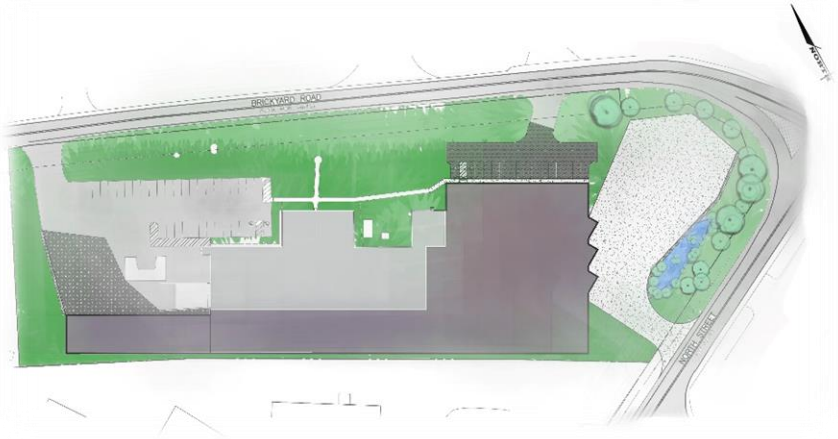
SWPPP

Stormwater Pollution Prevention Plan

for

Artisan Meats Building Expansion

2640 Brickyard Road



Town of Canandaigua
County of Ontario
State of New York
November 08, 2022

Prepared By:

MARATHON ENGINEERING
39 Cascade Dr / Rochester NY 14614 / 585-458-7770
840 Hanshaw Rd, Ste 6 / Ithaca NY 14850 / 607-241-2917

Prepared For:

JOSEF'S ARTISAN MEATS
MASTERFULLY CRAFTED IN THE USA

BRUNNER PROPERTIES, LLC
2640 BRICKYARD ROAD
CANANDAIGUA, NY

1374-21

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SECTION 1: PROJECT INFORMATION

1.1 Pre-Application Meeting Notes

All requirements of the current NYSDEC and Town of Canandaigua will be met. Any comments received as part of the preliminary & final plan requirements will be addressed as this report is finalized.

1.2 Owner-Operator-SWPPP Contact-SWPPP Preparer Contact Information

Owner/Operator:	Contact Person:
Brunner Properties, LLC **2640 Brickyard Road** **Canandaigua, NY**	Name: Josef Brunner Phone: (585)-266-4690

SWPPP Preparer:	Contact Person:
Marathon Engineering **39 Cascade Drive** **Rochester NY 14614**	Name: Richard Tiede Phone: (585) 458-7770

1.3 Site Address, Site Map, Scope of Project, Type and Size of Project

Address:	2640 Brickyard Rd, Canandaigua
Municipality:	Town of Canandaigua
County:	Ontario
Tax Parcel #	70.00-1-41-100
Nearest Cross Street:	Located at intersection of Brickyard Rd and North St
Watershed:	HUC 11 Canandaigua Lake Watershed
Size:	5.000 Acres to Centerline, 4.467 Acres TO R.O.W

Artisan Meats is proposing to expand their operation at 2640 Brickyard Road to accommodate their growing business. A 4,675 ± sf, 2-story addition to the east and south of the existing building is proposed, as well as a 6,950 ± sf, 1-story addition at the southwest corner of the 2-story addition. 16 additional parking spaces will be constructed on the front (north) side of the addition and a truck access point from North Street will be added. This project will not only provide additional production area, but also additional loading docks and improved vehicular circulation.

SECTION 2: STORMWATER SITE PLANNING, PRACTICE SELECTION, AND DETAILS

2.1 Site Planning

A) Vicinity Map & Project Boundary

Refer to Figure 1.0 in Appendix A for the project location and boundaries.

B) Existing & Proposed Topography/Infrastructure

The project site is located in the Canandaigua Lake Watershed (HUC 11). The site is developed land that consisted mainly of building and pavement /stone parking areas and qualifies as redevelopment activity classified under chapter 9 of the New York State Stormwater Management Design Manual.

The USDA Natural Resource Conservation Service soils map (located in appendix E), indicates soils on soils on-site are primarily hydrologic group D (88%), therefore, the site has poorly drained soils.

The site is generally flat and runoff flows to the southwest, where it is picked up in a drainage swale and conveyed into the County Roadway Storm System.

Post-development drainage will mimic the drainage patterns of pre-development conditions through the use of swales, drainage pipes, and other drainage improvements to convey runoff to stormwater facilities that treat runoff and attenuate large rain events.

Drainage to each of the main drainage features offsite will be maintained and the peak discharge rate reduced.

The project proposes to replace 1.90 acres of existing impervious with 2.09 acres of impervious improvements, increasing to 0.19 acres of new impervious.

Tables 1a and 1b list practices that were considered and/or applied in an iterative site planning and design process to preserve natural resources and reduce impervious surfaces.

Table 1a. PRESERVATION OF NATURAL SPACES		
Practice	Definition	Application
Preservation of Undisturbed Areas	Delineate and place into permanent conservation easement undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	***N/A***
Preservation of Buffers	Define, delineate and place in permanent conservation easement naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	***N/A***
Reduction of Clearing and Grading	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	***Considered and applied***
Locating Development in Less Sensitive Areas	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	***Considered and applied***
Open Space Design	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	***N/A***
Soil Restoration	Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of practices such as downspout disconnections, grass channels, filter strips, and tree clusters.	***Considered and applied***
Table 1b. IMPERVIOUS COVER REDUCTION		
Practice	Definition	Considerations
Roadway Reduction	Minimize roadway widths and lengths to reduce site impervious area	***Considered and not applied***
Sidewalk Reduction	Minimize sidewalk lengths and widths to reduce site impervious area	***Considered and applied***
Driveway Reduction	Minimize driveway lengths and widths to reduce site impervious area	***N/A***
Cul-de-sac Reduction	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	***N/A***
Building Footprint Reduction	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	***Considered and not applied***
Parking Reduction	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	***Considered and not applied***

2.2 Determine Water Quality Treatment Volume (WQv)

This project is designed as a redevelopment project therefore 25% of the existing impervious area and 100% of the proposed additional impervious area shall be treated as outlined in chapter 9 of the NYS Stormwater Management Design Manual. The water quality volume calculation is based on the 90th percentile rainfall of 1.0" and was calculated to be 0.06 ac-ft *(or 2675 cf).*

See Appendix K for calculation worksheet.

2.3 Runoff Reduction by Applying Green Infrastructure Techniques and Standard Stormwater Management Practices with RRv Capacity

Under Chapter 9 redevelopment site guidelines for Stormwater management, although encouraged meeting Runoff Reduction Volume sizing criteria is not required for the redevelopment portion of a project.

Multiple combinations of runoff reduction techniques and standard SMPs (Table 2) with RRv capacity (Table 3) were considered to effectively reduce the WQv for the 0.19 acres of new impervious.

The minimum RRv calculated for the new impervious site is 140 cubic ft .

A bioretention is utilized to provide RRv. A bioretention with underdrain can provide 40% of the storage provided by the bioretention. The bioretention facility provides a total volume of 2,220 cubic-ft of WQv storage and provides 888 cubic-ft (0.02 ac-ft) of runoff reduction, exceeding the RRv minumim for the new impervious for the site.

See Appendix K for all green infrastructure practice calculations.

Table 2. RUNOFF REDUCTION CAPACITY FOR STANDARD MANAGEMENT PRACTICES

SMP	RRv Capacity (% of WQv provided by practice)
Infiltration Practices (by source control)	90%
Bioretention Practice	80% in HSG A and B (without underdrain)
	40% HSG C and D (with underdrain)
Dry Swale (Open Channel Practice)	40% in HSG A and B
	20% in HSG C and D

Table 3. RUNOFF REDUCTION PRACTICES		
Practice	Definition	WQv, RRv Considerations
Conservation of natural Areas	CNA drain towards developed areas on project. Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on a site.	Subtract CNA's DA from SMP and thereby reduce the size of RRv and WQv.
Sheetflow to riparian buffers or filter strips	When developed areas drain by sheetflow to an undisturbed natural area such as forested conservation areas, stream buffers or vegetated filter strips, they can be used to treat and control stormwater runoff from some areas of a development project. Requires delineation and permanent protection through enforcement.	~Passively treats sheetflow run-on from developed area thereby reducing WQv and avoiding the construction of a more formal SMP.
Vegetated open swale	properly designed vegetated channels used instead of storm sewers or concrete open channels, lower velocity, increase time of concentration, reduce the peak discharge, and provide treatment and promote infiltration.	Reduced WQv based on HSG: 20% A or B soils; 10% C or D soils; 12-15% if soil restoration applied.
Tree planting / tree box	Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.	RRv Size like 2c above with max DA 100SF/tree, 25% directly connected IC "ground-level"
Disconnection of rooftop runoff	Direct runoff from residential rooftop areas and upland overland runoff flow to designated pervious areas to reduce runoff volumes and rates. Vegetated area to be protected by covenant or other permanent and soil decompaction may be necessary.	Reduce the IC area for WQv calculation
Stream daylighting for redevelopment projects	Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	may reduce the IC area making space for other GI practices (trees, buffers etc)
Rain Garden	Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression.	IC reduction of 100%
Green Roof	Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	
Stormwater Planter	Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality.	
Rain tank/ Cistern	Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	
Porous Pavement	Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	Designed to standards allows WQv for contributing DA is applied towards RRv

2.4 Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

The bioretention and stone edge treatment are being utilized to treat all remaining water quality volume that wasn't reduced with runoff reduction.

The total WQv treated and reduced is 2,828 cf (0.065 cf)which exceeds the water quality treatment volume calculated in section 2.1 of this document (2675 cf).

See Appendix K for calculations worksheets.

2.5 Apply Volume Peak Rate Control Practices if Needed to Meet Requirements

Under Chapter 9 redevelopment site guidelines for Stormwater management, NYSDEC Stream Channel Protection Volume Requirements (Cpv) for redevelopment activities is not required if there are no changes to hydrology that increase the discharge rate from the project site.

The bioretention and storm system have been designed to limit the stormwater discharge to the rate of the existing site discharge. The following tables summarizes the existing and proposed peak discharges:

Site Stormwater Flows Summary			
Event	***Existing***	***Proposed w/ BMP***	
	Peak (cfs)	Peak (cfs)	Peak Reduction
1 Year	6.99	6.37	9%
10 Year	13.57	11.77	13%
100 Year	24.83	20.84	16%

See Appendix L for the full HydroCAD models and analysis and Appendix A for Drainage Figures.

2.6 Reference the Map/Construction Drawing for the Descriptions, Dimensions, Material Specifications and Installation Details for each Post-Construction Stormwater Control Practice

See the Site Development Plans in Appendix B for descriptions, dimensions, material specifications and installation details for stormwater control practices.

2.7 Long Term Operation and Maintenance of Post-Construction Stormwater Management Practices

The listed owner operator will be responsible for the long-term operation and maintenance of each practice.

Following is a list of maintenance requirements. Inspections shall be performed at a minimum of every 6 months and required maintenance performed or as noted below and on the checklists in Appendix 'J'. Original design specifications are shown on the plan documents in Appendix 'B'.

Tree Planting

- During the first three years, mulching, watering and protection of young trees may be necessary
- Inspections should be performed every three months and within one week of ice storms, within one week of high wind events that reach speeds of 20 mph until trees have reached maturity.
- As a minimum, the following items should be checked regularly:
- Assess tree health
- Determine survival rate; replace any dead trees.
- Inspect tree for evidence of insect and disease damage; treat as necessary
- Inspect tree for damages or dead limbs; prune as necessary

Grass Swales

- Fertilize and lime as needed to maintain dense vegetation.
- Mow as required during the growing season to maintain grass heights at 4 inches to 6 inches.
- Remove any sediment or debris buildup by hand (if possible) in the bottom of the channel when the depth reaches 2 inches.
- Inspect for pools of standing water. Re-grade to restore design grade and re-vegetate.
- Repair rills in channel bottom with compacted topsoil, anchored with mesh or erosion blanket as needed. Seed and mulch.
- Use of heavy equipment for mowing and removing plants/debris should be avoided to minimize soil compaction. Disturbed areas should be stabilized with seed and mulch, or revetment, as necessary.

Bioretention Maintenance

- Fertilize and maintain grasses – cut down at close of year prior to snowfall.
- Remove trash building up in stone and cobble areas.
- Remove any sediment or debris buildup by hand if possible.
- Inspect for pools of standing water. If water is standing for longer than 24 hours after a rain event the stone and fabric top layer shall be removed and the bioretention media shall be inspected and replaced as necessary.
- Once a year, replace dead plantings, as were specified on the design plans.

2.8 Logs of Borehole Investigations and Supporting Geotechnical Report (if applicable)

See Geotechnical Report and soils testing located in Appendix F.

2.9 Include the Proper Stormwater Management Calculation Worksheets

See Appendices K for the Stormwater Management Calculations.

SECTION 3: CONSTRUCTION EROSION AND SEDIMENT CONTROL PLANS, VEGETATIVE MEASURES & CONTROL OF NON-STORMWATER DISCHARGES

3.1 Description of Temporary and Permanent Structural and Vegetative Measures

A) Temporary Stabilization

Topsoil stockpiles and disturbed portions of the site where construction activity temporarily ceases, shall have stabilization measures initiated by the end of the next business day and completed within <fourteen> days (seven days if 5-acres of disturbance, or three days if between November 15th and April 1st). The temporary seed shall be annual rye applied at the rate of 100 lbs. per acre. After seeding, each area shall be mulched with 2 tons per acre or 3 bales per 1000 square feet of straw. The straw mulch is to be tacked into place by a disk with blades set nearly straight. Areas of the site that are to be paved will be temporarily stabilized by applying geotextile and stone sub-base until bituminous pavement can be applied.

B) Permanent Stabilization

Disturbed portions of the site where construction activities permanently cease shall have 6" of topsoil placed and be stabilized with permanent seed, with stabilization work initiated by the end of the next business day and completed within <fourteen> days (seven days if 5-acres of disturbance, or three days if between November 15th and April 1st). Lime and fertilizer will be applied as determined by soil tests. After seeding, each area shall be mulched as described above. All slopes greater than or equal to 3H: 1V shall have jute or other erosion control fabric applied. Seed mix shall be as specified by the owner at the seed suppliers recommended rates.

C) Off-Site Vehicle Tracking

If the stabilized construction entrance is not sufficient to reduce vehicle tracking of sediments to an acceptable amount the contractor shall install a truck wash station on-site. The paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

3.2 Reference the Map/Construction Drawing for the Material Specifications, Dimensions and Installation Details for All Erosion and Sediment Control Practices

All erosion and sediment control practices have been designed in accordance with the New York State Standards for Erosion and Sediment Control. See Site Development Plans in Appendix B, for the dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices.

3.3 Identification of Design Elements not in Conformance with the New York State Standard and Specifications for Erosion and Sediment Control

All design elements are in conformance with the New York State Standard and Specifications for Erosion and Sediment Control or the New York State Stormwater Management Design Manual.

3.4 Inspection Schedule and Operation and Maintenance Schedule of all Erosion and Sediment Control Practices

In accordance with GP-0-20-01, Contractor Maintenance Inspection Requirements are as follows: The Permittee/Operator agrees to have the "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 shall begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable timeframe.

As defined in the NYSDEC SPDES General Permit, a "Trained Contractor" is defined as an employee from the contracting (construction) company 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 Department endorsed entity. After receiving the initial training, the trained contractor shall receive four (4) hours of training every three (3) years. Copies of the trained contractor certification cards shall be kept in Appendix D of this SWPPP. Copies of the Contractor's daily inspections shall be kept in Appendix H of this SWPPP.

The Permittee/Operator agrees to have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Following the commencement of construction, site inspections shall be conducted by the qualified professional at least twice every 7 calendar days (if 5-acre waiver is obtained) separated by at least 2 days. Once every 7 days if less than 5-acres are disturbed at any one time. During each inspection, the qualified professional will record the following information:

1) On a site map, indicate the extent of all disturbed site areas.
2) Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
3) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

4) Indicate all disturbed site areas that have not undergone active site work during the previous 14- day period;

5) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of the sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

6) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and

7) Document all deficiencies that are identified with the implementation of the SWPPP.

See Appendix J for full schedule and corrective log book.

3.5 Description of the Structural Practices to Divert Flows

Flow diversions from upgradient areas shall be constructed as needed to minimize runoff onto exposed areas during construction.

3.6 Construction Phasing and Sequencing Plans

1) <u>Before any site grading activities begin:</u>

- Install stabilized construction entrance
- Protect existing vegetation and environmental features to remain.
- Install perimeter sediment controls.
- Clear and grub for water diversions
- Construct diversion swales.

2) <u>Site grading:</u>

- Complete clearing and grubbing.
- Complete demolition work
- Place erosion control measures at topsoil stockpiles and strip topsoil.
- Install additional erosion and sediment controls according to plan.
- Strip and stockpile topsoil and grade site.
- Stabilize denuded areas and stockpiles in areas where disturbance activities have temporarily or permanently ceased, stabilization measures should be initiated by the end of the next business day and completed within 14 days (or within 3 days during winter, November 15th to April 1st)

3) **Infrastructure (utilities, parking lot, etc.):**
   - Construct staging and materials storage area.
   - Install utilities.
4) **Building/Road Construction:**
   - Apply stone to roads and parking areas.
   - Install building foundation.
   - Complete grading, reapply topsoil, and install permanent seeding, fertilizer and mulch.
   - Complete final paving.
5) **Final stabilization and landscaping:**
   - Remove all sediment control products after soils are stabilized.
   - Install landscaping.
   - Install bioretention once all disturbed upstream soils are stabilized.

3.7 Description of Pollution Prevention Measures to Control Construction Litter, Construction Chemicals and Debris

I. Pollution Prevention Measures (from Construction-Phase Operations other than soil disturbance)

A. The site superintendent responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator.

B. Product Specific Practices:

The following product specific practices will be followed onsite:

1. Petroleum Products - All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.
2. Fertilizers - Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into 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 - All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed according to manufacturers' instructions or state and local regulations.
4. Concrete Trucks - Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.
5. Waste Disposal - All waste materials will be collected and stored in a securely lidded metal dumpster, which is a licensed solid waste management company. The dumpster will meet all local and any State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as often as

necessary, and the trash will be hauled to landfill. No construction waste materials will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer. The site superintendent responsible for the day-to-day site operations, will be responsible for seeing that these procedures are followed.

6. Hazardous Waste - All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer. Site personnel will be instructed in these practices. The site superintendent responsible for the day-to-day site operations will be responsible for seeing that these practices are followed.
7. Sanitary Waste - All sanitary waste will be collected from the portable units a minimum of three times per week by a licensed sanitary waste management contractor.
8. Recyclable Waste – All recyclable waste (cardboard, wood etc.) shall be collected and recycled.

II. On-Site Storage of Construction and Waste Materials

A. Spill Prevention Inventory: The materials or substances listed below are expected to be present onsite during construction:

☐ Concrete	☐ Detergents	☐ Roofing shingles
☐ Metal studs	☐ Paints (enamel and latex)	☐ Wood
☐ Petroleum-based products	☐ Fertilizers	☐ Tar
☐ Masonry block	☐ Cleaning solvents	☐ Other (specify)

B. Material Management Practices

The following are the management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances listed above to stormwater runoff:

☐ Products will be kept in original containers unless they are not resealable.

☐ Original labels and material safety data sheets will be retained; they contain important product information.

☐ An effort will be made to store only enough product required to do the job.

☐ All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure and/or on blacktop.

☐ Products will be kept in their original containers with the original manufacturer's label.

- ☐ Substances will not be mixed with one another unless recommended by the manufacturer.
- ☐ Whenever possible, all of a product will be used up before disposing of the container.
- ☐ Manufacturer's recommendations for proper use and disposal will be followed.
- ☐ The site superintendent will inspect daily to ensure the proper use and disposal of materials onsite.
- ☐ Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- ☐ Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- ☐ All spills will be cleaned up immediately after discovery.
- ☐ The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- ☐ Spills, of any size, of toxic or hazardous material will be reported to the appropriate State or local government agency.
- ☐ The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.

See Appendix E for contractor's storage of construction and waste materials & non-soil pollution prevention measures.

3.8 Description and Location of any Stormwater Discharges Associated with Industrial Activity other than Construction at the Site

N/A

SECTION 4: EXISTING AND PROPOSED MAPPING AND PLANS

4.1 Vicinity Map and Project Boundary

See the site plans located in Appendix B, specifically the cover sheet for a location map, and the overall plan for the project boundary.

4.2 Existing and Proposed Topography

See the site plans located in Appendix B, specifically the grading plans for existing and proposed topography.

4.3 Location of Perennial and Intermittent Streams

There are no perennial or intermittent streams in the area. See the site plans located in Appendix B, specifically the existing conditions plan.

4.4 Map and Description of Soils from USDA Soil Survey

See Appendix F for the USDA soil survey report.

4.5 Boundaries of Existing Vegetation and Proposed Limits of Clearing

See the site plans located in Appendix B, for boundaries of existing vegetation and proposed limits of clearing.

4.6 Location & Boundaries of Resource Protection Areas such as Wetlands, Lakes, Ponds, etc.

See the site plans located in Appendix B, specifically the grading plans which include the disturbance limit lines for boundaries of all disturbance and protection areas.

4.7 Boundary and Acreage of Upstream Watershed

There are no upstream areas that contribute the project.

4.8 Name and Locations of Receiving Waters

The project is located within the Canandaigua Lake Watershed, and feeds the Sucker Brook Tributary of Canandaigua Lake.

4.9 Location of Existing and Proposed Roads, Lot Boundaries, Buildings and Other Structures

See the site plans located in Appendix B, for locations of existing and proposed roads, lot boundaries, buildings and other structures.

4.10 Location and Size of Staging Areas, Equipment Storage Areas, Borrow Pits, Waste Areas, and Concrete Washout Areas

See the site plans located in Appendix B, specifically the erosion control plans for staging areas, earthwork limits, washout areas, etc.

4.11 Existing and Proposed Utilities (Sewer, Water, Gas, etc.) and Easements

See the site plans located in Appendix B, specifically the utility plans and subdivision plans for all existing and proposed utilities and easements.

4.12 Location and Flow Paths of Existing and Proposed Conveyance Systems, such as Channels, Swales, Culverts, and Storm Drains

See the site plans located in Appendix B, specifically the utility and grading plans for all existing and proposed conveyance systems.

4.13 Location of Floodplain/Floodway Limits

There are no floodplain or floodway limits within the project limits.

4.14 Location and Dimensions of Proposed Channel Modifications, such as Bridge or Culvert Crossings

There are no proposed channel modifications.

4.15 Location, Size, Maintenance Access and Limits of Disturbance of Proposed Temporary and Permanent Stormwater Management and Erosion and Sediment Control Practices, Including Timing and Duration of Temporary Practices

See the site plans located in Appendix B, specifically the erosion control plan for temporary and permanent practices including sequence of erosion control and duration.

4.16 Existing and Proposed Structural Elevation

See the site plans located in Appendix B, specifically the grading plans and profiles for all locations, sizes and elevations of all existing and proposed storm inlets, outlets, water surfaces, embankments, spillways, grade control structures, conveyance channels etc.

4.17 Construction Drawings Identifying the Specific Locations and Sizes of each Post-Construction Stormwater Control Practice

See the site plans located in Appendix B, specifically the utility and grading plans and details for locations and sizes of each post construction stormwater control practice.

4.18 Final Landscaping Plans

See the site plans located in Appendix B for final landscaping plans.

SECTION 5: RECORD KEEPING

5.1 Copy of NOI Signed by SWPPP Preparer & NOI Acknowledgement Letter

A copy of the eNOI is included in Attachment C of this report. A copy of the NOI acknowledgement letter (when received) will be located in Appendix C.

5.2 Contractor/Subcontractors; Name, Responsibilities, and Certification Statements

The signed certification statement must be signed by each of the contractors and subcontractors prior to the commencement of any construction activity.

CONTRACTORS' CERTIFICATION

I hereby certify that I understand and agree to comply with the terms and conditions 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 terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit 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 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.

Signed copies of the certification statement can be found in Appendix D.

5.3 Contractor/Subcontractors; Stormwater Training Cards and Numbers

Identification of the trained contractor from each contracting company is required for coverage under the General Permit. A trained contractor is an employee from the contracting company that has received four hours of New York State Department of Environmental Conservation endorsed training in proper erosion and sediment control principals. The owner/operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP.

At least one trained contractor is required to be on-site on a daily basis when soil disturbance activities are being performed. Appendix D will include Contractor/Subcontractor training cards and numbers as soon as the contractor is selected.

5.4 Documentation from NYS-Historic Preservation Office

Coverage under the General Permit requires a New York State Historic Preservation Office determination. Construction activities that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (note: includes Archeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects, are not eligible for permit coverage.

This project was submitted to the Office of Parks, Recreation, and Historic Preservation (OPRHP) for review, and documentation will be included in Appendix I once received.

5.5 MS4 SWPPP Acceptance Form (if applicable)

Appendix C includes the MS4 Acceptance Form.

5.6 Most Current Version of the NYS-DEC SPDES General Permit for Stormwater Discharges from Construction Activity

Appendix G includes the current version of the SPDES General Permit.

5.7 Revisions to SWPPP

When the owner/operator has made substantial revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or impervious area), they shall promptly submit such facts or information to the MS4 and/or the NYS-DEC.

The SWPPP is a 'living' document and may be updated as the construction process proceeds. Any revisions to the SWPPP shall be noted and included in Appendix M.

5.8 Corrective Action Log

Appendix J includes the Corrective Action Log.

5.9 Plans Stamped by a Qualified Professional

Appendix B includes the Site Plans, which are stamped by Robert P. Bringley, a licensed professional engineer.

5.10 Dedication/As-Builts for all Post-Construction Stormwater Management Facilities

Appendix B, Site Plans, will include the above information (if applicable)

5.11 Notice of Termination

A project is eligible to terminate permit coverage by filing the Notice of Termination when one or more of the following criteria have been met:

a. The project is complete. The owner or operator may terminate coverage when all construction activity identified in the SWPPP has been completed; and all areas of disturbance have achieved final stabilization; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational.
b. The project has planned shutdown with partial project completion. The owner operator may terminate coverage when all soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved final stabilization; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction

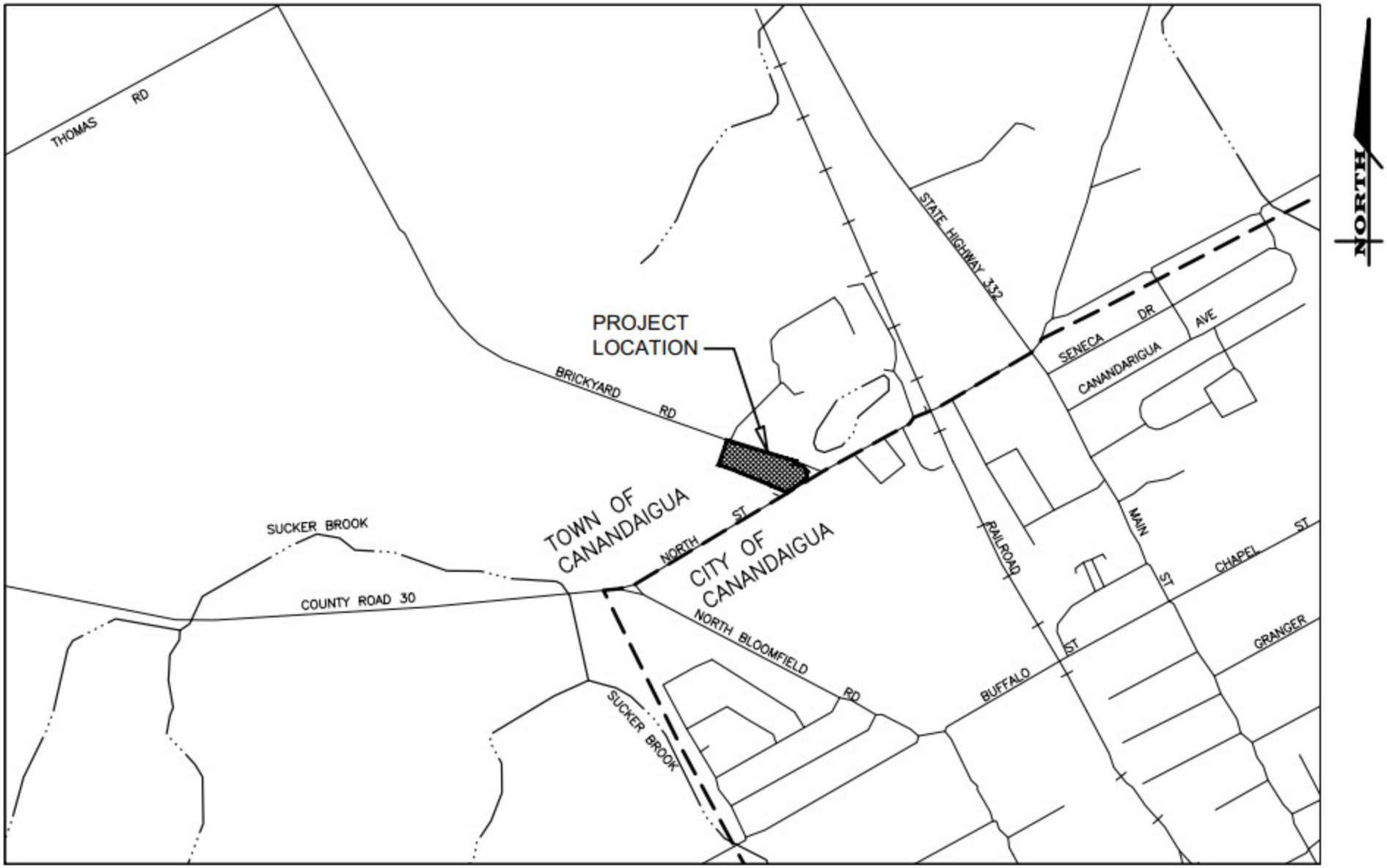
stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new owner or operator has obtained coverage in conformance with the general permit.

Final Stabilization means that 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.

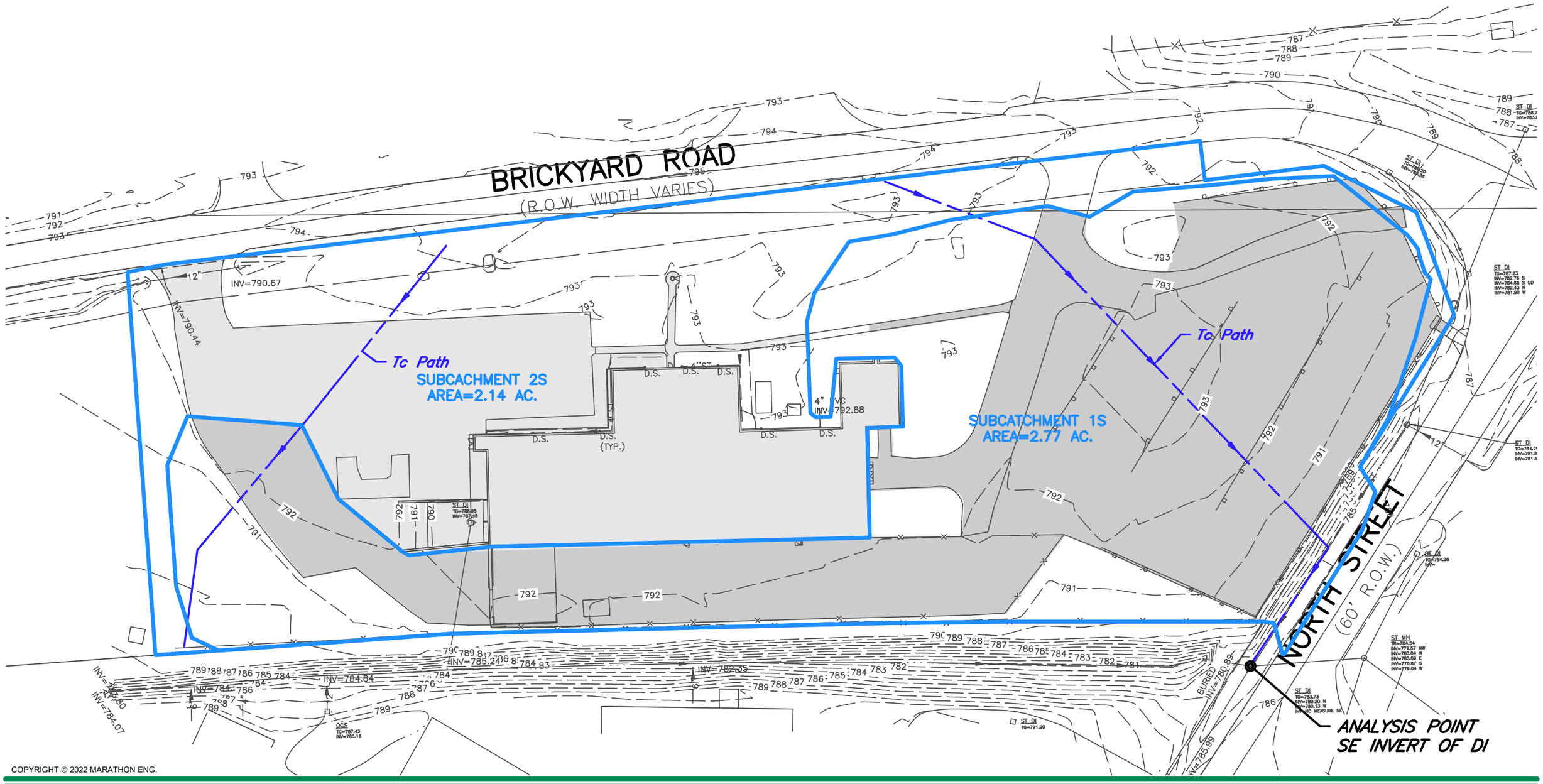
Appendix A

Maps and Figures



LOCATION MAP

NOT TO SCALE



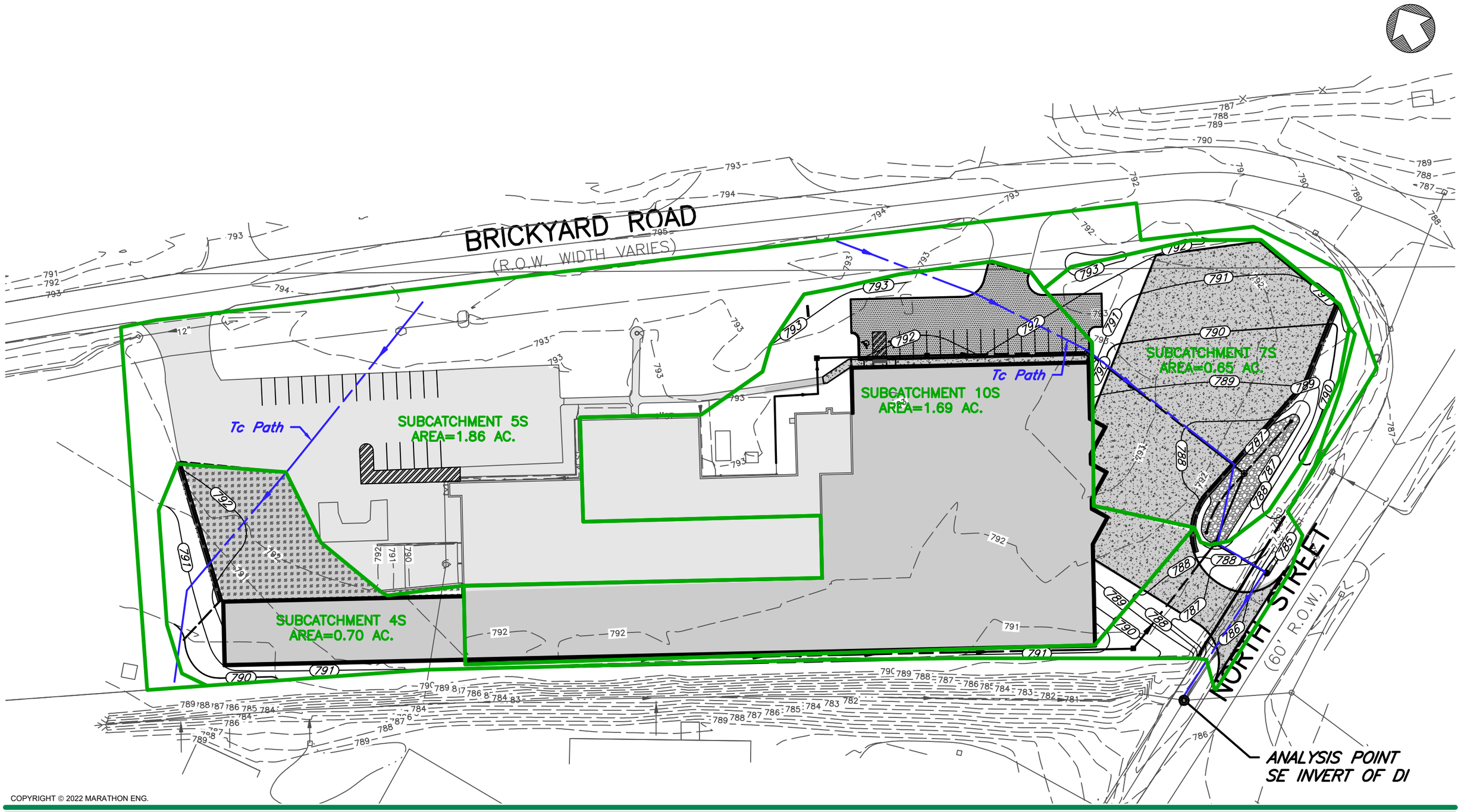
MARATHON ENGINEERING
ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 6
ITHACA, NY 14850
607-241-2917
www.marathoneng.com

PRE-DEVELOPMENT HYDROLOGY

ARTISAN MEATS BUILDING EXPANSION

TOWN OF CANANDAIGUA, ONTARIO COUNTY, NEW YORK

JOB NO: 1374-22 // SCALE: 1" =60' // DRAWN: CMP/MT // DATE: 11/08/22



File: 1374-22 Stormwater Design.dwg, Plot Date: 11/17/2022, By: COLE PAPASERGI

MARATHON ENGINEERING
ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 6
ITHACA, NY 14850
607-241-2917
www.marathoneng.com

POST- DEVELOPMENT HYDROLOGY

ARTISAN MEATS BUILDING EXPANSION

TOWN OF CANANDAIGUA, ONTARIO COUNTY, NEW YORK

JOB NO: 1374-22 // SCALE: 1" =60' // DRAWN: CMP // DATE: 11/08/22

Appendix B

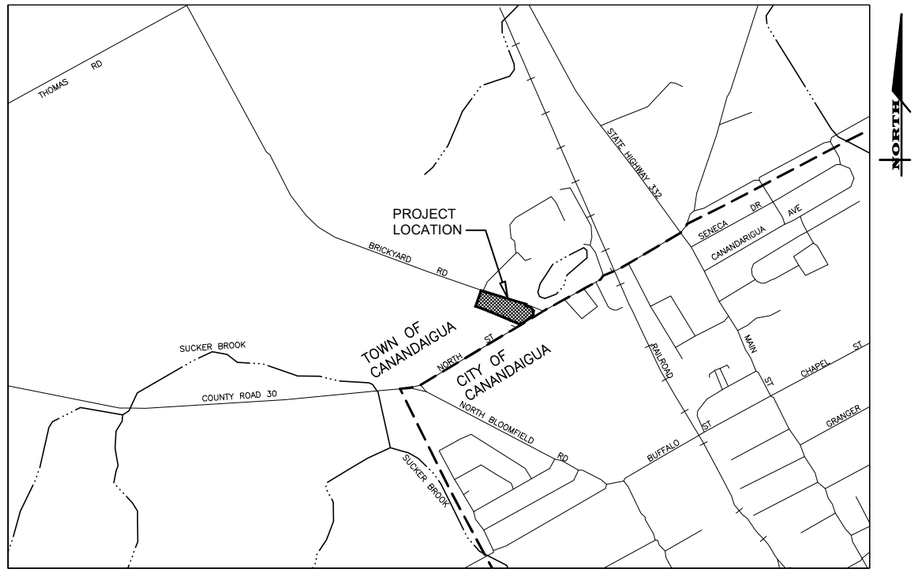
Site Development Plans

FINAL SITE PLANS
for
ARTISAN MEATS BUILDING EXPANSION

2640 BRICKYARD ROAD

SITUATE IN:

TOWN OF CANANDAIGUA - ONTARIO COUNTY - STATE OF NEW YORK



LOCATION MAP

NOT TO SCALE

MARATHON ENGINEERING
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39 CASCADE DRIVE
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ARTISAN MEATS BUILDING EXPANSION SHEET TABLE		
SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE
1	C0.0	
2	C0.1	NOTES, LEGEND & ABBREVIATIONS
3	C1.0	SITE LAYOUT PLAN
4	C2.0	UTILITY PLAN
5	C3.0	GRADING PLAN
6	C4.0	LIGHTING & LANDSCAPE PLAN
7	C5.0	EXISTING CONDITIONS & DEMOLITION PLAN
8	C6.0	CONSTRUCTION DETAILS
9	C6.1	CONSTRUCTION DETAILS
10	C6.2	CONSTRUCTION DETAILS

NOTES, INFORMATION AND SPECIFICATIONS

GENERAL NOTES

1. **MAPPING** - THE EXISTING UNDERGROUND UTILITIES WERE PLOTTED BASED ON RECORD MAPPING SUPPLIED BY OTHERS. THE ENGINEER MAKES NO WARRANTY AS TO THE LOCATION, SIZE, TYPE, ELEVATION, AND/OR NUMBER OF EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE VICINITY OF THE NEW INFRASTRUCTURE.

2. **UTILITY STAKEOUT** - THE CONTRACTOR SHALL NOTIFY DIG SAFELY NEW YORK (1-800-962-7962) FOR A UTILITY STAKEOUT 48 HOURS IN ADVANCE OF COMMENCING WORK. STAKEOUT OF PRIVATE UTILITIES SHALL BE COORDINATED WITH THE OWNER.

3. **PROPERTY PROTECTION** - THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO EXISTING PAVEMENT, CURBS, WALKS, LAWNS, TREES, ETC. CAUSED BY THEIR CONSTRUCTION OPERATIONS. ALL DAMAGE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO THE OWNER'S SATISFACTION AT NO ADDITIONAL EXPENSE.

4. **ACCESS** - THE CONTRACTOR SHALL PROVIDE SATISFACTORY VEHICULAR ACCESS TO ALL ADJOINING PROPERTIES, PRIVATE ROADWAYS, PARKING FACILITIES, AND PUBLIC STREETS DURING CONSTRUCTION.

5. **SITE SAFETY** - PRIOR TO AND THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL POST SIGNAGE IN CONFORMANCE WITH THE REQUIREMENTS OF THE LOCAL MUNICIPALITY AND OCCUPATIONAL HEALTH AND SAFETY ACT (OHSA). JOB SAFETY AND MAINTENANCE AND PROTECTION OF TRAFFIC IS THE RESPONSIBILITY OF THE CONTRACTOR.

6. **EXCAVATIONS** - ALL EXCAVATIONS SHALL BE BACKFILLED/BARRICADED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONCLUSION OF EACH WORKING DAY.

7. **MAINTENANCE** - PUBLIC STREETS, PRIVATE DRIVES AND PARKING FACILITIES SHALL BE KEPT FREE OF FOREIGN MATERIALS. ALL AREAS SHALL BE SWEPT CLEAN AT THE END OF EACH WORKING DAY AND/OR AS DIRECTED BY THE OWNER'S ON-SITE REPRESENTATIVE.

8. **CONSTRUCTION STORAGE** - STORAGE OF EQUIPMENT AND MATERIALS SHALL BE WITHIN A SPECIFIED AND SECURED AREA AS DETERMINED IN CONTRACT DOCUMENTS OR AS SPECIFIED BY THE OWNER'S ON-SITE REPRESENTATIVE.

9. **PERMIT(S)** - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FROM THE APPLICABLE MUNICIPALITY OR AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR ALL BONDS AND INSURANCES AND THE OWNER IS RESPONSIBLE FOR PERMIT FEES UNLESS OTHERWISE STATED IN THE OWNER/ CONTRACTOR AGREEMENT

10. **INTERIM CONDITIONS** - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AND WITHIN PROJECT AREA TO A STABILIZED OUTLET THROUGHOUT THE CONSTRUCTION PERIOD. THIS MAY REQUIRE INTERIM GRADING, SHIMMING OF PAVEMENT ETC. THAT IS NOT SPECIFICALLY SHOWN ON THE PLANS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CONSTRUCTION NOTES

1. **STAKEOUT** - THE CONSTRUCTION STAKEOUT SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR USING CONTROL PROVIDED ON THESE PLANS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER (PRIOR TO THE INSTALLATION OF IMPROVEMENTS) FOR COORDINATION AND CLARIFICATION.

2. **DEMOLITION** - CLEARING AND GRUBBING SHALL BE LIMITED TO THE SITE BOUNDARIES OR WITHIN THE "WORK LIMIT LINE" AS DEFINED ON THE PLAN. TREES AND OBJECTS DESIGNATED FOR REMOVAL SHALL BE COORDINATED AND FIELD VERIFIED WITH PROJECT ON-SITE REPRESENTATIVE. ALL MATERIALS SHALL BE LEGALLY DISPOSED OF OFF-SITE OR RETURNED TO OWNER AS DIRECTED BY CONTRACT DOCUMENTS. ALL ITEMS NOT SPECIFICALLY CALLED OUT TO BE REMOVED SHALL REMAIN.

3. **COORDINATION** - THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITY WORK WITH OTHER SITE UTILITIES (I.E. GAS, ELECTRIC, LIGHTING, COMMUNICATIONS) TO AVOID POTENTIAL INSTALLATION CONFLICTS.

4. **STAGING** - AS DEFINED BY THE CONTRACT DOCUMENTS THE CONTRACTOR SHALL CONSTRUCT A SECURE STAGING AREA FOR STORAGE OF EQUIPMENT, MATERIALS, EMPLOYEE PARKING AND OFFICE SPACE. IF THE AREA/METHOD IS NOT SPECIFICALLY DEFINED ON THE DOCUMENTS THEN IT SHALL BE COORDINATED WITH THE OWNER'S ON-SITE REPRESENTATIVE.

5. **CLOSE-OUT** - THE CONTRACTOR'S WORK SCOPE INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING AT PROJECT CLOSE-OUT TO THE SATISFACTION OF OWNER'S ON-SITE REPRESENTATIVE:
   - REMOVAL OF ANY CONSTRUCTION DEBRIS.
   - CLEANING PAVEMENT AND WALKWAY SURFACES.
   - RESTORATION OF ALL DISTURBED GRASS AND LANDSCAPED AREAS.
   - PROVIDING BONDS, GUARANTEES, CERTIFICATIONS, ETC. AS REQUIRED BY CONTRACT DOCUMENTS.
   - PROVIDING A RECORD DRAWING.
   - COMPLETION OF FINAL PUNCH LIST ITEMS.

UTILITY NOTES

1. STORM

1.1 REGULATIONS - STORM SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE LATEST REGULATIONS OF THE MUNICIPALITY AND ALL THERMOPLASTIC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D-2321.

1.2 MATERIALS - THE CONTRACTOR MAY USE THE FOLLOWING PIPE MATERIAL FOR THE MAIN SEWER AS ALLOWED BY THE MUNICIPALITY, PROVIDING THAT THE ROUGHNESS COEFFICIENT ("N" FACTOR) IS 0.013 OR BETTER:
- REINFORCED CONCRETE PIPE (RCP), CLASS III
- HIGH DENSITY CORRUGATED POLYETHYLENE PIPE (PE), AASHTO M-29, TYPE S, ASTM D-3350.

1.3 ROOF DRAINAGE - ALL ROOF DRAINAGE SHALL BE CONNECTED TO STORM SEWERS AS INDICATED ON THE PLANS.

1.4 TESTING - UPON COMPLETION OF SYSTEM INSTALLATION, THE MAIN SEWER SYSTEM AND LEADS TO STRUCTURES SHALL BE FLUSHED AND LAMPED TO THE SATISFACTION OF THE MUNICIPALITY.

3. SANITARY SEWER

INDEXED CANANDAIGUA LAKE COUNTY SEWER DISTRICT NOTES

1. **PERMITS -** SEWER PERMITS AND PERMITS FOR WORK WITHIN ONTARIO COUNTY HIGHWAY RIGHTS OF WAY MUST BE PURCHASED IN ADVANCE AT THE ONTARIO COUNTY PUBLIC WORKS OFFICE LOCATED AT 2962 COUNTY ROAD 48 IN THE TOWN OF HOPEWELL. CALL 585-396-4000 FOR INFORMATION.
2. **STANDARDS -** SANITARY SEWER CONSTRUCTION AND/OR IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE MOST RECENT STANDARDS AND SPECIFICATIONS OF THE CANANDAIGUA LAKE COUNTY SEWER DISTRICT, N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION, N.Y.S. DEPARTMENT OF HEALTH, THE LATEST EDITION OF *RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES* AND ANY OTHER AGENCIES HAVING JURISDICTION.
3. **PIPE MATERIAL -** SANITARY SEWER MAIN GRAVITY PIPE SHALL BE 8" DIA. OR LARGER PVC CLASS SDR-35 OR SDR-21 WITH ELASTOMERIC JOINTS. LATERALS SHALL BE 4" DIA. SDR-21 WITH ELASTOMERIC JOINTS. ACTUAL FIELD CONDITIONS MAY REQUIRE ADDITIONAL PIPE OR BACKFILL REINFORCEMENT. THE SANITARY SEWER WILL BE DESIGNED BY THE DEVELOPER'S ENGINEER. FIELD CHANGES MUST BE APPROVED BY THE SEWER DISTRICT.
4. **BASEMENTS -** THE SANITARY SEWER IS DESIGNED TO PROVIDE GRAVITY SERVICE TO ALL ADJACENT BUILDING BASEMENTS. EXCEPTIONS HAVE BEEN APPROVED BY THE SEWER DISTRICT AND ARE CLEARLY NOTED ON THE UTILITY PLAN. BASEMENT FLOOR ELEVATIONS WILL BE SHOWN ON THE SANITARY SEWER PROFILE FOR EACH LOT THAT WILL NOT BE SERVED BY GRAVITY LATERALS.
5. **MONUMENTS -** THE CONTRACTOR SHALL LOCATE, MARK AND PRESERVE ANY RIGHT OF WAY MONUMENTS OR SURVEY CONTROL IN THE AREA OF CONSTRUCTION.
6. **EXISTING UTILITIES -** UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE EXACT LOCATION OF UTILITIES, EXCAVATING TO EXPOSE THE UTILITY, IF NECESSARY IN THE AREA OF CONSTRUCTION, BEFORE COMMENCING CONSTRUCTION. CONTACT U.F.P.O. AT 1-800-962-7962 AT LEAST 72 HOURS PRIOR TO CONSTRUCTION.
7. **SEPARATION -** THE SANITARY SEWER SHALL BE LOCATED A MINIMUM HORIZONTAL DISTANCE OF 10' FROM ANY EXISTING OR PROPOSED WATER MAIN (AS MEASURED FROM THE OUTSIDE OF THE SEWER TO THE OUTSIDE OF THE WATER MAIN). IN CASES WHERE THE SANITARY SEWER CROSSES A WATER MAIN, THE MINIMUM VERTICAL SEPARATION SHALL BE 18" (MEASURED OUT-TO-OUT). THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
8. **LETTER OF CREDIT -** A LETTER OF CREDIT, OR ENGINEER APPROVED EQUIVALENT, FOR AN AMOUNT EQUAL TO THE ESTIMATED COST OF CONSTRUCTION, INSPECTION, RECORD DRAWINGS, DEDICATION DOCUMENTS AND RELATED EXPENSES FOR THE SANITARY SEWER PLUS AN ADDITIONAL 10% FOR CONTINGENCIES MUST BE SUBMITTED TO THE COMMISSIONER OF PUBLIC WORKS BEFORE A PERMIT IS ISSUED OR SEWER CONSTRUCTION MAY COMMENCE.
9. **SHOP DRAWINGS -**THE CONTRACTOR SHALL PROVIDE THE DISTRICT WITH SHOP DRAWINGS AND MATERIAL SPECIFICATIONS THAT HAVE BEEN PRE-APPROVED BY THE DESIGN ENGINEER BEFORE A PERMIT WILL BE ISSUED.
10. **EASEMENTS -** THE DEVELOPER IS RESPONSIBLE FOR THE PREPARATION OF ALL REQUIRED EASEMENT MAPS AND DESCRIPTIONS AND SUBMISSION TO THE DISTRICT FOR APPROVAL. PERMITS WILL NOT BE ISSUED PRIOR TO THE EASEMENT DOCUMENTS BEING SIGNED BY THE COMMISSIONER AND RECORDED IN THE COUNTY CLERK'S OFFICE.
11. **OSHA -** THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH OSHA REQUIREMENTS IN ALL ASPECTS OF CONSTRUCTION, PAYING PARTICULAR ATTENTION TO REQUIREMENTS FOR OPEN TRENCH AND CONFINED SPACE. ENTRY INTO ANY DISTRICT STRUCTURE MUST COMPLY WITH ALL DISTRICT AND OSHA APPROVED PROCEDURES FOR CONFINED SPACES.
12. **FLOW PLUG -** WHEN SANITARY SEWER CONSTRUCTION ACTIVITIES BEGIN, THE CONTRACTOR SHALL PLUG THE MAIN AT THE CONNECTING MANHOLE. PLUGS SHALL NOT BE REMOVED UNTIL THE COMPLETED SEWER LINE IS TESTED AND APPROVED FOR USE.
13. **FLOW DIVERSION -** THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SANITARY FLOWS AT ALL TIMES BY METHODS ACCEPTABLE TO THE DEVELOPER'S ENGINEER AND THE DISTRICT.
14. **GRADE -** THE SEWER LINE SHALL BE LAID USING A PIPE LASER. GRADE SHALL BE CHECKED EVERY 100 FEET USING A SURVEYOR'S LEVEL TO INSURE THE CORRECT GRADE IS BEING MAINTAINED.
15. **FLOOR DRAINS -** FLOOR DRAINS IN THE BASEMENT OR GARAGE ARE TO BE CONNECTED TO THE SANITARY SEWER. FLOOR DRAINS DO NOT INCLUDE FOUNDATION OR FOOTER DRAINS INSTALLED TO INTERCEPT UNCONTAMINATED GROUND WATER. ALL DISCHARGES TO THE SANITARY SEWER MUST COMPLY WITH EFFLUENT LIMITS OF THE ONTARIO COUNTY SEWER USE LAW. FOUNDATION AND FOOTER DRAINS SHALL BE CONSTRUCTED IN A MANNER THAT WILL PROHIBIT GROUND WATER FROM DRAINING INTO THE SANITARY SEWER PIPE CRADLE.

16. **MANHOLE OPENINGS -** OPENINGS IN EXISTING MANHOLES SHALL BE MADE WITH A CORE SAW. A RUBBER, WATER-TIGHT PIPE-TO- MANHOLE BOOT ADAPTER OR OTHER DISTRICT APPROVED CONNECTOR CONFORMING TO ASTM C-923, SHALL BE USED TO MAKE THE CONNECTION TO THE EXISTING MANHOLE.
17. **DEBRIS -** THE CONTRACTOR SHALL PERFORM ALL EXISTING MANHOLE MODIFICATION OPERATIONS IN SUCH A MANNER TO ENSURE NO DEBRIS OR CONSTRUCTION MATERIALS ENTER THE SANITARY SEWER SYSTEM.
18. **EXISTING MANHOLES -** THE CONTRACTOR SHALL EXERCISE CAUTION WHEN PERFORMING EXISTING MANHOLE MODIFICATION OPERATIONS. ANY DAMAGE TO THE EXISTING SLAB, BARREL OR ANY OTHER PART OF THE STRUCTURE SHALL BE REPLACED IN KIND TO THE SATISFACTION OF THE CANANDAIGUA LAKE COUNTY SEWER DISTRICT REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
19. **EXISTING MANHOLE TESTING -** EXISTING MANHOLES THAT ARE MODIFIED IN ANY MANNER SHALL BE SUBJECT TO VACUUM TESTING PER DISTRICT REQUIREMENTS.
20. **ASBESTOS CEMENT PIPE -** CONNECTIONS REQUIRING OPENINGS IN ASBESTOS CEMENT PIPE WILL BE DESIGNED, INSPECTED AND CERTIFIED BY THE DESIGN ENGINEER OR REPRESENTATIVE THEREOF.
21. **MANHOLE CONNECTION -** ALL PIPES ENTERING AND EXITING MANHOLES SHALL HAVE A FLEXIBLE WATER-TIGHT JOINT NO LESS THAN 1 FOOT AND NO GREATER THAN 3 FEET FROM THE OUTSIDE WALL OF THE MANHOLE.
22. **MANHOLE SIZE -** MANHOLES DEEPER THAN 14 FEET, LESS THAN 5 FEET IN DEPTH, OR HAVING THREE OR MORE PIPE CONNECTIONS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 5 FEET.
23. **EXCAVATION -** ANY EXCAVATION NOT BACKFILLED BY THE END OF THE WORKDAY SHALL BE FENCED, BARRICADED AND LIGHTED FOR SAFETY AND PROTECTION OF THE PUBLIC.
24. **DEMOLITION -** THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF EXISTING SANITARY MAINS, STRUCTURES AND APPURTENANCES, IF ANY, NEEDED TO COMPLETE THE WORK.
25. **DISCONNECTIONS -** EXISTING LATERALS TO BE DISCONNECTED MUST BE PERMANENTLY PLUGGED OR CAPPED AT THE EASEMENT OR RIGHT OF WAY LINE UNDER THE DIRECTION OF THE CANANDAIGUA LAKE COUNTY SEWER DISTRICT SUPERVISOR. THE CONTRACTOR IS REQUIRED TO OBTAIN A PERMIT PRIOR TO PERFORMING THE WORK. THE LOCATION OF THE PLUG OR CAP SHALL BE RECORDED FOR AS-BUILT DRAWING PURPOSES.
26. **CLEAN OUTS -** LATERAL CLEAN OUTS WILL BE PROVIDED AT THE RIGHT OF WAY LINE OR SANITARY SEWER EASEMENT LINE, WHICHEVER IS FURTHEST FROM THE SEWER MAIN, AND EVERY 90 LINEAR FEET THEREAFTER.
27. **FIELD MEASUREMENT AND RECORD DATA -** THE CONTRACTOR SHALL TAKE AND RECORD FIELD MEASUREMENTS TO ALL WYES, CLEAN OUTS AND LATERAL PLUGS AS WELL AS LENGTHS OF RISERS AND DEPTHS AT LATERAL PLUGS. THE INFORMATION WILL BE GIVEN TO THE DEVELOPER'S ENGINEER FOR USE IN PREPARING RECORD DRAWINGS.
28. **TESTING -** FOLLOWING PROJECT COMPLETION AND 30 DAYS AFTER THE BACKFILL HAS BEEN IN PLACE THE FOLLOWING TESTS SHALL BE PERFORMED ON GRAVITY SANITARY SEWER MAIN:
    a. INFILTRATION/EX-FILTRATION TESTS ON SEWER MAIN AND MANHOLES. AIR PRESSURE TESTING FOR SEWER MAINS AND VACUUM TESTING FOR MANHOLES IS RECOMMENDED. TESTS ON MANHOLES MAY BE PERFORMED ONLY AFTER MANHOLE BENCHES AND INVERTS ARE COMPLETE. AIR PRESSURE TESTING OF PLASTIC PIPES HALL CONFORM TO ASTM F-1417 AND AIR PRESSURE TESTING OF CONCRETE MANHOLES SHALL CONFORM TO ASTM C-1244.
    b. A DEFLECTION TEST USING A RIGID BALL OR MANDREL HAVING A DIAMETER OF 95% OF THE INSIDE DIAMETER OF THE PIPE. MECHANICAL PULLING DEVICES WILL NOT BE USED.
    c. THE SEWER LINE WILL BE TELEVISED AND LAMPED AFTER ALL OTHER TESTS ARE COMPLETE. A GOOD QUALITY COPY OF THE DVD OR VIDEO-TAPE AND RELATED RECORDS WILL BE SUBMITTED FOR EVALUATION TO CANANDAIGUA LAKE COUNTY SEWER DISTRICT. PRIOR TO TELEVISING THE SEWER LINE SHALL BE FLUSHED AND CLEARED OF DIRT, STONES AND DEBRIS. IF PERMISSION IS GRANTED TO REMOVE THE PLUG AT THE CONNECTING MANHOLE PRIOR TO FLUSHING OPERATION, PROVIDEDOWNSTREAM SCREENS OR OTHER DEVICES TO PREVENT DEBRIS FROM ENTERING THE COUNTY'S SEWER SYSTEM. SECTIONS OF PIPE REPAIRED OR RE-FLUSHED WILL BE RE-TELEVISED UNTIL ACCEPTABLE.
29. **RECORD DRAWINGS -** UPON PROJECT COMPLETION AND DISTRICT APPROVAL, THE DEVELOPER'S ENGINEER WILL SUBMIT RECORD DRAWINGS ON MYLAR AND IN ELECTRONIC FORMAT, TIED TO NAD83 HORIZONTAL AND NAVD 88 VERTICAL DATUM. THE DRAWINGS WILL SHOW ACTUAL FIELD MEASURED LOCATIONS, LENGTHS, ELEVATIONS AND TYPES OF PIPE AND APPURTENANCES, INCLUDING WYES AND LATERALS, AS WELL AS PROFILES, EASEMENTS AND ANY OTHER RELATED INFORMATION REQUESTED BY THE DISTRICT. MYLAR DRAWINGS WILL BE STAMPED/SEALED AND SIGNED BY A PROFESSIONAL ENGINEER OR SURVEYOR, AND SHALL BE AT STANDARD ENGINEERING SCALE (L" = 50' MIN.), AND ON STANDARD SIZED DRAWINGS NO SMALLER THAN 11" X 17" AND NO LARGER THAN 24" X 36". PROJECT MONUMENTATION AND PERMANENT BENCHMARKS SHALL BE SHOWN WITH COORDINATE AND/OR ELEVATION INFORMATION.
30. **EASEMENT MAPS -** THE DEVELOPER IS RESPONSIBLE FOR PROVIDING EASEMENT MAPS AND DESCRIPTIONS AND SEWER DEDICATION DOCUMENTS. MAPS WILL BE RECORDED WITH DEDICATION DOCUMENTS IN THE ONTARIO COUNTY CLERK'S OFFICE, AND THEREFORE NEED TO BE SUBMITTED ON LEGAL SIZE (8 ½" X 14") PAPER.
31. **MAINTENANCE BOND -** PRIOR TO RELEASING THE RETAINAGE FROM THE ORIGINAL LETTER OF CREDIT, A MAINTENANCE BOND FOR A MINIMUM OF 10% OF THE TOTAL SANITARY SEWER-RELATED COST OF THE PROJECT IN FAVOR OF THE CANANDAIGUA LAKE COUNTY SEWER DISTRICT WILL BE SUBMITTED TO THE COMMISSIONER. THE BOND WILL EXPIRE NO SOONER THAN ONE YEAR FROM THE DATE OF DEDICATION OF THE SEWER, OR THE RELEASE DATE OF THE RETAINAGE FROM THE LETTER OF CREDIT, WHICHEVER OCCURS LAST.

EARTHWORK NOTES

1. **PREPARATION** - PRIOR TO START OF EARTHWORK OPERATIONS THE CONTRACTOR SHALL COMPLETE THE FOLLOWING APPLICABLE ITEMS AS DEFINED BY CONTRACT DOCUMENTS:
   - **SITE DEMOLITION** - REMOVAL AND DISPOSAL OFF-SITE IN A LEGAL MANNER; STRUCTURES, UTILITIES, PAVEMENTS, ETC.
   - **CLEARING AND GRUBBING** - REMOVAL AND DISPOSAL OFF-SITE IN A LEGAL MANNER; TREES, BRUSH, STUMPS, ETC.
   - **TOPSOIL STRIPPING** - STRIP AND STOCKPILE TOPSOIL FOR REUSE. EXCESS TOPSOIL MAY BE REMOVED FROM SITE WITH APPROVAL BY OWNER AND MUNICIPALITY.

2. **RESPONSIBILITY** - THE CONTRACTOR IS RESPONSIBLE FOR:
   - **ESTIMATE** - COMPLETION OF A QUANTITY TAKEOFF TO DETERMINE THE VOLUME OF CUT, FILL, AND TOPSOIL. COMPARE AND COORDINATE WITH INFORMATION PROVIDED BY THE DESIGN ENGINEER.
   - **GRADE TOLERANCES** - ESTABLISHING DESIGN SUBGRADE ELEVATIONS TO WITHIN ONE TENTH OF ONE FOOT (0.10') IN PAVEMENT AREAS (INCLUDING WALKS) AND TO WITHIN THIRTY-THREE HUNDREDTHS OF ONE FOOT (0.33') FOR ALL REMAINING AREAS.
   - **COMPACTION** - ACHIEVING THE SPECIFIED MINIMUM COMPACTION VALUES FOR EMBANKMENT/FILL AREAS. THE TERMS "FILL" AND EMBANKMENT" ARE INTERCHANGEABLE.
   - **CUTS** - ONCE EXCAVATIONS ARE SHAPED TO THE DESIGN GRADES THE AREAS SHALL BE PROTECTED TO ASSURE THAT THE INTEGRITY OF MATERIAL IS NOT COMPROMISED BY CONSTRUCTION VEHICLES AND/OR IMPROPER DRAINAGE. AREAS DETERMINED BY CONTRACTOR TO BE **NOT** SUITABLE FOR SUBGRADE PLACEMENT SHALL BE IMMEDIATELY REPORTED WHEN THE SUBGRADE IS ESTABLISHED TO OWNER'S REPRESENTATIVE. STABILIZATION MEASURES FOR CUT AREAS MAY BE CONSIDERED BY OWNER'S REPRESENTATIVE AS A CHANGE TO THE BASE CONTRACT.

3. **TESTING** - THE FOLLOWING MAXIMUM DRY DENSITIES SHALL BE ACHIEVED AS MEASURED BY THE MODIFIED PROCTOR METHOD ASTM D-1557:
   - **95%** UNDER PAVEMENTS, WALKS, AND IN STRUCTURAL FILL AREAS
   - **85%** IN REMAINING AREAS

   THE AGREEMENT BETWEEN THE OWNER AND CONTRACTOR SHALL DEFINE THE NUMBER OF TESTS AND RESPONSIBILITY. WE RECOMMEND IN EMBANKMENT AREAS ONE PER LIFT AND/OR ONE PER 1,000 CUBIC YARDS.

4. **LIFT THICKNESS** - THE MAXIMUM LIFT THICKNESS UNDER PAVEMENTS, WALKS, AND STRUCTURAL FILLS SHALL BE 12 INCHES. HAND OPERATED COMPACTION FILLS SHALL NOT EXCEED 6 INCHES.

5. **PROOF ROLLING** - THE TOWN OF CANANDAIGUA HIGHWAY DEPARTMENT SHALL BE NOTIFIED PRIOR TO A PROOF ROLL (I.E. LOADED TEN WHEELER) OF SUBGRADE AREAS BEING PERFORMED PRIOR TO PLACEMENT OF SUBBASE MATERIALS. AREAS THAT "FAIL" SHALL BE REMOVED AND REPLACED TO ACHIEVE A PASSING SUBGRADE.

6. **EXISTING SOIL CONDITIONS** - NO EXISTING SOIL INFORMATION HAS BEEN PROVIDED BY THE OWNER/ DEVELOPER. IT IS ASSUMED THAT SOILS ARE SUITABLE FOR CUTS AND FILLS. FOR PURPOSES OF DESIGN 12" OF TOPSOIL WAS ASSUMED TO BE PRESENT ON AVERAGE THROUGHOUT THE SITE.

7. **DEWATERING** - THE CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING PRACTICES INCLUDING DRYING OF MATERIAL TO ACCOMPLISH COMPACTION IN FILL AREAS AND DEMONSTRATING SUITABILITY OF SUBGRADE.
   - CONTRACTOR IS RESPONSIBLE FOR DEWATERING THE EXISTING POND PRIOR TO EXCAVTION/GRADING TO PROPOSED GRADES SHOWN ON THE PLANS. DEWATERING OUTFLOW SHALL BE PUMPED TO A STONE FILTER EXITING TO THE EXISTING OUTFALL SWALE.

STANDARD ABBREVIATIONS

AC.	ACRE
A.O.B.E.	AS ORDERED BY ENGINEER
ASPH.	ASPHALT
AZ.	AZIMUTH
BL	BASELINE
BM	BENCHMARK
℄	CENTERLINE
CLF	CHAIN LINKED FENCE
CO	CLEAN–OUT
CONC.	CONCRETE
CPP	CORRUGATED POLYETHYLENE PIPE
CSP	CORRUGATED STEEL PIPE
COV.	COVER
CS	CURB STOP (WATER SERVICE VALVE)
CY	CUBIC YARD
D.	DEGREE OF CURVE
DIA.	DIAMETER
DI	DROP INLET
D.I.P.	DUCTILE IRON PIPE
EA.	EACH
EIC	ENGINEER IN CHARGE
ELEV.	ELEVATION
EP	EDGE OF PAVEMENT
FF	FINISH FLOOR = FINISH FLOOR ELEVATION
FI	FIELD INLET
FR.	FRAME
FP	FINISH PAD = GARAGE FLOOR ELEVATION
FT.	FEET
G	GAS MAIN
GAL.	GALLON
GR.	GRAVEL
G.R.	GUIDE RAIL
HCL	HORIZONTAL CONTROL LINE
HYD.	HYDRANT
INV.	INVERT
IP	IRON PIPE OR IRON PIN
L.	LENGTH OR LENGTH OF CURVE
LF	LINEAR FEET
LP	LIGHT POST (PRIVATE)
LS	LUMP SUM

LT.	LEFT
MB.	MAILBOX
M.O.	MIDDLE ORDINATE
MON.	MONUMENT OR MONTH
MCGS	MONROE COUNTY GEODETIC SURVEY
M.H.	MANHOLE
NEC.	NECESSARY
N.I.C.	NOT–IN– CONTRACT
NTS	NOT TO SCALE
N/F	NOW OR FORMERLY
PAV'T.	PAVEMENT
PE	POLYETHYLENE PIPE
PPE	PERFORATED POLYETHYLENE PIPE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERESECTION
PVT	POINT OF VERTICAL TANGENCY
PP	POWER POLE
PL	PROPERTY LINE
R.	RADIUS
RCP	REINFORCED CONCRETE PIPE
RG&E	ROCHESER GAS AND ELECTRIC
R.O.W.	RIGHT–OF–WAY
RT.	RIGHT
RTC	ROCHESTER TELEPHONE COMPANY
SA.	SANITARY SEWER
SB	SPLASH BLOCK DISCONNECTION
ST.	STORM SEWER
STA.	STATION
STY.	STORY
SY	SQUARE YARD
T.	TANGENT DISTANCE
TGL	THEORETICAL GRADE LINE
TYP.	TYPICAL
VC	VERTICAL CURVE
VTP	VITRIFIED TILE PIPE
Δ	CENTRAL ANGLE

EROSION CONTROL

1. **CERTIFICATION** - THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH INCLUDES THE "GRADING PLAN", "EROSION CONTROL PLAN", "EROSION CONTROL NOTES", ALONG WITH THE "DRAINAGE REPORT", DEFINES AND MEETS THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) LATEST STORM WATER REGULATIONS.

2. **CONTRACTOR RESPONSIBILITY** - ALL CONTRACTORS AND SUB-CONTRACTORS SHALL CERTIFY WITHIN THE SWPPP THAT THEY WILL IMPLEMENT AND MAINTAIN STORM WATER MANAGEMENT PRACTICES.

3. **INSPECTION** - EROSION CONTROL (EC) MEASURES INSTALLED AND MAINTAINED BY THE SITE WORK CONTRACTOR ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE: MUNICIPALITY, DESIGN ENGINEER, NYSDEC, AND OWNER'S REPRESENTATIVE. IMMEDIATE ACTION BY THE CONTRACTOR SHALL BE TAKEN IF ADDITIONAL OR CORRECTIVE MEASURES ARE REQUIRED BY ANY ONE OF THESE CITED REVIEWERS. EROSION CONTROL MEASURES NOT SPECIFICALLY SHOWN ON CONTRACT DRAWINGS (I.E.., STRAW BALES, COLLARS, FABRICS, ETC.) SHALL BE INSTALLED AS WARRANTED BY FIELD CONDITIONS, AND AS DIRECTED BY THE AFOREMENTIONED REVIEWERS.

4. **NOTIFICATION** - AS DESIGN ENGINEER, OUR OFFICE HAS NOTIFIED THE OWNER OF THE INSPECTION REQUIREMENTS UNDER GP-0-20-001. DISTURBANCES OF 1.0 ACRE OR GREATER REQUIRE THAT THE OWNER FILE A NOTICE OF INTENT (NOI) AND A SWPPP WITH THE NYSDEC UNDER STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES) GENERAL PERMIT #GP-0-20-001. THE REGULATIONS REQUIRE THAT A LICENSED PROFESSIONAL COMPLETE A WEEKLY INSPECTION (THROUGHOUT THE PERIOD OF LAND DISTURBANCE).

5. **PRE-CONSTRUCTION** - THE APPROPRIATE EROSION CONTROL MEASURES AS DEFINED BY THE CONSTRUCTION DOCUMENTS SHALL BE INSTALLED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.

6. **TOPSOIL** - UPON COMPLETION OF THE STOCKPILE STRIPPING OPERATION, STOCKPILES SHALL BE STABILIZED IN ACCORDANCE TO NYSDEC REGULATIONS.

7. **SLOPES** - UPON COMPLETION OF GRADING, SLOPES WITH A GRADIENT OF ONE FOOT VERTICAL TO THREE FEET HORIZONTAL (1 ON 3) OR GREATER SHALL BE: TOPSOILED, SEEDED, FERTILIZED AND MULCHED OR TREATED AS SPECIFIED ON CONTRACT DRAWINGS.

8. **DUST** - THE CONTRACTOR SHALL APPLY WATER AND/OR CALCIUM CHLORIDE, AS CONDITIONS WARRANT, TO CONTROL WIND BORN EROSION. THIS MEASURE APPLIES TO: HAUL ROADS, CUT AND FILL OPERATIONS, SUB-BASE AND ANY OTHER EXPOSED SURFACES.

9. **OPERATION & MAINTENANCE** - THROUGHOUT THE PERIOD OF CONSTRUCTION AND PRIOR TO ESTABLISHING FINAL GROUND COVER THE SITE CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE TEMPORARY EROSION CONTROL MEASURES. FOR EXAMPLE, THE SILTATION FACILITIES SHALL BE RE-EXCAVATED WHEN THE VOLUME (3600 CUBIC FEET/DISTURBED ACRE) IS REDUCED BY ONE-HALF OR MORE OF ITS SPECIFIED CAPACITY AND/OR THE MATERIAL IS WITHIN ONE FOOT OF THE DISCHARGE POINT.

10. **WORK STOPPAGE** - ALL DISTURBED AREAS NOT TO BE WORKED WITHIN 14 DAYS MUST BE SEEDED WITHIN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA.

11. **TEMPORARY STABILIZATION** - TEMPORARY STABILIZATION SHALL REQUIRE 4 TONS OF STRAW/ ACRE OF DISTURBANCE PLACED WITH TACKIFIER OR ROLLED WITH A TRACKED VEHICLE TO ENSURE NOT DISPLACED.

12. **WINTER STABILIZATION** - ALL WINTER STABILIZATION METHODS IDENTIFIED IN THE NYS 'BLUE BOOK' SHALL BE FOLLOWED FOR ANY DISTURBANCE OR NON-STABILIZED AREAS FROM NOVEMBER 15TH - APRIL 1ST.

13. **SEQUENCE** - THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES IN THE FOLLOWING SEQUENCE UNLESS AUTHORIZED OTHERWISE AT PRE-CONSTRUCTION MEETING:
    - INSTALL PERIMETER SEDIMENT CONTROLS, I.E. EROSION FENCING.
    - INSTALL STABILIZED CONSTRUCTION ENTRANCE.
    - PROTECT VEGETATION TO REMAIN.
    - CLEAR/GRUB AND CONSTRUCT DIVERSIONARY SWALES, AND SEDIMENT BASINS.
    - COMPLETE CLEARING AND GRUBBING OPERATION.
    - PLACE EROSION CONTROL MEASURES AT TOPSOIL STOCKPILES AND STRIP TOPSOIL.
    - CONSTRUCT SWALES AND SILTATION DEVICES AS EARTHWORK OPERATIONS PROGRESS.
    - MAINTAIN EROSION CONTROL MEASURES AND PLACE ADDITIONAL MEASURES AS EARTHWORK AND UNDERGROUND UTILITIES ARE CONSTRUCTED.
    - RESTORE AREAS AS DEFINED BY CONTRACT DOCUMENTS.
    - REMOVE EROSION CONTROL MEASURES AS AREAS ARE REESTABLISHED WITH GROUND COVER.
    - INSTALL BIORETENTION

RESTORATION AND LANDSCAPING

1. **GUARANTEE** - THE **AGREEMENT BETWEEN THE OWNER AND CONTRACTOR SHALL** DEFINE THE REQUIREMENTS, MAINTENANCE, AND TIME TO ESTABLISH NEW TURF AND LANDSCAPING ACCEPTANCE BY THE OWNER.

2. **TOPSOIL** - PLACE A MINIMUM OF **6 INCHES** (REQUIRED) OF TOPSOIL ON ALL DISTURBED SURFACES. FINE GRADE TO ESTABLISH THE DESIGN ELEVATIONS AND DRAINAGE PATTERNS. OBTAIN OWNER'S REPRESENTATIVE APPROVAL PRIOR TO SEEDING.

3. **SEED** - LAWN AREAS SHALL BE HYDROSEEDED WITH AN APPROVED; SEED MIXTURE, MULCH, AND FERTILIZER. THE APPLICATION RATE SHALL BE DETERMINED BY CONTRACTOR TO ESTABLISH A "STAND" OF GRASS. THE CONTRACTOR SHALL SUBMIT MATERIAL AND APPLICATION SPECIFICATIONS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO APPLICATION.

4. **PLANT STOCK** - PLANT MATERIALS SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARD FOR NURSERY STOCK". THE CONTRACTOR SHALL SUBMIT PLANT MATERIAL SPECIFICATIONS TO THE OWNER'S ON-SITE REPRESENTATIVE FOR APPROVAL PRIOR TO DELIVERY TO THE SITE.

5. **PLANT LOCATIONS** - THE PLANT LOCATIONS DEPICTED ON THE PLAN MAY BE FIELD ADJUSTED (SO THEY DO NOT INTERFERE WITH UTILITIES) AND TO THE SATISFACTION OF OWNER'S REPRESENTATIVE.

6. **PLANTING BEDS** - PROVIDE TWELVE INCHES (12") OF TOPSOIL, WEED FABRIC (AS DIRECTED BY OWNER), AND THREE INCHES (3") OF MULCH AT PLANTING BEDS, UNLESS SPECIFIED OTHERWISE ON DRAWINGS.

APPROVED BY:

TOWN ENGINEER
DATE:

APPROVED BY:

TOWN HIGHWAY & WATER SUPERINTENDENT
DATE:

APPROVED BY:

PLANNING BOARD CHAIRPERSON
DATE:

MARATHON ENGINEERING
ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 6
ITHACA, NY 14850
607-241-2917
www.marathoneng.com

FINAL SITE PLANS
for
ARTISAN MEATS BUILDING
EXPANSION

TOWN OF CANANDAIGUA
ONTARIO COUNTY
STATE OF NEW YORK

JOB NO:	1374-22
SCALE:	N/A
DRAWN:	RJT
DESIGNED:	RJT
DATE:	11/01/22

REVISIONS

DATE	BY	REVISION

NO. 066924

ROBERT P. BRINGLEY

DRAWING TITLE:
NOTES, LEGEND & ABBREVIATIONS

2 of 10
SHEET No:

1374-22
JOB No:

C0.1
DRAWING No:

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LEGEND:

- ADJACENT PROPERTY LINE
- NEW PROPERTY LINE
- EASEMENT LINE
- RIGHT OF WAY (HIGHWAY BOUNDARY)
- CURB
- SIGN
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- (1) PROPOSED PARKING SPACE COUNT
- PROPOSED ASPHALT (REGULAR DUTY)
- PROPOSED ASPHALT (HEAVY DUTY)
- PROPOSED SIDEWALK
- PROPOSED COBBLE (BIORETENTION)
- PROPOSED STONE EDGE TREATMENT

PROJECT INFORMATION:

1. PARCEL DATA:

1.1. **OWNER:** BRUNNER PROPERTIES, LLC
1.2. **ADDRESS:** 2640 BRICKYARD ROAD, CANANDAIGUA, NY
1.3. **PARCEL TAX NUMBERS:** 70.00-1-41.100
1.4. **AREA:** 5.000 ACRES TO CENTERLINE, 4.467 ACRES TO R.O.W.

2. ZONING:

2.1. **ZONING DISTRICT:** (I) - INDUSTRIAL
2.2. **PROPOSED USE:** THE OWNER IS PROPOSING A BUILDING ADDITION TO INCREASE PRODUCTION AREA IN SUPPORT OF BUSINESS GROWTH. THE ADDITION REQUIRES SITE AMENITIES INCLUDING ADDITIONAL TRUCK ACCESS AND VEHICLE PARKING

3. ZONING SCHEDULE:

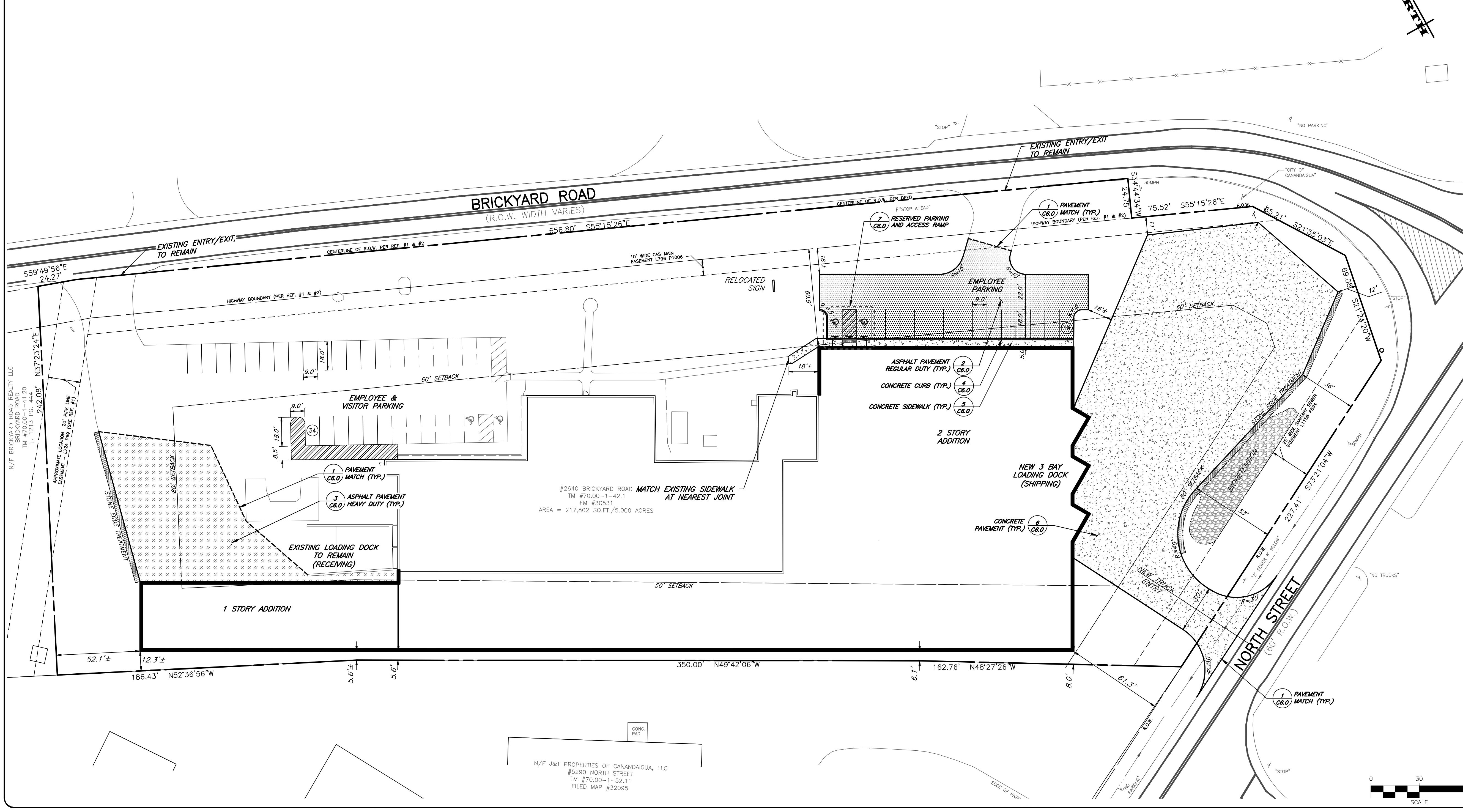
	REQUIRED	PROVIDED
3.1. FRONT SETBACK (MIN)	60 FEET	60.9 FEET
3.2. BACK SETBACK (MIN)	80 FEET	52 FEET (1)
3.3. SIDE SETBACK (MIN)	50 FEET	5 FEET (2)
3.4. LOT AREA (MIN)	5 ACRES	5 ACRES
3.5. LOT WIDTH (MIN)	250 FEET	698 FEET ±
3.6. PRINCIPAL BLDG HEIGHT (MAX)	48 FEET	46.7 FEET (3)
3.7. BUILDING COVERAGE (MAX)	40 PERCENT	38 PERCENT

(1) VARIANCE GRANTED 07/19/22
(2) VARIANCE GRANTED 07/19/22
(3) BUILDING ELEV = 837.6' (PEAK), FG ELEV = 790.9' [AVG OF 793.2 (HIGH PT) & 788.6 (LOW PT)]

APPROVED BY: ____
TOWN ENGINEER
DATE: ____

APPROVED BY: ____
TOWN HIGHWAY & WATER SUPERINTENDENT
DATE: ____

APPROVED BY: ____
PLANNING BOARD CHAIRPERSON
DATE: ____



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ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 6
ITHACA, NY 14850
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FINAL SITE PLANS for ARTISAN MEATS BUILDING EXPANSION

2640 BRICKYARD ROAD
ONTARIO COUNTY
TOWN OF CANANDAIGUA
STATE OF NEW YORK

JOB NO:	1374-22
SCALE:	1" = 30'
DRAWN:	RJT
DESIGNED:	RJT
DATE:	11/01/22

REVISIONS

DATE	BY	REVISION

STATE OF NEW YORK
ROBERT P. BRINGLEY
NO. 066924
LICENSED PROFESSIONAL ENGINEER
ROBERT P. BRINGLEY

DRAWING TITLE:
SITE LAYOUT PLAN

3 of 10
SHEET No:
C1.0
1374-22
JOB No:
DRAWING No:

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LEGEND:

- ADJACENT PROPERTY LINE
- PROJECT PROPERTY LINE
- EASEMENT LINE
- EXISTING GAS MAIN & VALVE
- EXISTING ELECTRIC CONDUIT & STRUCTURE
- EXISTING STORM MAIN, MANHOLE, AND INLET
- EXISTING SANITARY MAIN & MANHOLE
- EXISTING WATER MAIN, VALVE, & HYDRANT
- EXISTING OVERHEAD WIRE AND UTILITY POLE
- STORM SEWER, FIELD/DROP INLET, INLET MANHOLE, & MANHOLE
- SANITARY SEWER WITH MANHOLE
- STORM UNDERDRAIN AND CLEANOUT
- SANITARY SEWER FORCEMAIN
- PROPOSED ASPHALT (REGULAR DUTY)
- PROPOSED ASPHALT (HEAVY DUTY)
- PROPOSED SIDEWALK
- PROPOSED COBBLE (BIORETENTION)
- PROPOSED STONE EDGE TREATMENT

APPROVED BY:

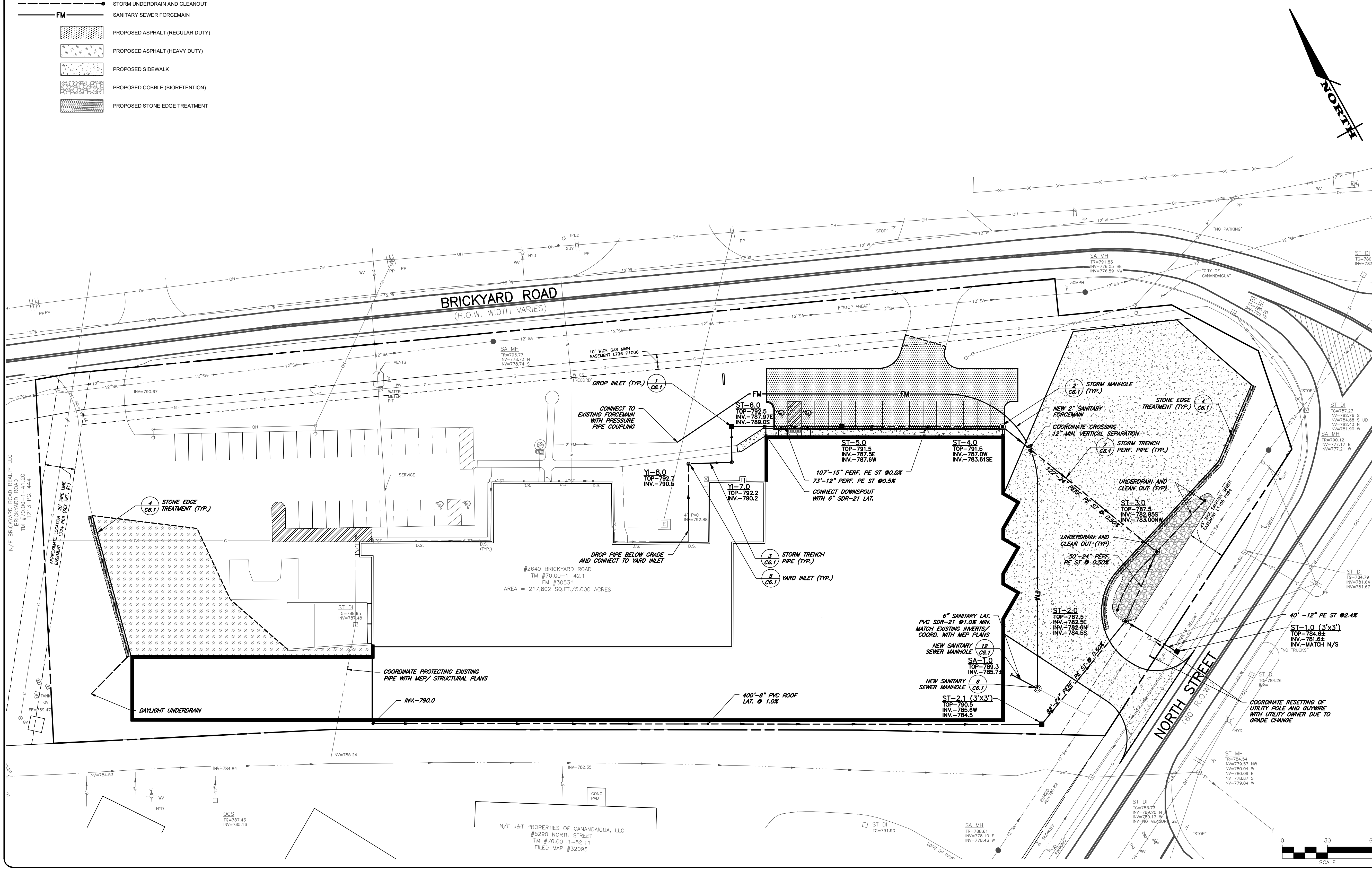
TOWN ENGINEER
DATE:

APPROVED BY:

TOWN HIGHWAY & WATER SUPERINTENDENT
DATE:

APPROVED BY:

PLANNING BOARD CHAIRPERSON
DATE:



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STATE OF NEW YORK — ROBERT P. BRINGLEY — NO. 066924 — LICENSED PROFESSIONAL ENGINEER

ROBERT P. BRINGLEY

DRAWING TITLE:
UTILITY PLAN

4 of 10
SHEET No:
C2.0
1374-22
JOB No: DRAWING No:

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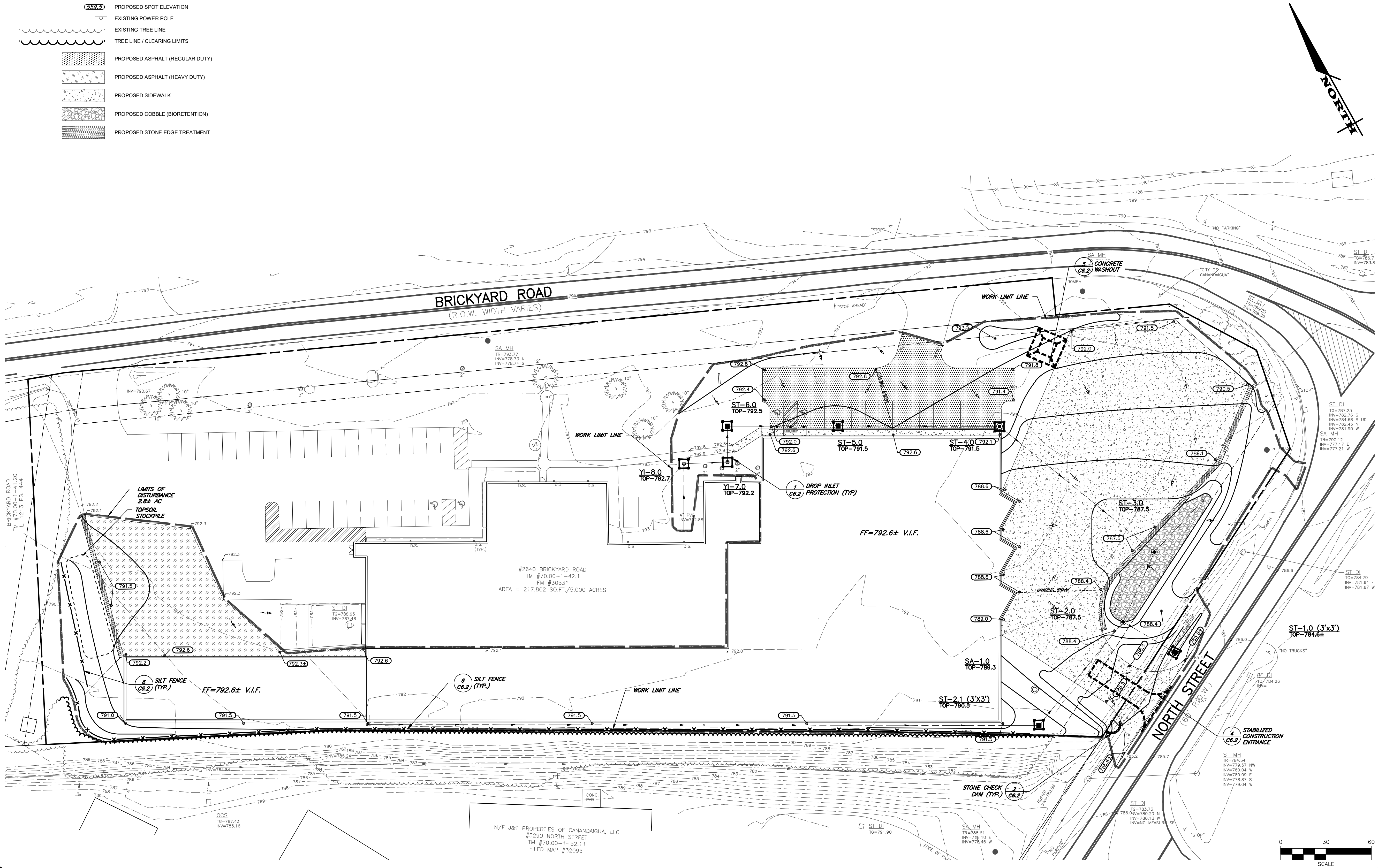
LEGEND:

- 1+00 ℄ 2+00 — CENTERLINE AND STATIONING
- ADJACENT PROPERTY LINE
- PROJECT PROPERTY LINE
- STORM SEWER, MANHOLE & FIELD/DROP INLET
- CENTERLINE OF SWALE/ STREAM
- GRADING LIMITS
- 525 — EXISTING CONTOUR
- 560 — PROPOSED MAJOR CONTOUR
- 559 — PROPOSED MINOR CONTOUR
- DRAINAGE FLOW ARROW
- 525.0± EXISTING SPOT ELEVATION
- 559.5 PROPOSED SPOT ELEVATION
- EXISTING POWER POLE
- EXISTING TREE LINE
- TREE LINE / CLEARING LIMITS
- PROPOSED ASPHALT (REGULAR DUTY)
- PROPOSED ASPHALT (HEAVY DUTY)
- PROPOSED SIDEWALK
- PROPOSED COBBLE (BIORETENTION)
- PROPOSED STONE EDGE TREATMENT

APPROVED BY:
TOWN ENGINEER DATE:
APPROVED BY:
TOWN HIGHWAY & WATER SUPERINTENDENT DATE:
APPROVED BY:
PLANNING BOARD CHAIRPERSON DATE:



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REVISIONS

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STATE OF NEW YORK — ROBERT P. BRINGLEY — NO. 066924 — LICENSED PROFESSIONAL ENGINEER

ROBERT P. BRINGLEY

DRAWING TITLE:

GRADING PLAN

5 of 1 SHEET No:	C3.0
1374-22 JOB No:	DRAWING No:

LANDSCAPING SCHEDULE

TREE	KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	ROOT	REMARKS
+	AC	ACER X. FREE. 'CELEBRATION'	CELEBRATION MAPLE	2	2 – 2 1/2" CALIPER	BALLED & BURLAPPED	
	AG	ACER GINNALA	AMUR MAPLE	3	6' HEIGHT	BALLED & BURLAPPED	
+	AM	ACER MIYABEI 'STATE STREET'	STATE STREET MAPLE	3	2.5-3" CALIPER	BALLED & BURLAPPED	
+	MS	MALUS 'SPRING SNOW'	SPRING SNOW CRABAPPLE	5	1 3/4" CALIPER	BALLED & BURLAPPED	
	UP	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	3	2.5-3" CALIPER	BALLED & BURLAPPED	
SHRUBS/ GRASSES	**KEY**	**BOTANICAL NAME**	**COMMON NAME**	**QTY.**	**SIZE**	**ROOT**	**REMARKS**
+	CC	CORNUS SERICEA 'CARDINAL'	RED TWIG DOGWOOD	16	30"-36" HEIGHT	#3 CONTAINER	
⊙	MG	MISCANTHUS SIN. 'GRACILLIMUS'	MAIDEN HAIR GRASS	8	CLUMP	#3 CONTAINER	
•	VC	VIBURNUM CASSINOIDES 'SMNVCDD'	WITHEROD VIBURNUM	9	3' HEIGHT	BALLED & BURLAPPED	

LEGEND:

- ADJACENT PROPERTY LINE
- PROJECT PROPERTY LINE
- STORM SEWER, MANHOLE & FIELD/DROP INLET
- GROUPING OF PLANTINGS
- EXISTING OVERHEAD WIRE AND UTILITY POLE
- EXISTING LIGHT POLE
- PROPOSED ASPHALT (REGULAR DUTY)
- PROPOSED ASPHALT (HEAVY DUTY)
- PROPOSED SIDEWALK
- PROPOSED COBBLE (BIORETENTION)
- PROPOSED STONE EDGE TREATMENT

APPROVED BY:
TOWN ENGINEER
DATE:

APPROVED BY:
TOWN HIGHWAY & WATER SUPERINTENDENT
DATE:

APPROVED BY:
PLANNING BOARD CHAIRPERSON
DATE:

NORTH

BRICKYARD ROAD
(R.O.W. WIDTH VARIES)

#2640 BRICKYARD ROAD
TM #70.00-1-42.1
FM #30531
AREA = 217,802 SQ.FT./5.000 ACRES

BRICKYARD ROAD
TM #70.00-1-41.20
L. 1213 PG. 444

N/F J&T PROPERTIES OF CANANDAIGUA, LLC
#5290 NORTH STREET
TM #70.00-1-52.11
FILED MAP #32095

NORTH STREET
(60' R.O.W.)

RELOCATED SIGNAGE AND MULCH BED

DECIDUOUS PLANTING (TYP) 2 (66.2)

SHRUB PLANTING (TYP) 18 (66.2)

GROUND COVER PLANTING 7 (66.2)

AG 3 · UP 3 · AM 3 · CC 5 · VC 3 · VC 6 · CC 5 · MG 8 · MS 5 · CC 6 · AC 2

"NO PARKING" · "CITY OF CANANDAIGUA" · "STOP AHEAD" · "STOP" · 30MPH · "NO TRUCKS"

0 30 60
SCALE

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REVISIONS

DATE	BY	REVISION

STATE OF NEW YORK · ROBERT P. BRINGLEY · NO. 066924 · LICENSED PROFESSIONAL ENGINEER

ROBERT P. BRINGLEY

DRAWING TITLE:
LIGHTING & LANDSCAPE PLAN

6 of 1 SHEET No:	C4.0
1374-22 JOB No:	DRAWING No:

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EXISTING LEGEND:

PROPERTY LINE
EASEMENT LINE
ADJOINER LINE
RIGHT-OF-WAY LINE
IRON PIN/PIPE, MONUMENT
SIGNS
MAILBOX
FLAG POLE
POLE
GUIDERAIL
EDGE OF WATER
PARKING STRIPING
FENCE
DITCH/SWALE
CENTERLINE
SHRUB, CONIFER TREE, DECID TREE
WOODS
BRUSH/VEGETATION
CONTOURS
STORM SEWER, MANHOLE, INLET, INLET MANHOLE & END SECTION
SANITARY SEWER LINE & MANHOLE
WATER VALVE, MAIN & HYDRANT W/ GUARD VALVE
GAS VALVE, MAIN & METER
UTILITY POLE, GUY WIRE & W/ LIGHT
ELECTRIC MH, TRANSFORMER & METER
HANDHOLE, TELEPHONE PEDESTAL, & CABLE PEDESTAL

DEMOLITION LEGEND:

DEMOLISH UTILITY
SAWCUT/LIMITS
GRADING LIMITS/ WORK LIMIT LINE
TREE REMOVAL
REMOVE ASPHALT/STONE

SURVEY NOTES

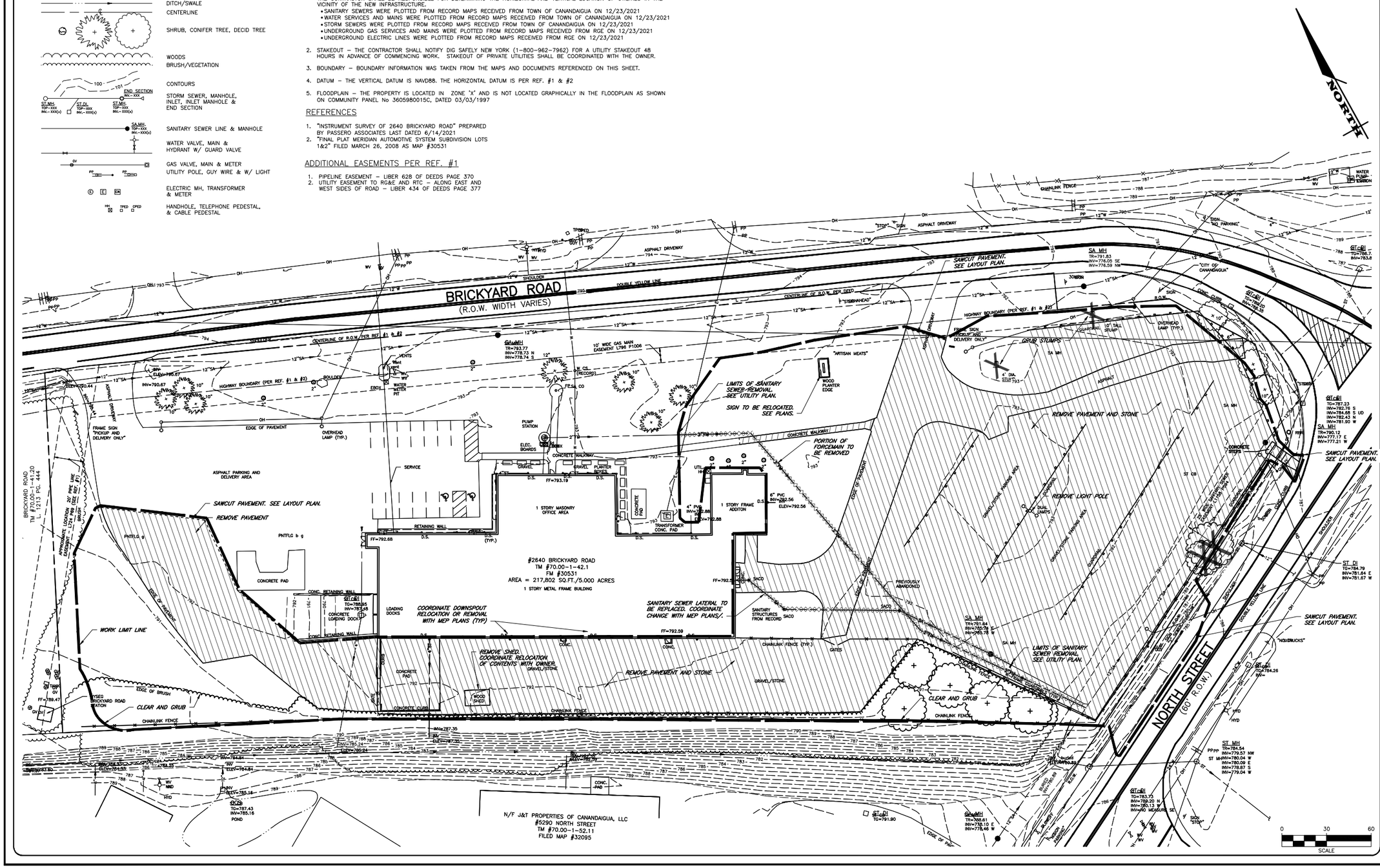
1. MAPPING – THE EXISTING UNDERGROUND UTILITIES WERE PLOTTED BASED ON RECORD MAPPING SUPPLIED BY OTHERS. THE ENGINEER MAKES NO WARRANTY AS TO THE LOCATION, SIZE, TYPE, ELEVATION, AND/OR NUMBER OF EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE VICINITY OF THE NEW INFRASTRUCTURE.
   - SANITARY SEWERS WERE PLOTTED FROM RECORD MAPS RECEIVED FROM TOWN OF CANANDAIGUA ON 12/23/2021
   - WATER SERVICES AND MAINS WERE PLOTTED FROM RECORD MAPS RECEIVED FROM TOWN OF CANANDAIGUA ON 12/23/2021
   - STORM SEWERS WERE PLOTTED FROM RECORD MAPS RECEIVED FROM TOWN OF CANANDAIGUA ON 12/23/2021
   - UNDERGROUND GAS SERVICES AND MAINS WERE PLOTTED FROM RECORD MAPS RECEIVED FROM RGE ON 12/23/2021
   - UNDERGROUND ELECTRIC LINES WERE PLOTTED FROM RECORD MAPS RECEIVED FROM RGE ON 12/23/2021
2. STAKEOUT – THE CONTRACTOR SHALL NOTIFY DIG SAFELY NEW YORK (1-800-962-7962) FOR A UTILITY STAKEOUT 48 HOURS IN ADVANCE OF COMMENCING WORK. STAKEOUT OF PRIVATE UTILITIES SHALL BE COORDINATED WITH THE OWNER.
3. BOUNDARY – BOUNDARY INFORMATION WAS TAKEN FROM THE MAPS AND DOCUMENTS REFERENCED ON THIS SHEET.
4. DATUM – THE VERTICAL DATUM IS NAVD88. THE HORIZONTAL DATUM IS PER REF. #1 & #2
5. FLOODPLAIN – THE PROPERTY IS LOCATED IN ZONE 'X' AND IS NOT LOCATED GRAPHICALLY IN THE FLOODPLAIN AS SHOWN ON COMMUNITY PANEL No 3605980015C, DATED 03/03/1997

REFERENCES

1. "INSTRUMENT SURVEY OF 2640 BRICKYARD ROAD" PREPARED BY PASSERO ASSOCIATES LAST DATED 6/14/2021
2. "FINAL PLAT MERIDIAN AUTOMOTIVE SYSTEM SUBDIVISION LOTS 1&2" FILED MARCH 26, 2008 AS MAP #30531

ADDITIONAL EASEMENTS PER REF. #1

1. PIPELINE EASEMENT – LIBER 628 OF DEEDS PAGE 370
2. UTILITY EASEMENT TO RG&E AND RTC – ALONG EAST AND WEST SIDES OF ROAD – LIBER 434 OF DEEDS PAGE 377



APPROVED BY:
TOWN ENGINEER
DATE:

APPROVED BY:
TOWN HIGHWAY & WATER SUPERINTENDENT
DATE:

APPROVED BY:
PLANNING BOARD CHAIRPERSON
DATE:

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607-241-2917
www.marathoneng.com

FINAL SITE PLANS for ARTISAN MEATS BUILDING EXPANSION

2640 BRICKYARD ROAD
TOWN OF CANANDAIGUA
ONTARIO COUNTY
STATE OF NEW YORK

JOB NO:	1374-22
SCALE:	1" = 30'
DRAWN:	RJT
DESIGNED:	RJT
DATE:	11/01/22

REVISIONS

DATE	BY	REVISION

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW ARTICLE 145, SECTION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER IN ANY WAY, AN ITEM BEARING THE SEAL OF A PROFESSIONAL ENGINEER OR LAND SURVEYOR. IF AN ITEM BEARING THE SEAL OF A PROFESSIONAL ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS OR HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS OR HER NAME AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

STATE OF NEW YORK
ROBERT P. BRINGLEY
LICENSED PROFESSIONAL ENGINEER
NO. 066924

ROBERT P. BRINGLEY

DRAWING TITLE:
EXISTING CONDITIONS & DEMOLITION PLAN

7 of 10 SHEET No:	C5.0
1374-22 JOB No:	DRAWING No:

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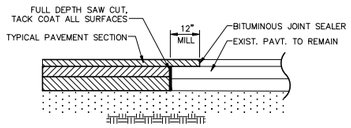
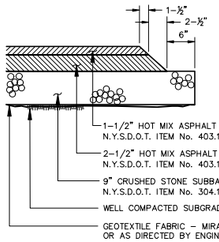
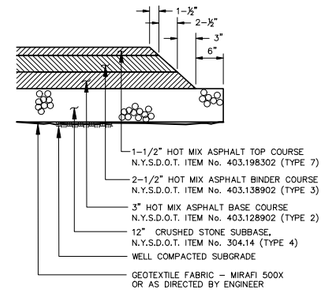


1 PAVEMENT MATCH



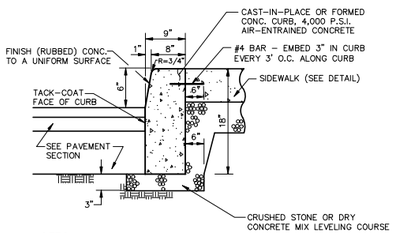
2 PAVEMENT SECTION (REGULAR DUTY)

NOTES:
1. CONTRACTOR TO CLEAN AND TACK COAT BEFORE PLACING TOP COAT IF BINDER IS CONTAMINATED OR GREATER THAN 30 DAYS PASSES BETWEEN PLACEMENT OF BINDER AND TOP
2. PAVEMENT SPECIFICATION NUMBERS REFERENCE THE 2008 NYSDOT STANDARD SPECIFICATION BOOK



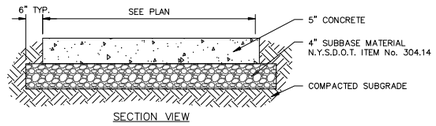
3 PAVEMENT SECTION (HEAVY DUTY)

NOTES:
1. CONTRACTOR TO CLEAN AND TACK COAT BEFORE PLACING TOP COAT IF BINDER IS CONTAMINATED OR GREATER THAN 30 DAYS PASSES BETWEEN PLACEMENT OF BINDER AND TOP
2. PAVEMENT SPECIFICATION NUMBERS REFERENCE THE 2008 NYSDOT STANDARD SPECIFICATION BOOK

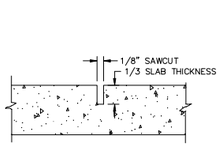


NOTES:
1. PROVIDE 7" REVEAL AT DROP INLETS
2. PROVIDE CONSTRUCTION JOINTS AT 20' INTERVALS AND EXPANSION JOINTS AT 80' MAXIMUM SPACING. EXPANSION JOINTS SHALL BE FORMED WITH PRE-MOLDED BITUMINOUS JOINT FILLER AND REBAR TO PREVENT SEPARATION.

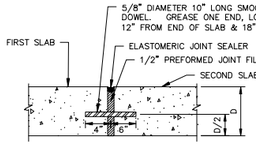
4 CONCRETE CURB WITH SIDEWALK BEHIND



SECTION VIEW



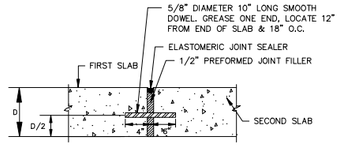
CONTROL/SCORE JOINT



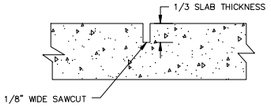
CONSTRUCTION JOINT

NOTES:
1. CONCRETE SHALL BE 4000 PSI AIR-ENTRAINED MIX.
2. CONCRETE SURFACE SHALL RECEIVE A BROOM FINISH (IF NOT SPECIFIED AS EXPOSED AGGREGATE CONCRETE) AND TWO COATS OF A MEMBRANE FORMING SEALER AT RATES SPECIFIED BY PRODUCT MANUFACTURER.
3. EXPANSION JOINTS SHALL BE PROVIDED AT FIXED STRUCTURES AND AT LEAST EVERY 30' ALONG THE SIDEWALK.
4. CONSTRUCTION JOINTS WITH DOWELS SHALL BE PROVIDED AT SUBSEQUENT POURS.
5. CONTROL JOINTS SHALL BE LOCATED AS SHOWN ON PLAN AND IN ACCORDANCE WITH ACI 330-R92. THESE JOINTS SHALL BE COMPLETED WITHIN 24 HOURS OF CONCRETE PLACEMENT.
6. SCORE PATTERN – SIDEWALK TO BE SCORED EVERY 5 FEET CREATING 5' X 5' SQUARES (MAY VARY IN CERTAIN AREAS). SCORING SHALL BE COORDINATED WITH OWNERS ONSITE REP PRIOR TO SCORING.
7. SIDEWALKS SHALL HAVE A MINIMUM 0.5% AND MAXIMUM 2.0% CROSS SLOPE TO PROVIDE POSITIVE DRAINAGE. CROSS SLOPE SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND ENTRANCES.
8. 'SNAP-CAP' OR EQUAL SHALL BE USED FOR PROTECTING TOP EDGE OF EXPANSION JOINTS.
9. SEE CURBING DETAIL FOR DOWELING WHEN ADJACENT TO CONCRETE CURBING.

5 CONCRETE SIDEWALK



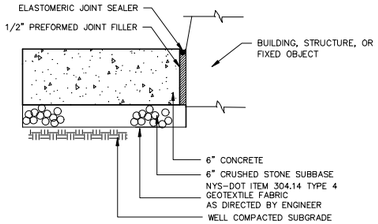
CONSTRUCTION JOINT



CONTROL/SCORE JOINT

CONCRETE PAVEMENT NOTES:
1. ISOLATION JOINTS TO BE CONSTRUCTED AT BUILDING, CURBING, AND FIXED OBJECTS.
2. CONTROL JOINTS TO BE MADE EVERY 12 FEET ON CENTER.
3. THE LARGER DIMENSION OF ANY PANEL SHALL NOT EXCEED 125% OF THE SMALLER DIMENSION
4. SAW CUT CONTROL JOINTS TO 1/3 SLAB THICKNESS WITHIN 24 HOURS OF CONCRETE PLACEMENT.
5. ALL EXPOSED CONCRETE SURFACES TO RECEIVE A BROOM FINISH.
6. ALL EXPOSED CONCRETE TO RECEIVE TWO COATS OF MEMBRANE FORMING SEALER.
7. CONCRETE SHALL ACHIEVE 4000 PSI COMPRESSIVE MINIMUM STRENGTH AT 28 DAYS.
8. CONCRETE SHALL HAVE AN AIR CONTENT OF 6.0 PERCENT ± 1.5 PERCENT.
9. CONCRETE SLUMP SHALL NOT EXCEED 4 INCHES.

6 CONCRETE PAVEMENT



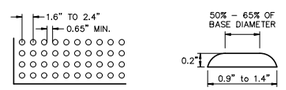
SECTION VIEW

!! CALL !!
BEFORE YOU DIG, DRILL OR BLAST
1-800-962-7962 or 811
IN ACCORDANCE WITH DSNY (DIG SAFE NEW YORK), CONTRACTORS MUST NOTIFY ALL UTILITIES IN THE AREA TWO (2) WORKING DAYS BEFORE EXCAVATION.

IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE MUNICIPAL SEWER AND WATER DEPARTMENTS WITHIN THE PROJECT AREA.

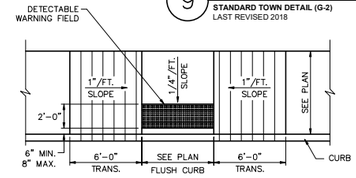
9 UTILITY NOTIFICATION

STANDARD TOWN DETAIL (G-2)
LAST REVISED 2018



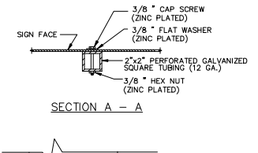
DOME SPACING DOME SECTION

DETECTABLE WARNING FIELD

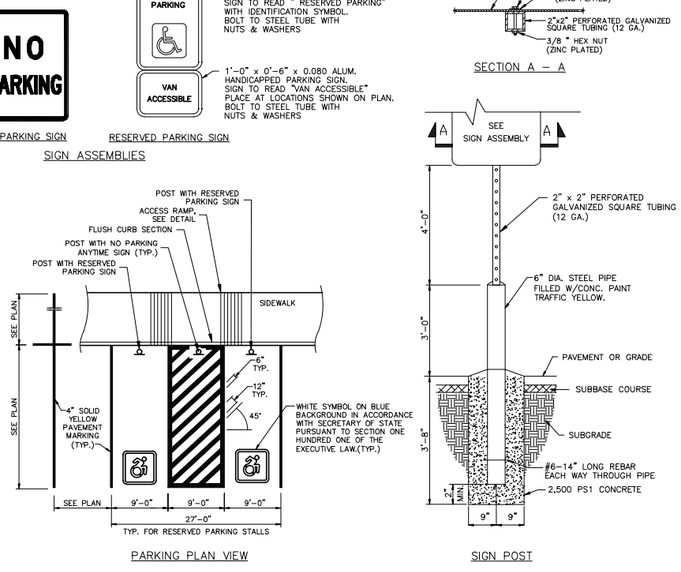


NOTES:
1. SURFACE TEXTURE OF RAMP SHALL BE COARSE BROOM FINISHED TRANSVERSE TO RAMP.
2. REFER TO TYPICAL SIDEWALK DETAIL FOR MATERIAL SPECIFICATIONS.
3. DETECTABLE WARNING FIELD SHALL EXTEND THE FULL WIDTH OF CURB RAMP OR FLUSH SURFACE.
4. DETECTABLE WARNING FIELD SHALL BE "DARK GREY" IN COLOR, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AOBE.
5. DETECTABLE WARNING FIELD SHALL BE ADA SOLUTIONS WARNING SURFACE – 'CAST-IN-PLACE TACTILE REPLACEABLE' OR EQUAL.

8 ACCESS RAMP



SECTION A – A



NOTE:
ALL ACCESSIBLE PARKING AND ROUTES SHALL BE CONSTRUCTED CONSISTENT WITH THE MOST CURRENT ADA GUIDELINES. IN GENERAL ALL PARKING AND LOADING ZONES SHALL HAVE NO MORE THAN 2.0% SLOPE IN ANY DIRECTION. PRIOR TO PAVING CONTRACTOR SHALL VERIFY SLOPES AND REPORT ANY SLOPES GREATER THAN 2% TO THE ENGINEER.

7 RESERVED PARKING AND SIGNAGE

APPROVED BY:
TOWN ENGINEER
DATE:
APPROVED BY:
TOWN HIGHWAY & WATER SUPERINTENDENT
DATE:
APPROVED BY:
PLANNING BOARD CHAIRPERSON
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JOB NO:	1374-22
SCALE:	1" = 30'
DRAWN:	RJT
DESIGNED:	RJT
DATE:	11/01/22

REVISIONS

DATE	BY	REVISION

STATE OF NEW YORK ROBERT P. BRINGLEY NO. 066924 LICENSED PROFESSIONAL ENGINEER
ROBERT P. BRINGLEY

DRAWING TITLE:
CONSTRUCTION DETAILS

8 of 10 SHEET No:	C6.0
1374-22 JOB No:	DRAWING No:

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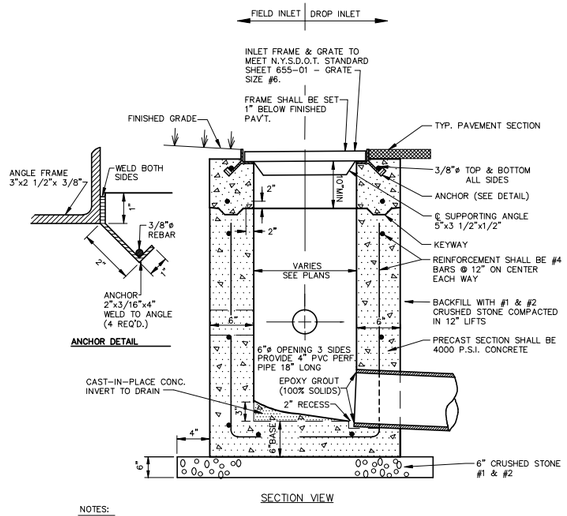


SECTION VIEW

NOTES:

1.) PRE-CAST INLET SECTIONS SHALL BE MANUFACTURED BY KISTNER, MODEL No. CB-24 (WITH KEYWAY) OR APPROVED EQUIVALENT.
2.) THE INSIDE & OUTSIDE WALLS OF INLET SHALL BE COATED WITH BITUMASTIC.

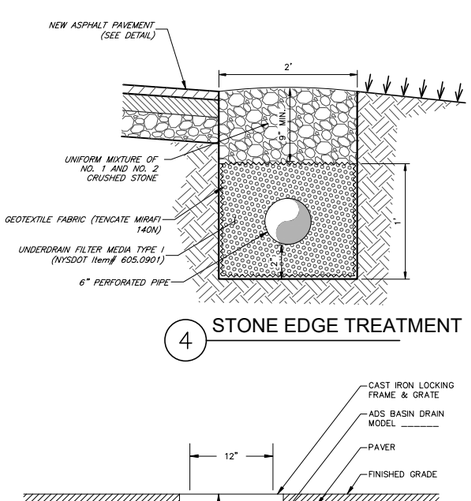
1 DROP/ FIELD INLET

NOTES:

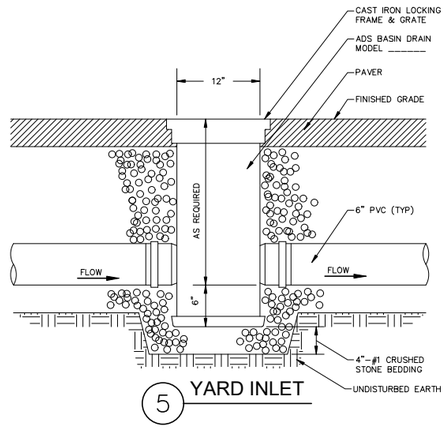
1.) SLOPED EXCAVATION AT CONTRACTORS OPTION- PROVIDE SHEETING AS NECESSARY TO MEET OSHA STANDARDS & REQUIREMENTS.

2 STORM MANHOLE

3 STORM TRENCH SOLID PIPE

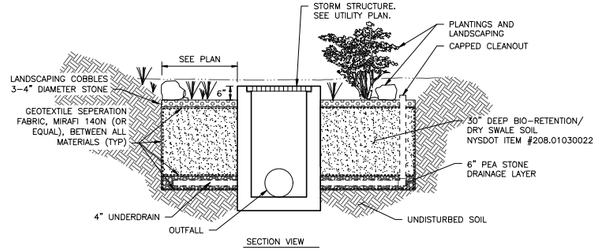


4 STONE EDGE TREATMENT



5 YARD INLET

7 STORM TRENCH PERFORATED PIPE

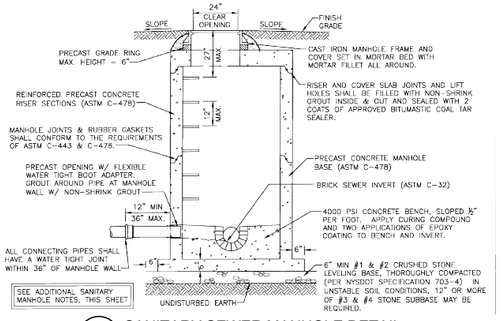


SECTION VIEW

8 BIORETENTION DETAIL

SCALE: N.T.S

10 RESERVED



6 SANITARY SEWER MANHOLE DETAIL

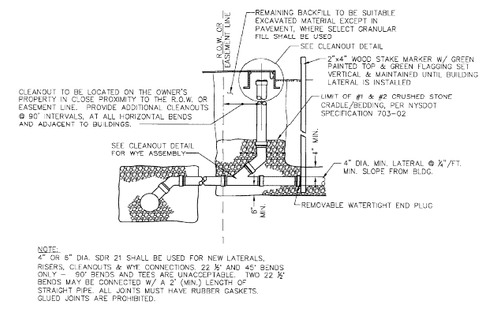
STANDARD OCDPW DETAIL
LAST REVISED 10/2016

MANHOLE NOTES:

1. MANHOLES LESS THAN 5 FEET DEEP, GREATER THAN 14 FEET DEEP, OR HAVING THREE OR MORE PIPE CONNECTIONS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 5 FEET.
2. REINFORCED PRECAST CONCRETE FLAT COVER SLABS WITH 24" DIA. ECCENTRIC MASONRY OPENING SHALL BE USED FOR ALL MANHOLES.
3. ALL BENCHES, INVERTS AND INTERIOR WALLS OF THE MANHOLE BASE TO 12" ABOVE THE HIGHEST PIPE SHALL HAVE TWO APPLICATIONS OF EPOXY COATING (SIKAGARD 62, DURALKOTE 500 OR OTHER APPROVED EQUAL). THE REMAINING INTERIOR WALLS AND ENTIRE EXTERIOR SURFACE SHALL BE COATED WITH TWO APPLICATIONS OF APPROVED BITUMASTIC COAL TAR SEALER (ASTM D-450, TYPE B).
4. MANHOLE STEPS SHALL BE STEEL REINFORCED POLYPROPYLENE, CAST IN PLACE BY MANUFACTURER.
5. MANHOLE FRAME AND COVER SHALL BE EAST JORDAN CO. #1045 OR OTHER DISTRICT APPROVED EQUAL. COVER SHALL HAVE EPIC SLOT AND BE GASKETED WITH "SANITARY SEWER" CAST IN LID WITH 2" LETTERING (MAX. SIZE).
6. FOR MANHOLES NOT LOCATED IN PAVEMENT, BACKFILL WITH SUITABLE NATIVE MATERIAL PER NYSDOT SPECIFICATION 203-2.01. FOR MANHOLES IN PAVEMENT, BACKFILL WITH CRUSHER RUN STONE, TYPE 2 PER NYSDOT SPECIFICATION 304-2.02.

9 MANHOLE NOTES

STANDARD OCDPW DETAIL
LAST REVISED 10/2016



NOTE:
4" OR 6" DIA. SDR 21 SHALL BE USED FOR NEW LATERALS. RISERS, CLEANOUTS & WYE CONNECTIONS .22 ½° AND 45° BENDS ONLY - 90° BENDS AND TEES ARE UNACCEPTABLE. TWO .22 ½° BENDS MAY BE CONNECTED W/ A 2' (MIN.) LENGTH OF STRAIGHT PIPE. ALL JOINTS MUST HAVE RUBBER GASKETS. GLUED JOINTS ARE PROHIBITED.

11 SANITARY SEWER LATERAL DETAIL DISTRICT OWNED SEWER MAIN

STANDARD OCDPW DETAIL
LAST REVISED 08/2010

NOTES:

1. MINIMUM DEPTH OF COVER FOR SEWER MAINS AND LATERALS IS 4'.
2. MINIMUM PIPE DIAMETER REQUIRED FOR DEDICATION = 8"

* MAXIMUM TRENCH WIDTH FOR LATERALS = OD + 14"

12 SANITARY SEWER MAIN AND LATERAL TRENCH AND BEDDING DETAIL

STANDARD OCDPW DETAIL
LAST REVISED 08/2010

APPROVED BY:	
TOWN ENGINEER	DATE:
APPROVED BY:	
TOWN HIGHWAY & WATER SUPERINTENDENT	DATE:
APPROVED BY:	
PLANNING BOARD CHAIRPERSON	DATE:

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STATE OF NEW YORK — ROBERT P. BRINGLEY — LICENSED PROFESSIONAL ENGINEER — NO. 066924

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9 of 10 SHEET No:	C6.1 DRAWING No:
1374-22 JOB No:	

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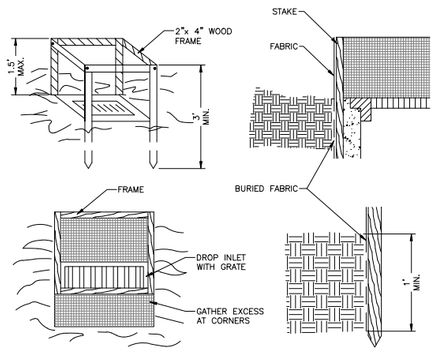
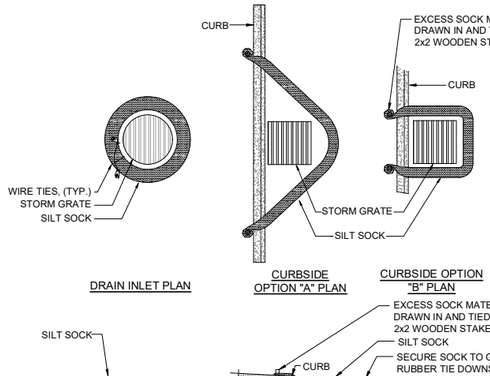


CONSTRUCTION SPECIFICATIONS

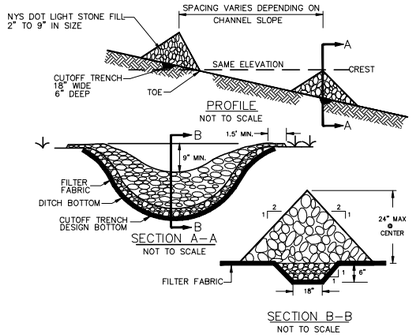
1. FILTER FABRIC SHALL HAVE AN EOS OF 40–85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM OF 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.

1 DROP INLET PROTECTION
SCALE: N.T.S



NOTES:
1. USE FILTREXX® SILTSOXX™ OR APPROVED EQUAL.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

3 PAVED SURFACE INLET PROTECTION
SCALE: N.T.S

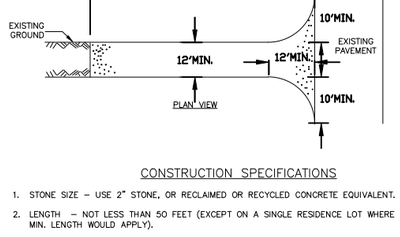


CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATION SHOWN ON IN THE PLAN
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM,
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OF BLOCKAGE FROM DISPLACED STONES.

MAXIMUM DRAINAGE AREA – 2 ACRES

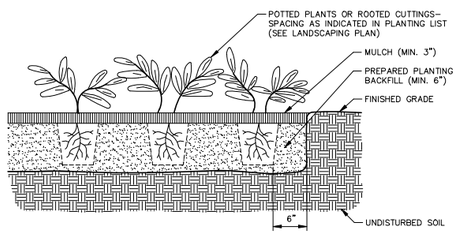
2 STONE CHECK DAM
SCALE: N.T.S



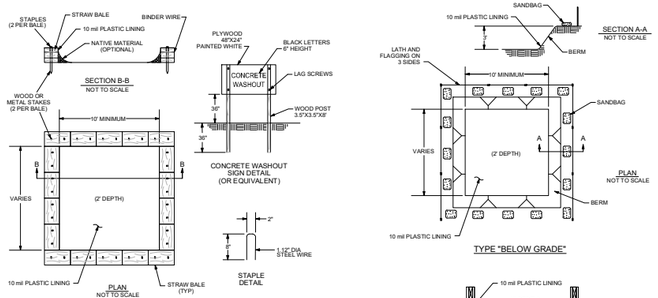
CONSTRUCTION SPECIFICATIONS

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 MIN. 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 WITHI 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, TACKED, OR WASHED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN 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.

4 STABILIZED CONSTRUCTION ENTRANCE
SCALE: N.T.S



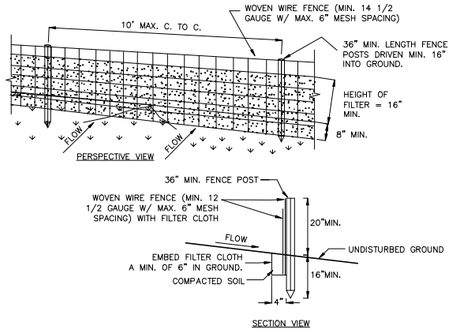
7 GROUND COVER PLANTINGS



NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

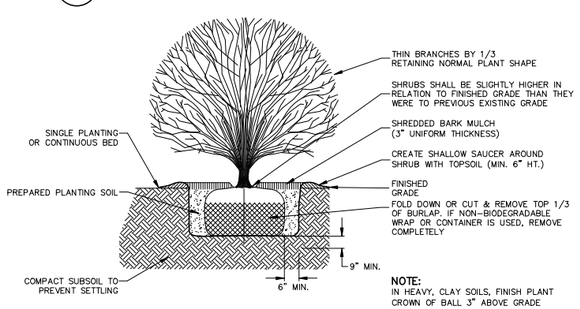
5 CONCRETE WASHOUT
SCALE: N.T.S



CONSTRUCTION SPECIFICATIONS

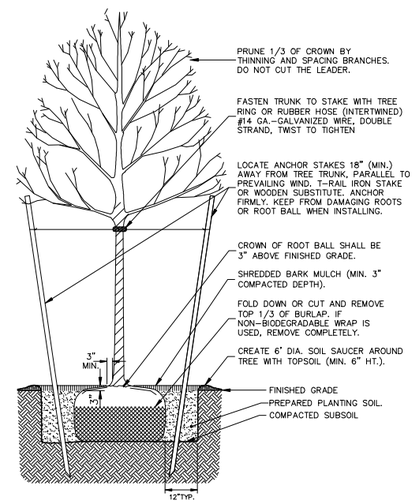
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES, POSTS SHALL BE STEEL "T" OF "U" TYPE OF HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
6. ENVIRO–FENCE WITH INTEGRAL MESH IS ACCEPTABLE SUBSTITUTE.

6 SILT FENCE
SCALE: N.T.S



NOTE:
IN HEAVY, CLAY SOILS, FINISH PLANT CROWN OF BALL 3" ABOVE GRADE

8 SHRUB PLANTINGS



9 DECIDUOUS PLANTINGS

APPROVED BY: _____
TOWN ENGINEER
DATE: _____

APPROVED BY: _____
TOWN HIGHWAY & WATER SUPERINTENDENT
DATE: _____

APPROVED BY: _____
PLANNING BOARD CHAIRPERSON
DATE: _____

MARATHON ENGINEERING
ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 6
ITHACA, NY 14850
607-241-2917
www.marathoneng.com

FINAL SITE PLANS for ARTISAN MEATS BUILDING EXPANSION

2640 BRICKYARD ROAD
TOWN OF CANANDAIGUA
ONTARIO COUNTY
STATE OF NEW YORK

JOB NO:	1374-22
SCALE:	1" = 30'
DRAWN:	RJT
DESIGNED:	RJT
DATE:	11/01/22

REVISIONS

DATE	BY	REVISION

STATE OF NEW YORK · ROBERT P. BRINGLEY · LICENSED PROFESSIONAL ENGINEER · NO. 066924

ROBERT P. BRINGLEY

DRAWING TITLE:
CONSTRUCTION DETAILS

10 of 10 SHEET No:	C6.2
1374-22 JOB No:	DRAWING No:

File: z:\engineering\job files\1374-21\Drawings_Sheets\C6.0.dwg, Last saved: 11/1/2022, Plot Date: 11/1/2022, By: COLE PAPASERGI, Plot Style: MARATHON STANDARD.CTB

Appendix C

NOI, NOI Acknowledgement Letter, MS4 Acceptance Form, & NOT

Table of Contents

NOI for coverage under Stormwater General Permit for Construction Activity

version 1.35

(Submission #: HPP-86ET-DZ42D, version 1)

Details

Submission Alias	Artisan Meats
Originally Started By	Cole Papasergi
Alternate Identifier	Artisan Meats Building Expansion
Submission ID	HPP-86ET-DZ42D
Submission Reason	New
Status	Draft

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)
Brunner Properties, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Brunner

Owner/Operator Contact Person First Name
Josef

Owner/Operator Mailing Address
2640 Brickyard Road

City
Canandaigua

State
NY

Zip
14424

Phone
(585)-266-4690

Email
josef@artisan-meats.com

Federal Tax ID
NONE PROVIDED

Project Location

Project/Site Name
Artisan Meats Building Expansion

Street Address (Not P.O. Box)
2640 Brickyard Road

Side of Street
South

City/Town/Village (THAT ISSUES BUILDING PERMIT)
Town of Canandaigua

State
NY

Zip
14424

DEC Region
8

County
ONTARIO

Name of Nearest Cross Street
North St

Distance to Nearest Cross Street (Feet)
0

Project In Relation to Cross Street
North

Tax Map Numbers Section-Block-Parcel
70.00-1-41

Tax Map Numbers
100

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are:
- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates
42.90203859585371,-77.30316115238942

Project Details

2. What is the nature of this project?
Redevelopment with increase in impervious area

3. Select the predominant land use for both pre and post development conditions.

Pre-Development Existing Landuse
Industrial

Post-Development Future Land Use
Industrial

3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.
NONE PROVIDED

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area.

*** ROUND TO THE NEAREST TENTH OF AN ACRE. ***

Total Site Area (acres)
4.9

Total Area to be Disturbed (acres)
2.8

Existing Impervious Area to be Disturbed (acres)
1.9

Future Impervious Area Within Disturbed Area (acres)
2.09

5. Do you plan to disturb more than 5 acres of soil at any one time?
No

---

6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
12

B (%)
0

C (%)
0

D (%)
88

7. Is this a phased project?
No

8. Enter the planned start and end dates of the disturbance activities.

Start Date
04/01/2023

End Date
09/01/2023

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
Sucker Brook

9a. Type of waterbody identified in question 9?
Stream/Creek Off Site

Other Waterbody Type Off Site Description
NONE PROVIDED

9b. If "wetland" was selected in 9A, how was the wetland identified?
NONE PROVIDED

10. Has the surface waterbody(ies in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?
No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?
No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?
No

If No, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as D (provided the map unit name is inclusive of slopes greater than 25%), E or F on the USDA Soil Survey?
No

If Yes, what is the acreage to be disturbed?
NONE PROVIDED

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
Yes

16. What is the name of the municipality/entity that owns the separate storm sewer system?
County of Ontario

17. Does any runoff from the site enter a sewer classified as a Combined Sewer?
No

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

19. Is this property owned by a state authority, state agency, federal government or local government?
No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)
No

Required SWPPP Components

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

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)?
Yes

If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.

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

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Certified Professional in Erosion and Sediment Control (CPESC)

SWPPP Preparer
Marathon Engineering

Contact Name (Last, Space, First)
Tomlinson Matt

Mailing Address
39 Cascade Drive

City
Rochester

State
NY

Zip
14614

Phone
5854587770

Email
rtiede@marathoneng.com

Download SWPPP Preparer Certification Form
Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Scan the signed form
4) Upload the scanned document
Download SWPPP Preparer Certification Form

Please upload the SWPPP Preparer Certification
NONE PROVIDED
Comment
NONE PROVIDED

Erosion & Sediment Control Criteria

25. Has a construction sequence schedule for the planned management practices been prepared?
Yes

26. Select all of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural
Check Dams
Silt Fence
Stabilized Construction Entrance
Storm Drain Inlet Protection

Biotechnical
None

Vegetative Measures
Topsoiling
Seeding

Permanent Structural
None

Other
NONE PROVIDED

Post-Construction Criteria

*** 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.
Reduction of Clearing and Grading
Locating Development in Less Sensitive Areas
Sidewalk 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).

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)
0.06

29. Post-construction SMP Identification
Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing 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.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section 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.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)
0.02

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?
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)] (acre-feet)
.003

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?
Yes

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 SWPPP.

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

33. SMPs
Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section 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. (acre-feet)
0.065

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - 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).
0.065

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?
Yes

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, 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 Required (acre-feet)
0

CPv Provided (acre-feet)
0

36a. The need to provide channel protection has been waived because:
NONE PROVIDED

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS)
13.57

Post-Development (CFS)
11.77

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS)
24.83

Post-Development (CFS)
20.84

37a. The need to meet the Qp and Qf criteria has been waived because:
NONE PROVIDED

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

If Yes, Identify the entity responsible for the long term Operation and Maintenance
Owner/operator

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information.
The site is developed land that consisted mainly of building and pavement /stone parking areas and qualifies as redevelopment activity classified under chapter 9 of the New York State Stormwater Management Design Manual.

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs
Identify the Post-construction SMPs to be used by providing 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.

RR Techniques (Area Reduction)

Round to the nearest tenth

Total Contributing Acres for Conservation of Natural Area (RR-1)
NONE PROVIDED

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)
NONE PROVIDED

Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
NONE PROVIDED

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
NONE PROVIDED

Total Contributing Acres for Tree Planting/Tree Pit (RR-3)
NONE PROVIDED

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)
NONE PROVIDED

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)
NONE PROVIDED

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)
NONE PROVIDED

Total Contributing Impervious Acres for Vegetated Swale (RR-5)
NONE PROVIDED

Total Contributing Impervious Acres for Rain Garden (RR-6)
NONE PROVIDED

Total Contributing Impervious Acres for Stormwater Planter (RR-7)
NONE PROVIDED

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)
NONE PROVIDED

Total Contributing Impervious Acres for Porous Pavement (RR-9)
NONE PROVIDED

Total Contributing Impervious Acres for Green Roof (RR-10)
NONE PROVIDED

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1)
NONE PROVIDED

Total Contributing Impervious Acres for Infiltration Basin (I-2)
NONE PROVIDED

Total Contributing Impervious Acres for Dry Well (I-3)
NONE PROVIDED

Total Contributing Impervious Acres for Underground Infiltration System (I-4)
NONE PROVIDED

Total Contributing Impervious Acres for Bioretention (F-5)
.45

Total Contributing Impervious Acres for Dry Swale (O-1)
NONE PROVIDED

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Pond (P-2)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Extended Detention (P-3)
NONE PROVIDED

Total Contributing Impervious Acres for Multiple Pond System (P-4)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Pond (P-5)
NONE PROVIDED

Total Contributing Impervious Acres for Surface Sand Filter (F-1)
NONE PROVIDED

Total Contributing Impervious Acres for Underground Sand Filter (F-2)
NONE PROVIDED

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)
NONE PROVIDED

Total Contributing Impervious Acres for Organic Filter (F-4)
NONE PROVIDED

Total Contributing Impervious Acres for Shallow Wetland (W-1)
NONE PROVIDED

Total Contributing Impervious Acres for Extended Detention Wetland (W-2)
NONE PROVIDED

Total Contributing Impervious Acres for Pond/Wetland System (W-3)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Wetland (W-4)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Swale (O-2)
NONE PROVIDED

Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Total Contributing Impervious Area for Hydrodynamic
NONE PROVIDED

Total Contributing Impervious Area for Wet Vault
NONE PROVIDED

Total Contributing Impervious Area for Media Filter
NONE PROVIDED

"Other" Alternative SMP?
NONE PROVIDED

Total Contributing Impervious Area for "Other"
NONE PROVIDED

Provide the name and manufaturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

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.

Manufacturer of Alternative SMP
NONE PROVIDED

Name of Alternative SMP
NONE PROVIDED

Other Permits

40. Identify other DEC permits, existing and new, that are required for this project/facility.
None

If SPDES Multi-Sector GP, then give permit ID
NONE PROVIDED

If Other, then identify
NONE PROVIDED

41. Does this project require a US Army Corps of Engineers Wetland Permit?
No

If "Yes," then indicate Size of Impact, in acres, to the nearest tenth
NONE PROVIDED

42. 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.
NONE PROVIDED

MS4 SWPPP Acceptance

43. Is this project subject to the requirements of a regulated, traditional land use control MS4?
Yes - Please attach the MS4 Acceptance form below

If No, skip question 44

44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?
NONE PROVIDED

MS4 SWPPP Acceptance Form Download
Download form from the link below. Complete, sign, and upload.
MS4 SWPPP Acceptance Form

MS4 Acceptance Form Upload
NONE PROVIDED
Comment
NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download
Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF, 45KB)

Upload Owner/Operator Certification Form
NONE PROVIDED
Comment
NONE PROVIDED

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges From Construction Activity (GP-0-20-001)

Project Site Information

Project/Site Name

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

Certification Statement – SWPPP Preparer

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.

First name | MI | Last Name

Signature | Date

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: _____

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

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.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
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 Information
11. Name of MS4:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Contact Person:
14. Street Address:
15. City/State/Zip:
16. 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 question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, 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 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

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 ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. 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? □ yes □ no (If no, explain on Page 2)

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 □ no

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? □ yes □ no

(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 question 5 to submit the Notice of Termination at this time.

Printed Name:	
Title/Position:	
Signature:	Date:

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 defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. 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:

VIII. Qualified Inspector Certification - Post-construction Stormwater 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 D

Contractor/Subcontractors; Name, Responsibilities, and Certification Statements & Training Cards and Numbers

Contractor/Subcontractors; Name, Responsibilities, and Certification Statements

CONTRACTORS' CERTIFICATION

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions 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 terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit 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."

Project Title: _____

1.) Name (please print) _____
Prime or General Contractor, President (or print title)

Signature: _____ Date: _____

_____
For (Company Name and Address) Responsible For

2.) Name (please print) _____
Subcontractor, President (or print title)

Signature: _____ Date: _____

_____
For (Company Name and Address) Responsible For

3.) Name (please print) _____
Subcontractor, President (or print title)

Signature: _____ Date: _____

_____
For (Company Name and Address) Responsible For

Appendix E

Contractor's Storage Of Construction and Waste Materials & Non-Soil Pollution Prevention Measures

Project Title: _____

Description of Pollution Prevention Measures to Control Construction Litter, Construction Chemicals and Debris

I. Pollution Prevention Measures (from Construction-Phase Operations other than soil disturbance)

A. _____ (site superintendent responsible for the day-to-day site operations) will be the spill prevention and cleanup coordinator.

B. Product Specific Practices:

The following product specific practices will be followed onsite:

1. Petroleum Products - All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.
2. Fertilizers - Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into 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 - All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed according to manufacturers' instructions or state and local regulations.
4. Concrete Trucks - Concrete trucks will only be allowed to wash out or discharge surplus concrete at the designated concrete washout areas depicted on the Site Development Plans (see Appendix B) and in conformance with New York State Standards and Specifications for Erosion and Sediment Control (Blue Book).
5. Waste Disposal - All waste materials will be collected and stored in a securely lidded metal dumpster rented from _____, which is a licensed solid waste management company in _____ (city). The dumpster will meet all local and any State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as often as necessary, and the trash will be hauled to _____ (landfill). No construction waste materials will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer. _____ (site superintendent responsible for the day-to-day site operations), will be responsible for seeing that these procedures are followed.
6. Hazardous Waste - All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer. Site personnel will be instructed in these

practices. _____ (site superintendent responsible for the day-to-day site operations) will be responsible for seeing that these practices are followed.

7. Sanitary Waste - All sanitary waste will be collected from the portable units a minimum of three times per week by _____, a licensed sanitary waste management contractor.
8. Recyclable Waste - All recyclable waste (cardboard, wood etc.) shall be collected and recycled.

II. On-Site Storage of Construction and Waste Materials

A. **Spill Prevention Inventory:** The materials or substances listed below are expected to be present onsite during construction: (Check appropriate boxes)

☐ Concrete	☐ Detergents	☐ Roofing shingles
☐ Metal studs	☐ Paints (enamel and latex)	☐ Wood
☐ Petroleum-based products	☐ Fertilizers	☐ Tar
☐ Masonry block	☐ Cleaning solvents	☐ Other (specify)

B. Material Management Practices

The following are the management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances listed above to stormwater runoff:

☐ Products will be kept in original containers unless they are not resealable.

☐ Original labels and material safety data sheets will be retained; they contain important product information.

☐ An effort will be made to store only enough product required to do the job.

☐ All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure and/or on blacktop.

☐ Products will be kept in their original containers with the original manufacturer's label.

☐ Substances will not be mixed with one another unless recommended by the manufacturer.

☐ Whenever possible, all of a product will be used up before disposing of the container.

☐ Manufacturer's recommendations for proper use and disposal will be followed.

☐ The site superintendent will inspect daily to ensure the proper use and disposal of materials onsite.

- ☐ Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- ☐ Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- ☐ All spills will be cleaned up immediately after discovery.
- ☐ The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- ☐ Spills, of any size, of toxic or hazardous material will be reported to the appropriate State or local government agency.
- ☐ The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.

Appendix F

Soils Report, Soil Map, Drainage Info/Maps

United States Department of Agriculture

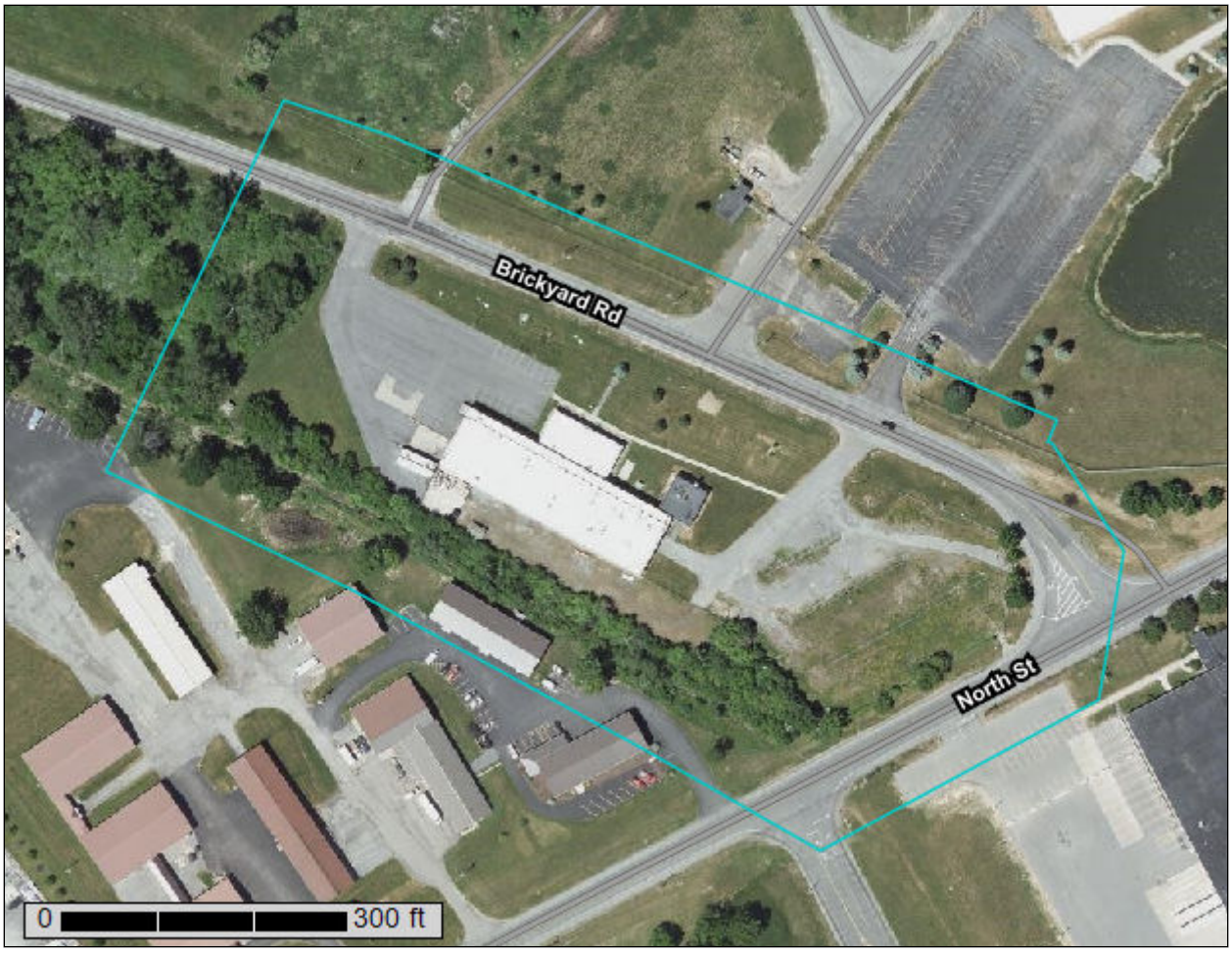
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Ontario County, New York

Artisan Meats



February 1, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

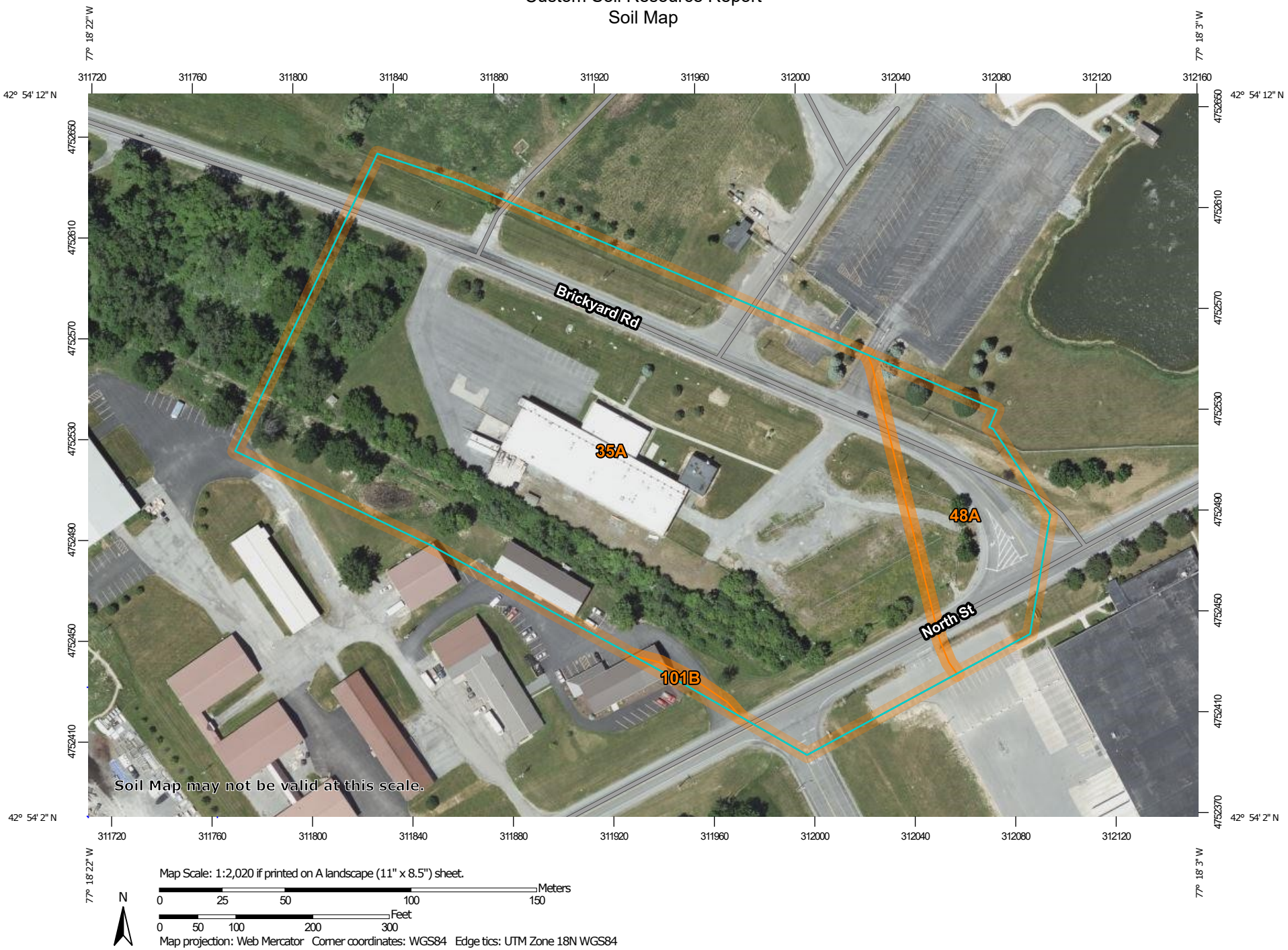
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


77° 18' 22" W
77° 18' 3" W
42° 54' 12" N
42° 54' 2" N
311720
311760
311800
311840
311880
311920
311960
312000
312040
312080
312120
312160
4752650
4752610
4752570
4752530
4752490
4752450
4752410
4752370
Brickyard Rd
North St
35A
48A
101B
Soil Map may not be valid at this scale.
Map Scale: 1:2,020 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 25 50 100 150
Feet
0 50 100 200 300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- 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
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- 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 1:12,000.

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.

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

Soil Survey Area: Ontario County, New York
Survey Area Data: Version 19, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 4, 2020—Jun 17, 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
35A	Odessa silt loam, 0 to 3 percent slopes	9.2	87.9%
48A	Arkport fine sandy loam, 0 to 3 percent slopes	1.2	11.8%
101B	Honeoye loam, 3 to 8 percent slopes	0.0	0.3%
Totals for Area of Interest		**10.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Ontario County, New York

35A—Odessa silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2wrd8
Elevation: 260 to 1,540 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Odessa and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Odessa

Setting

Landform: Lake terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Red clayey glaciolacustrine deposits derived from calcareous shale

Typical profile

Ap - 0 to 8 inches: silt loam
Bt/E - 8 to 10 inches: silty clay loam
Bt1 - 10 to 15 inches: silty clay
Bt2 - 15 to 25 inches: silty clay
C - 25 to 79 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: F101XY009NY - Moist Lake Plain
Hydric soil rating: No

Minor Components

Lakemont

Percent of map unit: 5 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Schoharie

Percent of map unit: 5 percent
Landform: Lake terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Churchville

Percent of map unit: 3 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Rhinebeck

Percent of map unit: 2 percent
Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

48A—Arkport fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 227zv
Elevation: 400 to 1,400 feet
Mean annual precipitation: 31 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 107 to 171 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Arkport and similar soils: 95 percent

Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arkport

Setting

Landform: Deltas on lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Glaciofluvial or deltaic deposits with a high content of fine and very fine sand

Typical profile

H1 - 0 to 11 inches: fine sandy loam
H2 - 11 to 13 inches: fine sandy loam
H3 - 13 to 28 inches: loamy fine sand
H4 - 28 to 33 inches: fine sandy loam
H5 - 33 to 56 inches: loamy fine sand
H6 - 56 to 60 inches: fine sandy loam
H7 - 60 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Ecological site: F101XY005NY - Dry Outwash
Hydric soil rating: No

Minor Components

Dunkirk

Percent of map unit: 3 percent
Landform: Lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Galen

Percent of map unit: 2 percent
Landform: Deltas on lake plains
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

101B—Honeoye loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w3np
Elevation: 470 to 1,340 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Honeoye and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Honeoye

Setting

Landform: Till plains, ridges, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 8 inches: loam
E - 8 to 10 inches: silt loam
Bt/E - 10 to 14 inches: loam
Bt1 - 14 to 23 inches: loam
Bt2 - 23 to 29 inches: gravelly loam
C - 29 to 79 inches: gravelly loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent

Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Lima

Percent of map unit: 5 percent
Landform: Till plains, ridges, drumlins
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Lansing

Percent of map unit: 4 percent
Landform: Till plains, hills, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Kendaia

Percent of map unit: 4 percent
Landform: Till plains, ridges, drumlins
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Wassaic

Percent of map unit: 2 percent
Landform: Till plains, ridges, benches
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Water Management

Water Management interpretations are tools for evaluating the potential of the soil in the application of various water management practices. Example interpretations include pond reservoir area, embankments, dikes, levees, and excavated ponds.

Stormwater Management - Infiltration (NY)

Proper management of stormwater runoff from construction sites and developed areas is an issue of growing importance in New York State. During construction, exposed soil is subject to a greater risk of erosion, resulting in a greater potential for sedimentation in waterways. Stormwater runoff increases on the rooftops of buildings, paved parking lots, and other impervious surfaces, and thus increases the potential for flooding and discharge of polluted runoff into open water. Management of stormwater runoff can prevent or reduce the availability, release, or transport of substances that can degrade surface and ground waters. Guidelines and design criteria for stormwater management practices have been established by the New York State Department of Environmental Conservation (2008).

This interpretation is designed to evaluate the limitations of soils for stormwater management practices. The purpose of the interpretation is to help decision makers use soil survey information in the selection and implementation of the stormwater management practices best suited to a particular location. The information in the interpretations is intended for planning purposes and does not eliminate the need for on-site investigation of the soil.

Rating class terms indicate the extent to which the soils are limited by the soil features that influence the design, construction, and performance of stormwater management practices. "Least limited" indicates that the soil has features that are

very favorable for this practice. Good performance and low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the practice. The limitations can be overcome or minimized by special planning, design, or construction. Fair performance and moderate maintenance can be expected. "Most limited" indicates that the soil has one or more features that are unfavorable for the practice. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive construction procedures. Poor performance and high maintenance can be expected.

The rating class is based on the maximum value of the rating indices generated for each soil feature considered. Where the rating value is:

equal to 0.0, the rating class is "least limited."

greater than 0 and less than 1.0, the rating class is "somewhat limited."

equal to 1.0, the rating class is "most limited."

Design criteria in the "New York State Stormwater Management Design Manual" (New York State Department of Environmental Conservation, 2008) were used to guide the selection of potentially limiting soil properties. Additional limiting features incorporated into the interpretations are based on soil function for the specific practice.

Infiltration Practices

This interpretation evaluates the limitations of soils for stormwater management infiltration practices. Infiltration practices collect stormwater runoff in basins (or trenches) for storage prior to filtration through undisturbed soil in the basin (or trench) floor and sides. Deep, well drained, and permeable soils are required for implementing infiltration practices. Following is a synopsis of the soil features considered in this interpretation.

Excessive permeability: Excessive permeability in one or more layers may allow stormwater to move rapidly through the soil without sufficient filtering, resulting in a potential for groundwater contamination. Additional pretreatment or soil amendments may be required as part of an infiltration practice. The interpretation evaluates the range (low to high) of permeability values for the most transmissive layer in the soil.

Low permeability: Low permeability restricts movement of water through the soil, impeding the infiltration function. The interpretation evaluates the range (low to high) of permeability values for the least transmissive layer in the soil.

Slope gradient: Excessive slope limits the functionality of an infiltration practice. The representative slope gradient percent for the soil component is the property evaluated.

Depth to bedrock: Limited depth to bedrock impedes excavation and restricts infiltration. The minimum depth to bedrock is the property evaluated.

Depth to manufactured layer: In urban areas, some anthropogenic (human-altered) soils have a restrictive layer, such as pavement, below the surface. Limited depth to this feature impedes excavation and restricts infiltration. The minimum depth to a manufactured layer is the property evaluated.

Depth to saturation: A seasonal high water table in the upper part of the soil limits the storage capacity of an infiltration practice. The interpretation evaluates the minimum depth to a zone of saturation.

Excessive fines: Soils with a high content of silt and clay may become plugged with sediment from stormwater, resulting in restricted infiltration. The interpretation evaluates the weighted average of the percent clay and percent silt, for depths greater than 36 inches.

In addition to soil characteristics, other attributes of the site and the surrounding area are important factors in planning and implementing stormwater management practices. For example, proximity and slope direction from the installation practice to a drinking water well are important considerations when sites for infiltration practices are selected.

The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed in the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one listed for the map unit. The percent composition of these components is described. As a result, the percentage of the rating class in the map unit is indicated.

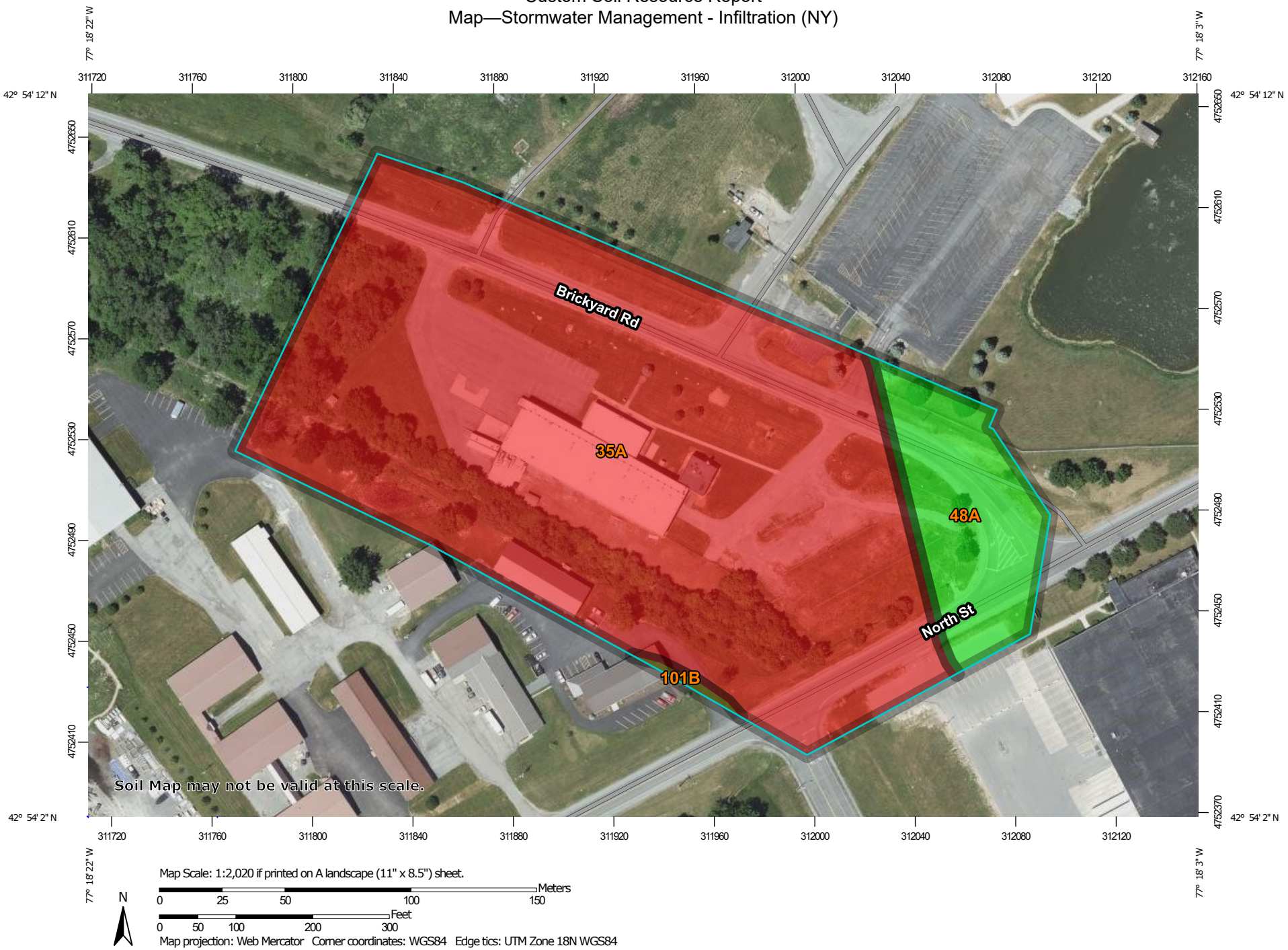
Other components with different ratings may occur in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the "Stormwater Management (NY)" report from the Soil Reports tab in Web Soil Survey.

References:

New York State Department of Environmental Conservation. April 2008. New York State Stormwater Management Design Manual.

New York State Department of Environmental Conservation. June 2000. Urban/ Stormwater Runoff Management Practices Catalogue for Nonpoint Source Pollution Prevention in New York State.

Map—Stormwater Management - Infiltration (NY)



Map Scale: 1:2,020 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 25 50 100 150

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Soil Rating Lines
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Soil Rating Points
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Water Features
- 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 1:12,000.

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.

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

Soil Survey Area: Ontario County, New York
Survey Area Data: Version 19, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 4, 2020—Jun 17, 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.

Tables—Stormwater Management - Infiltration (NY)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
35A	Odessa silt loam, 0 to 3 percent slopes	Most limited	Odessa (85%)	Low permeability (1.00)	9.2	87.9%
				Depth to saturation (1.00)		
				Excessive fines (1.00)		
			Lakemont (5%)	Low permeability (1.00)		
				Depth to saturation (1.00)		
				Excessive fines (1.00)		
			Schoharie (5%)	Low permeability (1.00)		
				Depth to saturation (1.00)		
				Excessive fines (1.00)		
			Churchville (3%)	Depth to saturation (1.00)		
				Low permeability (0.50)		
			Rhinebeck (2%)	Low permeability (1.00)		
				Depth to saturation (1.00)		
				Excessive fines (1.00)		
48A	Arkport fine sandy loam, 0 to 3 percent slopes	Least limited	Arkport (95%)		1.2	11.8%
101B	Honeoye loam, 3 to 8 percent slopes	Somewhat limited	Honeoye (85%)	Excessive fines (0.50)	0.0	0.3%
			Lansing (4%)	Excessive fines (0.50)		
Totals for Area of Interest					**10.5**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Most limited	9.2	87.9%

Rating	Acres in AOI	Percent of AOI
Least limited	1.2	11.8%
Somewhat limited	0.0	0.3%
Totals for Area of Interest	**10.5**	**100.0%**

Rating Options—Stormwater Management - Infiltration (NY)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Stormwater Management - Ponds (NY)

Proper management of stormwater runoff from construction sites and developed areas is an issue of growing importance in New York State. During construction, exposed soil is subject to a greater risk of erosion, resulting in a greater potential for sedimentation in waterways. Stormwater runoff increases on the rooftops of buildings, paved parking lots, and other impervious surfaces, and thus increases the potential for flooding and discharge of polluted runoff into open water. Management of stormwater runoff can prevent or reduce the availability, release, or transport of substances that can degrade surface and ground waters. Guidelines and design criteria for stormwater management practices have been established by the New York State Department of Environmental Conservation (2008).

This interpretation is designed to evaluate the limitations of soils for stormwater management practices. The purpose of the interpretation is to help decision makers use soil survey information in the selection and implementation of the stormwater management practices best suited to a particular location. The information in the interpretations is intended for planning purposes and does not eliminate the need for on-site investigation of the soil.

Rating class terms indicate the extent to which the soils are limited by the soil features that influence the design, construction, and performance of stormwater management practices. "Least limited" indicates that the soil has features that are very favorable for this practice. Good performance and low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the practice. The limitations can be overcome or minimized by special planning, design, or construction. Fair performance and moderate maintenance can be expected. "Most limited" indicates that the soil has one or more features that are unfavorable for the practice. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive construction procedures. Poor performance and high maintenance can be expected.

The rating class is based on the maximum value of the rating indices generated for each soil feature considered. Where the rating value is:

equal to 0.0, the rating class is "least limited."

greater than 0 and less than 1.0, the rating class is "somewhat limited."

equal to 1.0, the rating class is "most limited."

Design criteria in the "New York State Stormwater Management Design Manual" (New York State Department of Environmental Conservation, 2008) were used to guide the selection of potentially limiting soil properties. Additional limiting features incorporated into the interpretations are based on soil function for the specific practice.

Pond Practices

This interpretation is designed to evaluate the limitations of soils for stormwater management ponds (excluding small "pocket ponds"). Although designs vary, most stormwater ponds are excavated, have a dam with a spillway, a separate forebay area, and a permanent pool 4 to 6 feet deep. Such designs detain stormwater for a number of days to a few weeks, allowing pollutants to settle out while aiding biological uptake of nutrients. Following is a synopsis of the soil features considered in this interpretation.

Permeability: Excessive permeability limits the capability of the soil to retain water. The interpretation evaluates the representative permeability in the least transmissive layer (minimum) and the bottom layer, excluding bedrock.

Slope gradient: Excessive slope reduces the feasibility of constructing a pond. The representative slope gradient percent for the soil component is the property evaluated.

Depth to bedrock: Limited depth to bedrock impedes excavation and construction of the pond. Minimum depth to bedrock is the property evaluated. The severity of the depth limitation increases as slope gradient increases, since the bedrock impedes grading and shaping of the land. The interpretation also evaluates slope gradient percent in conjunction with depth to bedrock.

Depth to manufactured layer: In urban areas, some anthropogenic (human-altered) soils have a restrictive layer, such as pavement, below the surface. Limited depth to this restriction impedes excavation and construction of the pond. The minimum depth to a manufactured layer is the property evaluated. The severity of the depth limitation increases as slope gradient increases, since the pavement or other restriction impedes grading and shaping of the land. The interpretation also evaluates slope gradient percent in conjunction with depth to a manufactured layer.

Flooding: Flooding limits the storage capacity of the pond and may degrade the quality of the site. The interpretation evaluates the flooding frequency of the soil.

Depth to saturation: A seasonal high water table at the surface of the soil limits the storage capacity of the pond. The interpretation evaluates the minimum depth to a zone of saturation.

In addition to soil characteristics, other attributes of the site and the surrounding area are important factors in planning and implementing stormwater ponds. For example, an increase in the runoff-generating potential and size of a contributing area upslope from the proposed pond site generally increases the size of the required area with suitable soils for constructing the stormwater pond.

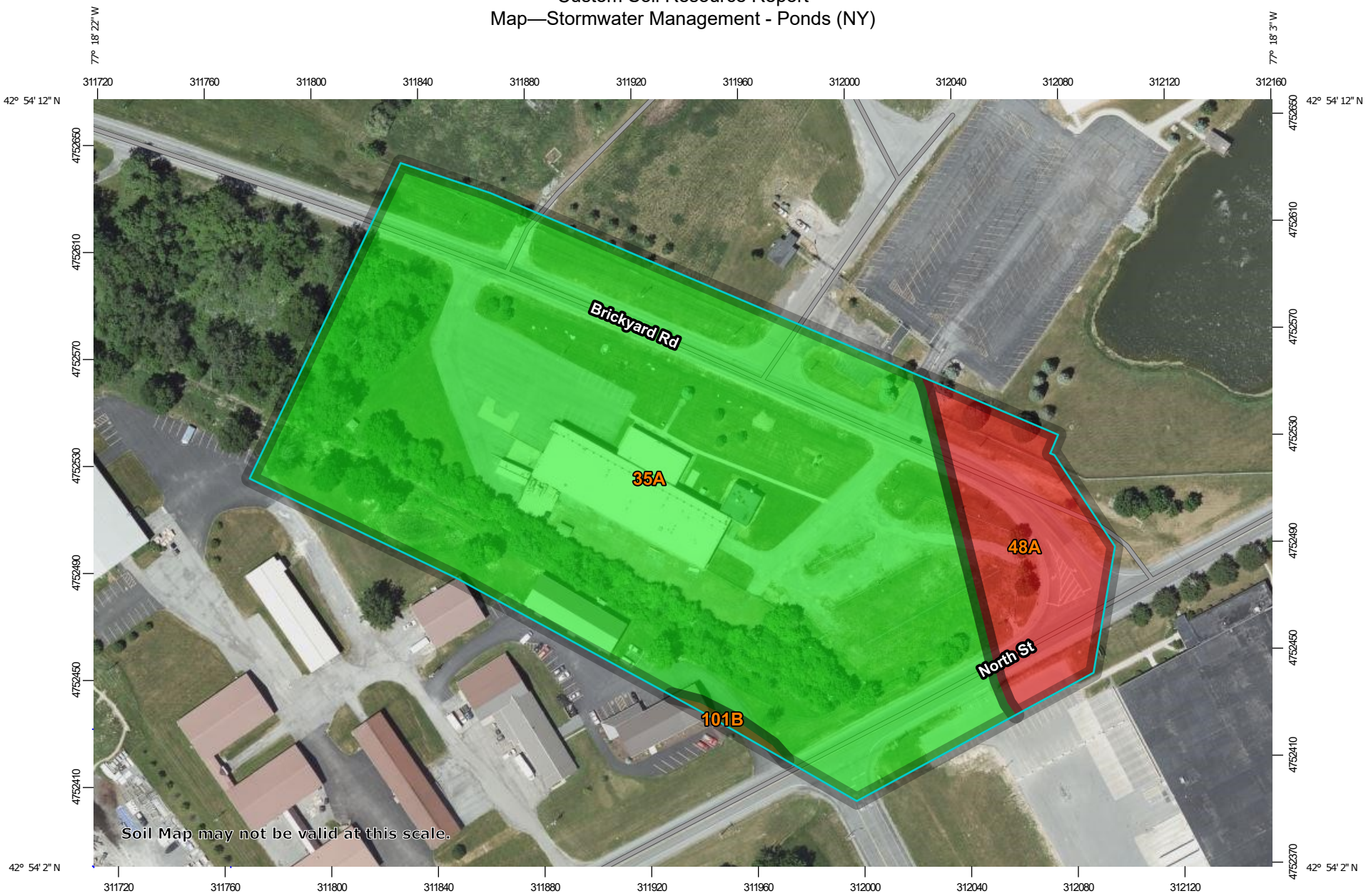
The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed in the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one listed for the map unit. The percent composition of these components is described. As a result, the percentage of the rating class in the map unit is indicated.

Other components with different ratings may occur in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the "Stormwater Management (NY)" report from the Soil Reports tab in Web Soil Survey.

References:

New York State Department of Environmental Conservation. April 2008. New York State Stormwater Management Design Manual.

New York State Department of Environmental Conservation. June 2000. Urban/ Stormwater Runoff Management Practices Catalogue for Nonpoint Source Pollution Prevention in New York State.



Map Scale: 1:2,020 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 25 50 100 150

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Soil Rating Lines
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Soil Rating Points
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Water Features
- 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 1:12,000.

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.

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

Soil Survey Area: Ontario County, New York
Survey Area Data: Version 19, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 4, 2020—Jun 17, 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.

Tables—Stormwater Management - Ponds (NY)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
35A	Odessa silt loam, 0 to 3 percent slopes	Least limited	Odessa (85%)		9.2	87.9%
			Schoharie (5%)			
			Churchville (3%)			
			Rhinebeck (2%)			
48A	Arkport fine sandy loam, 0 to 3 percent slopes	Most limited	Arkport (95%)	Excessive permeability (1.00)	1.2	11.8%
			Galen (2%)	Excessive permeability (1.00)		
101B	Honeoye loam, 3 to 8 percent slopes	Somewhat limited	Honeoye (85%)	Slope (0.50)	0.0	0.3%
			Lima (5%)	Slope (0.50)		
			Kendaia (4%)	Slope (0.50)		
			Lansing (4%)	Slope (0.50)		
Totals for Area of Interest					**10.5**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Least limited	9.2	87.9%
Most limited	1.2	11.8%
Somewhat limited	0.0	0.3%
Totals for Area of Interest	**10.5**	**100.0%**

Rating Options—Stormwater Management - Ponds (NY)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Stormwater Management - Wetlands (NY)

Proper management of stormwater runoff from construction sites and developed areas is an issue of growing importance in New York State. During construction, exposed soil is subject to a greater risk of erosion, resulting in a greater potential for sedimentation in waterways. Stormwater runoff increases on the rooftops of buildings, paved parking lots, and other impervious surfaces, and thus increases the potential for flooding and discharge of polluted runoff into open water. Management of stormwater runoff can prevent or reduce the availability, release, or transport of substances that can degrade surface and ground waters. Guidelines and design

criteria for stormwater management practices have been established by the New York State Department of Environmental Conservation (2008).

This interpretation is designed to evaluate the limitations of soils for stormwater management practices. The purpose of the interpretation is to help decision makers use soil survey information in the selection and implementation of the stormwater management practices best suited to a particular location. The information in the interpretations is intended for planning purposes and does not eliminate the need for on-site investigation of the soil.

Rating class terms indicate the extent to which the soils are limited by the soil features that influence the design, construction, and performance of stormwater management practices. "Least limited" indicates that the soil has features that are very favorable for this practice. Good performance and low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the practice. The limitations can be overcome or minimized by special planning, design, or construction. Fair performance and moderate maintenance can be expected. "Most limited" indicates that the soil has one or more features that are unfavorable for the practice. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive construction procedures. Poor performance and high maintenance can be expected.

The rating class is based on the maximum value of the rating indices generated for each soil feature considered. Where the rating value is:

equal to 0.0, the rating class is "least limited."

greater than 0 and less than 1.0, the rating class is "somewhat limited."

equal to 1.0, the rating class is "most limited."

Design criteria in the "New York State Stormwater Management Design Manual" (New York State Department of Environmental Conservation, 2008) were used to guide the selection of potentially limiting soil properties. Additional limiting features incorporated into the interpretations are based on soil function for the specific practice.

Wetland Practices

This interpretation is designed to evaluate the limitations of soils for stormwater management wetlands. These are constructed, shallow-water areas designed to simulate the water quality improvement function of natural wetlands, as a stand-alone practice or as the downstream component of related practices, such as stormwater ponds or infiltration basins. Following is a synopsis of the soil features considered in this interpretation.

Permeability: Excessive permeability limits the capability of the soil to retain water. The interpretation evaluates the representative permeability in the least transmissive layer (minimum) and the bottom layer, excluding bedrock. In some

organic soils, permeability is flagged as a limitation, even though the soil is saturated for most of the year because of its low position on the landscape. A zone of saturation in the soil partially offsets the limitation of excessive permeability. Water lost from the soil may be replenished during times of the year when the soil has a seasonal high water table. The interpretation evaluates whether a seasonal zone of saturation is within the upper 3 feet of the soil.

Slope gradient: Excessive slope limits the feasibility of constructing a wetland. The representative slope gradient percent for the soil component is the property evaluated.

Depth to bedrock: Limited depth to bedrock impedes excavation and construction of a wetland. The minimum depth to bedrock is the property evaluated. The severity of the depth limitation increases as slope gradient increases, since the bedrock impedes grading and shaping of the land. The interpretation also evaluates slope gradient percent in conjunction with depth to bedrock.

Depth to manufactured layer: In urban areas, some anthropogenic (human-altered) soils have a restrictive layer, such as pavement, below the surface. Limited depth to this restriction impedes excavation and construction of a wetland. The minimum depth to a manufactured layer is the property evaluated. The severity of the depth limitation increases as slope gradient increases, since the pavement or other restrictive material impedes grading and shaping of the land. The interpretation also evaluates slope gradient percent in conjunction with depth to a manufactured layer.

Surface fragments: Large fragments on the surface, such as stones or boulders, interfere with the regrading that may be required during construction of a wetland. The interpretation evaluates the representative size and percent cover of fragments on the surface of the soil.

Flooding: Flooding interferes with the function of a wetland practice and may degrade the quality of the site. The interpretation evaluates flooding frequency of the soil.

Hydric soil: Hydric soils are saturated near the surface for extended periods during the growing season and are commonly associated with naturally existing wetlands. A hydric soil limitation flags areas that may be designated as wetlands, and thus restricted from the development of stormwater wetlands. The interpretation evaluates the hydric rating and the minimum depth to saturation for the soil.

In addition to soil characteristics, other attributes of the site and the surrounding area are important factors in planning and implementing stormwater management practices. For example, stormwater management wetlands should not be created within areas of naturally existing wetlands, so these natural areas need to be identified to avoid their degradation. On-site evaluation by a trained wetland scientist can verify the occurrence of wetlands and determine the boundaries between wetlands and uplands.

The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are

determined by the aggregation method chosen, which is displayed in the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one listed for the map unit. The percent composition of these components is described. As a result, the percentage of the rating class in the map unit is indicated.

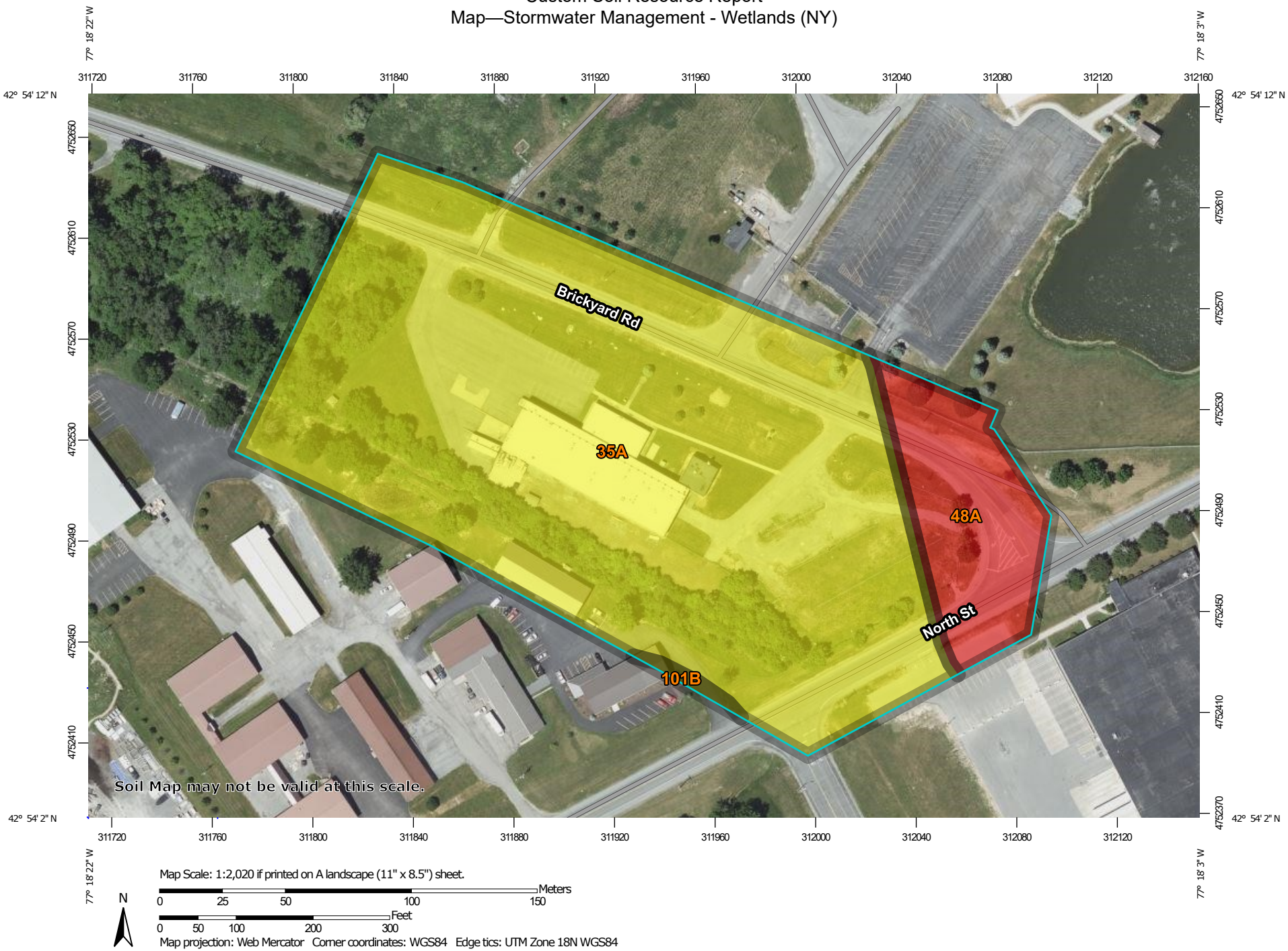
Other components with different ratings may occur in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the "Stormwater Management (NY)" report from the Soil Reports tab in Web Soil Survey.

References:

New York State Department of Environmental Conservation. April 2008. New York State Stormwater Management Design Manual.

New York State Department of Environmental Conservation. June 2000. Urban/ Stormwater Runoff Management Practices Catalogue for Nonpoint Source Pollution Prevention in New York State.

Custom Soil Resource Report
Map—Stormwater Management - Wetlands (NY)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Soil Rating Lines
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Soil Rating Points
- Most limited
- Somewhat limited
- Least limited
- Not rated or not available

Water Features
- 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 1:12,000.

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.

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

Soil Survey Area: Ontario County, New York
Survey Area Data: Version 19, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 4, 2020—Jun 17, 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.

Tables—Stormwater Management - Wetlands (NY)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
35A	Odessa silt loam, 0 to 3 percent slopes	Somewhat limited	Odessa (85%)	Potential hydric soil (0.50)	9.2	87.9%
			Lakemont (5%)	Potential hydric soil (0.50)		
			Churchville (3%)	Potential hydric soil (0.50)		
			Rhinebeck (2%)	Potential hydric soil (0.50)		
48A	Arkport fine sandy loam, 0 to 3 percent slopes	Most limited	Arkport (95%)	Excessive permeability (1.00)	1.2	11.8%
101B	Honeoye loam, 3 to 8 percent slopes	Somewhat limited	Honeoye (85%)	Slope (0.90)	0.0	0.3%
			Lima (5%)	Slope (0.90)		
			Kendaia (4%)	Slope (0.90)		
				Potential hydric soil (0.50)		
			Lansing (4%)	Slope (0.90)		
			Wassaic (2%)	Slope (0.90)		
				Depth to bedrock (0.80)		
Totals for Area of Interest					**10.5**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Somewhat limited	9.2	88.2%
Most limited	1.2	11.8%
Totals for Area of Interest	**10.5**	**100.0%**

Rating Options—Stormwater Management - Wetlands (NY)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

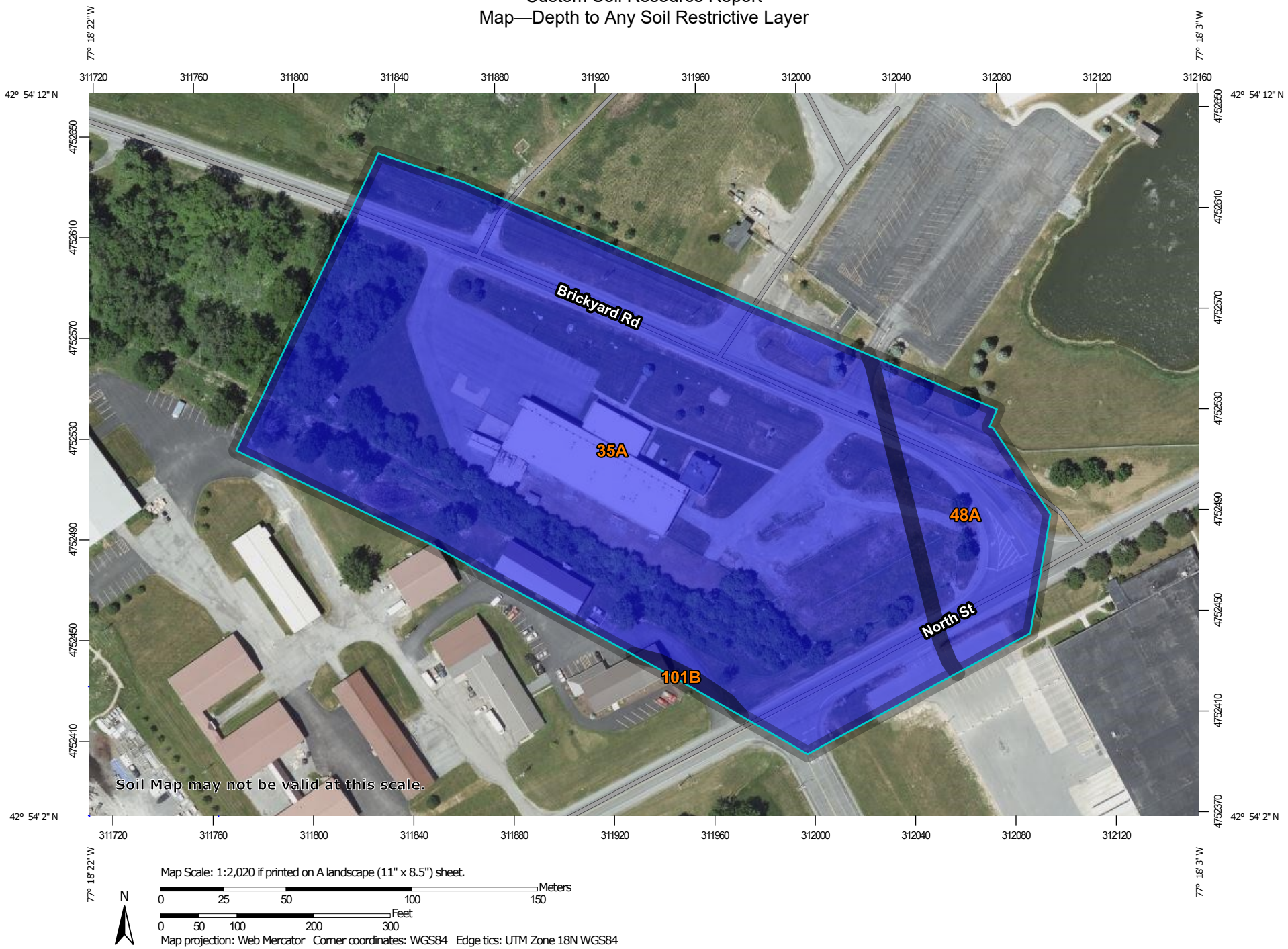
Depth to Any Soil Restrictive Layer

A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers.

This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "greater than 200" depth class.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Depth to Any Soil Restrictive Layer



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Lines

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Soil Rating Points

0 - 25

25 - 50

50 - 100

100 - 150

150 - 200

> 200

Not rated or not available

Water Features

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 1:12,000.

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.

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

Soil Survey Area: Ontario County, New York
Survey Area Data: Version 19, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 4, 2020—Jun 17, 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.

Table—Depth to Any Soil Restrictive Layer

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
35A	Odessa silt loam, 0 to 3 percent slopes	>200	9.2	87.9%
48A	Arkport fine sandy loam, 0 to 3 percent slopes	>200	1.2	11.8%
101B	Honeoye loam, 3 to 8 percent slopes	>200	0.0	0.3%
Totals for Area of Interest			**10.5**	**100.0%**

Rating Options—Depth to Any Soil Restrictive Layer

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Hydrologic Soil Group

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:

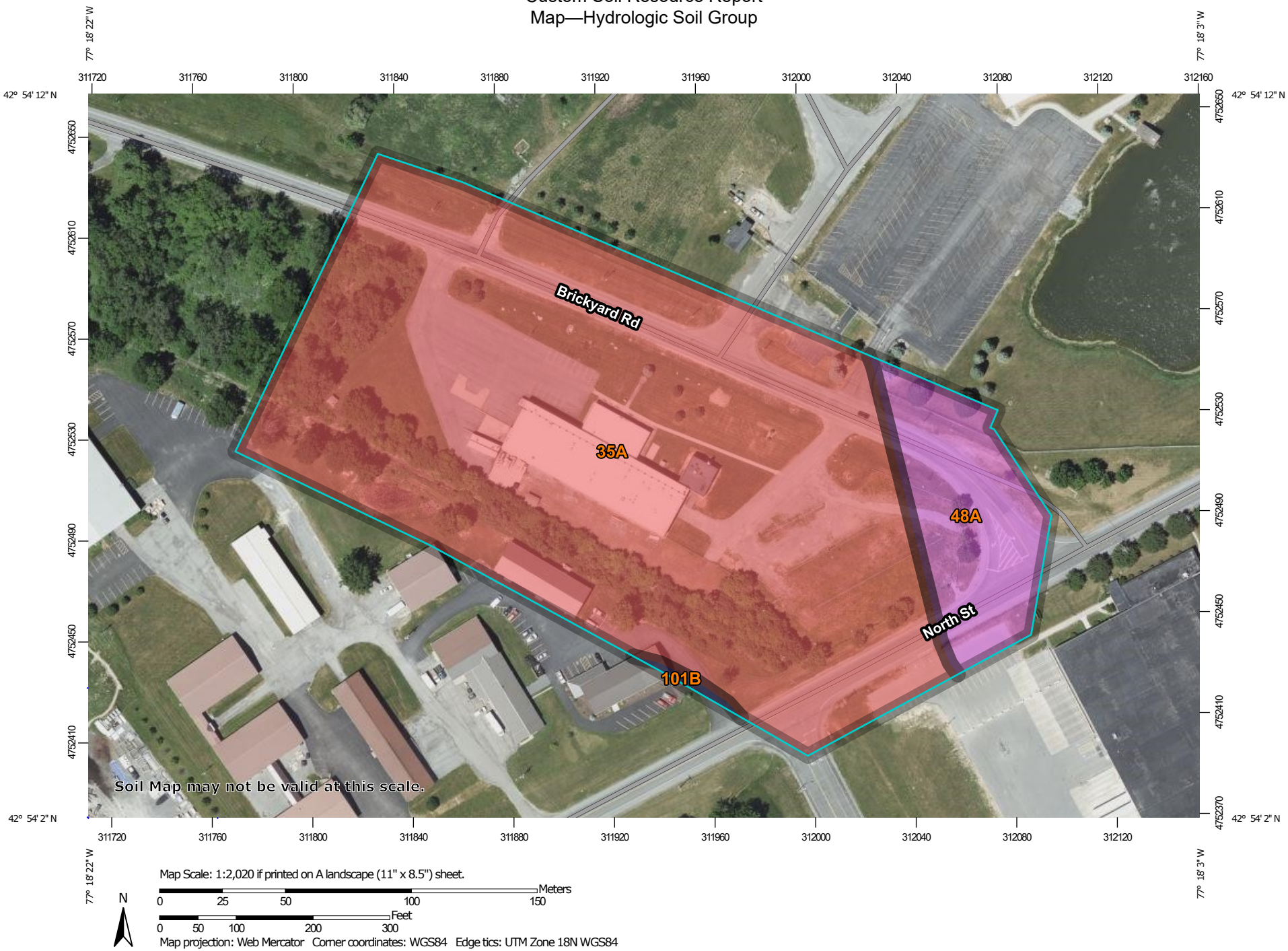
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

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.


77° 18' 22" W
77° 18' 3" W
42° 54' 12" N
42° 54' 2" N
311720
311760
311800
311840
311880
311920
311960
312000
312040
312080
312120
312160
4752650
4752610
4752570
4752530
4752490
4752450
4752410
4752370
Brickyard Rd
35A
48A
North St
101B
Soil Map may not be valid at this scale.
Map Scale: 1:2,020 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 25 50 100 150
Feet
0 50 100 200 300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

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Major Roads

Local Roads

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Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
35A	Odessa silt loam, 0 to 3 percent slopes	D	9.2	87.9%
48A	Arkport fine sandy loam, 0 to 3 percent slopes	A	1.2	11.8%
101B	Honeoye loam, 3 to 8 percent slopes	B	0.0	0.3%
Totals for Area of Interest			**10.5**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

References

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Appendix G

NYS DEC SPDES General Permit

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020 Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), 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 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, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. 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 GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

Table of Contents

Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department 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.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. 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 I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, 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 the *Stormwater Pollution Prevention Plan* (“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.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (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;

   (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 temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) 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 E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. 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 designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(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. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall 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 Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, 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 post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall 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 shall 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 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. 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 site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *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 discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) 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 discharges directly 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 Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (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 shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall 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 shall 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 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. 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 site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *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 *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) 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 *discharge*s directly 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* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) 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 Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice 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 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase 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 shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s 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 *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, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

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

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those 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"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name 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.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name 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.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive 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.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (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/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); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

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 prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained 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.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. 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 I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. 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*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department 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 shall 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 the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department 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. of this permit.

6. 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 post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions 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 terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s 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* shall 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 construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall 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);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. 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;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. 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;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. 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*;

k. 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

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. 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. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, 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.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (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;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. 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 Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *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 conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

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. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall 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 shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

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. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this 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 *trained contractor* 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. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. 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),
- New York State Erosion and Sediment Control Certificate Program holder
- 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, 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 and not directly discharging to one of the 303(d) segments listed in Appendix E;

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;

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 that involve soil disturbances between five thousand (5,000) 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.D.3 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 DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control 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 DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control 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 *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, 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.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures 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 and pollution prevention measures that need repair or maintenance;

g. 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;

h. Description and sketch 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;

i. 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 pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

l. 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 this permit 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.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; 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. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices 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,

d. for post-construction stormwater management practices 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 policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

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 Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

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). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall 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.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP 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 (5) 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.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed 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 permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) 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. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit 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.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, 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 shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be 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.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. 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 shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, 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 conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, 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 reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

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

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
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)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - 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
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
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.

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 –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means 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 - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means 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.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

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

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

Direct Discharge (to a specific surface waterbody) - means that 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) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

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

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that 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 - means that 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.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

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

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger 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 (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means 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 (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):

(i) Owned or operated by a State, city, town, 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*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

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

New Development – means 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.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means 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 –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means 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 conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means 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 - means 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 - means 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 Department 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 Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department 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 post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means 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 Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice 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 licensed to practice in the State of New York.

Redevelopment Activity(ies) – means 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.).

Regulated, Traditional Land Use Control MS4 - means 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).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- 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),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- 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,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- 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*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means 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 – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name 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.

Streambank – as used in this permit, means 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) – means 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 post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions 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 – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that 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 Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has 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. 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.6., 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 Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

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

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means 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 not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- 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 E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

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 watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- 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 projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, 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.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) 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:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *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 project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- 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

Table 2

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- 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 E
- 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 E
- 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 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 larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- 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) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- 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 over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- 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 post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- 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

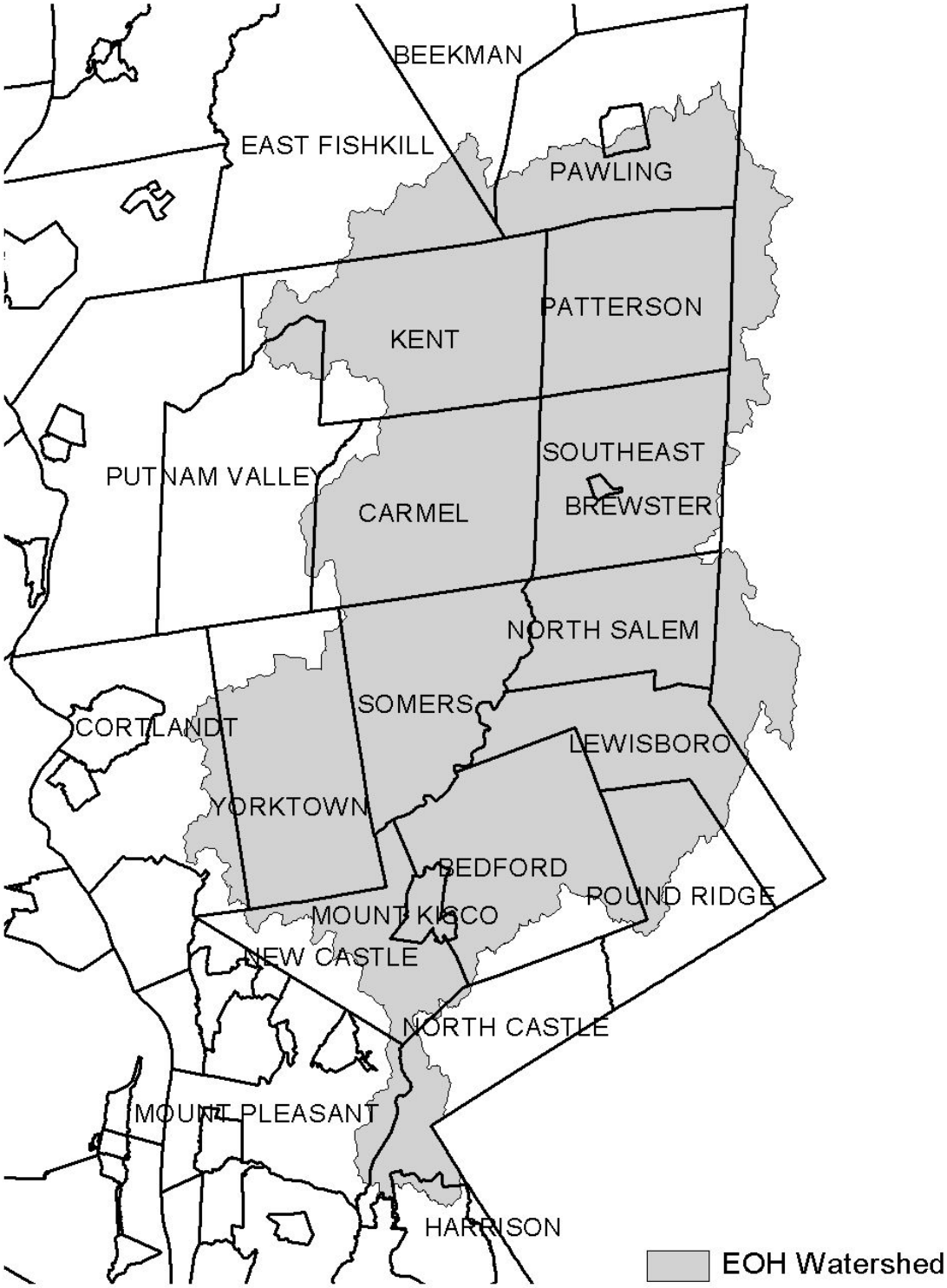


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

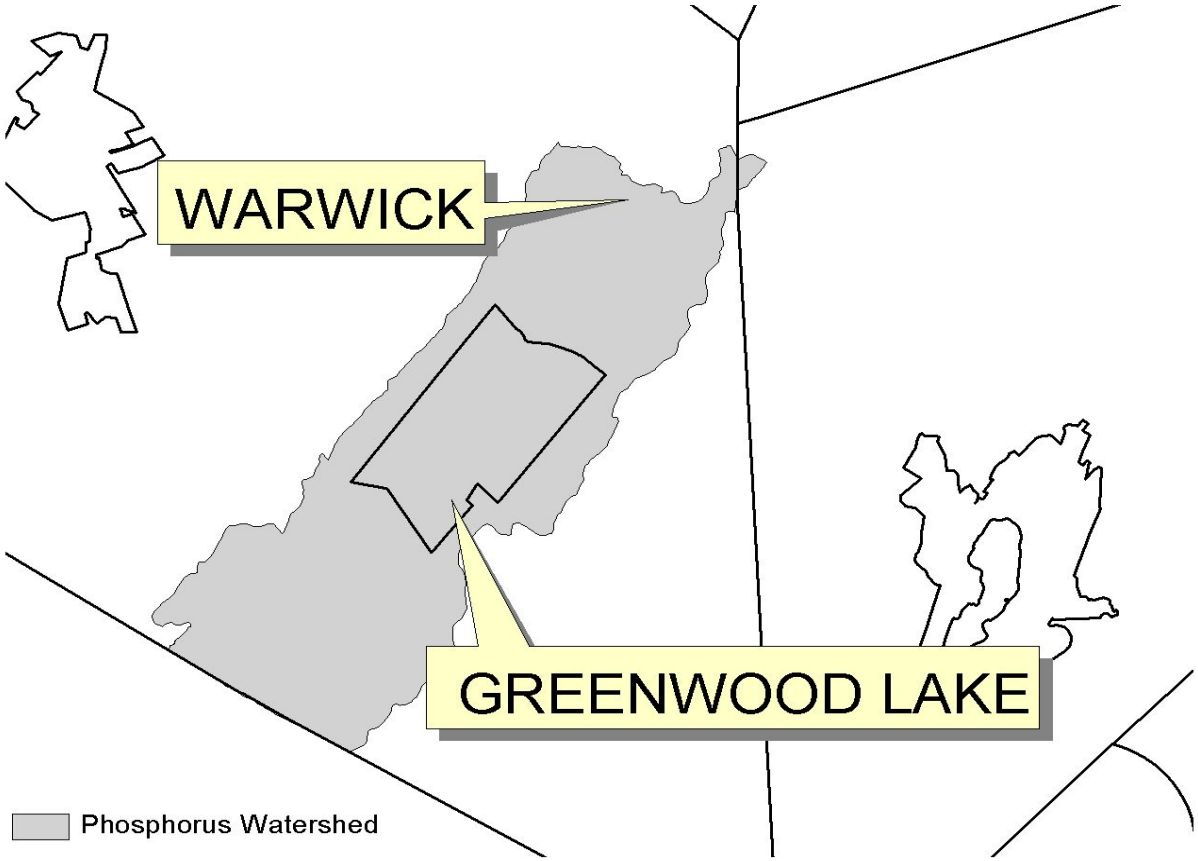


Figure 4 - Oscawana Lake Watershed

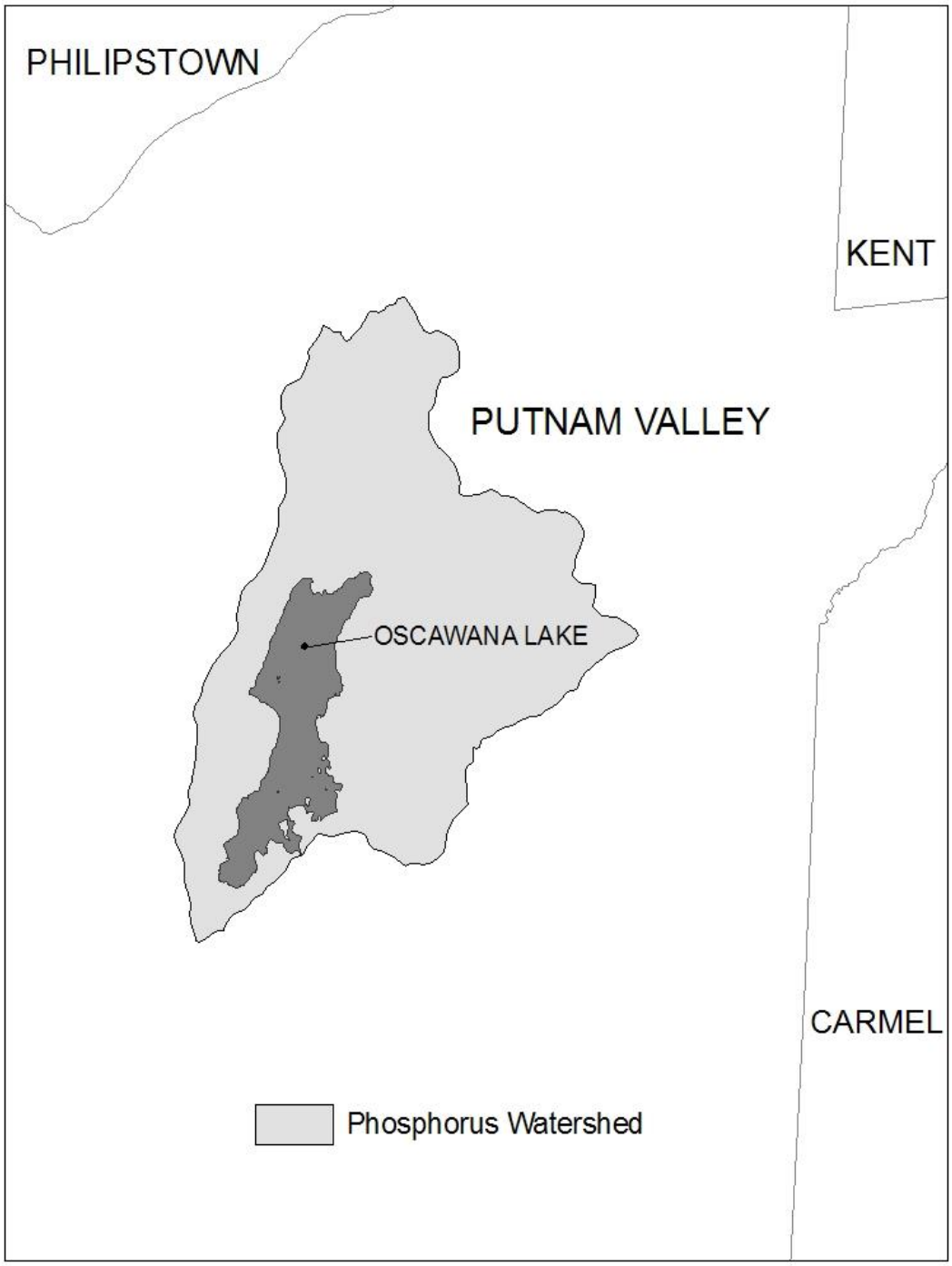
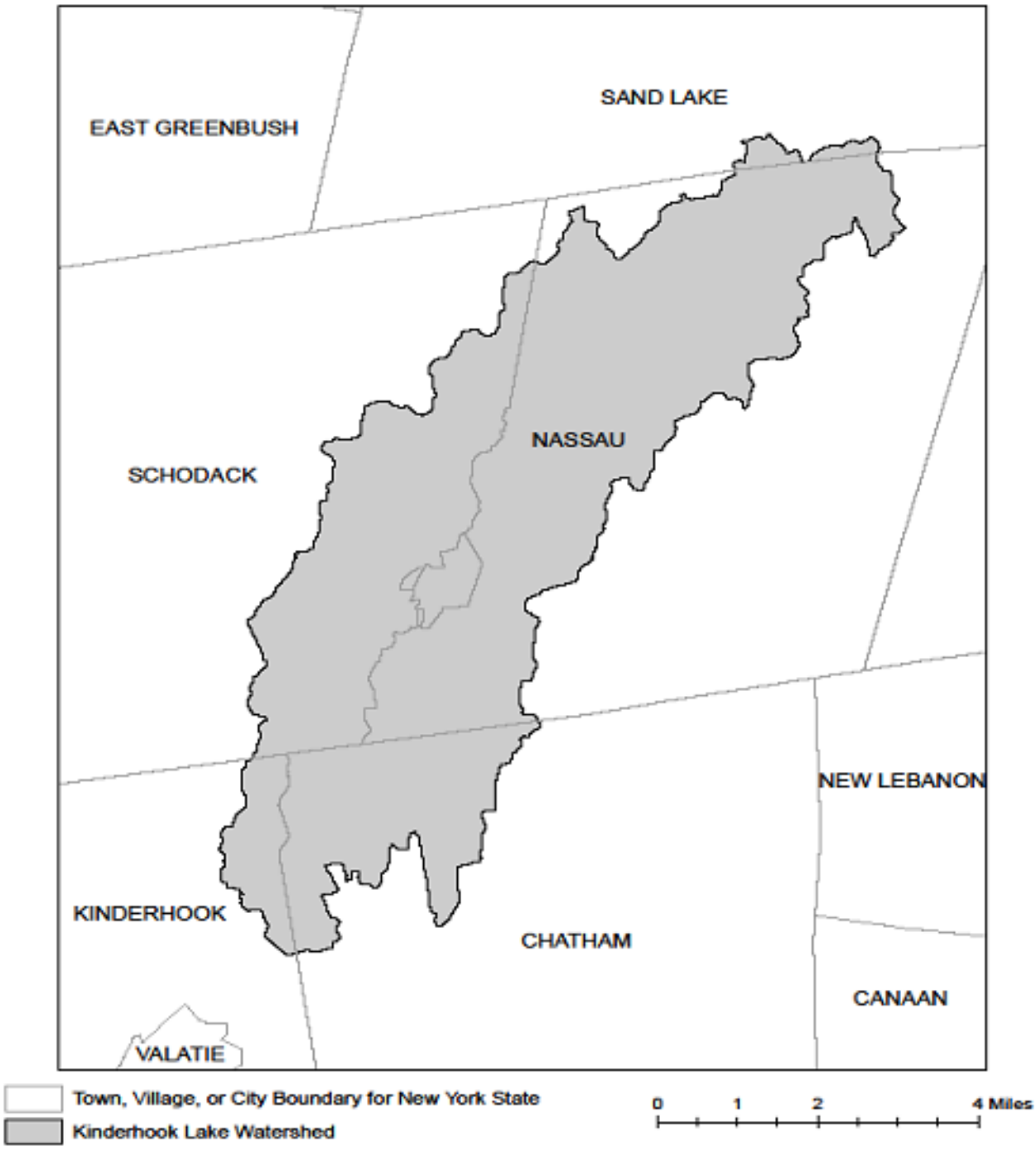


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River **-** See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

Region	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	100 Hillside Avenue, Suite 1w White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 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	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 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	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Appendix H

Construction Site Log Book

APPENDIX H

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES

CONSTRUCTION SITE LOG BOOK

Table of Contents

Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS
Project Name _____
Permit No. _____ Date of Authorization _____
Name of Operator _____
Prime Contractor _____

a. Preamble to Site Assessment and Inspections
The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

c. Qualified Professional's Credentials & Certification

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

d. Pre-construction Site Assessment Checklist
(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?
[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.
[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.
[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.
[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.
[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals
[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.
[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
[ ] [ ] [ ] The plan is contained in the SWPPP on page _____
[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:
Inspection Forms will be filled out during the entire construction phase of the project.
Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

(4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass
water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

_____	_____
Inspector (print name)	**Date of Inspection**
_____	_____
Qualified Professional (print name)	**Qualified Professional Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No NA
[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions
Yes No NA
[ ] [ ] [ ] Is construction site litter and debris appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing
Yes No NA
[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering
Yes No NA
[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader
Yes No NA
[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales
Yes No NA
[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

Runoff Control Practices (continued)

4. Stone Check Dam
Yes No NA
[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection
Yes No NA
[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles
Yes No NA
[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation
Yes No NA
[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Stabilized Construction Entrance
Yes No NA
[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence
Yes No NA
[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried 6 inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ___% of design capacity.

Sediment Control Practices (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.

Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.

Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:
1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility:	Today's Date:	Reporting Month:
Location:	Permit Identification #:	
Name and Telephone Number of Site Inspector:		

Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	Items of Concern

Owner/Operator Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

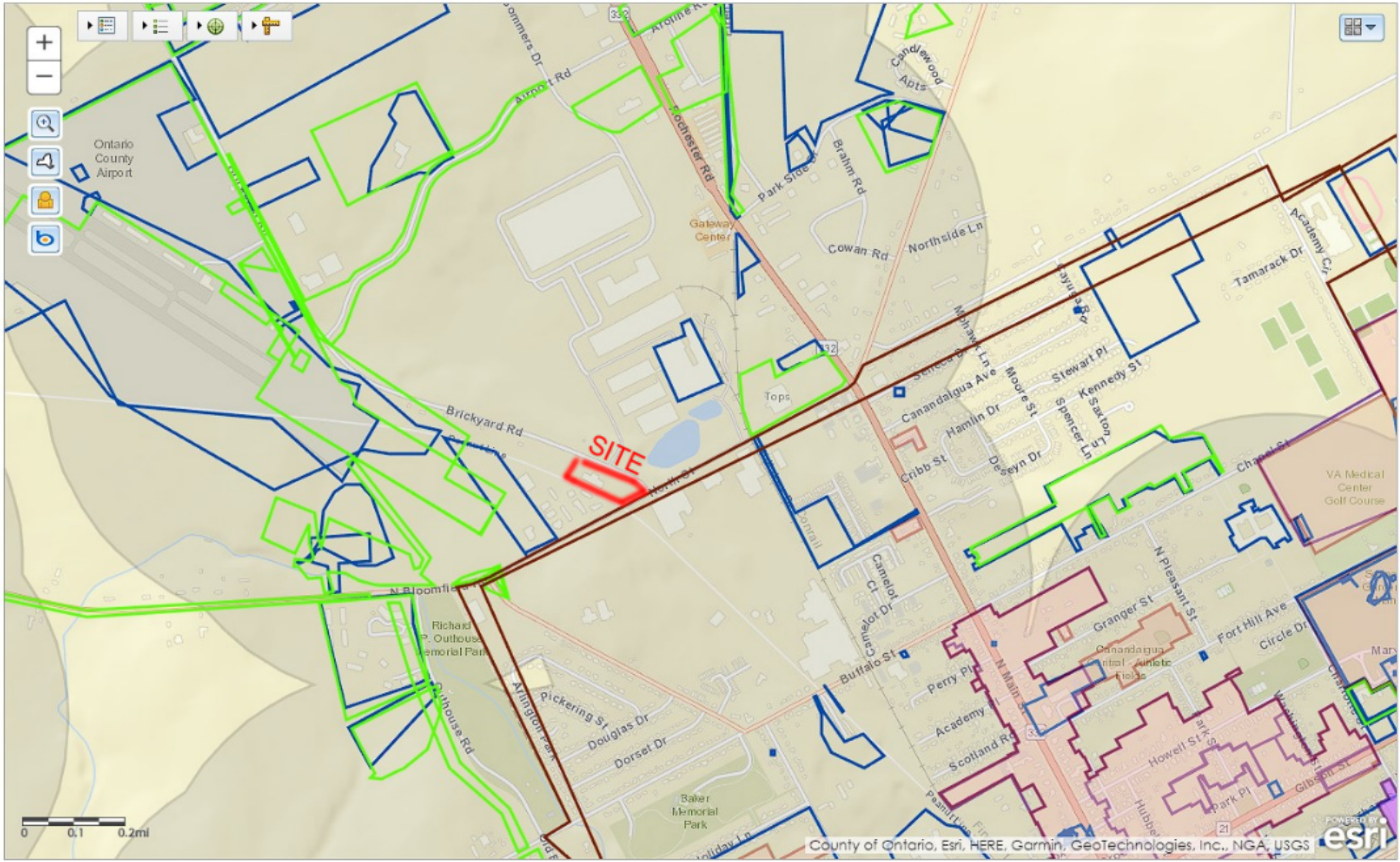
_____ _____

Signature of Permittee or Duly Authorized Representative Name of Permittee or Duly Authorized Representative Date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.

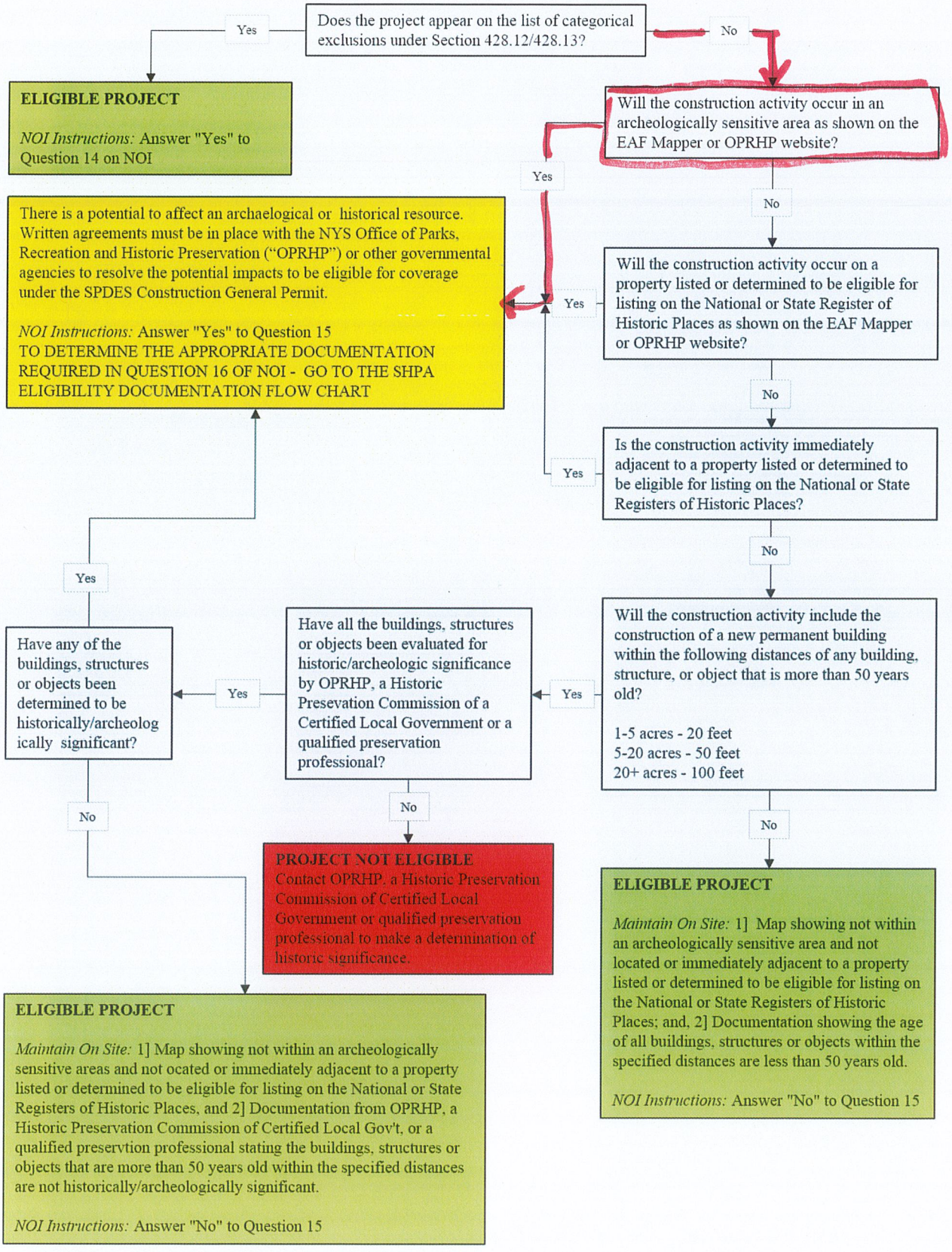
Appendix I

Documentation from NYS-Historic Preservation Office

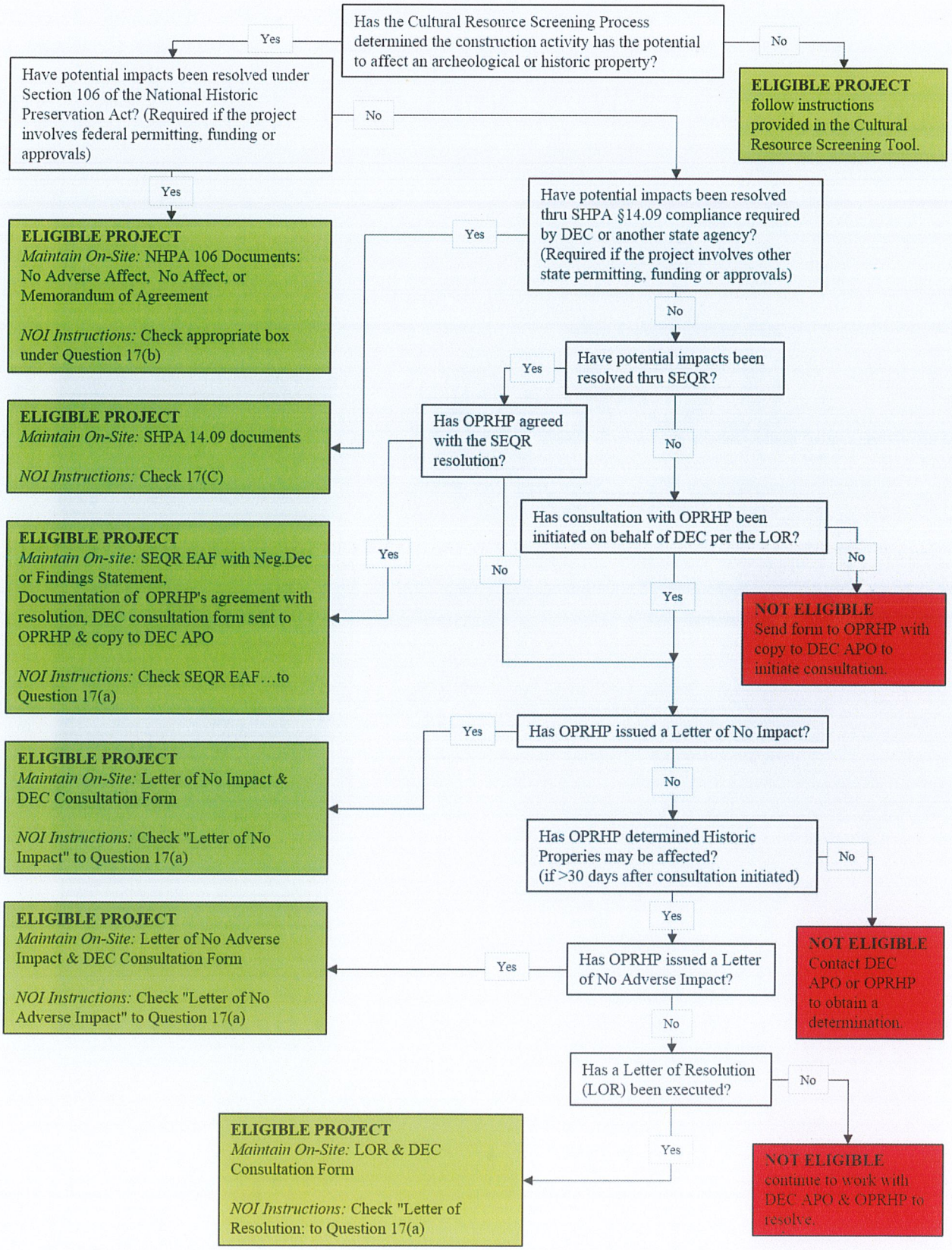


New York State Division for Historic Preservation
New York State Cultural Resource Information System (CRIS)

CULTURAL RESOURCE SCREENING PROCESS FLOW CHART



RESOLUTION OF POTENTIAL CULTURAL IMPACTS FLOW CHART



Appendix J

Corrective Action Log

Appendix K

WQv, RRv, & CPv Calculation Sheets

MARATHON ENGINEERING
39 Cascade Drive / Rochester, NY 14614 / Phone (585) 458-7770

Project: **Artisan Meats**
Project No.: **1374-22**
By: **MPT**
Date: **10/25/2022**

Water Quality Volume (WQv) Calculations:

Rv= 0.05 + 0.009 (I)
P (in)= 1 90% rainfall event number taken from Figure 4.1 in SMDM
WQv (ac-ft)= [(P)*(Rv)*(A)]/12
Rv = [(P) *0.95 * (S) * (AI)]/12

Breakdown of Watersheds:

Existing Conditions

Area ID	Total Area (acres)	Impervious Area (acres)	Area Description
Ex Disturbed	2.77	1.90	
Total	2.77	1.90	

Proposed Conditions

Area ID	Total Area (acres)	Impervious Area (acres)	Area Description
Pr Disturbed	2.77	2.09	
Total	2.77	2.09	

Calculate Initial WQv:

Area ID	Total Area (acres)	Impervious Area (acres) [1]	% Impervios (I)	Rv	WQv (ac-ft)
Total	2.77	0.67	24%	0.27	**0.06**

WQv = 0.06 ac-ft

[1] Under redevelopment conditions, 25% of existing impervious area and 100% of the proposed additional impervious area shall be treated as outlined in chapter 9 of the SMDM.

MARATHON ENGINEERING
39 Cascade Drive
Rochester NY 14614
Tel: 585-458-7770 Fax: 585-458-7776
www.marathoneng.com

JOB WQv / RRv Calc

SHEET NO. _____ OF _____

CALCULATED BY Calc P DATE 11/08/22

CHECKED BY _____ DATE _____

~~SCALE~~ _____

WQv Provided:

Bioretention = 2,220 cf

Stone Edge Treatment = 3 FT x 290 LF x 1.75 FT
= 1522 CF @ 40 % VOIDS
= 608 CF

Total WQv = 2,828 CF

RRv Provided:

40% Bioretention Volume = 888 CF

Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A	0.10	55%
B		40%
C		30%
D	**2.60**	20%
Total Area	2.7	
Calculate the Minimum RRv		
S =	**0.21**	
Impervious =	0.19	*acre*
Precipitation	1	*in*
Rv	0.95	
Minimum RRv	**140**	***ft3***
	0.00	af

Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor &

Design Point:

Enter Site Data For Drainage Area to be Treated by Practice

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Precipitation *(in)*	Description
2	0.65	0.45	0.69	0.67	1588.13	1.00	Bioretention
Enter Impervious Area Reduced by Disconnection of Rooftops			69%	0.67	1,588	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						*ft^3*	

Soil Information

Soil Group	D		
Soil Infiltration Rate	0.00	*in/hour*	*Okay*
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area

		Value	Units	Notes
WQv		1,588	*ft^3*	
Enter Depth of Soil Media	*df*	2.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.5	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**1323**	***ft^2***	

Determine Actual Bio-Retention Area

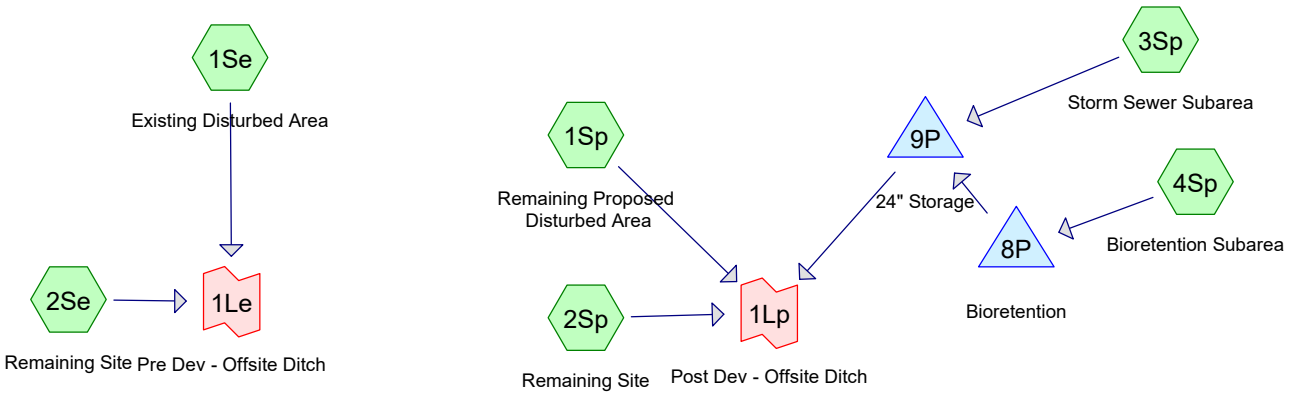
Filter Width	18.5	*ft*	
Filter Length	100	*ft*	
Filter Area	1850	*ft^2*	
Actual Volume Provided	2220	*ft^3*	

Determine Runoff Reduction

Is the Bioretention contributing flow to another practice?			Select Practice	
RRv	888			
RRv applied	**888**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***	
Volume Treated	700	*ft^3*	*This is the portion of the WQv that is not reduced in the practice.*	
Volume Directed	0	*ft^3*	This volume is directed another practice	
Sizing √	OK		*Check to be sure Area provided ≥ Af*	

Appendix L

HydroCAD Analysis



Subcat Reach Pond Link

Routing Diagram for 1374-22 Hydrocad Analysis
Prepared by Marathon Engineering, Printed 11/15/2022

Time span=0.00-24.00 hrs, dt=0.10 hrs, 241 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1Se: Existing Disturbed Area Runoff Area=2.770 ac 68.59% Impervious Runoff Depth>1.29"
Flow Length=439' Tc=17.1 min CN=94 Runoff=4.18 cfs 0.298 af

Subcatchment 1Sp: Remaining Proposed Runoff Area=0.700 ac 57.14% Impervious Runoff Depth>1.14"
Tc=6.0 min CN=92 Runoff=1.27 cfs 0.066 af

Subcatchment 2Se: Remaining Site Runoff Area=2.140 ac 51.40% Impervious Runoff Depth>1.07"
Flow Length=302' Tc=9.6 min CN=91 Runoff=3.37 cfs 0.190 af

Subcatchment 2Sp: Remaining Site Runoff Area=1.860 ac 50.54% Impervious Runoff Depth>1.07"
Flow Length=302' Tc=9.6 min CN=91 Runoff=2.93 cfs 0.165 af

Subcatchment 3Sp: Storm Sewer Subarea Runoff Area=1.690 ac 88.76% Impervious Runoff Depth>1.46"
Flow Length=497' Tc=16.2 min CN=96 Runoff=2.88 cfs 0.206 af

Subcatchment 4Sp: Bioretention Subarea Runoff Area=0.650 ac 69.23% Impervious Runoff Depth>1.29"
Tc=6.0 min CN=94 Runoff=1.31 cfs 0.070 af

Pond 8P: Bioretention Peak Elev=785.64' Storage=0.036 af Inflow=1.31 cfs 0.070 af
Primary=0.09 cfs 0.067 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.067 af

Pond 9P: 24" Storage Peak Elev=783.54' Storage=0.014 af Inflow=2.96 cfs 0.273 af
Primary=2.78 cfs 0.268 af Secondary=0.00 cfs 0.000 af Outflow=2.78 cfs 0.268 af

Link 1Le: Pre Dev - Offsite Ditch Inflow=6.99 cfs 0.488 af
Primary=6.99 cfs 0.488 af

Link 1Lp: Post Dev - Offsite Ditch Inflow=6.37 cfs 0.500 af
Primary=6.37 cfs 0.500 af

Total Runoff Area = 9.810 ac Runoff Volume = 0.996 af Average Runoff Depth = 1.22"
35.88% Pervious = 3.520 ac 64.12% Impervious = 6.290 ac

Summary for Subcatchment 1Se: Existing Disturbed Area

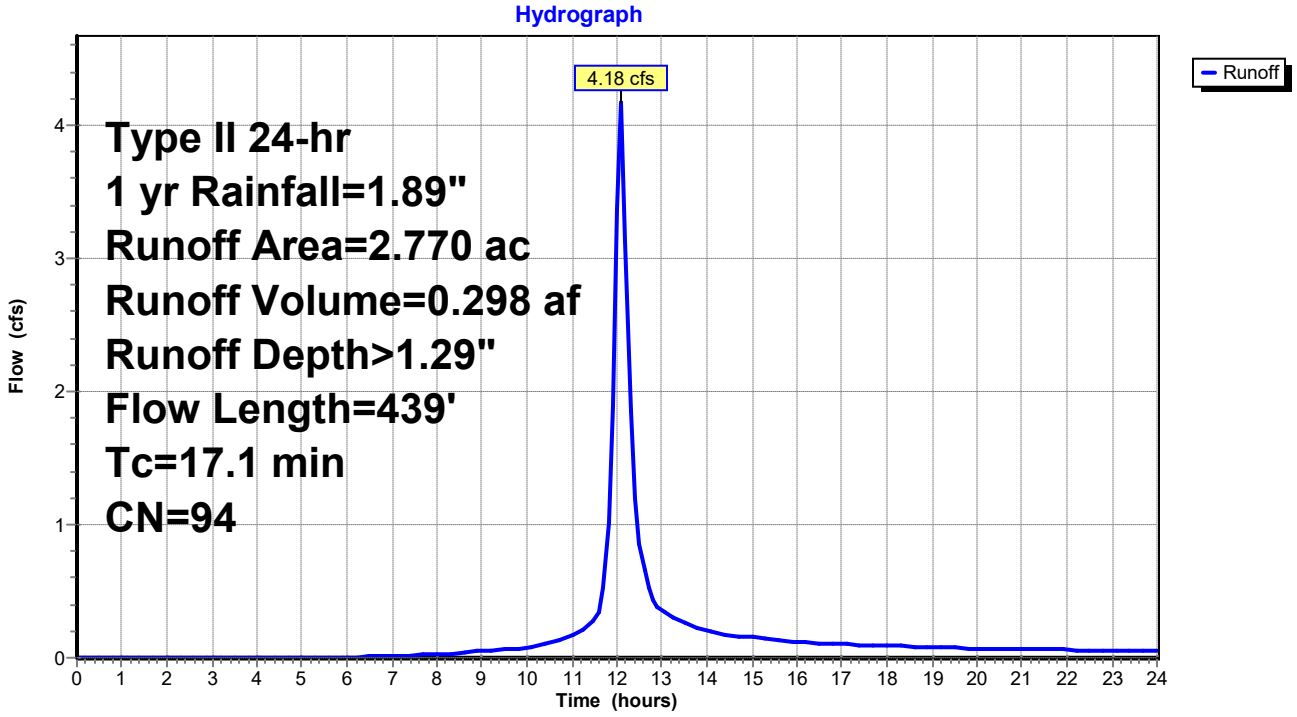
Runoff = 4.18 cfs @ 12.09 hrs, Volume= 0.298 af, Depth> 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 1 yr Rainfall=1.89"

	Area (ac)	CN	Description
*	0.870	84	50-75% Grass cover, Fair, HSG D (pre)
*	1.900	98	Paved parking, HSG D (pre)
	2.770	94	Weighted Average
	0.870		31.41% Pervious Area
	1.900		68.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0130	0.12		**Sheet Flow, Sheet** Grass: Short n= 0.150 P2= 2.19"
2.7	252	0.0060	1.57		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.3	87	0.0100	4.67	51.42	**Channel Flow, Roadside Swale** Area= 11.0 sf Perim= 12.0' r= 0.92' n= 0.030 Earth, grassed & winding
17.1	439	Total			

Subcatchment 1Se: Existing Disturbed Area



Summary for Subcatchment 1Sp: Remaining Proposed Disturbed Area

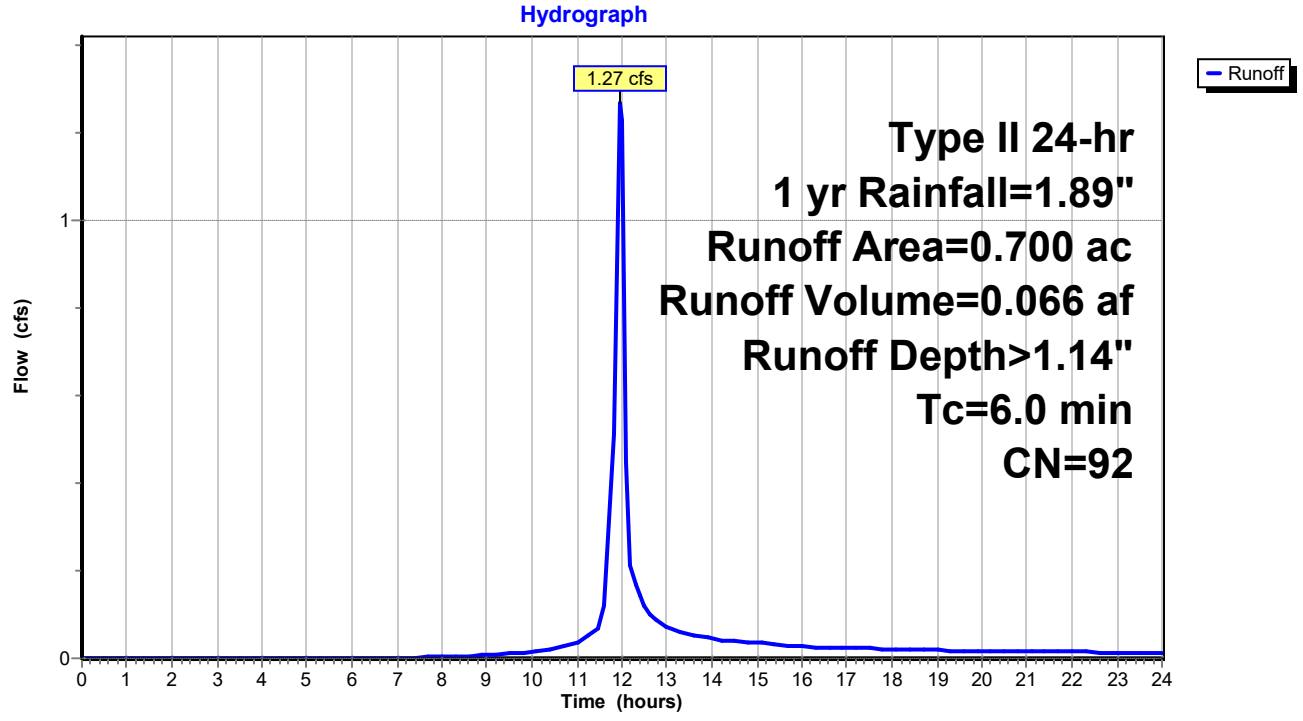
Runoff = 1.27 cfs @ 11.97 hrs, Volume= 0.066 af, Depth> 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 1 yr Rainfall=1.89"

	Area (ac)	CN	Description
	0.300	84	50-75% Grass cover, Fair, HSG D (post)
*	0.400	98	Paved parking, HSG D (post)
	0.700	92	Weighted Average
	0.300		42.86% Pervious Area
	0.400		57.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1Sp: Remaining Proposed Disturbed Area



Summary for Subcatchment 2Se: Remaining Site

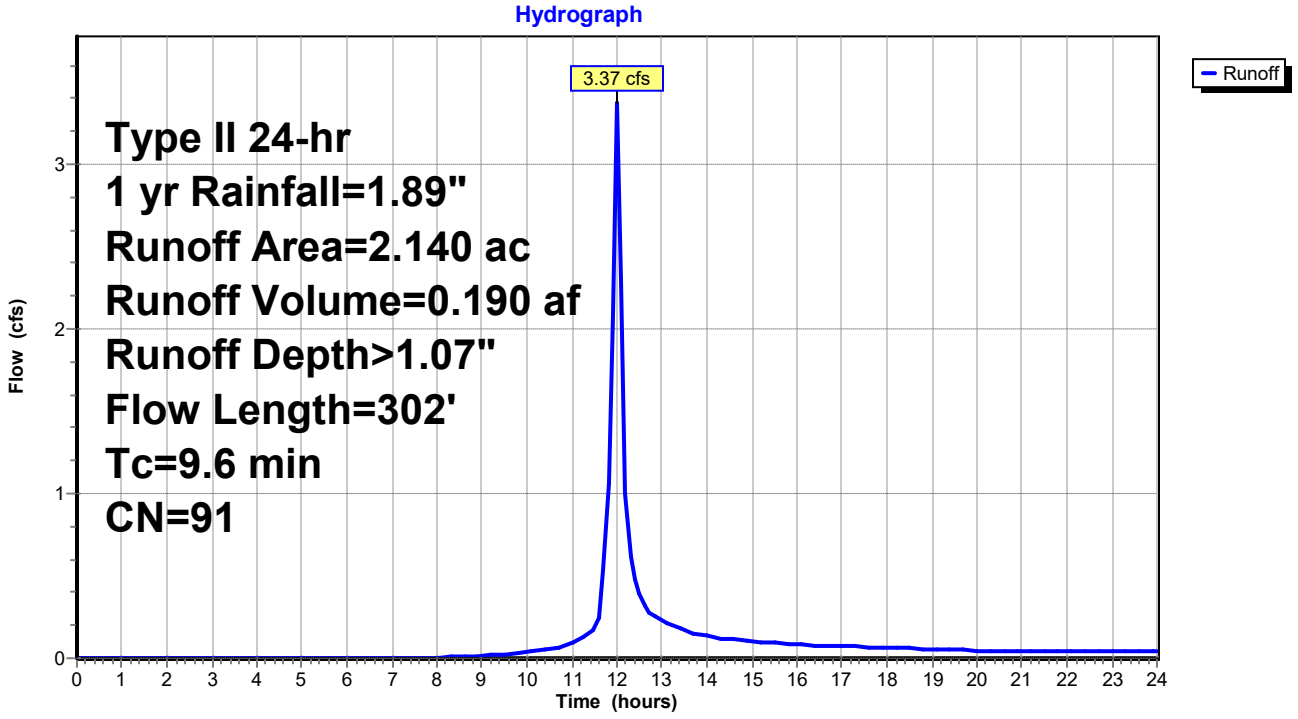
Runoff = 3.37 cfs @ 12.00 hrs, Volume= 0.190 af, Depth> 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 1 yr Rainfall=1.89"

	Area (ac)	CN	Description
	1.040	84	50-75% Grass cover, Fair, HSG D (pre)
*	1.100	98	Paved parking, HSG D (pre)
	2.140	91	Weighted Average
	1.040		48.60% Pervious Area
	1.100		51.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	58	0.0210	0.13		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.19"
1.4	144	0.0070	1.70		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.7	100	0.0200	2.28		**Shallow Concentrated Flow, Lawn area** Unpaved Kv= 16.1 fps
9.6	302	Total			

Subcatchment 2Se: Remaining Site



Summary for Subcatchment 2Sp: Remaining Site

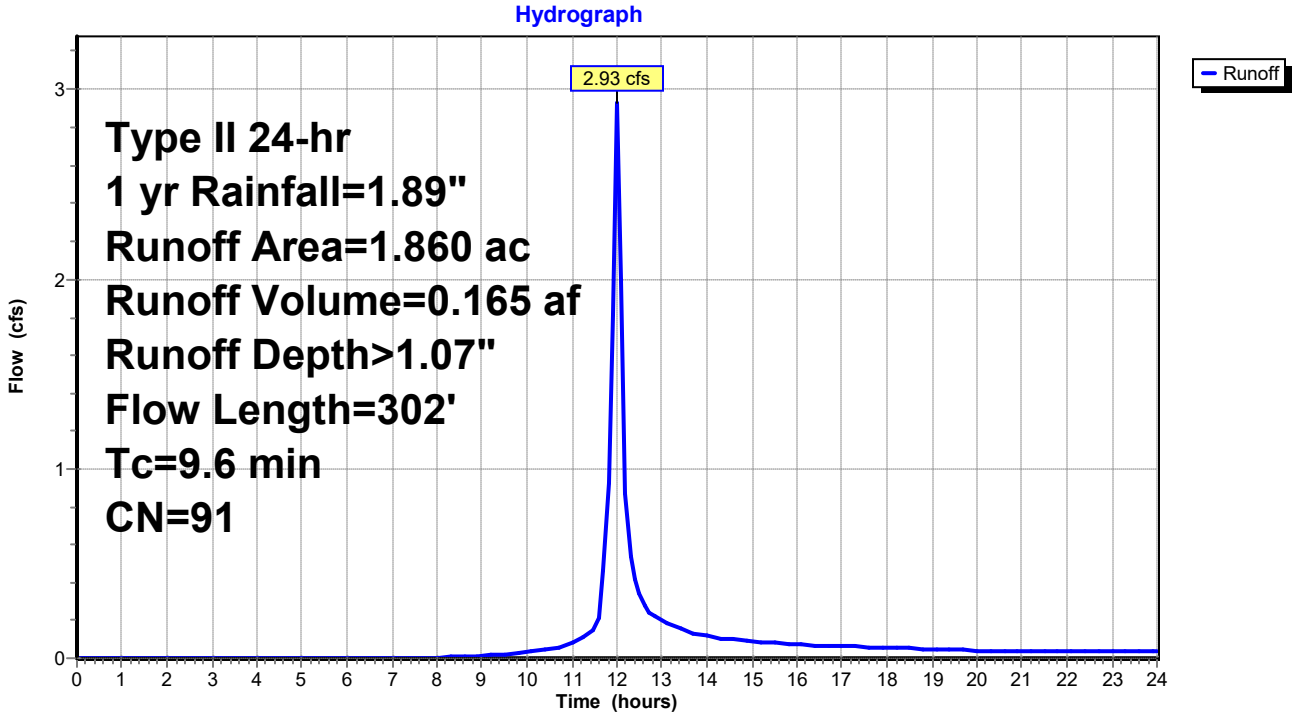
Runoff = 2.93 cfs @ 12.00 hrs, Volume= 0.165 af, Depth> 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 1 yr Rainfall=1.89"

	Area (ac)	CN	Description
	0.920	84	50-75% Grass cover, Fair, HSG D (post)
*	0.940	98	Paved parking, HSG D (post)
	1.860	91	Weighted Average
	0.920		49.46% Pervious Area
	0.940		50.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	58	0.0210	0.13		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.19"
1.4	144	0.0070	1.70		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.7	100	0.0200	2.28		**Shallow Concentrated Flow, Lawn area** Unpaved Kv= 16.1 fps
9.6	302	Total			

Subcatchment 2Sp: Remaining Site



Summary for Subcatchment 3Sp: Storm Sewer Subarea

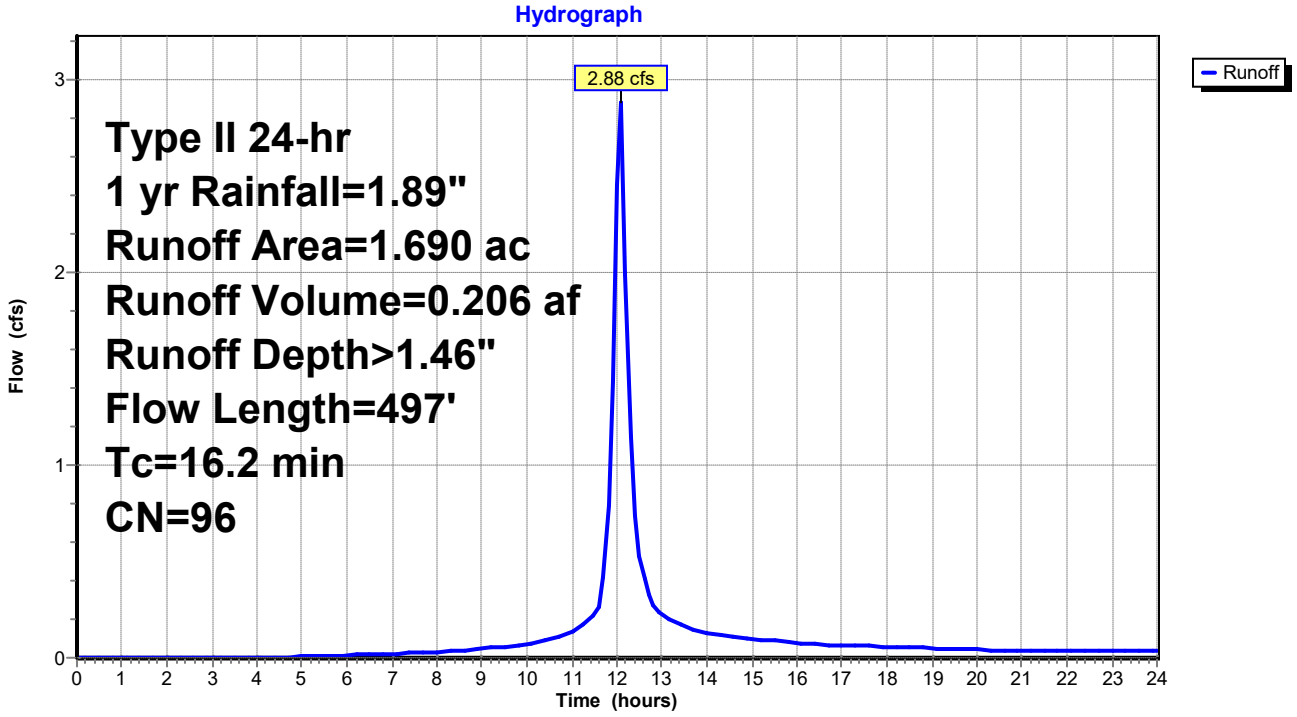
Runoff = 2.88 cfs @ 12.08 hrs, Volume= 0.206 af, Depth> 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 1 yr Rainfall=1.89"

Area (ac)	CN	Description
0.190	84	50-75% Grass cover, Fair, HSG D (post)
1.500	98	Paved parking, HSG D (post)
1.690	96	Weighted Average
0.190		11.24% Pervious Area
1.500		88.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0130	0.12		**Sheet Flow, Sheet** Grass: Short n= 0.150 P2= 2.19"
0.7	82	0.0100	2.03		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
1.4	315	0.0050	3.72	4.57	**Pipe Channel, storm system** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
16.2	497	Total			

Subcatchment 3Sp: Storm Sewer Subarea



Summary for Subcatchment 4Sp: Bioretention Subarea

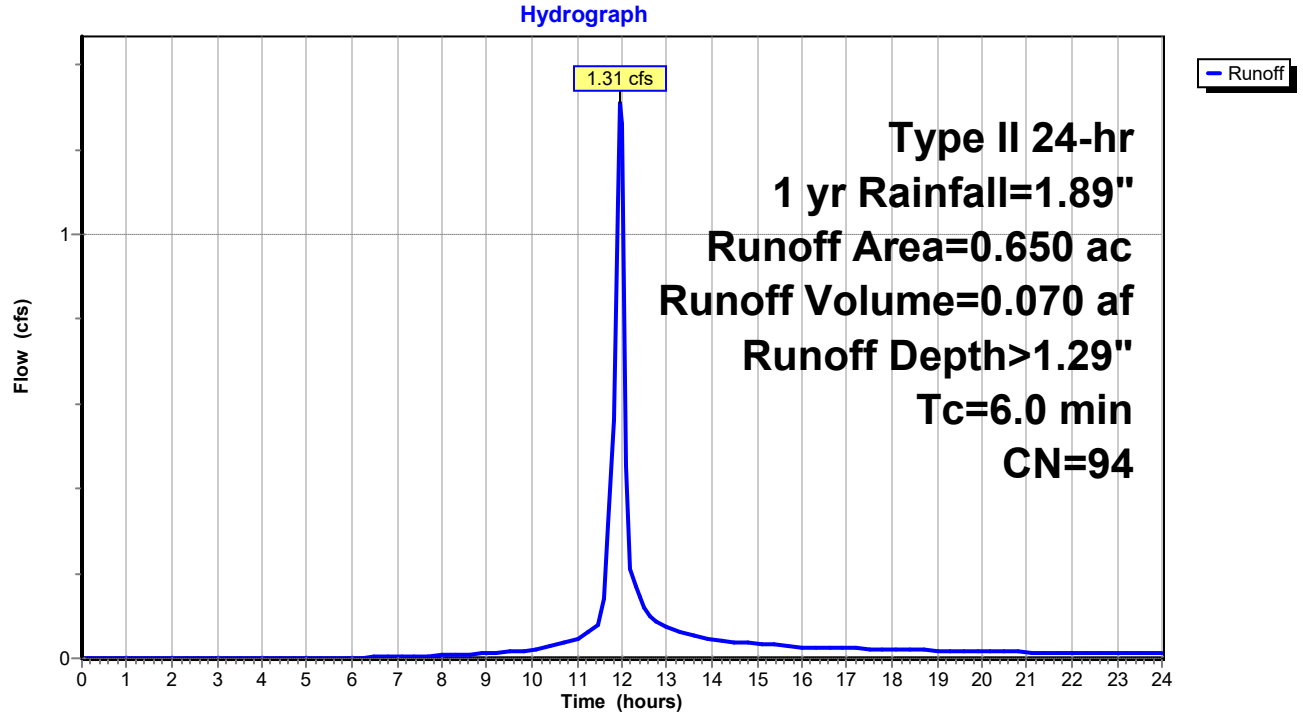
Runoff = 1.31 cfs @ 11.97 hrs, Volume= 0.070 af, Depth> 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 1 yr Rainfall=1.89"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG D (post)
0.200	84	50-75% Grass cover, Fair, HSG D (post)
0.650	94	Weighted Average
0.200		30.77% Pervious Area
0.450		69.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4Sp: Bioretention Subarea



Summary for Pond 8P: Bioretention

Inflow Area = 0.650 ac, 69.23% Impervious, Inflow Depth > 1.29" for 1 yr event
Inflow = 1.31 cfs @ 11.97 hrs, Volume= 0.070 af
Outflow = 0.09 cfs @ 12.78 hrs, Volume= 0.067 af, Atten= 93%, Lag= 48.9 min
Primary = 0.09 cfs @ 12.78 hrs, Volume= 0.067 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Peak Elev= 785.64' @ 12.78 hrs Surf.Area= 0.042 ac Storage= 0.036 af

Plug-Flow detention time= 187.4 min calculated for 0.067 af (96% of inflow)
Center-of-Mass det. time= 163.1 min (965.4 - 802.3)

Volume	Invert	Avail.Storage	Storage Description
#1	783.50'	0.059 af	**Soil Media (Prismatic)** Listed below (Recalc) 0.147 af Overall x 40.0% Voids
#2	787.00'	0.073 af	**Ponding (Prismatic)** Listed below (Recalc)
		0.132 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
783.50	0.041	0.000	0.000
787.00	0.043	0.147	0.147

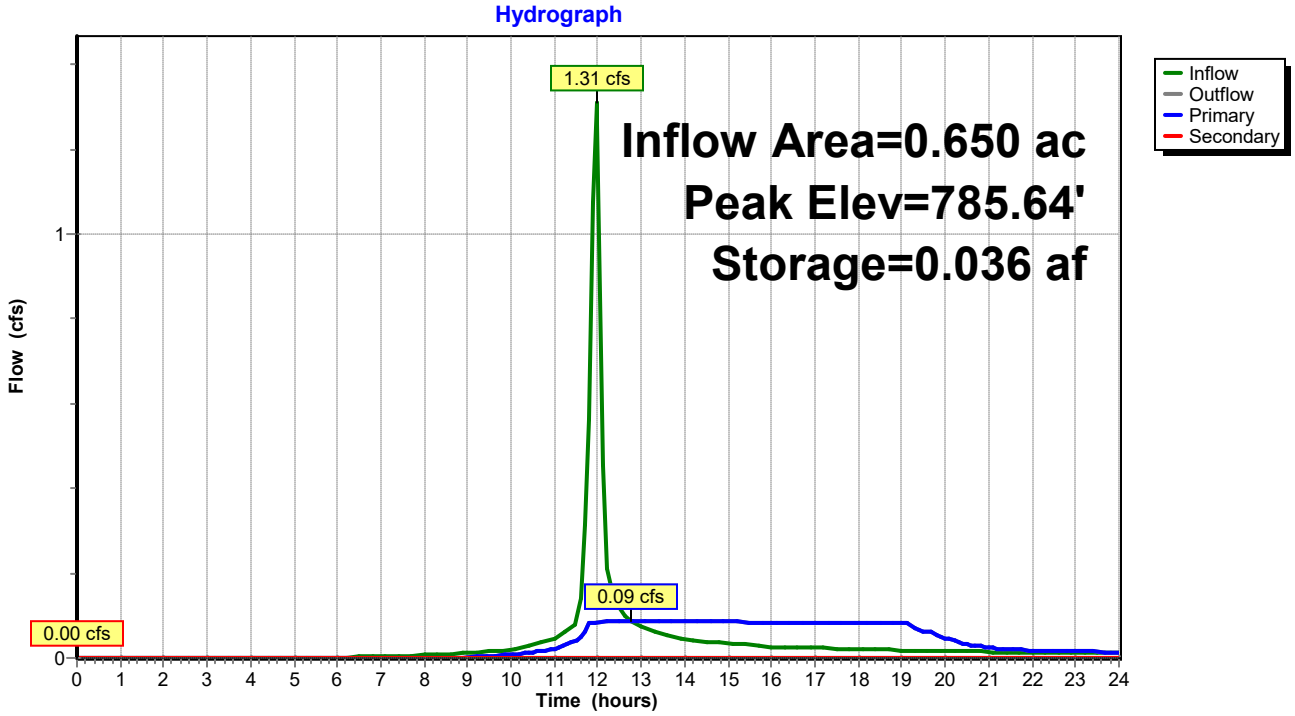
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
787.00	0.043	0.000	0.000
788.00	0.104	0.073	0.073

Device	Routing	Invert	Outlet Devices
#1	Primary	783.50'	**4.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 783.50' / 783.50' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf
#2	Device 1	783.50'	**2.000 in/hr Exfiltration over Horizontal area**
#3	Secondary	787.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.09 cfs @ 12.78 hrs HW=785.64' (Free Discharge)
└**1=Culvert** (Passes 0.09 cfs of 0.25 cfs potential flow)
└**2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=783.50' (Free Discharge)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 8P: Bioretention



Summary for Pond 9P: 24" Storage

Inflow Area = 2.340 ac, 83.33% Impervious, Inflow Depth > 1.40" for 1 yr event
Inflow = 2.96 cfs @ 12.08 hrs, Volume= 0.273 af
Outflow = 2.78 cfs @ 12.12 hrs, Volume= 0.268 af, Atten= 6%, Lag= 2.4 min
Primary = 2.78 cfs @ 12.12 hrs, Volume= 0.268 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Peak Elev= 783.54' @ 12.12 hrs Surf.Area= 0.021 ac Storage= 0.014 af

Plug-Flow detention time= 20.9 min calculated for 0.268 af (98% of inflow)
Center-of-Mass det. time= 10.6 min (847.4 - 836.7)

Volume	Invert	Avail.Storage	Storage Description
#1	782.00'	0.032 af	**Stone Envelope (Prismatic)** Listed below (Recalc) 0.105 af Overall - 0.026 af Embedded = 0.079 af x 40.0% Voids
#2	782.50'	0.019 af	**24.0" Round Pipe Storage** Inside #1 L= 260.0' S= 0.0050 '/' 0.026 af Overall - 2.0" Wall Thickness = 0.019 af
#3	787.00'	0.382 af	**Freeboard (Prismatic)** Listed below (Recalc)
		0.433 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
782.00	0.021	0.000	0.000
787.00	0.021	0.105	0.105

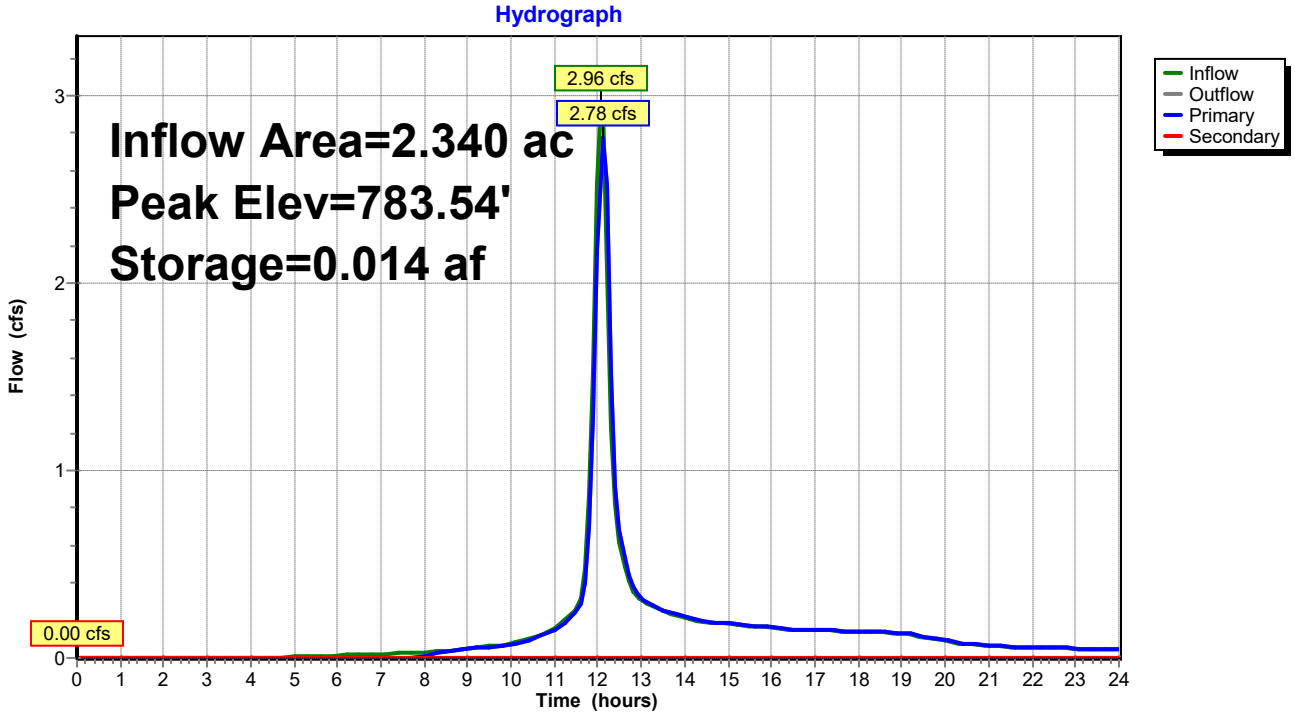
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
787.00	0.239	0.000	0.000
788.60	0.239	0.382	0.382

Device	Routing	Invert	Outlet Devices
#1	Primary	782.50'	**12.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 782.50' / 781.60' S= 0.0225 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	787.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	788.40'	**50.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.71 cfs @ 12.12 hrs HW=783.51' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.71 cfs @ 3.45 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=782.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: 24" Storage

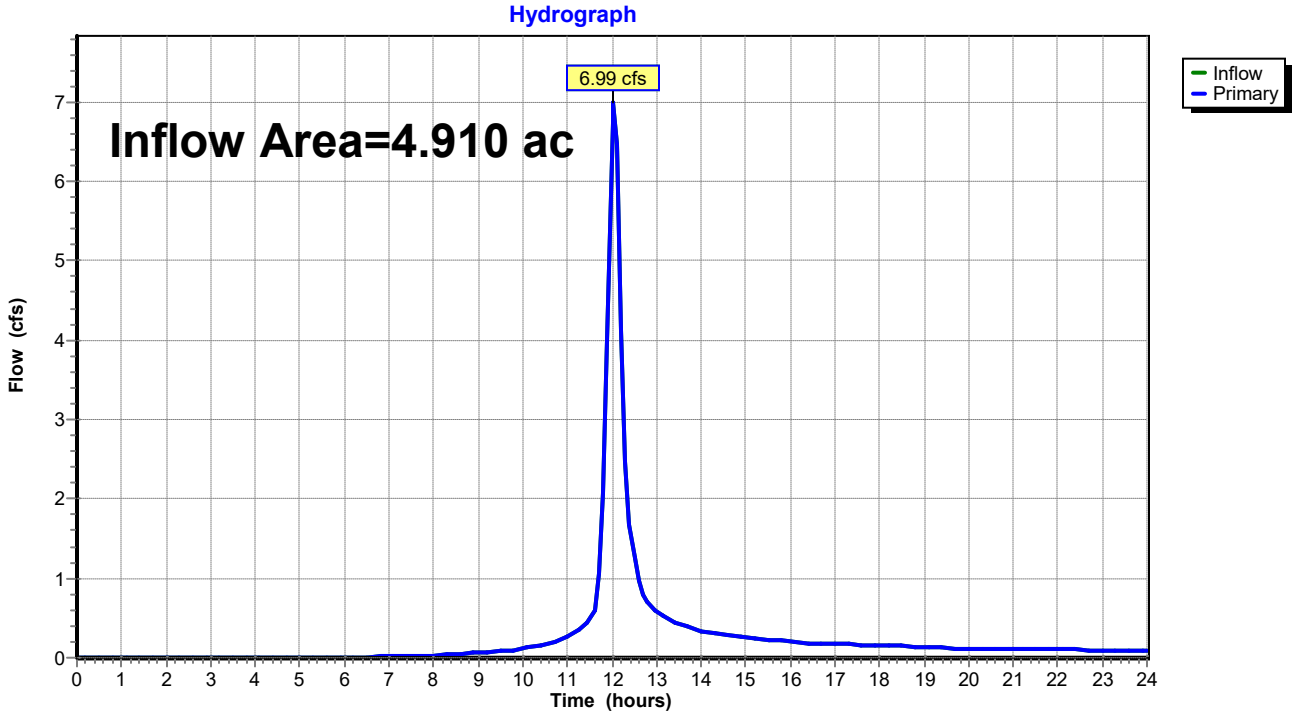


Summary for Link 1Le: Pre Dev - Offsite Ditch

Inflow Area = 4.910 ac, 61.10% Impervious, Inflow Depth > 1.19" for 1 yr event
Inflow = 6.99 cfs @ 12.04 hrs, Volume= 0.488 af
Primary = 6.99 cfs @ 12.04 hrs, Volume= 0.488 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs

Link 1Le: Pre Dev - Offsite Ditch

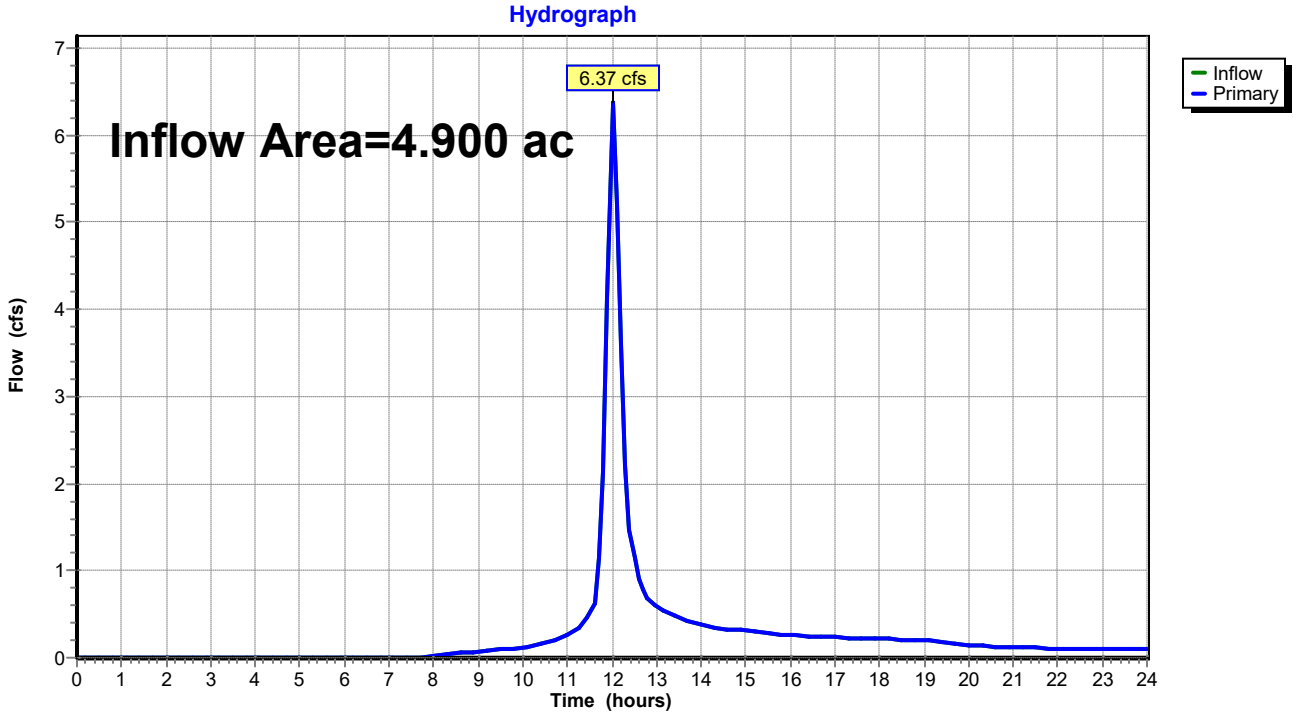


Summary for Link 1Lp: Post Dev - Offsite Ditch

Inflow Area = 4.900 ac, 67.14% Impervious, Inflow Depth > 1.22" for 1 yr event
Inflow = 6.37 cfs @ 12.02 hrs, Volume= 0.500 af
Primary = 6.37 cfs @ 12.02 hrs, Volume= 0.500 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs

Link 1Lp: Post Dev - Offsite Ditch



Time span=0.00-24.00 hrs, dt=0.10 hrs, 241 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1Se: Existing Disturbed Area Runoff Area=2.770 ac 68.59% Impervious Runoff Depth>2.48"
Flow Length=439' Tc=17.1 min CN=94 Runoff=7.79 cfs 0.572 af

Subcatchment 1Sp: Remaining Proposed Runoff Area=0.700 ac 57.14% Impervious Runoff Depth>2.29"
Tc=6.0 min CN=92 Runoff=2.46 cfs 0.134 af

Subcatchment 2Se: Remaining Site Runoff Area=2.140 ac 51.40% Impervious Runoff Depth>2.20"
Flow Length=302' Tc=9.6 min CN=91 Runoff=6.80 cfs 0.392 af

Subcatchment 2Sp: Remaining Site Runoff Area=1.860 ac 50.54% Impervious Runoff Depth>2.20"
Flow Length=302' Tc=9.6 min CN=91 Runoff=5.91 cfs 0.341 af

Subcatchment 3Sp: Storm Sewer Subarea Runoff Area=1.690 ac 88.76% Impervious Runoff Depth>2.68"
Flow Length=497' Tc=16.2 min CN=96 Runoff=5.10 cfs 0.378 af

Subcatchment 4Sp: Bioretention Subarea Runoff Area=0.650 ac 69.23% Impervious Runoff Depth>2.48"
Tc=6.0 min CN=94 Runoff=2.41 cfs 0.135 af

Pond 8P: Bioretention Peak Elev=787.18' Storage=0.067 af Inflow=2.41 cfs 0.135 af
Primary=0.20 cfs 0.117 af Secondary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.117 af

Pond 9P: 24" Storage Peak Elev=784.46' Storage=0.027 af Inflow=5.27 cfs 0.495 af
Primary=4.58 cfs 0.489 af Secondary=0.00 cfs 0.000 af Outflow=4.58 cfs 0.489 af

Link 1Le: Pre Dev - Offsite Ditch Inflow=13.57 cfs 0.964 af
Primary=13.57 cfs 0.964 af

Link 1Lp: Post Dev - Offsite Ditch Inflow=11.77 cfs 0.964 af
Primary=11.77 cfs 0.964 af

Total Runoff Area = 9.810 ac Runoff Volume = 1.951 af Average Runoff Depth = 2.39"
35.88% Pervious = 3.520 ac 64.12% Impervious = 6.290 ac

Summary for Subcatchment 1Se: Existing Disturbed Area

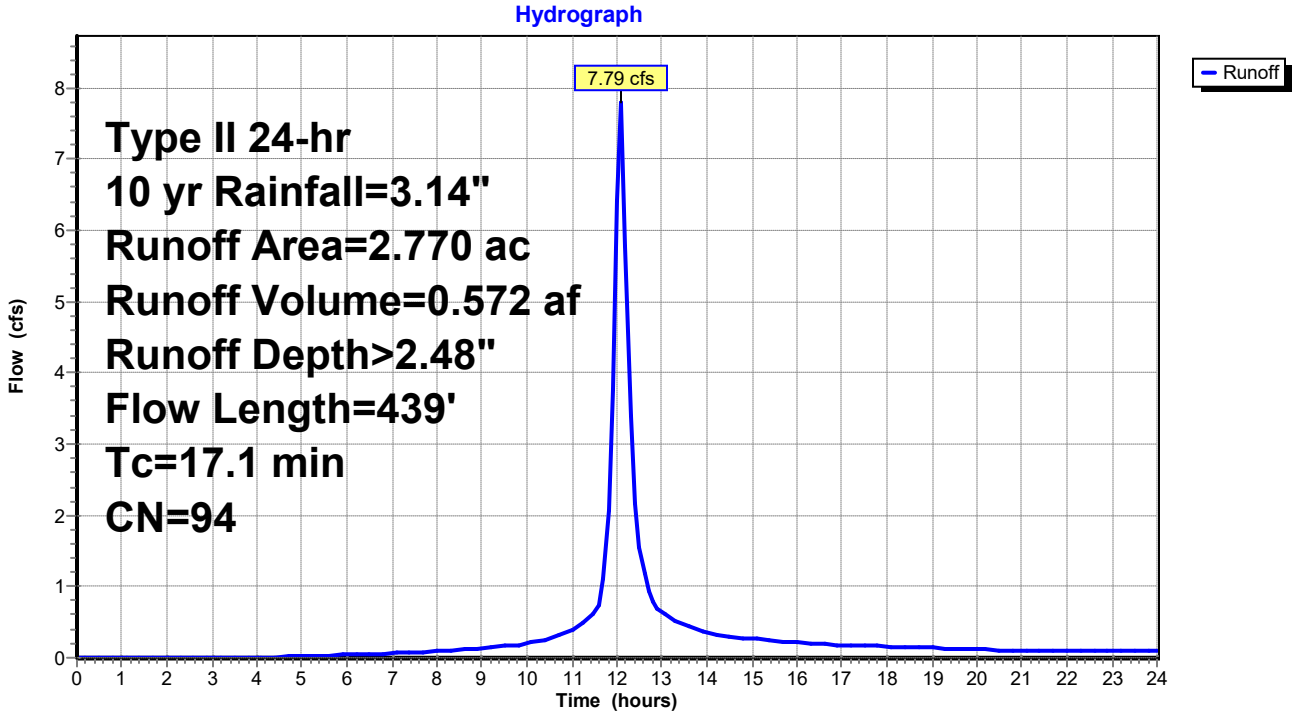
Runoff = 7.79 cfs @ 12.09 hrs, Volume= 0.572 af, Depth> 2.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 10 yr Rainfall=3.14"

	Area (ac)	CN	Description
*	0.870	84	50-75% Grass cover, Fair, HSG D (pre)
*	1.900	98	Paved parking, HSG D (pre)
	2.770	94	Weighted Average
	0.870		31.41% Pervious Area
	1.900		68.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0130	0.12		**Sheet Flow, Sheet** Grass: Short n= 0.150 P2= 2.19"
2.7	252	0.0060	1.57		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.3	87	0.0100	4.67	51.42	**Channel Flow, Roadside Swale** Area= 11.0 sf Perim= 12.0' r= 0.92' n= 0.030 Earth, grassed & winding
17.1	439	Total			

Subcatchment 1Se: Existing Disturbed Area



Summary for Subcatchment 1Sp: Remaining Proposed Disturbed Area

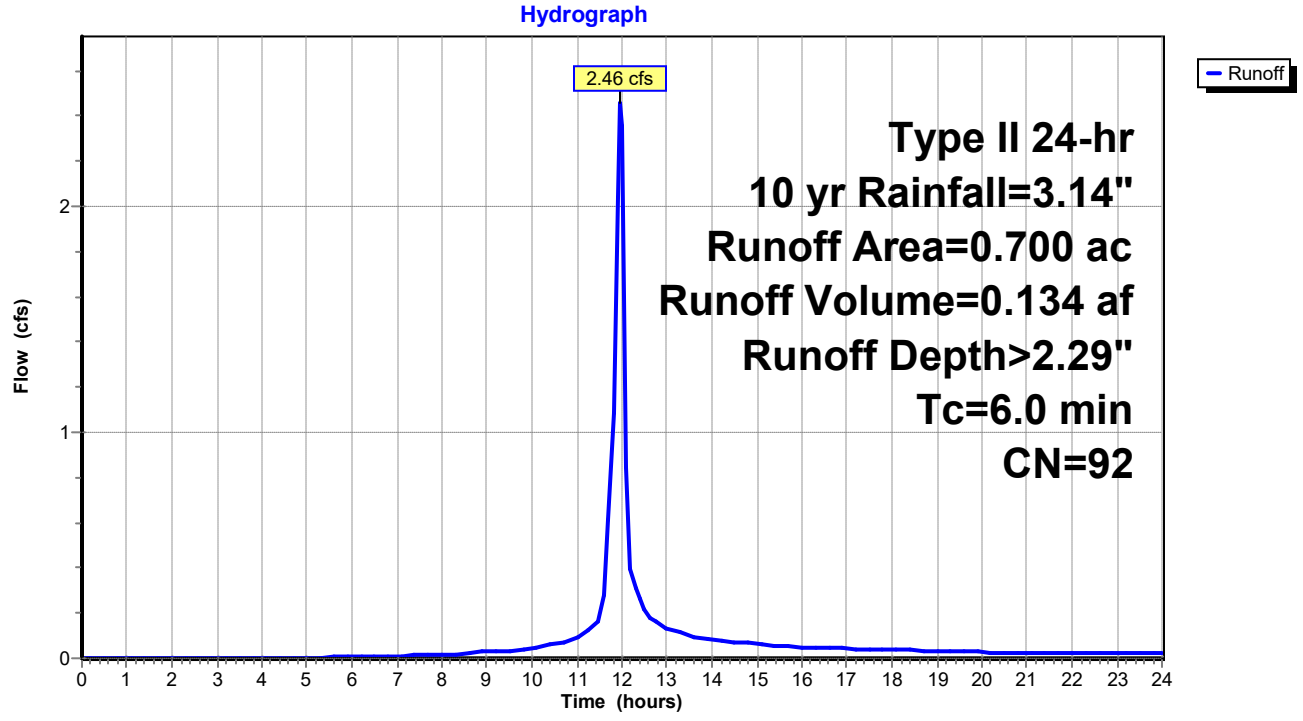
Runoff = 2.46 cfs @ 11.97 hrs, Volume= 0.134 af, Depth> 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 10 yr Rainfall=3.14"

	Area (ac)	CN	Description
	0.300	84	50-75% Grass cover, Fair, HSG D (post)
*	0.400	98	Paved parking, HSG D (post)
	0.700	92	Weighted Average
	0.300		42.86% Pervious Area
	0.400		57.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1Sp: Remaining Proposed Disturbed Area



Summary for Subcatchment 2Se: Remaining Site

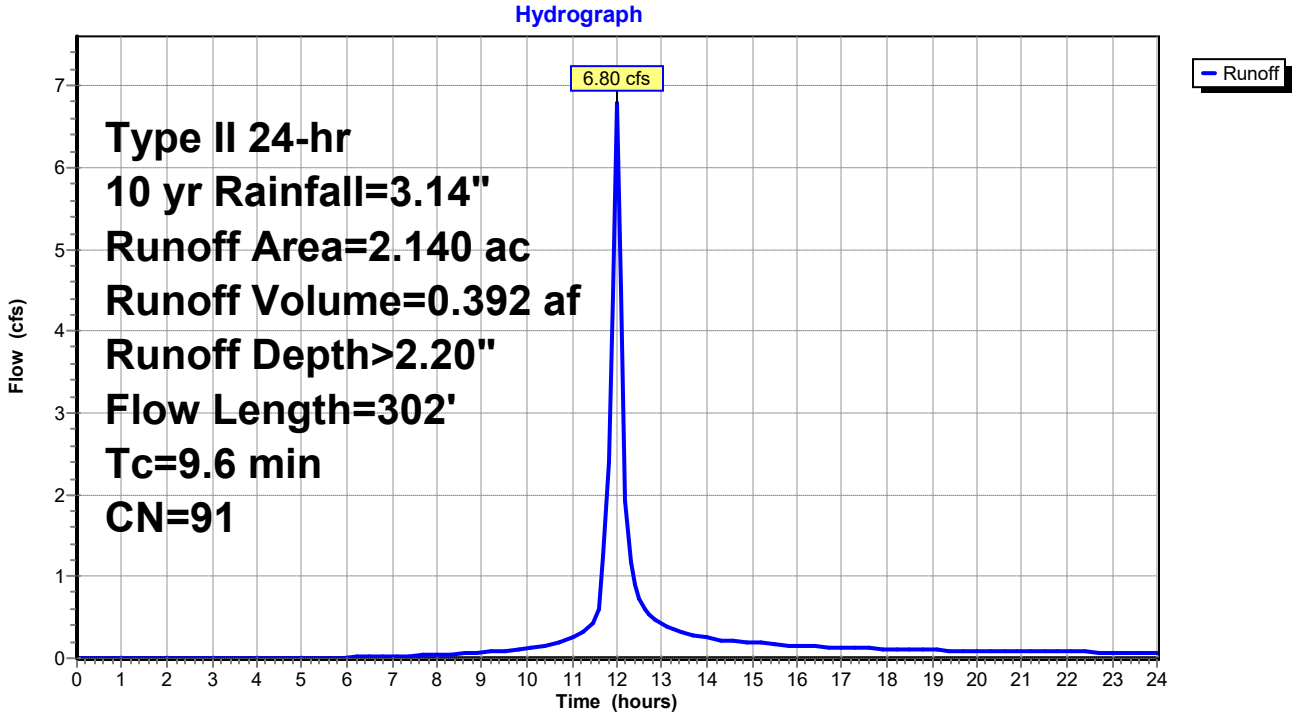
Runoff = 6.80 cfs @ 12.00 hrs, Volume= 0.392 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 10 yr Rainfall=3.14"

	Area (ac)	CN	Description
	1.040	84	50-75% Grass cover, Fair, HSG D (pre)
*	1.100	98	Paved parking, HSG D (pre)
	2.140	91	Weighted Average
	1.040		48.60% Pervious Area
	1.100		51.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	58	0.0210	0.13		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.19"
1.4	144	0.0070	1.70		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.7	100	0.0200	2.28		**Shallow Concentrated Flow, Lawn area** Unpaved Kv= 16.1 fps
9.6	302	Total			

Subcatchment 2Se: Remaining Site



Summary for Subcatchment 2Sp: Remaining Site

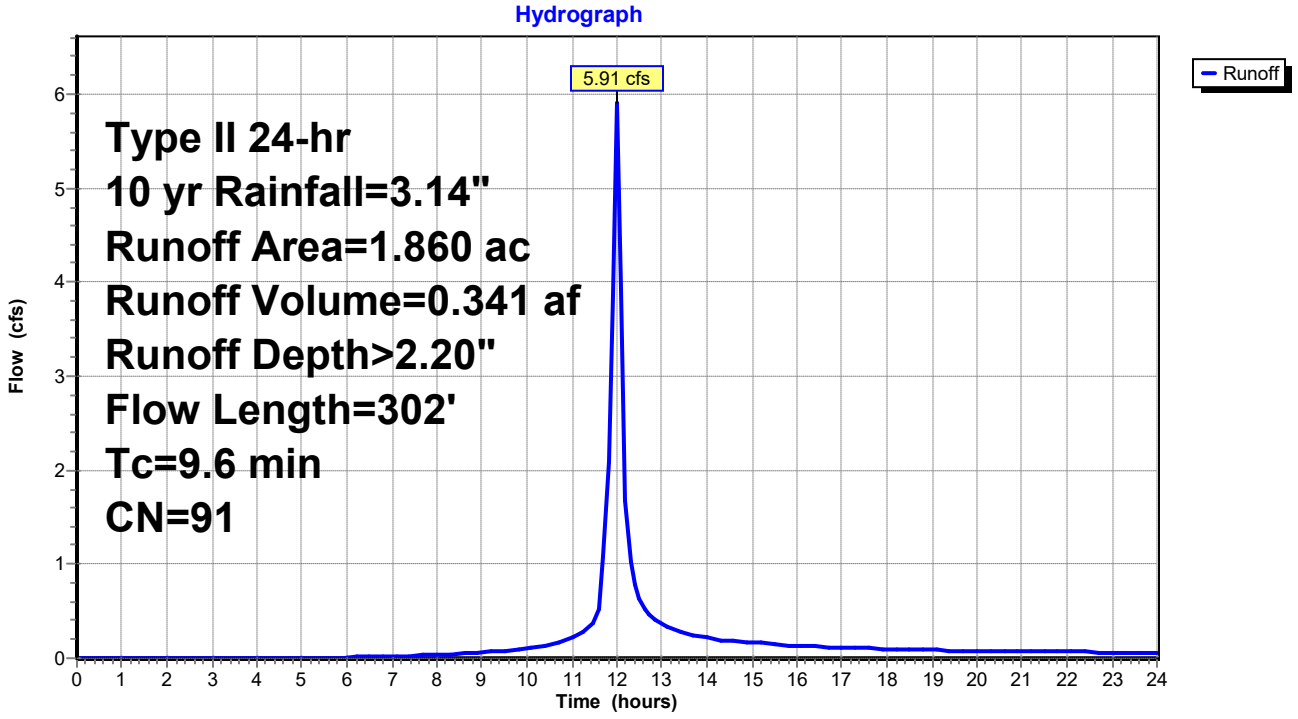
Runoff = 5.91 cfs @ 12.00 hrs, Volume= 0.341 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 10 yr Rainfall=3.14"

	Area (ac)	CN	Description
	0.920	84	50-75% Grass cover, Fair, HSG D (post)
*	0.940	98	Paved parking, HSG D (post)
	1.860	91	Weighted Average
	0.920		49.46% Pervious Area
	0.940		50.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	58	0.0210	0.13		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.19"
1.4	144	0.0070	1.70		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.7	100	0.0200	2.28		**Shallow Concentrated Flow, Lawn area** Unpaved Kv= 16.1 fps
9.6	302	Total			

Subcatchment 2Sp: Remaining Site



Summary for Subcatchment 3Sp: Storm Sewer Subarea

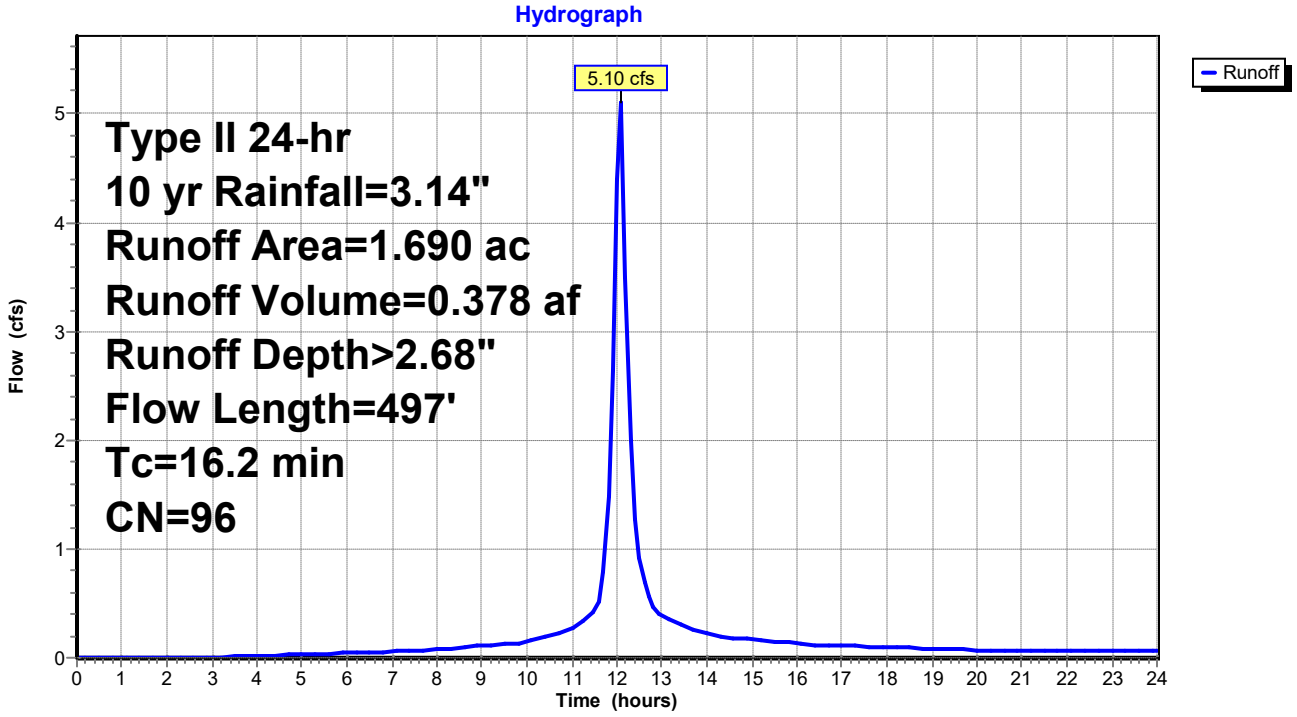
Runoff = 5.10 cfs @ 12.08 hrs, Volume= 0.378 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 10 yr Rainfall=3.14"

Area (ac)	CN	Description
0.190	84	50-75% Grass cover, Fair, HSG D (post)
1.500	98	Paved parking, HSG D (post)
1.690	96	Weighted Average
0.190		11.24% Pervious Area
1.500		88.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0130	0.12		**Sheet Flow, Sheet** Grass: Short n= 0.150 P2= 2.19"
0.7	82	0.0100	2.03		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
1.4	315	0.0050	3.72	4.57	**Pipe Channel, storm system** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
16.2	497	Total			

Subcatchment 3Sp: Storm Sewer Subarea



Summary for Subcatchment 4Sp: Bioretention Subarea

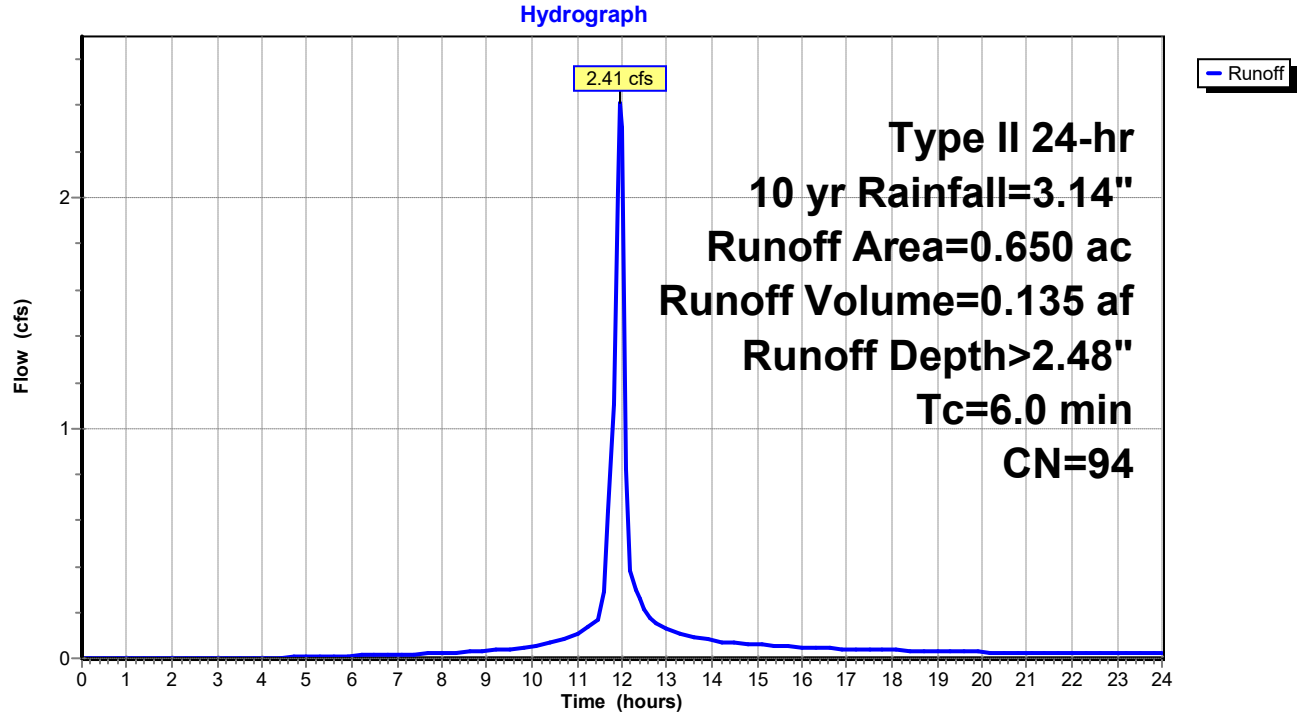
Runoff = 2.41 cfs @ 11.97 hrs, Volume= 0.135 af, Depth> 2.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 10 yr Rainfall=3.14"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG D (post)
0.200	84	50-75% Grass cover, Fair, HSG D (post)
0.650	94	Weighted Average
0.200		30.77% Pervious Area
0.450		69.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4Sp: Bioretention Subarea



Summary for Pond 8P: Bioretention

Inflow Area = 0.650 ac, 69.23% Impervious, Inflow Depth > 2.48" for 10 yr event
Inflow = 2.41 cfs @ 11.97 hrs, Volume= 0.135 af
Outflow = 0.20 cfs @ 12.55 hrs, Volume= 0.117 af, Atten= 92%, Lag= 34.8 min
Primary = 0.20 cfs @ 12.55 hrs, Volume= 0.117 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Peak Elev= 787.18' @ 12.55 hrs Surf.Area= 0.097 ac Storage= 0.067 af

Plug-Flow detention time= 254.5 min calculated for 0.117 af (87% of inflow)
Center-of-Mass det. time= 194.3 min (978.4 - 784.1)

Volume	Invert	Avail.Storage	Storage Description
#1	783.50'	0.059 af	**Soil Media (Prismatic)** Listed below (Recalc) 0.147 af Overall x 40.0% Voids
#2	787.00'	0.073 af	**Ponding (Prismatic)** Listed below (Recalc)
		0.132 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
783.50	0.041	0.000	0.000
787.00	0.043	0.147	0.147

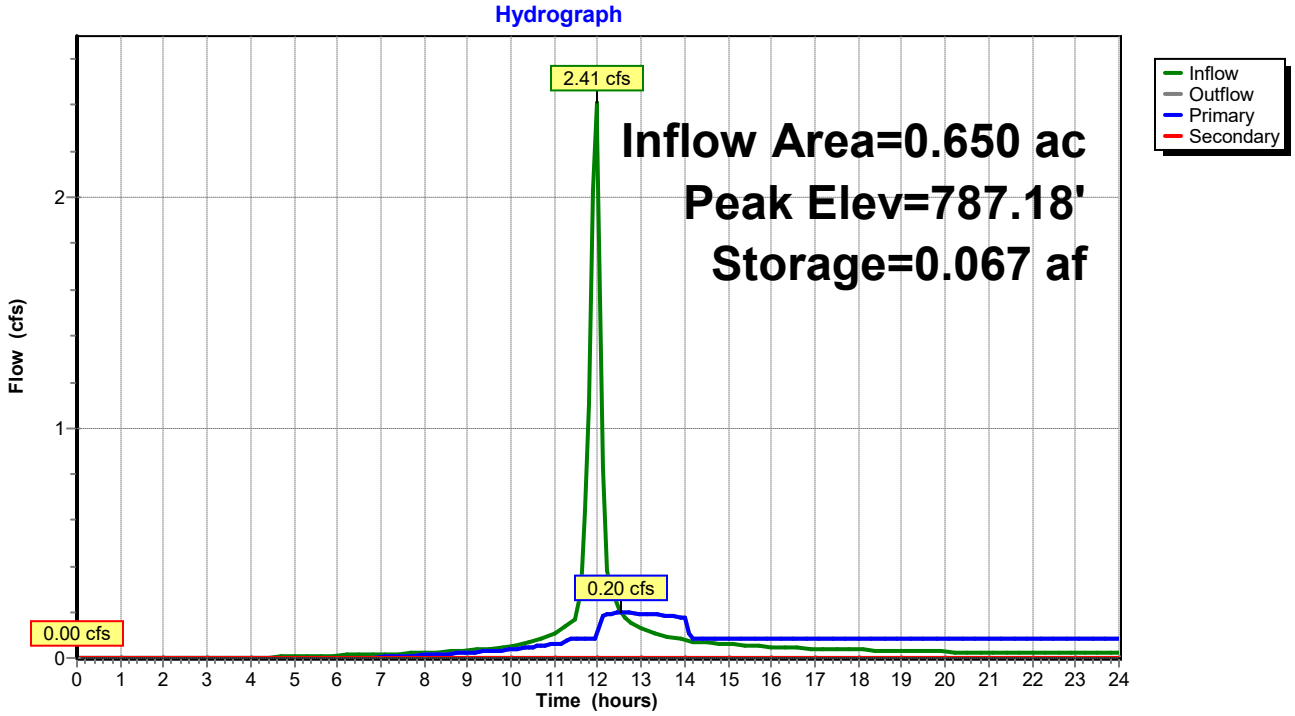
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
787.00	0.043	0.000	0.000
788.00	0.104	0.073	0.073

Device	Routing	Invert	Outlet Devices
#1	Primary	783.50'	**4.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 783.50' / 783.50' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf
#2	Device 1	783.50'	**2.000 in/hr Exfiltration over Horizontal area**
#3	Secondary	787.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.20 cfs @ 12.55 hrs HW=787.18' (Free Discharge)
└**1=Culvert** (Passes 0.20 cfs of 0.34 cfs potential flow)
└**2=Exfiltration** (Exfiltration Controls 0.20 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=783.50' (Free Discharge)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 8P: Bioretention



Summary for Pond 9P: 24" Storage

Inflow Area = 2.340 ac, 83.33% Impervious, Inflow Depth > 2.54" for 10 yr event
Inflow = 5.27 cfs @ 12.08 hrs, Volume= 0.495 af
Outflow = 4.58 cfs @ 12.15 hrs, Volume= 0.489 af, Atten= 13%, Lag= 4.1 min
Primary = 4.58 cfs @ 12.15 hrs, Volume= 0.489 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Peak Elev= 784.46' @ 12.15 hrs Surf.Area= 0.021 ac Storage= 0.027 af

Plug-Flow detention time= 14.4 min calculated for 0.487 af (98% of inflow)
Center-of-Mass det. time= 7.8 min (833.9 - 826.1)

Volume	Invert	Avail.Storage	Storage Description
#1	782.00'	0.032 af	**Stone Envelope (Prismatic)** Listed below (Recalc) 0.105 af Overall - 0.026 af Embedded = 0.079 af x 40.0% Voids
#2	782.50'	0.019 af	**24.0" Round Pipe Storage** Inside #1 L= 260.0' S= 0.0050 '/' 0.026 af Overall - 2.0" Wall Thickness = 0.019 af
#3	787.00'	0.382 af	**Freeboard (Prismatic)** Listed below (Recalc)
		0.433 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
782.00	0.021	0.000	0.000
787.00	0.021	0.105	0.105

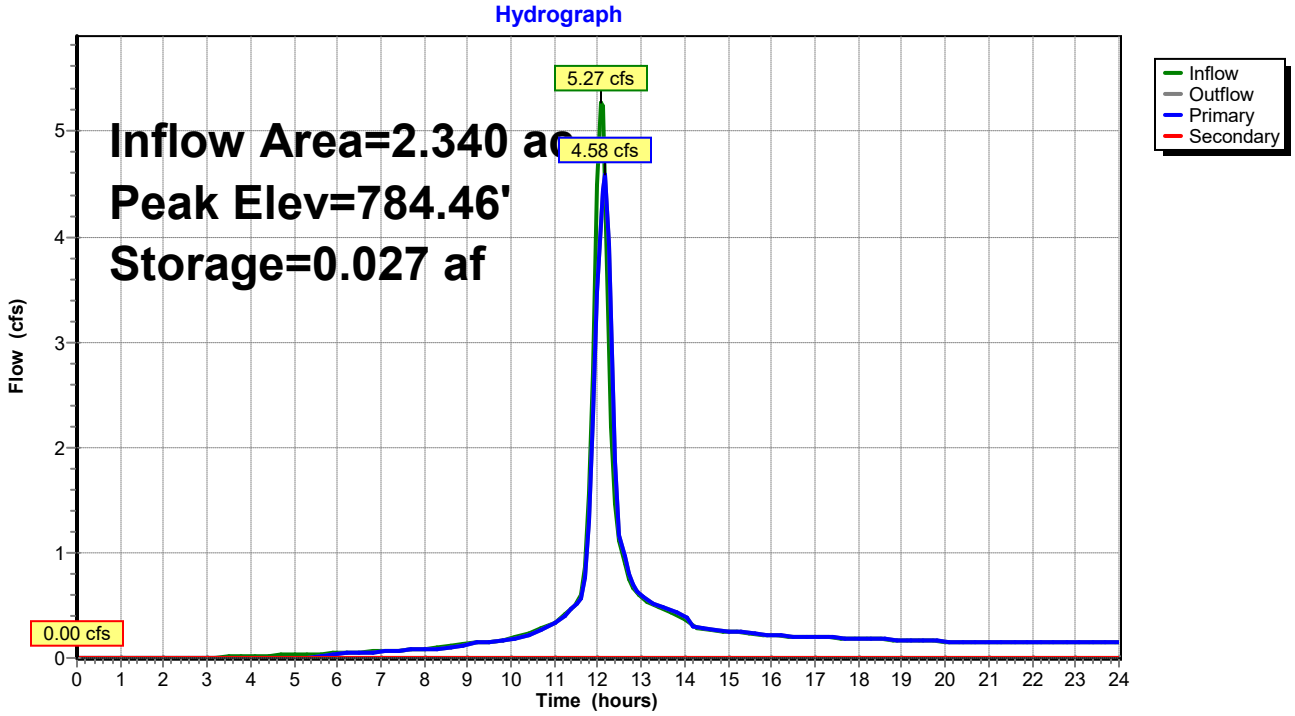
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
787.00	0.239	0.000	0.000
788.60	0.239	0.382	0.382

Device	Routing	Invert	Outlet Devices
#1	Primary	782.50'	**12.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 782.50' / 781.60' S= 0.0225 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	787.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	788.40'	**50.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.45 cfs @ 12.15 hrs HW=784.38' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.45 cfs @ 5.66 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=782.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: 24" Storage

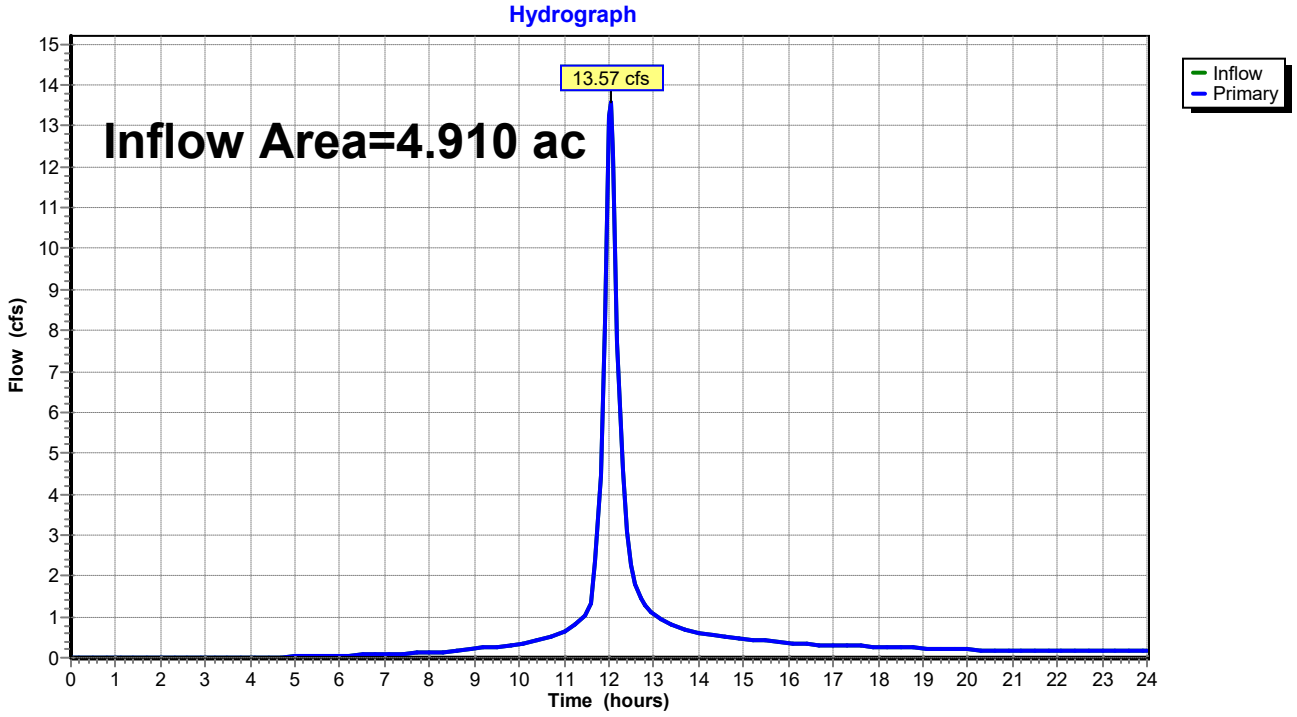


Summary for Link 1Le: Pre Dev - Offsite Ditch

Inflow Area = 4.910 ac, 61.10% Impervious, Inflow Depth > 2.36" for 10 yr event
Inflow = 13.57 cfs @ 12.03 hrs, Volume= 0.964 af
Primary = 13.57 cfs @ 12.03 hrs, Volume= 0.964 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs

Link 1Le: Pre Dev - Offsite Ditch

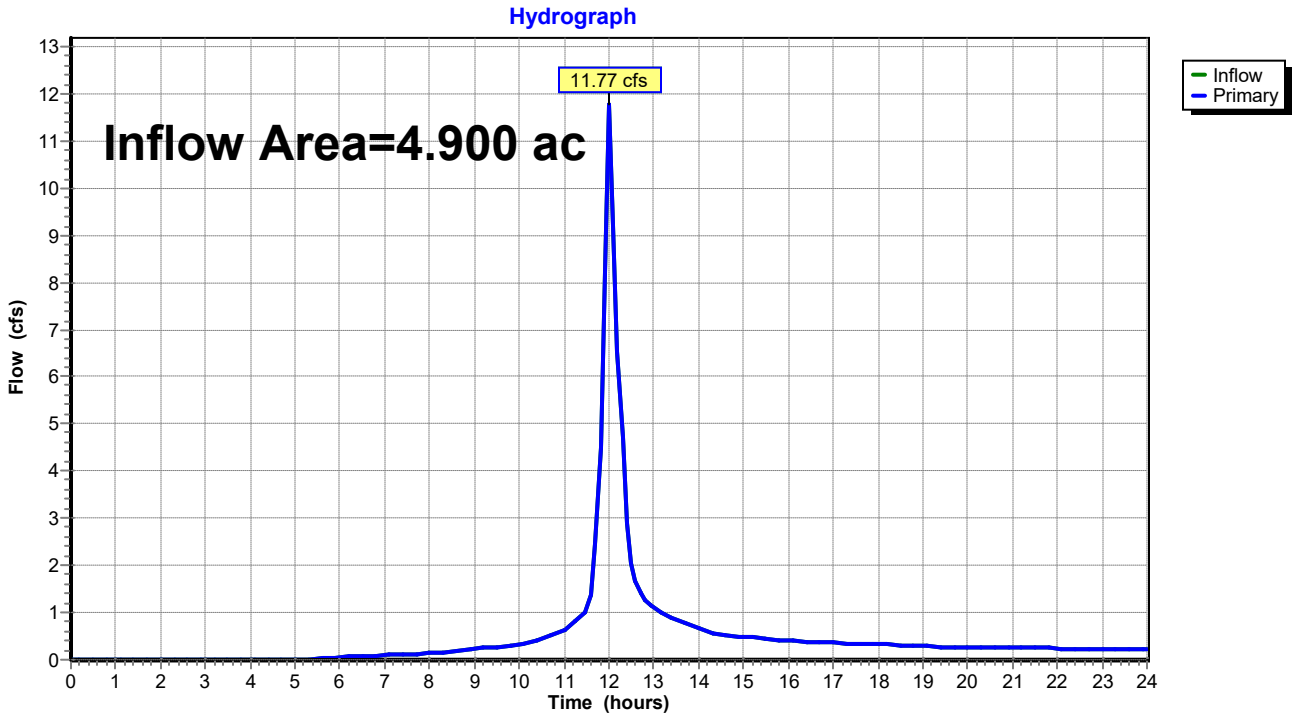


Summary for Link 1Lp: Post Dev - Offsite Ditch

Inflow Area = 4.900 ac, 67.14% Impervious, Inflow Depth > 2.36" for 10 yr event
Inflow = 11.77 cfs @ 12.01 hrs, Volume= 0.964 af
Primary = 11.77 cfs @ 12.01 hrs, Volume= 0.964 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs

Link 1Lp: Post Dev - Offsite Ditch



Time span=0.00-24.00 hrs, dt=0.10 hrs, 241 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1Se: Existing Disturbed Area Runoff Area=2.770 ac 68.59% Impervious Runoff Depth>4.58"
Flow Length=439' Tc=17.1 min CN=94 Runoff=13.92 cfs 1.058 af

Subcatchment 1Sp: Remaining Proposed Runoff Area=0.700 ac 57.14% Impervious Runoff Depth>4.37"
Tc=6.0 min CN=92 Runoff=4.49 cfs 0.255 af

Subcatchment 2Se: Remaining Site Runoff Area=2.140 ac 51.40% Impervious Runoff Depth>4.26"
Flow Length=302' Tc=9.6 min CN=91 Runoff=12.70 cfs 0.759 af

Subcatchment 2Sp: Remaining Site Runoff Area=1.860 ac 50.54% Impervious Runoff Depth>4.26"
Flow Length=302' Tc=9.6 min CN=91 Runoff=11.04 cfs 0.660 af

Subcatchment 3Sp: Storm Sewer Subarea Runoff Area=1.690 ac 88.76% Impervious Runoff Depth>4.81"
Flow Length=497' Tc=16.2 min CN=96 Runoff=8.86 cfs 0.677 af

Subcatchment 4Sp: Bioretention Subarea Runoff Area=0.650 ac 69.23% Impervious Runoff Depth>4.59"
Tc=6.0 min CN=94 Runoff=4.28 cfs 0.249 af

Pond 8P: Bioretention Peak Elev=787.71' Storage=0.105 af Inflow=4.28 cfs 0.249 af
Primary=0.26 cfs 0.170 af Secondary=1.99 cfs 0.043 af Outflow=2.25 cfs 0.213 af

Pond 9P: 24" Storage Peak Elev=787.20' Storage=0.098 af Inflow=9.12 cfs 0.847 af
Primary=7.78 cfs 0.841 af Secondary=0.00 cfs 0.000 af Outflow=7.78 cfs 0.841 af

Link 1Le: Pre Dev - Offsite Ditch Inflow=24.83 cfs 1.817 af
Primary=24.83 cfs 1.817 af

Link 1Lp: Post Dev - Offsite Ditch Inflow=20.84 cfs 1.756 af
Primary=20.84 cfs 1.756 af

Total Runoff Area = 9.810 ac Runoff Volume = 3.658 af Average Runoff Depth = 4.47"
35.88% Pervious = 3.520 ac 64.12% Impervious = 6.290 ac

Summary for Subcatchment 1Se: Existing Disturbed Area

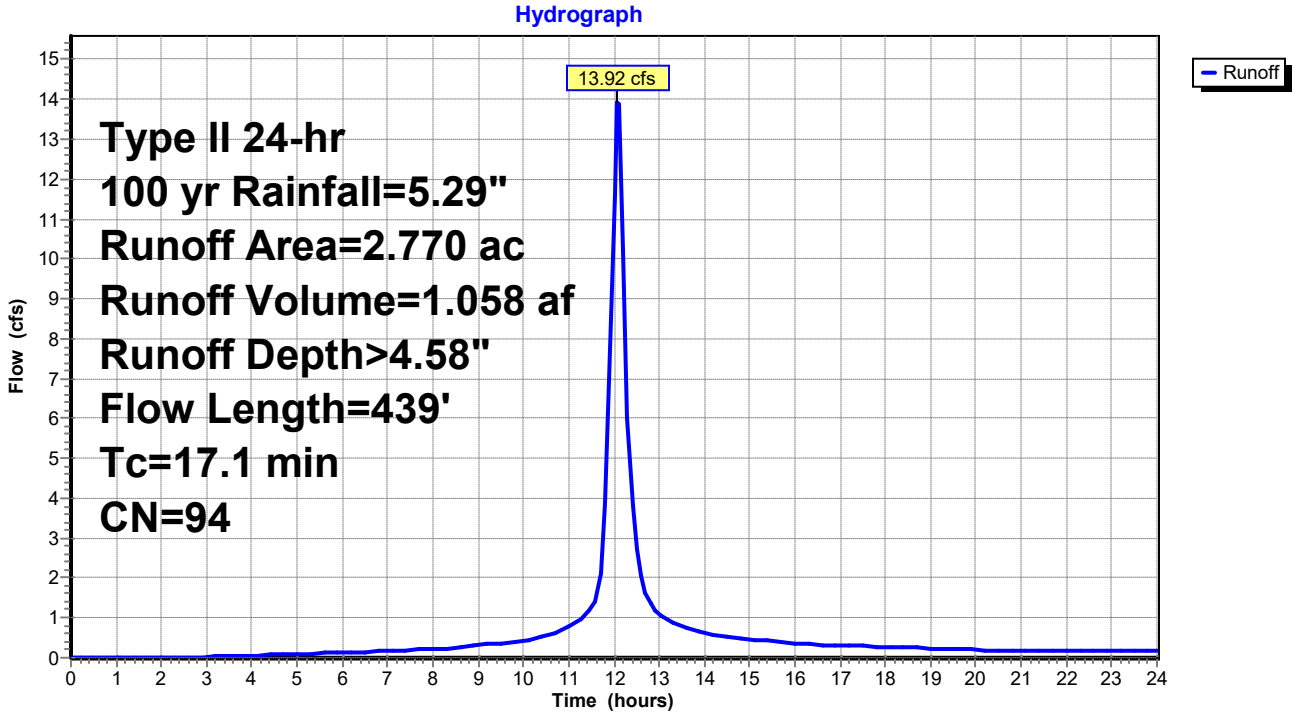
Runoff = 13.92 cfs @ 12.09 hrs, Volume= 1.058 af, Depth> 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 100 yr Rainfall=5.29"

	Area (ac)	CN	Description
*	0.870	84	50-75% Grass cover, Fair, HSG D (pre)
*	1.900	98	Paved parking, HSG D (pre)
	2.770	94	Weighted Average
	0.870		31.41% Pervious Area
	1.900		68.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0130	0.12		**Sheet Flow, Sheet** Grass: Short n= 0.150 P2= 2.19"
2.7	252	0.0060	1.57		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.3	87	0.0100	4.67	51.42	**Channel Flow, Roadside Swale** Area= 11.0 sf Perim= 12.0' r= 0.92' n= 0.030 Earth, grassed & winding
17.1	439	Total			

Subcatchment 1Se: Existing Disturbed Area



Summary for Subcatchment 1Sp: Remaining Proposed Disturbed Area

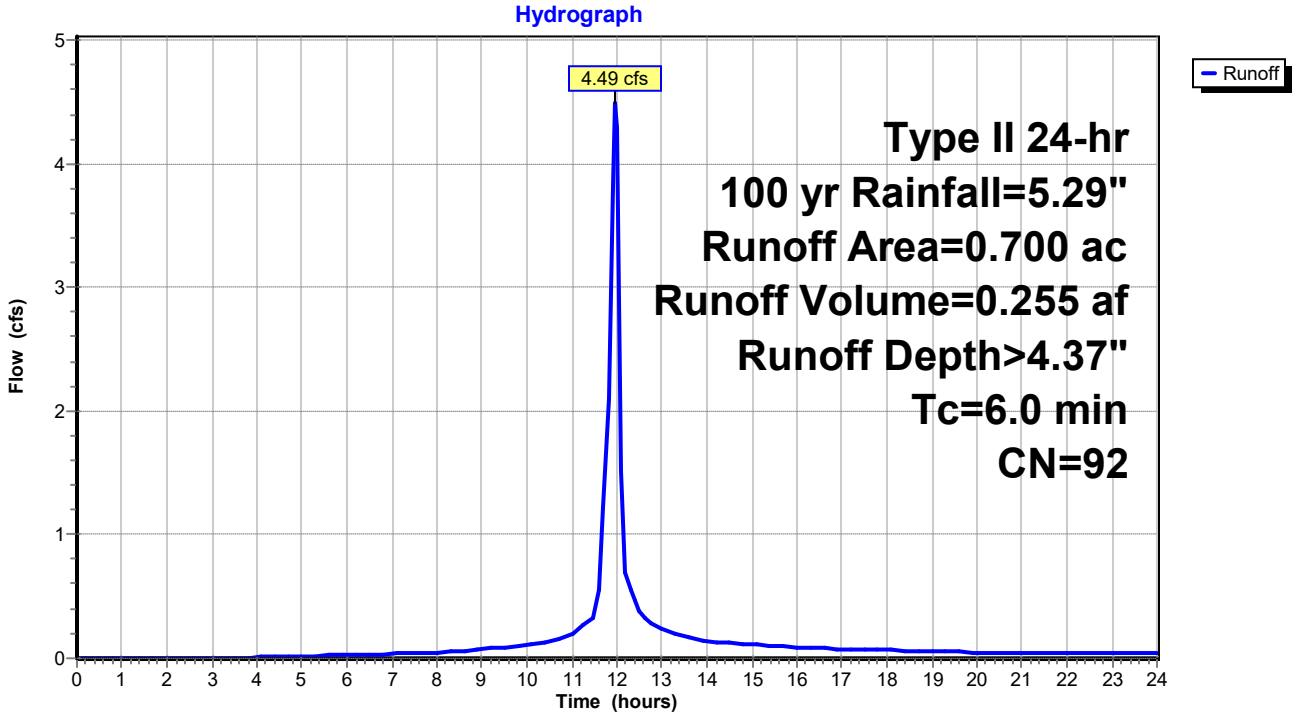
Runoff = 4.49 cfs @ 11.96 hrs, Volume= 0.255 af, Depth> 4.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 100 yr Rainfall=5.29"

	Area (ac)	CN	Description
	0.300	84	50-75% Grass cover, Fair, HSG D (post)
*	0.400	98	Paved parking, HSG D (post)
	0.700	92	Weighted Average
	0.300		42.86% Pervious Area
	0.400		57.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1Sp: Remaining Proposed Disturbed Area



Summary for Subcatchment 2Se: Remaining Site

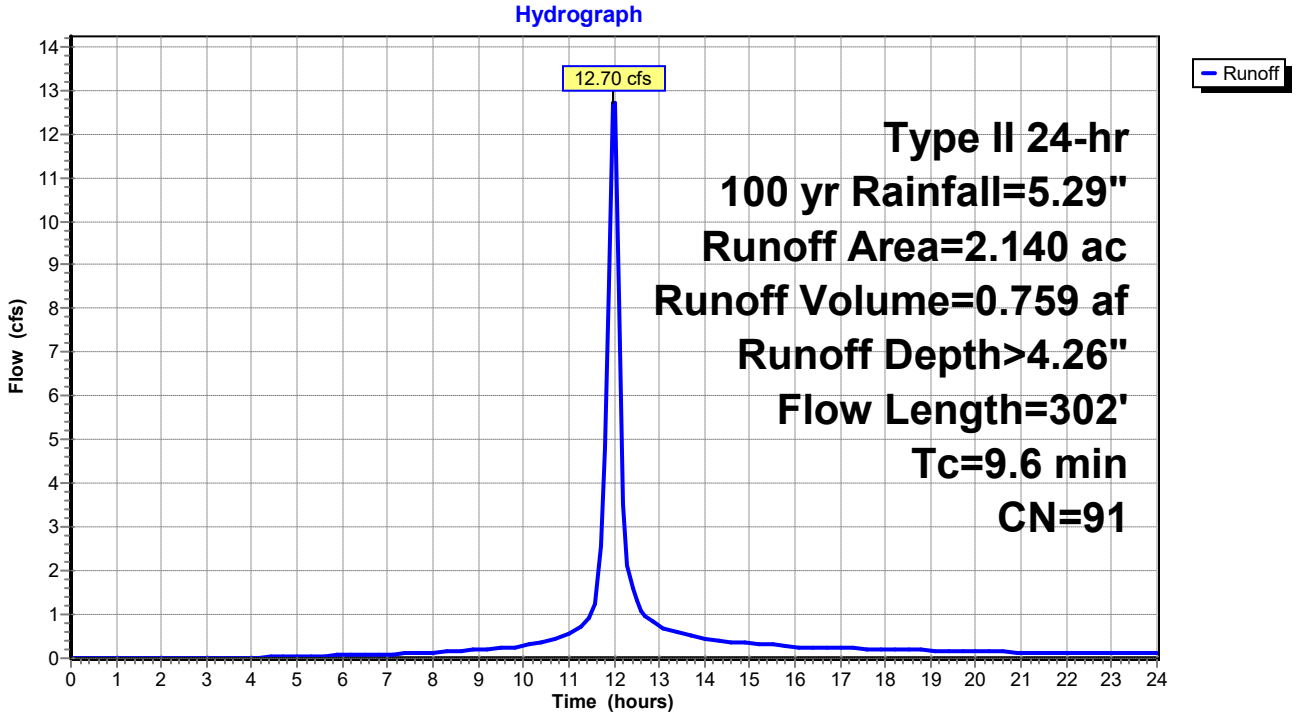
Runoff = 12.70 cfs @ 12.00 hrs, Volume= 0.759 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 100 yr Rainfall=5.29"

	Area (ac)	CN	Description
	1.040	84	50-75% Grass cover, Fair, HSG D (pre)
*	1.100	98	Paved parking, HSG D (pre)
	2.140	91	Weighted Average
	1.040		48.60% Pervious Area
	1.100		51.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	58	0.0210	0.13		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.19"
1.4	144	0.0070	1.70		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.7	100	0.0200	2.28		**Shallow Concentrated Flow, Lawn area** Unpaved Kv= 16.1 fps
9.6	302	Total			

Subcatchment 2Se: Remaining Site



Summary for Subcatchment 2Sp: Remaining Site

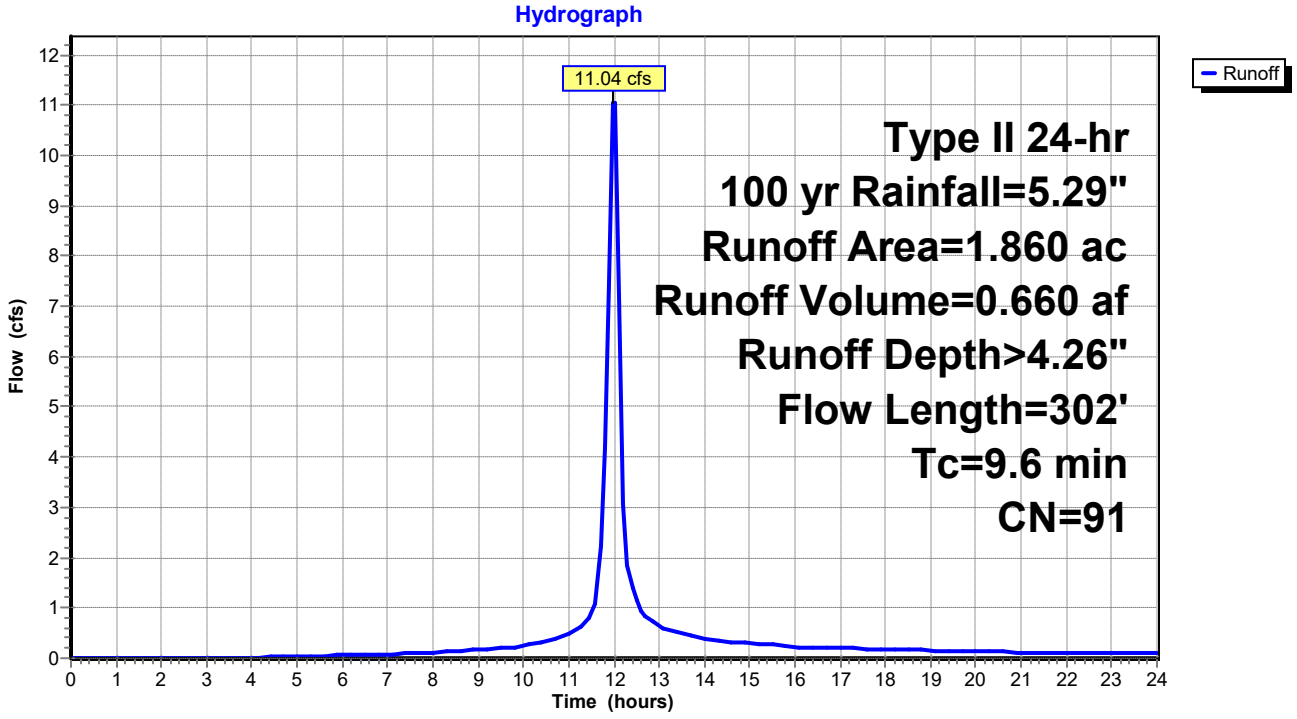
Runoff = 11.04 cfs @ 12.00 hrs, Volume= 0.660 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 100 yr Rainfall=5.29"

	Area (ac)	CN	Description
	0.920	84	50-75% Grass cover, Fair, HSG D (post)
*	0.940	98	Paved parking, HSG D (post)
	1.860	91	Weighted Average
	0.920		49.46% Pervious Area
	0.940		50.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	58	0.0210	0.13		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.19"
1.4	144	0.0070	1.70		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
0.7	100	0.0200	2.28		**Shallow Concentrated Flow, Lawn area** Unpaved Kv= 16.1 fps
9.6	302	Total			

Subcatchment 2Sp: Remaining Site



Summary for Subcatchment 3Sp: Storm Sewer Subarea

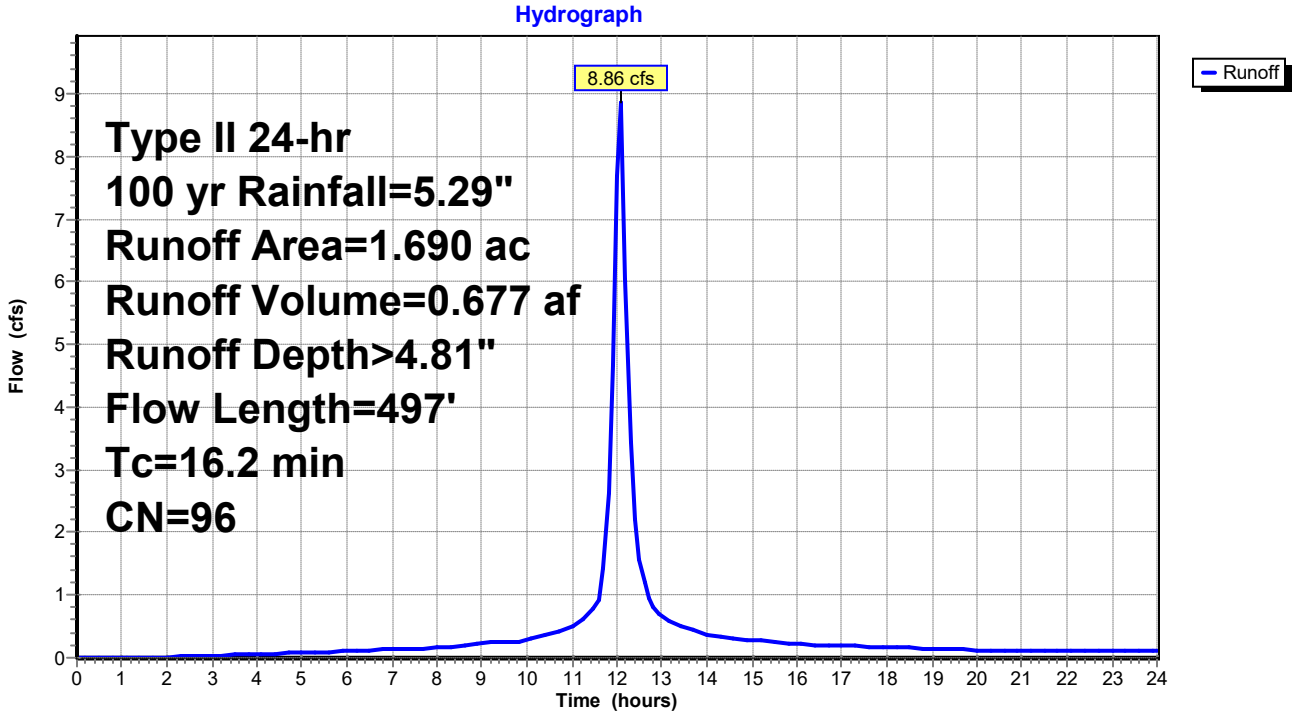
Runoff = 8.86 cfs @ 12.08 hrs, Volume= 0.677 af, Depth> 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 100 yr Rainfall=5.29"

Area (ac)	CN	Description
0.190	84	50-75% Grass cover, Fair, HSG D (post)
1.500	98	Paved parking, HSG D (post)
1.690	96	Weighted Average
0.190		11.24% Pervious Area
1.500		88.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.1	100	0.0130	0.12		**Sheet Flow, Sheet** Grass: Short n= 0.150 P2= 2.19"
0.7	82	0.0100	2.03		**Shallow Concentrated Flow, Paved** Paved Kv= 20.3 fps
1.4	315	0.0050	3.72	4.57	**Pipe Channel, storm system** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013
16.2	497	Total			

Subcatchment 3Sp: Storm Sewer Subarea



Summary for Subcatchment 4Sp: Bioretention Subarea

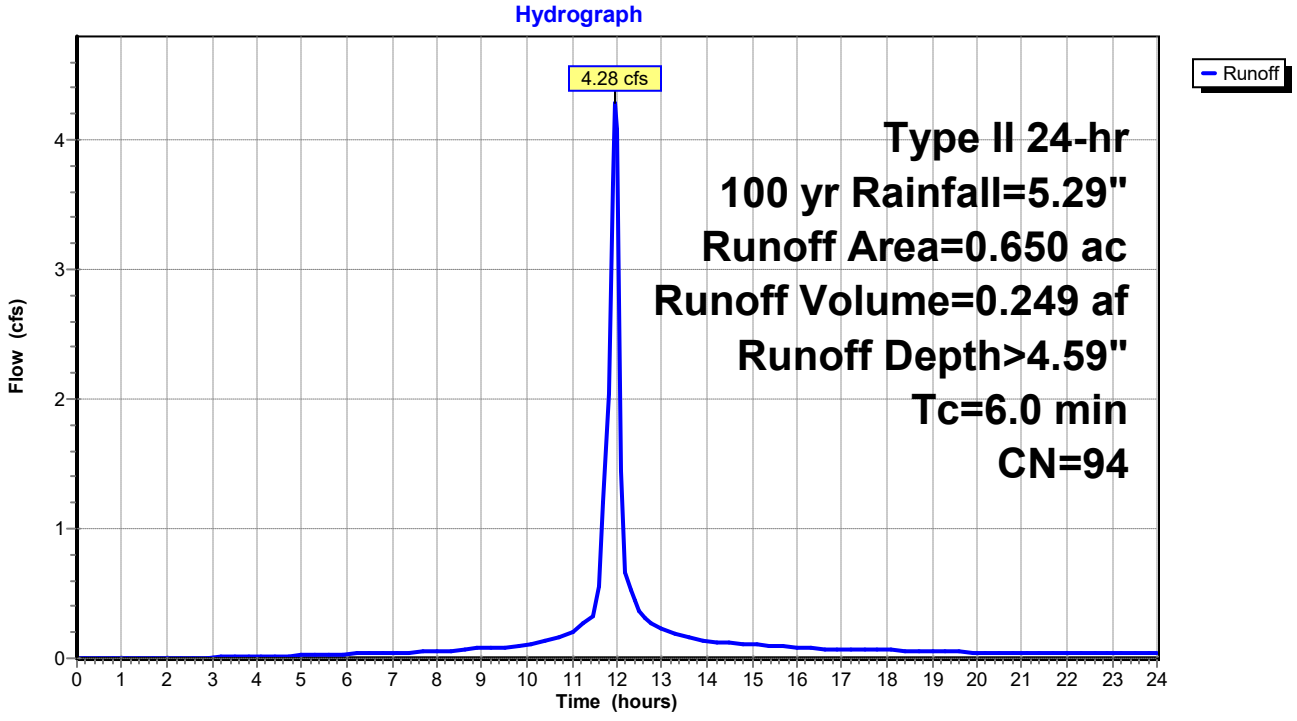
Runoff = 4.28 cfs @ 11.96 hrs, Volume= 0.249 af, Depth> 4.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type II 24-hr 100 yr Rainfall=5.29"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG D (post)
0.200	84	50-75% Grass cover, Fair, HSG D (post)
0.650	94	Weighted Average
0.200		30.77% Pervious Area
0.450		69.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4Sp: Bioretention Subarea



Summary for Pond 8P: Bioretention

Inflow Area = 0.650 ac, 69.23% Impervious, Inflow Depth > 4.59" for 100 yr event
Inflow = 4.28 cfs @ 11.96 hrs, Volume= 0.249 af
Outflow = 2.25 cfs @ 12.11 hrs, Volume= 0.213 af, Atten= 47%, Lag= 8.9 min
Primary = 0.26 cfs @ 12.11 hrs, Volume= 0.170 af
Secondary = 1.99 cfs @ 12.11 hrs, Volume= 0.043 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Peak Elev= 787.71' @ 12.11 hrs Surf.Area= 0.129 ac Storage= 0.105 af

Plug-Flow detention time= 176.2 min calculated for 0.212 af (85% of inflow)
Center-of-Mass det. time= 111.4 min (879.4 - 768.0)

Volume	Invert	Avail.Storage	Storage Description
#1	783.50'	0.059 af	**Soil Media (Prismatic)** Listed below (Recalc) 0.147 af Overall x 40.0% Voids
#2	787.00'	0.073 af	**Ponding (Prismatic)** Listed below (Recalc)
		0.132 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
783.50	0.041	0.000	0.000
787.00	0.043	0.147	0.147

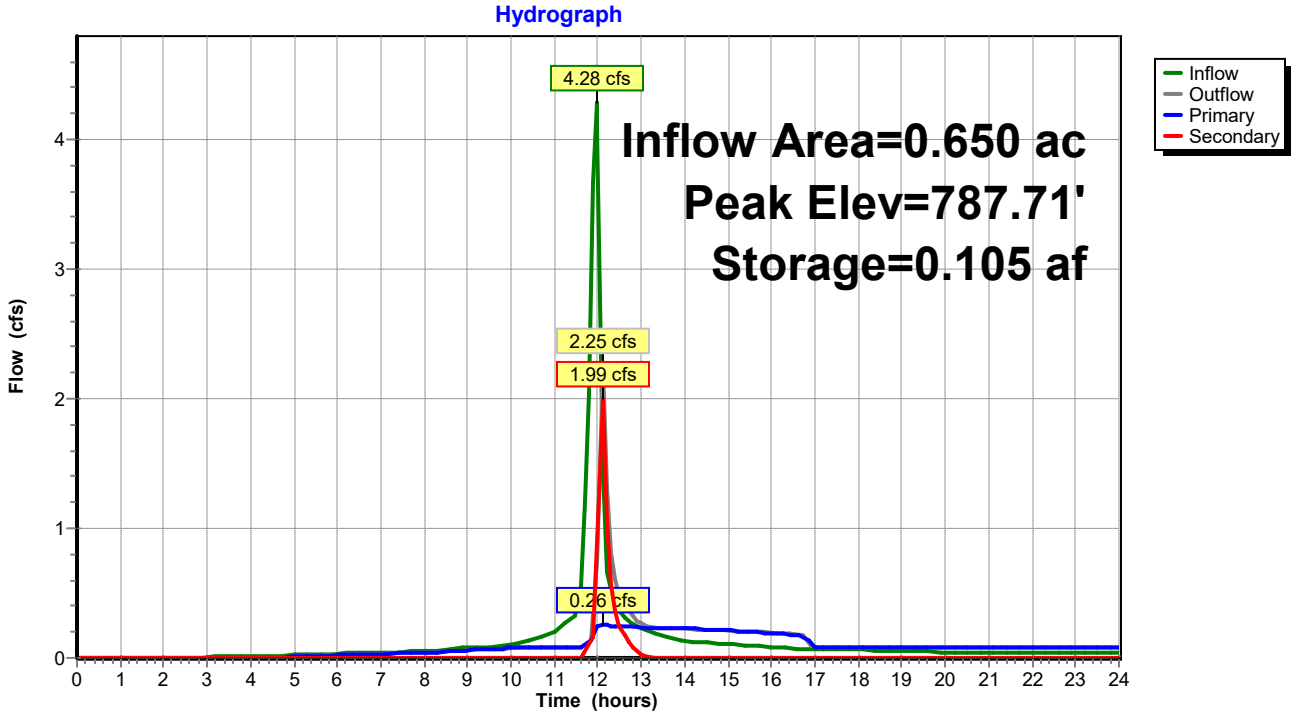
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
787.00	0.043	0.000	0.000
788.00	0.104	0.073	0.073

Device	Routing	Invert	Outlet Devices
#1	Primary	783.50'	**4.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 783.50' / 783.50' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf
#2	Device 1	783.50'	**2.000 in/hr Exfiltration over Horizontal area**
#3	Secondary	787.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.26 cfs @ 12.11 hrs HW=787.70' (Free Discharge)
└**1=Culvert** (Passes 0.26 cfs of 0.37 cfs potential flow)
└**2=Exfiltration** (Exfiltration Controls 0.26 cfs)

Secondary OutFlow Max=1.85 cfs @ 12.11 hrs HW=787.70' (Free Discharge)
└**3=Orifice/Grate** (Weir Controls 1.85 cfs @ 1.47 fps)

Pond 8P: Bioretention



Summary for Pond 9P: 24" Storage

Inflow Area = 2.340 ac, 83.33% Impervious, Inflow Depth > 4.34" for 100 yr event
Inflow = 9.12 cfs @ 12.08 hrs, Volume= 0.847 af
Outflow = 7.78 cfs @ 12.15 hrs, Volume= 0.841 af, Atten= 15%, Lag= 4.3 min
Primary = 7.78 cfs @ 12.15 hrs, Volume= 0.841 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Peak Elev= 787.20' @ 12.15 hrs Surf.Area= 0.260 ac Storage= 0.098 af

Plug-Flow detention time= 10.5 min calculated for 0.841 af (99% of inflow)
Center-of-Mass det. time= 6.3 min (801.6 - 795.3)

Volume	Invert	Avail.Storage	Storage Description
#1	782.00'	0.032 af	**Stone Envelope (Prismatic)** Listed below (Recalc) 0.105 af Overall - 0.026 af Embedded = 0.079 af x 40.0% Voids
#2	782.50'	0.019 af	**24.0" Round Pipe Storage** Inside #1 L= 260.0' S= 0.0050 '/' 0.026 af Overall - 2.0" Wall Thickness = 0.019 af
#3	787.00'	0.382 af	**Freeboard (Prismatic)** Listed below (Recalc)
		0.433 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
782.00	0.021	0.000	0.000
787.00	0.021	0.105	0.105

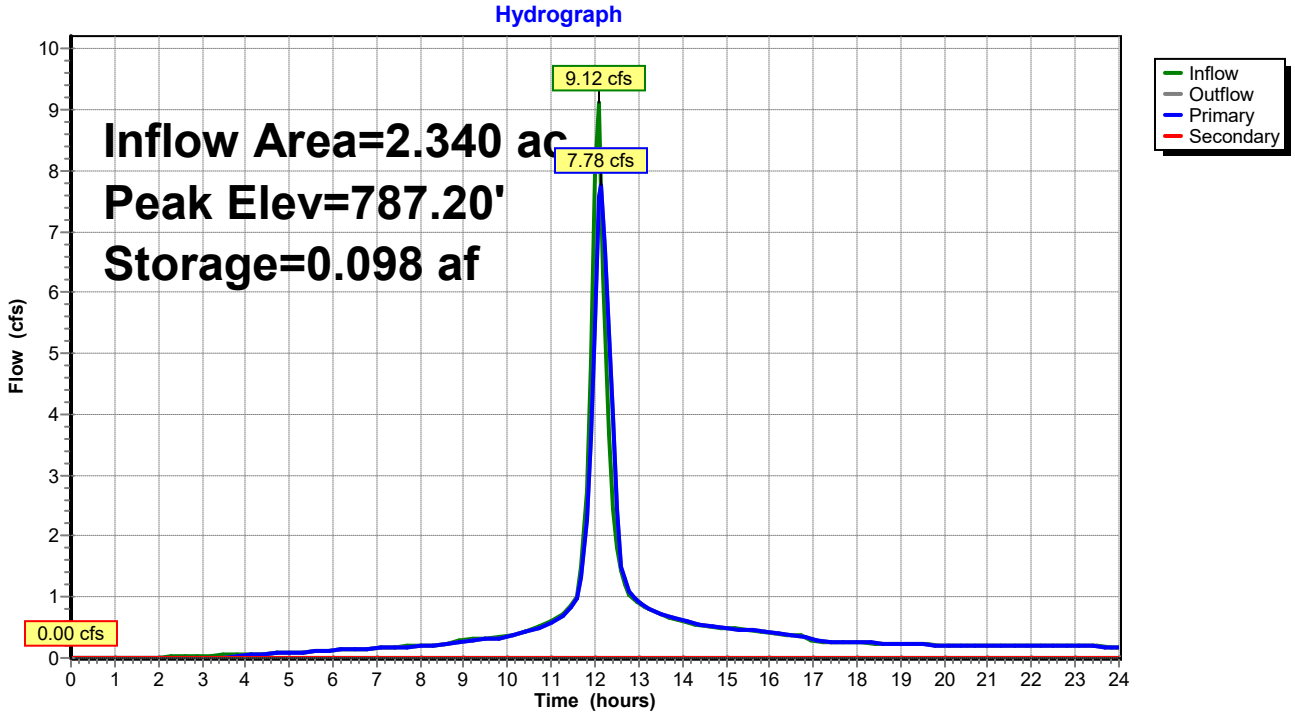
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
787.00	0.239	0.000	0.000
788.60	0.239	0.382	0.382

Device	Routing	Invert	Outlet Devices
#1	Primary	782.50'	**12.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 782.50' / 781.60' S= 0.0225 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	787.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	788.40'	**50.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=7.56 cfs @ 12.15 hrs HW=787.00' (Free Discharge)
└**1=Culvert** (Inlet Controls 7.56 cfs @ 9.63 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=782.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: 24" Storage

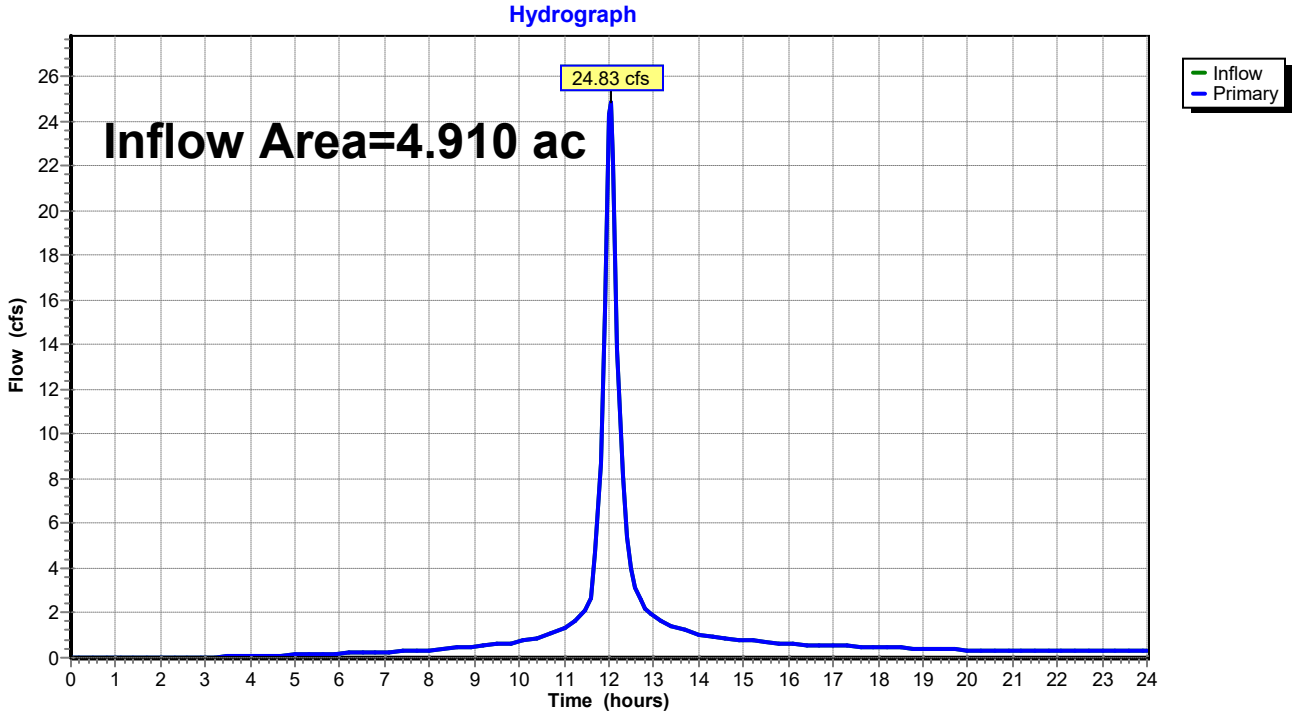


Summary for Link 1Le: Pre Dev - Offsite Ditch

Inflow Area = 4.910 ac, 61.10% Impervious, Inflow Depth > 4.44" for 100 yr event
Inflow = 24.83 cfs @ 12.03 hrs, Volume= 1.817 af
Primary = 24.83 cfs @ 12.03 hrs, Volume= 1.817 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs

Link 1Le: Pre Dev - Offsite Ditch

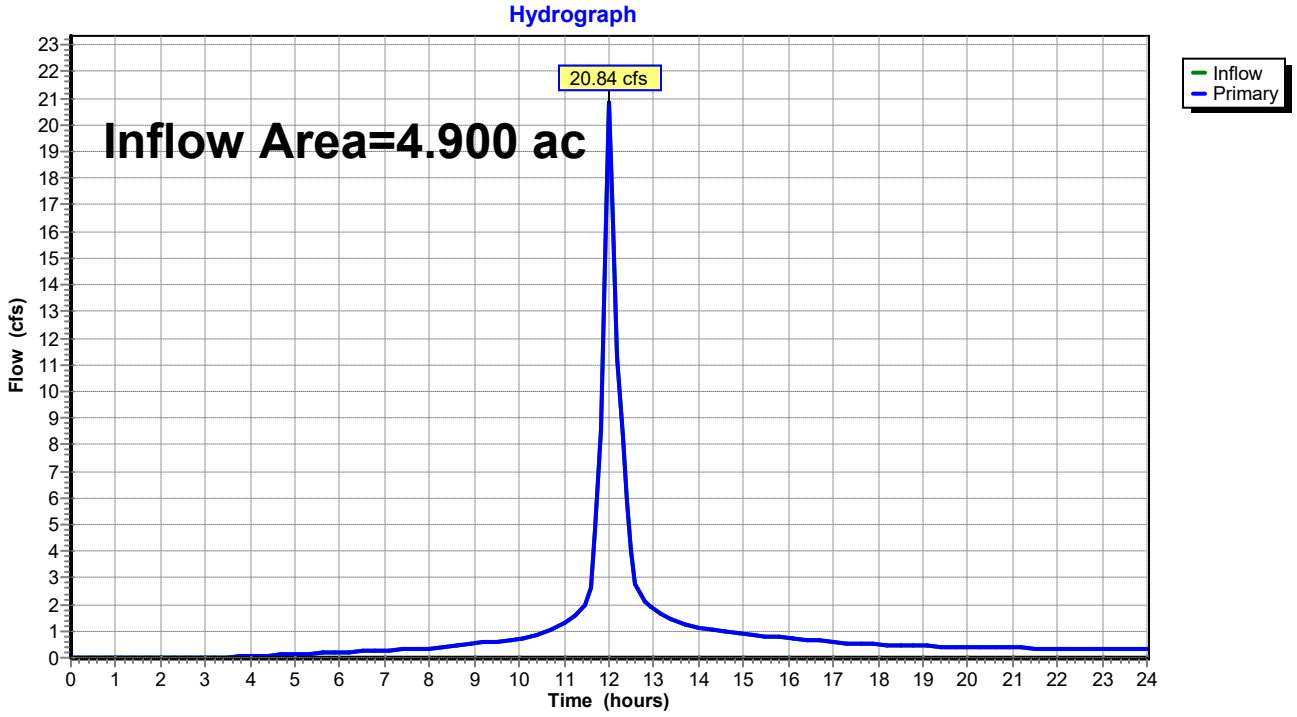


Summary for Link 1Lp: Post Dev - Offsite Ditch

Inflow Area = 4.900 ac, 67.14% Impervious, Inflow Depth > 4.30" for 100 yr event
Inflow = 20.84 cfs @ 12.01 hrs, Volume= 1.756 af
Primary = 20.84 cfs @ 12.01 hrs, Volume= 1.756 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs

Link 1Lp: Post Dev - Offsite Ditch



1374-22 Hydrocad Analysis
Prepared by Marathon Engineering

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Appendix M

Revisions to the SWPPP