

EAST OF HUDSON  
WATERSHED CORPORATION

Solicitation 2021-01

REQUEST FOR PROPOSALS

for

Professional Engineering Services

Stormwater Retrofit Projects

Y-MU-1001

C-NC-1001

EOHWC Solicitation Issue Date: April 1, 2021

Site Visit Date: N/A

Questions Due Date: April 22, 2021

Proposal Due Date: April 29, 2021



## 1. OVERVIEW

### 1.1 General Information

The East of Hudson Watershed Corporation (EOHWC) is seeking Proposals to provide civil engineering services to the EOHWC for the design, permitting, and construction phase services (CPS) of stormwater retrofit projects (SRPs) during its Year 6 through 10 funding cycle. The successful Proposer will demonstrate the required expertise and experience to fulfill all requirements of this Solicitation and any Addenda or modifications to this Solicitation.

This Solicitation includes several attachments and refers to the EOHWC Stormwater Retrofit Project Design Manual (SRPDM). The SRPDM is available on the EOHWC web site ([www.eohwc.org](http://www.eohwc.org)). All of the information in this Solicitation and attachments, Addenda, and SRPDM shall be considered the Work. The Proposer shall consider the information in the attachments and the SRPDM when preparing their proposal.

All questions and inquires for additional information are to be submitted in writing by 4:00 pm on Thursday, April 22<sup>nd</sup>, 2021. Project addendums will be posted by 12:00 PM on the EOHWC website on Friday, April 23<sup>rd</sup>, 2021. Proposals for these projects must be received by 12:00 PM on Thursday, April 29<sup>th</sup>, 2021.

### 1.2 Definitions

**Engineer:** the engineering firm awarded a Contract from their proposal for the services described in this Solicitation.

**Host Municipality:** the municipality in which the SRP is located.

**Proposer:** the engineering firm preparing and submitting a proposal for the services described in this Solicitation.

**Site:** the physical location at which the stormwater retrofit will be constructed.

**Solicitation:** This document, including all of the items listed in the appendices, forms and exhibits, and any subsequent Addenda or clarifications issued by EOHWC.

**Stormwater Retrofit Project or SRP:** a stormwater management practice described in the stormwater retrofit plan prepared by either EOHWC, the Dutchess County MS4 Coordinating Committee, Putnam County MS4 Coordinating Committee, or Westchester County Croton-Kensico Watershed Intermunicipal Coalition, including modifications/revisions by EOHWC, and approved by the NYSDEC.

**Work:** All of the information in this Solicitation and attachments, Addenda, and SRPDM.



### 1.3 EOHWC Contact:

Kevin Fitzpatrick, P.E., Director of Engineering  
East of Hudson Watershed Corporation  
2 Route 164, Suite 2  
Patterson, NY 12563  
[Kevin@EOHWC.org](mailto:Kevin@EOHWC.org), (845) 319-6349

**[Fax and email are provided for inquiries only; the response to this Solicitation may not be submitted via email]**

## 2. SCOPE OF SERVICES

2.1. Year 6 through 10 Projects. EOHWC has caused to be prepared a preliminary report identifying SRP's that may be undertaken by EOHWC during the Years 6 through 10 funding period. A copy of such report may be found on the EOHWC website at [www.eohwc.org](http://www.eohwc.org). The Proposer must be a professional engineer or firm licensed to perform engineering services in the State of New York. EOHWC anticipates identifying one or more engineering firms capable of providing the requested services for one or more of such Year 6 through 10 SRP's and providing the best value to the EOHWC as determined by EOHWC in its discretion.

In this solicitation round EOHWC anticipates awarding one engineering services contract for the projects identified as set forth at **Appendix I**. Additional solicitation rounds may be undertaken at any time in EOHWC's discretion.

2.2. SRP Design Requirements. SRP engineering services will be consistent with the requirements of the EOHWC Stormwater Retrofit Project Design Manual (SRPDM). SRP design will be expected to take into account the requirements of the Policy for the EOHWC's Operation and Maintenance of Stormwater Retrofit Practices and the EOHWC's SRP Operations and Maintenance Manual (OMM) available on the EOHWC's website, in order to assist the EOHWC in the achieving a cost-effective balance of installation and maintenance costs.

2.3. Terms and Conditions of Contract. The EOHWC expects to enter into a contract with the selected Proposer(s) in substantially the form attached hereto at **Appendix II**. Submission of a proposal constitutes an acknowledgement that the proposer has thoroughly examined and become familiar with the work required under this Solicitation, that it is capable of performing quality work to achieve the objectives of the EOHWC, and that it will accept those terms and conditions unless exceptions are specified in the proposer's submission as set forth in this section. Any objection to the terms and conditions must be expressly identified in a separate section of the respondent's proposal identified as "objections to terms and conditions" and with



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reference to the specific provisions objected to. EOHWC reserves the right to reject any objections as nonresponsive.

2.4. SRP's. The Scope of Services and schedules for specific SRP's shall be authorized on a task order basis that identifies the specific project and schedule for which Work is authorized to commence. All submittals and design milestones are required to meet the structure set forth in the SRPDM.

2.5. Contract Term. It is the intent to award one or more Contract(s) for a one-year period with the option for up to two one-year renewal(s), subject to EOHWC's right of early termination as provided in the Contract. Any decision to renew the Contract(s) will be at the sole discretion of EOHWC.

### 3. PROPOSAL SUBMITTAL

3.1. Sealed Proposals. Sealed proposals will be received at the EOHWC main office at either of the following:

Postal Delivery:  
EOHWC  
2 Route 164  
Suite 2  
Patterson, NY 12563

Parcel Delivery Service:  
EOHWC  
2 Route 164  
Suite 2  
Patterson, NY 12563

Proposals must be received by 12:00 PM on the Proposal Due Date specified on the cover page of this Solicitation. The Proposer shall be responsible for actual delivery of the proposal to the required location before the deadline. Any proposal received after the deadline by any delivery method will not be accepted by EOHWC. All electronically transmitted Proposals will be disqualified by EOHWC. A Proposal may be withdrawn by the Proposer prior to the specified submittal time. No Proposal may be withdrawn by any party after the specified submittal time.

Each proposal shall include five (5) hard copies and one (1) CD containing the required forms and/or certifications provided with this Solicitation and Addenda, and shall be completed by the Proposer. The Proposer shall submit the required number of copies in one or more sealed opaque envelope(s). The outermost envelope shall include: Solicitation Number, "PROPOSAL ENCLOSED", the name and address of the Proposer; in a location and of sufficient size to be easily identified by any person receiving the envelope. The Proposal shall be written in a legible font style and size (e.g. arial 12 point, Times New Roman 12 point, etc.)

Proposers are required to provide all of the information requested in this Solicitation, along with any additional information or alternates requested by EOHWC. It is the Proposer's responsibility to provide all requested information and to describe clearly the benefits of their service in





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meeting the needs of the EOHWC established in this Solicitation. The EOHWC will not be responsible for any omissions on the part of the Proposer, and is not required to notify the Proposer of omitted information, nor required to accept omitted information after the specified submittal time. Proposers are cautioned to read the Solicitation carefully and follow the response format, as any deviation from the format and requirements listed may be cause for rejection. No proposal will be accepted which contains any changes, additions, omissions or erasures.

Proposals must be signed in ink by the Proposer. Proposals which are incomplete, conditioned or obscure, or which contain additions not called for (e.g. erasures, alterations, ambiguities or irregularities of any kind) may be rejected as incomplete.

3.2. Site Visits. Informational site visits, if available, will be conducted on the date or dates set forth on the cover page of this Solicitation. Site access to all projects may not be available at the time of this Solicitation.

3.3. Interpretation, Clarifications, and Addenda

**Questions** regarding this Solicitation must be in writing and must be received by the contact person identified above at the address set forth above no later than 4:00 p.m. on the Questions Due Date specified on the cover page of this Solicitation. No oral modification will be binding.

Any and all such interpretations and any supplemental instructions will be in the form of a written Addendum to the Solicitation. If an Addendum is issued, it will be sent by e-mail to Proposers who have received this Solicitation. Any Addenda so issued shall become part of this Solicitation.

Failure of any Proposer to receive any such addendum or interpretation shall not relieve such Proposer from any obligation under his Proposal submitted.

**4. PROPOSAL CONTENTS**

4.1. Required Information. The Proposal shall include the following:

a. Cover Letter:

- 1 Name, Address, and Telephone number of the licensed Professional Engineer to be assigned as project manager for the project or projects (include local office address if different)
- 2 Acknowledgement of receipt of any Addenda
- 3 Printed name and signature by an Officer authorized to bind the Proposer

b. Statement of Qualifications and Experience. Include the background, qualifications, credentials and experience of the Project Manager and other key project staff proposed to



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be assigned that would support its ability to do the proposed work in a professional and timely manner.

- c. Design Approach. The proposal shall describe how the Proposer will provide the SRP design for the designated SRP or SRP's based on the criteria described in the EOWHC Stormwater Retrofit Project Design Manual, most recent edition.
- d. Statement of References (3 references). Describe recent projects similar to the type of work requested. Include a detailed list of three projects with similar characteristics. For the projects listed, provide the name, title, and telephone number of the client official responsible for the project.
- e. Financial Proposal.
  - 1 A lump sum fee for each project (FORM B). The fee shall be inclusive of direct and indirect fees and/or costs and taxes. The fee shall not include any excise or sales taxes from which the municipalities are exempt. Any contingencies/uncertainties shall be clearly identified.
  - 2 Detailed hourly fee schedule showing the rates for each of the professional or clerical staff proposed to be used. The rate shall be the fully-loaded rate, inclusive of all overhead and profit markup.
  - 3 Identify Project manager, key staff and any proposed Subcontractors.
- f. Conflicts of Interest statement (FORM D): The Proposal shall include a statement describing any potential conflicts of interest the Proposer may have due to work being done for outside parties. Also the Proposal shall describe any business or family associations with any of the Board of Directors of the EOHWC, or of any persons employed by the EOHWC or any municipalities who are members of EOHWC. Refer to the EOHWC's Code of Ethics posted on its website, [www.eohwc.org](http://www.eohwc.org).
- g. Statement of Non-Collusion (FORM E)
- h. Statement of Insurance (FORM F)
- i. Confidentiality Notice (FORM G)
- j. Certification Regarding VENDEX and Value of All Contracts with New York City (Form H)
- k. Any other information that the Proposer may wish to provide to demonstrate that they can complete the work described in this Proposal.

4.2. Joint Proposals. Where two or more Engineers desire to submit a single proposal in response to this Solicitation, they should do so on a prime-sub Consultant basis rather than as a joint venture.

4.3. Exceptions and Deviations. Any exceptions to the requirements in this Solicitation, including the insurance requirements and the contract terms and conditions, must be included as a separate element of the proposal under the heading "Exceptions and Deviations." EOHWC retains the right, in its sole discretion, to reject these requests for exception.

4.4. PASSPort



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a. The Proposal shall include certification and documentation that the Proposer and all subcontractors retained or to be retained by it have completed the applicable New York City Procurement and Sourcing Solutions Portal (PASSPort) questionnaire, submitted the completed questionnaire to New York City as required therein, and otherwise complied with all PASSPort requirements.

b. If the Proposer's complete PASSPort submission is more than 2½ years old, the Proposer shall submit documentation that it has completed new forms and returned them directly to New York City at the address provided therein. If there have been no changes in information requiring an update of the forms, the Proposer shall provide proof it has executed a Certification of No Change and submitted it to New York City. If there have been changes in information requiring an update of the forms, the Proposer shall submit proof that it has submitted full questionnaires using new forms to New York City.

4.5. Duration of Proposal. The Proposal shall remain effective for at least ninety (90) days from the submittal date defined in the Advertisement or Addenda.

4.6. Statement of Insurance. Attach evidence of general liability, automobile liability, worker's compensation, and professional liability insurance as set forth at **APPENDIX II**. By signing and submitting a proposal, the Respondent certifies that if awarded the contract, it will have the applicable coverage described at **APPENDIX II** in effect at the time of award and execution, and will maintain this coverage during the entire term of the contract.

4.7. Required Forms. All responses shall include the attached Forms, along with all supporting items. All blank spaces in the Forms must be filled in. Any items which are not applicable should be marked N/A (not applicable).

## 5. PROCEDURE FOR SELECTION

5.1. Basis of Award. EOHWC anticipates making the award to the proposer or proposers whose proposal represents the best value taking into account all facts and circumstances.

5.2. Review Procedure. A review committee consisting of the EOHWC Technical Committee and the Director of Engineering will review and evaluate proposals taking into account the following factors:

- a. Professional qualifications and specific experience and competence in area needed: 30%
- b. Capacity to accomplish the work in the required time, past performance on contracts with EOHWC and other agencies, familiarity with location and local regulations regarding project(s), and history of change orders required in construction: 30%
- c. Bid price: 40%.



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In reviewing the foregoing factors, EOHWC may further consider such information as it may deem material to the foregoing including: Financial and organizational capacity; legal authority to do business in the State of New York and the Counties of Dutchess, Putnam and Westchester; business integrity of the owners/officers/principals/members and contract managers, including compliance with New York City PASSPort procedures; past performance of the bidder on prior government contracts; sufficiency of proposer's personnel to meet the requirements deliverables of the specifications; ability to meet insurance requirements noted in the specifications; and record of compliance with NYS Labor Law requirements.

EOHWC's review committee may select one or more respondents for interviews based on the review of the responses, and will recommend one or more firms to the Executive Committee.

The Executive Committee will make the final selection and authorization of contract terms in its discretion based on its determination as to the best interests of EOHWC taking into account all facts and circumstances it deems material. Notwithstanding any other provisions of this Solicitation, EOHWC reserves the right to award a contract to the Proposer(s) that best meet the requirements of the Solicitation, and not necessarily to the lowest cost proposal.

5.3. Notice of Award and Contract. The EOHWC will select a firm by means of a Notice of Award issued pursuant to a resolution adopted by the Executive Committee. Neither the selection of a firm nor the issuance of a Notice of Award shall constitute a binding commitment on behalf of the EOHWC to enter into a services contract with the firm, as any binding arrangement must be set forth in definitive agreement signed by both parties and shall be subject to all requisite approvals.



## 6. EOHWC's RESERVATION OF RIGHTS

6.1. **Reserved Rights.** The EOHWC in its sole discretion specifically reserves to itself the following rights:

- a. Amend, withdraw or cancel this Solicitation, in whole or in part, at any time;
- b. Award a contract to a Proposer, in whole or in part;
- c. Disqualify any Proposer whose conduct and/or proposal fails to conform to the requirements of this solicitation;
- d. Seek clarifications and revisions of Proposals;
- e. Use proposal information obtained through site visits, management interviews and the EOHWC's investigation of a Proposer's qualifications, experience, ability or financial standing, and any material or information submitted by the Proposer in response to the EOHWC's request for clarifying information in the course of evaluation and/or selection under this solicitation;
- f. Waive any informality or defect;
- k. Negotiate with a Proposer, within the scope of the Solicitation in the best interests of the EOHWC;
- m. Utilize any and all ideas submitted in the Proposals received.

### 6.2. No Liability for Errors

While the EOHWC has used considerable efforts to ensure an accurate representation of information in this Solicitation, EOHWC makes no representation as to the information provided. All Proposers are urged to conduct their own investigations into the material facts and the EOHWC shall not be held liable or accountable for any error, omission, or inconsistency in any part of this Solicitation. Proposer is solely responsible to establish, verify, and ensure that any and all information is correct, complete and necessary to provide a complete and informed proposal.

### 6.3. No EOHWC Obligation for Proposal Costs

Costs associated with the preparation of a proposal, including but not limited to any transportation costs to any subsequent interviews shall be the sole responsibility of the Proposer, with the express understanding that there will be no claim whatsoever for reimbursement from the EOHWC.

6.4. Public Announcements. News releases or other public announcements relating to this Solicitation shall not be made by any party without the prior written approval of the EOHWC.



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6.5. Freedom of Information Law. All proposals submitted to the EOHWC in response to this Solicitation may be disclosed in accordance with the standards specified in the Freedom of Information Law, Article 6 of the Public Officers Law of the State of New York (“FOIL”). A firm submitting a proposal may provide in writing, at the time of its submission, a detailed description of the specific information contained in its submission which it has determined is a trade secret and which, if disclosed, would cause substantial injury to such firm’s competitive position, including completion of **FORM G**. This characterization shall not be determinative, but will be considered by the EOHWC when evaluating the applicability of any exemptions in response to a FOIL request. However, EOHWC assumes no responsibility for any disclosure or use of information submitted.

**ATTACHMENTS TO THIS SOLICITATION:**

**APPENDIX I: Initial Evaluations for SRP’s in this Solicitation Round**

**APPENDIX II: Form of Agreement for Professional Services (Engineering Services), including Insurance Requirements**

**APPENDIX III: Proposal Forms**

The following forms must be completed and returned with the proposal:

- FORM "A" Business Information
- FORM "B" Lump Sum Fee Proposal
- FORM "C" Hourly Fee Schedule
- FORM "D" Conflict of Interest Affidavit
- FORM "E" Statement of Non-Collusion
- FORM "F" Statement of Insurance
- FORM "G" Confidentiality Notice (FOIL)
- FORM "H" Certification Regarding VENDEX and Value of All Contracts with New York City



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2 Route 164  
Patterson, NY 12563  
Tel: 845-319-6349  
Fax: 845-319-6391

## APPENDIX I

### Initial Evaluations for SRPs



# EAST OF HUDSON WATERSHED CORPORATION

2 Route 164  
Patterson, NY 12563  
Tel: 845-319-6349  
Fax: 845-319-6391

## INITIAL EVALUATION SUMMARY INFORMATION

Project ID: C-NC-1001

Location: 401 Croton Ave, Cortland Manor, NY

Land Ownership: Private

Requested services: The proposed stormwater retrofit project includes the design and construction administration services for installation of a proprietary practice on private property. Engineer is expected to confirm all information provided within the Initial Evaluation.

Schedule: Engineer to provide documents ready for installation in September 2021.

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Project ID: Y-MU-1001

Location: Strang Blvd, Yorktown, NY

Land Ownership: Municipal

Requested services: The proposed stormwater retrofit project includes the design and construction administration services for installation of a proprietary practice on private property. Engineer is expected to confirm all information provided within the Initial Evaluation.

Schedule: Engineer to provide documents ready for construction in September 2021.

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## **C-NC-1001, CROTON AVE**

Owner: Town of Cortlandt

Prepared by: East of Hudson Watershed Corporation

Date: 03/08/2021

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**Appendix A**

- FIRM Map
- NYSDEC ERM Wetland Map
- NWI Wetland Map
- Soil Characterization and Delineation

**Appendix B**

- Contributing Drainage Area Mapping
- C-NC-1001 Phosphorus Loading Calculations

## **1.0 INTRODUCTION**

The East of Hudson Watershed Corporation (EOHWC) was created to oversee the design and installation of Stormwater Retrofit Projects (SRP's) within the New York City Department of Environmental Protection (NYCDEP) drinking water reservoir system located east of the Hudson River. The major focus of these projects is the reduction of phosphorus (P) from stormwater runoff prior to entering the reservoir system and is monitored and approved by the New York State Department of Environmental Conservation (NYSDEC).

The basis of design for the SRP program is the NYSDEC Stormwater Management Design Manual (SMDM), 2015. Both Water Quality Volume (WQv) calculation and stormwater management practice (SMP) selection follow all SMDM, 2015 regulations and requirements.

The engineering initial evaluation process begins with an estimation of the phosphorus concentration or "loading" within the stormwater runoff from a given drainage area. Once a phosphorus load (P-load) has been determined, an appropriate SMP is selected to remove as much of the P-load as the site constraints will allow.

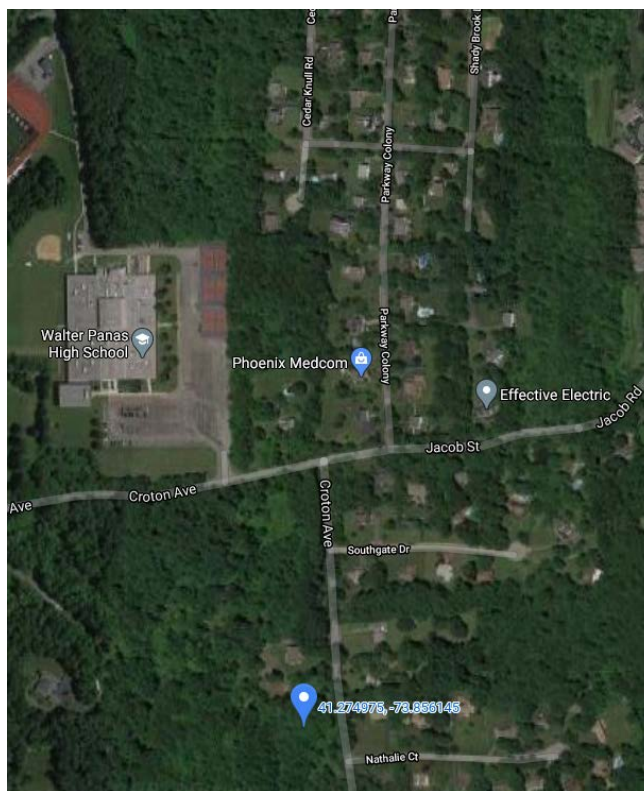
### **1.1 Project Objectives**

The C-NC-1001 project is an isolated area of stormwater flow. This project proposes to capture and treat the stormwater runoff from the residential areas and buildings, prior to discharge into the nearby stream. This will be accomplished through the implementation of an ACF Environmental FocalPoint system.

## **2.0 EXISTING CONDITIONS**

### **2.1 Project Location**

The C-NC-1001 drainage area is located within the Town of Cortlandt, New York on Croton Avenue. The proposed implementation location is at 401 Croton Avenue.



**Figure 2.1 C-NC-1001 Retrofit Location Map**

## 2.2 Current Land Use

The drainage area consists of residential land use. Most of the land is covered in residential houses or streets. The mapping figures listed below verify the locations of any existing wetland areas managed by the NYSDEC and the USACOE, and those areas designated as flood plains by the Federal Emergency Management Agency (FEMA). The maps are shown in Appendix A and include the following:

- FIRM Mapping
- NYSDEC ERM Wetland Mapping
- National Wetland Inventory (NWI) Wetland Mapping

## 2.3 USGS Soil Classification

The Hydrologic Soil Group index is 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). Figure 2.2 below shows the soil types in the project area.





**Figure 2.2 USGS Soil Types**

## **2.4 Site Topography**

The drainage area cascades downward from the neighborhood north of Croton Avenue, and from a high point at the top of Southgate Drive down to a low point at the proposed project location.

## **2.5 Stormwater Flow Path**

There are multiple stormwater flow paths of interest on the project site. Stormwater flows mostly by sheet flow and shallow concentrated flow. In some areas, stormwater enters catch basins where it flows via channel flow. The catch basins are expected to outfall near the project installation location and will be diverted to outfall into the project.

## **2.6 Nearest Receiving Waterbody**

The nearest receiving water body is the Dixie Brook, south of the proposed project location. The Dixie Brook captures the runoff from the Croton Avenue and feeds into the New Croton Reservoir. The ERM map is included in Appendix A.

### **3.0 ENGINEERING BASIS OF DESIGN**

The SRPs selected for this project utilizes the area as effectively as possible given the site constraints and provides treatment of the water quality volume prior to reaching the unclassified stream.

#### **3.1 Design Considerations**

Numerous design considerations were examined as part of this projects SMP selection. The site constraints noted below eliminate the use of many SMP's.

- 1) Possible storm basin outfalls at too great of a depth.
- 2) Restricted space for installation of an SRP in available areas.
- 3) Nearly entire drainage area is privately owned.

#### **3.2 Stormwater Management Practice (SMP)**

The EOHWC has chosen the installation of a FocalPoint system for this project location as it can provide substantial treatment of the water quality volume, and have a reduced footprint. Site survey of the project area will be performed by the Engineering Firm selected to design this project.

#### **3.3 Design Parameters**

The total drainage area for the C-NC-1001 project is approximately 22.69 acres. A Figure showing the drainage area is included in Appendix B. The drainage areas calculations for each section are provided in Appendix B along with each respective phosphorus analysis.

#### **3.4 Phosphorus Loading Calculation**

As noted above, the contributing drainage area was used to determine the runoff information for the WQv events for the proposed SRP. As part of this design, the simple method was used to calculate the WQv and the P-Loading Rate for the site. The WQv was determined to be approximately 45,738 ft<sup>3</sup>, with a P-load of 14.29 Kg/yr. The installation of catch basin inserts will provide a reduction of 65% of the phosphorus load. The total anticipated P-Reduction is 9.29 kg/yr.

#### **4.0 ANTICIPATED REGULATORY APPROVAL AND PERMITS**

It was determined that the following permits may be required by the Town of Cortland Manor, NYS, and the USACOE.

- USACOE-Joint Permit Application for NWP 43-Stormwater Maintenance Facilities.

It is the responsibility of the design engineer to verify which permits are required. A NYSDEC general permit for construction activity SPDES GP-0-15-002 will be required for this project.

**Appendix A**

FIRM Map

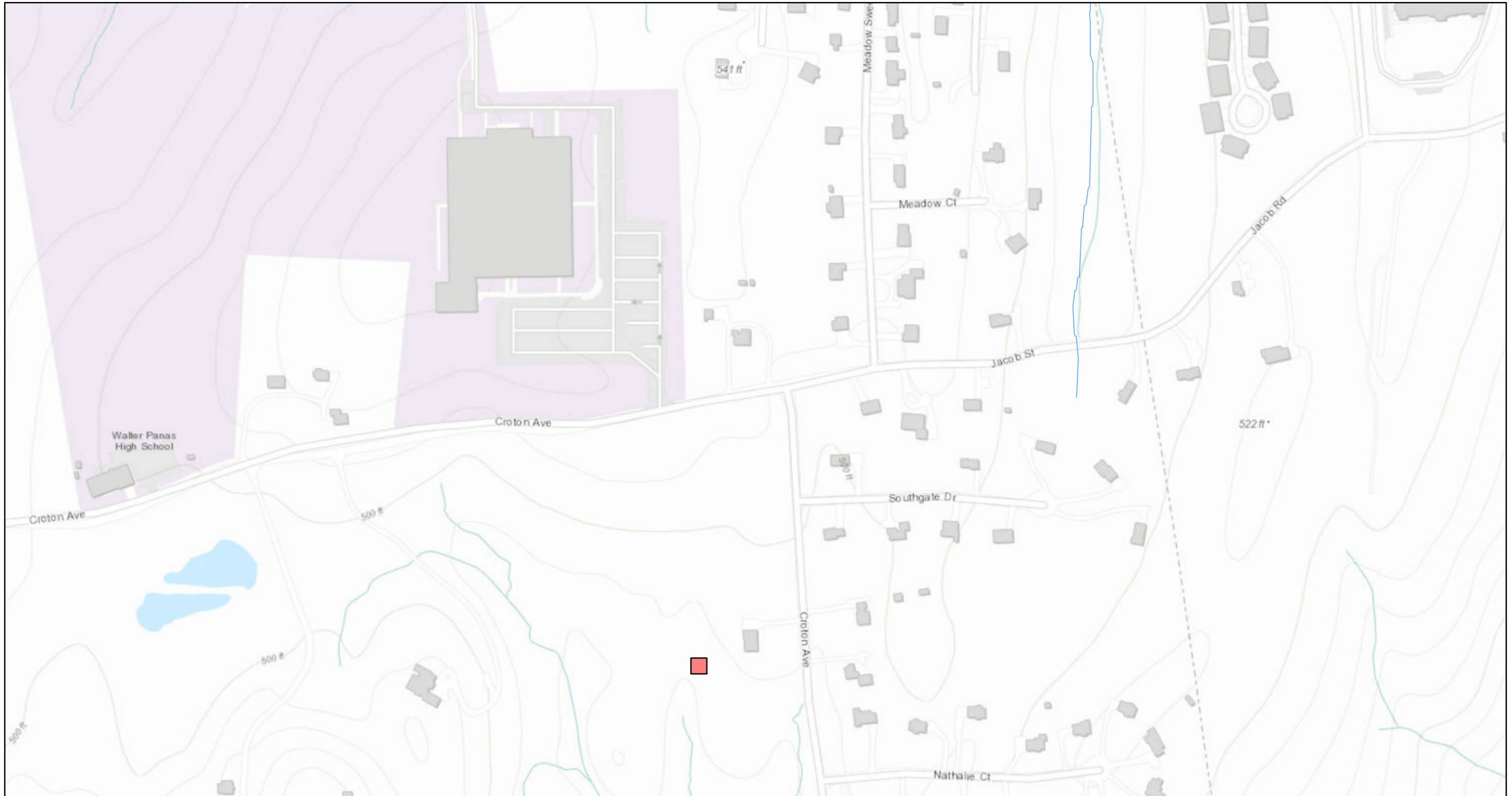
NYSDEC ERM Wetland Map

NWI Wetland Map

Soil Characteristics and Delineation

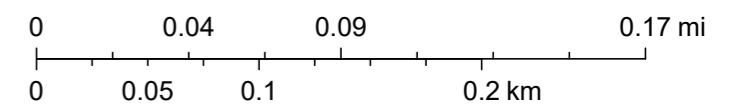


# Environmental Resource Mapper

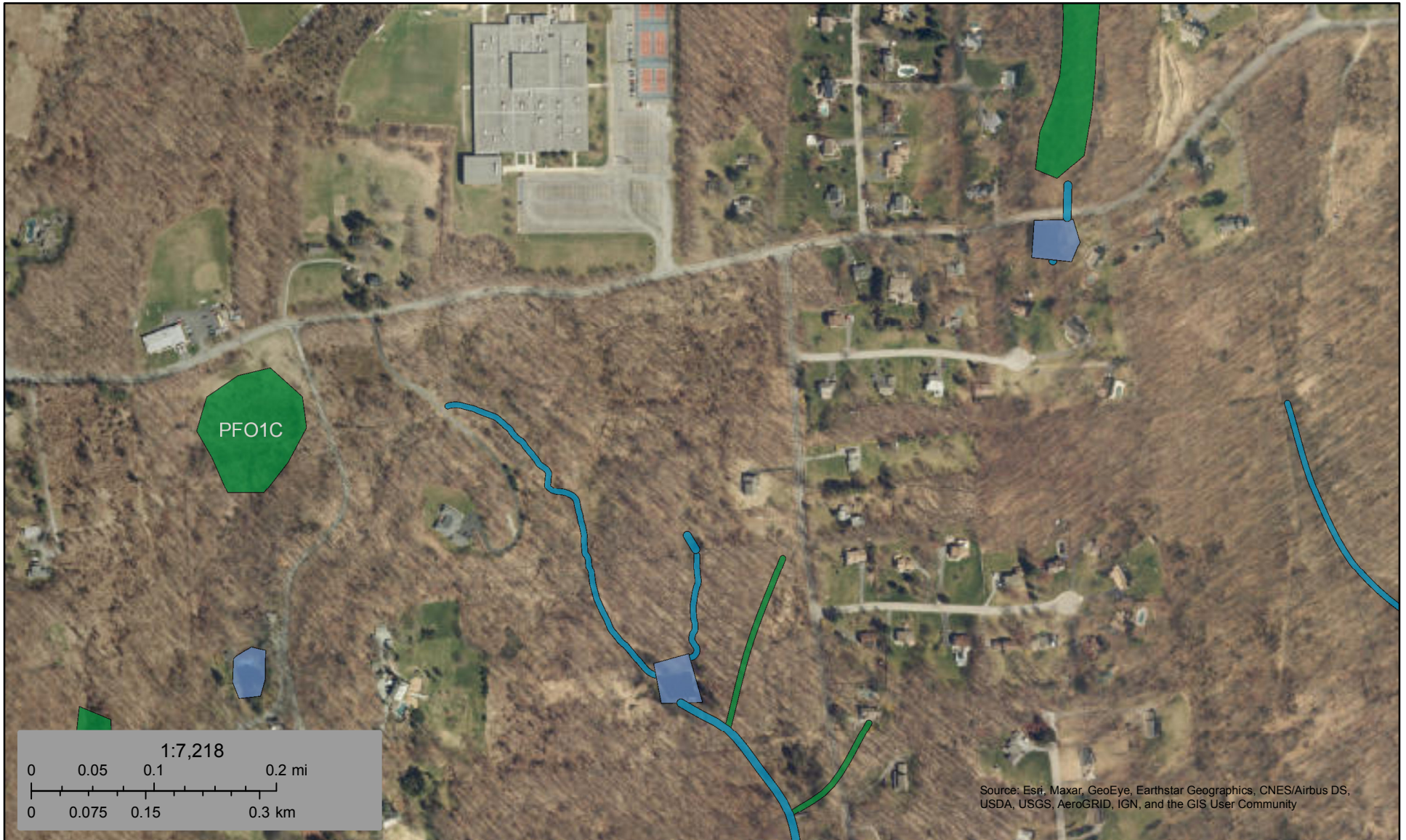


February 23, 2021

1:4,514



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



February 23, 2021

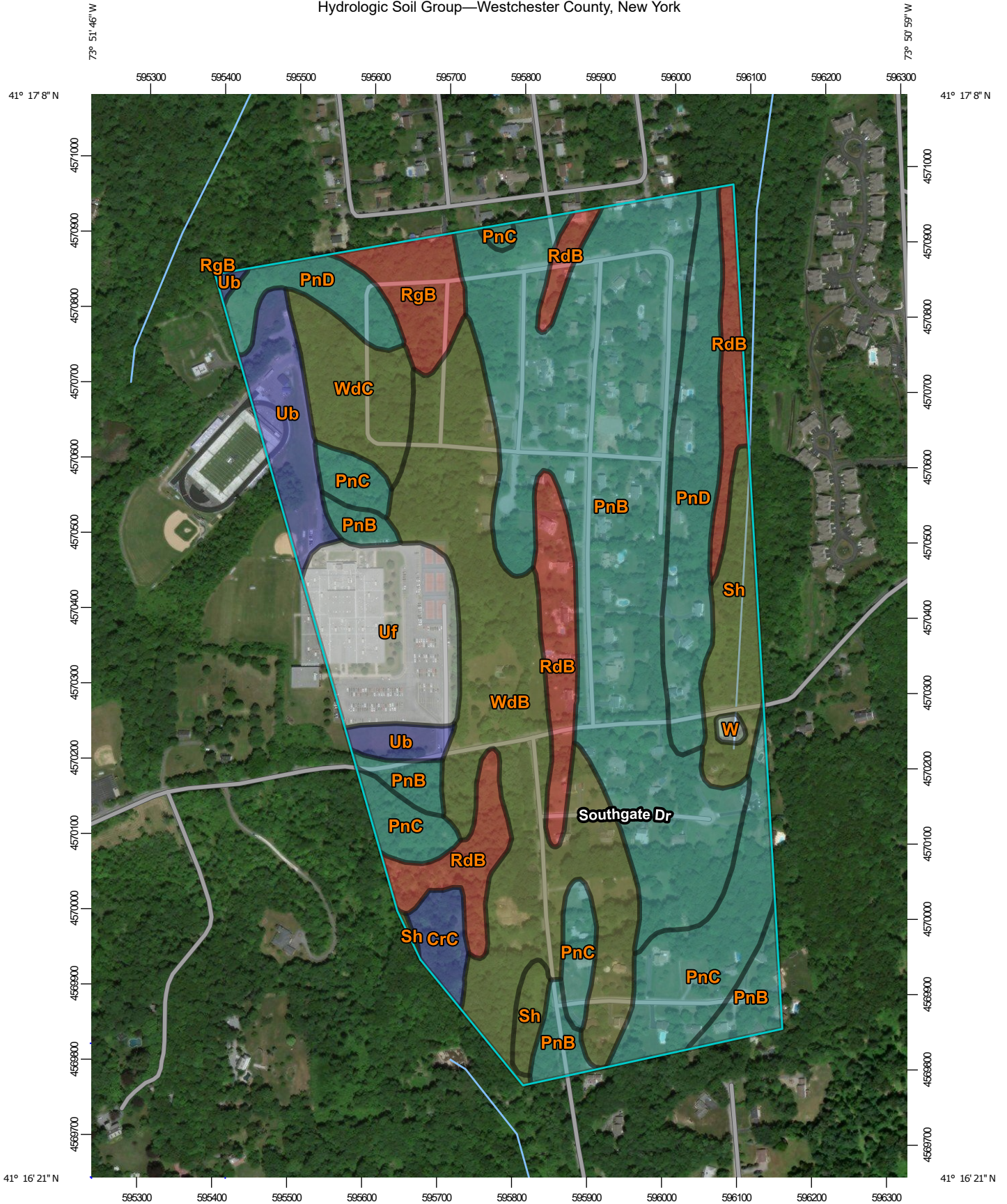
**Wetlands**

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Lake
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Other
- Estuarine and Marine Wetland
- Riverine

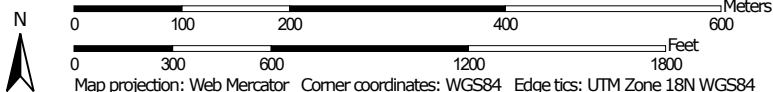
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Hydrologic Soil Group—Westchester County, New York



Map Scale: 1:7,010 if printed on A portrait (8.5" x 11") sheet.



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



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

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## 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  
 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.

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: Westchester County, New York  
 Survey Area Data: Version 16, Jun 11, 2020

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

Date(s) aerial images were photographed: Oct 7, 2013—Oct 17, 2017

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.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	2.0	1.3%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	C	49.8	31.4%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	C	14.1	8.9%
PnD	Paxton fine sandy loam, 15 to 25 percent slopes	C	13.6	8.6%
RdB	Ridgebury complex, 3 to 8 percent slopes	D	12.8	8.1%
RgB	Ridgebury complex, 0 to 8 percent slopes, very stony	D	4.2	2.7%
Sh	Sun loam	C/D	7.1	4.5%
Ub	Udorthents, smoothed	B	7.2	4.6%
Uf	Urban land		10.8	6.8%
W	Water		0.3	0.2%
WdB	Woodbridge loam, 3 to 8 percent slopes	C/D	30.1	19.0%
WdC	Woodbridge loam, 8 to 15 percent slopes	C/D	6.2	3.9%
<b>Totals for Area of Interest</b>			<b>158.3</b>	<b>100.0%</b>

## Description

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

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

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

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

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

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

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

## Rating Options

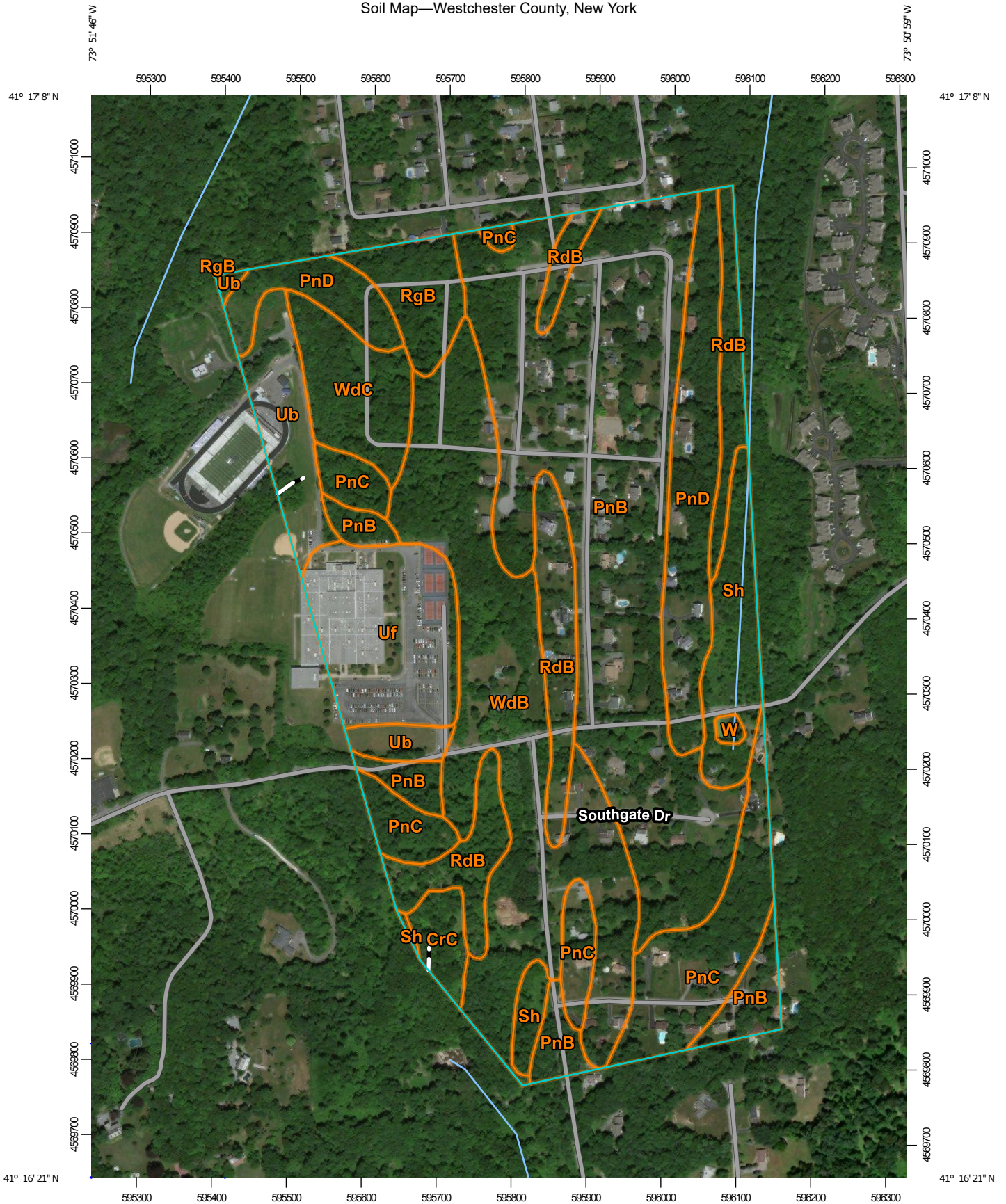
*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher



Soil Map—Westchester County, New York



Map Scale: 1:7,010 if printed on A portrait (8.5" x 11") sheet.



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



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

2/23/2021  
Page 1 of 3

## 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.

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Westchester County, New York

Survey Area Data: Version 16, Jun 11, 2020

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

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## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	2.0	1.3%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	49.8	31.4%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	14.1	8.9%
PnD	Paxton fine sandy loam, 15 to 25 percent slopes	13.6	8.6%
RdB	Ridgebury complex, 3 to 8 percent slopes	12.8	8.1%
RgB	Ridgebury complex, 0 to 8 percent slopes, very stony	4.2	2.7%
Sh	Sun loam	7.1	4.5%
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W	Water	0.3	0.2%
WdB	Woodbridge loam, 3 to 8 percent slopes	30.1	19.0%
WdC	Woodbridge loam, 8 to 15 percent slopes	6.2	3.9%
<b>Totals for Area of Interest</b>		<b>158.3</b>	<b>100.0%</b>

## **Appendix B**

Contributing Drainage Area Mapping

Cortlandt-NC-1001 Phosphorus Loading Calculations

**Inputs**

DA (acres)	22.69	Retrofit:	FocalPoint	
Impervious (acres and %)	6.81	30.01	Removal Efficiency:	0.65
P (in)	1.3	<b>P Load --&gt;</b>		<b>31.52</b> lb/yr
Total Annual Rainfall (in)	48.6			<b>14.30</b> kg/yr
Pj	0.9	<b>P Removal --&gt;</b>		<b>20.49</b> lb/yr
				<b>9.29</b> kg/yr

**LEGEND**

Input Cell	
Formula Cell	
Output Values	

Land Use	% of Total Area	Weighted EMC
Residential	0.7	0.44
Commercial		
Industrial		
Actively Grazed Pasture		
Forest		
Impervious	0.30	
Developed Open Space*		PERCENTAGE CHECK
		1.00

\*i.e. golf course, parks, cemeteries, single houses with large lawns

**Outputs**

Water Quality V <sub>i</sub>	WQ <sub>v</sub> (acre-ft)	WQ <sub>v</sub> (cu-ft)	R <sub>v</sub>
	0.787	34276	0.3201

$L \text{ (lbs)} = P \times Pj \times Rv \times C \times A \times 0.227$



# EAST OF HUDSON WATERSHED CORPORATION

Croton Avenue, Cortlandt, Cortland-NC-1001 - FocalPoint



New York State, Westchester County GIS, GeoEye, Maxar, Microsoft, Esri Community Maps Contributors, County of Westchester, BuildingFootprintsUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Spatial Reference  
Name: GCS North American 1983

Date Printed: 2/23/2021



Legend	
	Croton Avenue Curb
	Catch Basin
	Croton Avenue Drainage Area
	FocalPoint Location

**NOTES:**

Provide treatment of Croton Avenue via implementation of a FocalPoint unit.

Drainage Area = 22.69 acres  
Phosphorus Loading = 14.29 kg/yr  
Phosphorus Reduction Rate = 65%





## **NORTHERN WESTCHESTER EXECUTIVE PARK**

*2651 Strang Blvd, Yorktown Heights, NY 10598*

Owner: Town of Yorktown

Prepared For: East of Hudson Watershed Corporation

Date: 03/9/2021

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    1.1 PROJECT OBJECTIVES ..... 1

2.0 EXISTING CONDITIONS ..... 1

    2.1 PROJECT LOCATION ..... 1

    2.2 CURRENT LAND USE ..... 2

    2.3 USGS SOIL CLASSIFICATION ..... 3

    2.4 SITE TOPOGRAPHY ..... 4

    2.5 STORMWATER FLOW PATH ..... 4

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3.0 ENGINEERING BASIS OF DESIGN ..... 4

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    3.2 STORMWATER MANAGEMENT PRACTICE (SMP) ..... 5

    3.3 DESIGN PARAMETERS ..... 5

    3.4 PHOSPHORUS LOADING CALCULATION ..... 5

4.0 PROPOSED PROJECT SCHEDULE ..... 5

5.0 ANTICIPATED REGULATORY APPROVAL AND PERMITS ..... 6

6.0 OPERATION AND MAINTENANCE ..... 6

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Figure 2.2 USGS Soil Types ..... 3

**APPENDICIES**

**Appendix A**

- FIRM Map
- NYSDEC ERM Wetland Map
- NWI Wetland Map
- Soil Characterization and Delineation

**Appendix B**

- Northern Westchester Executive Park Phosphorus Loading Calculations
- ACF Environmental Recommended Operations and Maintenance

## **1.0 EXECUTIVE SUMMARY**

The East of Hudson Watershed Corporation (EOHWC) was created to oversee the design and installation of Stormwater Retrofit Projects (SRP's) within the New York City Department of Environmental Protection (NYCDEP) drinking water reservoir system located east of the Hudson River. The major focus of these projects is the reduction of phosphorus (P) from stormwater runoff prior to entering the reservoir system and is monitored and approved by the New York State Department of Environmental Conservation (NYSDEC).

The engineering initial evaluation process begins with an estimation of the phosphorus concentration or "loading" within the stormwater runoff from a given drainage area. Once a phosphorus load (P-load) has been determined, an appropriate SMP is selected to remove as much of the P-load as the site constraints will allow.

Analysis of the Northern Westchester Executive Park has led to the recommendation of the installation of several ACF Environmental FocalPoint Biofiltration systems in the Town of Yorktown right of way and a curb to direct runoff from the Northern Westchester Executive Park and along Strang Boulevard. The introduction of this green infrastructure technology will assure a successful treatment of the existing conditions on site through innovative techniques and sound engineering methods.

### **1.1 PROJECT OBJECTIVES**

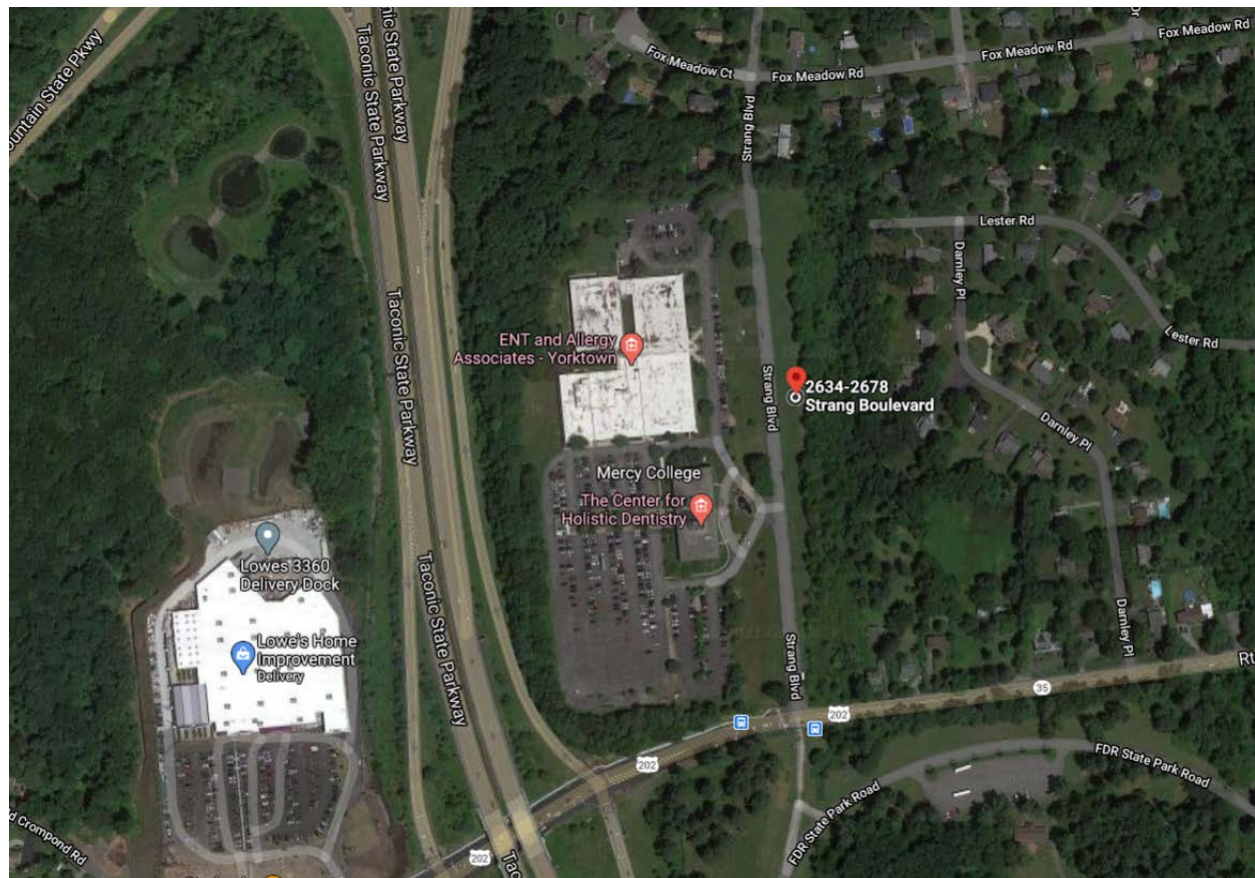
The Northern Westchester Executive Park is an isolated area of stormwater flow. This project proposes to capture and treat the stormwater runoff from the parking lots and buildings, prior to discharge into the nearby stream. This will be accomplished through the implementation of several ACF Environmental FocalPoint systems and a new line of curbing along Strang Boulevard to redirect stormwater flow. Not only will this green infrastructure project provide direct treatment of the water quality volume, but it will provide an additional vegetated buffer for the nearby stream.

## **2.0 EXISTING CONDITIONS**

### **2.1 PROJECT LOCATION**

The Northern Westchester Executive Park retrofit area is located within the Town of Yorktown, New York on Strang Boulevard. The specific areas to receive FocalPoint units are in the Town of Yorktown right of way on the eastern side of Strang Boulevard.





**Figure 2.1 Northern Westchester Executive Park Retrofit Location Map**

## 2.2 CURRENT LAND USE

The drainage area consists of commercial land use. Most of the land is covered in impervious surfaces such as parking lots and buildings with some sections of developed open space. The mapping figures listed below verify the locations of any existing wetland areas managed by the NYSDEC and the USACOE, and those areas designated as flood plains by the Federal Emergency Management Agency (FEMA). The maps are shown in Appendix A and include the following:

- FIRM Mapping
- NYSDEC ERM Wetland Mapping
- National Wetland Inventory (NWI) Wetland Mapping

At this time, it is expected that the location of utilities should not affect the project as there are no mapped sewer lines in the area and electric lines are overhead. Gas and water lines were not delineated at this time but will be addressed prior to final design.



### 2.3 USGS SOIL CLASSIFICATION

The Hydrologic Soil Group index is 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). Figure 2.2 below shows the soil types in the project area. At the proposed site, the soil is classified as PnB, Paxton fine sandy loam and has a hydrologic soil group of C. Along the installation area, the depth to bedrock is currently unknown, but will be confirmed through a site deep-test. The USDA Web Soil Survey estimates that there could a restrictive soil layer at a depth of approximately 26 inches and that the water table could be at a depth of approximately 24 inches.

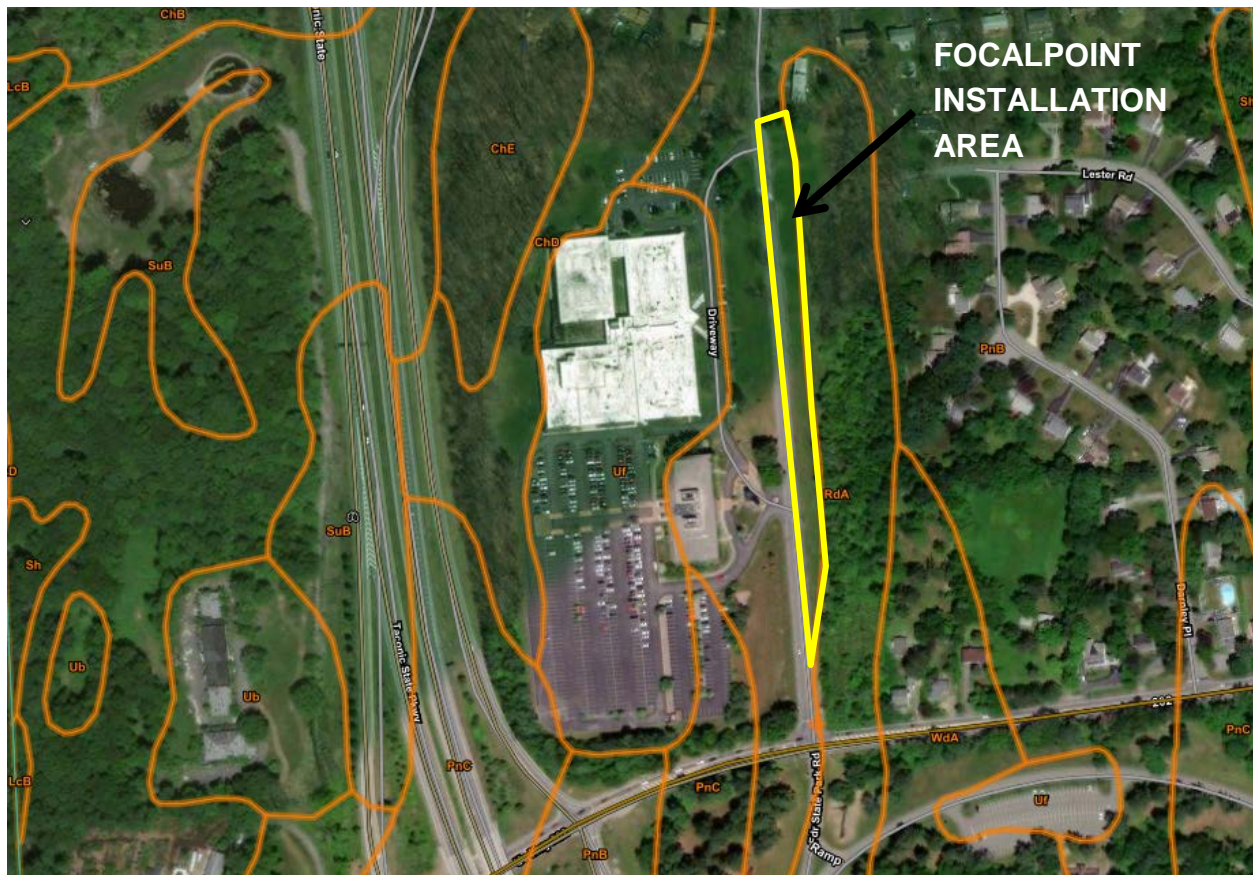


Figure 2.2 USGS Soil Types

## **2.4 SITE TOPOGRAPHY**

The drainage area cascades downward from the Northern Westchester Executive Park, across Strang Boulevard and through the grassed area of the right of way. The southern portion of the parking lot slopes primarily towards the main building then down towards Strang Boulevard.

## **2.5 STORMWATER FLOW PATH**

There are multiple stormwater flow paths of interest on the project site. Stormwater flows mostly by sheet flow across the parking areas and becomes shallow concentrated flow once it reaches the nearby catch basins and curbs. The stormwater then travels by pipe flow to the project location. Existing and proposed flow paths can be seen in the provided mapping.

## **2.6 NEAREST RECEIVING WATERBODY**

The nearest receiving water body is the unclassified stream to the east of Strang Boulevard, which captures all of the runoff from the Northern Westchester Executive Park. The unclassified stream is tributary to the Hunter Brook which feeds the New Croton Reservoir. The ERM map is included in Appendix A.

## **3.0 ENGINEERING BASIS OF DESIGN**

The SRPs selected for this project utilizes the area as effectively as possible given the site constraints and provides treatment of the water quality volume prior to reaching the unclassified stream.

### **3.1 DESIGN CONSIDERATIONS**

Numerous design considerations were examined as part of this projects SMP selection. The site constraints noted below eliminate the use of many SMPs.

- 1) Possible storm basin outfalls at too great of a depth.
- 2) Vast amounts of impervious cover make SRP installation difficult on site.
- 3) Restricted space for installation of an SRP in available areas.
- 4) Avoiding impact on nearby wetlands and stream.
- 5) Diverting construction from flood plains.
- 6) Possible high water table

### **3.2 STORMWATER MANAGEMENT PRACTICE (SMP)**

The EOHWC has chosen to install a curb along the eastern portion of Strang Boulevard with curb cuts leading to ACF Environmental FocalPoint systems that will gather excess sheet flow. The existing stormwater piping will be intercepted and redirected to flow into the individual FocalPoint systems. The FocalPoint units are highly efficient biofilters that utilize the area better than traditional bioretention practices. These systems achieve on average a 59% removal efficiency utilizing a specifically engineered media that promotes fast infiltration and maximizes stormwater filtration.

This project can provide substantial treatment of the water quality volume, and have minimized installation costs. Creating several FocalPoint locations which only treat the WQv will allow each unit to not get overwhelmed during extreme storms and can lead to a greater area receiving treatment without having to redesign the entire site. Doing such will also lower the cost of installing new stormwater infrastructure work. To ensure that current grading will suffice, a site survey will be performed prior to final design.

### **3.3 DESIGN PARAMETERS**

The total drainage area for the Northern Westchester Executive Park project is approximately 12.21 acres. A Figure showing the drainage area is included in the Conceptual Site Plan. The drainage areas calculations for each section are provided in Appendix B along with each respective phosphorus loading analysis.

### **3.4 PHOSPHORUS LOADING CALCULATION**

As noted above, the contributing drainage area was used to determine the runoff information for the WQv events for the proposed SRP. The simple method was used to calculate the WQv and the P-Loading Rate for the project. The WQv was determined to be approximately 45,738 ft<sup>3</sup>, with a P-load of 20.82 kg/yr. The installation of FocalPoint units will provide a reduction of 65% of the phosphorus load. The total anticipated P-Reduction is 13.53 kg/yr.

### **4.0 PROPOSED PROJECT SCHEDULE**

The project has been included in the EOHWC Year 10 (2021) Work Plan and will be fully designed within the calendar year of 2021. It is estimated that the project will begin construction in March of 2022, to be completed by June of 2022.

## **5.0 ANTICIPATED REGULATORY APPROVAL AND PERMITS**

It was determined that the following permits may be required by the Town of Yorktown, NYS, NYCDEP, and the USACOE.

- Coverage under the NYSDEC General Permit for Stormwater Discharge
- USACOE-Joint Permit Application for NWP 43-Stormwater Maintenance Facilities.

## **6.0 OPERATION AND MAINTENANCE**

Operation and maintenance advice and schedules are provided by ACF Environmental and have been included in Appendix B. Maintenance routines are similar to that of a typical landscaped garden. In New York State, FocalPoint units need to be inspected twice per year to ensure adequate plant growth and minimal sediment deposition. Upon inspection, necessary plant cuttings should be made, trash and debris is to be removed and the top layer of mulch should be replaced annually.

The Town of Yorktown will be required to service this location as a member municipality with the EOHWC, per the requirements of the Operations and Maintenance Agreement for the organization. Funding for all maintenance requirements will be covered by all member municipalities, in addition to partial and temporary funding which is available through Westchester County. As all member municipalities benefit from bubble compliance for phosphorous reduction within the watershed, all municipalities must share the financial burden of the yearly maintenance requirements.

## **Appendix A**

FIRM Map

NYSDEC ERM Wetland Map

NWI Wetland Map

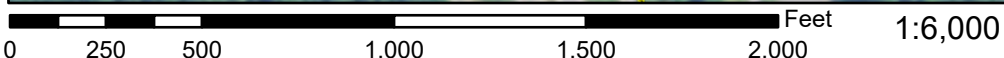
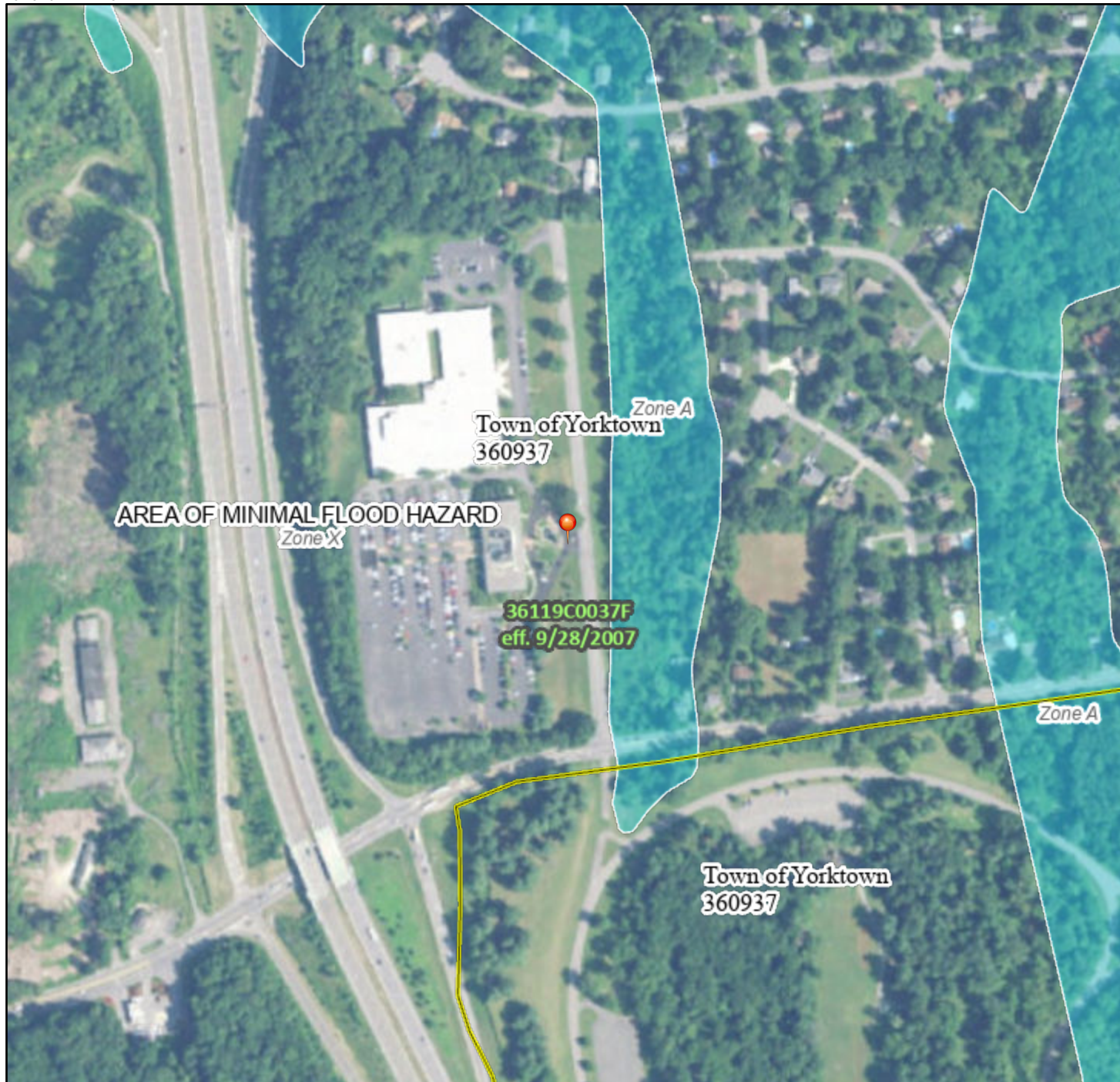
Soil Characteristics and Delineation



# National Flood Hazard Layer FIRMMette



73°49'28"W 41°17'54"N



73°48'50"W 41°17'26"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

## Legend

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

- |                                    |  |  |
|------------------------------------|--|--|
| <b>SPECIAL FLOOD HAZARD AREAS</b>  |  | Without Base Flood Elevation (BFE)<br><i>Zone A, V, A99</i>  |
|                                    |  | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>   |
|                                    |  | Regulatory Floodway  |
| <b>OTHER AREAS OF FLOOD HAZARD</b> |  | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
|                                    |  | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>  |
|                                    |  | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>  |
|                                    |  | Area with Flood Risk due to Levee <i>Zone D</i>  |
| <b>OTHER AREAS</b>                 |  | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>   |
|                                    |  | Effective LOMRs  |
|                                    |  | Area of Undetermined Flood Hazard <i>Zone D</i>  |
| <b>GENERAL STRUCTURES</b>          |  | Channel, Culvert, or Storm Sewer   |
|                                    |  | Levee, Dike, or Floodwall  |
| <b>OTHER FEATURES</b>              |  | 20.2 Cross Sections with 1% Annual Chance  |
|                                    |  | 17.5 Water Surface Elevation   |
|                                    |  | Coastal Transect   |
|                                    |  | Base Flood Elevation Line (BFE)  |
|                                    |  | Limit of Study   |
|                                    |  | Jurisdiction Boundary  |
|                                    |  | Coastal Transect Baseline  |
|                                    |  | Profile Baseline   |
|                                    |  | Hydrographic Feature   |
| <b>MAP PANELS</b>                  |  | Digital Data Available   |
|                                    |  | No Digital Data Available  |
|                                    |  | Unmapped   |
|                                    |  | The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.                                     |



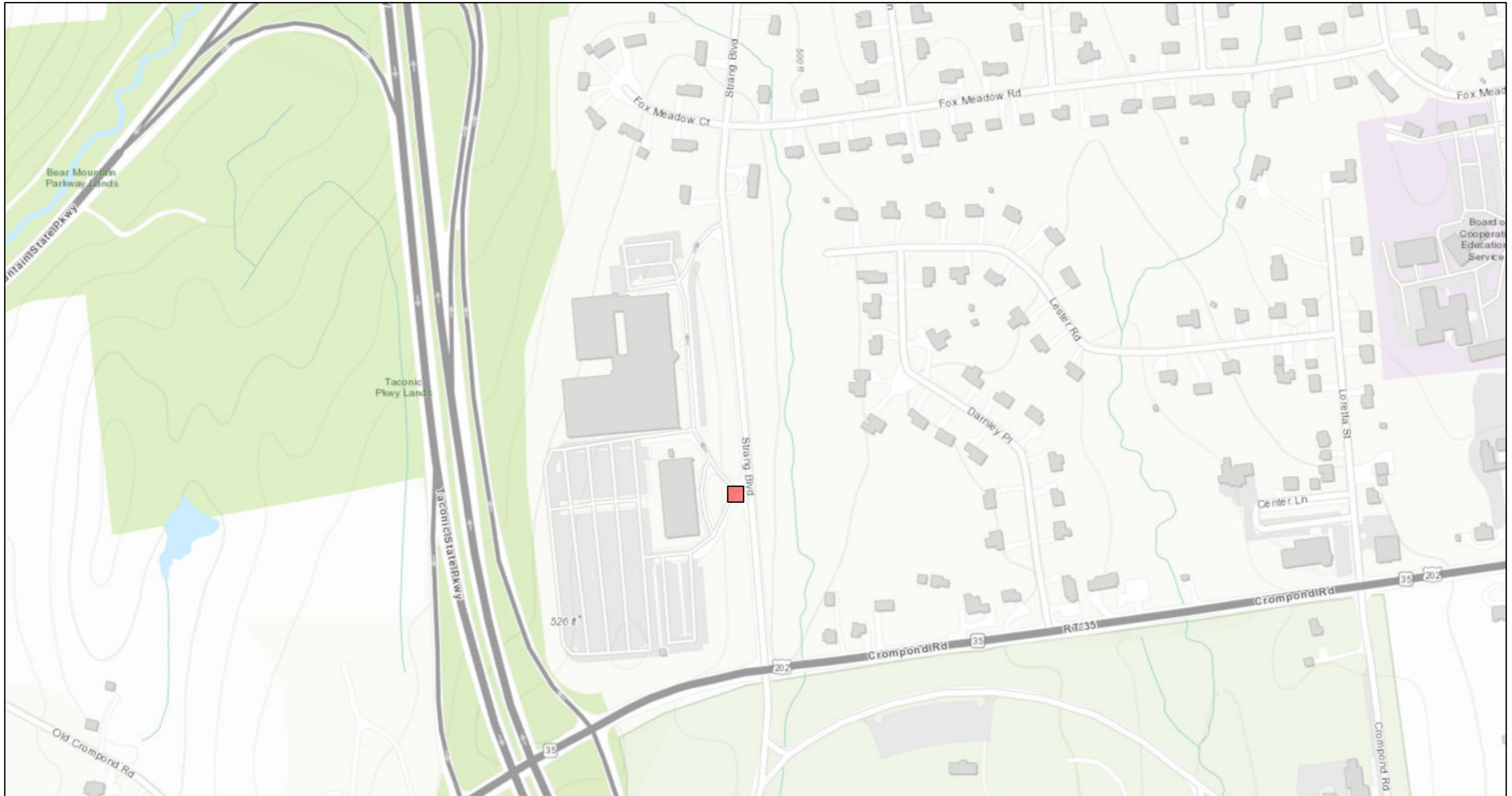
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **1/27/2021 at 11:43 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

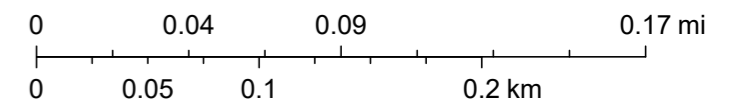


# Environmental Resource Mapper



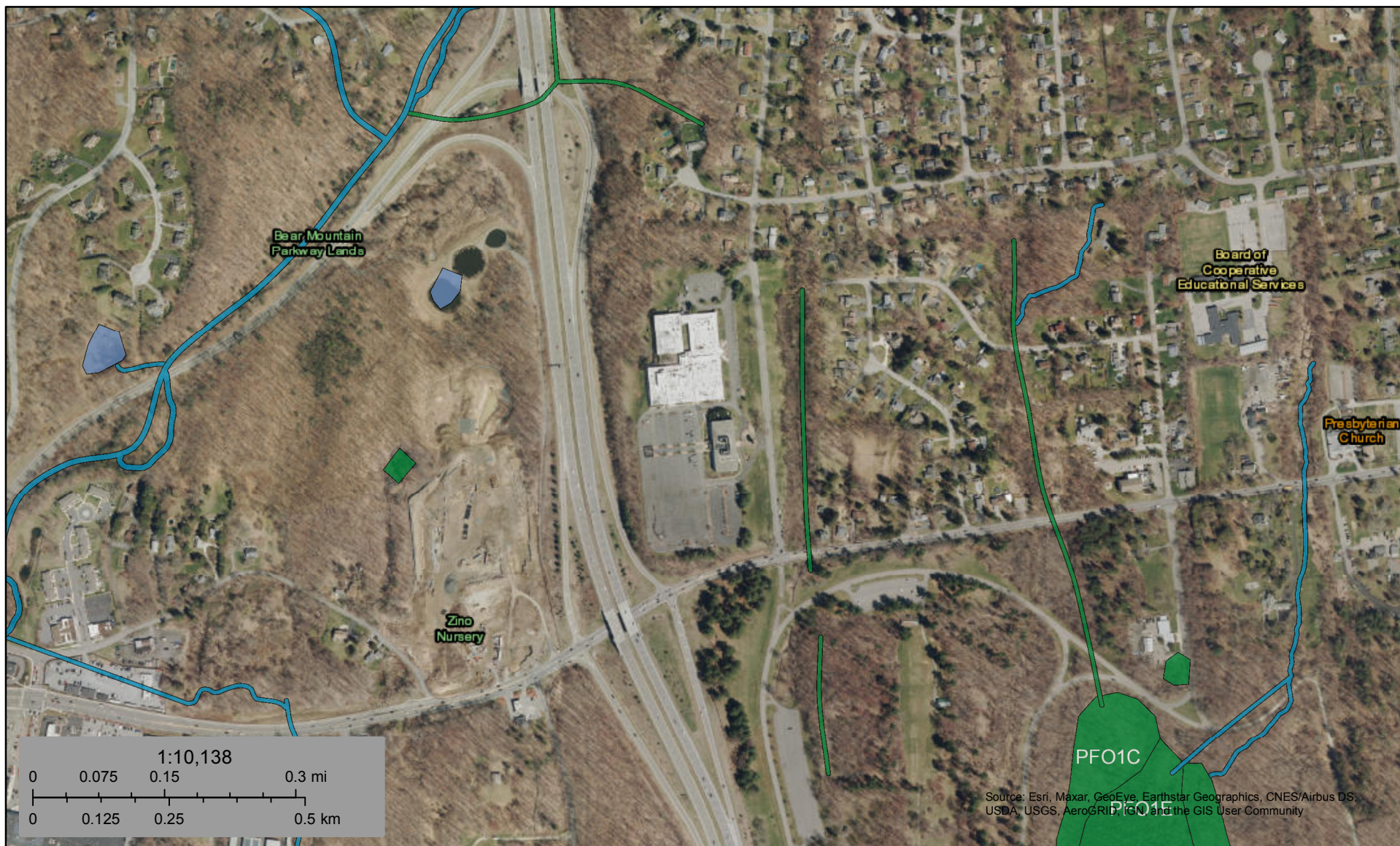
January 27, 2021

1:4,514







Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community





February 10, 2021

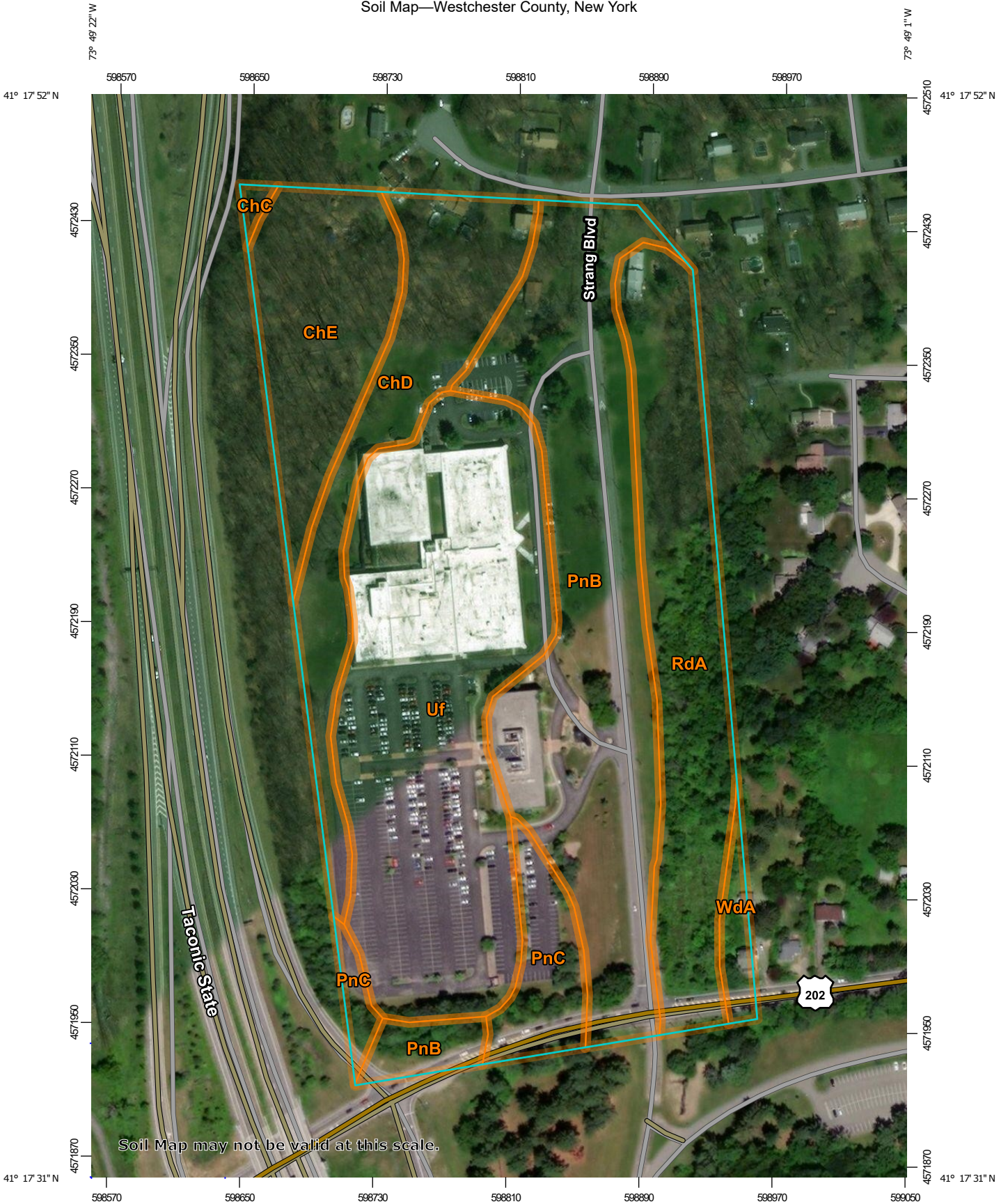
**Wetlands**

- |   |                                |   |                                   |   |          |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland       |  | Lake     |
|  | Estuarine and Marine Wetland   |  | Freshwater Forested/Shrub Wetland |  | Other    |
|   |                                |  | Freshwater Pond                   |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

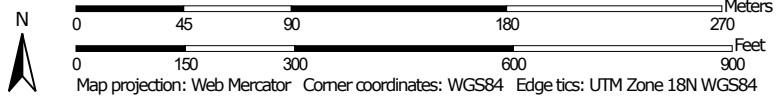


Soil Map—Westchester County, New York



Soil Map may not be valid at this scale.

Map Scale: 1:3,160 if printed on A portrait (8.5" x 11") sheet.



## 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



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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)

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Soil Survey Area: Westchester County, New York

Survey Area Data: Version 16, Jun 11, 2020

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

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## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ChC	Charlton fine sandy loam, 8 to 15 percent slopes	0.1	0.3%
ChD	Charlton fine sandy loam, 15 to 25 percent slopes	3.7	11.4%
ChE	Charlton loam, 25 to 35 percent slopes	3.3	10.1%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	8.9	27.5%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	1.6	4.8%
RdA	Ridgebury complex, 0 to 3 percent slopes	5.1	15.6%
Uf	Urban land	9.4	28.9%
WdA	Woodbridge loam, 0 to 3 percent slopes	0.5	1.4%
<b>Totals for Area of Interest</b>		<b>32.5</b>	<b>100.0%</b>

## **Appendix B**

Northern Westchester Executive Park Phosphorus Loading Calculations

ACF Environmental Recommended Operations and Maintenance



**Phosphorus Loading**

<i>Land Use</i>	<i>P conc. (mg/l)</i>
Residential	0.41
Commercial	0.34
Industrial	0.45
Actively Grazed Pasture	0.40
Forest	0.15
Impervious	0.50
Developed Open Space*	0.28

**Calculate Phosphorus Loading from Land Usage**

Label	Area (ac)	Residential	Commercial	Industrial	Actively Grazed Pasture	Forest	Impervious	Developed Open Space	Percent	EMC	Rv	WQv (ac-ft)	WQv (cu-ft)	P Load (lb/yr)	P Load (kg/yr)
DA-01	1.13						30	70	100	0.35	0.32	0.039	1705	1.24	0.56
DA-02	7.62						100		100	0.50	0.95	0.784	34143	35.92	16.29
DA-03	1.17						55	45	100	0.40	0.545	0.069	3001	2.53	1.15
DA-04	0.92						50	50	100	0.39	0.5	0.050	2164	1.78	0.81
DA-05	1.38						75	25	100	0.45	0.725	0.108	4725	4.42	2.01



# FocalPoint

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## BIOFILTRATION SYSTEMS

HIGH PERFORMANCE MODULAR BIOFILTRATION SYSTEM (HPMBS)

Operations & Maintenance





## GENERAL DESCRIPTION

The following general specifications describe the general operations and maintenance requirements for the FocalPoint® High Performance Modular Biofiltration System (HPMBS). The system utilizes physical, chemical and biological mechanisms of a soil, plant and microbe complex to remove pollutants typically found in urban stormwater runoff. The treatment system is a fully equipped, modular, constructed in place system designed to treat contaminated runoff.

Stormwater enters the FocalPoint® HPMBS, is filtered by the High Flow Biofiltration Media and passes through to the underdrain/storage system where the treated water is detained, retained or infiltrated to sub-soils, prior to discharge to the storm sewer system of any remaining flow.

Higher flows bypass the FocalPoint® HPMBS via a downstream inlet or other overflow conveyance. Maintenance is a simple, inexpensive and safe operation that does not require confined space entry, pumping or vacuum equipment, or specialized tools. Properly trained landscape personnel can effectively maintain FocalPoint® HPMBS by following instructions in this manual.



## BASIC OPERATIONS

FocalPoint® is a modular, high performance biofiltration system that often works in tandem with other integrated management practices (IMP). Contaminated stormwater runoff enters the biofiltration bed through a conveyance swale, planter box, or directly through a curb cut or false inlet. Energy is dissipated by a rock or vegetative dissipation device and is absorbed by a 3-inch layer of aged, double shredded hardwood mulch, with fines removed, (when specified) on the surface of the biofiltration media.

As the water passes through the mulch layer, most of the larger sediment particles and heavy metals are removed through sedimentation and chemical reactions with the organic material in the mulch. Water passes through the biofiltration media where the finer particles are removed and numerous chemical reactions take place to immobilize and capture pollutants in the soil media.

The cleansed water passes into the underdrain/storage system and remaining flows are directed to a storm sewer system or other appropriate discharge point. Once the pollutants are in the soil, bacteria begin to break down and metabolize the materials and the plants begin to uptake and metabolize the pollutants. Some pollutants such as heavy metals, which are chemically bound to organic particles in the mulch, are released over time as the organic matter decomposes to release the metals to the feeder roots of the plants and the cells of the bacteria in the soil where they remain and are recycled. Other pollutants such as phosphorus are chemically bound to the soil particles and released slowly back to the plants and bacteria and used in their metabolic processes. Nitrogen goes through a variety of very complex biochemical processes where it can ultimately end up in the plant/bacteria biomass, turned to nitrogen gas or dissolves back into the water column as nitrates depending on soil temperature, pH and the availability of oxygen. The pollutants ultimately are retained in the mulch, soil and biomass with some passing out of the system into the air or back into the water.

## DESIGN AND INSTALLATION

Each project presents different scopes for the use of FocalPoint® HPMBs. To ensure the safe and specified function of this stormwater BMP, Convergent Water Technologies and/or its Value Added Resellers (VAR) review each application before supply. Information and design assistance is available to the design engineer during the planning process. Correct FocalPoint® sizing is essential to optimum performance. The engineer shall submit calculations for approval by the local jurisdiction when required. The contractor and/or VAR is responsible for the correct installation of FocalPoint® HPMBs units as described in approved plans. A comprehensive installation manual is available at [www.convergentwater.com](http://www.convergentwater.com).







## MAINTENANCE

### *Why Maintain?*

All stormwater treatment systems require maintenance for effective operation. This necessity is often incorporated in your property's permitting process as a legally binding BMP maintenance agreement. Other reasons for maintenance include:

- Avoid legal challenges from your jurisdiction's maintenance enforcement program.
- Prolong the lifespan of your FocalPoint® HPMBS.
- Avoid costly repairs.
- Help reduce pollutant loads leaving your property.

Simple maintenance of the FocalPoint® HPMBS is required to continue effective pollutant removal from stormwater runoff before any discharge into downstream waters. This procedure will also extend the longevity of the living biofiltration system. The unit will recycle and accumulate pollutants within the biomass, but may also be subjected to other materials entering the surface of the system. This may include trash, silt and leaves etc. which will be contained above the mulch and/or biofiltration media layer. Too much silt may inhibit the FocalPoint's® HPMBS flow rate, which is a primary reason for system maintenance. Removal of accumulated silt/sediment and/or replacement of the mulch layer (when specified), is an important activity that prevents over accumulation of such silt/sediment.

### *When to Maintain?*

Convergent Water Technologies and/or its VAR includes a 1-year maintenance plan with each system purchased. Annual included maintenance consists of two (2) scheduled maintenance visits. Additional maintenance may be necessary depending on sediment and trash loading (by Owner or at additional cost). The start of the maintenance plan begins when the system is activated for full operation. Full operation is defined as when the site is appropriately stabilized, the unit is installed and activated (by VAR), i.e., when mulch (if specified) and plantings are added.

Activation should be avoided until the site is fully stabilized (full landscaping, grass cover, final paving and street sweeping completed). Maintenance visits are scheduled seasonally; the spring visit aims to clean up after winter loads including salts and sands. The fall visit helps the system by removing excessive leaf litter.

A first inspection to determine if maintenance is necessary should be performed at least twice annually after storm events of greater than (1) one inch total depth (subject to regional climate). Please refer to the maintenance checklist for specific conditions that indicate if maintenance is necessary.

It has been found that in regions which receive between 30-50 inches of annual rainfall, (2) two visits are generally required. Regions with less rainfall often only require (1) one visit per annum. Varying land uses can affect maintenance frequency.



Some sites may be subjected to extreme sediment or trash loads, requiring more frequent maintenance visits. This is the reason for detailed notes of maintenance actions per unit, helping the VAR/Maintenance contractor and Owner predict future maintenance frequencies, reflecting individual site conditions.

Owners must promptly notify the VAR/Maintenance contractor of any damage to the plant(s), which constitute(s) an integral part of the biofiltration technology. Owners should also advise other landscape or maintenance contractors to leave all maintenance of the FocalPoint® HPMBs to the VAR/Maintenance contractor (i.e. no pruning or fertilizing).

### EXCLUSION OF SERVICES

It is the responsibility of the owner to provide adequate irrigation when necessary to the plant(s) in the FocalPoint® HPMBs.

Clean up due to major contamination such as oils, chemicals, toxic spills, etc. will result in additional costs and are not covered under the VAR/Maintenance contractor maintenance contract. Should a major contamination event occur, the Owner must block off the outlet pipe of the FocalPoint® (where the cleaned runoff drains to, such as drop-inlet) and block off the point where water enters of the FocalPoint® HPMBs. The VAR/Maintenance contractor should be informed immediately.

### MAINTENANCE VISIT SUMMARY

Each maintenance visit consists of the following simple tasks (detailed instructions below).

1. Inspection of FocalPoint® HPMBs and surrounding area
2. Removal of debris, trash and mulch
3. Mulch replacement
4. Plant health evaluation (including measurements) and pruning or replacement as necessary
5. Clean area around FocalPoint® HPMBs
6. Complete paperwork, including date stamped photos of the tasks listed above.

### MAINTENANCE TOOLS, SAFETY EQUIPMENT AND SUPPLIES

Ideal tools include: camera, bucket, shovel, broom, pruners, hoe/rake, and tape measure. Appropriate Personal Protective Equipment (PPE) should be used in accordance with local or company procedures. This may include impervious gloves where the type of trash is unknown, high visibility clothing and barricades when working in close proximity to traffic and also safety hats and shoes.



**Inspection of FocalPoint® HPMBS and surrounding area**

Record individual unit before maintenance with photograph (numbered). Record on Maintenance Report (see example in this document) the following:

<input type="checkbox"/> Standing Water	yes   no	<input type="checkbox"/> Damage to HPMBS System to Overflow conveyance	yes   no
<input type="checkbox"/> Is Bypass Inlet Clear?	yes   no		yes   no

**Removal of Silt / Sediment / Clay**

Dig out silt (if any) and mulch and remove trash & foreign items.

<input type="checkbox"/> Silt / Clay Found?	yes   no	<input type="checkbox"/> Leaves?	yes   no
<input type="checkbox"/> Cups / Bags Found?	yes   no	<input type="checkbox"/> Volume of material removed _____	(volume or weight)

**Removal of debris, trash and mulch**

After removal of mulch and debris, measure distance from the top of the FocalPoint® HPMBS engineered media soil to the flow line elevation of the adjacent overflow conveyance. If this distance is greater than that specified on the plans (typ. 6" - 12"), add media (not top soil or other) to recharge to the distance specified.

Distance to media surface to flow line of overflow conveyance (inches) \_\_\_\_\_

# of Buckets of Media Added \_\_\_\_\_

**Mulch Replacement**

Most maintenance visits require only replacement mulch (if utilized) which must be, aged, double shredded hardwood mulch with fines removed. For smaller projects, one cubic foot of mulch will cover four square feet of biofiltration bed, and for larger projects, one cubic yard of mulch will cover 108 square feet of biofiltration bed. Some visits may require additional FocalPoint® HPMBS engineered soil media available from the VAR/Contractor.

- Add double shredded, aged hardwood mulch which has been screened to remove fines, evenly across the entire biofiltration media bed to a depth of 3".
- Clean accumulated sediment from energy dissipation system at the inlet to the FocalPoint® HPMBS to allow for entry of trash during a storm event.

**Plant health evaluation and pruning or replacement as necessary**

Examine the plant's health and replace if dead or dying.  
Prune as necessary to encourage growth in the correct directions

<input type="checkbox"/> Height above Grate (feet) _____	<input type="checkbox"/> Health	alive   dead
<input type="checkbox"/> Width at Widest point (feet) _____	<input type="checkbox"/> Damage to Plant	yes   no

**Clean area around FocalPoint® HPMBS**

- Clean area around unit and remove all refuse to be disposed of appropriately.

**Complete paperwork**

- Deliver Maintenance Report and photographs as appropriate.
- Some jurisdictions may require submission of maintenance reports in accordance with approvals.
- It is the responsibility of the Owner to comply with local regulations.



## FocalPoint Warranty

Seller warrants goods sold hereunder against defects in materials and workmanship only, for a period of (1) year from date the Seller activates the system into service. Seller makes no other warranties, express or implied.

Seller's liability hereunder shall be conditioned upon the Buyer's installation, maintenance, and service of the goods in strict compliance with the written instructions and specifications provided by the Seller. Any deviation from Seller's instructions and specifications or any abuse or neglect shall void warranties.

In the event of any claim upon Seller's warranty, the burden shall be upon the Buyer to prove strict compliance with all instructions and specifications provided by the Seller.

Seller's liability hereunder shall be limited only to the cost or replacement of the goods. Buyer agrees that Seller shall not be liable for any consequential losses arising from the purchase, installation, and/or use of the goods.





# Maintenance Checklist

<b>Element</b>	<b>Problem</b>	<b>What To Check</b>	<b>Should Exist</b>	<b>Action</b>
<b>Inlet</b>	Excessive sediment or trash accumulation	Accumulation of sediment or trash impair free flow of water into FocalPoint	Inlet free of obstructions allowing free flow into FocalPoint System	Sediments or trash should be removed
<b>Mulch Cover</b>	Trash and floatable debris accumulation	Excessive trash or debris accumulation.	Minimal trash or other debris on mulch cover	Trash and debris should be removed and mulch cover raked level. Ensure that bark nugget
<b>Mulch Cover</b>	Ponding of water on mulch cover	Ponding in unit could be indicative of clogging due to excessive fine sediment accumulation or spill of petroleum oils	Stormwater should drain freely and evenly over mulch cover.	Contact VAR for advice.
<b>Plants</b>	Plants not growing, or in poor condition	Soil/mulch too wet, evidence of spill. Pest infestation. Vandalism to plants.	Plants should be healthy and pest free.	Contact VAR for advice.
<b>Plants</b>	Plant growth excessive	Plants should be appropriate to the species and location of FocalPoint		Trim/prune plants in accordance with typical landscaping and



EAST OF HUDSON  
WATERSHED CORPORATION

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## APPENDIX II

# Professional Service Agreement with Insurance Requirements

## AGREEMENT FOR PROFESSIONAL SERVICES

(Engineering Services)

Contract No.: \_\_\_\_\_

THIS AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement"), is made as of the \_\_\_ day of \_\_\_\_\_, 20\_\_ by and between the **East of Hudson Watershed Corporation**, a not-for-profit local development corporation with its offices at 2 Route 164, Suite 2, Patterson, New York (the "EOHWC"), and \_\_\_\_\_, an \_\_\_\_\_ organized under the laws of the State of \_\_\_\_\_, with its offices at the address specified on the execution page of this Agreement (hereinafter referred to as the "Engineer");

### WITNESSETH:

WHEREAS, pursuant to a request for proposals dated \_\_\_\_\_, 20\_\_ (the "RFP") and as authorized by the Executive Committee of the Board of Directors (the "Executive Committee") on \_\_\_\_\_, 20\_\_, the EOHWC has determined to enter into this Agreement providing for services of the Engineer for the purposes set forth herein;

NOW THEREFORE, in consideration of the mutual agreements herein contained and other good and valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

#### **Section 1. SCOPE OF SERVICES**

- a. The Engineer shall render the professional services ("Services") described in the RFP and at **Exhibit B** (hereinafter referred to collectively as the "Scope of Services").
- b. During the term of this Agreement, the Engineer shall perform such additional services as Engineer as may be requested in writing by the EOHWC, at the hourly rates and actual expenses specified in **Exhibit A** (such additional Services being referred to herein as "Additional Services"). Prior to undertaking any such Additional Services the Engineer shall propose a budget and schedule for in a written change order to be approved by the Executive Committee prior to commencing work. No work shall be considered Additional Services unless specifically agreed to in a written change order signed by the Engineer and approved by the Executive Committee.

#### **Section 2. ENGINEER QUALIFICATIONS; REPRESENTATIONS; NO CONFLICTS**

- a. The Engineer represents and covenants that (i) it is an engineering firm meeting the qualifications set forth in the RFP; (ii) it is experienced in performing work of the types contemplated by the Scope of Services; (iii) at all times during the term of this Agreement the persons assigned to perform Services have and will have the experience, knowledge, and licenses necessary to perform the Services described herein; (iv) the Engineer is fully qualified to perform the Scope of Services, with capability to perform the Scope of Services and timely deliver a work product as required by this Agreement, (v) the Engineer will procure and maintain all licenses and permits necessary to perform the work described in this Agreement, and (vi) the Engineer will comply with the provisions of the Labor Law and all State laws and Federal and local statutes, ordinances and regulations that are applicable to the performance of this Agreement.

b. Unless otherwise authorized in writing in advance by the EOHWC, the persons primarily responsible for performing work under this Agreement, including any subcontractors, shall be as set forth at **Exhibit A**. Any subcontractors shall be bound by the provisions of this Agreement and shall be subject to prior review and approval by the EOHWC as provided in Section 15 hereof.

c. The Engineer represents and warrants that (i) the Engineer has all requisite power and authority to execute, deliver and perform this Agreement; (ii) this Agreement has been duly authorized by all necessary action on the part of the Engineer and has been duly executed and delivered by the Engineer and, assuming due execution and delivery by the EOHWC, constitutes a legal, valid, binding and enforceable obligation of the Engineer; and (iii) the execution and delivery of this Agreement, and compliance with the provisions hereof, do not and will not conflict with or constitute a violation of or default under the organization documents, or any statute, indenture, mortgage, deed of trust or other agreement or instrument to which the Engineer is bound, or to the knowledge of the Engineer, any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Engineer or any of its activities or properties.

d. The Engineer represents and warrants that it has not entered into any agreement for services with any other party with respect to any activities within or relating to the Scope of Services under this Agreement, other than such subcontracts as are specifically set forth at **Exhibit A**. The Engineer shall accept no other compensation, directly or indirectly, from any party, other than the EOHWC, for any services connected with the work described in the Scope of Services. The Engineer represents that it has read the Code of Ethics of EOHWC and will comply with its provisions.

e. The Engineer represents and warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Engineer, to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent on or resulting from the award or making of this Agreement. The Engineer further represents and warrants that neither it nor any of its directors, officers, members, partners, associates or employees, has any interest, nor shall they acquire any interest, directly or indirectly, which would or may conflict in any manner or degree with the performance or rendering of the services. In the event of breach of this provision the EOHWC shall have the option to annul this Agreement without liability or deduct from the Agreement consideration, or otherwise recover, the full amount of any such fee, commission, percentage, brokerage fee, gift or other consideration. Such remedies shall be in addition to and not in limitation of any other remedies available at law or in equity.

**Section 3. TERM AND COMPLETION SCHEDULE** The Scope of Services shall commence upon the delivery by the EOHWC to Engineer of a notice to commence work under this Agreement (the "Commencement Date") and shall be completed within the term set forth at **Exhibit C** except as extended by the EOHWC in writing. Any extension granted shall be for work and payment purposes only and shall not result in any additional fees or expenses other than those agreed to herein. The Engineer acknowledges the importance to EOHWC that the work be completed in accordance with the project schedule and agrees to put forth every reasonable effort in performing the Scope of Services with due diligence in a manner consistent with that schedule.



**Section 4. REPORTS; RIGHT TO INSPECT** The Engineer shall report to the EOHWC as specified at **Exhibit A** and **Exhibit B**. The EOHWC staff and its duly authorized representatives shall have the right at all times to inspect and receive copies of the work of the Engineer without additional charge. At the request of EOHWC, plans, reports and other documentation shall be submitted in electronic format on a disc.

**Section 5. DELIVERABLES** The EOHWC staff will provide deliverables, if any, as specified in **Exhibit A**. In the event that such deliverables are not provided by the date set forth at **Exhibit B**, the Engineer may request an extension on the term of this Agreement.

**Section 6. FEES AND EXPENSES**

a. As compensation for the Services performed pursuant to this Agreement, including all expenses, the EOHWC shall pay the Engineer its fees and expenses as set forth at **Exhibit A**, not to exceed the maximum amount set forth at **Exhibit A** ("Fees and Expenses").

b. The expenses provided for herein shall be limited to the expenses actually and reasonably incurred in connection with the performance of the Scope of Services, of the types listed at **Exhibit A**. Unless otherwise approved in advance by the EOHWC, the EOHWC shall not pay for the following: (1) secretarial or word processing time (normal, temporary or overtime); (2) taxis or private cars, (3) meal charges, except for actual and reasonable expenses which are required for business purposes, such as expenses incurred while hosting working group meetings; or (4) time spent in preparing bills.

Any reimbursement for travel, meals and lodging shall be made at the actual cost paid, but such reimbursement shall not exceed the prevailing maximum rates established by the New York State Comptroller or, if less, the rates generally established by the EOHWC's policy for its own officials and staff. Any out-of-state travel must be approved in advance by the EOHWC. Disbursements and expenses shall be itemized by category. Unless otherwise agreed, expenses shall be billed at the same time as the services to which they relate.

All invoices shall include details showing name or class of worker, dates, task and work completed. Upon request, the Engineer shall provide the EOHWC with detailed documentation substantiating all reimbursable expenses and disbursements. This documentation shall be maintained by the Engineer(s) for a period of six years after the completion of the matter. During that period, the EOHWC shall have the right to audit the Engineer's charges.

**Section 7. ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST** If requested by EOHWC in accordance with **Exhibit A** and **Exhibit B**, the Engineer shall prepare an engineer's opinion of probable construction cost (the "EOPCC") for various project requirements. In requesting an EOPCC, EOHWC understands that the Engineer has no control over the actual cost or availability of labor, equipment or materials, or over market conditions or a contractor's method of pricing, and that the EOPCC is made based on the engineer's professional judgment, experience and knowledge of the work to be constructed.

**Section 8. PAYMENT**

a. Work within the Scope of Services shall be billed within thirty (30) days of services performed in accordance with the fees and expenses attached hereto at **Exhibit A** unless

otherwise agreed in writing by the EOHWC. Upon request, the Engineer shall provide statements with respect to accrued fees and disbursements for any matters subject to a periodic retainer or cap.

b. For any Additional Services agreed by the EOHWC and the Engineer to be outside the Scope of Services, the EOHWC shall pay for services rendered in accordance with the schedule of hourly rates attached hereto at **Exhibit A**. Prior to undertaking any such Additional Services, the Engineer shall inform the EOHWC that such Services will be billed as Additional Services, shall provide an estimate of the total fees and expenses to be charged for such additional Services, and shall obtain the EOHWC's written authorization of a change order prior to commencing such work. For such other services, the Engineer shall submit invoices not more often than once a month.

c. All statements shall provide (a) the name and position of each individual whose time is billed; (b) the billing rate for each individual; (c) the number of hours expended on behalf of the EOHWC on any day that the individual performed services for the EOHWC; (d) a brief description of the task(s) performed each day for which time is billed; and (e) the total number of hours billed for services rendered to the EOHWC by each individual during the billing period. Copies of detailed documentation substantiating all reimbursable expenses over \$25 shall be provided to the EOHWC. Reimbursable expenses shall be itemized by category. Unless otherwise agreed, any authorized expenses shall be billed at the same time as the services to which they relate. Invoices shall be submitted to the EOHWC at the address set forth above, to the attention of the Controller. The Engineer shall maintain separate billing records with respect to each matter undertaken by the Engineer. At the EOHWC's request, the Engineer shall submit invoices on forms provided by the EOHWC.

d. A five percent retainage will be withheld by EOHWC from each invoice paid. The retainage will be released to the Engineer upon final acceptance of the work by EOHWC with payment of the final invoice. The acceptance by the Engineer of final payment under this Agreement shall operate as and be a release to the EOHWC from all claims and liability to the Engineer, its representatives and assigns for any and all things done, furnished for or relating to the services rendered by the Engineer under or in connection with this Agreement or for any part thereof.

**Section 9. OWNERSHIP OF DOCUMENTS** All documents, reports, opinions, plans, source code, system documentation, and other materials prepared for or relating to the Services provided hereunder shall be at all times the sole and exclusive property of the EOHWC, and shall be treated as confidential by the Engineer except as expressly authorized by the EOHWC. All work product created in connection with this Agreement, including working papers, data, maps, drafts, and other information in whatever form shall at all times be and remain the property of the EOHWC.

**Section 10. INDEPENDENT STATUS; TAXES**

a. The Engineer and its employees, agents, contractors, subcontractors and/or engineers, are independent contractors and not employees of the EOHWC. In accordance with their status as independent contractors, the Engineer covenants and agrees that neither the Engineer nor its employees or agents will hold themselves out as, nor claim to be, officers or employees of the EOHWC.

b. Nothing in this agreement shall impose any liability or duty on the EOHWC for the acts, omissions, liabilities or obligations of the Engineer, or any person, firm, company, agency, association, expert, engineer, independent contractor, specialist, trainee, employee, servant, or agent of the Engineer for the payment of taxes of any nature including but not limited to sales tax, unemployment insurance, worker's compensation, disability benefits and social security, or, except as specifically stated in this Agreement, to any person, firm or corporation.

c. To determine whether the Engineer must receive a form 1099 at year end and as a condition precedent to any payment by EOHWC hereunder, the Engineer shall submit to EOHWC a Form W-9 with the Engineer's correct taxpayer identification number.

## **Section 11. INSURANCE**

a. The Engineer shall at all times maintain in force during the term of this Agreement, and shall provide evidence satisfactory to EOHWC, of the policies of insurance set forth in **Exhibit D**.

b. Any policy required to be maintained under this section shall be from a company rated at least A/X by Best's Rating Service and properly licensed in the State of New York, and shall provide that the policy shall not be canceled, materially changed, or not renewed without thirty (30) days' prior notice thereof to the EOHWC.

c. Prior to the effective date of this Agreement, and as a condition precedent to this Agreement, the Engineer shall furnish the EOHWC with certificates of insurance listing the EOHWC as a certificate holder and, except for worker's compensation, additional insured, and upon demand, shall provide such policies to the EOHWC. At least thirty (30) days prior to expiration of any policy required by this Agreement, the Engineer shall furnish the EOHWC evidence satisfactory to the EOHWC of the continuation of such coverage in accordance with this Agreement.

d. To the extent required pursuant to an applicable Installation Agreement, the Host Municipality shall be listed as certificate holder and, on policies other than worker's compensation, additional insured. The Engineer shall further comply with the requirements of **Exhibit E** required by the Funding Agreement with New York City.

e. This contract shall be void and of no force and effect unless the Engineer shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

**Section 12. INDEMNIFICATION** The Engineer shall defend and indemnify the EOHWC, the Host Municipality (to the extent required pursuant to the applicable Installation Agreement defined herein), The City of New York (to the extent required pursuant to the Funding Agreement defined herein) and their respective directors, officers, employees and agents (the "Indemnified Parties"), and save the Indemnified Parties harmless from any liability, damage, claims, demands, costs or loss arising directly and indirectly out of the Engineer's or its officers', employees', agents', contractors', subcontractors' or engineers' respective negligent acts or omissions pursuant to this Agreement, including without limitation negligent performance of Services under this Agreement, and such indemnity may not be limited by reason or enumeration of any insurance coverage required. Negligent performance of services, within the meaning of this section, shall include, in addition to

negligence founded upon tort, negligence based upon Engineer's failure to meet professional standards and resulting in obvious or patent errors in the progression of its work.

### **Section 13. RIGHT TO AUDIT AND RECORDS**

- a. The Engineer shall maintain accurate and complete records detailing the back-up documentation required by this Agreement, and shall maintain such documents for a period of six years from document generation and shall allow the EOHWC access thereto for inspection and photocopying at all reasonable times.
- b. All receipts and disbursements are subject to audit by the EOHWC, and the Engineer agrees to cooperate with any audit of this Agreement undertaken by the EOHWC or any entity with jurisdiction to audit the EOHWC.

**Section 14. SUBCONTRACTORS** The Engineer shall not employ subcontractors to perform the Scope of Services, without the express consent of the EOHWC. EOHWC reserves the right to approve all subcontractors in its discretion. The Engineer will notify the EOHWC of the name, address, scope of services, and schedule of a subcontractor it intends retaining, the portion of the work which it is to do and/or the material which it is to furnish, and any other information requested by EOHWC. EOHWC will use the requested information to verify that the subcontractor is reputable, reliable, and able to perform the work required in this Agreement. Subcontractors shall be subject to the terms and conditions of this Agreement. By use of a subcontractor, the Engineer shall not be released from any liability or obligation assigned from executing this Agreement. The Engineer shall be held wholly responsible for subcontractor's performance, and shall be responsible to remedy any deficiencies in the subcontractor's work or performance.

**Section 15. COMPLIANCE WITH LAW** The Engineer shall comply with all Federal, State and local laws, rules and regulations applicable to performing the Services herein.

### **Section 16. DEFAULTS AND REMEDIES**

- a. If either party defaults in the observance or performance of any material term of this Agreement, and such default continues for more than thirty (30) days after written notice of such default is received by the defaulting party from the non-defaulting party, such non-defaulting party may take any action available at law or in equity to enforce the terms of this Agreement, and may suspend work or terminate this Agreement upon thirty (30) days written notice to the defaulting party. If the default is not capable of being cured within thirty (30) days and the defaulting party has commenced cure within thirty (30) days and is diligently pursuing efforts to cure, such thirty (30) day period shall be extended for a reasonable period of time.
- b. If either party is required to enforce the terms of this Agreement, the prevailing party will be entitled to recover its reasonable attorneys' fees and costs. No remedy herein conferred upon or reserved to the EOHWC is intended to be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity or by statute.
- c. No delay or omission in exercising any remedy shall impair any such remedy or construed to be a waiver thereof. It shall not be necessary to give any notice other than as expressly



required under this Agreement. In the event any provision contained in this Agreement should be breached and thereafter duly waived by the party or parties so empowered to act, such waiver shall be limited to the particular breach so waived and shall not be deemed to be a waiver of any other breach hereunder. No waiver, amendment, release or modification of this Agreement shall be established by conduct, custom or course of dealing.

**Section 17. EARLY TERMINATION** EOHWC shall have the right to postpone, suspend, abandon or terminate this Agreement with or without cause, and such action shall in no event be deemed a breach of contract. Upon termination by EOHWC without cause under this section, the Engineer shall be entitled to compensation for acceptable completed Services performed through the date of postponement, suspension, abandonment or termination, such Services to be verified by audit. In the event that this Agreement is terminated by the EOHWC for any reason, then within ten days after such termination, the Engineer shall make available to the EOHWC all records, documents and data pertaining to the Services rendered under this Agreement.

**Section 18. STOP WORK** If construction phase services (“CPS”), including construction observation, are requested of Engineer by EOHWC, the Engineer has no authority to stop work during construction, unless otherwise authorized in writing by EOHWC, provided that the Engineer may issue a stop work order to the contractor on behalf of EOHWC if 1) the Engineer observes a condition that compromises worker safety and/or 2) the Engineer observes a condition that presents immediate risk to immediately-adjacent structures or infrastructures. If the Engineer is authorized and issues a stop work order in accordance with this Agreement, the Engineer shall immediately notify the EOHWC Director of Engineering by telephone, and the Engineer shall fully document the condition causing the stop work order to be issued and provide documentation to EOHWC within 24 hours of the stop work order and the reason therefor. Such documentation shall include, but not be limited to field notes, sketches and photographs, and shall include names of individuals involved, company names, time, and date.

**Section 19. NO MECHANIC’S LIEN** The Engineer shall not permit or suffer any mechanic’s lien filed by any subcontractor, employee, or material vendor of the Engineer to remain upon the premises of EOHWC or any EOHWC member municipality, provided such lien arises from the execution of work under this Agreement. Upon final payment due under this Agreement, the Engineer agrees, for himself and his subcontractors, that the Engineer will issue to EOHWC such certificate or certificates to the effect that no mechanic’s lien or claims of the Engineer or its subcontractors have arisen or are outstanding with respect to this Agreement and that there is, to the best of the Engineer’s knowledge, no basis for any future liens to be filed, but that if any such liens or claims are filed, the Engineer shall defend and hold EOHWC harmless against such liens.

**Section 20. Procurement and Sourcing Solutions Portal (“PASSPort”)**

a. The Engineer hereby certifies that it and all subcontractors retained or to be retained by it under this Agreement have enrolled in the New York City PASSPort system and have completed the applicable vendor and principal questionnaires as required therein.

b. If during the term of this Agreement, the Engineer’s completed PASSPort questionnaires are more than 2½ years old, the Engineer shall update the questionnaires online prior to the expiration of three years from the initial questionnaire completion or last update. If there have been no changes in information requiring an update, the Engineer shall, if required, certify no change online prior to the expiration of three years from the initial questionnaire completion or last update..

c. The Engineer shall promptly submit to EOHWC upon request documentation of compliance with New York City's PASSPort system, including documentation of the submission of completed questionnaires and updates within the last 2½ years.

**Section 21. NOTICES** Unless otherwise specified, all notices required or permitted for herein shall be in writing and sent by certified mail, postage prepaid, or by hand, by overnight courier, or by telecopy confirmed by any of the previous methods, addressed to the parties as indicated below or to such addresses as they may designate in writing from time to time:

To the Engineer: At the address specified on the execution page of this Agreement.

To the EOHWC: At the address specified at the beginning of this Agreement,  
Attention: Director of Engineering

With a copy to:

Rodenhause Chale LLP  
20 Spring Brook Park  
Rhinebeck, NY 12572

**Section 22. FUNDING AGREEMENT** To the extent all or a portion of this Agreement is to be funded from moneys received by EOHWC directly or indirectly pursuant to a Funding Agreement with NYC Department of Environmental Protection ("Funding Agreement"), this agreement shall be subject to the supplemental provisions set forth at **Exhibit E**.

**Section 23. MISCELLANEOUS**

- a. **SEVERABILITY** In case any one or more of the provisions of this Agreement shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provision of this Agreement, but this Agreement shall be construed and enforced as if such illegal or invalid provision had not been contained therein.
- b. **AGREEMENT IS A LEGALLY BINDING CONTRACT** Each party hereto represents and warrants that this Agreement has been duly authorized and executed by it and constitutes its valid and binding agreement, and that any governmental approvals necessary for the performance of this Agreement have been obtained.
- c. **NON-ASSIGNMENT CLAUSE** This contract may not be assigned, and no part or portion may be subcontracted, by the Engineer nor may its right, title or interest therein be assigned, transferred, conveyed, sublet or otherwise disposed of without the previous consent, in writing, of the Municipality and any attempts to assign the contract without the Municipality's written consent are null and void.
- d. **NO THIRD PARTY BENEFICIARY** Nothing in this agreement shall act to confer third party beneficiary rights on any person or entity not a party to this Agreement, except as expressly provided in Section 12 as to Indemnity and 13 as to Insurance.
- e. **NO ARBITRATION** Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized) but must, instead, be heard in a court of competent jurisdiction of the State of New York.
- f. **SERVICE OF PROCESS** In addition to the methods of service allowed by the State Civil Practice Law & Rules, Engineer hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon

Engineer's actual receipt of process or upon the Municipality's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Engineer must promptly notify the Municipality, in writing, of each and every change of address to which service of process can be made. Service by the Municipality to the last known address shall be sufficient.

- g. NO RECOURSE All covenants, stipulations, promises, agreements and obligations of the EOHWC contained in this Agreement shall be deemed to be the covenants, stipulations, promises, agreements and obligations of the EOHWC, and not of any member, director, officer, employee or agent of the EOHWC in his individual capacity, and no recourse shall be had for the payment of any claim based under this Agreement against any member, director, officer, employee or agent of the EOHWC.
- h. COUNTERPARTS This Agreement may be executed in one or more counterparts, each of which shall be deemed an original.
- i. NONDISCRIMINATION During the term of this Agreement, the Engineer agrees as follows:
  - i) In accordance with Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Engineer will not discriminate against any employee or applicant for employment because of race, creed, color sex, national origin, age, disability or marital status.
  - ii) In accordance with Section 220-e of the Labor Law, if this is a contract for the construction , alteration or repair of any public buildings or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this Agreement shall be performed within the State of New York, the Engineer agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Agreement. The Engineer is subject to possible termination of this Agreement and forfeiture of all moneys due hereunder for a violation of this clause.
- j. PUBLIC WORKS CONTRACTS A portion of the funds for the work is or may be provided pursuant to the Funding Agreement or other public entity sources. Even if a project is located on private property, for purposes of this section such property may be treated as if it were public property.
  - i) If all or any portion of the Scope of Services constitutes a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Engineer's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the New York State Labor Department. Furthermore, Engineer and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the New York State Labor Department in accordance with the Labor Law. Additionally, if this is a public work contract covered by Article 8 of the Labor Law, the Engineer understands and agrees that the filing of payrolls in a manner consistent with subdivision 3-a of this Section 220 of the Labor Law shall be a condition precedent to payment by the EOHWC of any sums due and owing to any person for work done upon the project.
  - ii) OSHA 10 HOUR CONSTRUCTION SAFETY AND HEALTH COURSE. If all or a portion of the Scope of Services constitutes a public work contract covered by Article

8 of the New York State Labor Law, it shall be required that on all public work projects of at least \$250,000.00, all laborers, workers and mechanics working on the site be certified as having successfully completed A MINIMUM OF 10 HOURS OF CONSTRUCTION AND HEALTH SAFETY TRAINING, as approved by the United States Department of Labor's Occupational Safety and Health Administration (OSHA). The Engineer, subcontractor or other person doing or contracting to do the whole or part of the work contemplated by the contract, shall provide proof of certification for successfully completing the course for each employee prior to performing any work on the project.

- k. NON-COLLUSIVE BIDDING REQUIREMENT In accordance with General Municipal Law § 103-d, if this contract was awarded based upon the submission of bids or proposals, Engineer warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Engineer further warrants that, at the time Engineer submitted its bid, an authorized and responsible person executed and delivered to the Municipality a non-collusive bidding certification on Engineer's behalf.
- l. INTERNATIONAL BOYCOTT PROHIBITION In accordance with Section 220-f of the Labor Law, if this contract exceeds \$5,000, the Engineer agrees, as a material condition of this Agreement, that neither the Engineer nor any substantially owned or affiliated person, firm, partnership, or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Engineer, or any of the aforesaid affiliates of Engineer, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract amendment or modification thereto shall be rendered forfeit and void. The Engineer shall so notify the EOHWC within five (5) business days of such conviction, determination or disposition of appeal.
- m. NO INVESTMENT ACTIVITIES IN IRAN A person that is identified on a list created pursuant to paragraph (b) of subdivision three of section 165-a of the State Finance Law as a person engaging in investment activities in Iran as described in such section, shall not be deemed a responsible party for purposes of any RFP. By signing this Agreement, the Engineer and each person signing on behalf of the Engineer certifies, under penalty of perjury, that to the best of its knowledge and belief such Engineer is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the State Finance Law.
- n. SET-OFF RIGHTS The EOHWC shall have rights of set-off. These rights shall include, but not be limited to, the EOHWC's option to withhold for the purposes of set-off any moneys due to the Engineer under this contract up to any amounts due and owing by the Engineer to the EOHWC with regard to this Agreement, or any other contract with the Municipality, including any contract for a term commencing prior to the term of this Agreement. This also includes amounts due and owing the EOHWC for any other reason including, without limitation, monetary penalties, adjustments, fees, or claims for damages by the EOHWC and third parties in connection therewith.
- o. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules, Engineer hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Engineer's actual receipt of process or upon the Municipality's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Engineer must promptly notify the Municipality, in writing, of each and every change of address to which service of process can be made. Service by the Municipality to the last known address shall be sufficient.



p. ENTIRE AGREEMENT; GOVERNING LAW AND JURISDICTION; AMENDMENT

This Agreement contains the entire understanding between the parties with respect to the subject matter herein and supersedes any prior agreements or understandings, either oral or written. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York. The parties agree that any dispute or controversy arising out of this Agreement shall be venued in the jurisdiction of the EOHWC's headquarters. This Agreement may be amended only upon mutual written agreement signed by both parties.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the EOHWC has caused this Agreement to be signed by its duly authorized officer, and the Engineer has caused this Agreement to be signed by its duly authorized officer, as of the day and year first above written.

**EAST OF HUDSON WATERSHED CORPORATION,**  
as **EOHWC**

\_\_\_\_\_  
By: Peter Parsons  
Its: President

\_\_\_\_\_, as **ENGINEER**

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ENGINEER Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Email: \_\_\_\_\_  
Phone: \_\_\_\_\_

**This Agreement consists of the Agreement together with the following Exhibits:**

EXHIBIT A FEES AND EXPENSES

EXHIBIT B SCOPE OF SERVICES

EXHIBIT C TERM AND COMPLETION DEADLINES

EXHIBIT D INSURANCE REQUIREMENTS

EXHIBIT E SUPPLEMENTAL PROVISIONS REQUIRED BY FUNDING AGREEMENT

**EXHIBIT A**

**FEES AND EXPENSES**

**PURPOSE: Engineering Services; CONTRACT NO.: \_\_\_\_\_**

**Scope of Services**

I. (See attached "Form B" as provided within the RFP response)

All such lump sum fees shall include all expenses in connection with the Services, including without limitation site transportation, analysis, results, data validation reports, expenses (telephone, meals, travel, computer time, fax costs, postage, Federal Express or other delivery service, overhead, profit, reproducing), and administrative costs.

II. **Additional Services:** All Additional Services require the advance written approval of the EOHWC Executive Committee by change order. Services performed without such authorization are at the Engineer's risk and under no circumstances shall the EOHWC be obligated for payment.

**Project Manager and Key Professional Staff:** EOHWC reserves the right to terminate this Agreement should certain personnel specifically named in the Engineer's proposal cease to be employed by the Engineer and assigned to the Projects, unless the EOHWC has determined in its discretion that alternate Project personnel are acceptable.

Project Manager: \_\_\_\_\_

Key Professional Staff: \_\_\_\_\_

Subcontractor(s), If Any, to Perform Services: \_\_\_\_\_

\*See attached

**EXHIBIT B**

**SCOPE OF SERVICES**

The Consultant will provide the following services for the Project or Projects indicated below based on the criteria described in the EOHWC Stormwater Retrofit Project Design Manual, most recent edition:

SRP Design

SRP Construction Administration

Additional Services to the extent authorized as provided herein.

Project(s): \_\_\_\_\_  
                  \_\_\_\_\_  
                  \_\_\_\_\_

The list of Projects included within the Scope of Services may be amended from time to time by addenda approved by the Executive Committee and executed by the President or Vice President on behalf of the EOHWC and by the Consultant by their duly authorized officer.

For purposes of this Agreement the owner of a project may be a Town, Village or County (“Host Municipality”), a school district (“School District”), or a private entity (“Private Owner”), as preliminarily identified in the Year 6 through 10 Stormwater Retrofit Report. EOHWC has or expects to enter into an installation agreement and/or easement and/or access agreement providing for access to and conditions to construction of the SRP. The Scope of Services includes the preparation of exhibits to such agreements.



## EXHIBIT C

### TERM AND COMPLETION DEADLINES

**PURPOSE:** Engineering Services; **CONTRACT NO.:** \_\_\_\_\_

Commencement Date: TBD

Completion Date: TBD

Completion Deadlines for Deliverables: TBD

The Services shall be performed in two phases, of which the first phase shall be the initial project evaluation as defined in the EOHWC “Stormwater Retrofit Project Design Manual,” available for review at [www.EOHWC.org](http://www.EOHWC.org). The initial project evaluation shall include the estimated Phosphorus reduction from the stormwater retrofit project, the cost of the project, including both engineering and construction services, and a calculation of the cost per kilogram of Phosphorus reduction. Upon completion of the initial project evaluation, the Engineer shall provide same to EOHWC and stop work.

The Engineer is not authorized to proceed with work beyond the initial project evaluation without the express written approval of the EOHWC President or, where permitted by the EOHWC Fiscal Policy, the Director of Engineering.

**Engineer shall inspect the stormwater retrofit project within one (1) year of the completion of construction to determine if EOHWC may release the contractor’s maintenance bond. The term of the contract may be extended at EOHWC’s option solely to permit the completion of this inspection, as part of the lump sum fee unless otherwise specifically provided specified at Exhibit A.**

## **EXHIBIT D**

### **INSURANCE REQUIREMENTS**

Worker's Compensation Statutory per New York State law without regard to jurisdiction

Employer's Liability Statutory

Commercial General Liability CG 00 01 (ed. 10/02) or equivalent

Combined Single Limit - Bodily Injury and Property Damage

\$2,000,000 per occurrence

\$2,000,000 products/completed operations aggregate

\$4,000,000 general aggregate

\$25,000 maximum deductible

Automobile Liability: CA 00 01 (ed. 6/92) or equivalent.

Combined Single Limit - Bodily Injury and Property Damage

\$500,000 each occurrence

The following coverage must be provided:

Comprehensive Form, Owned, Hired, Non-Owned

Professional Errors and Omissions policy with a U.S. domiciled company, with extended reporting period or automatic coverage of not less than two years, providing limits of not less than:

\$1 Million per claim

\$1 Million aggregate

Deductible or self-insured retention not to exceed \$25,000 per claim.

Additional Insureds: East of Hudson Watershed Corporation; Town of (Name); and the City of New York and their respective directors, officers, employees and agents.

## **EXHIBIT E**

### **SUPPLEMENTAL PROVISIONS REQUIRED BY FUNDING AGREEMENT**

To the extent all or a portion of this Agreement or any subcontract thereof is to be funded from moneys received by EOHWC directly or indirectly pursuant to a Funding Agreement with NYC Department of Environmental Protection, this Agreement shall be subject to the following supplemental provisions.

1. Engineer shall perform all work in accordance with the terms of the Funding Agreement;
2. Engineer shall perform all acts to be performed under this Agreement in compliance with all applicable federal, State and local laws, rules, regulations and orders, including that all projects, facilities or other measures funded with Stormwater Retrofit Funds requiring review and approval by NYCDEP under the Watershed Regulations or required to be designed, constructed or implemented in accordance with standards set forth in the Watershed Regulations, be submitted for such review and approval and be designed, constructed, and implemented in accordance with the Watershed Regulations;
3. [Intentionally Omitted]
4. Engineers shall have liability insurance in sufficient amount and scope to protect the interests of New York City and the EOHWC, as provided in Exhibit D of the Agreement and the Funding Agreement located on the EOHWC.org website at: <http://eohwc.org/wp-content/uploads/2013/05/NYCDEP-CRO-522-Funding-Agreement>.
5. Engineer agrees to indemnify The City of New York and assume liability for injuries as provided in Section 12.
6. Engineer shall comply with a budget, a scope of work, a progress schedule for completion of the work within specified milestones and payment schedule which is dependent upon completion of the work within the specified period of performance;
7. Engineer represents and warrants that no payment, gift or thing of monetary value was made, given or promised to a the EOHWC officer, director, or employee to obtain the Contract or any other agreement with The City of New York or the EOHWC;
8. Nothing contained in this Agreement shall impair the rights of The City of New York under the Funding Agreement or the Watershed MOA;

9. EOHWC or The City of New York shall have the right from time to time to conduct random, unannounced inspections of the work performed under this Agreement to determine whether such work is being performed in accordance with the terms of the Agreement, except that, where work is being performed on private property, the EOHWC and The City of New York shall provide reasonable notice of such inspections or conduct them during normal business hours;
10. Nothing contained in this Agreement shall create any contractual relationship between the Engineer and The City of New York; and
11. Engineer shall not engage in any unlawful discrimination in hiring employees under this Agreement based upon race, creed, color, national origin, sex, age, disability, marital status or sexual orientation.
12. Engineers performing public work within the meaning of Section 220 of the New York State Labor Law shall pay not less than the prevailing wage to laborers, workmen and mechanics performing such public work and comply with all other applicable provisions of Section 220 of the Labor Law. Such Engineers shall maintain records evidencing their compliance with this Subsection.





**EAST OF HUDSON  
WATERSHED CORPORATION**

2 Route 164  
Patterson, NY 12563  
Tel: 845-319-6349  
Fax: 845-319-6391

# APPENDIX III

## Proposal Forms

# FORM A

## Business Information

This form must be submitted along with all other forms included in this RFP package. All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized.

1. Entity Information
  - a. Legal Name of entity:
  - b. Permanent main office address:
  - c. Federal Employer ID #:
  
2. Contact person regarding RFP:
 

a. Telephone number:	Fax number:
b. Email:	
  
3. Names of all officers and/or principals in the firm and their titles:

Name of Officer and/or Principals	Titles	Legal Residence State and City

4. If proposer is a closely held corporation or partnership, list stockholder's or partner's information below:

Name	Legal Residence	Office Held

5. Entity organization

- a. Date organized (month, day, year):
- b. If a corporation, LLC, Partnership, or other organization, state of origin:
- c. Number of years entity in business:

6. List names of any affiliated corporation of proposer, business affiliation with respondent and specify relationship:

<b>Name of affiliated corporation</b>	<b>Business Affiliation</b>	<b>Specify Relationship</b>

7. Identify all subcontractors proposed to be used to fulfill any part of the obligations anticipated by this proposal:

<b>Name of subcontractor</b>	<b>Address</b>	<b>Type of work to be performed</b>

8. Current licenses, permits and certifications are listed on **Schedule A** and **copies of same are attached.**

9. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by East of Hudson Watershed Corporation and/or his designee on behalf of East of Hudson Watershed Corporation in verification of the recitals comprising this Business Information Form.

\_\_\_\_\_  
(Name of Entity)

By: \_\_\_\_\_  
(Principal)

\_\_\_\_\_  
(Title)

State of New York        )  
County of                ) ss.

\_\_\_\_\_ being duly sworn, deposes and says that he/she is  
\_\_\_\_\_ of \_\_\_\_\_ and that the answers to  
the foregoing questions and all statements therein contained are true and correct.

**Subscribed and sworn to before me this**  
\_\_\_ day of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
**Notary Public**

**SCHEDULE A**

**Licenses, Permits & Certifications**

**[List Attached]**

**Project Manager NYS PE#: \_\_\_\_\_**



## FORM B

### LUMP SUM FEE PROPOSAL

<b>SOLICITATION NUMBER:</b>
<b>PROJECT ID:</b>
<b>PROJECT TITLE:</b>

ITEM#	TITLE	TOTAL PRICE (IN WORDS)	TOTAL PRICE (\$)
1	30% Engineering Design		
2	60% Engineering Design		
3	100% Engineering Design and Bid Documents		
4	Construction Administration and Record Documents		
TOTAL PRICE			

**\*Must be completed for each individual project within any given Solicitation**

All such lump sum fees shall include all expenses in connection with the Services, including without limitation site transportation, analysis, results, data validation reports, expenses (telephone, meals, travel, computer time, fax costs, postage, Federal Express or other delivery service, overhead, profit, reproducing), and administrative costs.

## FORM C

### HOURLY FEE SCHEDULES, PROJECT MANAGER, KEY STAFF AND SUBCONTRACTORS

**Additional Services:** Any approved Additional Services are to be billed at the Hourly Rates specified below. All Additional Services require the advance written approval of the EOHWC Executive Committee by change order. Services performed without such authorization are at the Engineer's risk and under no circumstances shall the EOHWC be obligated for payment.

Hourly Fees and Expenses for Other Services:

Services identified in the Scope of Services as hourly matters are to be billed at the Hourly Rates and Expenses specified below. Prior to performing such services the Engineer shall provide an estimate of the hourly fees and expenses for the specific task for approval by the EOHWC. Services performed without such authorization are at the Engineer's risk and under no circumstances shall the EOHWC be obligated for payment.

Name and Hourly Rate of all Employees to Perform Services:

(See attached Exhibit A-1 "Estimated Direct Labor")

Applicable Overhead and Profit Percentages: (See attached Exhibit A-2 "Fee Summary")

Expense Items and Rate: (See attached Exhibit A-3 "Estimated Expenses")

Project Manager and Key Professional Staff: EOHWC reserves the right to terminate this Agreement should certain personnel specifically named in the Engineer's proposal cease to be employed by the Engineer and assigned to the Projects, unless the EOHWC has determined in its discretion that alternate Project personnel are acceptable.

Project Manager: \_\_\_\_\_

Key Professional Staff: \_\_\_\_\_

Subcontractor(s), If Any, to Perform Services: \_\_\_\_\_

(If applicable, attach equivalent of A-1, A-2 and A-3 for Subcontractor).

**FORM D**

**CIVIL ENGINEERING SERVICES**

**EAST OF HUDSON WATERSHED CORPORATION**

**AFFIDAVIT REGARDING REQUIRED DISCLOSURE  
OF RELATIONSHIPS TO THE EOHWC**

Name of Proposer: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

The Reporting Entity is: (Please check one):

\_\_\_\_\_ Individual    \_\_\_\_\_ Corporation    \_\_\_\_\_ Partnership

A.) Related Employees:

1. Are any of the employees that you will use to carry out this contract with the EOHWC also an officer or employee of the EOHWC, or the spouse, or the child or dependent of a EOHWC officer or employee? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please provide details:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B.) Related Owners:

1. If you are the owner of the Company, are you or your spouse, an officer or employee of the EOHWC? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please provide details:

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To answer the following question, the following definition of the word “interest” shall be used. Interest means a direct or indirect pecuniary or material benefit accruing to a EOHWC officer or employee, his or her spouse, child or dependent, whether as the result of a contract with the EOHWC or otherwise. For the purpose of responding to these questions, an EOHWC officer or employee shall be deemed to have an “interest” in the contract of:

- a. His/her spouse, children and dependents, except a contract of employment with the EOHWC;
  - b. A firm, partnership or association of which such officer or employee is a member or employee;
  - c. A corporation of which such officer or employee is an officer, director or employee; and
  - d. A corporation of which more than five (5) percent of the outstanding capital stock is owned by any of the aforesaid parties.
- 2) Do any officers or employees of the EOHWC have an interest in the Contractor or in any subcontractor that will be used for this contract? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please provide details:

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I am the \_\_\_\_\_ (title or Office) of the reporting entity listed above.

I make this affirmation based upon my personal review of the books and records of the reporting entity. All of the foregoing information is true to the best of my knowledge, after inquiry. I make these statements under penalty of perjury.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and title

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

S.S.

Sworn to me before this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

---

CIVIL ENGINEERING SERVICES FOR STORMWATER RETROFIT IMPLEMENTATION

REQUEST FOR PROPOSAL



**FORM E**

**CIVIL ENGINEERING SERVICES**

**EAST OF HUDSON WATERSHED CORPORATION**

**GENERAL MUNICIPAL LAW: Section 1039d)  
“NON-COLLUSIVE BIDDING CERTIFICATE”**

1. By submission of his bid, each bidder and each person signing on behalf of any bidder, certifies, and in the case of a joint bid, each party thereto, certifies as to its own organization under penalty of perjury that to the best of their knowledge and belief:
  - a. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder, with any competitor;
  - b. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder, and will not knowingly be disclosed by the bidder prior to opening, directly, to any other bidder or to any competitor; and
  - c. No attempt has been made or will be made by the bidder to include any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
By

\_\_\_\_\_  
Address

\_\_\_\_\_

\_\_\_\_\_  
Accepted

\_\_\_\_\_

**FORM F**  
**Statement of Insurance**

PROPOSER \_\_\_\_\_ HAS  
[Name of]

THE FOLLOWING POLICIES OF INSURANCE IN FULL FORCE AND EFFECT:  
**[Attach certificates showing endorsements & dates of coverage. Copies of policies to be made available upon request]**

# FORM G

## Confidentiality Notice

The data on page(s)

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of this proposal, identified by an asterisk (\*) or marked along the margin with a vertical line, contain technical or financial information which are considered to be proprietary information or trade secrets, the disclosure of which would cause substantial injury to the Proposer's competitive positions. The Proposer requests that such data be used only for the evaluation of the proposal, but understands that such data may otherwise be disclosed to the extent that East of Hudson Watershed Corporation determines is necessary or proper for compliance with any law, order or decree of any court or agency of competent jurisdiction, or necessary or proper in East of Hudson Watershed Corporation's view to show compliance with any law, order or decree of any court or agency of competent jurisdiction.

**Note:**

Proposer is urged to only designate as confidential those materials which, in its opinion, clearly represent proprietary information or trade secrets. Cost proposal information and all proposed forms shall not be considered confidential.

Proposer \_\_\_\_\_

Signature of Authorized Official \_\_\_\_\_

Date \_\_\_\_\_

FORM H

CERTIFICATION REGARDING VENDEX AND VALUE OF ALL CONTRACTS WITH NEW YORK CITY

Name of Proposer/Bidder (“Contractor”): \_\_\_\_\_

Address of Proposer/Bidder: \_\_\_\_\_

Project Name: \_\_\_\_\_ (“Contract”)

Date of this Certification: \_\_\_\_\_

This is to certify to the East of Hudson Watershed Corporation that Contractor has completed the appropriate VENDEX questionnaire on-line via New York City’s Procurement and Sourcing Solutions Portal (“PASSPort”), or such revised standard VENDEX questionnaire as New York City provides from time to time, and submitted the completed VENDEX questionnaire to New York City Department of Environmental Protection electronically.

Please check applicable box:

- This is to certify to the East of Hudson Watershed Corporation that the proposed Contract, when aggregated with the value of all other contracts funded with funds provided by the City of New York awarded to the same Contractor during the immediately preceding twelve-month period, is valued at less than \$250,000.
  
- This is to certify to the East of Hudson Watershed Corporation that the proposed Contract, when aggregated with the value of all other contracts funded with funds provided by the City of New York awarded to the same Contractor during the immediately preceding twelve-month period, is valued at \$250,000 or more.

All of the foregoing information is true and complete to the best of my knowledge, after inquiry. I make these statements on behalf of the Contractor under penalty of perjury.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title

Sworn to before me this  
\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Notary Public