## CARMINAWOOD DESIGN

## STORMWATER POLLUTION PREVENTION PLAN

for CONSTRUCTION ACTIVITIES

Αt

#### **Holland Heights**

Single Family Subdivision 1789 Dodge Road Town of Amherst, Erie County, New York

Prepared for

Joseph Rubino

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Prepared by

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#### 101 SCOPE

A. PURPOSE: Joseph Rubino (JR) has placed an emphasis on following the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity governing storm water discharges during construction, and in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, monetary set-offs, withholding payments; reimbursement for costs, expenses (including reasonable attorney's fees), fines and civil penalties incurred by JR; and/or liquidated damages. This section provides a descriptive explanation of JR's Storm Water Pollution Prevention Program and required Contractor participation.

The Engineer of record for this project certifies that this SWPPP meets the requirements and is in compliance with the New York State Stormwater Management Design Manual and latest NYSDEC Phase II stormwater regulation requirements.

B. SPDES General Permit for Stormwater Discharges from Construction Activity: Regulations promulgated by the NYSDEC to regulate the discharge of storm water from construction activities on sites where more than one (1) acre of soil is disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities for New York State. In order to use the General Permit, a Notice of Intent (NOI) form must be completed and submitted to the NYSDEC and a Storm Water Pollution Prevention Plan (SWPPP) for the site must be prepared and followed during the construction activities.

#### Approval from a regulated, traditional land use control MS4:

- An owner or operator of a construction activity that is <u>not</u> subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the NYSDEC.
- 2. An **owner or operator** of a construction activity that is subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the MS4 prior to submitting the NOI to the NYSDEC. The **owner or operator** shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the regulated, traditional land use control MS4, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".
- C. **RESPONSIBILITIES OF THE CONTRACTOR:** The Contractor shall manage the discharge of storm water from the site in accordance with the NYSDEC General Permit for Construction Activities conditions and the following provisions of this section. The Operator shall be responsible for conducting the storm water management practices in accordance with the permit. The Contractor shall be responsible for providing **qualified inspectors** to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken

or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

- D. **NOTICE OF INTENT:** The Operator has petitioned the NYSDEC for coverage under the storm water discharges during construction at this site to be covered by the SPDES General Permit for Construction Activity for the State of New York. A Notice of Intent (NOI) for coverage under this permit has been filed by the Operator. The SWPPP must be prepared prior to submittal of the NOI form. The Operator will require the Contractor to be a co-permittee with the Operator. The Contractor will be required to maintain the NOI at the construction site along with any building permits. Construction work can begin 5 business days after the submittal of the eNOI. The MS4 SWPPP Acceptance Form must also be submitted along with the SWPPP.
- E. **CONTRACTOR CERTIFICATION & TRAINING:** Proof of Training/Certification of the Contractor's designated individual shall be kept on site at all times.
- F. REQUIREMENTS FOR THE GENERAL CONTRACTOR AND SUBCONTRACTOR(S): The General Contractor and Subcontractor(s) shall sign the "Contractor's Certification Statement" (located in the Appendix of this report) verifying they have been instructed on how to comply with and fully understand the requirements of the SPDES General Permit for Construction Activity for the State of New York and the SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the "Signatory Requirements" of the SPDES General Permit, on behalf of each entity, prior to the beginning of any construction activities.
- G. STORM WATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS: The SWPPP is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the Operator's personnel or NYSDEC or any other agency with regulatory authority over storm water issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. A sign or other notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements.

#### H. INSPECTIONS AND RECORD-KEEPING:

#### A. General Construction Site Inspection and Maintenance Requirements

- The owner or operator must ensure that all erosion and sediment control
  practices and all post-construction stormwater management practices
  identified in the SWPPP are maintained in effective operating condition at all
  times.
- 2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

#### B. Owner or operator Maintenance Inspection Requirements

- 1. The **owner or operator** shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.
- 2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the **owner or operator** can stop conducting the maintenance inspections. The **owner or operator** shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of the General Permit as soon as soil disturbance activities resume.
- 3. For construction sites where soil disturbance activities have been shut down with partial project completion, the **owner or operator** can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

#### C. Qualified inspector Inspection Requirements

The **owner or operator** shall have a **qualified inspector** conduct site inspections in conformance with the following requirements:

Note: The **trained contractor** identified in Part III.A.6 of the General Permit **cannot** conduct the **qualified inspector** site inspections unless they meet the **qualified inspector** qualifications included in Appendix A of the General Permit. In order to perform these inspections, the trained contractor would have to be a:

Licensed Professional Engineer,

- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.
- 1. A qualified inspector shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B of the General Permit, with the exception of:
  - a. The construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C of the General Permit and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;
  - b. The construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;
  - c. Construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
  - d. Construction activities located in the watersheds identified in Appendix D of the General Permit that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.
- 2. Unless otherwise notified by the Department, the **qualified inspector** shall conduct site inspections in accordance with the following timetable:
  - a. For construction sites where soil disturbance activities are on-going, the **qualified inspector** shall conduct a site inspection at least once every seven (7) calendar days.
  - b. For construction sites where soil disturbance activities are on-going and the owner or operator has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - c. For construction sites where soil disturbance activities have been **temporarily** suspended (e.g. winter shutdown) and temporary stabilization measures

have been applied to all disturbed areas, the qualified inspector shall conduct a site inspection at least once every thirty (30) calendar days. The owner or operator shall notify the Regional Office stormwater contact person (see contact information in Appendix F of the General Permit) or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the owner or operator of the construction activity) in writing prior to reducing the frequency of inspections.

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the qualified inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The owner or operator shall notify the Regional Office stormwater contact person or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the **owner or operator** of the construction activity) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the owner or operator shall have the qualified inspector perform a final inspection and certify that all disturbed areas have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The NOT shall then be signed by the MS4 and the owner or operator shall then submit the completed NOT form to the address in Part II.A.1 of the General Permit.
- 3. At a minimum, the **qualified inspector** shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.
- 4. The **qualified inspector** shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:
  - a. Date and time of inspection;
  - b. Name and title of person(s) performing inspection;
  - c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

- d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices that need repair or maintenance;
- g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;
- Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
- k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The qualified inspector shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
- 5. Within one business day of the completion of an inspection, the **qualified inspector** shall notify the **owner or operator** and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the **qualified inspector**. Pursuant to Part II.C.2 of the General Permit, the inspection reports shall be maintained on site with the SWPPP. Copies of the inspection reports shall also be provided to the MS4 electronically.

<u>Record Retention</u> - The owner or operator shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves final stabilization. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

- I. SWPPP MODIFICATIONS: The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants or when the plan proves to be ineffective in eliminating or significantly minimizing pollutant discharges. The Contractor's failure to modify or report deficiencies to the Operator will result in the Contractor being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.
- J. FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE: A site can be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover with a density of 85% for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the facility no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form filed by the Operator(s) with the NYSDEC. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI, and the qualified inspector, and must be submitted to the MS4 for signature. The MS4 may require a final inspection before signing the NOI.. The owner must subsequently submit to DEC once the MS4 has signed NOI. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the SWPPP, which will then be optically scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. The owner or operator shall also have the qualified inspector perform a final site inspection prior to submitting the NOT to the Department. Additionally, following final stabilization, a Level 1 inspection for stormwater management practices shall be performed and signed off by a Professional Engineer. This report shall be submitted to the Town of Amherst's stormwater management officer along with the NOT form Final payment and/or the release of retainage may be withheld until all provisions of the SWPPP have been submitted, completed and accepted by the Operator. The Town of Amherst shall also be digitally provided as-builts of the storm sewers and stormwater management practices.

#### 102 PROJECT NAME AND LOCATION

Dodge Road Single Family Subdivision

Dodge Road

Town of Amherst, County of Erie, New York

Easting: -78.7281

Northing: 43.0301

Estimated Area of Site ≈ 6.7 acres

Estimated Area to be disturbed by Construction Activities ≈ 5.6 acres

A general location map is included as Appendix A.

#### 103 OPERATOR'S NAME AND ADDRESS

Joseph Rubino

5500 Main Street, Suite 343

Williamsville, New York

Contact Person:

Telephone: 716-510-4338

#### 104 PROJECT DESCRIPTION

This project is a development of a 6.71 acre site located on the east side of Dodge Road in the Town of Amherst for a single family subdivision. Construction will consist of a proposed public roadway, public storm sewer, sanitary sewer and water mains, lighting and landscaping improvements. Seventeen (17) lots are proposed for the roadway extension, fourteen (14) of which will be building lots. One lot will be used for stormwater management areas and two lots will be permeant open space areas. Currently the site consists of a single-family house, but the majority of the site is undeveloped woodlands, wetlands and open grass areas. Approximately 0.12 acres of the site are designated as Federal wetlands. The proposed site development area to be disturbed for this project is approximately 5.61 acres when construction is completed.

Soil disturbing activities will include:

- A. Construction of temporary construction exit point
- B. Clearing & grubbing of the site within disturbance limits
- C. Installation of the detention basin, bioretention area including topsoil & seed
- D. Installation of storm sewer pipes and inlets

- E. Construction of utilities
- F. Construction of curbing and pavement
- G. Final grading & landscaping
- H. Construction of buildings

The site is owned by Joeseph Rubino and will be developed by Joseph Rubino. The work area consists of approximately 5.6 acres for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plans. See the construction documents for additional details.

#### 105 RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION

The soils on the portion of the site in the project area consists of 100% "D" type soils per the Web Soil survey. The initial composite runoff curve number for the pre-construction site is "CN" = 79 (Wood/grass). The post-construction runoff curve number for the site will be "CN" = 87 (1/4 acre lots, 38% imp Use). The site is 6.7 acres of which approximately 5.6 acres will be disturbed by construction activities.

See soils information located in Appendix H.

The site is in Erie County, which receives an average of approximately 45 inches rainfall annually with the highest amounts of rainfall received in the months of May thru September. Annual snow for this area is approximately 120 inches.

#### 106 WATERS

The runoff generated from the site will drain east via a storm sewer system, discharge into a bioretention basin, which outfall into a dry pond, which has a controlled discharge to a manmade drainage ditch, which then outfalls into the existing adjacent wetlands.

#### 107 INDIAN COUNTRY LANDS

This project is not located on Indian Lands.

#### 108 ENDANGERED AND THREATENED SPECIES

No endangered or threatened species have been determined to be on the site.

#### 109 CRITICAL HABITAT

See section 108 above.

#### 110 HISTORIC PLACES

The assessed property and proposed activity is not in an area of identifiable archaeological sensitivity and no known registered, eligible or inventoried archaeological sites of historic were identified.

#### 111 WETLANDS AND/OR OTHER SURFACE WATERS

0.054 NYSDEC wetlands were delineated on site by Earth Dimensions Inc. The majority of these wetlands are east of the development area and only 0.08 acres of wetland buffer area will be disturbed. The Wetland Delineation Report is included in the Appendix of this report.

#### 112 EROSION AND SEDIMENT CONTROLS

#### 112.1 STABILIZATION PRACTICES

Stabilization practices for this site include:

- A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
- B. Use of stabilization method for all slopes having a slope greater than 1V:3H.
- C. Seeding and planting of all disturbed areas
- D. Vegetation preservation in undisturbed areas.
- E. Frequent watering to minimize wind erosion during construction.
  - a. For sites where 5 acres or more are disturbed at any one time: In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the New York Standards and Specifications for Erosion and Sediment Control.
  - b. The **owner or operator** shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
  - c. The **owner or operator** shall install any additional measures needed to protect water quality.

#### 112.2 STRUCTURAL PRACTICES

- A. Inlet protection using a method detailed in the Construction Documents.
- B. Perimeter protection using temporary silt fence/silt sock or silt sock.
- C. Outlet protection using rip-rap stone and end sections.
- D. Stabilized Construction Entrance.
- E. Temporary stone wash off areas.

- F. Storm sewer, curb/gutter.
- G. Sediment traps and basins.

#### 112.3 SEQUENCE OF MAJOR ACTIVITIES

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

Construct temporary construction exit at locations shown on the Demolition & Erosion Control Plans.

- B. Install perimeter silt fence/silt socks in the locations shown on the Demolition & Erosion Control Plan Sheet.
- C. Clear & Grub site.
- D. Installation of detention basin to act as sediment basin (do not install bioretention soil or underdrains until stabilized)
- E. Commence site grading.
- F. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
- G. Installation of proposed utilities.
- H. Finalize pavement subgrade preparation.
- I. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all inlets.
- J. Dust control.
- K. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
- L. Install base material as required for pavement.
- M. Carry out final grading and seeding and planting.
- N. Clean storm system following construction, clean detention basins of any silt and return to design grades.
  - Construct buildings.
- O. Remove silt fencing/silt sock only after all paving is complete and exposed surfaces are stabilized.
- P. Remove temporary construction exits only prior to pavement construction in these areas.

- Q. Sequent of Operation for Individual Lot Grading and Erosion Sediment Control
  - Notify sediment control inspector at least 24 hours prior to start of construction.
  - 2. Survey and stakeout for clearing, stripping and erosion control activities.
  - 3. Install erosion and sediment controls
  - 4. Perform the necessary work to ensure proper surface drainage while maintaining erosion and sediment control as defined by Town specification and design drawings.
  - 5. When activities temporarily cease during construction, soil stockpiles and exposed soil should be stabilized by seed and mulch or other appropriate measure as soon as possible, but in no case more than 1 days after construction activity has ceased.
  - 6. Notify sediment control inspector and obtain approval before proceeding further.
  - 7. Site preparation and construction shall not adversely affect the free flow of storm runoff or water courses.
  - 8. Upon completion of utility installation, restoration shall commence.
  - 9. Erosion and sediment controls are to be removed as their usefulness diminish. At all instances, notify the sediment control inspector and obtain written approval before removal of any erosion and sediment control devices.

Note: Sediment control storage during construction (traps & basins) during construction shall be 134 cy per acre of disturbance per NYSDEC requirements.

#### 112.4 STORM WATER MANAGEMENT

The site drains from the west to the east and south. A portion of the site drains to Dodge Road on the west side of the property. The rest of the site drains to the south side of the property or to an existing federal wetland on the east side of the property.

The proposed onsite storm sewer system for this development project consists of smooth interior and perforated HDPE pipes connected by a series of catch basins. The storm water management system for this project consists of one bioretention areas and one pond that has an outlet control structure prior to discharge. The ponds drain to the existing wetland. The bioretention areas proposed on site are designed to provide 100% of the required Runoff Reduction volume (RRv) for the site. The soils in the vicinity of the bioretention area are mainly USDA hydrologic group 'D' and therefore the system will be installed with underdrains per NYSDEC requirements. The bioretention areas will consist of 8" perforated HDPE underdrains in 12" of drainage gravel, followed by filter fabric and then finally 30" minimum of planting soil. Overflow catch basins will be installed to allow 6" maximum temporary ponding for RRv treatment. The proposed detention pond outlet control pipe is designed to

accommodate the 1-year through 100-year storm events controlling the offsite runoff rate to less than the existing runoff rates for pre-development drainage area which drains to the existing stream.

Runoff reduction volume (RRv), water quality volume (WQv) and stormwater volume attenuation for the site is designed in accordance with Chapter 4 of the NYSDEC Stormwater design manual. The bioretention areas will be provided as a "green infrastructure" practice to provide runoff reduction to meet the Chapter 4 requirements for the currently undeveloped areas. Runoff from the site was looked at as a whole for the calculation of volume attenuation requirements. The amount of impervious cover post-development is 1.57 acres. The proposed detention ponds are designed to accommodate the 1-year through 100-year storm events controlling the offsite runoff rate to less than the existing runoff rates.

#### Town of Amherst Requirement:

The Town of Amherst requires that the 25-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. This volume of 16,041 cf is accommodated in the detention basin at elevation 583.35. At this elevation, the outlet discharge will be restricted to 6.29 cfs from the pond, which is less than the existing 10-year peak runoff outflow of 7.47 cfs of the overall site.

The NYSDEC Stormwater Management Design Manual requires a five-step process for Stormwater Management Planning as outlined in Chapter 3. The five steps include:

- 1. Site planning to preserve natural features and reduce impervious cover.
  - 2.7 acres of existing vegetation at east will remain and be protected, and rear of the subdivided lots north and south will remain as green space.
- 2. Calculation of Water Quality Volume (WQv=RRv) for site.
  - See Stormwater Drainage Calculations.
- 3. Incorporation of Green Infrastructure techniques and standard SMPs with Runoff Reduction Volume (RRv) capacity.
  - A bioretention area was incorporated into the site design to provide required RRv for the development. See Stormwater Drainage Calculations.
- 4. Use of standard SMPs where applicable, to treat the portion of water quality volume not addressed by green infrastructure techniques and standard SMPs with RRv capacity.
  - Since the provided RRv is less than the WQv required, use of standard SMPs to treat the remaining WQv is applicable.
- 5. Design of volume and peak rate control practices where required.

See Stormwater Drainage Calculations.

The NYSDEC Stormwater Management Design Manual requires (5) five different criteria be considered when designing a stormwater management system. Those criteria are Water Quality, Runoff Reduction Volume, Channel Protection, Overbank Flooding and Extreme Storm Protection. Below is a summary of each item and how it is incorporated into this project.

#### Water Quality & Runoff Reduction Volume:

The NYSDEC requires reduction of the total water quality volume by green infrastructure techniques and SMP's to replicate pre-development hydrology. A bioretention area was incorporated into the site layout to provide the minimum required RRv for contributing WQv runoff area for the development. The bioretention area will provide 4,224 cf RRv. The minimum RRv required is 4,182 cf. The bioretention will also treat 3,370 cf of WQv. The required WQv = 7,594 cf. The sum of the WQv treated and the RRv is equal to the required WQv, therefore the practice is acceptable.

#### Channel Protection:

The NYSDEC requires that 24-Hour extended detention be provided for the proposed 1-year storm event. A volume of 3,985 cf is accommodated in the detention basin at elevation 580.32.

#### Overbank Flooding:

The NYSDEC requires that the 10-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. A volume of 12,044 cf is accommodated in the detention basin at elevation 582.58.

#### Extreme Storm Protection:

The NYSDEC requires that the 100-year proposed storm event be attenuated with detention and that the outlet be restricted to the 100-year existing storm event. A volume of 20,698 cf is accommodated in the detention basin at elevation 583.86.

Refer to engineer's report for storm sewer design criteria, runoff summary table and stormwater drainage calculations.

#### 113 OTHER CONTROLS

#### 113.1 OFF-SITE VEHICLE TRACKING

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments and will be used for vehicle wash areas and to further aid in the reduction of vehicle tracking of sediments. The paved streets adjacent to the site entrance shall be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material to/from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

#### 113.2 EXCAVATION SPOIL MATERIALS

Excavation spoil materials are potentially generated during grading operations for this project. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be hauled offsite or stockpiled for re-use in designated areas which will have temporary erosion & sediment control measures installed. Any removal from site will be done under the necessary permits required by the local governing agencies.

#### 113.3 DUST CONTROL

Minimizing wind erosion and controlling dust will be accomplished by one or more of the following methods:

- A. Frequent watering of excavation and fill areas.
- B. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

#### 113.4 WASTE DISPOSAL

If needed, all waste materials will be collected and stored in securely lidded metal dumpsters rented from an approved waste management company. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpsters. The dumpsters will be emptied when full and then hauled to a NYSDEC approved landfill for proper disposal. No construction waste will be buried on-site. All personnel will be instructed regarding the correct procedures for waste disposal.

#### 113.5 SANITARY WASTE

If needed, portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

#### 113.6 CONCRETE WASTE FROM CONCRETE TRUCKS

- A. Emptying of excess unhardened concrete and/or washout from concrete delivery trucks will be allowed on the job site, but in either (1) specifically designated diked areas which have been prepared to prevent contact between concrete and/or washout and storm water which will be discharged from the site or (2) in locations where waste concrete will be poured into forms to make rip-rap or other useful concrete products.
- B. Hardened waste concrete from the designated diked areas described above will be disposed of in accordance with applicable local and state regulations with regards to disposal of construction debris.

#### 113.7 HAZARDOUS SUBSTANCES & HAZARDOUS WASTE

- A. All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job superintendent, who will also be responsible for seeing these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such products are stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.
- B. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials of hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge shall be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job superintendent to properly train all personnel in the use of the SPCC plan.
- C. Any spills of hazardous materials which are in excess of the Reportable Quantities as defined by the EPA regulations shall be immediately reported to the EPA National Response Center at 1-100-424-1102.
- D. In order to minimize the potential for a spill of hazardous materials to come in contact with storm water, the following steps will be implemented:
  - 1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use.
  - 2. The minimum practical quantity of all such materials will be kept on the job site.
  - 3. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
  - 4. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

- 5. All products will be stored in and used from the original container with the original product label.
- 6. All products will be used in strict compliance with instructions on the product label.
- 7. The disposal of excess or used products will be in strict compliance with instructions on the product label.

#### 113.8 CONTAMINATED SOILS

- A. Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.
- B. The job site superintendent will be responsible for seeing that these procedures are followed.

#### 114 COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The Contractor will obtain copies of any and all local and state regulations which are applicable to storm water management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The Contractor will submit written evidence of such compliance if requested by the Operator or any agent of a regulatory body. The Contractor will comply with all conditions of the SPDES General Permit for Construction Activity for the State of New York, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

The SWPPP for this site development project requires regulated MS4 approval from the Town of Amherst. All changes to the SWPPP must be approved by the Town of Amherst prior to applying changes to the SWPPP in the field.

#### 115 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.

- 1. All control measures will be inspected by the owner/operator at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 116).
- 2. All control measures will be inspected by a Qualified Professional at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 116).

- 3. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.
- 4. Built up sediment will be removed from silt fence/silt sock when it has reached one-third the height of the fence.
- 5. Silt fence/silt socks will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.
- 6. Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.
- 7. A maintenance inspection report will be made after each inspection.
- 8. The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.
- 9. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms.

  Documentation of this personnel training will be kept on site with the SWPPP.
- 10. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.
- 11. Report to the NYSDEC within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the NYSDEC in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.
- 12. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.

#### 116 INSPECTION AND MAINTENANCE REPORT FORMS

Once installation of any required or optional erosion control device or measure has been implemented, inspections shall be performed by a Qualified Professional at least once every seven (7) calendar days. For construction sites where soil disturbance activities are on-going

and the **owner or operator** has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the **qualified inspector** shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. The owner and contractor shall obtain from the MS4 an written authorization approval for disturbing more than five-acres at any given time. Written authorization shall be kept within the SWPPP once received. For construction sites where active construction has been suspended, inspection frequency under the general permit can be reduced to once every 30 days, provided temporary stabilization measures have been applied to all disturbed areas.

The report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via email transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

#### 117 OTHER RECORD-KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas which were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

#### 118 SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

#### 118.1 MATERIALS COVERED

The following materials or substances are expected to be present onsite during construction:

- Concrete/Additives/Wastes
- Cleaning solvents
- Sanitary wastes
- Detergents
- Petroleum based products
- Paints/Solvents
- Pesticides
- Solid and construction wastes

- Acids
- Fertilizers
- Soil stabilization additives

#### 118.2 MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The job site superintendent will be responsible for ensuring that these procedures are followed.

#### A. Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

- 1. An effort will be made to store only enough products required to do the job.
- 2. All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or in a containment area. At a minimum, all containers will be stored with their lids on when not in use. Drip pans shall be provided under all dispensers.
- 3. Products will be kept in their original containers with the original manufacturer's label in legible condition.
- 4. Substances will not be mixed with one another unless recommended by the manufacturer.
- 5. Whenever possible, all of a product will be used up before disposing of the container.
- 6. Manufacturer's recommendations for proper use and disposal will be followed.
- 7. The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

#### B. Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

- 1. Products will be kept in original containers with the original labels in legible condition.
- 2. Original labels and material safety data sheets (MSDS's) will be procured and used for each material.
- 3. If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.
- 4. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
- 5. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

#### C. Hazardous Waste

All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed.

#### D. Product Specific Practices

The following product specific practices will be followed on the job site.

#### 1. Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any petroleum storage tanks stored onsite will be located within a containment area that is designed with an impervious surface between the tank and the ground. The secondary containment must be designed to provide a containment volume that is equal to 110% of the volume of the largest tank. Drip pans shall be provided for all dispensers. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations. The location of any fuel tanks and/or equipment storage areas must be identified on a plan by the contractor once the locations have been determined.

#### 2. Fertilizers

Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

#### 3. Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

#### 4. Concrete Wastes

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or wash out and storm water which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete wash out diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. The job site superintendent will be responsible for seeing that these procedures are followed.

All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on a plan by the contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out shall be included on this plan.

#### E. Solid and Construction Wastes

All waste materials will be collected and stored in an appropriately covered container and/or securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York and the Town of Amherst. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or more often if necessary, and the trash will be hauled to a landfill approved by the NYSDEC. No construction

waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal.

All waste dumpsters and roll-off containers will be located in an area where the likelihood of the containers contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of waste dumpsters and roll-off containers must be identified on a plan by the contractor once the locations have been determined.

#### F. Sanitary Wastes

Portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

All sanitary waste units will be located in an area where the likelihood of the unit contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on a plan by the contractor once the locations have been determined.

#### G. Contaminated Soils

Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Materials Management Plan and in accordance with applicable state and federal regulations.

#### 118.3 SPILL PREVENTION AND RESPONSE PROCEDURES

The Contractor will train all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job site superintendent to properly train all personnel in spill prevention and clean up procedures.

- A. In order to minimize the potential for a spill of hazardous materials to come into contact with storm water, the following steps will be implemented:
  - 1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.

- 2. The minimum practical quantity of all such materials will be kept on the job site.
- 3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
- 4. Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.
- B. In the event of a spill, the following procedures should be followed
  - 1. All spills will be cleaned up immediately after discovery.
  - 2. The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.
  - 3. The project manager and the Engineer of Record will be notified immediately.
    - Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 110, 40 CFR 117, and 40 CFR 302) must be immediately reported to the EPA National Response Center, telephone 1-100-424-1102. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.
  - 4. If the spill exceeds a Reportable Quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.
- C. The job site superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

#### 119 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the NYSDEC SPDES General Permit for Construction Activity for the State of New York, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this SWPPP will be strictly followed to ensure

that no contamination of these non-storm water discharges takes place. The following allowable non-storm water discharges which may occur at the job site include:

- A. Discharges from firefighting activities.
- B. Fire hydrant flushings (see note below).
- C. Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking.
- D. Routine external building washdown which does not use detergents.
- E. Pavement wash waters where spills or leaks of hazardous materials have not occurred, or detergents have not been used.
- F. Air conditioning condensate.
- G. Springs or other uncontaminated groundwater, including dewatering ground water infiltration.
- H. Foundation or footing drains where no contamination with process materials such as solvents is present.

Note: The Contractor shall discharge any super-chlorinated water from water distribution pipe disinfection activities into sanitary sewer system.

#### 120 STORM WATER CONTROL FACILITY MAINTENANCE

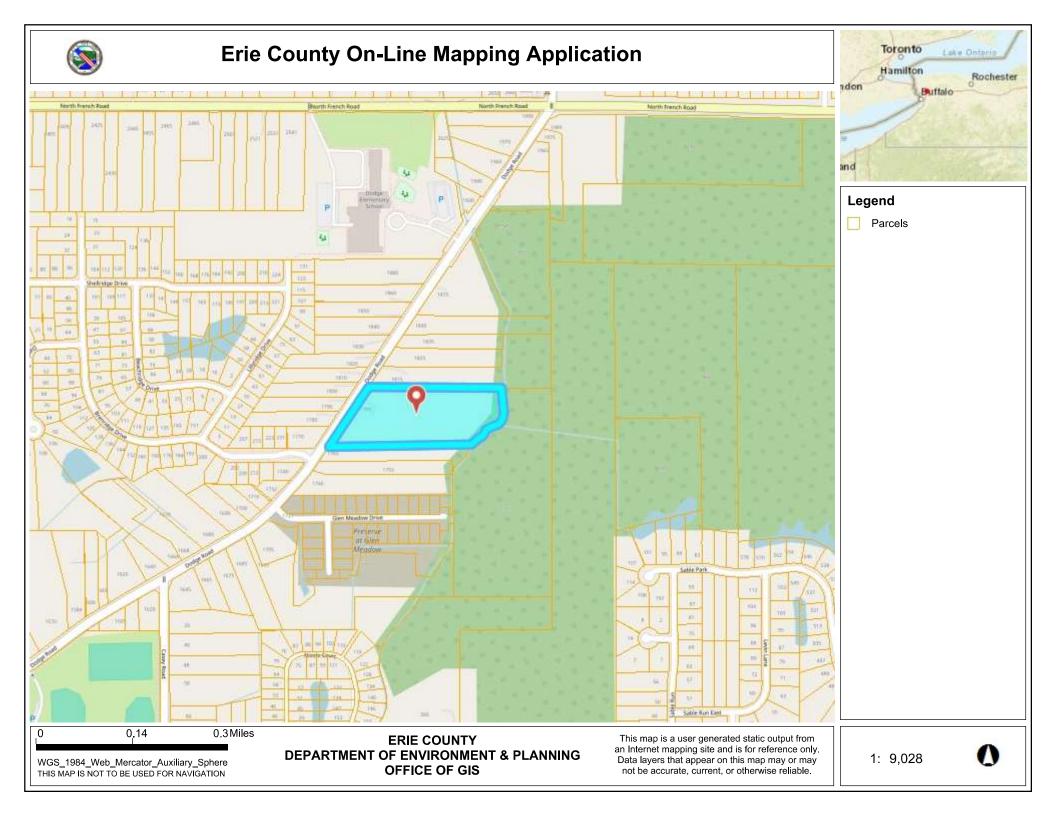
Upon completion of construction, the HOA assumes responsibility for ensuring that the stormwater facilities are regularly inspected and maintained. Maintenance and inspection procedures are as follows (for applicable items).

- 1. On a quarterly basis and following significant rainfall events or snow-melts, perform the following:
  - Remove and properly dispose of any collected debris and sediment in accordance with applicable state, federal and local regulations.
  - Inspect grassed/landscaped areas for un-vegetated areas or areas with less than 85% healthy stand of grass and reseed and mulch as necessary. Water daily if reseeded in July and August.
  - A record of all inspections should be kept.
- 2. Maintain all lawn areas by regular mowing, including the grassed slopes of the stormwater pond and any grass swales. Any eroded areas shall be regarded, seeded, and mulched immediately.
- 3. Long term maintenance of the pond and bioretention facilities shall be performed by the HOA, and adhere to the Town of Amherst Stormwater Maintenance Agreement, as provided in Appendix L. The frequency of inspections for the stormwater pond shall

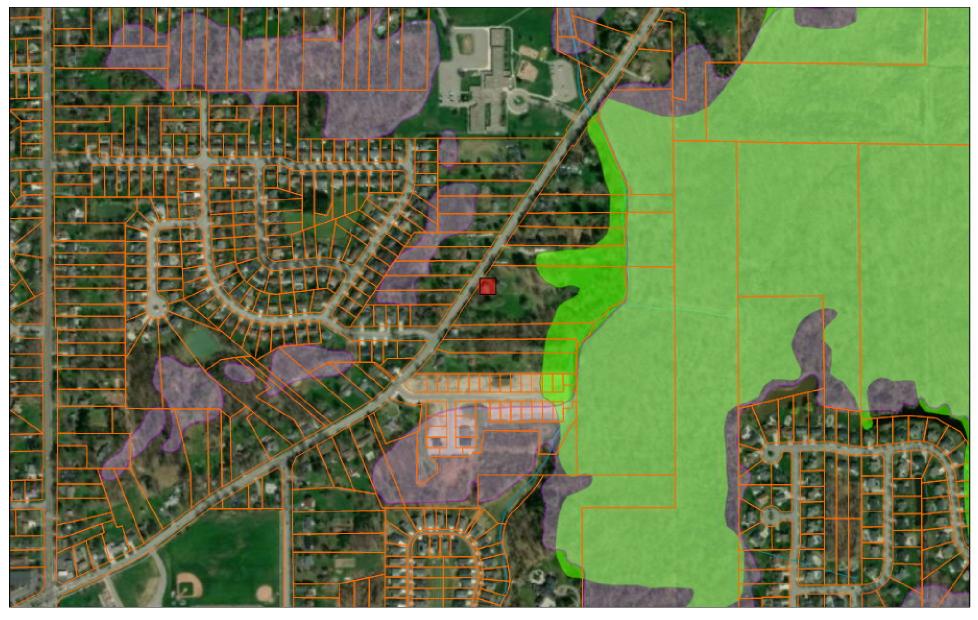
match the frequencies listed on the "Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist" in Appendix K of the SWPPP. The frequency of inspections for the bioretention areas shall match the frequencies listed on the "Bioretention Operation, Maintenance and Management Inspection Checklist" in Appendix K of the SWPPP. The HOA shall provide a qualified inspector to inspect and maintain all post-construction stormwater management practices. The checklists provided in Appendix L shall be submitted to the Town of Amherst Stormwater Management Officer each time an inspection is conducted.

The proposed catch basins within public easements and right-of-way will be maintained by the Town of Amherst and shall be inspected and any silt buildup over 6" in depth shall be removed and disposed of properly off-site. The HOA and applicable lot owners are responsible for maintaining the public easement area.

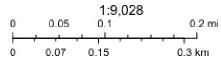
# Appendix A Site Location Map



### 1789 Dodge Road - Amherst, New York



February 10, 2025



Esri, HERE, Garmin, iPC, Maxar

### National Flood Hazard Layer FIRMette

500

1,000

1.500

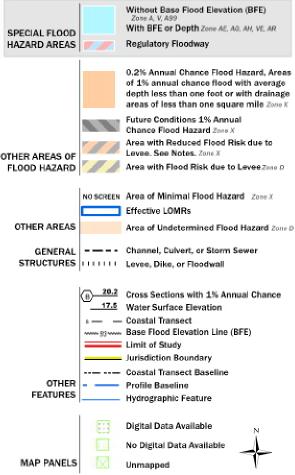




2,000

#### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap

accuracy standards

an authoritative property location.

The pin displayed on the map is an approximate

point selected by the user and does not represent

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/10/2025 at 1:41 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# Appendix B NYSDEC Notice of Intent (NOI)

#### NOTICE OF INTENT



#### New York State Department of Environmental Conservation Division of Water

#### 625 Broadway, 4th Floor Albany, New York 12233-3505

NYR					
	(for	DEC	use	onl	y)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001 All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

## -IMPORTANTRETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information																														
Owner/Operator	Owner/Operator (Company Name/Private Owner Name/Municipality Name)																													
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Project Site Informa	tion
Project/Site Name	
Single Familly Subdivisi	0 n
Street Address (NOT P.O. BOX)	
1 7 8 9 D o d g e R o a d	
Side of Street	
○ North ○ South ● East ○ West	
City/Town/Village (THAT ISSUES BUILDING PERMIT)	
A m h e r s t	
State Zip County	DEC Region
N Y 1 4 0 5 1 - E r i e	9
Name of Nearest Cross Street	
Benridge Drive	
Distance to Nearest Cross Street (Feet)	Project In Relation to Cross Street
4 0 0	○ North ○ South ○ East ● West
Tax Map Numbers Section-Block-Parcel	Tax Map Numbers
4200-1-45.2	

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

#### https://gisservices.dec.ny.gov/gis/stormwater/

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

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Ex	. 42	. 652	2										

2. What is the nature of this construction project?

New Construction

Redevelopment with increase in impervious area

Redevelopment with no increase in impervious area

3. Select the predominant land use for both ${\bf SELECT}$ ${\bf ONLY}$ ${\bf ONE}$ ${\bf CHOICE}$ ${\bf FOR}$ ${\bf EACH}$	pre and post development conditions.
Pre-Development Existing Land Use	Post-Development Future Land Use
O FOREST	O SINGLE FAMILY HOME Number of Lots
○ PASTURE/OPEN LAND	• SINGLE FAMILY SUBDIVISION 1 7
○ CULTIVATED LAND	O TOWN HOME RESIDENTIAL
SINGLE FAMILY HOME	O MULTIFAMILY RESIDENTIAL
O SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
O TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	○ COMMERCIAL
○ INSTITUTIONAL/SCHOOL	○ MUNICIPAL
○ INDUSTRIAL	○ ROAD/HIGHWAY
○ COMMERCIAL	O RECREATIONAL/SPORTS FIELD
○ ROAD/HIGHWAY	OBIKE PATH/TRAIL
O RECREATIONAL/SPORTS FIELD	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ BIKE PATH/TRAIL	O PARKING LOT
O LINEAR UTILITY	O CLEARING/GRADING ONLY
O PARKING LOT	O DEMOLITION, NO REDEVELOPMENT
O OTHER	○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
	O OTHER
*Note: for more well duilling, non high well-	as budgesuli a fine at used wells only
*Note: for gas well drilling, non-high volum	e nydraulic fractured wells only
<ol> <li>In accordance with the larger common plan enter the total project site area; the to</li> </ol>	
existing impervious area to be disturbed	(for redevelopment
activities); and the future impervious are disturbed area. (Round to the nearest ten	
,	Future Impervious
	sting Impervious Area Within
	a To Be Disturbed Disturbed Area
[	0.2
5. Do you plan to disturb more than 5 acres	of soil at any one time? ● Yes ○ No
5. Indicate the percentage of each Hydrologi	c Soil Group(HSG) at the site.
A B	
96	
7. Is this a phased project?	○ Yes • No
Start I  3. Enter the planned start and end	
dates of the disturbance $0 \mid 4 \mid I$	0 1  <b>/</b>  2 0 2 5  <b>-</b>  0 4  <b>/</b>  0 1  <b>/</b>  2 0 2 7
activities.	

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15.	Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?	No	O Unknow	n
16.	What is the name of the municipality/entity that owns the separate system?	stor	rm sewer	
17.	Does any runoff from the site enter a sewer classified as a Combined Sewer?	No	O Unknow	n
18.	Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?	0	Yes • No	0
19.	Is this property owned by a state authority, state agency, federal government or local government?	0	Yes • No	0
20.	Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)	0	Yes • No	0
21.	Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?	•	Yes ON	0
22.	Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?  If No, skip questions 23 and 27-39.	•	Yes 🔾 N	0
23.	Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?	•	Yes ON	0

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### SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

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25.	Has a construction sequence schedule for t practices been prepared?	he planned management  • Yes O No
26.	Select <b>all</b> of the erosion and sediment con employed on the project site:	trol practices that will be
	Temporary Structural	Vegetative Measures
	O Check Dams	○ Brush Matting
	$\bigcirc$ Construction Road Stabilization	$\bigcirc$ Dune Stabilization
	O Dust Control	$\bigcirc$ Grassed Waterway
	○ Earth Dike	Mulching
	○ Level Spreader	Protecting Vegetation
	○ Perimeter Dike/Swale	$\bigcirc$ Recreation Area Improvement
	O Pipe Slope Drain	Seeding
	O Portable Sediment Tank	○ Sodding
	O Rock Dam	$\bigcirc$ Straw/Hay Bale Dike
	○ Sediment Basin	<pre>O Streambank Protection</pre>
	○ Sediment Traps	$\bigcirc$ Temporary Swale
	Silt Fence	Topsoiling
	Stabilized Construction Entrance	$\bigcirc$ Vegetating Waterways
	Storm Drain Inlet Protection	Permanent Structural
	○ Straw/Hay Bale Dike	
	$\bigcirc$ Temporary Access Waterway Crossing	○ Debris Basin
	$\bigcirc$ Temporary Stormdrain Diversion	○ Diversion
	$\bigcirc$ Temporary Swale	○ Grade Stabilization Structure
	$\bigcirc$ Turbidity Curtain	○ Land Grading
	○ Water bars	○ Lined Waterway (Rock)
		○ Paved Channel (Concrete)
	Biotechnical	○ Paved Flume
	○ Brush Matting	○ Retaining Wall
	○ Wattling	O Riprap Slope Protection
		O Rock Outlet Protection
Oth	ner	○ Streambank Protection

#### Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required
 if response to Question 22 is No.

- 27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.
  - Preservation of Undisturbed Areas
  - Preservation of Buffers
  - Reduction of Clearing and Grading
  - O Locating Development in Less Sensitive Areas
  - O Roadway Reduction
  - O Sidewalk Reduction
  - O Driveway Reduction
  - O Cul-de-sac Reduction
  - O Building Footprint Reduction
  - O Parking Reduction
- 27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).
  - All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
  - O Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.
- 28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

#### Total WQv Required

0 1 7 4 acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques (Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to <a href="reduce">reduce</a> the Total WQv Required (#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

<u>Note:</u> Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

## Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing		Tota	.1 Cor	ntr	:1bu	ting
RR Techniques (Area Reduction)	Area (acres)	Im	perv	ious	Ar	:ea (	acres
● Conservation of Natural Areas (RR-1)		and/or	. 🔲		- _		
O Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or	:		-		
○ Tree Planting/Tree Pit (RR-3)		and/or	:		-		
O Disconnection of Rooftop Runoff (RR-4)		and/or	; 📖		- _		
RR Techniques (Volume Reduction)							
$\bigcirc$ Vegetated Swale (RR-5) $\cdots\cdots\cdots\cdots$					• -		
○ Rain Garden (RR-6) ······					╽•┞		
○ Stormwater Planter (RR-7)					• -	_	
○ Rain Barrel/Cistern (RR-8)					•		
○ Porous Pavement (RR-9)	• • • • • • • • • • • • • • • • • • • •				• _		
○ Green Roof (RR-10)					<b>.</b>		
Standard SMPs with RRv Capacity					. –		
○ Infiltration Trench (I-1) ······	• • • • • • • • • • • • • • • • • • • •				<b>.</b> ∟		
○ Infiltration Basin (I-2) ·····					- _		
Opry Well (I-3)					<b>-</b>  _		
<pre>-     Underground Infiltration System (I-4)</pre>					- _		
● Bioretention (F-5) ····································				6	-	7 1	
Ory Swale (0-1)					-		
Standard SMPs					. –		
○ Micropool Extended Detention (P-1)			Ш		- <u> </u>		
○ Wet Pond (P-2) · · · · · · · · · · · · · · · · · · ·					• _		
○ Wet Extended Detention (P-3) ·······					-		
O Multiple Pond System (P-4) ······					-		
O Pocket Pond (P-5) · · · · · · · · · · · · · · · · · · ·					.		
○ Surface Sand Filter (F-1) ·········							
○ Underground Sand Filter (F-2) ······							
O Perimeter Sand Filter (F-3) ·······							
Organic Filter (F-4)					<del>-</del>  -		$\forall \exists$
					-		
O Shallow Wetland (W-1)			$\vdash$		-	-	+
O Extended Detention Wetland (W-2)				+	• -	+	+
O Pond/Wetland System (W-3)			$\vdash$	+	•	-	+
O Pocket Wetland (W-4)			$\vdash$	_	• -	+	+-
○ Wet Swale (0-2)					-		

### Table 2 -Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY) Total Contributing Alternative SMP Impervious Area(acres) $\bigcirc$ Hydrodynamic ...... ○ Wet Vault Other Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment. Name Manufacturer Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project. 30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. Total RRv provided 0 9 acre-feet 31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28). O Yes No If Yes, go to question 36. If No, go to question 32. 32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)] Minimum RRv Required 9 6 acre-feet 32a. Is the Total RRv provided (#30) greater than or equal to the O No Yes Minimum RRv Required (#32)? If Yes, go to question 33. **Note**: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total  $\underline{\text{impervious}}$  area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

### WQv Provided

0 7 7 acre-feet

<u>Note</u>: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

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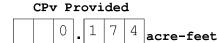
35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?  $\blacksquare$  Yes  $\bigcirc$  No

If Yes, go to question 36.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv	Re	P	uiı	:ed			
	0		1	7	4	acre-feet	



36a. The need to provide channel protection has been waived because:

- $\bigcirc$  Site discharges directly to tidal waters or a fifth order or larger stream.
- O Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.
- 37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

#### Total Overbank Flood Control Criteria (Qp)

 Pre-Development
 Post-development

 7 . 4 7 crs
 3 . 9 9 crs

### Total Extreme Flood Control Criteria (Qf)

 Pre-Development
 Post-development

 1 7 . 6 6 crs
 1 3 . 1 5 crs

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 $37a. \ \ \,$  The need to meet the Qp and Qf criteria has been waived because:

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40.	Identify other DEC permits, existing and new, that are required for this project/facility.
	○ Air Pollution Control
	○ Coastal Erosion
	○ Hazardous Waste
	O Long Island Wells
	○ Mined Land Reclamation
	○ Solid Waste
	O Navigable Waters Protection / Article 15
	○ Water Quality Certificate
	○ Dam Safety
	○ Water Supply
	○ Freshwater Wetlands/Article 24
	○ Tidal Wetlands
	○ Wild, Scenic and Recreational Rivers
	O Stream Bed or Bank Protection / Article 15
	O Endangered or Threatened Species (Incidental Take Permit)
	○ Individual SPDES
	O SPDES Multi-Sector GP N Y R
	O Other
	• None
41.	Does this project require a US Army Corps of Engineers Wetland Permit?  If Yes, Indicate Size of Impact.  O Yes  No
42.	Is this project subject to the requirements of a regulated, traditional land use control MS4?
43.	Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?
44.	If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction

activities, please indicate the former SPDES number assigned.  $\overline{\rm N}$   $\overline{\rm Y}$   $\overline{\rm R}$ 

Print First Name

#### Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

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# Appendix C MS4 SWPPP Acceptance Form



### **MS4 SWPPP Acceptance Form**

for construction activities seeking authorization under the

## SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information				
1. Owner/Operator Name:	Joseph Rubino			
2. Contact Person:	Joseph Rubino			
3. Street Address:	5500 Main Street			
4. City/State/Zip:	Williamsville, New York 14221			
II. Project Site Information				
5. Project/Site Name:	Single Family Subdivision			
6. Street Address:	1789 Dodge Road			
7. City/State/Zip:	Amherst, New York 14051			
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information				
8. SWPPP Reviewed by:				
9. Title/Position:				
10. Date Final SWPPP Reviewed and Accepted:				
IV. Regulated MS4 Inform	ation			
11. Name of MS4 Operator:				
12. MS4 SPDES Permit Identification Number: NYR20A				
13. Street Address:				
14. City/State/Zip:				
15. Telephone Number:				

MS4 SWPPP Acceptance Form - continued
V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative
I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.
Printed Name <sup>1</sup> :
Title/Position:
Signature:
Date:
VI. Additional Information

<sup>1</sup> Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

### **Appendix D**

## NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-25-001



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

From

### CONSTRUCTION ACTIVITY

Permit No. GP-0-25-001

Construction General Permit (CGP)

Issued Pursuant to Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law

Effective Date: January 29, 2025

Expiration Date: January 28, 2030

Date

Scott E. Sheeley

Chief Permit Administrator

Authorized Signature

Address:

NYSDEC

Division of Environmental Permits

625 Broadway, 4th Floor Albany, N.Y. 12233-1750

### **PREFACE**

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), stormwater discharges from certain construction activities are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

Construction activities constitute construction of a point source and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the owner or operator must have coverage under a SPDES permit prior to commencement of construction activities. The owner or operator cannot wait until there is an actual discharge from the construction site to obtain permit coverage.

\*Note: The italicized words/phrases within this permit are defined in Appendix A.

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SPDES CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001 FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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### Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

### A. Eligibility Requirements

For a common plan of development or sale, the phase(s) that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other phase(s) of the same common plan of development or sale do not meet the eligibility requirements and require an individual SPDES permit.

- 1. The owner's or operator's construction activities involve soil disturbances of:
  - a. one or more acres; or
  - b. less than one acre which are part of a *common plan of development or* sale that will ultimately disturb one or more acres; or
  - c. less than one acre where NYSDEC has determined that a SPDES permit is required for *stormwater discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of pollutants to *surface waters of the State*.
    - i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or
    - ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or
    - iii. less than 20,000 square feet which are part of a common plan of development or sale that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or
    - iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.

- 2. Discharges from the owner's or operator's construction activities are/were not:
  - a. already covered by a different SPDES permit; or
  - b. covered under a different SPDES permit that was denied, terminated, or revoked: or
  - c. identified in an expired individual SPDES permit that was not renewed; or
  - d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.
- 3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:
  - a. permit issued pursuant to 6 NYCRR Part 182 for the project; or
  - b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.
- 4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:
  - a. documentation that the construction activity is not within an archeological buffer area indicated on the sensitivity map, and that the construction activity is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the construction site within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the construction site within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:
    - i. 1-5 acres of disturbance 20 feet; or
    - ii. 5-20 acres of disturbance 50 feet; or

- iii. 20+ acres of disturbance 100 feet.
- b. NYSDEC consultation form sent to OPRHP,<sup>1</sup> and copied to NYSDEC's Agency Historic Preservation Officer (APO), and
  - i. the State Environmental Quality Review Act (SEQR)
     Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
  - ii. documentation from OPRHP that the *construction activity* will result in No Impact; or
  - iii. documentation from OPRHP providing a determination of No Adverse Impact; or
  - iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).
- c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:
  - i. No Affect; or
  - ii. No Adverse Affect; or
  - iii. Executed Memorandum of Agreement.
- d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.
- 5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.
- 6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

<sup>&</sup>lt;sup>1</sup> The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

- owner or operator must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.
- 7. If construction activities require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:
  - a. obtain all such necessary permits; or
  - b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.
- 8. Construction activities are not eligible if they meet the following criteria in Part I.A.8.a. or b.:
  - a. For linear transportation and linear utility project types, the *construction* activities:
    - i. are within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and
    - ii. are undertaken on land with no existing impervious cover; and
    - iii. disturb two or more acres of steep slope.
  - b. For all other project types, the *construction activities*:
    - i. are within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and
    - ii. are undertaken on land with no existing impervious cover; and
    - iii. disturb one or more acres of steep slope.

### B. Types of *Discharges* Authorized

- 1. The following *stormwater discharges* are authorized under this permit:
  - a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity, are authorized under this permit provided that appropriate stormwater controls are designed, installed, and maintained in accordance with Part II. and Part III.
  - b. Stormwater discharges from construction support activities at the construction site (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:
    - i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and
    - ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and
    - iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and
    - iv. Stormwater controls are implemented in accordance with Part II. and Part III. for discharges from the support activity areas.
- 2. The following non-stormwater discharges associated with construction activity are authorized under this permit:
  - a. Non-stormwater discharges listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; and
  - b. Non-stormwater discharges of waters to which other components have not been added that are used in accordance with the SWPPP to control dust or irrigate vegetation in stabilized areas; and
  - c. Uncontaminated discharges from dewatering operations

3. Authorized *discharges* of *stormwater* or authorized *discharges* of non*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

### C. Prohibited *Discharges*

- 1. Non-stormwater discharges prohibited under this permit include but are not limited to:
  - a. Wastewater from washout of concrete: and
  - b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and
  - c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and
  - d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and
  - e. Toxic or hazardous substances from a spill or other release.

### D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

- 1. An eNOI may be submitted for:
  - a. construction activities that are not part of a common plan of development or sale; or

- b. an entire common plan of development or sale; or
- c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:
  - i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and
  - ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and
  - iii. Part III.C. Required SWPPP Components by Project Type is based on the common plan of development or sale, not the phase(s); or
- d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:
  - i. meets all other eligibility requirements of Part I.A.; and
  - ii. will occur in NYSDEC's Regions 3-9; and
  - iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and
  - iv. will occur between November 1st and March 31st.
- 2. As prerequisites for submitting an eNOI, the *owner or operator* must:
  - a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and
  - b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:
    - i. for all eNOIs:
      - 1. the SWPPP Preparer Certification Form, Appendix F, signed by the SWPPP preparer; and

- 2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and
- ii. if an eNOI includes construction activities within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:
  - determine if the Traditional Land Use Control MS4
     Operator(s) have review authority. A Traditional Land
     Use Control MS4 Operator does not have review
     authority where:
    - a. the owner or operator of the construction activities in Part I.D.2.b.ii. is the same entity as the Traditional Land Use Control MS4 Operator identified in Part I.D.2.b.ii.; or
    - b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*, or
    - c. there is no such statute per Part I.D.2.b.ii.1.b., the Traditional Land Use Control MS4 Operator concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 "Governmental Immunity from Zoning and Other Legislation"; and
  - 2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:
    - a. if outside the municipal boundaries of NYC: the MS4 SWPPP Acceptance Form, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator*, or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

- b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and
- if the Traditional Land Use Control MS4 Operator does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.

### 3. Submitting an eNOI:

- a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.<sup>2</sup>
- b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.
  - i. If an eNOI is received for a SWPPP that deviates from one of the technical standards but demonstrates equivalence in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the SWPPP includes construction activities that are not within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s), and/or if the SWPPP includes construction activities within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s) that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

<sup>&</sup>lt;sup>2</sup> Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater\_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4<sup>th</sup> Floor, Albany, New York 12233-3505.

c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

### E. General Requirements for *Owners or Operators* with Permit Coverage

- 1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.
- 2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:
  - a. all areas of disturbance have achieved final stabilization; and
  - b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.
- 3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:
  - a. all documentation necessary to demonstrate eligibility with this permit; and
  - b. this permit; and
  - c. the SWPPP; and
  - d. the signed SWPPP Preparer Certification Form; and
  - e. the signed MS4 SWPPP Acceptance Form or signed NYCDEP SWPPP Acceptance/Approval Form or signed MS4 No Jurisdiction Form (when applicable); and
  - f. the signed Owner/Operator Certification Form; and

- g. the eNOI; and
- h. the LOA; and
- i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).
- 4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:
  - a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and
  - b. inspection reports in accordance with Part IV.C.4. and 6.; and
  - Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and
  - d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and
  - e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).
- 5. The owner or operator must maintain the documents in Part I.E.3. and 4. in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the owner or operator must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.
- 6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:
  - a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:

- NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or
- ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or
- iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.
- b. The written Request to Disturb Greater Than Five Acres must include:
  - i. The SPDES permit identification number (Permit ID); and
  - Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and
  - iii. The phasing plan for the project and sequencing plans for all phases from the SWPPP in accordance with Part III.B.1.d.; and
  - iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and
  - v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and
  - vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."
- c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

- i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or
- ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.
- 7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
- 8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).<sup>3</sup> *Construction activity* shall not resume until written permission to do so has been received from the RWE.
- 9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:
  - a. notify NYSDEC via email at Stormwater\_info@dec.ny.gov requesting access to update the eNOI; and
  - b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and
  - c. receive an updated LOA.
- 10. The eNOI, SWPPP, LOA, updated LOAs (when applicable), and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

<sup>&</sup>lt;sup>3</sup> The Regional Water Manager where a DEC Region does not have a RWE.

Part I.F.

### F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001

When applicable:

- 1. Upon the effective date of this permit, an *owner or operator* of a *construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.
- 2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,<sup>4</sup> which contains the information identified in Part I.F.3. below, if:
  - a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and
  - b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.
- 3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.
- 4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.
- 5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

<sup>&</sup>lt;sup>4</sup> Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater\_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4<sup>th</sup> Floor, Albany, New York 12233-3505.

### G. Change of Owner or Operator

When applicable:

- 1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:
  - a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and
  - b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and
  - c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and
  - d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*, and
  - e. If the original owner or operator will no longer be the owner or operator of the construction activity identified in the original owner's or operator's eNOI, the original owner or operator, upon receipt of the new owner's or operator's Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new owner or operator; or
  - f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:
    - i. the revised area of disturbance and/or impervious area(s); and
    - ii. the revised SMP information, if applicable; and
    - iii. a narrative description of what has changed; and
    - iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

Owners or operators must follow Part I.E.9. to modify the eNOI.

### Part II. Water Quality-Based Effluent Limitations

### A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control discharges necessary to meet applicable water quality standards. It shall be a violation of the ECL for any discharge to either cause or contribute to a violation of the following water quality standards as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York:

- 1. There must be no increase in turbidity that will cause a substantial visible contrast to natural conditions; and
- 2. There must be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
- 3. There must be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the *stormwater discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard*, the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

### B. Effluent Limitations Applicable to Discharges from Construction Activities

Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

- 1. Erosion and Sediment Control Requirements The owner or operator must select, design, install, implement, and maintain control measures to minimize the discharge of pollutants and prevent a violation of the water quality standards. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the owner or operator must include in SWPPP the reason(s) for the deviation, or alternative design, and provide information in the SWPPP demonstrating that the deviation or alternative design is equivalent to the technical standard.
  - a. Erosion and Sediment Controls. At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:
    - i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize* pollutant discharges; and
    - ii. Control *stormwater discharges*, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and
    - iii. Minimize the amount of soil exposed during construction activity;and
    - iv. Minimize the disturbance of steep slope; and
    - v. Minimize sediment discharges from the site; and
    - vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharges*, unless *infeasible*; and
    - vii. Minimize soil compaction. Minimizing soil compaction is not required

- where the intended function of a specific area of the site dictates that it be compacted; and
- viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
- ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.
- b. **Soil Stabilization**. In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.
- c. **Dewatering**. *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.
- d. **Pollution Prevention Measures**. Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:
  - Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and
  - ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

- iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.
- e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

## C. Post-Construction Stormwater Management Practice (SMP) Requirements

- 1. The owner or operator of a construction activity that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the performance criteria in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the performance criteria in the DM, the owner or operator must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standard.
- 2. The owner or operator of a construction activity, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable sizing criteria in Part II.C.2.a., b., c., or d.

## a. Sizing Criteria for New Development

- i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):
  - Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the requirements in Part II.C.2.a.i.1. due to site limitations must direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv must be documented in the SWPPP. For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.4 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

- ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:
  - 1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or
  - 2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or
  - 3. The site directly discharges into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of discharge must be adequately protected against scour and erosion by the increased peak discharge.

- iii. Overbank Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - the site directly discharges to tidal waters or fifth order or larger streams, or
  - 2. A downstream analysis reveals that *overbank* control is not required.
- iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - 1. the site *directly discharges* to tidal waters or fifth order or larger streams, or
  - 2. A downstream analysis reveals that *overbank* control is not required.

## b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watersheds

- i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):
  - Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or
  - 2. Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part II.C.2.b.i.1. due to site limitations must direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv must be documented in the SWPPP. For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

- ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:
  - 1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or
  - 2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or
  - 3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.
- iii. Overbank Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - 1. the site *directly discharges* to tidal waters or fifth order or larger streams; or
  - 2. A downstream analysis reveals that *overbank* control is not required.

- iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - 1. the site *directly discharges* to tidal waters or fifth order or larger streams; or
  - 2. A downstream analysis reveals that *overbank* control is not required.

## c. Sizing Criteria for Redevelopment Activity

- i. Water Quality Volume (WQv): The WQv treatment objective for redevelopment activity must be addressed by one of the following options, as outlined in Section 9.2.1. Redevelopment activities located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other redevelopment activities must calculate the WQv in accordance with Section 4.2 of the DM.
  - Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or
  - 2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or
  - Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or
  - 4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or

- Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or
- 6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.
- ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.
- iii. Overbank Flood Control (Qp) is not required if there is 0% change to hydrology that increases the discharge rate from the project site.
- iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

# d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects, that include both *new development* and *redevelopment* activity, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

## Part III. Stormwater Pollution Prevention Plan (SWPPP)

## A. General SWPPP Requirements

1. A SWPPP must be prepared and implemented by the owner or operator of all construction activity covered by this permit. All authorized discharges must be identified in the SWPPP. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and

- practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.
- 2. The SWPPP must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.
  - a. The owner or operator must consider:
    - i. the following physical risks due to climate change:
      - (i) increasing temperature; and
      - (ii) increasing precipitation; and
      - (iii) increasing variability in precipitation, including chance of drought; and
      - (iv) increasing frequency and severity of flooding; and
      - (v) rising sea level; and
      - (vi) increasing storm surge; and
      - (vii) shifting ecology.
    - ii. for each of the following:
      - (i) overall site planning; and
      - (ii) location, elevation, and sizing of:
        - a. control measures and practices; and
        - b. conveyance system(s); and
        - c. detention system(s).
- 3. The SWPPP must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

- requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.
- 4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.
- 5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:
  - a. whenever the current provisions prove to be ineffective in *minimizing* pollutants in stormwater discharges from the site; and
  - whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
  - c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* NYSDEC, or other regulatory authority; and
  - d. to document the final construction conditions in an as-built drawing.
- 6. NYSDEC may notify the *owner or operator* at any time that the *SWPPP* does not meet one or more of the minimum requirements of this permit. The notification must be in writing and identify the provisions of the *SWPPP* that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.
- 7. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion and sediment control practices included in the *SWPPP* and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the SWPPP. The owner or operator must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the SWPPP. The owner or operator must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

"I hereby certify under penalty of law that I understand and agree to comply with the requirements of the *SWPPP* and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the *SWPPP* that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for *SWPPP* implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* must attach the certification statement(s) to the copy of the *SWPPP* that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the *SWPPP* after the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

## B. Required SWPPP Contents

- 1. Erosion and sediment control component The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.
  - a. Erosion and sediment control practices must be designed:
    - i. in conformance with the BB; or
    - ii. equivalent to the BB if deviating from Part III.B.1.a.i.
  - b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the SWPPP must include a demonstration of equivalence to the BB.
  - c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:
    - i. Background information about the scope of the project, including the location, type and size of project; and
    - ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the construction activity; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater discharge(s) and receiving surface water(s); and
    - iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and
    - iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

- 1. The phasing plan must include:
  - a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and
  - b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and
- 2. A sequencing plan for a specific *phase* must include:
  - a. a table indicating the order and intended schedule of construction activities within a phase, and corresponding construction drawings with a description of the work to be performed; and
  - b. all permanent and *temporary stabilization* measures; and
- v. A description of the minimum erosion and sediment control practices to be installed or implemented for each construction activity that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented; and
- vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and
- vii. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any

- temporary sediment basins and structural practices that will be used to divert flows from exposed soils; and
- viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and
- ix. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the *stormwater discharges*; and
- x. A description and location of any *stormwater discharges* associated with industrial activity other than construction at the site, including, but not limited to, *stormwater discharges* from asphalt plants and concrete plants located on the *construction site*; and
- xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
- 2. SMP component The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.
  - a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and
  - b. SMPs must be designed in conformance with the *performance criteria*:
    - i. in the DM; or
    - ii. equivalent to the DM if deviating from Part III.B.2.b.i.; or
    - iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

- 1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:
  - a. subject to governmental review and approval:
    - i. where the owner or operator made any application to that governmental entity prior to the effective date of this permit; and
    - ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or
  - b. not subject to governmental review and approval:
    - i. where a fiscal allocation for the construction activities has been developed and approved by a governmental entity; and
    - ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and
- c. If SMPs are designed in conformance with Part III.B.2.b.ii., the SWPPP must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and
- d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and
- e. The SMP component of the SWPPP must include the following:
  - Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and
  - ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

- iii. A Stormwater Modeling and Analysis Report that includes:
  - Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and
  - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and
  - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and
  - (iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and
  - (v) Identification of any sizing criteria that is not required based on the requirements included in Part II.C.; and
  - (vi) Identification of any elements of the design that are not in conformance with the performance criteria in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the DM.
- iv. Soil testing results and locations (test pits, borings); and
- v. Infiltration test results, when required in accordance with Part III.B.2.a.; and
- vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

## C. Required SWPPP Components by Project Type

Owners or operators of construction activities, identified in Table 1 of Appendix B, are required to prepare a SWPPP that only includes erosion and sediment control practices designed in accordance with Part III.B.1. Owners or operators of the construction activities, identified in Table 2 of Appendix B, must prepare a SWPPP that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

#### Part IV. Inspection and Maintenance Requirements

#### A. General Construction Site Inspection and Maintenance Requirements

The owner or operator must ensure that all erosion and sediment control
practices (including pollution prevention measures), and all SMPs identified in
the SWPPP, are inspected and maintained in accordance with Part IV.B. and
C.

## **B.** Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

- a. if the corrective action does not require engineering design:
  - i. begin implementing corrective actions within one business day; and
  - ii. complete the corrective actions within five business days; or
- b. if the corrective action requires engineering design:
  - begin the engineering design process within five business days;
     and
  - ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.
- 2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the trained contractor can stop conducting the maintenance inspections in accordance with Part IV.B.1. The trained contractor must begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.
- 3. For construction sites where soil disturbance activities have been shut down with partial project completion, the trained contractor can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved final stabilization and all SMPs required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

## C. Qualified Inspector Inspection Requirements

- 1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:
  - a. the construction of a single-family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than or equal to five (5) acres and is

- <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> *directly discharging* to one of the 303(d) segments listed in Appendix D; and
- b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to five (5) acres and is <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> <u>directly</u> <u>discharging</u> to one of the 303(d) segments listed in Appendix D; and
- c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and
- d. construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.
- 2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:
  - a. For construction sites where soil disturbance activities are on-going, the qualified inspector must conduct a site inspection at least once every seven (7) calendar days; or
  - b. For construction sites where soil disturbance activities are on-going and the owner or operator has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the qualified inspector must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or
  - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the qualified inspector must conduct a site inspection at least once every thirty (30) calendar days. The owner or operator must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a Traditional Land Use Control MS4 Operator, the Traditional Land Use Control MS4 Operator (provided the Traditional Land Use Control MS4 Operator is not the owner or operator of the construction activity) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the requirement to have the qualified inspector conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved final stabilization and all SMPs required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The owner or operator must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of Traditional Land Use Control MS4 Operator(s) in accordance with Part I.D.2.b.ii.1., the Traditional Land Use Control MS4 Operator(s) (provided the Traditional Land Use Control MS4 Operator(s) are not the owners or operators of the construction activity) in writing prior to the shutdown and again in writing prior to resuming construction activity. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the owner or operator must terminate coverage by meeting the requirements of Part V; or
- e. For construction sites involving soil disturbance of one (1) or more acres that directly discharge to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the qualified inspector must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.
- 3. At a minimum, the *qualified inspector* must inspect:
  - a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and
  - b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and
  - c. all areas of disturbance that have not achieved final stabilization; and
  - d. all points of *discharge* to *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and
  - e. all points of discharge from the construction site.

- 4. The qualified inspector must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all construction activities except those listed in Part IV.C.1.:
  - a. Permit identification number; and
  - b. Date and time of inspection; and
  - c. Name and title of person(s) performing inspection; and
  - d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and
  - e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and
  - f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and
  - g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and
  - h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and
  - Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and
  - j. Estimates, in square feet or acres, of the following areas:

- i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and
- ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and
- iii. Total area that has achieved temporary stabilization; and
- iv. Total area that has achieved final stabilization; and
- k. Current stage of construction of all SMPs and identification of all construction activity on site that is not in conformance with the SWPPP and technical standards; and
- Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and
- m. Identification and status of all corrective actions that were required by previous inspection; and
- n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
- 5. Within one business day of the completion of an inspection, the *qualified inspector* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:
  - a. if the corrective action does not require engineering design:

- i. begin implementing corrective actions within one business day; and
- ii. complete the corrective actions within five business days; or
- b. if the corrective action requires engineering design:
  - begin the engineering design process within five business days;
     and
  - ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.
- 6. All inspection reports must be signed by the *qualified inspector*. In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

## Part V. How to Terminate CGP Coverage

## A. Electronic Notice of Termination (eNOT) Submittal

The eNOT contains questions to ensure requirements in Part V.A. have been met.

- 1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:
  - a. Total project completion:
    - i. all *construction activity* identified in the *SWPPP* has been completed; and
    - ii. all areas of disturbance have achieved final stabilization; and
    - iii. all temporary, structural erosion and sediment control measures have been removed; and
    - iv. all SMPs have been constructed in conformance with the SWPPP and are operational; and
    - v. an as-built drawing has been prepared; or

- b. Planned shutdown with partial project completion:
  - i. all soil disturbance activities have ceased; and
  - ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and
  - iii. all temporary, structural erosion and sediment control measures have been removed; and
  - iv. all SMPs required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational; and
  - v. an as-built drawing has been prepared; or
- c. In accordance with Part I.G. Change of Owner or Operator; or
- d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.
- 2. For construction activities that require qualified inspector inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the owner or operator must have the qualified inspector perform a final site inspection prior to submitting the eNOT. The qualified inspector must, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice(s)" certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.
- 3. For construction activities that are subject to the review authority of Traditional Land Use Control MS4 Operator(s) in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the owner or operator must have the Traditional Land Use Control MS4 Operator(s) sign the "MS4 Acceptance" statement on the eNOT in accordance with the requirements in Part VII.J. A Traditional Land Use Control MS4 Operator official, by signing this statement, determined that it is acceptable for the owner or operator to submit the eNOT in accordance with the requirements of this Part. A Traditional Land Use Control MS4 Operator can make this determination by performing a final site inspection themselves or by accepting the qualified inspector's final site inspection certification(s) when required in Part V.A.2.

Part V.A.4.

- 4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:
  - a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or
  - b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or
  - c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or
  - d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.
- 5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.<sup>5</sup>
  - a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

<sup>&</sup>lt;sup>5</sup> Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater\_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4<sup>th</sup> Floor, Albany, New York 12233-3505.

## Part VI. Record Retention and Reporting

#### A. Record Retention

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

## **B.** Reporting

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

#### **Part VII. Standard Permit Requirements**

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

## A. Duty to Comply

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

## B. Need to Halt or Reduce Activity Not a Defense

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

#### C. Penalties

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to \$37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

#### **D. False Statements**

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

#### E. Re-Opener Clause

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable water quality standards. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State water quality standards or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of water quality standards or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the owner or operator and may also prohibit such operation until the modification has been implemented.

## F. Duty to Mitigate

The *owner or operator*, and its contractors and subcontractors, must take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

## G. Requiring Another General Permit or Individual SPDES Permit

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:

- a. the owner or operator is not in compliance with the conditions of this
  permit or does not meet the requirements for coverage under this permit;
  and
- b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and
- c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and
- d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and
- e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and
- f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and
- g. the discharge is in violation of section 17-0501 of the ECL; and
- h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:
  - i. the location of the *discharge(s)* with respect to *surface waters of the State*; and
  - ii. the size of the discharge(s); and
  - iii. the quantity and nature of the *pollutants discharged* to *surface* waters of the State; and
  - iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.
- 2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,<sup>6</sup> that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

## H. Duty to Provide Information

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

## I. Extension

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

<sup>&</sup>lt;sup>6</sup> The Regional Water Manager where a DEC Region does not have a RWE.

## J. Signatories and Certification

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

- 1. All Notices of Intent and Notices of Termination must be signed as follows:
  - a. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
    - (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
    - (ii) the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

- c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
  - 1. the chief executive officer of the agency; or
  - 2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- 2. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Part VII.J.1. or using the Duly Authorized Form, found on the DEC website; and
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
  - c. The written authorization is submitted to NYSDEC.
- 3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the construction activity, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.
- 4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following 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 gather and evaluate 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.

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

## K. Inspection and Entry

The owner or operator must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, or, in the case of a construction site which discharges through an MS4, an authorized representative of the MS4 receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

- 1. enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the requirements of this permit; and
- 2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and
- 3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and
- 4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and
- 5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

## L. Confidentiality of Information

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

## M. Other Permits May Be Required

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

## N. NYSDEC Orders or Civil Decrees/Judgments

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

## O. Property Rights

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

#### P. Compliance with Interstate Standards

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

## Q. Oil and Hazardous Substance Liability

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

## R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, must not be affected thereby.

## S. NYSDEC Approved Forms

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.

#### APPENDIX A – Abbreviations and Definitions

#### **Abbreviations**

APO – Agency Preservation Officer

BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016

BMP - Best Management Practice

CPESC - Certified Professional in Erosion and Sediment Control

CPv - Channel Protection Volume

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)

DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024

DOW - Division of Water

EAF - Environmental Assessment Form

ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law

EPA – U.S. Environmental Protection Agency

HSG - Hydrologic Soil Group

MS4 - Municipal Separate Storm Sewer System

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

NYC – The City of New York

NYCDEP – The City of New York Department of Environmental Protection

NYSDEC – The New York State Department of Environmental Conservation

OPRHP - Office of Parks. Recreation and Historic Places

Qf - Extreme Flood

Qp - Overbank Flood

RR - Runoff Reduction

RRv - Runoff Reduction Volume

RWE - Regional Water Engineer

SEQR – State Environmental Quality Review Act

SHPA – State Historic Preservation Act

SMP – Post-Construction Stormwater Management Practice

SPDES – State Pollutant Discharge Elimination System

SWPPP - Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

UPA - Uniform Procedures Act

USDA - United States Department of Agriculture

WQv - Water Quality Volume

## **Definitions**

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

**Agricultural Building** – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

**Agricultural Property** – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023).

Alter Hydrology from Pre- to Post-Development Conditions – the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

**Combined Sewer System** – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

**Commence (Commencement of) Construction Activities** – the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the *SWPPP*. See definition for "*Construction Activity(ies)*" also.

Common Plan of Development or Sale – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

Common plan of development or sale does <u>not</u> include separate and distinct construction activities that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

**Construction Activity(ies)** – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal.

Construction activity does <u>not</u> include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material; and
- Long-term use of equipment storage areas at or near highway maintenance facilities: and
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or embankment; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

**Construction Site** – the land area where *construction activity(ies)* will occur. See also the definitions for "Commence (Commencement of) Construction Activities" and "Common Plan of Development or Sale."

**Dewatering** – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

**Directly Discharge(s)(ing) (to a specific surface waterbody)** – runoff flows from a construction site by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a construction site to a separate storm sewer system and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

**Discharge(s)(d)** – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

**Embankment** – an earthen or rock slope that supports a road/highway.

**Equivalent (Equivalence)** – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

**Final Stabilization** – all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other *equivalent* stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

**Historic Property** – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

**Impervious Area (Cover)** – all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and compacted gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

**Infeasible** – not technologically possible, or not economically practicable and achievable considering best industry practices.

**Minimize(ing)(ation)** – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

**Municipal Separate Storm Sewer System (MS4)** - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- 1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that discharges to surface waters of the State; and
- 2. designed or used for collecting or conveying stormwater, and
- 3. which is not a combined sewer system; and
- 4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**Natural Buffer(s)** – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

**New Development** – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

**Nonpoint Source(s)** – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

**Overbank** – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

**Owner or Operator** – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

**Performance Criteria** – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRv, CPv, Qp and Qf) in Part I.C.2. of the permit.

**Phase** – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

**Point Source** – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

**Pollutant(s)** – dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast *discharged* into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq.

**Qualified Inspector** – a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

**Qualified Professional** – a person that is knowledgeable in the principles and practices of *stormwater* management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the *SWPPP* that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer <u>licensed to practice in the State of New York.</u>

**Redevelopment Activity(ies)** – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

**Renewable Energy** – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

**Site Limitations** – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

**Sizing Criteria** – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

**Steep Slope** – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

**Stormwater** – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

**Streambank** – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

**Stormwater Pollution Prevention Plan (SWPPP)** – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

**Surface Waters of the State** – shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

**Temporarily Ceased** – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

**Temporary Stabilization** – exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

**Total Maximum Daily Load** (TMDL) – the sum of the allowable loads of a single *pollutant* from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a *pollutant* that a waterbody can receive and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint sources*, and a margin of safety (MOS).

**Traditional Land Use Control MS4 Operator** – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

**Trained Contractor** – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training

in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the *trained* contractor shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

**Tree Clearing** – *construction activities* limited to felling and removal of trees.

Tree clearing does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered construction activity requiring coverage under this permit.

**Water Quality Standard** – such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

#### **APPENDIX B – Required SWPPP Components by Project Type**

#### Table 1

# CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

# The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single-family home <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> <u>directly</u> <u>discharging</u> to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix D
- Construction of a barn or other agricultural building, silo, stock yard or pen.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.

# The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

 All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

#### Within the municipal boundaries of NYC:

• Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.

#### The following construction activities:

- Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis
  parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation
  of undisturbed area downgradient from the parking lot
- Dam rehabilitation (the structure of the dam itself)
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development;
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

### **Table 1 (Continued)**

# CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

#### The following construction activities:

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not alter hydrology from pre- to post-development conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious* area and do not alter hydrology from pre- to post-development conditions
- Demolition where vegetation will be established, and no redevelopment activity is planned1
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with impervious cover.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not alter hydrology from pre- to post-development conditions, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best
  Management Practice Systems Catalogue" (dated June 2023) that do not include construction or
  reconstruction of impervious area and do not alter hydrology from pre- to post-development
  conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious* areas that will be restored to pre-construction conditions once the construction activity is complete (in this context, "temporary" means the *impervious* area will be in place for two years or less)
- Other construction activities that do not include the construction or reconstruction of impervious area, and do not alter hydrology from pre- to post-development conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

#### Table 2

# Construction Activities that Require the Preparation of a SWPPP That Includes Post-construction Stormwater Management Practices (SMPs)

#### The following construction activities:

- Single-family home located in one of the watersheds listed in Appendix C or directly discharging to one of the 303(d) segments listed in Appendix D
- Single-family home that disturbs five (5) or more acres of land
- Single-family residential subdivisions located in one of the watersheds listed in Appendix C or directly discharging to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC with greater than 25% impervious cover at total site build-out
- Single-family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single-family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a common plan of development or sale that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of impervious area in the municipal boundaries of NYC
- Airports
- Amusement parks
- · Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- · Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

#### **Table 2 (Continued)**

# CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPs)

#### The following construction activities:

- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- · Racetracks; includes racetracks with earthen (dirt) surfaces
- · Road construction or reconstruction, outside the municipal boundaries of NYC
- · Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the construction activities listed in Table 1, unless a Table 1 bullet specifies otherwise)
- Athletic fields (natural grass) that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations, and well drilling pads, surfaced with *impervious cover*, and constructed as part of an overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an impervious cover, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will alter the hydrology from pre- to postdevelopment conditions
- Solar array field areas with tables that are not elevated high enough to achieve final stabilization beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with impervious cover, including electric vehicle charging stations
- All other construction activities that include the construction or reconstruction of impervious area or alter the hydrology from pre- to post-development conditions, and are not listed in Table 1

### **APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal**

Watersheds where *owners* or *operators* of *construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.

- Entire New York City Watershed located east of the Hudson River Figure 1
- Onondaga Lake Watershed Figure 2
- Greenwood Lake Watershed Figure 3
- Oscawana Lake Watershed Figure 4
- Kinderhook Lake Watershed Figure 5

Figure 1 - New York City Watershed East of the Hudson

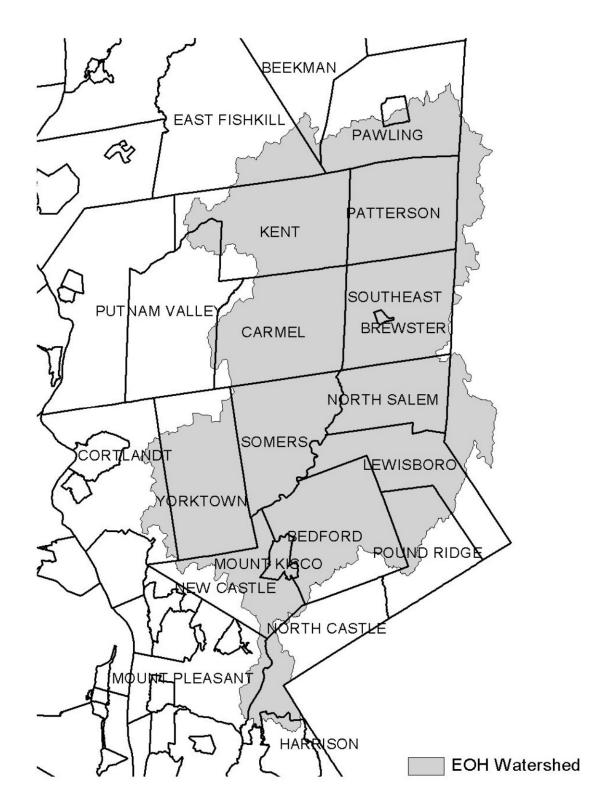


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

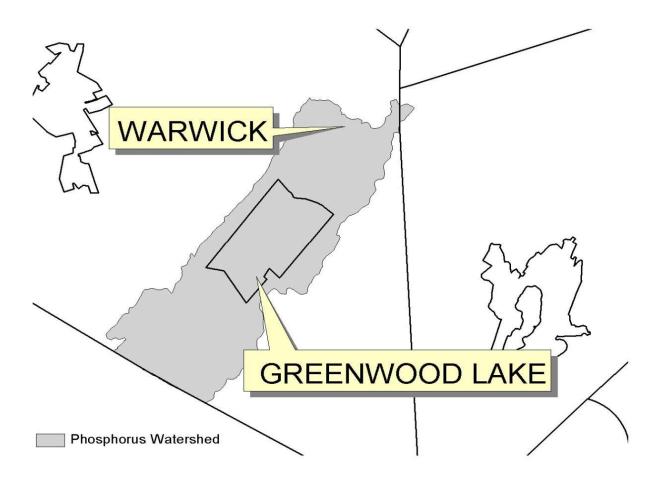


Figure 4 - Oscawana Lake Watershed

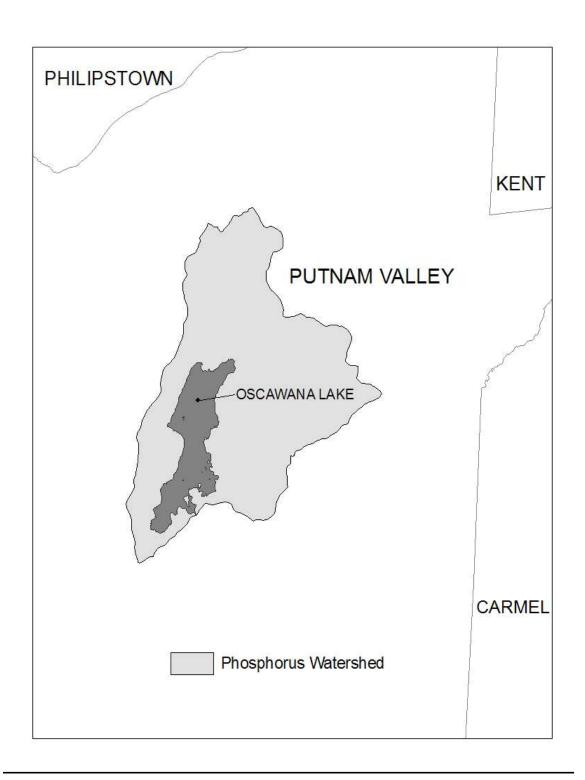
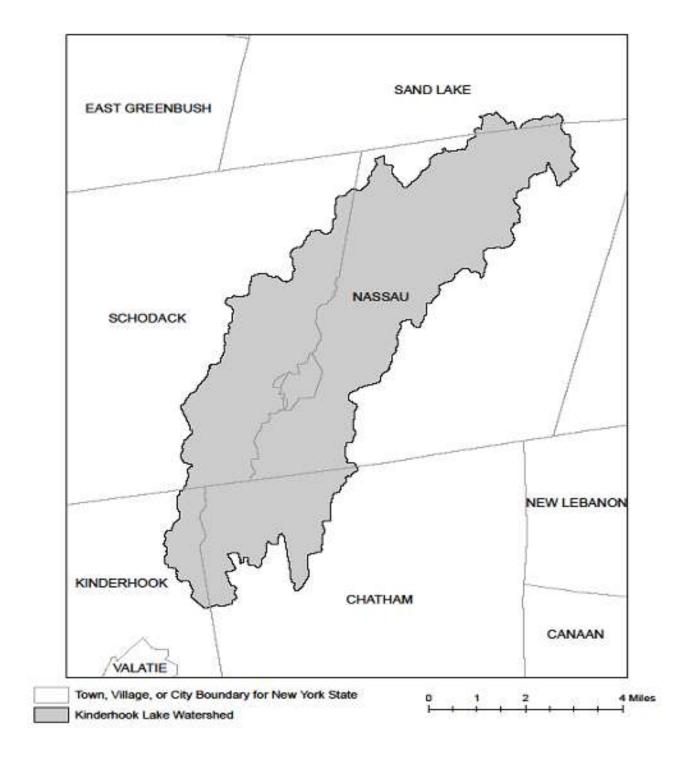


Figure 5 - Kinderhook Lake Watershed



### **APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)**

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of "The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL" dated June 2020.

County	Waterbody	Pollutant
Albany	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	Phosphorus
Albany	Lawsons Lake (1301-0235)	Phosphorus
Allegany	Amity Lake, Saunders Pond (0403-0054)	Phosphorus
Allegany	Andover Pond (0403-0056)	Phosphorus
Bronx	Reservoir No.1/Lake Isle (1702-0075)	Phosphorus
Bronx	Van Cortlandt Lake (1702-0008)	Phosphorus
Broome	Blueberry, Laurel Lakes (1404-0033)	Phosphorus
Broome	Fly Pond, Deer Lake (1404-0038)	Phosphorus
Broome	Minor Tribs to Lower Susquehanna (0603-0044)	Phosphorus
Broome	Whitney Point Lake/Reservoir (0602-0004)	Phosphorus
Cattaraugus	Allegheny River/Reservoir (0201-0023)	Phosphorus
Cattaraugus	Beaver Lake/Alma Pond (0201-0073)	Phosphorus
Cattaraugus	Case Lake (0201-0020)	Phosphorus
Cattaraugus	Linlyco/Club Pond (0201-0035)	Phosphorus
Cayuga	Duck Lake (0704-0025)	Phosphorus
Cayuga	Owasco Inlet, Upper, and tribs (0706-0014)	Nutrients
Chautauqua	Chadakoin River and tribs (0202-0018)	Phosphorus
Chautauqua	Hulburt/Clymer Pond (0202-0079)	Phosphorus
Chautauqua	Middle Cassadaga Lake (0202-0002)	Phosphorus
Clinton	Great Chazy River, Lower, Main Stem (1002-0001)	Silt/Sediment
Columbia	Robinson Pond (1308-0003)	Phosphorus
Cortland	Dean Pond (0602-0077)	Phosphorus
Dutchess	Fallkill Creek (1301-0087)	Phosphorus
Dutchess	Hillside Lake (1304-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Silt/Sediment
Erie	Beeman Creek and tribs (0102-0030)	Phosphorus
Erie	Delaware Park Pond (0101-0026)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Silt/Sediment
Erie	Green Lake (0101-0038)	Phosphorus
Erie	Little Sister Creek, Lower, and tribs (0104-0045)	Phosphorus
Erie	Murder Creek, Lower, and tribs (0102-0031)	Phosphorus

Erie	Rush Creek and tribs (0104-0018)	Phosphorus
Erie	Scajaquada Creek, Lower, and tribs (0101-0023)	Phosphorus
Erie	Scajaquada Creek, Middle, and tribs (0101-0033)	Phosphorus
Erie	Scajaquada Creek, Upper, and tribs (0101-0034)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs	Phosphorus
	(0101-0036)	
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Genesee	(0101-0036)  Bigelow Creek and tribs (0402-0016)	Phosphorus
Genesee	Black Creek, Middle, and minor tribs (0402 0028)	Phosphorus
Genesee	Black Creek, Whitele, and minor tribs (0402-0028)  Black Creek, Upper, and minor tribs (0402-0048)	Phosphorus
Genesee	Bowen Brook and tribs (0102-0036)	Phosphorus
	LeRoy Reservoir (0402-0003)	Phosphorus
Genesee		· ·
Genesee	Mill Pond (0402-0050)	Phosphorus
Genesee	Oak Orchard Cr, Upper, and tribs (0301-0014)	Phosphorus
Genesee	Oatka Creek, Middle, and minor tribs (0402-0031)	Phosphorus
Genessee	Tonawanda Cr, Middle, Main Stem (0102-0002)	Phosphorus
Greene	Schoharie Reservoir (1202-0012)	Silt/Sediment
Greene	Sleepy Hollow Lake (1301-0059)	Silt/Sediment
Herkimer	Steele Creek tribs (1201-0197)	Phosphorus
Herkimer	Steele Creek tribs (1201-0197)	Silt/Sediment
Kings	Hendrix Creek (1701-0006) 18	Nitrogen
Kings	Prospect Park Lake (1701-0196)	Phosphorus
Lewis	Mill Creek/South Branch, and tribs (0801-0200)	Nutrients
Livingston	Christie Creek and tribs (0402-0060)	Phosphorus
Livingston	Conesus Lake (0402-0004)	Phosphorus
Livingston	Mill Creek and minor tribs (0404-0011)	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs (0402-0033)	Phosphorus
Monroe	Buck Pond (0301-0017)	Phosphorus
Monroe	Cranberry Pond (0301-0016)	Phosphorus
Monroe	Durand, Eastman Lakes (0302-0037)	Phosphorus
Monroe	Lake Ontario Shoreline, Western (0301-0069) 9	Phosphorus
Monroe	Long Pond (0301-0015)	Phosphorus
Monroe	Mill Creek and tribs (0302-0025)	Phosphorus 2
Monroe	Mill Creek/Blue Pond Outlet and tribs (0402-0049)	Phosphorus
Monroe	Minor Tribs to Irondequoit Bay (0302-0038)	Phosphorus
Monroe	Rochester Embayment - East (0302-0002) [9]	Phosphorus
Monroe	Rochester Embayment - West (0301-0068) 9	Phosphorus
Monroe	Shipbuilders Creek and tribs (0302-0026)	Phosphorus 2
Monroe	Thomas Creek/White Brook and tribs (0302-0023)	Phosphorus

Naccon	Parasistan Crash/Par. (1701-0300)	Nitra		
Nassau	Bannister Creek/Bay (1701-0380) Nitrogen			
Nassau	Beaver Lake (1702-0152)	Phosphorus		
Nassau	Browswere Bay (1701-0383)	Nitrogen		
Nassau	Camaans Pond (1701-0052)	Phosphorus		
Nassau	East Meadow Brook, Upper, and tribs (1701-0211)	Silt/Sediment		
Nassau	East Rockaway Channel (1701-0381)	Nitrogen		
Nassau	Glen Cove Creek, Lower, and tribs (1702-0146)	Silt/Sediment		
Nassau	Grant Park Pond (1701-0054)	Phosphorus		
Nassau	Hempstead Bay, Broad Channel (1701-0032)	Nitrogen		
Nassau	Hempstead Lake (1701-0015)	Phosphorus		
Nassau	Hewlett Bay (1701-0382)	Nitrogen		
Nassau	Hog Island Channel (1701-0220)	Nitrogen		
Nassau	Massapequa Creek, Upper, and tribs (1701-0174)	Phosphorus		
Nassau	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Phosphorus		
Nassau	Reynolds Channel, East (1701-0215) [12]	Nitrogen		
Nassau	Reynolds Channel, West (1701-0216) 12	Nitrogen		
Nassau	Tidal Tribs to Hempstead Bay (1701-0218)	Nitrogen		
Nassau	Tribs (fresh) to East Bay (1701-0204)	Silt/Sediment		
Nassau	Tribs (fresh) to East Bay (1701-0204)	Phosphorus		
Nassau	Tribs to Smith Pond/Halls Pond (1701-0221)	Phosphorus		
Nassau	Woodmere Channel (1701-0219)	Nitrogen		
New York	Harlem Meer (1702-0103)	Phosphorus		
New York	The Lake in Central Park (1702-0105)	Phosphorus		
Niagara	Bergholtz Creek and tribs (0101-0004)	Phosphorus		
Niagara	Hyde Park Lake (0101-0030)	Phosphorus		
Niagara	Lake Ontario Shoreline, Western (0301-0053) 9	Phosphorus		
Niagara	Lake Ontario Shoreline, Western (0301-0072) 9	Phosphorus		
Oneida	Ballou, Nail Creeks (1201-0203)	Phosphorus		
Onondaga	Ley Creek and tribs (0702-0001) 10	Nutrients (phosphorus)		
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nutrients (phosphorus)		
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nitrogen (NH3, NO2)		
Onondaga	Onondaga Creek, Lower (0702-0023) 10	Nutrients		
		(phosphorus)		
Onondaga	Onondaga Creek, Lower, and tribs (0702-0023)	Turbidity		
Onondaga	Onondaga Creek, Middle, and tribs (0702-0004)	Turbidity		
Onondaga	Onondaga Creek, Upper, and tribs (0702-0024)	Turbidity		
Ontario	Great Brook and minor tribs (0704-0034)	Phosphorus 2		
Ontario	Great Brook and minor tribs (0704-0034)	Silt/Sediment		

Ontario	Hemlock Lake Outlet and minor tribs (0402-0013)	Phosphorus
Ontario	Honeoye Lake (0402-0032)	Phosphorus
Orange	Brown Pond Reservoir (1303-0013)	Phosphorus
Orange	Lake Washington (1303-0012)	Phosphorus
Orange	Minor Tribs to Middle Wallkill (1306-0061)	Phosphorus
Orange	Monhagen Brook and tribs (1306-0074)	Phosphorus
Orange	Orange Lake (1301-0008) [16]	Phosphorus
Orange	Quaker Creek and tribs (1306-0025)	Phosphorus
Orange	Wallkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Wallkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenvwood Lake (0301-0041)	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0070) 9	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0071) 9	Phosphorus
Oswego	Lake Neatahwanta (0701-0018)	Nutrients
Oswego	Lake Neatanwanta (0701-0016)	(phosphorus)
Oswego	Pleasant Lake (0703-0047)	Phosphorus
Putnam	Lost Lake, Putnam Lake (1302-0053)	Phosphorus
Putnam	Minor Tribs to Croton Falls Reservoir (1302-0001)	Phosphorus
Queens	Bergen Basin (1701-0009) 18	Nitrogen
Queens	Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18	Nitrogen
Queens	Kissena Lake (1702-0258)	Phosphorus
Queens	Meadow Lake (1702-0030)	Phosphorus
Queens	Shellbank Basin (1701-0001) 18	Nitrogen
Queens	Willow Lake (1702-0031)	Phosphorus
Rensselaer	Nassau Lake (1310-0001)	Phosphorus
Rensselaer	Snyders Lake (1301-0043)	Phosphorus
Richmond	Grassmere Lake/Bradys Pond (1701-0357)	Phosphorus
Rockland	Congers Lake, Swartout Lake (1501-0019)	Phosphorus
Rockland	Rockland Lake (1501-0021)	Phosphorus
Saratoga	Ballston Lake (1101-0036)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Silt/Sediment
Saratoga	Lake Lonely (1101-0034)	Phosphorus
Saratoga	Round Lake (1101-0060)	Phosphorus
Saratoga	Tribs to Lake Lonely (1101-0001)	Phosphorus
Schenectady	Collins Lake (1201-0077)	Phosphorus
Schenectady	Duane Lake (1311-0006)	Phosphorus
Schenectady Lake	Mariaville Lake (1201-0113)	Phosphorus
Schuyler	Cayuta Lake (0603-0005)	Phosphorus

Seneca	Reeder Creek and tribs (0705-0074)	Phosphorus
St.Lawrence	Black Lake Outlet, Black Lake (0906-0001)	Phosphorus
St.Lawrence	Fish Creek and minor tribs (0906-0026)	Phosphorus
Steuben	Smith Pond (0502-0012)	Phosphorus
Suffolk	Agawam Lake (1701-0117)	Phosphorus
Suffolk	Big/Little Fresh Ponds (1701-0125)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Silt/Sediment
Suffolk	Fresh Pond (1701-0241)	Phosphorus
Suffolk	Great South Bay, East (1701-0039)	Nitrogen
Suffolk	Great South Bay, Middle (1701-0040)	Nitrogen
Suffolk	Great South Bay, West (1701-0173)	Nitrogen
Suffolk	Lake Ronkonkoma (1701-0020)	Phosphorus
Suffolk	Mattituck/Marratooka Pond (1701-0129)	Phosphorus
Suffolk	Mill and Seven Ponds (1701-0113)	Phosphorus
Suffolk	Millers Pond (1702-0013)	Phosphorus
Suffolk	Moriches Bay, East (1701-0305)	Nitrogen
Suffolk	Moriches Bay, West (1701-0038)	Nitrogen
Suffolk	Quantuck Bay (1701-0042)	Nitrogen
Suffolk	Shinnecock Bay and Inlet (1701-0033)	Nitrogen
Suffolk	Tidal Tribs to West Moriches Bay (1701-0312)	Nitrogen
Sullivan	Bodine, Mongomery Lakes (1401-0091)	Phosphorus
Sullivan	Davies Lake (1402-0047)	Phosphorus
Sullivan	Evens Lake (1402-0004)	Phosphorus
Sullivan	Pleasure Lake (1402-0055)	Phosphorus
Sullivan	Swan Lake (1401-0063)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Silt/Sediment
Ulster	Ashokan Reservoir (1307-0004)	Silt/Sediment
Ulster	Esopus Creek, Lower, Main Stem (1307-0010) [17]	Turbidity
Ulster	Esopus Creek, Middle, Main Stem (1307-0003) 17	Turbidity
Ulster	Esopus Creek, Upper, and minor tribs (1307-0007)[3]	Silt/Sediment
Ulster	Wallkill River, Lower, Main Stem (1306-0027)	Phosphorus
Warren	Hague Brook and tribs (1006-0006)	Silt/Sediment
Warren	Huddle/Finkle Brooks and tribs (1006-0003)	Silt/Sediment
Warren	Indian Brook and tribs (1006-0002)	Silt/Sediment
Warren	Lake George (1006-0016) and tribs	Silt/Sediment
Warren	Tribs to Lake George, East Shore (1006-0020)	Silt/Sediment
Warren	Tribs to Lake George, Lk.George Village (1006-0008)	Silt/Sediment

Washington	Wood Cr/Champlain Canal and tribs (1005-0036)	Phosphorus
Westchester	Lake Katonah (1302-0136)	Phosphorus
Westchester	Lake Lincolndale (1302-0089)	Phosphorus
Westchester	Lake Meahagh (1301-0053)	Phosphorus
Westchester	Lake Mohegan (1301-0149)	Phosphorus
Westchester	Lake Shenorock (1302-0083)	Phosphorus
Westchester	Mamaroneck River, Lower (1702-0071)	Silt/Sediment
Westchester	Mamaroneck River, Upp, & minor tribs (1702-0123)	Silt/Sediment
Westchester	Saw Mill River (1301-0007)	Phosphorus
Westchester	Saw Mill River, Middle, and tribs (1301-0100)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Silt/Sedimnt
Westchester	Silver Lake (1702-0040)	Phosphorus
Westchester	Teatown Lake (1302-0150)	Phosphorus
Westchester	Truesdale Lake (1302-0054)	Phosphorus
Westchester	Wallace Pond (1301-0140)	Phosphorus

## **APPENDIX E – List of NYSDEC Regional Offices**

<u>Region</u>	COVERING THE FOLLOWING COUNTIES:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS	DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 Tel. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 Tel. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 Hunters Point Plaza, 47-40 21st St. Long Island City, Ny 11101-5407 Tel. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21st St. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 Tel. (845) 256-3059	220 WHITE PLAINS ROAD, SUITE 110 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 Tel. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 Tel. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 Tel. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7070

# Appendix E Forms



# Owner/Operator Certification Form

# SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: Dodge Road	Single	-Family Subdivisi	ion
eNOI Submission ID:			
eNOI Submitted by: Owner/Ope	erator	SWPPP Preparer	Other
Certification Statement - Owner/Oբ	oerator		
I hereby certify that I read, and will comply wind authorization to discharge under the permit for Letter of Authorization (LOA) or a Letter of Compartment of Environmental Conservation (I am aware that there are significant penalties fine and imprisonment for knowing violations	or the project continued Co (NYSDEC) in s for submit	ct/site named above is dependenced to the control of the control o	ndent on receipt of a ew York State t I.D.3.b. or Part I.F.4.
Joseph		Rubino	
Owner/Operator First Name	MI	Owner/Operator Last Na	ame
Signature 2/6/25			

Revised: January 2025



# **SWPPP Preparer Certification Form**

# SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

	• ,				
Project/Site Name:	Dodge Road Singl	e-Family Subdivision			
eNOI Submission ID:					
Owner/Operator Name:	Joseph Rubino				
Certification Statement – SWPPP Preparer  I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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.					
Christopher		Wood			
SWPPP Preparer First Nar	ne MI	SWPPP Preparer Last Name			
Signature		02/05/25 Date			

Revised: January 2025

# STORM WATER POLLUTION PREVENTION PLAN CONTRACTOR'S CERTIFICATION STATEMENT

# Pleasant Woods Land Clearing and Grading and all subsequent activities covered under SPDES Permit

#### **CONTRACTOR'S CERTIFICATION:**

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Note: The contractor shall have at least one NYSDEC trained individual onsite at all times when earthwork and other SWPPP associated work is being performed from each contractor(s) and subcontractor(s). <u>Each contractor(s)</u> and subcontractor(s) shall provide copies of these individuals' certifications to the Town of Hamburg.

Name:
(Print)
Signature:
Title:
Company Name:
Address:
Telephone Number:
Date:
Scope of Services:
Trained Individual(s) Responsible for Implementation

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" of the NYSDEC SPDES General Permit

# Appendix F NYSDEC Notice of Termination (NOT)

# New York State Department of Environmental Conservation Division of Water

# 625 Broadway, 4th Floor

Albany, New York 12233-3505

\*(NOTE: Submit completed form to address above)\*

# NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR **Owner or Operator Information** 1. Owner/Operator Name: Street Address: 3. City/State/Zip: Contact Person: 4a.Telephone: 4b. Contact Person E-Mail: II. Project Site Information 5. Project/Site Name: 6. Street Address: 7. City/Zip: 8. County: III. Reason for Termination 9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. \*Date final stabilization completed (month/year): 9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR (Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit) 9c. □ Other (Explain on Page 2) IV. Final Site Information: 10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.) 10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? (If no, explain on Page 2) □ yes □ no 10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

# NOTICE OF TERMINATION for Storm Water Discharges Authorized under the **SPDES General Permit for Construction Activity - continued** 10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes 10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s): □ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality. □ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s). □ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record. □ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan. 10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? (acres) 11. Is this project subject to the requirements of a regulated, traditional land use control MS4? (If Yes, complete section VI - "MS4 Acceptance" statement V. Additional Information/Explanation: (Use this section to answer questions 9c. and 10b., if applicable) VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage) I have determined that it is acceptable for the owner or operator of the construction project identified in guestion 5 to submit the Notice of Termination at this time. Printed Name:

Date:

Title/Position:

Signature:

# NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as of the general permit, and that all temporary, structural erosion and sedin been removed. Furthermore, I understand that certifying false, incorrect of violation of the referenced permit and the laws of the State of New York a criminal, civil and/or administrative proceedings.	nent control measures have or inaccurate information is a		
Printed Name:			
Title/Position:			
Signature:	Date:		
VIII. Qualified Inspector Certification - Post-construction Stormwat	ter Management Practice(s):		
I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.			
Printed Name:			
Title/Position:			
Signature:	Date:		
IX. Owner or Operator Certification			
I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.			
Printed Name:			
Title/Position:			
Signature:	Date:		

(NYS DEC Notice of Termination - January 2015)

# Appendix G Construction Documents

# Holland Heights Single Family Subdivision 1789 Dodge Road Amherst, New York

#### **AGENCIES**

ENGINEERING DEPARTMENT

NAME/TITLE: JEFFERY BURROUGHS, P.E. - TOWN ENGINEER COMPANY/DEPT TOWN OF AMHERST ENGINEERING DEPARTMENT ADDRESS: 1100 NORTH FOREST ROAD

WILLIAMSVILLE, NEW YORK 14221

TELEPHONE 716-631-7154

PLANNING & ZONING DEPARTMENT

DANIEL HOWARD - PLANNING DIRECTOR TOWN OF AMHERST PLANNING DEPARTMENT COMPANY/DEPT: 5583 MAIN STREET ADDRESS

WILLIAMSVILLE, NEW YORK 14221

TELEPHONE 716-631-7051

BUILDING DEPT.

NAME/TITLE: BERKE, MARK S. - COMMISSIONER OF BUILDING TOWN OF AMHERST BUILDING DEPT. COMPANY/DEPT .:

ADDRESS: AMHERST, NEW YORK 14221

TELEPHONE 716-631-7080

NAME/TITLE:

ERIE COUNTY DEPARTMENT OF HEALTH COMPANY/DEPT:.

503 KENSINGTON AVE BUFFALO, NEW YORK 14214

TELEPHONE 716-961-6854

NYSDEC NAME / TITLE

COMPANY/DEPT:

NEW YORK STATE DEPT, OF ENVIRONMENTAL

CONSERVATION ADDRESS: 700 DELAWARE AVE.

BUFFALO, NEW YORK 14209

TELEPHONE 716-851-7070 UTILITIES

NATURAL GAS COMPANY/DEPT:

NATIONAL FUEL GAS CORP. 6363 MAIN STREET WILLIAMSVILLE, NEW YORK 14221

TELEPHONE 716-857-7000

TELEPHONE COMPANY COMPANY/DEPT:

VERIZON 65 FRANKLIN STREET BUFFALO, NEW YORK 14203

TELEPHONE 716-840-8748

CABLE COMPANY COMPANY/DEPT:

TELEPHONE

TIME WARNER 789 CHURCH ROAD WEST SENECA, NEW YORK

716-558-8615

ELECTRIC COMPANY COMPANY/DEPT:

ADDRESS: 144 KENSINGTON AVENUE BUFFALO, NEW YORK 14214

TELEPHONE 716-236-2738

WATER

COMPANY/DEPT: ADDRESS:

ERIE COUNTY WATER AUTHORITY 3030 LINION ROAD CHEEKTOWAGA, NEW YORK 14227

TELEPHONE 716-684-1510

DIG SAFFLY NEW YORK

TELEPHONE 1-800-962-7962

**DESIGN CONSULTANTS** 

PROJECT SURVEYOR COMPANY/DEPT:

NUSSBAUMER & CLARKE, INC. ADDRESS: 3556 LAKESHORE ROAD, SUITE 500

BUFFALO, NEW YORK 14219

TELEPHONE 716-827-8000 OWNER/DEVELOPER

NAMF: JOE RUBINO

ADDRESS 5500 MAIN STREET, SUITE 343 WILLIAMSVILLE, NY 14221

JOE RUBINO CONTACT: TELEPHONE 716-510-4338



LOCATION MAP

DESIGN

FEBRUARY 2025 REV. JULY 2025

DRAWING NO.

C-405 C-407 C-408 C-409 L-100 L-101

DRAWING TITLE

COVER SHEET

GRADING PLAN

ROAD PROFILE

BASIN DETAILS

UTILITY PLAN UTILITY PROFILES

LIGHTING DETAILS

LIGHTING DETAILS

LIGHTING DETAILS

ADDRESS PLAN

LANDSCAPE DETAILS

DESCRIPTION

LAND SURVEY (PREPARED BY NUSSBAUMER & CLARKE)
DEMOLITION & EROSION CONTROL PLAN

DATE

9/19/2024

10/24/2024

11/11/2024

4/16/2025 5/13/2025

5/23/2025

6/10/2025

7/25/2025

DEMOLITION & EROSION CONTROL DETAILS

PRELIMINARY PLAT/LAYOUT PLAN

STORM WATER MANAGEMENT PLAN

STORM DRAINAGE DETAILS STORM DRAINAGE DETAILS

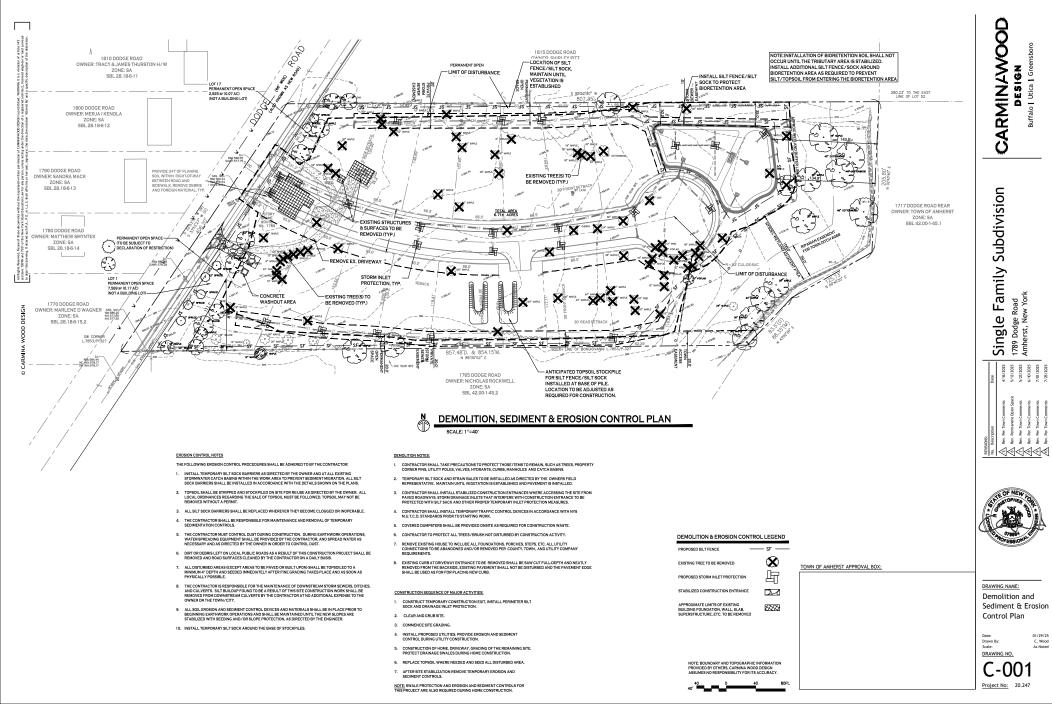
SANITARY SEWER DETAILS SANITARY SEWER DETAILS

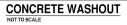
SANITARY SEWER NOTES WATER DETAILS

Holland Heights

Single Family Subdivision 1789 Dodge Road Amherst. New York

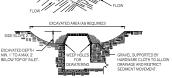
CARMINAWOOD





TYPE "ABOVE GROUND" WITH WOOD PLANKS



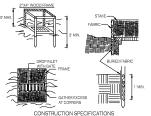


#### CONSTRUCTION SPECIFICATIONS

- 1. CLEAR THE AREA OF ALL DEBRISTHAT WILL HINDER EXCAVATION
- 2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
- 3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
- UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

#### INLET PROTECTION DETAIL 1



- FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM
- CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS, IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- STAKE MATERIALS WILL BE STANDARD 2" X 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
- SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
- FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
- A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUN DRAINAGE AREA 1 ACRE

#### INLET PROTECTION DETAIL 2

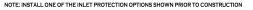
### CONCRETE BLOCK - 2:1 SLOPE GRAVEL EILTER STONE & BLOCK PLAN VIEW TEMPORARY SEDIMENT POOL - WIRE MESH (OPTIONAL) WIRE MESH

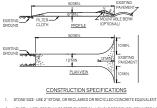
#### CONSTRUCTION SPECIFICATIONS

- 1 I AVIONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING FOLINDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT
- 2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
- 3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER
- 4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS

MAXIMUM DRAINAGE AREA 1 ACRE

#### INLET PROTECTION DETAIL 3

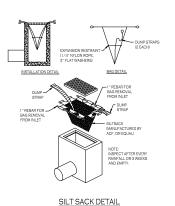


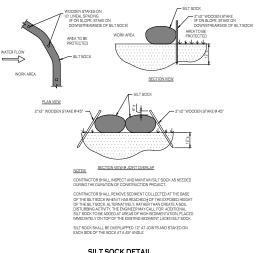


- LENGTH NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- WIDTH-TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE PULL WIDTH AT POINTS WHERE INGRESS OR EGRESS COCCURS, TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO STE.
- 5. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER-ALL SURFACE WATER FLOWING OR DIVERTED TOWARD
  CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE, IF PIPING IS
  IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF-WAY, ALL SEDIMENT SPILLED, DROPFED, WASHED OR TRACTED ONTO PUBLIC RIGHTS OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH

#### STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE





#### SILT SOCK DETAIL





Drawn By: Scale: DRAWING NO.

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**ARMINAWO** 

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Subdivision

Family !

Single I

DESIGN

Project No: 20.247

# **ARMIN/WOOD** DESIGN Q

Subdivision Family Single

DRAWING NAME:

Preliminary Plat

C. Wood



Subdivision Single Family

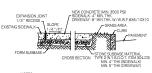


Site Details

Date: Drawn By: Scale:

DRAWING NO.

Project No: 20.247



NOTES:
1. CONTROL JOINTS TO BE AT 5-0" O.C., BOTHWAYS WHERE APPLICABLE,
SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS MYSOOT 702-0700. CONCRETE SIDEWALK AND DRIVEWAY MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION BOT AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 6089.

IO WINDOWS PROMINEND STATE AND ROOMS OF THE SOCKWALK AND SUBBLESS GROUPS WILL POLLOW HIT PROVIDED GROUP OF THE SOCKWALK AND SUBBLESS GROUPS OF THE SOCKWALK AND STATE AND STATE

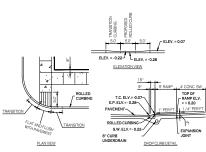
 NSTALL 6" LONG #3 DOWELS @ 12" O.C. WHERE SIDEWALK ABUTS A BUILDING WALLAT AN ENTRANCE. THICKEN SIDEWALK TO 6" AT BUILDING WALL AND NSTALL DOWEL CENTERED IN THE 6" DEPTH. DOWELS AND THICKENING OF SIDEWALK SHALL EXTEND IN 9" ETHER SIDE OF ENTRANCE. 7. INSTALL X" PREMOLDED EXPANSION JOINT WITH BACKER ROD & SEALANT WHERE SIDEWALK ABUTS BUILDING OR OTHER STRUCTURE

4" CLEAN NO. 2 CRUSHED STONE TYPICAL DRIVEWAY APRON & SIDEWALK

PROPOSED 4" THICK CONCRETE SIDEWALK

1-1/2" TOP, NYSDOT ITEM 403.18, TYPE 7 OR 7F PROPOSED 6" THICK CONCRETE APPROACH 2-1/2" BINDER, NYSDOT ITEM 403.13, TYPE 3 \* \_ 4" 1-A BASE, NYSDOT ITEM 403.12, 11" COMPACTED R.O.C. STONE BASE UNDISTURBED EARTH \*NOTE: THE BINDER AND BASE COURSES MAY CONSIST OF RECYCLED ASPHALT MATERIAL CONSTRUCTION TOWN OF AMHERST TYPICAL PAVEMENT SECTION

CONCRETE SIDEWALK



SIDEWALK RAMP DETAILS

CONTRACTOR TO EXERCISE C PAVEMENT CARE WHEN COMPACTING BASE MATERIAL OVER THE BINCH CURB DRAIN 4" TOPSOIL ALTERNATION OF THE PARTY OF THE CLEAN NO. 10 STONE FILTER NYSDOT TABLE 703-4 8" Ø PERFORATED PVC DRAIN TILE SDR-35 ASTM 03034 GEOTEXTILE FABRIC SUB-BASE REINFORCED, MIRAFI 500X (OR-APPROVED EQUAL)

ROLLED CURB DETAIL

GALVANIZED CONDUIT "FILL" NOTES: LOCATIONS OF POLINDATIONS SEE SITE FLAM:
1 FOR LIGHT PRICES, POLINDATIONS SEE SITE FLAM:
1 FOR LIGHT PRICES, POLINDATIONS SEE SITE FLAM:
1 FOR LIGHT PRICES, POLINDATION SEE LIGHTING PLAN
CERES YA PROSPANDATION WITH OWNER PRICES TO BRIDGERING.
2 LIGHT POLE BASE EXPOSES, RADIVE GRADES HALL BE:
1 HOLDING SALABLES & PAROVE FOR CHURBE LEVATION
1 HYDROGIST SEE SEE SEES.
1 HOLDING SALABLES SALABLES & PABOVE GRADE

1 HYDROGIST SEES SALABLES & PABOVE GRADE

= 4 - 40'x1"Ø ANCHOR BOLTS (VERIFY W/MANUFACTURER) = #3 REINFORCING TIES 12" ON CENTER

FIXTURE FURNISHED BY FACTORY/DEVELOPER, = INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.

- FACTORY/DEVELOPER FURNISHED POLE

#6 BARE GROUND WIRE CADWELD CONNECTION
(BOTH ENDS) 3/4 "X10" COPPER WELD GROUND ROD (LIGHTING PROTECTION) CARLON PLASTIC CONDUIT

GALVANIZED STEEL TO CARLON CONDUIT CONNECTOR

LIGHT POLE FOUNDATION

4 PAVEMENT

61

NOTE:
THE WIDTH OF SPREAD SHOULD BE PLANNED TO PROVIDE FOR THE OFFSETTING OF LONGITUDINAL JOINTS IN THE SEVERAL

PAVEMENT OVERLAPPING DETAIL

NEW SURFACE COURSE-

ELECT. CONTRACTOR TO CONNECT OR CADWELD GROUND WIRE TO

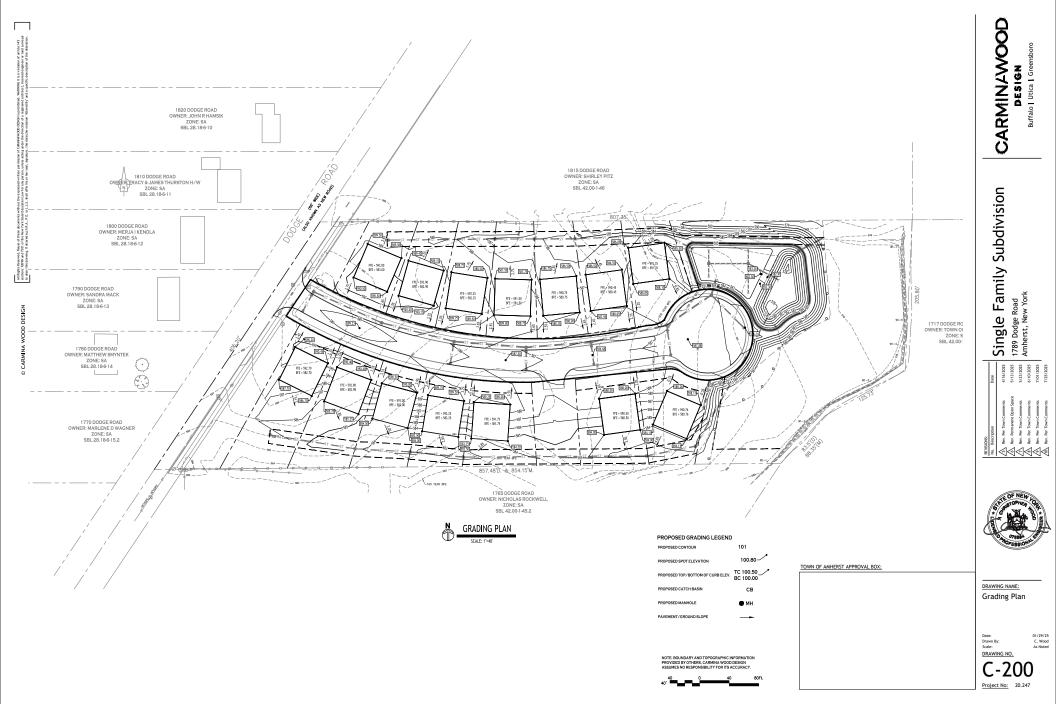
1"x45" CHAMFER -

- LONGITUDINAL JOINT

EXISTING BINDER COURSE

TOWN OF AMHERST APPROVAL BOX:

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

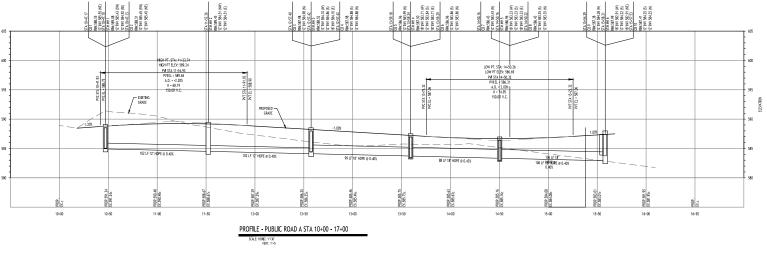


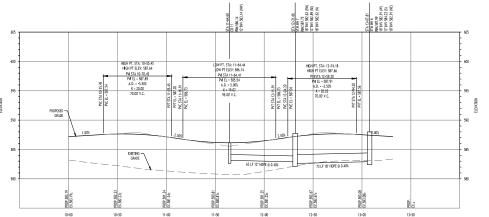
DRAWING NAME: Road Profile

TOWN OF AMHERST APPROVAL BOX:

Date: Drawn By: Scale: DRAWING NO.

01/29/25 C. Wood As Noted Project No: 20.247





PROFILE - PUBLIC ROAD A CUL-DE-SAC STA 10+00 - 14+00

CARMINAWOOD DESIGN

Subdivision Family ! Single I

REVISIONS:
No. Descrip



DRAWING NAME: Storm Water Management Plan

DRAWING NO.

01/29/25 C. Wood As Noted

▼ 100 YR EX, VS. 100 YR PRO. EL. (Qf) = 583.86

TOP OF BASIN EL. - 846.70

18" HOPE OUTLET PIPE.

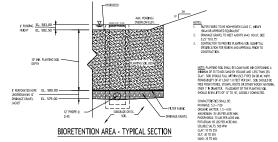
SEE PLAN FOR LENGTH & SLOPE

3 LF 18" HDPE @ 0.42%-

OUTLET STRUCTURE 2 (3° SQ, CB W/SQ, GRATE) MW,LOW 584, 00 HIGH 584, 50 E 4° INV 578,34 W 12° INV 578,34

HW. = EL. 578.46

— MITERED END SECTION WITH CONC. EARS INLET NV. 578.21



BIO-RETENTIO	N AREA SEEDING SPEC (N	ortheast Wetland Grass Seed Mix):	
Seed Misture	Variety	Percent by No. of Seeds	
Creeping Bentgrass Rough Bluegrass	Agrostis stolanifera Pra trivialis	63.0	
Hoogn Bluegrass Headow Fostali	Alopecurus arundineceus	17.0	
Annual Ryegrass	Leiture multifloorer	45	
Deertongue	Panicum clandestinum	45	

TOWN OF AMHERST APPROVAL BOX:



REVISIONS:
NO. DESCRIP
NO. DES

CARMINAWOOD

Single Family Subdivision

DESIGN



**Detention Basin** Plan

Date: Drawn By: Scale: 01/29/25 C. Wood As Noted

DRAWING NO. Project No: 20.247

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD MORRIS, D.P.C. ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

✓ 25 YR EX. VS. 25 YR PRO. EL. (Qf) = 583.35 TO YR EX. VS. 10 YR PRO. EL. (Qp) = 582.58 8' BIORETENTION --UNDERDRAIN, INV VARIES 12" HOPE OUTLET PIPE," SEE PLAN FOR LENGTH & SLOPE SECTION THROUGH STORM WATER BASIN & BIORETENTION

TOP OF BASIN EL. - 585.00

- B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
- C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF WATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.
- D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

#### MATERIALS

PRESENTE METERAL INSOCT 195 STEDDS

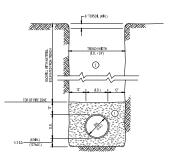
10. 1 (SAUDS STED OF DE SORDED CARRE VIRTH ANNOCH CONTROL ATTEMPORAL THE AUTORS SHALL BY MILL CARRED STRING ANNOCH SCHOOL METER ATTEMPORAL THE AUTORS SHALL BY MILL CARRED STRING STRING THE SON ANNOCH ANNOCH ANNOCH ANNOCH STRING THE LIMITS SECURIOR OF THE STRING STRING THE SOURCE SHALL BY COMPACTED IN FUTS WITH EQUIPMENT ACCUPANAGE TO BE REPLEASED.

NO SLAG SHALL BE ALLOWED FOR MATERIAL

THE 2 CRUSHED STONE ON CRUSHED CRUSH, WITH A CRUSHING WITH HOSDIT. SECTION 104-2.02 THE 2. THE MITTHER SHALL RE WELL CRUSH WITH NO PARTICLES LINGER THAN TWO PACES AND HANGE A MAINTAIN CRUCKING WETTER THE LIMITS SECONDED THE SPECIFICATION. THE EDIDING SHALL RE COMPACTED IN F. UPTS WITH EQUIPMOST ACCEPTABLE TO THE PPE MAINTAINTIME.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

STORM SEWER TRENCH SECTION IN PAVED AREAS NOT TO SCALE



- A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
- C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMTS.
- D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

#### MATERIALS

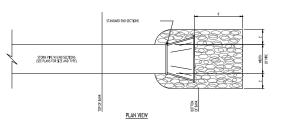
PIPE BEDOING MATERIAL (MYSDOT 1985 EDITION) 1) NO. 1 CRUSHED STORE OR CRISHED GAME. WITH A CADALIST CONTRIBUTION WHO STATE SETTING TO PER INTERFLU.

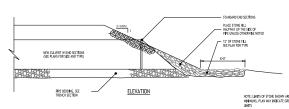
SHALL BE WILL GRADO WITH NO PRITICLES LARGER THAN ONE INCH AND HAVING A MADWAY GRADATION METTING THE LIMITS
BESTREED IN THE SPECIFICATIONS. THE SECREG SHALL BE COMPACTED IN SELFES MADWAY CREATION ACCEPTABLE TO THE PRE
AMARKETURES.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

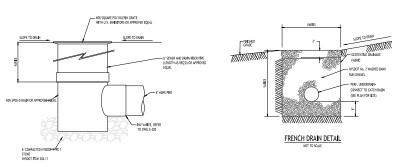
(2) BADY ILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL. COMPACTED IN 6" LIFTS.

STORM SEWER TRENCH SECTION IN UNPAVED AREAS

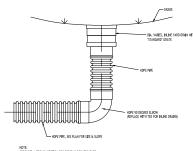




TYPICAL PIPE OUTLET W/ END SECTION & RIP RAP



TYPICAL AREA DRAIN DETAIL





DRAWING NAME: Storm Drainage Details

REVISIONS:
No. Descrip
No. Berr, P.
Rev., P.
Rev

CARMINAWOOD

Single Family Subdivision

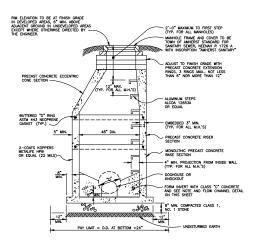
DESIGN

Date: Drawn By: Scale:

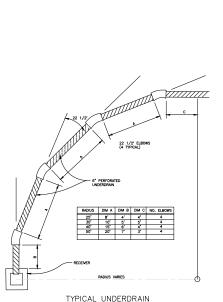
DRAWING NO.

Project No: 20.247

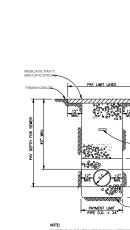
NOTE: SEE TYPICAL TRENCH SECTION FOR BEDDING REQUIREMENTS TYPICAL YARD DRAIN DETAIL NOT TO SCALE



STANDARD STORM MANHOLE NOT TO SCALE



INSTALLED AROUND CURVE



PLAN

NOTE: INSIDE DIMENSIONS OF CONCRETE STRUCTURE ARE TO BE A MIN. OF 24"x 24"

22 1/4"

SECTION A-A

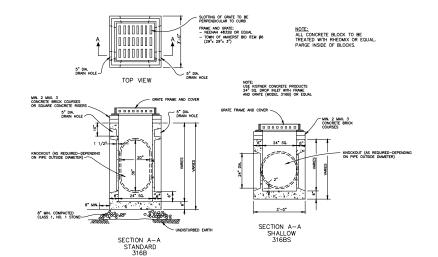
CAST IRON FRAME AND GRATE

B (NEENAH R3433 OR EQUAL)

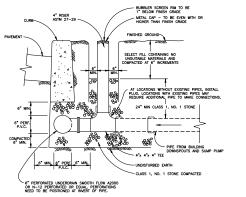
NOT TO SCALE



- 3" MIN. WIDE GREEN HEAVY GAUGE .004" POLYETHYLENE UNDERGROUND WARNING TAPE BEARING THE INSCRIPTION — "CAUTION — STORM SEWER LINE BURIED BELOW"



STANDARD PRECAST CONCRETE DROP INLET



CURB BUBBLER DETAIL NOT TO SCALE

TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME: Storm Drainage Details

CARMINAWOOD

Subdivision

Single Family

DESIGN

Date: Drawn By: Scale: DRAWING NO.

C. Wood As Noted

REVISIONS:
No. Descrip
No. Berr, P.
Rev., P.
Rev

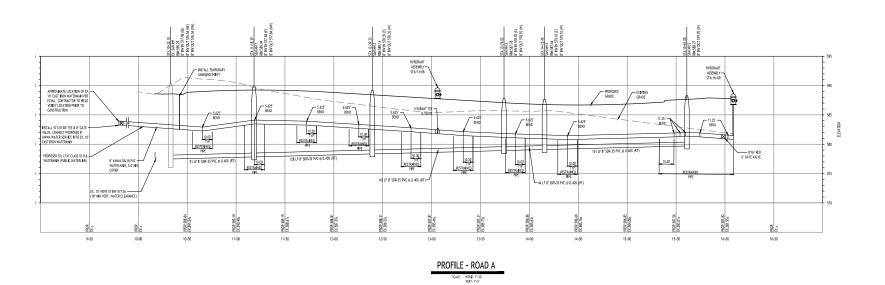
Profile

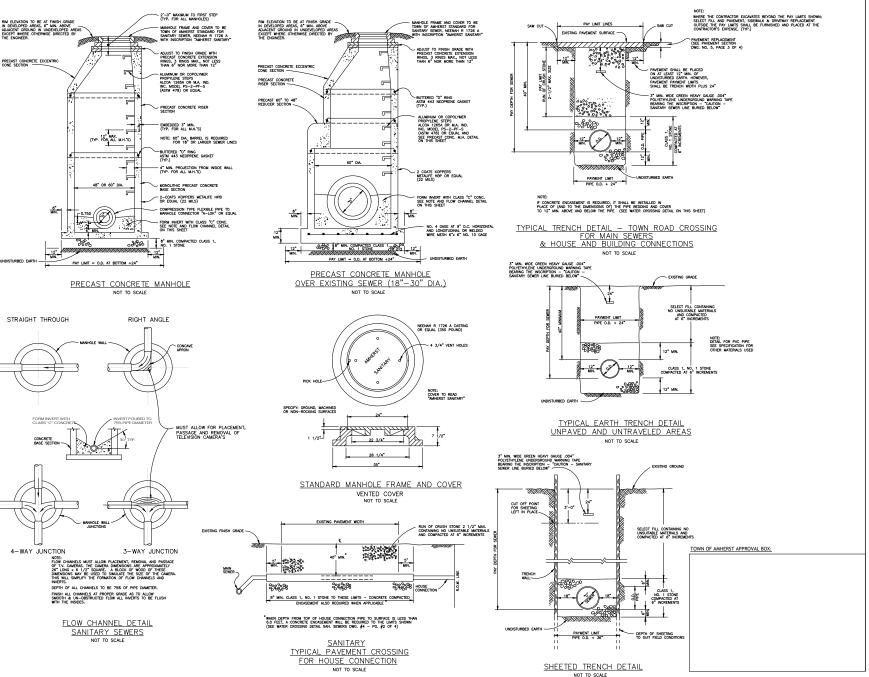
Date: Drawn By: Scale: DRAWING NO.

01/29/25 C. Wood As Noted

Project No: 20.247

TOWN OF AMHERST APPROVAL BOX:





**ARMIN/WOOD** DESIGN

Subdivision Family Single I

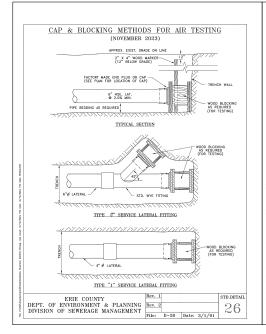
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| No. Description: | No. Description:

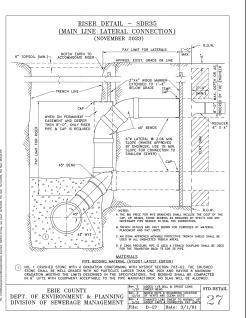
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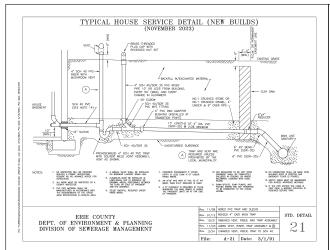
Sanitary Sewer Details

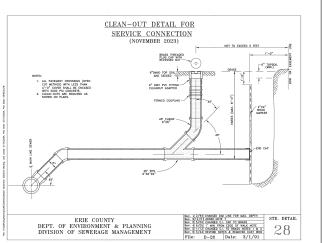
Date: Drawn By: Scale: DRAWING NO.

C. Wood As Noted













REVISIONS:
No. Descrip
No. Berr, P.
Rev., P.
Rev

CARMINAWOOD

Single Family Subdivision

DESIGN

DRAWING NAME: Sanitary Sewer Details

Date: Drawn By: Scale:

DRAWING NO.

#### SANITARY SEWER TESTING METHOD NOTES

#### (A) LEAKAGE TESTS

- 01. THE TEST PERIOD WHEREIN THE MEASUREMENTS ARE TAKEN SHALL NOT BE LESS THAN 24 HOURS, REGARDLESS OF THE TEST METHOD
- THE TOTAL LEAKAGE OF ANY SECTION TESTED BY ANY TEST METHOD SHALL NOT EXCEED THE RATE OF 200 GALLONS PER MILE OF PIPE PER 24 HOURS PER INCH OF NOMINAL PIPE DIAMETER.
- 03. MANHOLES SHALL BE CONSIDERED AS SECTIONS OF 48" DIAMETER PIPE AND THE EQUIVALENT LEAKAGE ALLOWANCE SHALL BE COMPUTED PER NOTE 02 USING THE SUBMERGED HEIGHT OF MANHOLE AS THE LENGTH.
- WHEN MANHOLES ARE TESTED SEPARATELY, ALL PIPE OPENINGS SHALL BE PLUGGED AND THE TEST PROCEDURES AND CRITERIA SHALL BE APPLIED IN THE SAME MANNER AS FOR TESTS INVOLVING ONLY THE PIPE OR A COMBINATION OF PIPE AND

#### (B) INFILTRATION TEST CRITERIA FOR USE

- 01. THIS TEST METHOD MAY ONLY BE USED WHEN GROUND WATER LEVELS ARE AT LEAST TWO (2) FEET ABOVE THE TOP OF THE PIPE FOR THE ENTIRE LENGTH OF THE SECTION TO BE TESTED DURING THE ENTIRE PERIOD OF THE TESTS
- 02. GROUND WATER LEVELS MAY BE MEASURED IN AN OPEN TRENCH OR IN STANDPIPES PREVIOUSLY PLACED IN BACKFILLED TRENCHES DURING BACKFILLING.
- 03. THE NUMBER OF STANDPIPES REQUIRED AND LICOTION OF THE SAME ARC TO BE NO ROUBED BY THE REVOKET. STANDPIPES SAME ARC TO BE NO ROUBED BY THE REVOKET. STANDPIPES SAME ARC TO PERMIT THE RESERVICTOR OF A RULE OF LEVEL ROO. REVISED STONE SHALL BE PLACED AROUND THE LOWER OPEN EMOS OF THE STANDPIPES.
- STANDPIPES ARE TO BE REMOVED AT THE SATISFACTORY COMPLETION OF THE TESTS.
- IF IN LIEU OF STANDPIPES, THE TRENCH IS TO BE LEFT OPEN FOR GROUND WATER OBSERVATION, THE LENGTH OF UNBACKFILLED TRENCH AT ANY ONE TIME MAY HAVE TO BE LIMITED FOR REASONS

#### (C) EXFILTRATION TEST CRITERIA FOR USE

- . THIS TEST CONSISTS OF FILLING THE PIPE WITH WATER TO PROVIDE A HEAD OF AT LEAST TWO (2) FEET ABOVE THE TOP OF THE PIPE OR ABOVE GROUND WATER WHICHEVER IS HIGHER AT THE HIGHEST POINT OF THE PIPE LINE UNDER TEST, AND THEN MEASURING THE LOSS OF WATER TO MAINTAIN THE ORIGINAL
- IN THIS TEST THE PIPE LINE MUST BE FILLED WITH WATER AND ALLOWED TO REMAIN SO FILLED FOR AT LEAST 24 HOURS PRIOR TO TAKING MEASUREMENTS.
- 03 RECARDING GROUND WATER MEASUREMENTS: SEE NOTES 02
- REGARDING THE TEST STANDPIPE: THERE MUST BE SOME POSITIVE METHOD OF RELEASING ENTRAPPED AIR IN THE SEWER PRIOR TO TAKING MEASUREMENTS.

#### (D) DEFLECTION TEST FOR PVC SEWER PIPE

- DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE GRAWTY SEWER PIPE. TESTS SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE FOR AT LEAST 30 DAYS.
- 02. NO PIPE SHALL EXCEED DEFLECTION OF 5% DEFLECTION GAGE MAY BE BORROWED FROM THE TOWN ENGINEER FOR 8" AND 10" PIPE. THE DEFLECTION TEST MUST BE EXECUTED AFTER 30 DAYS OF PLACEMENT OF FINAL BACKFILL. THE TEST WILL ALSO BE DONE WITHOUT MECHANICAL PULLING BOYCES.

### MANHOLE PLACEMENT AND MAINTENANCE DURING CONSTRUCTION AND DEVELOPMENT

CONTRACTOR AND/OR DEVELOPERS SHALL CONSTRUCT ALL MANHOLE STRUCTURES IN ACCORDANCE WITH THE TOWN OF AMHERST STANDARD SPECIFICATIONS OR THE SPECIFICATIONS OF THE DESIGN ENGINEER WHEN REQUIRED BY THE

ALL MANHOLES ARE TO BE DESIGNED AND FURNISHED WITH RIM ELEVATIONS AT FINAL FINISHED GRADES. THE CONTRACTOR, DEVELOPER, OR HOME BUILDER SHALL BE RESPONSIBLE FOR ALL CORRECTIONS, ADJUSTMENTS, AND MODIFICATIONS NEEDED FOR RAISING, LOWERING, OR REPLACING ANY AND ALL MANHOLES AS PROPOSED FOR THE FACILITY.

ALL AS-BUILT STATIONING, LINE AND GRADE IMPROVEMENTS, INVERT AND RIM ELEVATIONS, "Y" LOCATIONS, INSPECTION REPORTS, ROADWAY OR STREET NAMES, RIGHT-OF-WAY WIDTHS, AND LEASEMENT LINES SHALL BE FURNISHED TO THE TOWN ON A SET OF MYLAR DRAWNINGS PRIOR TO TAP—IN APPROVAL, PIP ACCEPTANCE, AND/OR RELEASE OF FINAL PAYMENT.

ALL MANHOLE STRUCTURES SHALL BE MADE ACCESSIBLE TO THE TOWN OF AMHERST TIELVUSION/MAINTENANCE OFENS: THE CONTRACTOR AND/OR DEVELOPER SHALL PROVIDE A DEV, WELL COMPACTOR, SHALLE SURFACE FREE DEVELOPER WISH TO SHALL SURFACE FREE MEMORIES. SHOULD THE CONTRACTOR AND/OR DEVELOPER WISH TO WHOLES. SHOULD THE CONTRACTOR AND/OR DEVELOPER WISH TO WHISPECTIONS DURING WET WASHIFFACET SOFT SOIL CONDITIONS, HE SHALL PROVIDE ALL NECESSARY GRANULAR BACKFILL, DISTRIBUTED AND COMPACTED TO SUPPLY ACCESS TO EACH MAHOLE. THE CONTRACTOR AND/OR DEVELOPER SHALL BEAR ALL COSTS OF TOWING, DOWN THE, CREW TIME, AND DAMAGE ALONG WITH RESTORATION, SHOULD SIGH ACCESSIONALY FAIL.

#### SANITARY SEWER NOTES:

- THE CONTRACTOR SHALL COMPLY WITH THE TOWN OF AMHERST STANDARD DRAWINGS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND THE TOWN OF AMHERST ENG. DEPT. OF ANY HAZARDOUS SUBSTANCE ENCOUNTED.

  SERVICE OF THE CONSTRUCTION OF THE REGIAL REGISHAL DEPOSITIONS AS PROMULGATED BY THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, THE NEW YORK STATE DEPARTMENT OF HEALTH AND MAY SUCH LOCAL RULES, ORDINANCES AND LAWS WHEN ENCOUNTERING OR WORKING WITH ANY SUCH HAZAROUS SWISTANCE.
- THE CONTRACTOR SHALL COMPLY IN ALL RESPECTS TO THE INDUSTRIAL CODE PART (RULE NO.) 53 RELATING TO CONSTRUCTION, EXCAVATION AND DEMOUTION OPERATIONS AT OR NEAR UNDERGOROUND FACILITIES, AS ISSUED BY THE STATE OF NEW YORK DEPARTMENT OF LABOR, BOARD OF STANDARD AND APPEALS.
- 04. SINCE THE ERIE COUNTY WATER AUTHORITY OPERATES AND MAINTAINS THE EXISTING WATER LINES, THEY ARE TO BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION. ALL EXISTING VALVES ARE TO BE OPERATED BY THE ERIE COUNTY WATER AUTHORITY PERSONNEL.
- THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AHEAD OF THE PIPE LAYING OPERATION, SO THAT, IF MINOR ADJUSTMENTS MUST BE MADE IN ELEVATION AND/OR ALIONMENT DUE TO INTERFERENCE FROM THESE UTILITIES, SAID CHANGES CAN BE MADE IN ADVANCE OF THE WORK.
- 06. WHERE SUCH FACILITIES ARE UNDER THE SUFERNISON OF A PROFESSIONAL SHOWLER. HE SHALL CERTIFY TO THE ROMERSHING DEPARTMENT OF THE TOWN OF AMMERST THAT SAID FACILITIES AS CONSTRUCTED WERE SUFERNISED BY HIMSELF, CHESTELF) AND THAT THE WORKER HAVE BEEN PLULY COMMETTED IN ACCORDANCE WITH THE APPROVED ENGINEERING REPORTS, PLANS, SPECIFICATIONS, CONTRACT DOCUMENTS AND ANY MOD ALL ADDERBOX TO SAME.
- 07. THE CONSTRUCTION OF THE FACILITIES SHALL BE UNDER THE SUPERVISION OF A PERSON OR FIRM QUALIFIED TO PRACTICE PROFESSIONAL ENGINEERING IN NEW YORK STATE UNDER THE EDUCATION LAW OF THE STATE, WHENEVER ENDIRETERING SERVICES ARE REQUIRED BY SUCH LAW FOR SUCH PURPOSES.
- OB. A WRITTEN CERTIFICATE OF CONSTRUCTION COMPLIANCE, INCLUDING THE RESULTS OF HYDROSTATIC LEAKAGE TESTS, MADE BY THE PROFESSIONAL ENGNEER SUPERVISING THE CONSTRUCTION, SHALL BE SUBMITTED TO THE ERIC COUNTY DEPART. OF ENVIRONMENT PLANNING AND NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION WITHIN THIRTY (30) DAYS AFTER CONSTRUCTION COMPLETION.
- 09. UNSUITABLE MATERIALS SUCH AS FROZEN ORGANIC AND/OR VEGETABLE MATERIAL, DEBRIS, TREES, LUMBER, LARGE STONES OR CLODS (6.0° OR LARGER), MUCK, PEAT, ORGANIC SLIT WILL NOT BE ACCEPTABLE FILL AND CERTAIN MAN—MADE DEPOSITS OF INDUSTRIAL WASTE, SLUDGE OR LANDFILL MAY ALSO BE DETERMINED AS UNSUITABLE HAZARDOUS MATERIAL.
- 10. THE COMPACTION OF ALL MATERIALS WILL OCCUR AT 6" INCREMENTS.
- VERIFICATION OF ALL EXISTING EASEMENTS IS THE RESPONSIBILITY OF THE DESIGN ERGINEER AND THEY MUST BE SHOWN ALONG WITH ALL PROPOSED EASEMENTS ON PLAN DRAWNOS.
- 12. SHOULD A FLUID CONDITION BE ENCOUNTERED AT THE TRENCH BOTTOM, THE CONTRACTOR IS TO INSTALL ADDITIONAL STONE CRADLE AS ORDERED BY THE ENGINEER.
- ALL PIPE CROSSING UNDER PAVED AREAS ARE TO BE BACKFILLED TO SUBGRADE WITH COMPACTED SELECT MATERIAL TO FIVE (5) FEET OUTSIDE THE PAVEMENT EDGES.
- 14. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED TREE EXPERT TO REMOVE, WHERE NECESSARY, BRANCHES WHICH INTERFERE WITH THE CONSTRUCTION OPERAIN, OR REPAIR TREES HAVING SUFFERED DAMAGE BY CONSTRUCTION ACTIVITIES. THE COST INVOLVED IN THE ABOVE IS TO BE INCLUDED IN THE VARIOUS TIEMS OF THE CONTRACT.
- 15. SEMERE SHALL BE LAD AT LEAST TEN (10) FEET HOMZONTALLY FROM ANY DOSTRIO OF PROPOSED NATEMAN, THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A TEN FOOT SEPARATION, THE APPROPRIATE REVENING AGENCY MAY ALLOW DEVATION ON A CASE—BY—CASE BASIS, IF TO MAINTAIN AND A CASE—BY—CASE BASIS, IF TO MAINTAIN AND THE WATERDAMIN SHALL FOR THE ASSET TO A WATERDAM, PROVIDED THAT THE WATERDAMIN IS IN A SEPARATE TRENCH OR ON AN ALLOW STRUED EARTH SHELL COACHED ON AGEST TO A WATERDAMIN AND AT ALLOWS THE WATERDAMIN IS AT LEAST 18" (4CM). AROY HE TO PRIME EXPENDENT OF THE SHERE TO THE SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATERDAMIN IS AT LEAST 18" (4CM). AROY HE TO PRIME EXPENDENT OF THE WATERDAMIN IS AT LEAST 18" (4CM). AROY HE TO PRIME EXPENDENT OF THE WATERDAMIN IS AT LEAST 18" (4CM). AROY HE TO PRIME EXPENDENT OF THE WATERDAMIN IS AT LEAST 18"
- STWERS CROSSING WATERMANS SHALL BE LID TO PROVIDE MINIMUM WATERMAN SHALL BE LID TO PROVIDE WINDOW WATERMAN SHALL BE LID TO PROVIDE OF THE SHAPER, THIS SHALL BE THE CASE WHERE THE WATERMAN IS BITHER RABOVE OF BELOW THE SEWER, NOTIS WILL SHAPE WATERMAN FOR SHALL BE ARRANGED SO THAT THE SEWER NOTIS WILL SHAPE WATERMAN FOR SHAPE WATERWARK FOR SHAPE WATERWARK FOR SESSIONERS A SEWER, AGEOUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER, TO PREVENT DAMAGE TO THE WATERMAN.
- 17. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE AND SHALL BE PRESSURE TESTED AS TO ASSURE WATERTICHTNESS PRIOR TO BACKFILING.
- THE PIPE SHALL BE P.V.C. SEWER PIPE CONFORMING TO THE LATEST REVISIONS OF ASTM DESIGNATION D-3034, SDR-35, INSTALLED IN ACCORDANCE WITH ASTM.
- THE MANHOLE COVERS ARE TO BEAR THE INSCRIPTION "AMHERST SANITARY".

# Ō RMINAWO ESIGN Δ ⋖ Q

Subdivision amily Ĺ

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TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME

Sanitary Sewer Notes

> Drawn By: Scale: DRAWING NO.

01/20/25

C. Wood

As Noted

INTIN SAW CUT

FINAL SAW OUT

EXISTING PAVENENT

DETECTABLE TABLE IN

TRENCH 1'-6" BELOW GRADE (CONNECTED TO VALVE BOXES)

SELECT BACKFILL (COMPACTED IN 6" LIFTS)

TRACER WIRE (NON-METALLIC PIPE), TAPED AT 5'-0' INCREMEN TO THE GROWN OF PIPE (CONNECTED TO VALVE BOXES)

PIPE BEDDING

TRENCH UNDER OTHER AREA

SUITABLE EXCAVATED BACKFILL (PROPERLY COMPACTED)

FROST PROTECTION TRENCH

(COVER <4'-0")

All fight herwork house of these document without the operated written permission of CARANAWCO COCKO to profit local and the second of state 145 second of the control of t

CARMINA WOOD DESIGN

IF CASING PIPE IS USED, IT SHALL EXTEND 5-0" BEYOND THE EXISTING PIPE OUTER EDGE IN EACH DIRECTION, AND NO WATERMAIN JOINTS OR FITTINGS SHALL BE LOCATED WITHIN 4-0" FROM THE CASING PIPE EDGE.

1 1

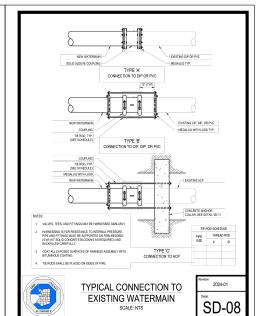
2024-01 **SD-02** 

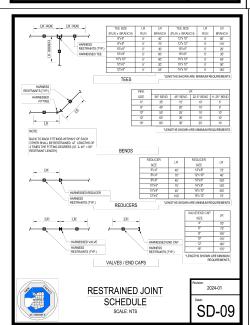
SELECT BACKFILL (COMPACTED IN 6" LIFTS)

PIPE BEDDING

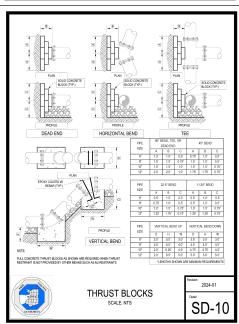
WATERMAIN

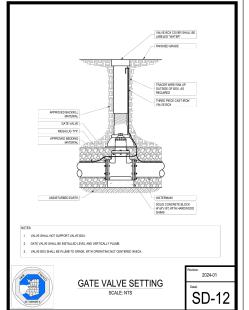
UNDISTURBED EARTH OR ROCK TRENCH BOTTOM





TYPICAL TRENCH DETAIL





TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME: Water Details

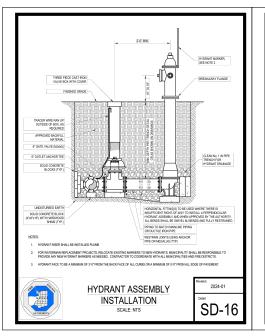
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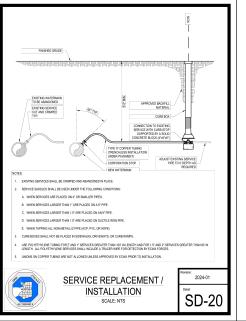
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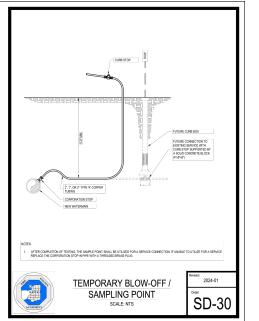
CARMINAWOOD

Single Family Subdivision

REVISIONS:
No. Descrip







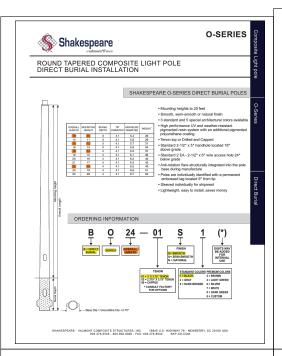


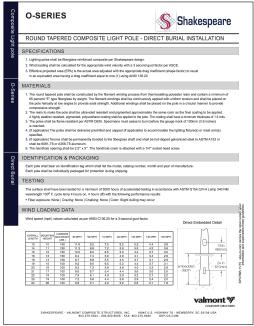


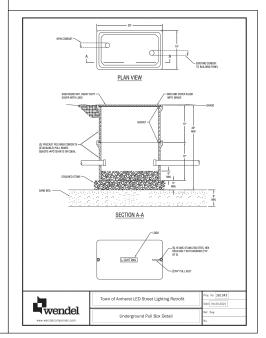


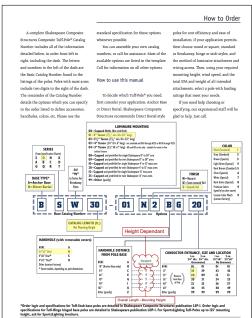
DRAWING NAME: Water Details

Date: Drawn By: Scale: DRAWING NO.









[ Shakespeare Composite Structures • Page 5 ]

Shakespeare Part Number Mounting Height (ft) BO 13-01-S1-BC-38 10 BO 15-01-S1-BC-38 BO 18-01-S1-BE-08 BO 22-01-S1-BE-08

TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME: Lighting Details

REVISIONS:
NO. DESCRIP

CARMINAWOOD

Subdivision

Single Family

DESIGN

Date: Drawn By: Scale: DRAWING NO.

C. Wood As Noted

Position	Lumens Multiplier	Typical System wattage
- 1	0.31	0.28
2	0.53	0.50
3	0.62	0.58
4	0.70	0.67
5	0.78	0.75
6	0.83	0.81
7	0.89	0.87
8	0.92	0.91
9	0.96	0.95
10	1.00	100

### LED Lumen values - TVPC (Vausi Confort Panels)

Note: Typical value accuracy +/- 15%

		Sentere				Type 25			Type 35			Type 39			7ype 5	
Ordering Code	LED Sty.	Correct (InA)	Celler Temp.	Avg Spiten Wataga (W)	Lumen Output	Efficacy (LPW)	800 Rating	Lumen	(LPNO	895 Refing	Lumen Output	(LPVI)	Rating	Carses	Efficacy (LPVI)	EUG Rating
TWPC-16-G1-5-x-730	16	530	3000	29	2,625	91	81-16-01	2,768	96	\$1-12-01	2,775	56	81-02-61	2,550	101	81-02-01
TWPC-16-G1-7-y-720	16	700	3000	38	3,396	17	91-10-61	3,527	63	\$1-U3-GI	1,94	60	B-co-ca	3,727	90	84-13-G
TWPC19-G1-9-±730	15	900	3000	43	4,059	13	\$7 U3 G1	4,128	19	\$1-U3-G1	4,314	88	80 U3 G2	4,545	93	88-03-0
TVPC-16-G1-1-e-730	16	1050	3000	53	4,586	81	91-LQ-G1	4,879	86	81-03-61	4,862	85	BHUR-GI	9,036	50	88-U3-G
TWPC-32-GI-5-s-730	32	530	3000	53	5,700	95	II-U3-G1	5,342	100	E1-U3-G1	5,390	101	82-03-62	5,00	105	\$1-U3-G
TWPC-12-61-7-x-730	32	700	3000	30	6,443	52	82-03-02	6344	95	\$5-03-65	6,805	92	85-03-65	7,094	931	81-03-5
TWPC-32-G8-8-s-720	32	800	3000	80	7,770	89	\$1-L0-G1	7,505	50	E1-U3-G1	7,572	54	0F-L0-G2	7,892	58	81-U3-G
TRPC-52-GI-1-x-730	32	1050	3333	108	1.005	85	82-03-02	2.427	हर	85-03-02	9.5%	8.8	82-03-62	250	51	81-03-0
TVPC-49-G1-5-1-730	46	530	3000	- 10	7,790	96	92-L0-G2	8,364	106	88-10-G2	8,20	102	82-U3-G2	9,554	106	91-LO-G
TWPC-45-G1-7-±730	48	700	3000	105	9.765	93	82 U5 G2	10.221	35	E2-03-02	10.315	56	82-03-62	10,750	105	82/05/6
TWPC-16-G1-5-w-740	16	530	4000	29	2,892	99	81-10-41	3,065	105	\$1-42-61	3,095	105	81-02-01	3,221	10	81-92-6
TVPC16-G1-7-x-340	15	700	4000	38	1646	95	81-10-61	3,878	108	E1-U3-G1	3,865	100	B1-U3-CI	4,075	106	ER-U3-G
TWPC-19-G1-9-y-740	16	900	4000	49	4,63	90	81-10-61	4,758	96	B1-U3-61	470	96	81-10-62	5.00t	101	81-43-6
TVPC-16-G1-1-a-No	16	1050	4000	54	2040	80	91-LO-G1	5,353	60	E1-U3-G1	5,145	90	BHUI-G	5,636	94	88-U3-G
FWC-52-68-5-y-M0	32	530	4000	54	5.61	134	\$1-U3-G1	5,873	122	\$1-03-01	5,526	10	85-03-02	6,775	114	87-U3-G
FVPC-32-GI-T-x-700	22	700	4000	21	7,093	100	92-L0-G2	7,414	936	12-03-62	7,681	105	E2-U1-G2	3,392	10	91-LD-G
TWPC 32-61-8-x 340	32	800	4000	- 11	7,863	12	17-U3-G1	8,251	102	81-03-61	6,326	102	00-U3-G2	8,677	107	81-03-6
TWPC-12-68-1-y-380	32	1050	4000	110	5.902	90	82-10-42	10,365	95	85-03-65	10,458	95	E5-03-65	10,899	59	81-U)-S
TWPC-40-G1-5-1-740	46	530	4000	02	8,554	125	92-U3-G2	0,954	100	68-L0-G2	9,034	m	82-03-63	9,45	115	21-U3-G
TWPC-48-G17-Y-MO	48	700	4222	106	10758	104	82-IB-02	0.240	105	82-119-52	11 142	307	F0-111-10	TI 829	102	82-93-0

oerformence may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm encow with a layout - context. Applications at outdoors/piting application sightly purcon. Cereal to U.C offs. to confirm your specific finture selection is OLC approved. comparison with a purchased need are last in infaller by the outdoors.

TVP\_TownView-spec-sheet 12/20 page 4 of 8

Ordering Code	LED ety.	Correct (mA)	Celer Temp.	Ang System Wattage (W)	Curpon	(LPVI)	Rating	Lamen Output	(LPW)	806 Rating	Lumen Output	Efficacy (LPNO	Rating
TVFC:10:-62:-5:-x:730	- 16	530	3000	29	2,084	72	80-02-01	2,322	80	80-10-01	2.755	75	81-02-61
TVPC-16-G1-7-1-730	16	700	3000	26	2,649	70	88-12-G1	2,932	77	91-L0-G1	2,726	72	B-U1-G
TVFC-16-62-9-x-730	16	900	3000	40	3.251	66	81-02-01	3,605	N	81-U3-G1	3,345	65	E1-U3-E1
TVPC-16-65-1-x-730	16	1090	3000	57	3,664	64	84-12-61	400	71	81-10-61	3,730	66	81-U3-GI
TVFC 12-G1-5-±730	12	530	3000	53	4,016	75	BI-13-G1	4,562	82	81-U3-G1	4,291	80	E1-U3-CI
TVFC-12-G1-7-a-730	32	200	3000	70	5,023	72	81-43-02	5,500	78	8n-U9-G1	5.47	37	8t-U9-G2
TVPC-12-G1-0-e-730	12	800	3000	80	5,645	70	88-10-G1	6,126	76	\$1-L0-G1	6,000	75	B-U3-G
TVFC-12-G1-1-+730	32	1050	3000	108	7,094	65	81-13-01	7,655	71	81-03-62	7.572	70	89-109-02
TVPC-46-51-5-a-730	40	530	3000	61	6,06	36	88-43-62	6,650	80	91-L0-G1	6,541	66	98-L0-G2
TVPC-48-C0-7:e730	45	700	3000	105	7590	73	\$103-62	8.348	80	89-03-62	8.28	35	80 U3 G2
TVPC-96-68-5-y-360	16	530	4000	29	2,302	79	90-U2-GI	2,553	87	80-02-G1	2,369	88	81-02-61
TVPC-06-G1-7-±740	16	700	4000	39	2.90	35	BI-122-CI	3,230	84	89-10-61	2,997	76	E1-U3-G2
TVPC-96-62-5-x-793	16	900	4000	49	1.574	72	81-12-01	3.963	80	81-1/3-01	3,678	34	81-03-68
TVPC-16-G1-1-x-740	- 16	1050	4000	50	4,022	70	BI-12-G1	4.466	78	93-LO-G1	4045	72	E1-U3-G
TVFC 12:G1:5:±740	32	530	4000	54	4,68	82	88-U3-G1	4,796	89	87-03-01	4,715	7.5	E1-U3-C2
TVPC-12-G1-7-a-340	12	200	4000	71	5,577	79	88-10-G1	6,055	85	81-L0-G1	5,955	84	90-L0-G2
TVPC 12: G1-6: ±740	12	800	4000	- 81	6,207	75	88-85 G1	6,735	83	87 U5 G1	6,628	82	E1-U3-C2
TVPC-12-G1-1+740	32	1050	4000	193	7296	71	81-19-01	1.064	77	81-43-62	8,325	76	8h-U3-62
TVPC-46-61-5 a-340	40	530	4000	12	6,725	62	B1-10-G1	7,312	89	\$1-L0-G1	7,192	80	01-L0-G2
TVPC-48-61-7-e-740	48	700	4000	106	8,454	80	89-03-42	9,778	87	81-03-62	9,508	85	80-1/3-02

#### LED Lumen values - TVPR (Vertical Ribbod Parels)

		System				Type 2			Type 21			Type 26			TypeS	
Ordering Code	UED 498	Cornent (INA)	Color Temp	Ang. System Wattage (A)	Carson Output	(JPW)	EUG Rating	Lamen	Effecty (LPW)	80G Rating	Lumen	(LPW)	B3G Rating	Lumen	(JPW)	EUG Rating
TVPR-16-G1-5-x-730	16	530	3000	29	2,750	95	BI-12-G1	2,940	102	81-10-61	2,920	101	E1-U3-G1	3,095	107	\$2-U3-G1
TVPR-16-G5-7-x-730	16	300	3000	38	3,479	91	81-12-02	3,78	96	8n-LQ-G1	3,694	97	\$1-U3-61	1,927	103	92-U9-G1
TVP9-16-G1-5-x-730	Y.	900	3000	49	4,269	87	88-L0-G1	4,564	13	91-L0-G1	4,533	90	II-U3-GI	4,805	98	13-10-61
TVPR-16-G2-1-x-730	76	1050	3000	57	4.811	85	81-13-01	5344	90	87-1/3-01	5309	90	81-03-68	5,49	95	83-03-01
TVPR-32-G1-5-x-730	12	530	1000	23	5,380	900	BH-13-G	5,600	105	20-LO-G1	5,61	105	11-U3-G1	5,884	10	83-43-63
TVF9:32:G1:7:x:730	12	300	3000	70	6,792	97	82-U5-G2	7,011	104	88-03-62	T053	100	88-U9-G2	7,428	106	83-95-62
TVPR-32-G1-8-u-730	12	800	3000	80	7,958	94	82-13-62	7,669	96	88-43-62	7,892	99	82-03-62	8,366	109	83-43-62
TVFR-32-G1-0 ±-730	12	1050	3000	105	2,434	85	82-95 GZ	9,885	54	82-U5-G2	9,901	98	82-03-62	10,383	96	84-05-62
TVP9-48-62-5-x-730	48	530	3000	81	8,202	102	82-19-62	8.539	106	82-10-02	8,553	106	85-03-65	8,970	71	84-19-62
TVPR-40-GI-7-e-730	40	300	3000	105	10,295	98	92-15-G2	10,720	902	82-U3-G2	10,737	102	82-03-62	TL290	107	D4-03-G2
TVPR-16-67-5-x-310	16	530	4000	29	3,023	103	81-92-01	1.232	11	81-10-01	3,210	193	81-03-61	3,434	16	82-U3-G1
TVPR-16-G57-a-740	×	300	4000	39	3,925	99	88-10-G1	4,099	106	91-L0-G1	4,062	125	B1-U3-GI	4,336	10	12-10-61
TVPR-16-G1-5-x-743	16	900	4000	49	4,655	95	88-85-G1	5,045	101	87 U3 G1	4,554	101	\$1-U3-G1	5,284	107	\$5-U5-G1
TVPR-16-G5-1-x-700	16	1050	4000	58	5,290	90	88-49-GI	5,655	96	90-LO-G1	5,627	98	81-03-61	5,966	104	\$3-L0-G1
TVPR-12-G1-5-±740	12	530	4000	54	5,86	TID	BF-U5-G1	6,159	34	81-U3-G1	5,169	14	E1-U3-G1	6,459	120	83-43-62
TVPR-32-G1-7-y-360	32	300	4000	31	7,467	105	82-43-62	7375	190	81-03-62	7767	100	81-19-62	E366	16	80-43-62
TVP9-32-G1-0-e-740	12	800	4000	- 68	1,20	102	92-43-G2	8,652	106	\$2-L0-G2	8,666	107	82-U3-G2	9,088	10	83-43-62
TVF#-12-G1-2+:NO	32	1050	4000	100	12,435	25	82-99-62	12,868	20	82°U3°G2	10.556	22	85-03-02	TLEE	104	84-03-62
TVPR-68-62-5-x-360	49	530	4000	12	9,00	TID	80-43-62	6,389	15	92-L0-G2	8,404	15	82-03-62	9,862	121	84-13-62
TVF9-45-C) 7-x-740	45	200	4000	105	ILTE	107	82-U5-G2	D.786	11	02-U3-G2	TL805	10	82-03-62	12,179	10	84-03-62

TVP\_TownView-spec-sheet 12/20 page 5 of 8

		System				Type 255			Type 359			Type 3WS	н
Ordering Code	LED ety.	Current (MA).	Color Yeesp.	Avg. System Wiktage (W)	Lumen Output	Efficacy (LPW)	BUG Rating	Larson Output	Efficacy (LPW)	03G Rating	Lumen Output	Efficacy (LPW)	BUG Racing
TVP9-16-G1-5-±-730	Y.	530	3000	29	2,290	75	88-12-62	2,457	15	\$1-LO-S1	2,365	73	98-U3-G
TVFR-16-G1-7-y-730	16	700	3000	38	2,796	73	89-02-03	3,308	82	83-02-01	2,865	75	81-13-01
TVPR-1G-G1-G-e-730	16	900	3000	49	1,40	70	81-03-02	3,814	76	\$1-L0-G1	1,536	72	88-43-62
TVP9:16:G10:e730	16	1090	3000	57	3,866	68	81-05 GI	4,299	76	83-03-61	3,943	30	88-85 G
TVPR-32-61-5-1-730	12	590	3000	93	4,366	80	81-13-62	4,610	86	81-13-61	4,476	84	91-13-G
TVPR-32-G1-7-x-730	12	700	5000	30	5,385	77	BI-U3-CI	5,820	83	B1-U3-G1	5,651	80	81-03-62
TVF9:32-61-8-y-730	32	800	3000	80	5,992	35	81-13-01	6.06	81	\$1-03-61	6,286	33	87-U3-S
TVP9-32-51-1-s-730	12	1090	3000	104	7,527	69	80-U3-G3	9,125	75	\$2-U0-G2	7,899	72	92-13-G
TVF#-45-G1-5-x-730	48	590	3000		6,502	80	81-1/3-02	7,028	87	81-03-62	6,824	84	\$P-03-G
TVPR-40-G5-7-a-730	43	700	3000	106	1,162	78	60-43-GZ	8,822	84	82-03-62	8,566	62	80-10-G
TVF9:10: G1-5::::T40	16	530	4000	23	2,400	83	81-12-CI	2,701	92	\$1.02.61	2,490	85	BF-03-G
TVPR-16-G1-7-u-340	16	700	4000	39	3,004	80	81-U2-GI	3,68	89	81-10-61	3,150	82	88-43-G
TVF9:16-G1-9-s-N0	16	900	4000	49	3,772	75	BI-US-GI	4,723	15	\$1-U3-G1	3,866	71	01-U3-G
TVPR-95-G3-1-x-743	16	1090	4000	58	4.251	31	81-03-01	4.726	82	87-03-61	4357	35	81-13-0
TVPR-32-51-5-a-340	12	530	4000	54	4,690	92	81-10-G	5,064	94	81-U3-GI	4,921	91	98-10-G
TW#-12-61-7-7400	32	700	4000	71	5,320	83	B1-05-CI	6,355	90	\$1-03-01	6.25	88	B-03-6
TVPR-32-61-0-a-340	12	800	4000	81	6,598	90	81-13-01	7,00	99	81-U3-SI	6,964	65	81-1/3-6
TVF9:32-61-1-s-340	12	1090	4000	TIO .	0,276	75	80-65-62	8,944	12	82-03-62	0,685	73	03-05-G
TVP9:-48-67-5-x-700	48	590	4000	82	73109	88	81-U3-52	3327	95	88-49-62	7.502	92	In-un-s
TVF9-40-G17-p-N0	40	700	4000	106	0.994	65	80-43-63	9,699	92	\$2-U3-G2	9.400	09	02-03-0

Sabiltand Acysic.

C-Visual Control panels help to diminute gase and patientation and give a soft gine at right. Newtrook Bellevia and patientation and give a soft gine at region to display and performance at right. A greated have been destroyed the day and performance at right anguested previous first amount of the performance and performance and

TVP\_TownView-spec-sheet 12/20 page 6 of 8

Light Engine
Composed of 4 main components: LED Medidae
Optical System / Heat Sink / Driver.
Electrical components are flosts complant, 1966
sealed light engine LED sested by 50 T023-2005 accredited lab in accordance with ESNA
MEM Big publishing, estrapications in accordance with ESNA
TM-21. Media core board essues
greater hack transfer and Congret Mediapan.

Opcode oyseem
Composed of high performance UV stabilized optical gold-polymer refractor lenses to achieve desired sistinguishment refractor lenses to achieve desired sistinguishment of performance achieved desired sistinguishment specific partial runninguishment and performance and the testinguishment of the composition of the composi LEU MOGUIE

Composed of Pligh-performance white LEDs.
Color temperature as per ANSVNEMA für 2000
Kelvin normal (2725 465K) CR 80 min, 3000
Kelvin normal (3045K y-175K) or 4000 Kekkin
normal (3987K y-275K), CR 70 km; 16 ypgeld,
Other CEV/CR also available, consulf-scious,

TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME: Lighting Details

CARMINAWOOD

Subdivision

Single Family

DESIGN

Date: Drawn By: Scale: DRAWING NO.

Project No: 20.247

C. Wood As Noted

REVISIONS:
No. Description
No.

#### TVPC/TVPR TownView

Post top and arm mount luminaire

Driver:

Deriver comes standard with 0-10'd drivering electricity. It is more facilities for the Constitution of the Constitut

# Parameter securities Parameter securities

accordance with ASV/IEEE CSAS per ANS/ REE CSA. 12 Scenario 1 Category C High Exposure (BNA/CSA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DCB MSSIC Models Specification for LED Roadway Lurrinaires Agos notic O Electrical Immunity High loss level 104/7/2014.

Application Continues of the State of the St

Use of photoelectric cell or shorting cap is

Driver and Lumbairs Options
Drivers (April 2004)
Dr



9









TVP TreetView-sensy-sheet 12/20 mans 7 of 8

Roadway LUMEC by (Signify



Lumec RoadFocus LED cobra head luminaires feature a sleek design that provides seamless replacement of existing HID luminaires. RoadFocus is available in three sizes, offers multiple lumen packages, and a complete array of optical distributions, making it an outstanding solution for all types of roadway applications. Includes Service Tag, innovative way to provide assistance throughout the life of the product.

Orderin	guide							example: N	PS-36W16LE04K-02-R2M-UMV-DMO-HS-	PH3-RC	END-003
	LED					Optic	ns				
RFS	module 35WHELED	OCT 3K4K	Generation G2	Distribution R2M	Voltage UNV	Conti		Options API-RCD		Finisi GY3	
ira loadFocus mail	10M12LED 20M12LED 20M	4K 4000K 9K 5000K 2.7K* 27TOK		Intel 2	UMV 120-227W HNU 347-490W		Zhage-Dél ont-Pied Digitally eddressible lighting eddressible lighting interface 0.10V Sensor reely driver, standard configuration Sensor reely driver, etternate configuration on figuration of the property of the configuration of the co	NYBO OMS " PHS 1" PHS/347 "."	Factory in trained biffer loads, ANSI OSSO, South Condition Control OSSO, Control OSSO	DK DR GP3 MH	Slack Brosse Gray White

	100WeGLED/19	TUS BAC
	Not evaluable with HVU.	1 Not evaluable with PHR, PHR/347, PHR/480,
	Refer to Accessories section to confirm compatibility of shields with optical distribution.	PHIL, PH9. DALL SRD or SRD1 Driver Options.  Not evallable with SRD Driver Options.
3	Use of photoelectric cell or shorting cap is required to ensure proper illumination.	Either RCD or RCD7 must be selected for this potion.
	Select either DALI or DMG or SRD or SRD1 mandatory option.	Extended lead-time may apply. Consult factory. Not evaluable with UNV.
1	Please note this integrated feeture come standard with Road Focus.	Only eveilable with R2M or R2M distributions. 1 shield provided per LED light engine.
•	Only evallable with SRD or SRD1 Driver Options.	* TLRSR must be selected with D4I * TLRSR and D4I must be selected with D4I

Description	Luminaire	Accessory O	stiering Code	Shield vs Distribution Compatibility							
Description	Option Code	12/16 LED version*	20 LED version*	1294	F05	FISM	105	4	- 5		
Cut-de-sax strietal	CSS	ACC-LOGEWIGLED-CSS	ACC-LG96920LED-CSS	98	Tes	Yes	Yes	985	165		
Front side shield	FSS	ACC-LOSEVIELED-FSS	ACC-LG869/20LED-FSS	Yes	Tes	Yes	Yes	50	Tes		
House side shield	HS	ACC-LOSEVIELED-HS	ACC-LG96V20LED-H5	165	Tes	Yes	Yes	105	760		
Left side shield	LSS	ACC-LGGGWKLED-LSS	ACC-LGBGVQQLEQ-LSS	Yes	Tes.	Yes	Yes	Yes	Tes		
Right side shield	755	ACC-LOSSICSUED-BYS	ACC LOSSICOLED (ESS	No	765	Yes	765	Yes	765		

FredSocras/BES/Sour 10/21 page 1 of 5

#### TVPC/TVPR TownView

Post top and arm mount luminaire

# 18AWG wire, 6" (15mm) minimum extending from luminaire.

Optional Terminal block Optional Terminal books.

Terminal block connector 600V, 83A for use with #14-2 AWG wires from the primary cloudt, located inside the housing, Due to the invush current that occurs with electronic drivers, eccommend using a follown brine-delay fuse to awdi unwarried fuse blowing (false tripping) that can occur with normal or fine attriffs flower.

Fuses and holders by others or consult factory.

Handware

All non-ferrous fasteners prevent corrosion and ensure longer life. All seals and sealing devices are made and/or lined with EPOM silcone rubber.

Finish
Color in accordance with the AAMA 2603
standard, Aeptraction of polyseter provider
standard, Aeptraction of polyseter provider
AEMA 2003
AE

BKS: Black Smooth
WHS: White Smooth
BZS: Beenze Smooth
BK: Black Texture
WH: White Texture
BZ: Bronze Texture
GN: Green Texture

# LED products manufacturing standard

Vibration Resistance \$2.53, 54 Piter and A Arm Mount Meets the ANSI CTIG 31, American National Standard for Roadway Luminaire Vibration specifications for Bridgelycempass applications (Tested for 3G over 100,000 cycles).

Certifications and Compliance
(ET) Listed to Canadian safety standards for
well boothers. Menufactured to ISO 9001/2008
Standards. ULIPSO and ULIPSO compliant. ET.
Listed to U.S. safety standards for vert locations.
CET, Listed to Canadian safety standards for vert locations. LM80 & LM79 tested. Listed on the
Design\_ups Th Consortium (DLC) Qualified
Products LN8 (DR.) MG CTIG standards. 2. 3.
10, 14, 52, 22, 25, 31, 37, 44.

## Service Tag

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#### Limited Warranty

#### Brackets and Poles

Visit the website for pole and post top bracket options.





POLE-AMANT-SMANT

## RFS RoadFocus

#### LED Cobra head (small)



FAWS Position	Typical Delivered Lumens Multiplier	Typical Syster wattage
- 1	0.31	0.28
2	0.63	0.60
3	0.62	0.58
4	0.70	0.67
5	0.78	0.76
6	0.83	0.81
7	0.89	0.87
8	0.92	0.91
9	0.96	0.95
10	1.00	1.00

RoadFocus-RFS-Spec 10/21 page 4 of 5

Specifications

Mode of the company due case Aluminum strip
Mode of the company due case Aluminum strip
The case 1.50 of 120 cm 100 cm

TOWN OF AMHERST APPROVAL BOX:



REVISIONS:
No. Descrip

CARMINAWOOD

Subdivision

Family

Single

DESIGN

DRAWING NAME: Lighting Details

Date: Drawn By: Scale:

DRAWING NO.

Project No: 20.247

WASSARTY — 1-year limited warranty Camplete warranty terms located at www.acuitybands.com/appent/warranty/bens-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

NOTE:

1. for available for AMMAT series.
2. For available for AMMAT series.
2. For available for AMMAT series.
3. For available for AMMAT series.
4. Six and Six for AMMAT carly CART for SMMAT carly.

TS. Typical values, rounded. 16. As per AMSI CTIS 15-2015. Consult factory for other labeling needs.

RFS-80W00LED 40 2,20LED 79 80 RFS-90W00LED 40 2,03LED 101 100

## **RFS** RoadFocus

26°C >60,000 hours >47,6%

LED Cobra head (small)

**RFS** RoadFocus

| Special Code | Spec

##5-5444(ED 15 105(ED 5) 50 #\$5-5444(ED 15 105(ED 5) 50 \$95-049(ED 5) 105(ED 5) 50 \$95-049(ED 5) 105(ED 5) 50 \$95-049(ED 5) 105(ED 5) 30 \$95-049(ED 5) 105(ED 6) 40

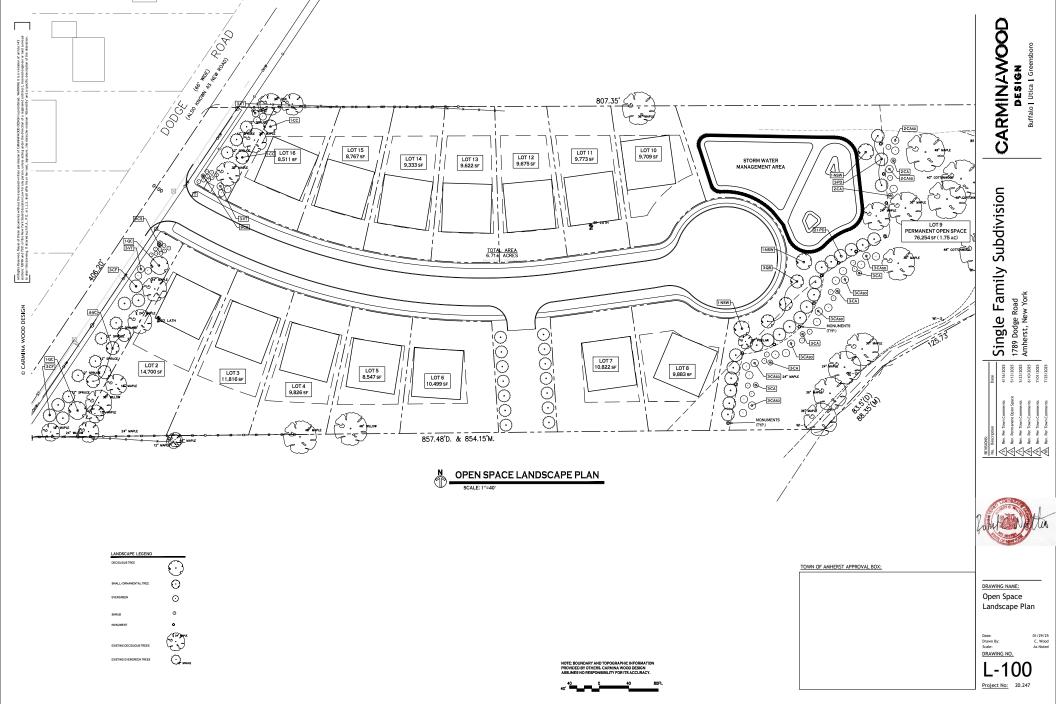
LED Cobra head (small)

LED Wattage values

			Type R2	м		Type R2	5		Type R3	м		Tape 83	5		Type 4			Type 5	
Ordering Code	Celter Temp.	Lamen Output	(LPW)	8UG Rating	Lumen Output	(LPN)	BUG Rating	Lamen Output	(LPW)	8UG Rating	Lumen Output	(LPN)	895 Refing	Larress Output	(LPW)	806 Rating	Larece Output	(LPW)	Reting
WS-WATELED	3000	1,748	124	\$3-00-63	1830	129	81-00-60	1,743	124	81-90-01	1,755	125	80-10-00	1,755	123	80-00-01	1,805	128	E1-U0-00
SES-JOWIGLED	3000	2,169	122	BI-00-61	2,466	107	88-00-60	2,362	122	ES-00-GI	2,394	121	St-10-G	2,19	101	88-00-63	2,645	126	82-00-6
WS-25WIZLED	3000	2,705	100	\$1-00-01	2,889	10	88-99-60	2,300	135	83-00-63	2.735	100	80-00-CA	2.687	108	53-00-53	2.795	112	82-00-0
6FS-15W16LE0	3000	3,177	129	81-00-61	3,244	194	81-90-60	3317	126	81-00-61	3,149	190	8t-10-G	3,092	128	84-140-64	3,20	133	82-00-6
SES-DOWNELED	3000	3,531	122	E1-U0-G1	3,575	TET	03-00-83	1,530	122	E1-U0-G1	3,567	124	DE-UG-G2	3,534	121	E8-00-C2	3,644	126	02-00-6
9FS-35W36LED	3000	450	199	B1-U0-61	4,697	124	81-00-61	4,098	18	81-00-61	4,558	120	81-10-61	4,07	18	61-00-61	4,657	123	83-00-4
SES-ASMIGLES	3000	5,352	154	12-00-13	5,364	TS	12-00-13	5341	14	12-00-13	5,210	15	90-U0-G	5.117	323	\$1-U0-G2	5,322	10.0	R3-U3-G
WS-SOMMLED	3000	5.485	109	\$1-00-01	5,589	10	83-00-63	5.448	122	81-00-61	5.521	100	81-10-01	5.422	108	81-U0-02	5,640	112	83-00-0
SES-SOMTRIED	3000	5,963	103	92-00-02	6,307	10	92-00-63	5,944	12	ES-00-GI	6,024	114	13-00-EE	5,9%	182	\$1-U0-G2	6354	195	80-U0-G
BES-SOWTSLED	3000	6,500	106	82-10-67	6,767	101	82-U0-G1	5,480	105	82-10-G1	6,567	107	81-00-62	6,450	105	\$1-U0-G2	6,709	190	83-00-6
SES-SEWSELED	3333	2.07	124	81-00-61	NW.	503	50/3	2,640	124	81-00-61	16%	5/3	NW.	KOL	N/A	14/4	X(A	N/A	NW.
SES-40MIZOLED	3000	4,833	122	EI-00-GI	16%	5.3	503	4,559	122	BI-00-GI	56%	5.0	16/4	N.O.	N/A	56.9.	N/A	N/A	N/A
#5-65W20LED	3000	7,442	795	82-00-62	NA	50.74	50%	7,482	10	82-00-62	N/A	50%	N/A	NO.	N/A	N/A	AG.	N/A	N/A
8FS-15W33LEB	3000	4,005	132	EI-00-GI	5,075	127	E8-00-GI	4,000	DI	EI-00-GI	4,825	103	SE-10-G	4,837	101	88-00-63	5,012	116	R3-U3-G
W5-55W32LED	3000	7,042	132	82-99-68	2,350	137	82-90-68	7,040	132	12-10-01	7334	133	\$2-00-02	7,007	135	\$7-U0-02	7,359	138	83-00-0
6FS-GOWTQLED	3000	7,558	122	92-10-GI	7,452	127	82-U0-GI	7,136	122	92-U0-GI	7,212	123	81-00-62	7303	121	81-00-62	7,186	126	89-00-6
8FS-72W12LED	3000	8,835	123	82-U0-G2	2,165	126	82-10-61	8,799	UI	82-00-62	8,507	122	\$1-U0-G2	8,755	100	02-99-62	2,330	125	83-10-G
FS-10WWILED	3000	12,219	113	89-00-62	12,720	18	89-00-62	12,181	13	82-00-62	12,344	7.4	82-99-62	0.04	182	82-03-62	12,68	177	94-U0-G
GES-15MHOLED	3000	5,200	140	EI-00-GI	N/A	50.3	50 K	5,230	140	12-00-13	1614	503	N/A	KA	N/A	NW.	N/A	NA	N/A
95-50W40LED	3000	4.999	140	82-00-02	N/A	503	503.	5.995	144	82-10-01	NX.	5/3	N/A	15.03	N/A	16%	50	N/A	N/A
GES-SSWHOLED	3000	7,297	114	\$2-U0-G2	56%	53	5/3	7,336	105	82-00-62	56%	50	NW.	KA	HW.	56%	KA	H.W.	NW
BES-SSW4DLED	3000	8,580	150	82-00-G2	16/4	503	50.3	8.525	131	82-00-62	NX.	5/3	N/A	K/A	N/A	16%	50	N/A	N/A
FS-SOMMELED	3333	10,027	127	82-00-62	NW.	503	50.30	10,081	128	82-00-42	NW.	5/3	NW.	KO	N/A	NW.	XO	N/A	NW
BES-100MHOLED	3000	12.228	125	85-00-65	16%	5/3	503	12,294	122	85-00-62	50.90	5.0	16/4	15.04	N/A	56.9.	15.04	N/A	N/A

Predicted Luman Depreciation Data
Producted Luman Depreciation Data
Producted forward on read-through the explanative 5 data and engineering explanation data asset as \$550,00.00 cells designed from the explanation of the explanation conditions.

Let a specialist the explanation of the explanation



FROM STRUCTURE.

OR SPECIFIED.

STD. SHRUB PLANTING

(OR APPROVED SPECIES 4' – MIN. HGHT. REQ. AT

- LITH ITY BOX

INSTALL

LITILITY PAD OR LAWN TTYP

## NOTES:

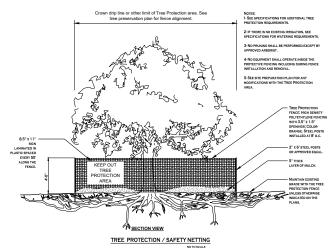
ROAD OR SIEWALK TYP.

- USE EVERGREEN SHRUBS TO SCREEN ALL ABOVEGROUND UTILITY BOXES AND INFASTRUCTURE FROM ADJACENT ROAD OR SIDEWALK PER TOWN OF AMHERST CODE
- PROVIDE A MINIMUM 4' OFFSET FROM THE SHRUBS PLANTED EDGE TO THE EDGE OF THE UTILITY BOX TO ALLOW ENOUGH CLEARANCE FOR UTILITY MAINTENANCE TO BE PERFORMED

TYPICAL SHRUB PLANTING TO SCREEN UTILITY INFASTRUCTURE

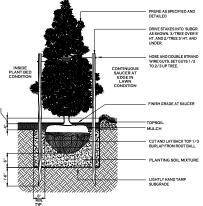
TYPICAL CONDITION PLAN VIEW

(NTS)

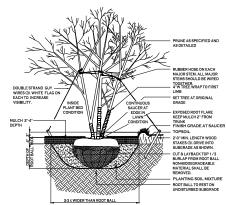


#### PLANT FINISH SCHEDULE - 1789 DODGE ROAD -AMHERST, NEW YORK

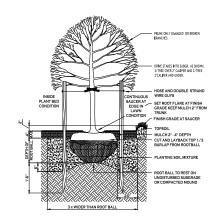
KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
		DECIDUOUS TREES		•	•
QC	2	Quercus coccinea	Scarlet Oak	2 1/2" - 3" CAL.	B&B, HT, 60', W 40'
NSW	3	Nyssa sylvatica "Wildfire"	Wildfire Tupelo	2 1/2" - 3" CAL.	B&B, HT. 35', W 18'
QB	3	Quercus bicolor 'Bonnie & Mike'	Bonnie & Mike Oak	2 1/2" - 3" CAL.	B&B, HT. 40', W 15'
	SMA	ALL / ORNAMENTAL TR	EES		
CC	2	Cercis canadensis	Redbud	2 1/2" - 3" CAL.	B&B, HT.20', W 25'
AC	4	Amelanchier canadensis	Shadblow Serviceberry	2 1/2" - 3" CAL.	B&B, HT,20', W 25'
		EVERGREEN TREES	•		•
PG	23	Picea glauca 'Densata'	White Spruce	6-8' Tall	B&B, HT. 20', W 8'
AC	6	Abies concolor	White Fir	6-8' Tall	B&B, HT. 60', W 20'
		SHRUBS	•		
CS	18	Cornus sericea 'Arctic Fire'	Arctic Fire Dogwood	24-36" Tall	B&B, HT. 4', W 4'
CAsd	22	Cornus amomum 'Silky Dogwood'	Silky Dogwood	24-36" Tall	B&B, HT, 4', W 4'
CA	19	Clethra alnifolia	Summersweet	24-36" Tall	B&B, HT. 4', W 4'
VT	9	Viburnum plicatum tomentosum 'Mariesii'	Doublefile Viburnum	24-36" Tall	B8B, HT. 4', W 4'



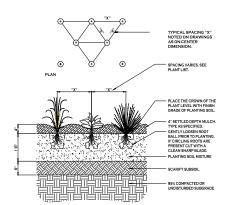
STD. EVERGREEN PLANTING



DECIDUOUS TREE PLANTING · MULTI · STEM



STD. DECIDUOUS TREET PLANTING



NOTE: PLANT BULBS IN TRENCHES AND BOUQUET PLANTING GROUPS

GROUND COVER PLANT SPACING



DRAWING NAME: Landscape Details Plant Schedule

8

CARMINAWO

Subdivision

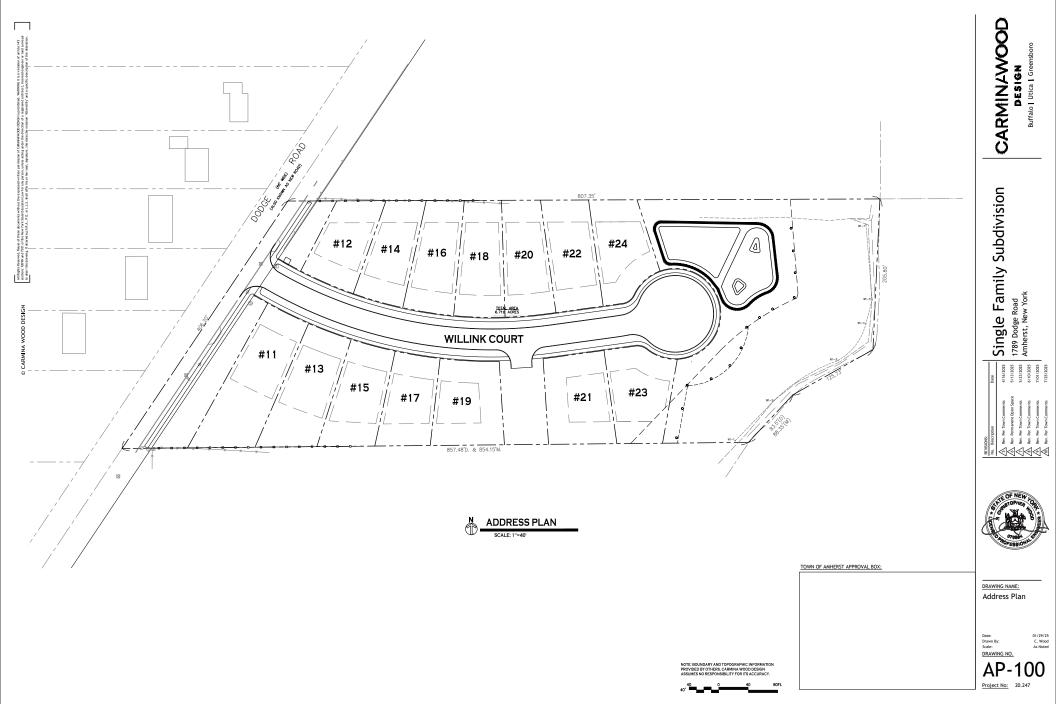
Single Family

1789 Dodge Road Amherst, New York

DESIGN

Date: Drawn By: Scale: DRAWING NO.

C. Wood As Noted



# Appendix H Soils Information



#### MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:15.800. Area of Interest (AOI) C/D Soils Warning: Soil Map may not be valid at this scale. D Soil Rating Polygons Enlargement of maps beyond the scale of mapping can cause Not rated or not available Α misunderstanding of the detail of mapping and accuracy of soil **Water Features** line placement. The maps do not show the small areas of A/D contrasting soils that could have been shown at a more detailed Streams and Canals Transportation B/D Rails ---Please rely on the bar scale on each map sheet for map measurements. Interstate Highways C/D Source of Map: Natural Resources Conservation Service **US Routes** Web Soil Survey URL: D Major Roads Coordinate System: Web Mercator (EPSG:3857) Not rated or not available -Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Soil Rating Lines Background distance and area. A projection that preserves area, such as the Aerial Photography Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. B/D Soil Survey Area: Erie County, New York Survey Area Data: Version 20, Jun 11, 2020 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Not rated or not available Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020 **Soil Rating Points** The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background A/D imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. B/D

# **Hydrologic Soil Group**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI		
Ch	Cheektowaga fine sandy loam	C/D	1.3	19.7%		
EIB	Elnora loamy fine sand, 3 to 8 percent slopes	A/D	3.4	52.7%		
Wd	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	B/D	1.8	27.6%		
Totals for Area of Interest			6.4	100.0%		

# **Description**

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



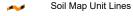
## MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Points

#### Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Sandy Spot

Severely Eroded Spot

Saline Spot

Sinkhole

Slide or Slip

## \_\_\_\_

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot
Other

Special Line Features

### **Water Features**

Δ

Streams and Canals

### Transportation

Rails

Interstate Highways

~

US Routes
Major Roads

Local Roads

#### Background

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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Soil Survey Area: Erie County, New York Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ch	Cheektowaga fine sandy loam	1.3	19.7%
EIB	Elnora loamy fine sand, 3 to 8 percent slopes	3.4	52.7%
Wd	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	1.8	27.6%
Totals for Area of Interest		6.4	100.0%



## MAP LEGEND

## Area of Interest (AOI) Area of Interest (AOI) Soils **Soil Rating Polygons** Excessively drained Somewhat excessively drained Well drained Moderately well drained Somewhat poorly drained Poorly drained Very poorly drained Subaqueous Not rated or not available Soil Rating Lines Excessively drained Somewhat excessively

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Aerial Photography

#### Water Features

Streams and Canals

## Transportation

Background

- +++ Rails
- Interstate Highways
- US Routes
- Major Roads
- Well drained Local Roads
- Somewhat poorly drained

Moderately well drained

- Poorly drained
- Very poorly drained

drained

- Subaqueous
- Not rated or not available

#### **Soil Rating Points**

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# **Drainage Class**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI		
Ch	Cheektowaga fine sandy loam	Very poorly drained	1.3	19.7%		
EIB	Elnora loamy fine sand, 3 to 8 percent slopes	Moderately well drained	3.4	52.7%		
Wd	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	Poorly drained	1.8	27.6%		
Totals for Area of Interest			6.4	100.0%		

# **Description**

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

# **Rating Options**

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified

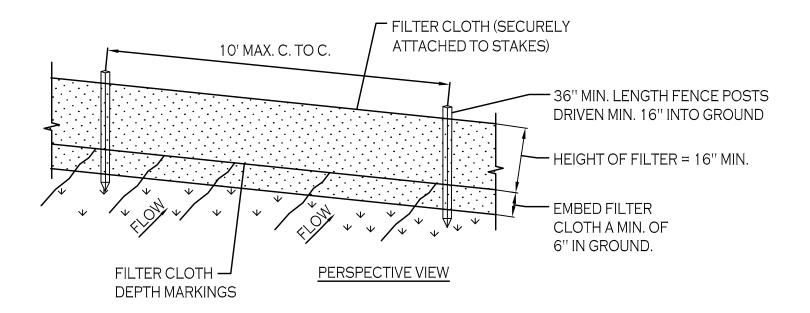
Tie-break Rule: Higher

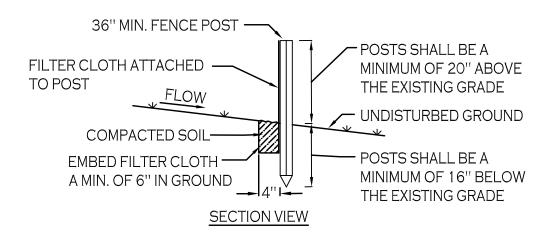
# **Rating Options**

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

# Appendix J Standard Erosion Control Details

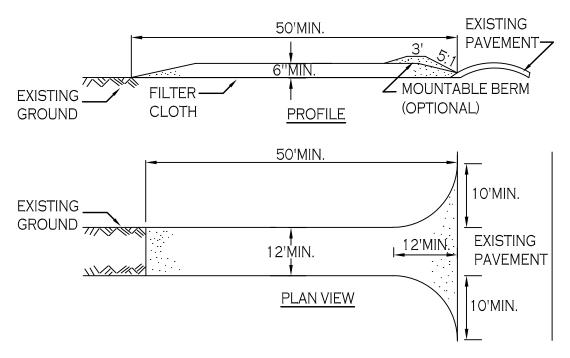




# CONSTRUCTION SPECIFICATIONS

- 1. WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
- 2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
- 3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

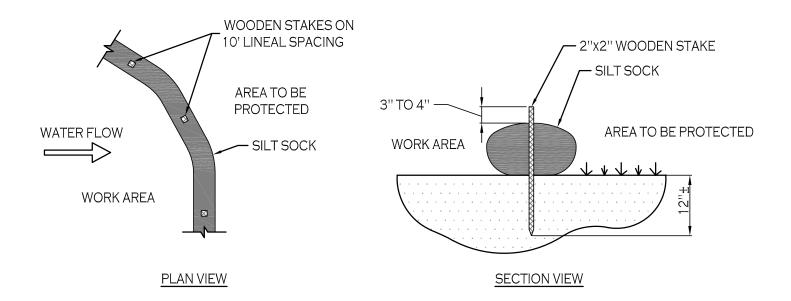




# **CONSTRUCTION SPECIFICATIONS**

- 1. STONE SIZE USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2. LENGTH NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- 5. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- 6. SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- 7. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

# STABILIZED CONSTRUCTION ENTRANCE DETAIL

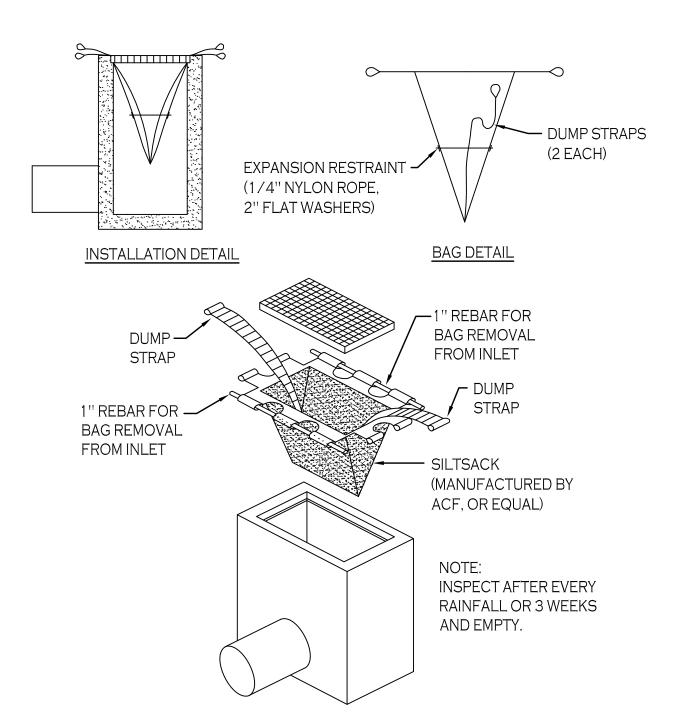


## NOTES:

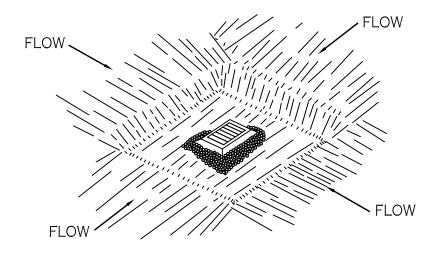
CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

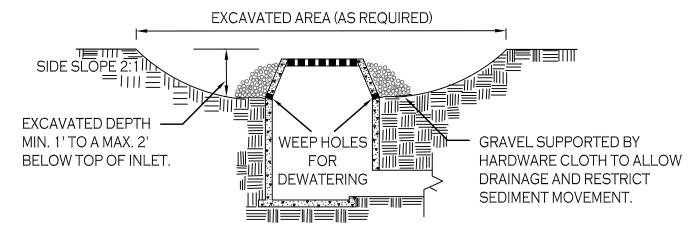
CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED  $\frac{1}{2}$  OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.





# SILT SACK DETAIL NOT TO SCALE





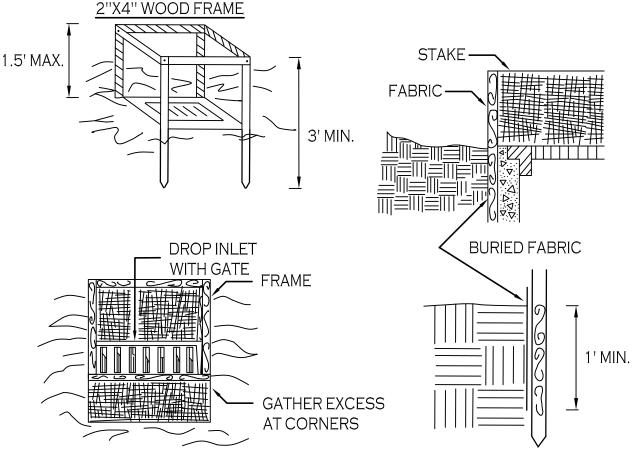
## **CONSTRUCTION SPECIFICATIONS**

- 1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
- 2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
- 3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
- 4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

## INLET PROTECTION DETAIL 1

NOT TO SCALE



## CONSTRUCTION SPECIFICATIONS

- 1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
- 2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- 3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
- 4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
- 5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
- 6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

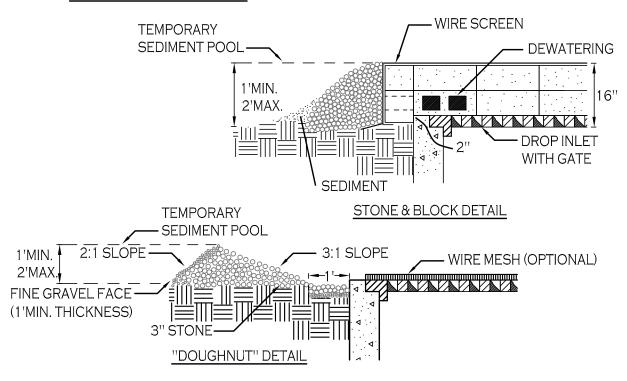
MAXIMUN DRAINAGE AREA 1 ACRE

## INLET PROTECTION DETAIL 2

NOT TO SCALE



#### STONE & BLOCK PLAN VIEW



## CONSTRUCTION SPECIFICATIONS

- 1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
- 2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
- 3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
- 4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAXIMUM DRAINAGE AREA 1 ACRE

## INLET PROTECTION DETAIL 3

NOT TO SCALE

#### **EXISTING TREE PROTECTION FENCE**

#### **MATERIALS**

MATERIALS FOR TEMPORARY PLASTIC BARRIER FENCES SHALL MEET THE FOLLOWING REQUIREMENTS:

- FENCE: HIGH-DENSITY POLYETHYLENE MESH, ULTRAVIOLET-STABILIZED MIN. 2 YEARS; MINIMUM HEIGHT
  4.0 FEET. COLOR: HIGH-VISIBILITY ORANGE OR GREEN. WHEN USED TO PROTECT TREES OR OTHER
  VEGETATION, COLOR SHALL BE HIGH-VISIBILITY ORANGE.
- POSTS: RIGID METAL OR WOOD POSTS, MINIMUM LENGTH 6.0 FEET.
- TIES: STEEL WIRE, #14 GAUGE OR NYLON CABLE TIES.
- WARNING SIGNS: SHEET METAL, PLASTIC OR OTHER RIGID, WATERPROOF MATERIAL, 1.5 FEET BY 2.0 FEET WITH 4 INCH BLACK LETTERS ON A WHITE BACKGROUND. TEXT SHALL BE: "PROTECTED SITE KEEP OUT" UNLESS OTHERWISE SPECIFIED.

#### **DETAILS**

FENCES SHALL BE ERECTED PRIOR TO MOVING CONSTRUCTION EQUIPMENT ONTO ANY AREA DESIGNATED FOR PROTECTION.

THE LINE OF FENCES SHALL BE STAKED OR MARKED OUT ON THE GROUND BY THE CONTRACTOR AND APPROVED BY THE ENGINEER/OWNER BEFORE ANY FENCE IS INSTALLED. WHERE USED FOR PROTECTION OF INDIVIDUAL TREES, FENCE SHALL BE PLACED AT THE DRIP LINE (EXTENT OF CANOPY). IF NOT POSSIBLE, PLACEMENT SHALL BE AS CLOSE TO THE DRIP LINE AS POSSIBLE AND IN NO CASE LESS THAN 5.0 FEET AWAY FROM THE TREE TRUNK.

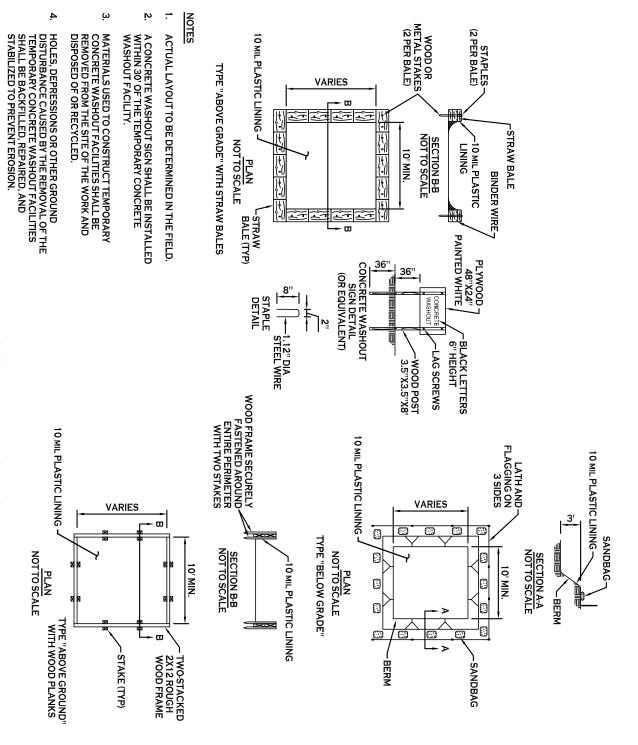
ON APPROVAL OF THE STAKEOUT, POSTS SHALL BE SECURELY DRIVEN ON 6.0 FOOT-MAXIMUM CENTERS, NORMAL TO THE GROUND, TO A DEPTH 1/3 OF THE TOTAL POST LENGTH. PLASTIC BARRIER FENCE SHALL BE PLACED ALONG THE SIDE OF ALL POSTS. ENDS OF FENCING SEGMENTS SHALL OVERLAP A DISTANCE OF AT LEAST ONE HALF THE FENCE HEIGHT.

FENCING SHALL BE SECURED TO POSTS WITH WIRE OR CABLE TIES AT TOP, MIDDLE AND BOTTOM OF POST. FASTENER SHALL BE TIGHT ENOUGH TO PREVENT THE FENCING FROM SLIPPING DOWN. OVERLAPS SHALL ALSO BE SECURELY FASTENED.

BARRIER FENCE WHICH IS NOT ORANGE IN COLOR SHALL BE FLAGGED AT 6.0 FOOT INTERVALS WITH RED OR ORANGE FLORESCENT TAPE. WARNING SIGNS SHALL BE MOUNTED ON THE FENCE AT NO MORE THAN 100 FOOT INTERVALS.

MAINTENANCE SHALL COMMENCE IMMEDIATELY AFTER ERECTION OF THE FENCE AND CONTINUE UNTIL ONE WEEK PRIOR TO ACCEPTANCE OF THE CONTRACT, AND SHALL CONSIST OF: REPLACING DAMAGED POST(S) AND FENCING; RE-FASTENING AND TIGHTENING FENCING; AND RESTORING FENCE TO ITS INTENDED HEIGHT.

FENCING USED FOR TREE OR OTHER VEGETATION PROTECTION SHALL NOT BE TEMPORARILY REMOVED TO ALLOW EQUIPMENT ACCESS OVER A PROTECTED AREA, EXCEPT AS REQUIRED FOR ITEMS OF WORK SPECIFICALLY SHOWN ON THE PLANS AND APPROVED BY THE ENGINEER IN WRITING.



# **CONCRETE WASHOUT DETAIL**

# STANDARD AND SPECIFICATIONS FOR CONCRETE TRUCK WASHOUT



#### **Definition & Scope**

A temporary excavated or above ground lined constructed pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil.

#### Conditions Where Practice Applies

Washout facilities shall be provided for every project where concrete will be poured or otherwise formed on the site. This facility will receive highly alkaline wash water from the cleaning of chutes, mixers, hoppers, vibrators, placing equipment, trowels, and screeds. Under no circumstances will wash water from these operations be allowed to infiltrate into the soil or enter surface waters.

#### Design Criteria

Capacity: The washout facility should be sized to contain solids, wash water, and rainfall and sized to allow for the evaporation of the wash water and rainfall. Wash water shall be estimated at 7 gallons per chute and 50 gallons per hopper of the concrete pump truck and/or discharging drum. The minimum size shall be 8 feet by 8 feet at the bottom and 2 feet deep. If excavated, the side slopes shall be 2 horizontal to 1 vertical.

Location: Locate the facility a minimum of 100 feet from drainage swales, storm drain inlets, wetlands, streams and other surface waters. Prevent surface water from entering the structure except for the access road. Provide appropriate access with a gravel access road sloped down to the structure. Signs shall be placed to direct drivers to the facility after their load is discharged.

Liner: All washout facilities will be lined to prevent

leaching of liquids into the ground. The liner shall be plastic sheeting with a minimum thickness of 10 mils with no holes or tears, and anchored beyond the top of the pit with an earthen berm, sand bags, stone, or other structural appurtenance except at the access point.

If pre-fabricated washouts are used they must ensure the capture and containment of the concrete wash and be sized based on the expected frequency of concrete pours. They shall be sited as noted in the location criteria.

#### Maintenance

- All concrete washout facilities shall be inspected daily. Damaged or leaking facilities shall be deactivated and repaired or replaced immediately. Excess rainwater that has accumulated over hardened concrete should be pumped to a stabilized area, such as a grass filter strip.
- Accumulated hardened material shall be removed when 75% of the storage capacity of the structure is filled. Any excess wash water shall be pumped into a containment vessel and properly disposed of off site.
- Dispose of the hardened material off-site in a construction/demolition landfill. On-site disposal may be allowed if this has been approved and accepted as part of the projects SWPPP. In that case, the material should be recycled as specified, or buried and covered with a minimum of 2 feet of clean compacted earthfill that is permanently stabilized to prevent erosion.
- The plastic liner shall be replaced with each cleaning of the washout facility.
- Inspect the project site frequently to ensure that no concrete discharges are taking place in non-designated areas.

## Appendix K

## **Wetland Delineation Report**

by Earth Dimensions Inc. Dated 12/21/2020

## **Wetland and Waterbodies Delineation Report**

for

# 1789 DODGE ROAD

Town of Amherst

Erie County, New York

for

Joe Rubino



December 21, 2020 EDI Project Code: **W20J20a** 

# REPORT SUMMARIZING THE RESULTS OF A WETLAND DELINEATION SURVEY OF

## 1789 DODGE ROAD

## Prepared for Submission to:

U.S. ARMY CORPS OF ENGINEERS 1776 NIAGARA STREET BUFFALO, NEW YORK 14207

#### **AND**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION 270 MICHIGAN AVENUE BUFFALO, NEW YORK 14203

#### Prepared By:

EARTH DIMENSIONS, INC. 1091 JAMISON ROAD ELMA, NEW YORK 14059

## **Prepared For:**

JOE RUBINO HOWARD HANNA OFFICE 4562 SHERIDAN DRIVE WILLIAMSVILLE, NEW YORK 14221

REPORT DATE: December 21, 2020

EDI PROJECT CODE: W20J20a

## PROJECT INFORMATION

Project Name	1789 Dodge Road
Street Address	1789 Dodge Road
SBL Number	
Town	
County	Erie
State	New York
Latitude/Longitude (NAD83)	43.02971°N, 78.72732°W
Investigation Area	6.71± Acres
USGS 7.5 Minute Topographical Map	
Waterway	tributary to Ransom Creek
Hydrologic Unit Code	04120104
Date of Delineation	
Consultant	Earth Dimensions, Inc.
	1091 Jamison Road
	Elma, New York 14059
Point of Contact	Scott Livingstone
	(716) 655-1717
	slivingstone@earthdimensions.com
Engineer	NA
Property Owner	Joe Rubino
Authority	Section 404, Article 24
Permit/Letter Being Requested	Jurisdictional Determination

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## **EXECUTIVE SUMMARY**

Joe Rubino has proposed the development of a 6.71± acre parcel located along the east side of Dodge Road in the Town of Amherst, County of Erie, and State of New York. Joe Rubino has retained Earth Dimensions, Inc. (EDI) to complete a wetland delineation report that would allow the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) to determine their jurisdictional authority over the investigation area, pursuant to Section 404 of the Clean Water Act and Articles 15 (Protection of Waters) and 24 (Freshwater Wetlands) of the New York State Environmental Conservation Law.

A preliminary review of available information pertaining to vegetation, soils, and hydrology in the project area was implemented prior to conducting a field investigation at the site. Sources of information included the United States Geological Survey (USGS), Natural Resources Conservation Service (NRCS), National Wetland Inventory (NWI), and NYSDEC Freshwater Wetland maps. The USGS, NRCS and NWI maps indicate the potential for wetlands under federal jurisdiction. The NYSDEC map indicates the potential for wetland under state jurisdiction.

EDI applied methodology specified by the Corps of Engineers Wetlands Delineation Manual (January 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0 (January 2012) to perform a delineation of Federal jurisdictional wetlands within the site. EDI identified one (1) wetland area totaling 0.054± acre within the investigation area. A tributary to Ransom Creek flows along the eastern limits of the investigation area. The identification number of the wetland, its acreage and boundary flags are as follows:

TABLE 1: WETLAND SUMMARY

Wetland Identification #	0 1	nic Center D83)	Boundary Flag #			Wetland Type (Reschke)	Jurisdictional Determination
	Latitude	Longitude		On-site			
Wetland 1	43.02960	78.72558	W1-1 through W1-	0.054±	R4SBC	Riverine	Jurisdictional
	Total Wetla	and Acreage:		0.054±			

TABLE 2: STREAM & DRAINAGE SUMMARY

Stream Identification #	Waterway	DEC Class	Linear Feet On-site	Highwater Width (Ft)	Flow Regime	Substrate	Classification (Cowardin)	Jurisdictional Determination
Stream 1	UNT to Ransom Creek/ Town of Amherst Ditch 26B	С	436.3 feet	20 to 25	Intermittent	Organic, silt	R4SB6	Jurisdictional

## SECTION I: INTRODUCTION

Joe Rubino has proposed the development of a 6.71± acre parcel on the east side of Dodge Road in the Town of Amherst, County of Erie, and State of New York. The project has been given the name 1789 Dodge Road and is located on USGS 7.5 minute quadrangle map indexed as Clarence Center/2002 DeLorme (Figure 1). The field work was completed on November 23, 2020 using a hand held Garmin GPSmap 62s to locate wetland and drainage boundaries.

Howard Hanna has retained Earth Dimensions, Inc. (EDI) to complete a wetland delineation study at this site. The investigation was designed to facilitate a determination of the extent of USACE and NYSDEC jurisdiction over the project area pursuant to Section 404 of the Clean Water Act and Articles 15 (Protection of Waters) and 24 (Freshwater Wetlands) of the New York State Environmental Conservation Law.

EDI has performed a wetland delineation study at the site under guidelines specified by the Corps of Engineers Wetlands Delineation Manual, dated January 1987 (referred to hereafter as the Corps Manual) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region version 2.0 (January 2012) (referred to hereafter as the Northcentral and Northeast Regional Supplement). The purpose of this report is to present EDI's methods, results, conclusions and recommendations with respect to the 1789 Dodge Road project site.

## SECTION II: SITE DESCRIPTION

The 1789 Dodge Road project area is comprised of a  $6.71\pm$  acre irregular shaped investigation area on the east side of Dodge Road which is outlined on Figure 1 and depicted on the Wetland Delineation Map included in Appendix A (Figure 6).

The natural topography of the 1789 Dodge Road site is flat to gently sloping. The uplands within the investigation area consisted of successional northern hardwoods and mown lawn communities. The wetland area was found to consist of a shallow emergent marsh community. The vegetative communities of the investigation area are described according to *Ecological Communities of New York State* (Edinger et al. 2014).

## SECTION III: PRELIMINARY DATA REVIEW

## A. SUMMARY OF FINDINGS

Several sources of information may be reviewed to facilitate the completion of a wetland delineation study. In some cases it is even possible to make a preliminary office wetland determination based upon available vegetation, soils, and hydrologic information for a project area. EDI completed a preliminary review of several data sources at the onset of this study. The results of the review are summarized as follows:

## 1. USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Figure 1 depicts the 1789 Dodge Road project site on the Clarence Center/2002 DeLorme quadrangle map. The figure depicts the flat to gently sloping topography of the site. A tributary to Ransom Creek is depicted along the eastern limits of the investigation area.

## 2. USFWS NATIONAL WETLANDS INVENTORY MAP

The National Wetlands Inventory (NWI) map obtained from the USFWS Wetland Mapper <a href="http://www.fws.gov/wetlands/Data/Mapper.html">http://www.fws.gov/wetlands/Data/Mapper.html</a> displays two (2) streams, R4SBCx and R4SBC within the investigation area. The streams can be decoded as:

[R] Riverine, [4] Intermittent, [SB] Stream Bed, [C] Seasonally flooded, [x] excavated; and [R] Riverine, [4] Intermittent, [SB] Stream Bed, [C] Seasonally flooded

## 3. NATURAL RESOURCES CONSERVATION SERVICE SOILS MAP

Figure 3 presents the project area outlined on a copy of the Erie County Soil Survey map from the National Cooperative Soil Survey. As shown on that figure, the site has the following soil types:

## **Soil Conservation Service Legend**

Map Unit Symbol	Map Unit Name	Hydric Soil/Inclusions?  Hydric Soil	
Ch	Cheektowaga fine sandy loam		
ElB Elnora loamy fine sand, 3 to 8 percent slopes		Inclusions Unlikely	
Wd	Wayland soils complex, 0 to 3 percent slopes	Hydric Soil	

Cheektowaga: The Cheektowaga series consists of very deep, poorly drained and very poorly drained soils formed in sandy deposits overlying clayey lacustrine sediments. They are nearly level soils on lake plains. Permeability is rapid in the surface and sandy subsoil, and slow or very slow in the substratum. Mean annual temperature is 48 degrees F., and mean annual precipitation is 40 inches.

Elnora: The Elnora series consists of very deep, moderately well drained soils formed in sandy glacial lake, eolian, and deltaic sediments. They are primarily on beach ridges and relict longshore bars on

lake, eolian, and deltaic sediments. They are primarily on beach ridges and relict longshore bars on lake plains. Permeability is rapid. Slopes range from 0 to 8 percent. The mean annual temperature is 49 degrees F, and mean annual precipitation is 37 inches.

**Wayland:** The Wayland series consists of very deep, poorly drained and very poorly drained, nearly level soils formed in recent alluvium. These soils are in low areas or slackwater areas on flood plains. Saturated hydraulic conductivity is moderately high or high in the mineral soil. Slope ranges from 0 through 3 percent. Mean annual temperature is about 8 degrees C (46 degrees F) and mean annual precipitation is about 1080 mm (42.5 in).

The U.S. Department of Agriculture's National Technical Committee for Hydric Soils Criteria has developed a list of soils that often display hydric soil characteristics. Hydric soil typically forms in places of the landscape where surface water periodically collects for some time and/or where groundwater discharges sufficient to create waterlogged or anaerobic soils. Such anaerobic soils can support the growth and survival of hydrophytic vegetation that is tolerant of such conditions. Wayland and Cheektowaga are hydric soils and therefore may support wetland vegetation. Wetland hydrologic conditions, hydric soils, and hydrophytic vegetation are the three criteria of a wetland.

## 4. NYSDEC Freshwater Wetlands Map

The NYSDEC Freshwater Wetlands map obtained from the online NYSDEC Environmental Resource Mapper displays state jurisdictional Freshwater Wetland CC-15 within and adjacent to the investigation area pertaining primarily to the Ransom Creek floodplain.

## B. RESULTS OF AGENCY INFORMATION REVIEW

The preliminary data review revealed that the Corps may have jurisdiction over wetlands at the project location. The evidence consisted of potential federally regulated wetlands on the NWI map (Figure 2) and hydric soils and soils with possible inclusions depicted within the project area as shown on the NRCS map (Figure 3). The preliminary data review indicated that NYSDEC may have jurisdiction

## SECTION IV: FIELD INVESTIGATION PROCEDURES

#### WETLANDS:

## Step 1

EDI applied methodology specified by the 1987 Corps of Engineers Wetlands Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region to perform a delineation of Federal jurisdictional wetlands within the site. EDI used the Level 2 Routine Determination method (on-site inspection necessary) since insufficient information was available for making a determination for the entire project area. This methodology is consistent with Part IV, Section D of the Corps Manual.

## Step 2

EDI's initial evaluation of the project area revealed that no atypical situations existed. If an atypical situation had existed, EDI would have used methodology outlined in Part IV, Section F of the Corps manual and/or Section 5 of the Northcentral and Northeast Supplement.

## Step 3

EDI made the determination that normal environmental conditions were present, as the area was not lacking hydrophytic vegetation or hydrologic indicators due to annual, seasonal or long-term fluctuations in precipitation, surface water, or groundwater levels. The Northcentral and Northeast Supplement defines the growing season as beginning when one of the following indicators of biological activity are evident in a given year: (1) above-ground growth and development of vascular plants and/or (2) soil temperature measured at 12" below ground surface reaches 41°F. The end of the growing season is defined as the point at which deciduous species lose their leaves or the last herbaceous plants cease flowering and their leaves become dry or brown, whichever comes latest.

## Step 4

In order to accurately identify the limits of various vegetative communities and extent of wetlands on-site, a routine determination method was used. As depicted in Appendix A and included in Appendix B, two (2) data points were used to characterize the site.

## Step 5

The plant community inhabiting each observation point was characterized in accordance with methods specified in the Northcentral and Northeast Regional Supplement. Dominant plant species were identified within four vegetative strata (i.e. herb, sapling/shrub, tree and liana (woody vines) at each sampling point. The Northcentral and Northeast Regional Supplement defines the vegetative strata in the following manner:

Herb – A non-woody individual of a macrophytic species. Seedlings of woody plants (including vines) that are less than 3.28 feet in height are considered to be herbs.

Sapling/Shrub – A layer of vegetation composed of woody plants < 3.0 inches in diameter at breast height but greater than 3.28 feet in height, exclusive of woody vines.

Tree – A woody plant > 3.0 inches in diameter at breast height, regardless of height (exclusive of woody vines)

Liana – A layer of vegetation in forested plant communities that consist of woody vines greater than 3.28 feet in height.

As outlined in the manual, the quadrant sizes used for the vegetative strata were (i) a 3.28-foot radius for herbs; (ii) a ten-foot radius for saplings/shrubs and woody vines; and (iii) a 30-foot radius for trees. Dominant plant species were estimated using aerial coverage methods. Dominant species are defined in the Corps Manual as the most abundant plant species that when ranked in descending order of abundance and cumulatively totaled immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species comprising 20 percent or more of the total dominance measure.

The wetland indicator status (OBL, FACW, FAC, FACU, or UPL) listed for each identified species by the U.S. Fish and Wildlife Service in the National List of Plant Species that Occur in Wetlands: Northeast (Region 1) was recorded. The U.S. Fish and Wildlife wetland indicator status listings are defined as follows:

OBL – Plants that occur almost always (estimated probability >99 percent) in wetlands under natural conditions, but which may also occur rarely (estimated probability < 1 percent) in nonwetlands.

FACW – Plants that occur usually (estimated probability >67 percent to 99 percent) in wetlands, but also occur (estimated probability 1 percent to 33 percent) in nonwetlands.

FAC – Plants with a similar likelihood (estimated probability 33 percent to 67 percent) of occurring in both wetlands and nonwetlands.

FACU – Plants that occur sometimes (estimated probability 1 percent to <33 percent) in wetlands, but occur more often (estimated probability >67 percent to 99 percent) in nonwetlands.

UPL – Plants that occur rarely (estimated probability < 1 percent) in wetlands, but occur almost always (estimated probability >99 percent) in nonwetlands under natural conditions.

The plant community data was summarized on the data forms provided in the Northcentral and Northeast Regional Supplement included in this report as Appendix B.

## Step 6

Plant data from each observation point were tested against the hydrophytic vegetation criterion specified in the Corps Manual and Northcentral and Northeast Regional Supplement. The Northcentral and Northeast Regional Supplement identifies a four-tiered approach for making a determination of whether or not the hydrophytic vegetation criteria is met for a sample plot. Indicator 1 (Rapid Test for Hydrophytic Vegetation) was first applied to determine if all dominant species across all strata are rated OBL and/or FACW. If Indicator 1 did not meet the hydrophytic vegetation criteria, Indicator 2 was then applied (dominance test); if greater than 50% of all plant species across all strata were rated OBL, FACW, or FAC, the hydrophytic vegetation criteria was considered met. In rare cases, when Indicators 1 and 2 did not meet the hydrophytic vegetation criteria but soils and hydrology criteria were met, Indicators 3 (Prevalence Index) and 4 (Morphological Adaptations) were used to make a final determination. All observation points that met the hydrophytic vegetation criterion were considered potential wetlands. Soils were then characterized.

## Step 7

The Corps Manual specifies that soils need not be characterized (and are assumed hydric soils) at sampling points meeting the hydrophytic vegetation criterion if: (i) all dominant plant species have an indicator status of OBL, or (ii) all dominant species have an indicator status of OBL and/or FACW, and the wetland boundary is abrupt (at least one dominant OBL species must be present). All observation points sampled during this field investigation were examined directly for soil and hydrologic characteristics.

## Step 8

At observation points requiring a soil evaluation, soil borings were performed by an EDI Soil Scientist using methods specified in the Northcentral and Northeast Regional Supplement. Soil pits were dug using a tile spade. Testpits were generally dug to a depth of 20 inches below ground surface. Soils were examined for any of the hydric soil indicators, as outlined in the Field Indicators of Hydric Soils in the United States. A determination was made as to whether or not the hydric soil criterion was met. Soils data was recorded on the data forms included in Appendix B of this report.

### Step 9

EDI's Soil Scientist examined hydrologic indicators using methods specified by the Northcentral and Northeast Regional Supplement at each observation point. The wetland hydrology criterion was met if: (i) one or more primary field indicators was materially present, (ii) available hydrologic records provided necessary evidence, or (iii) two or more secondary indicators were present. Results were recorded on data forms taken from the Corps Manual and are included in this report as Appendix B.

## <u>Step 10</u>

A wetland determination was made for every observation point. If a sample plot met the hydrophytic vegetation, hydric soil, and wetland hydrology criteria, the area was considered to be wetland.

## <u>Step 11</u>

Based on the results of the transected data, wetland boundaries were established for each identified wetland using survey ribbon labeled "wetland delineation" and numbered consecutively along each wetland boundary. As outlined in the Corps Manual, the placement of flags was based on the limits of areas where all three parameters were met. Wetland flags were labeled W1-1 through W1-7.

#### STREAMS & DRAINAGES:

The federally regulated Ordinary High Water (OHW) mark of streams within the Project area were delineated utilizing the definitional criteria as presented in Title 33, Code of Federal Regulations, Part 328, and the USACE Regulatory Guidance Letter 05-05 – Guidance on Ordinary

High Water Mark Identification. Each stream is categorized in regard to its flow regime as perennial, intermittent, or ephemeral, as defined by the USACE. The Ordinary High Water (OHW) mark for each stream is surveyed using the handheld Garmin GPSmap 62s. Each stream is assigned a letter designation, and survey points are numbered consecutively. Substrate characteristics and water depth are noted. Streams classified as AA, A, B, C, C(t), C(ts) and D in the State of New York are regulated by NYSDEC under Article 15 Use and Protection of Waters. Streams are given classifications which designate the level of protection afforded to each waterbody. Class AA and A are assigned to sources of drinking water. Class B streams are best suited for swimming and other contact recreation, but not drinking water. Class C streams identify waters that support fishing and non-contact activities. A classification with (t) designated a stream with the potential to support trout populations. A classification of (ts) identifies waters that may support trout spawning. Class D waters are the lowest classification, and are often highly imperiled.

## SECTION V: RESULTS AND CONCLUSIONS

Earth Dimensions, Inc. (EDI) has completed a wetland delineation study at the 1789 Dodge Road site located in the Town of Amherst, County of Erie, and State of New York. A field investigation was conducted by a Soil Scientist and a Wetland Ecologist from EDI. The wetland delineation study identified one (1) wetland totaling  $0.054 \pm acre$  present within the 1789 Dodge Road site. In addition, a 436.3 foot portion of a tributary to Ransom Creek/ Town of Amherst Ditch 26B, a Class C stream, was identified. No waterbodies were identified within the investigation area.

Figure 5 depicts the vegetative communities as they existed at the time of the investigation. The uplands within the investigation area were comprised of successional northern hardwoods and mown lawn communities. The wetland area was found to consist of a shallow emergent marsh community. The vegetative communities of the investigation area are described according to Ecological Communities of New York State (Edinger et al. 2014).

The successional northern hardwood community was dominated by the following species: box elder (*Acer negundo*), black willow (*Salix nigra*), common red raspberry (*Rubus idaeus*), multiflora rose (*Rosa multiflora*), dame's rocket (*Hesperis matronalis*), garlic mustard (*Aliaria petiolata*), white snake root (*Ageratina altissima*), orchard grass (*Dactylis glomerata*), enchanter's nightshade (*Circea lutetiana*) and sticky willy (*Galium aparine*).

The mown lawn (with some trees) community was dominated by the following species: red pine (*Pinus resinosa*), quaking aspen (*Populus tremuloides*), Kentucky bluegrass (*Poa pratensis*), pussy willow (*Salix discolor*), common dandelion (*Taraxacum officinale*), heal all (*Prunella vulgaris*), spreading bentgrass (*Agrostis stolonifera*), tall buttercup (*Ranunculus acris*), tatarian honeysuckle (*Lonicera tatarica*), red clover (*Trifolium pratensis*), ground ivy (*Glechoma hederacea*) and orchard grass (*Dactylis glomerata*).

Wetland W1 is a 0.054± acre shallow emergent marsh. No data was collected. It is EDI's professional opinion that Wetland W1/Stream 1 is Federally jurisdictional under the Navigable Waters Protection Rule since it is a perennial stream.

Stream 1 is identified as a Tributary to Ransom Creek/ Town of Amherst Ditch 26B and flows north along the eastern limits of the site and ultimately empties into Ransom Creek. This intermittent channel is identified as a Class C stream by NYSDEC standards. The substrate consists of silt and gravel, with emergent vegetation along the banks. Within the project area, stream 1 is approximately 20-25 feet wide (30 feet at top of bank) with an average water depth of 6-24 inches.

A map which depicts the site boundaries and the location of all observation points established during the field survey is included as Figure 6 in Appendix A of this report. Data forms are included as Appendix B. Appendix C includes representative photographs of the project area. Appendix D notes the references used during the preparation of this report and during the field investigation. Appendix E provides the names, addresses and phone numbers of the survey personnel involved in the wetland delineation study.

## SECTION VI: RECOMMENDATIONS

One (1) wetland area and one (1) stream were identified during the course of a field investigation based upon the three parameter technique (vegetation, soils, and hydrology) outlined in the Corps Manual and Northcentral and Northeast Regional Supplement. It is EDI's professional opinion that wetland W1 is regulated by the USACE under Section 404 of the Clean Water Act. It is also EDI's opinion that wetland W1 is part of Freshwater Wetland CC-15 and would be regulated by NYSDEC under Article 24 of the New York Conservation Law. Stream 1 is regulated under both Section 404 and Article 15. USACE and NYSDEC approach their regulatory analyses by first considering avoidance of wetlands and minimization of wetland losses. EDI recommends the following:

- (1) Submit this report to USACE and NYSDEC with a request for a wetland boundary confirmation and jurisdictional determination.
- (2) If no impacts are proposed to federal or state regulated wetlands, state regulated 100-foot adjacent area or streams based on the outcome of the jurisdictional determination, it is the professional opinion of EDI that the project may proceed without the need for Section 404, Article 15 or Article 24 Permits.
- (3) If any NYSDEC regulated upland adjacent area or federal or state jurisdictional wetland impacts are proposed, it is EDI's recommendation that a Joint Application for Permit and supporting documentation be submitted to the USACE and NYSDEC with a request for a Section 404 Permit, Section 401 Water Quality Certification, Article 15 Permit and/or an Article 24 Permit.

# 1789 DODGE ROAD

APPENDIX A - FIGURES

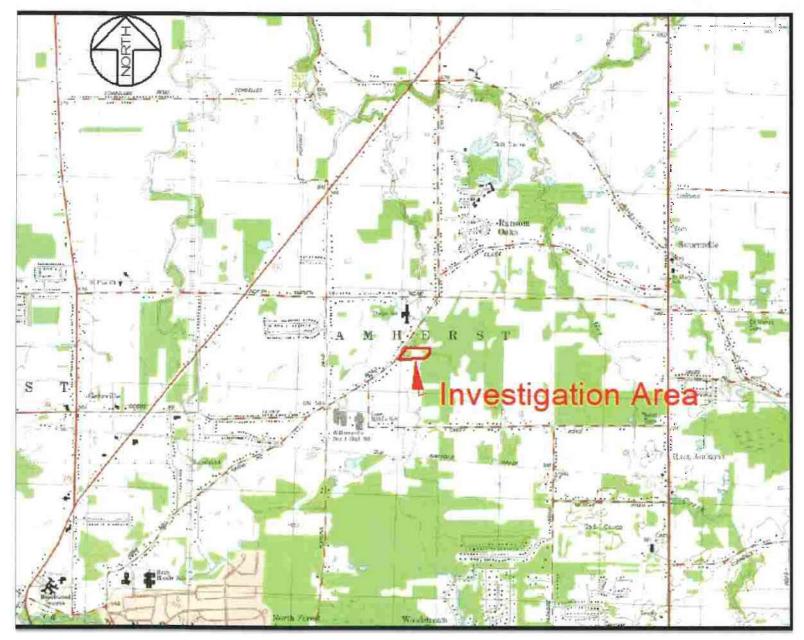


FIGURE 1: USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Clarence Center Quadrangle / 2002 DeLorme 1789 Dodge Road Town of Amherst, Erie County, New York





FIGURE 2: NATIONAL WETLANDS INVENTORY MAP

http://www.fws.gov/wetlands/data/mapper.HTML (Visited 12/21/20)

1789 Dodge Road





FIGURE 3: NRCS ERIE COUNTY SOIL SURVEY MAP

http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (Visited 12/21/20)

1789 Dodge Road



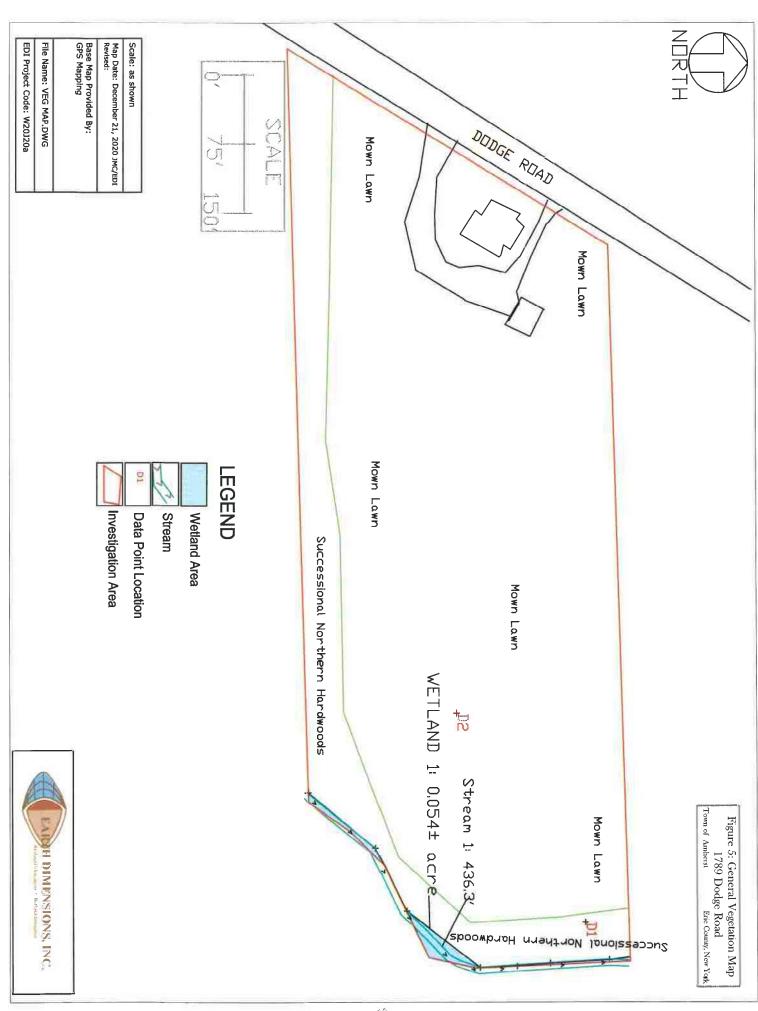


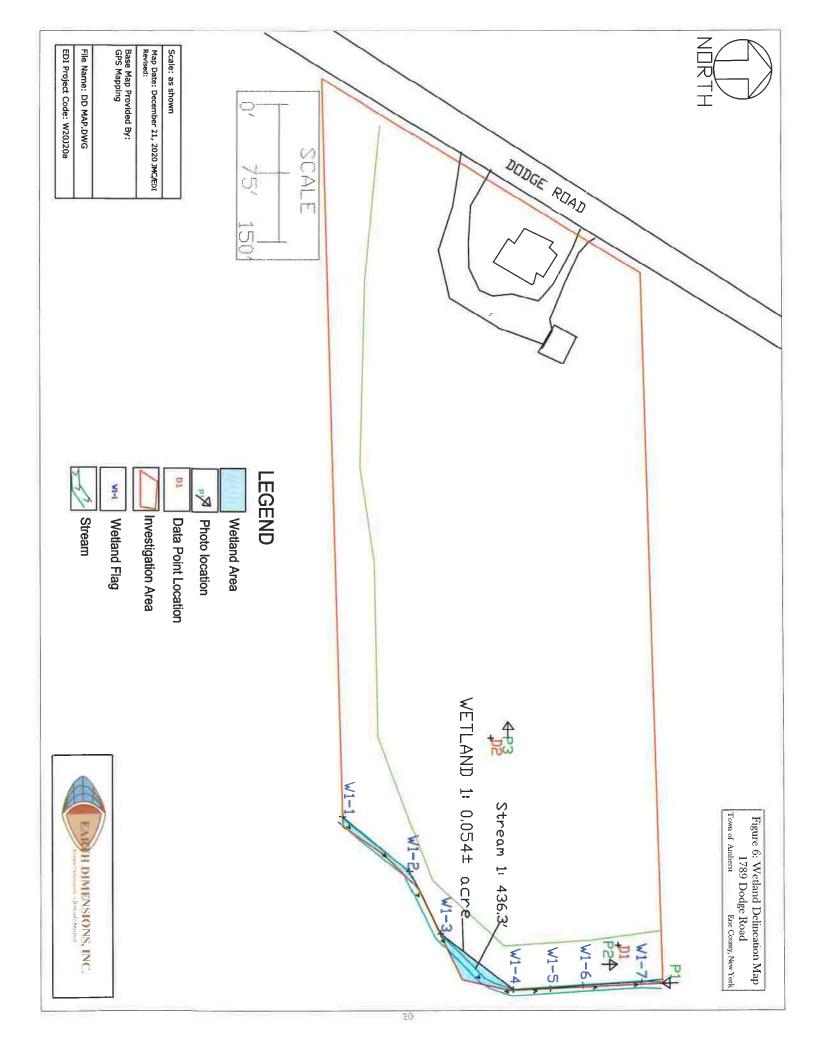
FIGURE 4: NYSDEC ENVIRONMENTAL RESOURCE MAPPER

http://www.dec.ny.gov/imsmaps/ERM/viewer.htm (Visited 12/21/20)

1789 Dodge Road







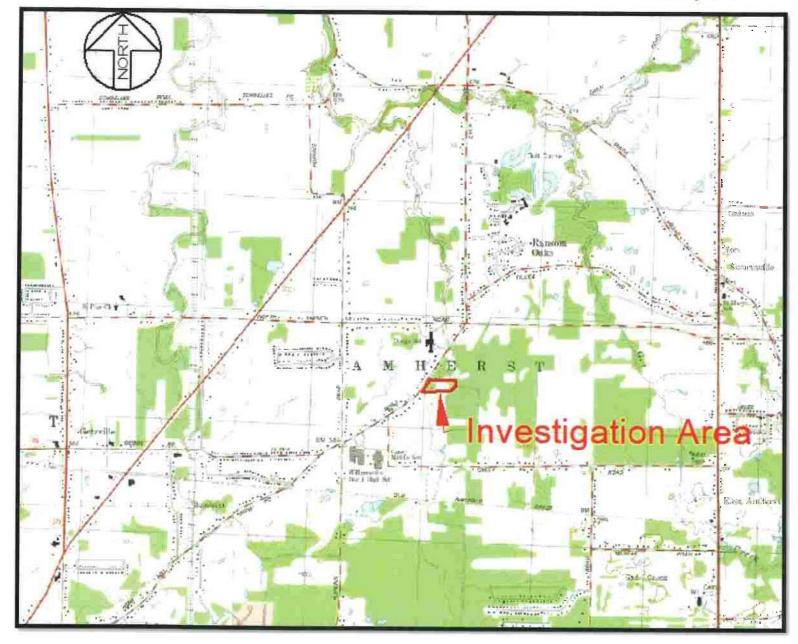


FIGURE 7: DRAINAGE MAP

Clarence Center Quadrangle / 2002 DeLorme 1789 Dodge Road Town of Amherst, Erie County, New York





FIGURE 8: SITE AERIAL PHOTOGRAPH

http://gis2.erie.gov/HTML5/ErieCountyNY/PublicLaunchPage.aspx (Visited 12/21/2020)

1789 Dodge Road



# 1789 DODGE ROAD

APPENDIX B - DATA SHEETS

Project Code: W20J20a

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Applicant/Owner: Joe Rubino Investigator(s): Scott Livingstone & Jo Landform (hillslope, terrace, etc.): 74 Subregion (LRR or MLRA) LRRL Soil Map Unit Name: Are climatic / hydrologic conditions on the Are Vegetation, Soil, or he	State: New York  dv Celeste Section  A Color Color  the site typical for this time of y  dydrology significantly of	Sampling Date: November 23, 2020  Sampling Point: Sampling Point: Sampling Point: Sampling Point: Slope (%): Slope (%): Slope (%): NAD83  NW I classification: NAD83  Pear? Yes No (If no, explain in Remarks.)  Instituted: Are "Normal Circumstances" present? Yes No Soblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS: Attach s Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative process UPLAND SUL	Yes No No Yes No No No dures here or in a separate reg	within a Wetland? Yes No
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Images	Water-Stain Aquatic Fau Marl Depos Hydrogen S Oxidized RI Presence of Recent Iron Thin Muck S agery (B7)  Water-Stain	Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry-Season W ater Table (C2)  Ulfide Odor (C1)  Dry-Season W ater Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Freduced Iron (C4)  Reduction in Tilled Soils (C6)  Drainage Patterns (B10)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	No Depth (inch No Depth (inch No Depth (inch	es):

Absolute Dominant Indicator Species? Status	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  (A)
5 Y FAX	That Are OBL, FACW, or FAC:(A)  Total Number of Dominant
	Total Number of Dominant
	Percent of Dominant Species 33
	That Are OBL, FACW, or FAC: (A/B)
	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
= Total Cover	OBL species x 1 =
	FACW species x 2 =
10 Y MW	FAC species x 3 = FACU species x 4 =
SYV	FACU species x 4 = UPL species x 5 =
	Column Totals: (A) (B)
	Prevalence Index = B/A = 3.79
	Hydrophytic Vegetation Indicators:
15	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
= Total Cover	3 - Prevalence Index is < 3.01
45 Y FWAJ	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
35 Y FAW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
S N FAW	
SNNT	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5 N FAW	Definitions of Vegetation Strata:
S N M	
	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
	Sapling/shrub - Woody plants less than 3 in. DBH
	and greater than 3.28 ft (1 m) tall.
	Herb - All herbaceous (non-woody) plants, regardless
	of size, and woody plants less than 3.28 ft tall.
(k	Woody vines - All woody vines greater than 3.28 ft in height.
/DO = Total Cover	list, girls
	CHIESTIANUAL NOTES
	SUCCESSIONAL NOTTH Community Type:
	Community Type:
	Hydrophytic Vegetation
A .	Present? Yes No No
heet.)	
	10

thes)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Rema	arks
			1100	1		
-16	10474/2	100		5:0		
and the second s						
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	an annual					No contract to the same
		etion. RM=R	educed Matrix. CS=Covered or Coated Sand Grain		ation: PL=Pore Lining	
ric Soil I	Indicators:			Indicate	ors for Problematic	Hydric Soils*:
_ Histos			Polyvalue Below Surface (S8) (LRR R,		Muck (A10) (LRR K,	
Black I	Epipedon (A2) Histic (A3)		MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B	5 cn	st Prairie Redox (A16) n Mucky Peat or Peat (	(S3) (LRR K, L, R)
Hydrog	gen Sulfide (A4) ed Layers (A5)		Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2)	Darl	c Surface (S7) (LRR K value Below Surface (	(, L, M)
Deplet	ed Below Dark Surface	e (A11)	Depleted Matrix (F3)	Thir	Dark Surface (S9) (LI	RR K, L)
Sandy	Dark Surface (A12) Mucky Mineral (S1)		Redox Dark Surface (F6) Depleted Dark Surface (F7)	Piec	-Manganese Masses ( Imont Floodplain Soils	(F19) (MLRA 149E
Sandy	Gleyed Matrix (S4) Redox (S5)		Redox Depressions (F8)	Mes	ic Spodic (TA6) (MLR/ Parent Material (TF2)	A 144A, 145, 149B
Strippe	ed Matrix (S6)	# DA 440D		Ven	/ Shallow Dark Surface er (Explain in Remarks	e (TF12)
Dool C	Surface (C7) /LDD D I			CMH	er (Explain in Remarks	>)
Dark S	Surface (S7) (LRR R, N	HEIOT (TOD)		was 51 51 1		
Dark S	Surface (S7) (LRR R, N	min (1700)		wasteres.		
_ Dark S	Surface (S7) (LRR R, N		hydrology must be present, unless disturbed or proble			
Dark S	burface (\$7) (LRR R, N		hydrology must be present, unless disturbed or proble			
Dark S icators of	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):		hydrology must be present, unless <b>disturbed</b> or proble			
_ Dark S	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):		I hydrology must be present, unless <b>disturbed</b> or proble	ematic.	Present? Yes	No X
Dark Sicators of trictive Laype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):		hydrology must be present, unless <b>disturbed</b> or proble	ematic.	Present? Yes	No X
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Dark S cators of rictive L ype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X
Dark S cators of rictive L ype: epth (inc	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No
Dark S cators of rictive L ype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No <u>X</u>
Dark S cators of rictive L ype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X
Dark S cators of crictive L ype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X
Dark S cators of crictive L ype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X
Dark Sicators of trictive Laype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X
Dark Sicators of trictive Laype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X
Dark Sicators of trictive L	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X
Dark S cators of crictive L ype:	Surface (S7) (LRR R, M hydrophytic vegetation ayer (if observed):			ematic.		No X

#### WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: <u>1789 Dodge Road</u> Town  Applicant/Owner: <u>Joe Rubino</u> State  Investigator(s): <u>Scott Livingstone &amp; Jody Celes</u>	e:_New York_ steSection, Township, Range	Sampling Point:: 42.00-1-45.2
Subregion (LRR or MLRA) LRRL Lat:  Soil Map Unit Name: CHEKTOW AGA  Are climatic / hydrologic conditions on the site t	FINE SANDY LORI	Slope (%):  78.7255
Are Vegetation, Soil, or Hydrolog Are Vegetation, Soil, or Hydrolog	y significantly disturbed?  gy naturally problematic? (If neede	Are "Normal Circumstances" present? Yes Noed, explain any answers in Remarks.)
SUMMARY OF FINDINGS: Attach site map  Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?  Remarks: (Explain alternative procedures he	es No within a within	mpled Area  Wetland? Yes No  tional Wetland Site ID:
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required and support of the sup	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
	No Depth (inches):	Wetland Hydrology Present? Yes No
Remarks:		

, ,,,,	solute Dominant Indicator	Dominance Test worksheet:
ee Stratum (Plot size: 30' ) % (	Cover Species? Status	Number of Dominant Species That Are OBL, FACW , or FAC:(A)
Populus transloides S	× 1	Total Number of Dominant Species Across All Strata:(B)
		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B)
		Prevalence Index worksheet:
pling/Shrub Stratum (Plot size: 15' )	= Total Cover	OBL species X1 = X2 = YO
Lonicera tatarica	D Y FAG	FAC species
SAIX all color	5 y man	UPL species x5=
		Column Totals: /40 (A) 5/5 (B)
		Prevalence Index = B/A = 210
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
	= Total Cover	2 - Dominance Test is >50%
erb Stratum (Plot size: 5' )		3 - Prevalence Index is < 3.0 <sup>1</sup>
Prinolla WIGATIS	15 Y FACU	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
AGRATIV Stolonifera	15 Y FACE	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
RAMUNIALLY GLAVI.	5 N FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Trifolion pratural 5	N HACU	Definitions of Vegetation Strata:
GIELDMA LEARRAGEAS	· Ñ	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
DACTUS GLORENTAS		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
)		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
		Woody vines - All woody vines greater than 3.28 ft in
10	= Total Cover	height.
doody Vine Stratum (Plot size: 30' )		MOWN LAWNS
		Community Type:
<del>-</del>		Hydrophytic Vegetation Present? Yes No
_	= Total Cover	Present? Yes No
emarks: (Include photo numbers here or on a separate sheet.	PhotoNOVETW	
AA Om IA	DEATO ASH NO	2R 8V
SAFIRMS AV	THE PERSON AND THE PE	
11/11/11		*

	ription: (Describe to	the depth r			or confirm th	ne absence of indic	cators.)	
epth ches)	Matrix Color (moist)	%	Color (moist)	ox Features % Type	Loc <sup>2</sup>	Texture	Rema	rks
7-16	10784/3 1078576	100				F51 _		
	oncentration. D=Deple ndicators:	tion, RM=Re		Covered or Coal		Indicators fo	PL=Pore Lining. or Problematic H	lydric Soils <sup>3</sup> ; _, MLRA 149B)
Histic E Black I Hydrog Stratific Deplet Thick I Sandy Sandy Strippe	Epipedon (A2) Histic (A3) Jen Sulfide (A4) ed Layers (A5) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) surface (S7) (LRR R, M		MLRA 149E Thin Dark S Loamy Mucl Loamy Gley Depleted Mark Redox Dark Depleted Dark	B) urface (S9) ( <b>LRR</b> ky Mineral (F1) ( <b>L</b> ed Matrix (F2)	R, MLRA 149	Coast Pra Coast	irie Redox (A16) ky Peat or Peat (S ace (S7) ( <b>LRR K,</b> Below Surface (S Surface (S9) ( <b>LR</b> Janese Masses (F Floodplain Soils (	(LRR K, L, R) 63) (LRR K, L, R) L, M) 68) (LRR K, L) 712) (LRR K, L, R) (F19) (MLRA 149E 1444A, 145, 149B
	hydrophytic vegetation	and wetland	l hydrology must be p	present, unless dis	turbed or prob	elematic.		
Strictive L Type: Depth (inc	ches):	in I	-			Hydric Soil Pres	ent? Yes	No X
marks:								

# 1789 DODGE ROAD

APPENDIX C - SITE PHOTOGRAPHS



Photo 1: Facing south. Depicts wetland W1/Stream W1



Photo 3: Facing west from data point D2. Depicts the mown lawn community of data point D2.



Photo 2: Facing north from data point D1. Depicts the successional northern hardwood community of data point D1.

# 1789 DODGE ROAD

APPENDIX D - REFERENCES

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## 1789 DODGE ROAD

APPENDIX E - WETLAND INVESTIGATION PERSONNEL

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**Vegetation Sampling** 

Jody Celeste, Ecologist Earth Dimensions, Inc. 1091 Jamison Road Elma, New York 14059 (716) 655-1717

Report Preparation

Jody Celeste, Ecologist Earth Dimensions, Inc. 1091 Jamison Road Elma, New York 14059 (716) 655-1717

### Appendix L

# Town of Amherst Stormwater Maintenance Agreement Checklists

#### New York State Stormwater Management Design Manual

Chapter 6: Performance Criteria
Section 6.4 Stormwater Filtering Systems

#### **Bioretetion Areas (F-5)**



**Description:** Shallow stormwater basin or landscaped area which utilizes engineered soils and vegetation to capture and treat runoff. The practice is often located in parking lot islands, and can also be used to treat residential areas.

#### **KEY CONSIDERATIONS**

#### **CONVEYANCE**

- Provide overflow for the 10-year storm to the conveyance system.
- Conveyance to the system is typically overland flow delivered to the surface of the system, typically through curb cuts or over a concrete lip.

#### **PRETREATMENT**

 Pretreatment consists of a grass channel or grass filter strip, a gravel diaphragm, and a mulch layer, sized based on the methodologies described in Section 6.4.2.

#### **TREATMENT**

- Treatment area should have a four foot deep planting soil bed, a surface mulch layer, and a 6" ponding layer.
- Size the treatment area using equations provided in Chapter 6.

#### LANDSCAPING

• Detailed landscaping plan required.

#### **MAINTENANCE**

- Inspect and repair/replace treatment area components
- Stone drop (at least 6") provided at the inlet
- Remulch annually

### STORMWATER MANAGEMENT SUITABILITY

X Water Quality

Channel Protection

Overbank Flood Protection

Extreme Flood Protection

Accepts Hotspot Runoff: Yes

(requires impermeable liner)

### IMPLEMENTATION CONSIDERATIONS

M Capital Cost

M Maintenance Burden

#### Residential

**Subdivision Use:** Yes

High Density/Ultra-Urban: Yes

Drainage Area: 5 acres max.

**Soils:** Planting soils must meet specified criteria; No restrictions on surrounding soils

#### **Other Considerations:**

Use of native plants is recommended

#### New York State Stormwater Management Design Manual

Chapter 6: Performance Criteria Section 6.4 Stormwater Filtering Systems

Key: L=Low M=Medium H=High
POLLUTANT REMOVAL  G Phosphorus  G Nitrogen  G Metals - Cadmium, Copper, Lead, and Zinc removal  F Pathogens – Coliform, Streptococci, E.Coli removal  Key: G=Good F=Fair P=Poor

### **Bioretention Construction Inspection Checklist**

Project: Location: Site Status:			
Date:			
Time:			
Inspector:			

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
If designed as exfilter, soil testing for permeability		
Facility location staked out		
2. Excavation		
Size and location		
Lateral slopes completely level		
If designed as exfilter, ensure that excavation does not compact susoils.		
Longitudinal slopes within design range		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS		
3. Structural Components				
Stone diaphragm installed correctly				
Outlets installed correctly				
Underdrain				
Pretreatment devices installed				
Soil bed composition and texture				
4. Vegetation				
Complies with planting specs				
Topsoil adequate in composition and placement				
Adequate erosion control measures in place				
5. Final Inspection				
Dimensions				
Proper stone diaphragm				
Proper outlet				
Soil/ filter bed permeability testing				
Effective stand of vegetation and stabilization				
Construction generated sediments removed				
Contributing watershed stabilized before flow is diverted to the practice				

Comments:	
Actions to be Taken:	

Project: Location:

# **Bioretention Operation, Maintenance and Management Inspection Checklist**

Site Status:		
Date:		
Time:		
Inspector:		
MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly	)	
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/S	Sumps (Annual, Afte	r Major Storms)
No evidence of sediment buildup		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS			
Sumps should not be more than 50% full of sediment					
No evidence of erosion at downstream toe of drop structure					
4. Dewatering (Monthly)					
Dewaters between storms					
No evidence of standing water					
5. Sediment Deposition (Annu	5. Sediment Deposition (Annual)				
Swale clean of sediments					
Sediments should not be > 20% of swale design depth					
6. Outlet/Overflow Spillway (Annua	l, After Major Storm	ns)			
Good condition, no need for repair					
No evidence of erosion					
No evidence of any blockages					
7. Integrity of Filter Bed (Annual)					
Filter bed has not been blocked or filled inappropriately					

Comments:		
Actions to be Taken:		

#### New York State Stormwater Management Design Manual

Chapter 6: Performance Criteria Section 6.1 Stormwater Ponds

#### **Stormwater Ponds**



**Description:** Constructed stormwater retention basin that has a permanent pool (or micropool). Runoff from each rain event is detained and treated in the pool through settling and biological uptake mechanisms.

**Design Options:** Micropool Extended Detention (P-1), Wet Pond (P-2), Wet Extended Detention (P-3), Multiple Pond (P-4), Pocket Pond (P-5)

#### **KEY CONSIDERATIONS**

#### **FEASIBILITY**

- Contributing drainage area greater than 10 acres for P-1, 25 acres for P-2 to P-4.
- Follow DEC Guidelines for Design of Dams.
- Provide a minimum 2' separation from the groundwater in sole source aquifers.
- Do not locate ponds in jurisdictional wetlands.
- Avoid directing hotspot runoff to design P-5.

#### **CONVEYANCE**

- Forebay at each inlet, unless the inlet contributes less than 10% of the total inflow, 4' to 6' deep.
- Stabilize the channel below the pond to prevent erosion.
- Stilling basin at the outlet to reduce velocities.

#### **PREATREATMENT**

- Forebay volume at least 10% of the WQ<sub>v</sub>
- Forebay shall be designed with non-erosive outlet conditions.
- Provide direct access to the forebay for maintenance equipment
- In sole source aquifers, provide 100% pretreatment for hotspot runoff.

#### **TREATMENT**

- Provide the water quality volume in a combination of permanent pool and extended detention (Table 6.1 in manual provides limitations on storage breakdown)
- Minimum length to width ratio of 1.5:1
- Minimum surface area to drainage area ratio of 1:100

#### LANDSCAPING

### STORMWATER MANAGEMENT SUITABILITY

X Water Quality

X Channel Protection

X Overbank Flood Protection

X Extreme Flood Protection

#### Accepts Hotspot Runoff: Yes

(2 feet minimum separation distance required to water table)

### FEASIBILITY CONSIDERATIONS

L Cost

L Maintenance Burden

**Key:** L=Low M=Moderate H=High

#### Residential Subdivision Use: Yes

High Density/Ultra-Urban: No

**Soils:** Hydrologic group 'A' soils may require pond liner

Hydrologic group 'D' soils may have compaction constraints

#### Other Considerations:

Thermal effects

#### New York State Stormwater Management Design Manual

Chapter 6: Performance Criteria Section 6.1 Stormwater Ponds

- Provide a minimum 10' and preferably 15' safety bench extending from the high water mark, with a maximum slope of 6%.
- Provide an aquatic bench extending 15 feet outward from the shoreline, and a maximum depth of 18" below normal water elevation.
- Develop a landscaping plan.
- Provide a 25'pond buffer.
- No woody vegetation within 15 feet of the toe of the embankment, or 25 feet from the principal spillway.

#### MAINTENANCE REQUIREMENTS

- Legally binding maintenance agreement
- Sediment removal from forebay every five to six years or when 50% full.
- Provide a maintenance easement and right-of-way.
- Removable trash rack on the principal spillway.
- Non-clogging low flow orifice
- Riser in the embankment.
- Pond drain required, capable of drawing down the pond in 24 hours.
- Notification required for pond drainage.
- Provide an adjustable gate valve on both the WQ<sub>v</sub>-ED pipe, and the pond drain.
- Side Slopes less than 3:1, and terminate at a safety bench.
- Principal spillway shall not permit access by small children, and endwalls above pipes greater than 48" in diameter shall be fenced.

- Outlet clogging
- Safety bench

#### POLLUTANT REMOVAL

- G Phosphorus
- G Nitrogen
- G Metals Cadmium, Copper,Lead, and Zinc removal
- G Pathogens Coliform, E.Coli, Streptococci removal

Key: G=Good F=Fair P=Poor

### **Stormwater/Wetland Pond Construction Inspection Checklist**

CONSTRUCTION SEQUENCE	SATISFACTORY/	COMMENTS	
Inspector:			
Time:			
Date:			
Project: Location: Site Status:			

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
Material (including protective coating, if specified)		
2. Diameter		
Dimensions of metal riser or pre-cast concrete outlet structure		
Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
2. Subgrade Preparation		
Area beneath embankment stripped of all vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench excavated with specified side slopes		
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal / plastic pipe		
Watertight connectors and gaskets properly installed		
Anti-seep collars properly spaced and having watertight connections to pipe		
Backfill placed and tamped by hand under "haunches" of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
3. Pipe Spillway Installation		
Concrete pipe		
Pipe set on blocks or concrete slab for pouring of low cradle		
Pipe installed with rubber gasket joints with no spalling in gasket interface area		
Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti- seep collar elevation before traversing with heavy equipment		

Со	NSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4.	Riser / Outlet Structure Installation		
Ris	er located within embankment		
Α.	Metal riser		
	Riser base excavated or formed on stable subgrade to design dimensions		
	Set on blocks to design elevations and plumbed		
	Reinforcing bars placed at right angles and projecting into sides of riser		
	Concrete poured so as to fill inside of riser to invert of barrel		
В.	Pre-cast concrete structure		
	Dry and stable subgrade		
	Riser base set to design elevation		
	If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
	Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
C.	Poured concrete structure		
	Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		
	Structure formed to design dimensions, with reinforcing steel set as per plan		
	Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
	Forms stripped & inspected for "honeycomb" prior to backfilling; parge if necessary		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS	
5. Embankment Construction			
Fill material			
Compaction			
Embankment			
Fill placed in specified lifts and compacted with appropriate equipment			
Constructed to design cross-section, side slopes and top width			
Constructed to design elevation plus allowance for settlement			
6. Impounded Area Construction			
Excavated / graded to design contours and side slopes			
Inlet pipes have adequate outfall protection			
Forebay(s)			
Pond benches			
7. Earth Emergency Spillway Construction			
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.			
Excavated to proper cross-section, side slopes and bottom width			
Entrance channel, crest, and exit channel constructed to design grades and elevations			

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross- section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil amendments		
Excelsior mat or other stabilization, as per plan		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place Reinforcement budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		
Comments:		

Actions to be Taken:			

# Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project		
Project Location:		
Site Status:		
Date:		
Date: Time:		
Inspector:		
•		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, Afte	r Major Storms)	
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete  Corrugated pipe  Masonry  1. Low flow orifice obstructed		
Low flow trash rack.     a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance     a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels     a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve     a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments			
3. Permanent Pool (Wet Ponds) (monthly)					
1. Undesirable vegetative growth					
2. Floating or floatable debris removal required					
3. Visible pollution					
4. Shoreline problem					
5. Other (specify)					
4. Sediment Forebays					
1.Sedimentation noted					
2. Sediment cleanout when depth < 50% design depth					
5. Dry Pond Areas					
1. Vegetation adequate					
2. Undesirable vegetative growth					
3. Undesirable woody vegetation					
4. Low flow channels clear of obstructions					
5. Standing water or wet spots					
6. Sediment and / or trash accumulation					
7. Other (specify)					
6. Condition of Outfalls (Annual , After Major Storms)					
1. Riprap failures					
2. Slope erosion					
3. Storm drain pipes					
4.Endwalls / Headwalls					
5. Other (specify)					
7. Other (Monthly)					
Encroachment on pond, wetland or easement area					

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
<ol> <li>Vegetation healthy and growing         Wetland maintaining 50% surface area coverage of wetland plants after the second growing season.</li> <li>(If unsatisfactory, reinforcement plantings needed)</li> </ol>		
Dominant wetland plants:     Survival of desired wetland plant species     Distribution according to landscaping plan?     Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
omments:		

Actions to be Taken:		

### STORMWATER CONTROL FACILITY MAINTENANCE AGREEMENT

#### **Stormwater Management Facility Inspection Procedures**

Post Construction Operation & Maintenance:

- 1. On a quarterly basis, perform the following:
  - a. Inspect catch basins, manholes and storm piping for debris and accumulation of sediment.
  - b. Remove and properly dispose of any collected debris from structures.
  - c. Flush storm sewers with water, if necessary, to remove accumulated sediment.
  - d. Check all rip rap stone for erosion and re-stone, if necessary, to prevent further erosion.
  - e. Inspect grass and landscaped areas for un-vegetated areas or areas with less than 80% healthy stand of grass and reseed and mulch as necessary. Water areas daily if reseeded between July and August.
- 2. Maintain all lawn areas by regular mowing, including the grass slopes of the detention basins. Any eroded areas shall be re-graded, seeded and mulched immediately.
- 3. Inspect detention basins for debris and sediment accumulation two times per year (spring and fall). Debris and sediment accumulation should be removed from the basin every five to six years or with sediment buildup over 6" in depth. Remove and properly dispose of any collected debris and sediment.
- 4. The bioretention area shall be maintained as required in the NYSDEC Stormwater Management Design Manual and as a component of the property landscaping and shall be maintained on a regular basis. Sediment must be removed when accumulation depth exceeds on inch. Any erosion of the bioretention berm must be repaired as soon as possible to prevent diversion around the bioretention area.

### Appendix M NYDEC Letter