. ft. / 0.4* = 510 cu. ft.
   (*0.4 assumes 40% void ratio in gravel bed)

3. Sizing the infiltration trench facility:
   Volume of Facility = Depth x Width x Length

   Set Depth to 3 feet and determine required surface area of trench.

   510 cu. ft. / 3 ft. = 170 sq. ft.

   The width of the trench should be greater than 2 times its depth (2 x D), therefore in this example the trench width of 6 feet selected.

Determine trench length: L = 170 sq. ft. / 6 ft. = 28.3 ft.

Final infiltration trench dimensions: 3 ft. (D) x 6 ft. (W) x 28.3 ft. (L)

2. Rain Garden

A Rain Garden is a planted shallow depression designed to catch and filter rainfall runoff. The garden captures rain from a downspout or a paved surface. The water sinks into the ground, aided by deep rooted plants that like both wet and dry conditions. The ideal location for a rain garden is between the source of runoff (roofs and driveways) and the runoff destination (drains, stream, low spots, etc.).

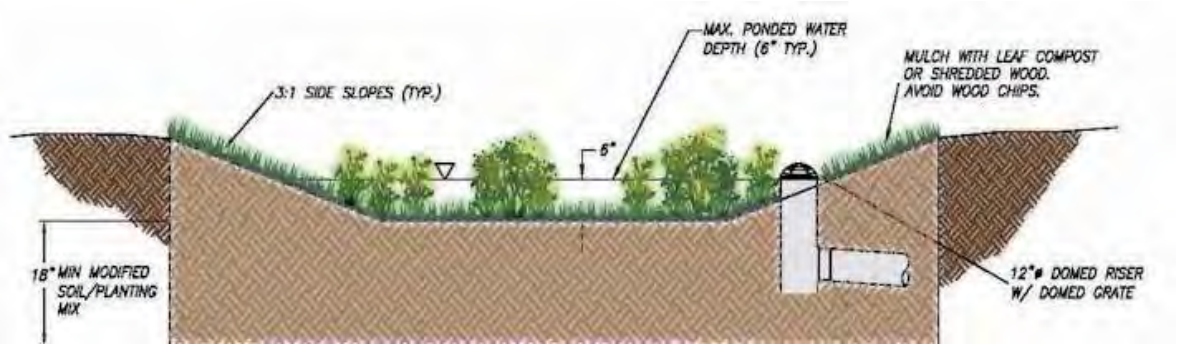
Design Considerations:

- A maximum of 3:1 side slope is recommended.
- The depth of a rain garden can range from 6 - 8 inches. Ponded water should not exceed 6 inches.
- The rain garden should drain within 72 hours.
- The garden should be at least 10-20 feet from a building's foundation and 25 feet from septic system drainfields and wellheads.
- If the site has clay soils, soil should be amended with compost or organic material.
- Choose native plants. See http://pa.audubon.org/habitat/PDFs/RGBrochure_complete.pdf for a native plant list. To find native plant sources go to www.pawildflower.org.
- At the rain garden location, the water table should be at least 2' below the soil level. If water stands in an area for more than one day after a heavy rain you can assume it has a higher water table and is not a good choice for a rain garden.

Maintenance:

- Water plants regularly until they become established.
- Inspect twice a year for sediment buildup, erosion and vegetative conditions.
- Mulch with hardwood when erosion is evident and replenish annually.
- Prune and remove dead vegetation in the spring season.
- Weed as you would any garden.
- Move plants around if some plants would grow better in the drier or wetter parts of the garden.

Figure 4: Rain Garden Diagram



Source: PA BMP Guidance Manual, Chapter 6 Page 50

Sizing Example for Rain Garden

1. Pick a site for the rain garden between the source of runoff and a low lying area, a.k.a., a drainage area.

2. Perform an infiltration test to determine the depth of the rain garden:
   - Dig a hole 8″ x 8″
   - Fill with water and put a popsicle stick at the top of the water level.
   - Measure how far it drains down after a few hours (ideally 4 hours).
   - Calculate the depth of water that will drain out over 24 hours.

3. Determine total impervious surface area to drain to rain garden:

House Roof (Front)	14 ft. x 48 ft.	=	672 sq. ft.

4. Sizing the rain garden:
   For this example, let's say the infiltration test determined 6″ of water drained out of a hole in 24 hours. The depth of the rain garden should be set to the results of the infiltration test so 6″ is the depth of the rain garden. The sizing calculation below is based on controlling 1″ of runoff. First divide the impervious surface by the depth of the rain garden.

   672 sq. ft. / 6 (depth of rain garden in inches) = 112 sq. ft.

   In order to control 2″ of runoff volume, the rain garden area is multiplied by 2.

   112 sq. ft. * 2 = 224 sq. ft.

   The rain garden should be about 225 sq. ft. in size and 6″ deep.

3. Dry Well (a.k.a., Seepage Pit)

A Dry Well, sometimes called a Seepage Pit, is a subsurface storage facility that temporarily stores and infiltrates stormwater runoff from the roofs of structures. By capturing runoff at the source, Dry Wells can dramatically reduce the increased volume of stormwater generated by the roofs of structures. Roof leaders connect directly into the Dry Well, which may be either an excavated pit filled with uniformly graded aggregate wrapped in geotextile, or a prefabricated storage chamber or pipe segment. Dry Wells discharge the stored runoff via infiltration into the surrounding soils. In the event that the Dry Well is overwhelmed in an intense storm event, an overflow mechanism (surcharge pipe, connection to a larger infiltration are, etc.) will ensure that additional runoff is safely conveyed downstream.

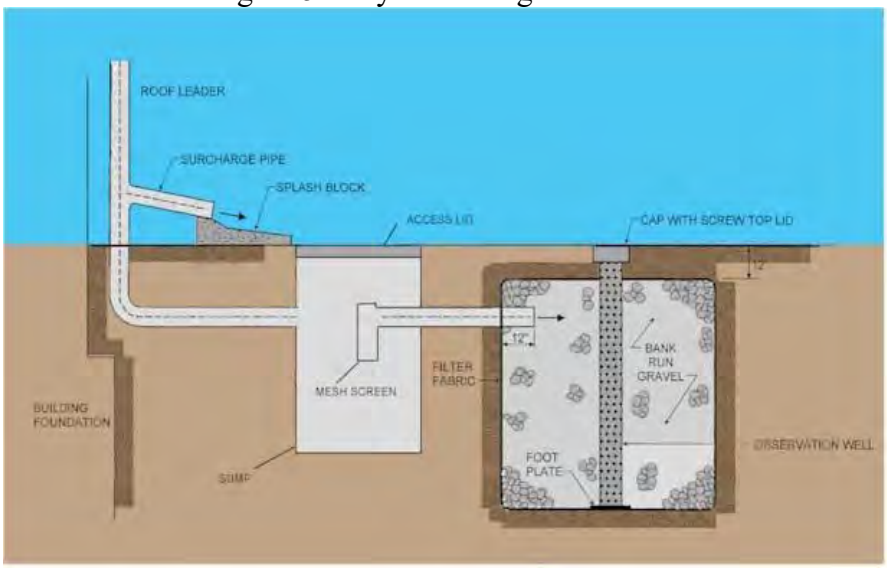
Design Considerations:

- Dry Wells typically consist of 18 to 48 inches of clean washed, uniformly graded aggregate with 40% void capacity (AASHTO No. 3, or similar). "Clean" gravel fill should average one and one-half to three (1.5 – 3.0) inches in diameter.
- Dry Wells are not recommended when their installation would create a significant risk for basement seepage or flooding. In general, 10 - 20 feet of separation is recommended between Dry Wells and building foundations.
- The facility may be either a structural prefabricated chamber or an excavated pit filled with aggregate.
- Depth of dry wells in excess of three-and-a-half (3.5) feet should be avoided unless warranted by soil conditions.
- Stormwater dry wells must never be combined with existing, rehabilitated, or new septic system seepage pits. Discharge of sewage to stormwater dry wells is strictly prohibited.
- As shown in Figure 5, the installation should include a surcharge or overflow pipe.

Maintenance:

- Dry wells should be inspected at least four (4) times annually as well as after large storm events.
- Remove sediment, debris/trash, and any other waste material from a dry well.
- Regularly clean out gutters and ensure proper connections to the dry well.
- Replace the filter screen that intercepts the roof runoff as necessary.

Figure 5: Dry Well Diagram



Source: PA BMP Guidance Manual, Chapter 6, Page 65.

Sizing Example for Dry Wells:

1. Determine contributing impervious surface area:

House Roof (Rear)	14 ft. x 48 ft.	=	672 sq. ft.

2. Determine required volume control:

   (672 sq. ft. x (2 inches of runoff / 12 inches/ft.) = 112 cu. ft.

   112 cu ft. / 0.4 = 280 cu. ft. (assuming the 40% void ratio in the gravel bed)

3. Sizing the dry well:

   Set the depth to 3.5 ft.; Set the width equal to the length for a square chamber.

   3.5 ft. x L x L = 280 cu. ft.; LxL = 280 cu. ft. / 3.5 ft.; thus LxL= 80 sq. ft.; L=9 (approx)

   Dimensions = 3.5 ft. (D) x 9 ft. (L) x 9 ft. (W)

NonStructural BMPs

1. Tree Plantings and Preservation

Trees and forests reduce stormwater runoff by capturing and storing rainfall in the canopy and releasing water into the atmosphere through evapotranspiration. Tree roots and leaf litter also create soil conditions that promote the infiltration of rainwater into the soil. In addition, trees and forests reduce pollutants by taking up nutrients and other pollutants from soils and water through their root systems. A development site can reduce runoff volume by planting new trees or by preserving trees which existed on the site prior to development. The volume reduction calculations either determine the cubic feet to be directed to the area under the tree canopy for infiltration or determine a volume reduction credit which can be used to reduce the size of any one of the planned structural BMPs on the site.

Tree Considerations**:**

- Existing trees must have at least a 4″ trunk caliper or larger.
- Existing tree canopy must be within 100 ft. of impervious surfaces.
- A tree canopy is classified as the continuous cover of branches and foliage formed by a single tree or collectively by the crowns of adjacent trees.
- New tree plantings must be at least 6 ft. in height and have a 2″ trunk caliper.
- All existing and newly planted trees must be native to Pennsylvania. See http://www.dcnr.state.pa.us/forestry/commontr/commontrees.pdf for a guide book titled *Common Trees of Pennsylvania* for a native tree list.
- When using trees as volume control BMPs, runoff from impervious areas should be directed to drain under the tree canopy.

Determining the required number of planted trees to reduce the runoff volume:

1. Determine contributing impervious surface area:

Garage Roof (Right)	6 ft. x 24 ft.	=	144 ft.

2. Calculate the required control volume:
   (144 sq. ft. x 2 inches of runoff) / 12 inches = 24 cu. ft.

3. Determine the number of tree plantings:

   - A newly planted deciduous tree can reduce runoff volume by 6 cu. ft.
   - A newly planted evergreen tree can reduce runoff volume by 10 cu. ft.

   24 cu. ft. / 6 cu. ft. = 4 Deciduous Trees

Determining the volume reduction for preserving existing trees:

1. Calculate approximate area of the existing tree canopy:

   ~22 sq. ft. x ~23 sq. ft. = 500 sq. ft.

2. Measure distance from impervious surface to tree canopy: 35 ft.

3. Calculate the volume reduction credit by preserving existing trees:

    - For Trees within 20 feet of impervious cover:
      Volume Reduction cu. ft. = (Existing Tree Canopy sq. ft. x 1 inch) / 12
    - For Trees beyond 20 feet but not farther than 100 feet from impervious cover:
      Volume Reduction cu. ft. = (Existing Tree Canopy sq. ft. x 0.5 inch) / 12

    (500 sq. ft. x 0.5 inches) / 12 = 21 cu. ft.

    This volume credit can be utilized in reducing the size of any one of the structural BMPs planned on the site. For example, the 21 cu. ft. could be subtracted from the required infiltration volume when sizing the infiltration trench;

    510 cu. ft. – 21 cu. ft. = 489 cu. ft.

    489 cu. ft. / 3 ft. (Depth) = 163 / 6 ft. (Width) = 27.1 ft. (Length)

    Using the existing trees for a volume credit would decrease the length of the infiltration trench to 27.1 ft. instead of 28.3 ft.

2. Minimize Soil Compaction and Replant with Lawn or Meadow

When soil is overly compacted during construction it can cause a drastic reduction in the permeability of the soil and rarely is the soil profile completely restored. Runoff from vegetative areas with highly compacted soils similarly resembles runoff from an impervious surface. Minimizing soil compaction and re-planting with a vegetative cover like meadow or lawn, not only increases the infiltration on the site, but also creates a friendly habitat for a variety of wildlife species.

Design Considerations:

- Area shall not be stripped of topsoil.
- Vehicle movement, storage, or equipment/material lay down shall not be permitted in areas preserved for minimum soil compaction.
- The use of soil amendments and additional topsoil is permitted.
- Meadow should be planted with native grasses. Refer to *Meadows and Prairies: Wildlife-Friendly Alternatives to Lawn* at http://pubs.cas.psu.edu/FreePubs/pdfs/UH128.pdf for reference on how to properly plant the meadow and for a list of native species.

Determining the volume reduction by minimizing soil compaction and planting a meadow:

1. Calculate approximate area of preserved meadow:
   ~22 sq. ft. x ~23 sq. ft. = 500 sq. ft.

2. Calculate the volume reduction credit by minimizing the soil compaction and planting a lawn/meadow:

    - For Meadow Areas: Volume Reduction (cu. ft.) = (Area of Min. Soil Compaction (sq. ft.) x 1/3 inch of runoff) / 12

      (500 sq. ft. x 1/3 inch of runoff) / 12 = 13.8 cu. ft.

    - For Lawn Areas: Volume Reduction (cu. ft.) = (Area of Min. Soil Compaction (sq. ft.) x 1/4 inch of runoff) / 12

      (500 sq. ft. x 1/4 inch of runoff) / 12 = 10.4 cu. ft.

This volume credit can be used to reduce the size of any one of the structural BMPs on the site. See explanation under the volume credit for preserving existing trees for details.

Alternative BMP to Capture and Reuse Stormwater

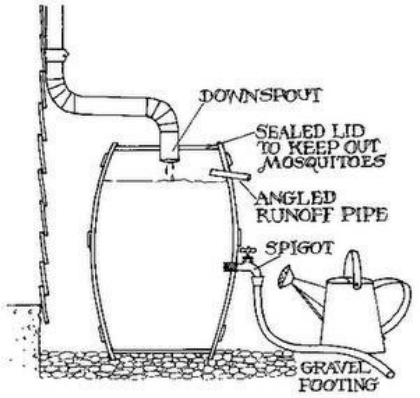
Rain Barrels

Rain barrels are large containers that collect drainage from roof leaders and temporarily store water to be released to lawns, gardens, and other landscaped areas after the rainfall has ended. Rain barrels are typically between 50 and 200 gallons in size. It is not recommended for rain barrels to be used as a volume control BMP because infiltration is not guaranteed after each storm event. For this reason, a rain barrel is not utilized in the site plan example. However, the information is included to provide an alternative for a homeowner to utilize when considering capture and reuse stormwater methods.

Design Considerations:

- Rain barrels should be directly connected to the roof gutter/spout.
- There must be a means to release the water stored between storm events to provide the necessary storage volume for the next storm.
- When calculating rain barrel size, rain barrels are typically assumed to be 25% full because they are not always emptied before the next storm.
- Use screens to filter debris and cover lids to prevent mosquitoes.
- An overflow outlet should be placed a few inches below the top with an overflow pipe to divert flow away from structures.
- It is possible to use a number of rain barrels jointly for an area.

Figure 6: Rain Barrel Diagram and Examples



Sources: (top picture) http://www.citywindsor.ca/DisplayAttach.asp?AttachID=12348
(bottom picture on left) http://repurposinglife.blogspot.com/2009/05/rainwater-harvesting.html
(bottom picture on right) http://www.floridata.com/tracks/transplantedgardener/Rainbarrels.cfm

Sizing Example for a Rain Barrel

1. Determine contributing impervious surface area:

Garage Roof (Right)	6 ft. x 24 ft.	=	144 sq. ft.

2. Determine the amount of rainfall to be captured by the Rain Barrel. A smaller storm, no more than 2″, is recommended to calculate the runoff to be captured. This example chose the 1″ storm event.

3. Calculate the volume to be captured and reused:
(144 sq. ft. x 1 inch of runoff) / 12 inches = 12 cu. ft.

4. Size the rain barrel:

   1 cu. ft. = 7. 48 gallons

   12 cu. ft. x 7.48 = 90 gallons

   90 gallons x (0.25*) = 22.5 gallons (*assuming that the rain barrel is always at least 25% full)

   90 gallons + 22.5 gallons = 112 gallons
   The rain barrel or barrels should be large enough to hold at least 112 gallons of water.

REFERENCES:

Center for Watershed Protection and US Forest Service. (2008). *Watershed Forestry Resource Guide*.
Retrieved on May 26, 2010 from http://www.forestsforwatersheds.org/reduce-stormwater/.

DeBarry, Paul A., *Watersheds: Processes, Assessment and Management.* John Wiley &

Sons. NY, NY, 2004 Department of Environmental Protection. (2006). *Pennsylvania*

Stormwater Best Management Practices
Manual.

Wissahickon Watershed Partnership. *Pennsylvania Rain Garden Guide*. Retrieved on May 4, 2010 from http://pa.audubon.org/habitat/PDFs/RGBrochure_complete.pdf.

Building a Backyard Rain Garden. North Carolina Cooperative Extension. Retrieved on May 4, 2010 from http://www.bae.ncsu.edu/topic/raingarden/Building.htm

Delaware County Planning Commission. (2010). *Draft Crum Creek Watershed Act 167 Stormwater Management Plan. Ordinance Appendix B. Simplified Approach to Stormwater Management for Small Projects.*

Solebury Township. (2008). *Solebury Township Stormwater Management Ordinance. "Appendix J Simplified Stormwater Management Procedures for Existing Single Family Dwelling Lots*"

SMALL DEVELOPMENT STORMWATER MANAGEMENT PLAN APPLICATION

Small Project Stormwater Management Submission

Calculation of Impervious Area

In accordance with the Municipal Stormwater Management Ordinance, small developments are eligible for submission of a simplified stormwater management plan. Small developments propose an increase of impervious area of greater than 1,000 square feet but less than 5,000 square feet of impervious area. The calculations of proposed impervious area reported herein shall cumulatively include all new impervious area constructed within the last five years. An impervious surface is a surface that prevents the infiltration of water into the ground. Impervious surfaces (or areas) shall include, but not be limited to: roofs, additional indoor living spaces, patios, garages, storage sheds, porches, decks and similar structures, and any new driveways or sidewalks.

Table 1: Calculation of Impervious Surfaces

Surface Type		Length (ft)	X	Width (ft)	=	Proposed Impervious Area (sq ft)
Building	Home		x		=	
	Addition		x		=	
	Garage		x		=	
	Porch/deck		x		=	
			x		=	
Driveway			x		=	
			x		=	
			x		=	
Parking Areas			x		=	
			x		=	
			x		=	
Patios and Sidewalks			x		=	
			x		=	
			x		=	
			x		=	
			x		=	
Other			x		=	
			x		=	
			x		=	
Total Impervious Surface Area to Managed						

If the Total Impervious Surface Area is less than 5,000 Square Feet, complete the remainder of the Application.

If the Total Impervious Surface Area EXCEEDS 5,000 Square Feet, a complete stormwater management plan, prepared by a registered professional engineer must be submitted.

Small Project SWM Plan Worksheet

Based upon the information you have provided a ***Stormwater Plan IS Required*** for this development activity and the project is eligible for review as a small development. The Municipal Stormwater Management Ordinance allows for submission of a simplified stormwater management plan for small developments.

Regulated activities shall be conducted only after the Municipality approves a stormwater management plan. The Stormwater Management Ordinance will assist you in preparing the necessary information and plans for the Municipality to review and approve**. This document will constitute an approved plan if all of the relevant details are to be installed in their entirety AND no part of the stormwater system adversely affects any other property, nor adversely affects any septic systems or drinking water wells on this, or any other, parcel.** If an alternative system is to be used a plan will need to be submitted to the Municipality for approval. A design by a qualified professional may be required for more complex sites.

PLEASE INITIAL BELOW TO INDICATE THE STORMWATER MANAGEMENT PLAN FOR THIS SITE

☐ The relevant details from Municipal Stormwater Management Ordinance will be installed in their entirety AND the system will be located as not to adversely affect other property, nor any septic systems or drinking water wells on this, or any other, parcel. The BMP or BMPs proposed be implemented are as follows:

Table 2: Runoff Volume Calculation						
Impervious Surface (sq ft) – From Table 1	**X**	**Runoff Depth (in)**	**÷**	**12 in/ft**	**=**	**Total Runoff Volume to be Managed (cu ft)**
	x	**2**	**÷**	**12**	**=**	

Table 3: Structural BMPs									
BMP Type	**Length (ft)**	**X**	**Width (ft)**	**X**	**Depth (ft)**	**X**	**Void Space**	**=**	**Volume Managed (cu ft)**
Infiltration Trench		**x**		**x**		**x**	**0.40**	**=**	
Rain Garden		**x**		**x**	**0.5**	**x**	**1.0**	**=**	
Dry Well		**x**		**x**		**x**	**0.40**	**=**	
Total Volume Managed – Structural BMPs									

Table 4: Non-Structural BMP - New Tree Planting					
Tree Type	**Number of Trees**	**X**	**Volume Credit (cu ft)**	**=**	**Volume Managed (cu ft)**
Deciduous Tree		**x**	**4**	**=**	
Evergreen Tree		**x**	**6**	**=**	
Total Volume Managed- Tree Planting					

Table 5: Non-Structural BMP - Preservation of Trees						
Distance from Impervious Area	**Tree Canopy Area (sf)**	**X**	**Rainfall Depth Managed (in)**	**/ 12 in/ft**	**=**	**Volume Managed (cu ft)**
Within 20 Feet		**x**	**1**	**/ 12**	**=**	
Within 20 Feet		**x**	**1**	**/ 12**	**=**	
Within 20 Feet		**x**	**1**	**/ 12**	**=**	
Within 20 Feet		**x**	**1**	**/ 12**	**=**	
Within 20 Feet		**x**	**1**	**/ 12**	**=**	
Within 100 Feet		**x**	**0.5**	**/ 12**	**=**	
Within 100 Feet		**x**	**0.5**	**/ 12**	**=**	
Within 100 Feet		**x**	**0.5**	**/ 12**	**=**	
Within 100 Feet		**x**	**0.5**	**/ 12**	**=**	
Within 100 Feet		**x**	**0.5**	**/ 12**	**=**	
Total Volume Managed- Tree Preservation						

Table 6: Non-Structural BMP - Minimize Soil Compaction and Planting						
Planting Type	**Surface Area (sf)**	**X**	**Rainfall Depth Managed (in)**	**/ 12 in/ft**	**=**	**Volume Managed (cu ft)**
Lawn		**x**	**0.25**	**/ 12**	**=**	
Meadow		**x**	**0.33**	**/ 12**	**=**	
Total Volume Managed- Minimize Compaction						

Table 7: Summation of Runoff Volume Managed	
BMP Type	**Managed Volume**
Structural BMPs (Table 3)	
Tree Planting (Table 4)	
Tree Preservation (Table 5)	
Minimize Soil Compaction/Planting (Table 6)	
Total Volume Managed (cu ft) - Must be Greater than that Calculated in Table 2	

☐ In lieu of providing the above, an alternative and/or professional design is attached for approval AND the system will be located as not to adversely affect other property, any septic systems or drinking water wells on this, or any other, parcel.

☐ **Site Sketch Plan showing:**

- Property Lines with dimensions
- Proposed buildings with dimensions
- Proposed impervious surfaces with dimensions
- Proposed sanitary sewer lateral or septic system, as applicable
- Proposed water service or well site, as applicable
- Proposed stormwater management system(s)
- Erosion and Sedimentation Controls to be installed and maintained during construction

☐ **Operations and Maintenance Agreement**

- Execute and record a Stormwater Maintenance and Agreement

☐ **Application Review Fee**

- The application review fee has been made to the Municipality. The review fee shall be as listed in the current Municipal Fee Schedule.

Condition of approval - The stormwater management plan must be fully implemented prior to a request for final inspection of the building or zoning permit.

Acknowledgement – By executing below, the Owner acknowledges the following:

- I declare I am the owner of the property.
- The information provided is accurate.
- I further acknowledge that municipal representatives are granted access to the above described property for review and inspection as may be required.

Owner _____ **Date**_____

APPENDIX D

Gravel Driveway Worksheet

Runoff Curve Number	
Gravel	89
Impervious	98

Rainfall (in)	2

Area (square feet)	Area (acres)	Gravel			Pavement			Mitigation (cubic feet)	Existing Formulas (Cubic Feet)	
		S	Q (inches)	Q (cubic feet)	S	Q (inches)	Q (cubic feet)		Bioretention Area	Rock Sump
1000	0.0230	1.236	1.028	86	0.204	1.774	148	62	124	155
1500	0.0344	1.236	1.028	128	0.204	1.774	222	93	187	233
2000	0.0459	1.236	1.028	171	0.204	1.774	296	124	249	311
2500	0.0574	1.236	1.028	214	0.204	1.774	370	155	311	389
3000	0.0689	1.236	1.028	257	0.204	1.774	444	187	373	466
3500	0.0803	1.236	1.028	300	0.204	1.774	518	218	435	544
4000	0.0918	1.236	1.028	343	0.204	1.774	591	249	498	622
4500	0.1033	1.236	1.028	385	0.204	1.774	665	280	560	700
5000	0.1148	1.236	1.028	428	0.204	1.774	739	311	622	777

1. RUNOFF (in) =

$Q = (P-0.2S)^2/(P+0.8S)$

P = 2 YEAR RAINFALL (IN)

S = (1000/CN)-10

2. RUNOFF VOLUME (CF) =

Q x AREA x 1/12

Q= RUNOFF

AREA = LAND USE AREA (SQ FT)

New Sewickley Township Stormwater Management Ordinance

Ordinance Number 228

ENACTED and **ORDAINED** at a regular meeting of the

New Sewickley Township Board of Supervisors

on this 6th day of September, 2022.

This Ordinance shall take effect immediately.

Greg Happ
(Name)

Supervisor

Martin Bonzo
(Name)

Supervisor

Douglas Martin
(Name)

Supervisor

ATTEST:

Secretary