North Ferry Street Pump Relocation

123 North Ferry Street
Schenectady, Schenectady County, NY
Environmental Review Record

Prepared by Tetra Tech Inc.
1999 Harrison Street, Suite 500
Oakland, CA 94612

New York State Homes and Community Renewal
Governor’s Office of Storm Recovery
38-40 State Street
Albany, NY 12207

November 17, 2018          Revised May 9, 2017
# North Ferry Street Pump Station Relocation Project
## Environmental Review Record

**Project Name:** North Ferry Street Pump Station Relocation Project  

**Project Location:** 123 North Ferry Street, Schenectady, Schenectady County, NY  

**Federal Agency:** US Department of Housing and Urban Development  

**Responsible Entity:** New York State Homes and Community Renewal  

**Responsible Agency’s Certifying Officer:** Lori A. Shirley, Governor’s Office of Storm Recovery, Certifying Officer  

**Project Sponsor:** City of Schenectady  

**Primary Contact:** Gary McCarthy  
   Mayor  
   (518) 382-5000  
   gmccarthy@schenectadyny.gov  

**Project NEPA Classification:** 24 CFR 58.36 (Environmental Assessment)  

### Environmental Finding:

| Finding of No Significant Impact | The project will not result in a significant impact on the quality of the human environment. |
| Finding of Significant Impact | The project may significantly affect the quality of the human environment. |

### Certification

The undersigned hereby certifies that New York State Homes and Community Renewal has conducted an environmental review of the project identified above and prepared the attached environmental review record in compliance with all applicable provisions of the National Environmental Policy Act of 1969, as amended (42 USC Sec. 4321 et seq.) and its implementing regulations at 24 CFR Part 58.

**Signature**

Lori A. Shirley

### Environmental Assessment Prepared By:

Consultant: **Tetra Tech, Inc.**  

Address: 1999 Harrison Street, Suite 500  

Address: Oakland, CA 94612
CERTIFICATION OF NEPA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2015 NYS CDBG-DR project, North Ferry Street Pump Station Replacement project is:

Check the applicable classification.

☐ Exempt as defined in 24 CFR 58.34 (a).

☐ Categorically Excluded as defined in 24 CFR 58.35(b).

☐ Categorically Excluded as defined in 24 CFR 58.35(a) and no activities are affected by federal environmental statues and executive orders [i.e., exempt under 58.34(a)(12)].

☐ Categorically Excluded as defined in 24 CFR 58.35(a) and some activities are affected by federal environmental statues and executive orders.

☒ "Other" neither exempt (24 CFR 58.34(a)) nor categorically excluded (24 CFR 58.35).

☒ Part or all of the project is located in an area identified as a floodplain or wetland. For projects located in a floodplain or wetland, evidence of compliance with Executive Orders 11988 and/or 11990 is required.

For activities excluding those classified as "Other", attached is the appropriate Classification Checklist (Exhibit 2-4) that identifies each activity and the corresponding citation.

___________________________ November 17, 2018 ____________________________
Signature of Certifying Officer Date

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor’s Office of Storm Recovery
CERTIFICATION OF SEQRA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2105 NYS CDBG-DR project, North Ferry Street Pump Station Replacement project constitute a:

Check the applicable classification:

☐ Type I Action (6NYCRR Section 617.4)
☑ Type II Action (6NYCRR Section 617.5)
☐ Unlisted Action (not Type I or Type II Action)

Check if applicable:

☐ Environmental Impact Statement (EIS) Prepared
  ☐ Draft EIS
  ☐ Final EIS

______________________________ November 17, 2018 __________
Signature of Certifying Officer Date

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor’s Office of Storm Recovery
Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The City of Schenectady, Schenectady County, New York proposes to construct a new pump station to replace the existing North Ferry Street Pump Station located at 123 North Ferry Street (Figure 1). The new pump station would connect to existing sewer infrastructure.

The existing North Ferry Street Pump Station, built in 1913, is located on the southern shore of the Mohawk River at the end of North Ferry Street in the historic Stockade District (Figure 2). The site is adjacent to the Mohawk River, which is classified as an NWI wetland L1UBHh (lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded). The site is within the 100-year floodplain and is located over the Schenectady-Niskayuna Sole Source Aquifer. Land use surrounding the pump station site is primarily residential, parkland, and commercial.

The ground floor elevation [225 feet above sea level (ASL)] is below the 100-year flood elevation and is prone to flooding from the Mohawk River. Flooding of the Mohawk River and its tributaries after Hurricane Irene and Tropical Storm Lee caused destruction throughout the City of Schenectady. The city drinking water and wastewater facilities experienced flooding and power failures. The North and South Ferry Street Pump Stations, critical components of the city's sewer system, were severely impacted by floodwaters. The control and electrical systems were inundated, and the control panels did not operate for almost 24 hours due to power failure.

The proposed project design was a result of a feasibility study, a public outreach and participation program and close collaboration with the New York State Historic Preservation Office (SHPO). Archeology surveys were completed to ensure the preservation of archeology features below the ground surface of the proposed site. The results of the survey were documented and provided to SHPO.

The proposed project location is just to the south of the existing pump station (Figure 3). This location would share access and parking currently used for the existing pump station and Riverside Park. The permanent entrance and driveway to the pump station would be located off North Ferry Street (See Figures 4a and 4b).

The proposed project will include the construction of an improved wastewater pump station. The new pump station will withstand flooding and continue to operate in future storm events improving the reliability and resiliency of the City of Schenectady's wastewater facilities. The proposed project location would allow for the reconnection of the gravity influent lines for the sewersheds served by the existing pump station.

The proposed pump station is being designed with additional controls which would enable the City to convey flows through the existing interceptor sewer along Front Street which would allow for maximum flexibility for the long-term operations and maintenance of the system. Parking and access would remain unchanged from the existing facility.

This project, when integrated with other system improvements, will serve to reduce flooding and improve street drainage throughout the City thereby providing protection to City residences and businesses.
The proposed project includes building and landscape architecture designed to match the character of the historic neighborhood. The proposed pump station has been uniquely coupled to final station layout because of existing site constraints and infrastructure interface requirements, which impact both building and site layouts, and project constructability. The most critical site constraint is accommodating access to the final finished floor elevation of the pump station. Interconnection of the new pump station to the gravity lines serving the existing North Ferry Street Pump Station, drainage and neighborhood aesthetics were a driving factors in the final design.

The proposed project has been designed to accommodate the flood elevation and maintain the character of Riverfront Overlook and bike path along the river.

The proposed project would disturb less than 0.5 acres of land. Construction of the new pump station could require dewatering during excavation. The construction of the wet well would require excavation to approximately 31 feet below the existing surface (See Figures 4a and 4b).

Natural gas service would be extended to the pump station site for connection to gas-fired heating equipment within the building. Two separate independent sources of electrical power would be provided to the pump station. The primary source would be commercial power from either a utility substation or transmission grid. The standby power source would be from an on-site, diesel-fueled, engine generator connected to the utility distribution grid. The diesel generator would have an integral double-contained, 2500-gallon AST, above-ground fuel tank.

No land acquisition is required.

Once the new pump station is operational, the City plans to remove the existing North Street Pump Station from service. The existing 30-inch connection from the existing pump station will be cut to allow for tie in and startup of the new facility. The old pipe will then be capped and abandoned in place. The City has committed to maintain and preserve the existing 1913 Pump Station as part of the City’s infrastructure (see Appendix J, City of Schenectady Letter- Maintain and Preserve 1913 Pump Station, January 11, 2019). The NYS Department of Parks, Recreation and Historic Preservation (SHPO) has requested consultation on a protection plan for the existing pump station. Final design specifications include protections for the 1913 Pump Station during project construction, and a building condition survey will be performed on the existing Pump Station before installation of the excavation support system (See Appendix K, Final Design Specifications). A future use for the building has not yet been determined. The NYS Office of Parks, Recreation and Historic Preservation (SHPO), the Stockade Association, and the Schenectady Heritage Foundation (SHF) have requested ongoing consultation on proposals and plans for reuse of the existing station. It is a condition of this Environmental Assessment that the City of Schenectady commit to ongoing consultation with those parties regarding proposals and plans for reuse of the existing station (See “Mitigation Measures and Conditions” table, at the end of this EA).

**Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:**

In June 2013, Governor Andrew Cuomo set out to centralize recovery and rebuilding efforts in impacted areas of New York State. Although Schenectady County was not affected by Hurricane Sandy, this storm was the catalyst for the allocation of disaster relief funds under the Community
Development Block Grant – Disaster Recovery (CDBG-DR) award. These funds are being used to assist not only counties that were devastated by Hurricane Sandy, but also counties like Schenectady County that were severely impacted by Hurricane Irene and Tropical Storm Lee in 2011. The Governor’s Office of Storm Recovery (GOSR) was established to administer the award funds, address communities’ most urgent needs, and encourage the identification of innovative and enduring solutions to strengthen the State’s infrastructure and critical systems. Operating under the umbrella of New York State Homes and Community Renewal (HCR), GOSR uses approximately $3.8 billion in flexible funding made available by the US Department of Housing and Urban Development’s (HUD’s) CDBG-DR program to concentrate aid to four main areas: housing recovery, small business, community reconstruction, and infrastructure. Paired with additional federal funding that was awarded to other State agencies, the CDBG-DR program is enabling homeowners, small businesses and entire communities to build back and better prepare for future extreme weather events.

The North Ferry Street Pump Station is the City’s largest sewage pump station, pumping an average of 5.5 million gallons per day (MGD). During Hurricane Irene, the pump station was pumping up to 21 MGD, until, due to flooding, the pump station, including its electrical systems, control systems, and emergency generator suffered water damage. The facility did not operate for approximately 24 hours.

Due to the large daily volume of raw sewage received and pumped at the facility, it is critical that the pump station remain operable at all times to protect the health and safety of the City residents by preventing raw sewage from surcharging onto private properties and the adjacent recreational areas - Riverside Park and the Mohawk River.

The existing 1913 Pump Station cannot handle or be modified to meet the objective of eliminating sanitary sewer overflow. Should the existing pump station fail during a flood, the City would not be able to pump wastewater and raw sewage would be released to the neighborhood and Mohawk River, in violation of the State Pollution Discharge Elimination System (SPDES) discharge permit. The proposed project would help to avoid such a situation.

In addition, the proposed project will bring the pumping station into compliance with New York State Department of Environmental Conservation (NYSDEC) sanitary sewer overflow (SSO) discharge requirements. The City of Schenectady has entered an Order on Consent to eliminate an existing SSO which discharges into the Mohawk River, approximately 3,375 linear feet downstream of the pump station at the east end of the historic stockade district. As part of a City-wide Wastewater Master Plan, the City has determined that the existing function and performance of the North Ferry Street Pump Station must be re-defined and upgraded in order to meet the City’s needs and obligations under the Order on Consent.

The proposed project would improve septic and wastewater infrastructure to reduce flood damage and risk of pollution, increase reliability and the resiliency of the City of Schenectady’s wastewater facilities and is consistent with the objectives outlined in the City of Schenectady Comprehensive Plan 2020. Objectives in the plan include providing well-maintained 21st century municipal infrastructure with safe waste management, developing a plan to address flooding issues citywide, and protecting and promoting historic resources.
**Existing Conditions and Trends** [24 CFR 58.40(a)]:
Schenectady was first settled in 1661 when the area was part of the Dutch colony of New Netherland. It was chartered as a city in 1798. Population growth in the City of Schenectady is lower than the New York State average. Between 1990 and 2010, the City of Schenectady experienced slow growth (less than 1.0%). During the same period, the State of New York experienced a 7.7% increase in population. Between 2000 and 2010, the City of Schenectady had a 1.4% increase in the number of households. There is an increasing number of small households which indicate a trend toward more single person and single parent households.

The City of Schenectady’s sanitary sewer system covers virtually the entire City with the exception of a few residential homes that utilize individual septic systems at the outer edges of the Woodlawn neighborhood. The North Ferry Street Pump Station, a critical component of the City’s sewer system, was inundated by flood waters during Hurricane Irene, including the control and electrical systems and emergency generator.

The City has entered into an Order on Consent (R4-2012-1218-17) to eliminate an existing sewer overflow which discharges into the Mohawk River. As part of a City-Wide Wastewater Master Plan, in addition, to addressing the flooding problem, the City has determined the existing function and performance of the North Ferry Street Pump Station must be upgraded in order to best meet the City’s needs and obligations under the Order on Consent. The deadline to comply with the Consent Order has been extended twice- the first time in September 2017 to address community / public comments and the second time in June 2018 to conduct archeological investigation required by the change in site location to address SHPO and public comments.

**Standard Conditions for All Projects**
Any change to the approved scope of work will require re-evaluation by the Certifying Officer for compliance with NEPA and other laws and Executive Orders.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires the recipient to comply with all federal state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

**Funding Information**

**Estimated Total HUD Funded Amount:**
$3,149,999

**Estimated Total Project Cost** (HUD and non-HUD funds) [24 CFR 58.32(d)]:
$6,399,999
Project Overview

123 North Ferry Street
City of Schenectady,
Schenectady County, New York

Legend
- Project Area

Figure 1 – Site Location Map
Figure 2 – Project Area Map
Figure 3 – Topographic Map
Figure 4a: Proposed Site Plan
Figure 4b. Proposed Elevation Plan. Side View
Compliance with 24 CFR 58.5 and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

<table>
<thead>
<tr>
<th>Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6</th>
<th>Are formal compliance steps or mitigation required?</th>
<th>Compliance determinations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.6</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport Hazards</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>24 CFR Part 51 Subpart D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastal Barrier Resources</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flood Insurance</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
8, 2014. (See Appendix B). All insurable structures will require flood insurance.

| STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 58.5 |
|---|---|
| **Clean Air** | **Yes** | **No** |
| Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93 | | |

Schenectady County is not within the most recent Nonattainment Areas for Criteria Pollutants as defined by the EPA’s Green Book for Nonattainment Areas for Criteria Pollutants. The proposed project involves the design, permitting, and construction of a new pump station on a property adjacent to the existing pump station.

The proposed emergency generator is subject to the stationary Reciprocating Internal Combustion Engine (RICE) Maximum Achievable Control Technology (MACT) regulations at 40 CFR 63 ZZZZ that govern emission limits and compliance requirements for existing and new stationary RICE. Any new compression ignition generator must comply with 40 CFR 60, Subpart III, and any new spark ignition generator must comply with 40 CFR 60, Subpart JJJJ. Compliance will be demonstrated by purchasing a generator certified to the limits in these regulations.

As the emergency generator does not require a New York State Department of Environmental Conservation (NYSDEC) permit or registration, is not located at a major source of hazardous air pollutant emissions and is not intended for use in demand response programs, the proposed Project will not exceed conformity thresholds, does not require notification, and will likely not result in direct or indirect adverse impacts to air quality. Therefore, the conformity determination requirements do not apply to the proposed Project.
Construction activities as a result of the Proposed Project may result in temporary increases in emissions from on-site equipment, construction-related vehicles and non-road engines, and fugitive dust. Air quality impacts will be short term and localized during construction. Implementation of standard best management practices (BMPs) will control dust and other emissions during construction. No significant adverse impacts to air quality are anticipated.

Air quality impacts will be short term and localized during construction, so no significant adverse impacts to air quality are anticipated.

**Source:** 6, 7

**Coastal Zone Management**

Coastal Zone Management Act, sections 307(c) & (d)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒</td>
<td></td>
</tr>
</tbody>
</table>

The Project site is not in a coastal zone as defined by the state's Coastal Zone Management Program or a Local Waterfront Revitalization Program.

**Source:** 5

**Contamination and Toxic Substances**

24 CFR Part 50.3(i) & 58.5(i)(2)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒</td>
<td></td>
</tr>
</tbody>
</table>

The Project site is not listed on a U.S. Environmental Protection Agency (EPA) Superfund National Priorities or CERCLA List, or equivalent State list, is not located within 3,000 feet of a toxic or solid waste landfill site and is not known or suspected to be contaminated by toxic chemicals or radioactive materials. (See Appendix A)

No underground storage tanks (USTs) are present on the property.

A search of the NYSDEC Bulk Storage Program Database identified two nearest sites with USTs just over 1000 feet to the southeast and to the south. Both sites were listed as having closed/removed Fuel oil #2 storage tanks (See Appendix A).
No new populations will reside at the proposed pump station. The proposed project will not expose new populations to hazards associated with contamination or toxic materials.

A search of the NYSDEC Remedial Site Database, containing records of the sites being addressed under one of DER’s remedial programs (State Superfund, Brownfield Cleanup, Environmental Restoration and Voluntary Cleanup, the Registry of Inactive Hazardous Waste Disposal Sites, and Institutional and Engineering Controls), identified several sites within one mile of the Project site (See Appendix A). The Project site was not identified in NYSDEC Remedial Site Database.

The nearest remedial site is Sav-Mor Cleaners (Site Code: 447051), a State Superfund Program located approximately 1,400 feet south of the Site. It’s classified as Code P. Code P sites may have contamination that makes it eligible for consideration for placement on the Registry of Inactive Hazardous Waste Disposal.

The Project will not result in the exposure of people or sensitive environmental resources to the facilities identified in these databases.

**Asbestos-Containing Material (ACM), Lead-Based Paint (LBP), and Polychlorinated Biphenyls (PCBs)**

The existing pump station is historic and will be maintained and preserved by the City of Schenectady as part of the City’s infrastructure (See Appendix J, City of Schenectady Letter- Maintain and Preserve 1913 Pump Station (December 20, 2019))
Future use of the existing pump station has not been determined and is not part of this environmental review. The existing pump station may have ACM, LBP, or PCBs. An assessment of the existing building would be conducted before commencing any rehabilitation activities on the existing pump station.

**Radon**

According to the EPA, the Project site is in Radon Zone 2, where the predicted average indoor radon screening level is between 2 and 4 picoCuries per liter (pCi/L). Radon testing would be conducted in the new pump station to determine whether mitigation is necessary. If needed, a radon mitigation system will be installed.

**Source: 8, 9, 10**

### Endangered Species

- **Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402**
- **Yes**
- **No**

There is one federally listed threatened or endangered species, northern long-eared bat (NLEB), known to occur in Schenectady County.

On July 1, 2018, GOSR consulted with the US Fish and Wildlife Service (USFWS) on the Proposed Project. Project activities include the removal of five trees. The Project site is not within five miles of NLEB hibernacula or known maternity colonies. As such, GOSR determines that this project may affect but is not likely to adversely affect the NLEB and would not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat.

In accordance with USFWS Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form, if the USFWS does not respond within 30 days from submittal of the form, the action agency may presume that its determination is informed by the best available information and that its
project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The USFWS had no comments or objections to GOSR’s application of the 4(d) rule. No impact to endangered or threatened species is anticipated from the Project.

In response to a June 1, 2017 New York Natural Heritage Program (NYNHP) inquiry regarding potential rare or state-listed animals or plants near the Project site, the NYNHP stated that there are no records of concern for rare or state-listed animals or plants, or significant natural communities at the Project site. The NHP stated that there was a documented bald eagle nest within 2/3 miles of the project site. Per the National Bald Eagle Management Guidelines prepared by the USFWS dated May 2007 no impacts occur to Bald Eagle nests with distances greater than 660 feet for this type of construction. The Eagle nest is 3,945 feet from the project location. The project location is surrounded trees and/or homes providing a visual buffer between the project and the Eagle nest. It is likely that the Eagles are assimilated to urban noise because the project location and surrounding area have heavy car and human traffic including Route 890, a loop of New York State Thruway (I-90). Therefore, no impacts will occur to the Bald Eagle nesting location (See Appendix C).

<table>
<thead>
<tr>
<th>Explosive and Flammable Hazards</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 CFR Part 51 Subpart C</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

HUD-assisted projects must be located at an Acceptable Separation Distance (ASD) from stationary hazardous operations that store, handle or process chemicals or petrochemicals of an explosive or flammable nature. These tanks include:

- Aboveground storage tanks (ASTs) that store flammable or explosive
<table>
<thead>
<tr>
<th>Farmlands Protection</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

The proposed project would not cause disturbance to Prime, Unique, or Statewide Important Farmland and would not involve the conversion of farmland to non-agricultural use. Therefore, the proposed project would not violate the Farmland Protection Policy Act.

**Source: 11**

<table>
<thead>
<tr>
<th>Floodplain Management</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

The Project site is located within the 100-year SFHA Zone A, as shown on the FEMA FIRM Community Panel Number 36093C0154D, dated January 8, 2014. (See Appendix B). An Early Notice of Proposed Activity in a 100-Year Floodplain was published in *The Daily Gazette* on October 16, 2018. An 8-step floodplain analysis has been performed in compliance with Executive Order 11988 in accordance with HUD regulations at 24 CFR 55.20 to determine the potential effect that the...
Project will have on the 100-year floodplain. (See Appendix B).

The Project site is an area previously disturbed by the construction and eventual demolition of a residential or commercial building between 1840 and 1915. The site was made level with construction debris and modern fill.

The direct and indirect impacts associated with the proposed action within the floodplain would be limited to approximately 0.14 acre of new impermeable surface due to the new facility structure. The limited area of disturbance would not adversely affect the natural and beneficial values of the floodplain or lives and property. The new building would be a flood resistant structure.

The existing pump station has been flooded in the past and was out of service for approximately 24 hours due to flooding from Hurricane Irene. The new pump station would be designed to withstand flooding of the interior up to an elevation of 235 feet (10 feet higher than the elevation of the existing pump station). Therefore, the Proposed Project would have a beneficial impact on floodplain management.

**Historic Preservation**

National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800; Tribal notification for new ground disturbance.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Project Site is located within both the Mohawk Valley Heritage Corridor and the Schenectady Heritage Area. The Project Site is located in the Stockade Historic District and the Enlarged Erie Barge Canal Nominated by NPS (2014). <strong>On November 14, 2016, as part of its historic resource review obligations under Section 106 and 100 of the National Preservation Act of 1966, GOSR requested consultation with the NYS Office of Historic Preservation (SHPO) on the Project,</strong></td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>
including two potential locations for new pump station and requested SHPO’s preference for the project location. On November 23, 2016, SHPO responded with a preference for siting the new building southwest of the existing building, since it would be behind the current building and out of sight of park visitors. On November 23, 2016 SHPO stated a preference that the new pump station be located behind the existing historic facility, so it would not interfere with that building’s historic character. Design consideration and public input resulted in the selection of a new potential location for the proposed pump station adjacent to the south side of the existing pump station. Also, in that response, SHPO recommended a Phase I Archaeological Survey be conducted regardless of which alternative is chosen.

Consultation with the Delaware Tribe of Indians, Mohawk Nation, St Regis Mohawk Tribe, and the Stockbridge-Munsee Community Band of the Mohicans was initiated on November 23, 2016.

On December 14, 2016, the Delaware Tribe also requested a Phase I survey be conducted for the project site. No other responses were received.

At the request of SHPO and the Delaware Tribe, a Phase I survey report of the area to the west of the existing facility was completed on June 21, 2017. A layer of historical fill was found that contained late nineteenth- to early twentieth-century domestic refuse. No archeological sites were identified (see Appendix D).

In a July 11, 2017 comment letter, SHPO advised they had no further archaeological concerns with the site survey but requested that Phase 1 Archaeological Surveys be
conducted for all alternative locations still under consideration.

SHPO also commented that any new above ground structure in Riverside Park will adversely impact the Historic District and the 1913 Pump Station and that the SHPO looks forward to resolving potential impacts.

On August 10, 2017, the City and their Consultants (CHA and SRG) met with representatives from SHPO. This resulted in the issuance of a comment letter from SHPO, and subsequent modifications to the design of the structure to address their concerns.

On August 14, 2017, GOSR submitted the latest version of the new pump station design and layout to SHPO. SHPO responded on August 15, 2017, requesting a Phase 1 Addendum Archaeological Survey for the project site, and suggesting the following design modifications to the proposed new pump station:

a. Color and material of the walls should be the same as that of the existing building (off-white stucco).

b. Install windows on the east and west walls only.

c. The above-roof mechanical shields (glass wall) should be as low as possible, with mat- finish panels the same color as the walls of the existing building.

d. There should be no added parapet above the mechanical shields.

e. Unless required by Code, eliminate the walkway on the second floor of the North elevation.

f. Move the east wall of the emergency generator enclosure 8 feet to the West,
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
|   | if possible, or attach it to the south side of the Pump House building.  
|   | b.g. The generator enclosure walls should be the same color as the existing building.  
|   | On September 28, 2017, the City and Consultants met with SHPO again on to review the status of the project.  
|   | In an October 31, 2017 letter GOSR requested SHPO consultation on the proposed new location. On November 8, 2017, the SHPO responded that a Phase I Archaeological Survey should be conducted for any areas subject to ground disturbance which had not been previously surveyed.  
|   | A Phase I survey report of the area adjacent to the existing facility was completed in January 2018. The survey identified one historic archaeological resource (Van Eps Site). Avoidance of the resource not being possible a Phase II Archaeological Survey was recommended.  
|   | A combined Phase I and Phase II survey report on the Van Eps Site was completed on July 30, 2018. The survey found four features, which were excavated: a well, a backyard refuse deposit, a cistern, and water pump. A majority of the artifacts came from early 1900s depositions of fill.  
|   | The report found that the Van Eps Site does not retain integrity nor does it contribute the National Register-listed Stockade Historic District. The Van Eps Site was recommended as not eligible for the NRHP.  
|   | In a letter dated August 7, 2018, the SHPO concurred with the report and determined that the Van Eps Historic Archaeological Site is not eligible for the National Register of Historic Places. (See Appendix D)
No response to the survey reports were received from the Delaware Tribe.

While consultations between GOSR and SHPO were ongoing, public outreach efforts were also ongoing to gather comments on historic and cultural resource issues and project design plans from interested parties and the public. In November 2016, the City of Schenectady began community outreach efforts, including the organization of the Public Advisory Committee (PAC). During this period, invitations were sent to committee members to participate in a series of public workshops to advance the City’s public outreach and education efforts and solicit input for the project (see Appendix H, Public Advisory Committee List). The first and second workshops were conducted on November 29 and December 19 of 2016, respectively.

On January 30, 2017, the City completed the planned Public Workshops with the Project Advisory Committee on. As part of the public outreach and education program, the City’s Design Team modified the original design concepts and developed numerous renderings in an effort to gain broad based public acceptance and approval for the project.

On March 1, 2017- the Project Design Team met with the Stockade Association Board to provide an overview of the project.

On May 2, 2017- the City and CHA attended a public meeting in the Stockade neighborhood (100 attendees +/-) to solicit public input and comments on the project. An additional meeting between the City and community members was held in City Hall in
June 2017 to further discuss the concerns of the neighborhood.

An additional meeting between City and community members was held on September 29, 2017 at City Hall to further discuss the concerns of the neighborhood.

A public open house for the project was held at City Hall on October 19, 2017 to present the final proposed design and project status to City leadership, interested parties and the general public. The public open house was advertised in the Schenectady Gazette, posted on the City’s web-site for community announcements and coordinated with community leaders.

On December 20, 2018, representatives from the City of Schenectady, GOSR, SHPO, the Stockade Association, the Schenectady Heritage Foundation (SHF) and CHA Engineering met to discuss preservation and maintenance of the existing 1913 Pump Station.

In a follow up letter dated December 20, 2018, SHPO determined that the proposed project will have No Adverse Effect to Historic Properties provided that the following conditions are met:

1. The new structures be designed according to the GOSR letter dated October 31, 2017, which includes the proposed preliminary site plan, building drawings and renderings.

2. Consultation with SHPO during the ongoing design review for the new structures surrounding the existing pump station.
3. Consultation with SHPO of a construction protection plan for the existing pump station.
4. Ongoing consultation with SHPO of the reuse plan of the existing pump station.
5. Further consultation with SHPO if the Area of Potential Effect for the project is revised. (See Appendix D).

The City has committed to maintain and preserve the existing 1913 Pump Station as part of the City’s infrastructure (see Appendix J, City of Schenectady Letter-Maintain and Preserve 1913 Pump Station (January 11, 2019). It is a condition of this EA that the City adhere to that commitment in order to protect the historic, architectural and aesthetic value of this historic resource. In addition, SHPO has requested consultation on a protection plan for the existing pump station. Final design specifications include protections for the 1913 Pump Station during project construction, and a building condition survey will be performed on the existing Pump Station before installation of the excavation support system (See Appendix K, Final Design Specifications). A future use for the building has not yet been determined. SHPO and the Stockade Association and SHF have requested ongoing consultation on proposals and plans for reuse of the existing station. It is a mitigation measure/condition of this Environmental Assessment that the City of Schenectady commit to ongoing consultation with those parties regarding proposals and plans for reuse of the existing station (See “Mitigation Measures and Conditions” table, at the end of this EA).
### Noise Abatement and Control

Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>✗</td>
</tr>
</tbody>
</table>

The proposed project involves the design, permitting, and construction of a new pump station on a property adjacent to the existing pump station. The proposed project is not a noise sensitive use, and furthermore, the policies of 24 CFR 51.101(a)(3) do not apply to any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives and protect public health and safety.

Construction of the proposed project would temporarily increase noise levels at nearby residences. These increases would be mitigated by implementing the Construction Impacts Conditions for Approval (see below under Mitigation Measures and Conditions), including outfitting of equipment with mufflers, and compliance with local noise ordinances including time-of-day work limitations. Following these temporary construction activities, noise levels would return to pre-construction levels and would not result in any significant increase in ambient noise levels.

### Sole Source Aquifers

Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>✗</td>
</tr>
</tbody>
</table>

The project area is within the bounds of the Schenectady-Niskayuna sole source aquifer. Consultation with the EPA was initiated on May 4, 2018. On May 15, 2018, the EPA concurred that the project satisfies the requirements of the Safe Drinking Water Act and would not pose a significant threat to the Schenectady-Niskayuna SSA. (See Appendix E, Sole Source Aquifers)

### Wetlands Protection

Executive Order 11990, particularly sections 2 and 5

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>✗</td>
</tr>
</tbody>
</table>

The site is not in a wetland. The site is adjacent to the Mohawk River, which is classified as an NWI wetland L1UBHh (lacustrine, limnetic, unconsolidated)
bottom, permanently flooded, diked/impounded). The proposed project is not located within 300 feet of a NYSDEC tidal wetland or 100 feet of a NYSDEC freshwater wetland. The proposed project would be conducted in compliance with Executive Order 11990. (See Appendix F)

<table>
<thead>
<tr>
<th>Wild and Scenic Rivers</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>There are no state or federally designated wild and scenic rivers within Schenectady County, as designated by the U.S. Department of the Interior. There are no National Wild and Scenic Rivers in Schenectady County as designated by the National Wild and Scenic Rivers System. <strong>Source: 12</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Justice</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Order 12898</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>The Project site is not within a potential Environmental Justice (EJ) area, although there is one to the south and east of the project site, as defined by NYSDEC based on data from the 2010 U.S. Census (See Appendix A). The proposed project will follow local ordinances, so no adverse impacts on the surrounding community are anticipated. The Project will not raise EJ issues and will have no potential for new or continued disproportionately high and adverse human health and environmental effects on minority or low-income populations.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Assessment Factors** [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits or approvals have been obtained or noted. Citations, dates/names/titles
of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

**Impact Codes:** Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact  
(2) No impact anticipated  
(3) Minor Adverse Impact – May require mitigation  
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

<table>
<thead>
<tr>
<th>Environmental Assessment Factor</th>
<th>Impact Code</th>
<th>Impact Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design</td>
<td>2</td>
<td>The proposed project would be consistent with the objectives outlined in the City of Schenectady Comprehensive Plan 2020. Objectives in the plan include providing well-maintained 21st century municipal infrastructure with safe waste management, developing a plan to address flooding issues citywide, and protecting and promoting historic resources (City of Schenectady Comprehensive Plan 2020). The proposed project would maintain current land use and would therefore be compatible with existing land use. The new pump station has been designed to complement the existing 1913 Pump Station, in accordance with SHPO’s recommendations, and SHPO has approved the design. The City has agreed to maintain and preserve the existing 1913 Pump Station as part of the City’s infrastructure. (see Appendix J City of Schenectady Letter- Maintain and Preserve 1913 Pump Station, January 11, 2019). It is a condition of this EA that the City adhere to that commitment in order to protect the historic, architectural and aesthetic value of this historic resource. In addition, SHPO has requested consultation on a protection plan for the existing pump station. Final design specifications include protections for the 1913 Pump Station during project construction, and a building condition survey will be performed on the existing Pump Station before installation of the excavation support system (See Appendix K, Final Design Specifications). A future use for the building has not yet been determined.</td>
</tr>
<tr>
<td>Environmental Assessment Factor</td>
<td>Impact Code</td>
<td>Impact Evaluation</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SHPO, the Stockade Association, and the SHF have requested ongoing consultation on proposals and plans for reuse of the existing station. It is a condition of this Environmental Assessment that the City of Schenectady commit to ongoing consultation with those parties regarding proposals and plans for reuse of the existing station (See “Mitigation Measures and Conditions” table, at the end of this EA). The proposed project would not result in the creation of new jobs and/or an increase in the number of employees at the pump station building, and therefore would not have an urbanizing effect. Source: 13</td>
</tr>
<tr>
<td>Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff</td>
<td>2</td>
<td>The proposed site would be adjacent to the site of the current pump station building; unsuitable soils are not anticipated. If unsuitable soils have caused structural problems for the existing on-site building, this would generally be addressed during the local permitting process. The proposed activities would not change the slope of the existing site. During construction, best management practices would be used to avoid soil erosion. Five trees will need to be cleared for the construction of the proposed building. The site is adjacent to the Mohawk River, which is classified as an NWI wetland L1UBHh (lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded). The proposed project is not located within 300 feet of a NYSDEC tidal wetland or 100 feet of a NYSDEC freshwater wetland. Stormwater protection measures would consider stormwater management. Construction and operation of the storm water control system and all Project construction will be in accordance with Section 402 of the Clean Water Act that requires authorization by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York’s State Pollutant Discharge Elimination System (SPDES) is a</td>
</tr>
<tr>
<td>Environmental Assessment Factor</td>
<td>Impact Code</td>
<td>Impact Evaluation</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>NPDES-approved program. Coverage under the NYSDEC GP-15-002 permit would be obtained prior to the commencement of construction activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazards and Nuisances including Site Safety and Noise</td>
<td>2</td>
<td>The Proposed Project does not include any demolition of structures. Impacts such as fugitive dust would be addressed under existing regulations governing construction activity in New York State, Schenectady County, and local municipalities. According to the EPA, Schenectady County is located in Radon Zone 2, where the predicted average indoor radon screening level is between two and four picocuries per liter (pCi/L). Radon testing would be completed to determine if mitigation is necessary. The Project will generate noise during construction that will be minimized through compliance with local noise ordinances, including time-of-day work limitations. Exterior construction activities will take place during normal working hours and will employ commonly accepted engineering and administrative controls that will minimize noise impacts to neighbors. The City will consider transportation route options for equipment delivery, in order to reduce neighborhood impacts (“Major Stockade Projects Making Progress,” Times Union, 11/30/18).</td>
</tr>
<tr>
<td>Energy Consumption</td>
<td>2</td>
<td>The project site is adequately serviced with existing utilities. The proposed project would utilize energy consumption, including the use of fossil fuels, for use of construction equipment and the shipment of materials required for construction activities. However, the proposed project would not increase long-term energy consumption. The new pump station building would be more energy-efficient than the current station, due to incorporation of energy efficient building materials and practices, resulting in a beneficial effect.</td>
</tr>
</tbody>
</table>

**SOCIOECONOMIC**

| Employment and Income Patterns | 2 | The proposed project would create temporary construction jobs. However, these jobs would not significantly increase employment opportunities or |
impact income patterns as the construction duration is expected to be less than 13 months.
The proposed project would not result in the creation of new permanent jobs and/or result in an increase in the number of employees at the new pump station building and therefore would not impact employment and income patterns.

Demographic Character Changes, Displacement

The proposed project would not result in the creation of new jobs and/or result in an increase in the number of employees at the new pump station building and therefore would not alter the demographic characteristics of the surrounding community.
The proposed project would not directly or indirectly displace people, businesses, institutions, or community facilities as it would occur on a site adjacent to the existing pump station building.

**COMMUNITY FACILITIES AND SERVICES**

<table>
<thead>
<tr>
<th>Environmental Assessment Factor</th>
<th>Impact Code</th>
<th>Impact Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational and Cultural Facilities</td>
<td>2</td>
<td>The City has agreed to maintain and preserve the existing 1913 Pump Station, protecting that historic resource. It is a condition of this EA that the City adhere to that commitment in order to protect the historic, architectural and aesthetic value of this historic resource. Because the Project involves no changes in population, there would be no impact on demand for educational or cultural facilities.</td>
</tr>
<tr>
<td>Commercial Facilities</td>
<td>2</td>
<td>Because the Project involves no changes in population, there would be no impact on demand for commercial facilities.</td>
</tr>
<tr>
<td>Health Care and Social Services</td>
<td>2</td>
<td>Because the Project involves no changes in population, there would be no impact on demand for health care and social services.</td>
</tr>
<tr>
<td>Solid Waste Disposal / Recycling</td>
<td>2</td>
<td>Construction of the proposed building would result in the generation of waste, primarily paved asphalt, soil and packed gravel. The amount of solid waste generated from construction would not significantly increase short-term generation of municipal solid waste and would not</td>
</tr>
<tr>
<td>Environmental Assessment Factor</td>
<td>Impact Code</td>
<td>Impact Evaluation</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Waste Water / Sanitary Sewers</td>
<td>2</td>
<td>The proposed project is the construction of a new pump station building to be located adjacent to the existing pump station building. The new pump station would connect to the infrastructure at the current site.</td>
</tr>
<tr>
<td>Water Supply</td>
<td>2</td>
<td>The proposed project would not result in the creation of new jobs and/or result in an increase in the number of employees at the new pump station building and therefore would not increase demand on the water supply. The site of the existing building is serviced by public water and the capacity of the existing system is adequate to serve the proposed project.</td>
</tr>
<tr>
<td>Public Safety - Police, Fire and Emergency Medical</td>
<td>2</td>
<td>Because the Project involves no change in population, there would be no impact on demand for police, fire, or emergency medical services.</td>
</tr>
<tr>
<td>Parks, Open Space and Recreation</td>
<td>3</td>
<td>The Project is located within Riverside Park, a city-owned, public park. The taking of the parkland for the project was authorized by the City of Schenectady per compliance with the Order on Consent regarding the function and performance of the North Ferry Street pump station. The City has agreed to maintain and preserve the existing 1913 Pump Station, protecting that historic resource. It is a condition of this EA that the City adhere to that commitment in order to protect the historic, architectural and aesthetic value of this historic resource. Because the Project involves no change in population, there would be no impact on demand for parks, open space, or other recreational facilities.</td>
</tr>
<tr>
<td>Transportation and Accessibility</td>
<td>2</td>
<td>Because the Project involves no change in population, there would be no impact on use of transportation infrastructure.</td>
</tr>
<tr>
<td>Environmental Assessment Factor</td>
<td>Impact Code</td>
<td>Impact Evaluation</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>NATURAL FEATURES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unique Natural Features, Water Resources</td>
<td>2</td>
<td>There are no NYSDEC Unique Natural Features or Water Resources within the vicinity of the project site.</td>
</tr>
<tr>
<td>Vegetation, Wildlife</td>
<td>2</td>
<td>There is one federally listed threatened or endangered species, northern long-eared bat (NLEB), known to occur in Schenectady County (see Appendix C). On July 1, 2018, GOSR consulted with the US Fish and Wildlife Service (USFWS) on the proposed project. Project activities include the removal of five trees. The Project site is not within five miles of NLEB hibernacula or known maternity colonies. As such, GOSR determines that this project may affect but is not likely to adversely affect the NLEB and would not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat. GOSR requested concurrence from USFWS within 30 days of the consultation, adding that USFWS’s concurrence would be presumed if no response was received. As of this date, no response has been received, and concurrence is presumed. No impact to endangered or threatened species is anticipated from the Project. (See Appendix C)</td>
</tr>
<tr>
<td>Other Factors</td>
<td>2</td>
<td>No additional factors would be impacted by the project, and no additional impacts would occur.</td>
</tr>
</tbody>
</table>
**Additional Studies Performed:**


**Tectonic Engineering and Surveying Consultants, P.C. Draft - Phase I Archeology and Geomorphological Survey. Prepared for the Governor’s Office of Storm Recovery. January 2018.**

**Tectonic Engineering and Surveying Consultants, P.C. Final - Phase I Archeology and Geomorphological Survey. Prepared for the Governor’s Office of Storm Recovery. January 2018.**

**Tectonic Engineering and Surveying Consultants, P.C. Pump Station Relocation Project, Phase I/II Archaeological Survey. North Ferry Street, City of Schenectady, Schenectady County, New York. Prepared for the Governor’s Office of Storm Recovery. July 30, 2018.**

**List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:**


List of Appendices attached to this Revised EA

(for full set of Appendices, please refer to the Environmental Assessment posted at https://stormrecovery.ny.gov/environmental-docs)

Appendix D  SHPO and Tribal Correspondence- Amended
Appendix G  Public Comments
Appendix H  Public Advisory Committee List
Appendix I  December 20, 2018 Meeting sign in sheet and follow up email
Appendix J  City of Schenectady Letter- Maintain and Preserve 1913 Pump Station (January 11, 2019)
Appendix K- Final design specifications-
Appendix L- Consent Order R4-2005-0525-52- NYSDEC and City of Schenectady

List of Permits Required:
- NYSDEC SPDES Permit for Construction
- City of Schenectady Building Permit
- Local Floodplain Development Permit

List of Other Approvals Obtained or Required:
- State Environmental Quality Review Act (SEQRA) Type II evaluation.

List of Environmental Inspections Required:
- Asbestos, Lead Based paint, and PCBs in existing facility before any renovation of 1913 Pump Station (not a part of this environmental review)
- Radon testing in new pump station will be required to determine whether mitigation is necessary
Public Outreach [24 CFR 50.23 & 58.43]:

- November 2016: The City of Schenectady began community outreach efforts, including the organization of the Public Advisory Committee (PAC). During this period, invitations were sent to committee members to participate in a series of public workshops to advance the City's public outreach and education efforts and solicit input for the project. The first and second workshops were conducted on November 29 and December 19 of 2016, respectively.
- January 30, 2017: The City completed the planned Public Workshops with the Project Advisory Committee on. As part of the public outreach and education program, the City’s Design Team modified the original design concepts and developed numerous renderings in an effort to gain broad based public acceptance and approval for the project.
- March 1, 2017: the Project Design Team met with the Stockade Association Board to provide an overview of the project.
- May 2, 2017: the City and CHA attended a public meeting in the Stockade neighborhood (100 attendees +/-) to solicit public input and comments on the project. An additional meeting between the City and community members was held in City Hall in June 2017 to further discuss the concerns of the neighborhood.
- August 10, 2017, the City and their Consultants (CHA and SRG) met with representatives from SHPO. This resulted in the issuance of a comment letter from SHPO, and subsequent modifications to the design of the structure to address their concerns.
- September 28, 2017: The Consultants met with SHPO again on to review the status of the project.
- September 29, 2017: An additional meeting between City and community members was held the following day at City Hall to further discuss the concerns of the neighborhood.
- October 19, 2017: A public open house for the project was held at City Hall on to present the final proposed design and project status to City leadership, interested parties and the general public. The public open house was advertised in the Schenectady Gazette, posted on the City’s web-site for community announcements and coordinated with community leaders.
- December 20, 2018: The City met with Members of the Stockade Association SHF, GOSR and SHPO on to review community concerns relative to future use of and ongoing maintenance of the 1913 pump station.

On November 17, 2018, a combined Notice of Finding of No Significant Impact and Intent to Request Release of Funds was published in The Daily Gazette.

On May 9, 2019, a Revised combined Notice of Finding of No Significant Impact and Intent to Request Release of Funds will be published in The Daily Gazette. Any individual, group, or agency may submit written comments on the Environmental Review Record to:
Cumulative Impact Analysis [24 CFR 58.32]:
The Project is not expected to trigger cumulative impacts, including the degradation of important natural resources, socioeconomic resources, human health, recreation, quality of life issues, and cultural and historic resources. The Project is not of a scale large enough to contribute significantly to cumulative impacts. The Project is a replacement of existing services. It will create positive impacts, as it will provide the services resilient to flooding from future storm events and bring the City of Schenectady’s wastewater treatment in compliance with NYSDEC SSO discharge requirements and into compliance with Consent Order R44-2012-1218-117.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Proposed Project. As fully described in this Environmental Assessment, the Project will involve constructing a replacement sewer pump station adjacent to the existing pump station on North Ferry Street in the City of Schenectady, New York.

Alternatives.

UPGRADE EXISTING 1913 PUMP STATION
Based on the finding of the “North Ferry Street Sewage Pump Station Flood Mitigation Improvements Feasibility Study” prepared for the City of Schenectady by Barton & Loguidice (March 2012, revised October 2012), from both an engineer standpoint and cost reasonableness, the existing 1913 Pump Station cannot handle or be modified to meet the objective of eliminating sanitary sewer overflow. Should the existing pump station fail during a flood, the City would not be able to pump wastewater and raw sewage would be released to the neighborhood and Mohawk River, in violation of the State Pollution Discharge Elimination System (SPDES) discharge permit. The proposed project would help to avoid such a situation.

Due to the alignment of the existing sewer main, the range of locations for the replacement pump station is limited to locations along the sewer main.

ALTERNATIVE 1- EAST OF NORTH FERRY STREET PARK SITE (SITE 1) AND DESIGN VERSION 2
Developed pump station and site layout including 3D Revit model, architectural wall sections and fenestration details; and major equipment selection; and process layout and details. The original layout and design proposed to construct the new pump station immediately east of New Ferry Street and proposed a more traditional one-floor design with additional fill brought in to the site in order to raise the elevation of the finished floor of the structure to meet FEMA requirements.
ALTERNATIVE 2– GOVERNOR’S LANE SITE (SITE 2) AND DESIGN VERSION 2

The pump station site was moved twice based upon citizen advisory committee input to further protect the aesthetic nature of the historic Stockade District and minimize disturbances within the park and neighborhood. Site adaptation required a redesign of the pump station building and site plan focusing on architectural aesthetics, a reduced building footprint and visual impact on the adjacent neighborhood. The redesign re-envisioned the facility as a two-story structure to minimize the fill limits in the park; while maintaining equipment access and protective measures to ensure safe operation of the pump station during flood events. The design also “buried” a significant portion of the underground dry-pit and wet wells to limit the size of the building in public view.

Key Design Modifications

- Developed wet weather/dry weather pump station layout concept to consolidate process functions and minimize the building footprint.
- Revised pump configuration to facilitate a combined submersible wet-weather pumping and dry-pit dry weather pumping layout.
- Developed generator layouts: elevated slab and screen wall; and at grade generator “dry dock” structure type enclosure.
- Revised structural, architectural and process design from Version 1. Development of the pump station as a two-story facility to minimize building footprint.
- Developed 3D Revit model and architectural renderings of the structure and site adaptation for public information work sessions.

SELECTED ALTERNATIVE- EXISTING PUMP STATION SITE (SITE 3) AND DESIGN VERSION 3

Final consideration of public comments and input regarding the Site 2 (Governors Lane) layout resulted in relocation of the proposed pump station to the existing North Ferry Street site, in order to minimize the amount of park lands that required alienation. It was agreed to by the City leadership, community leaders and the neighborhood that the permanent park land disturbances would not extend beyond 30-feet of the existing pump station parcel. Site adaptation required a second major redesign of the pump station building focusing on site and above grade building size constraints which minimize loss of park lands. New design parameters included: building height limitations, tower and control room size, above grade projection of the structure, generator enclosure location, area hazard classification and space conflict resolution, building architecture and constructability of deep foundations and protection of existing pump station structure.
Key Design Modifications

- Site adoption of new layout including: structure location, critical property line and encroachment offset requirements and constructability considerations.
- Revised architectural design to reflect existing pump station’s historical nature and features including: architectural style, design of the building exterior (wall sections), building materials, and the type and style of all, windows, doors, and roof parapet walls.
- Consolidated building operating space on ground floor and control room levels.
- Revised process design including wet weather and dry weather pumping and piping configurations; wet well flushing provisions, and equipment access and removal requirements.
- Completed major structural design revisions resulting from process changes, revised architectural concept, deep foundation constructability and protection of the existing historic pump station structure during dewatering, shoring and excavation activities.
- Revised mechanical building heating design to a hot water boiler type system to accommodate space layout and resulting Code requirements.
- Developed preliminary site piping and grading plans.
- Developed buried dry/wet well roof design. A portion of the dry well and wet well roof is buried and subject to soil, vehicle and flood loads.
- Revised generator dry dock design – “L shaped orientation” connected to the main structure at the stair tower to address public comments.

(See also, Public Outreach section and Appendix D, SHPO Consultations).

No Action Alternative [24 CFR 58.40(e)]:

In the absence of the Proposed Project (the No Action Alternative), the existing pump station would remain vulnerable to damage during flooding events, potentially leading to more service interruptions. Additionally, the pumping station would remain out of compliance with NYSDEC SSO discharge requirements and in violation of Consent Order R44-2012-1218-117.

Summary of Findings and Conclusions:

The Proposed Project would involve construction of a new pump station building, which would be designed to withstand flooding of the interior up to an elevation of 235 feet. The new building would be constructed immediately to the southeast and southwest of the existing pump station. No adverse environmental impacts are expected to occur. The City has committed to maintain and preserve the existing 1913 Pump Station as part of the City’s infrastructure (see Appendix J, City of Schenectady Letter- Maintain and Preserve 1913 Pump Station, January 11, 2019). The NYS Department of Parks, Recreation and Historic Preservation (SHPO) has requested consultation on a protection plan for the existing pump station. A future use for the building has not been determined; however, SHPO, the Stockade Association, and SHA have also requested ongoing consultation on any plans for reuse of the existing station. It is a mitigation measure/condition of this Environmental Assessment that the City of Schenectady commit to
ongoing consultation with those parties regarding proposals and plans for reuse of the existing station (See “Mitigation Measures and Conditions” table, below).

The Project will comply with all relevant regulations listed in 24 CFR subparts 58.5 and 58.6.

**Mitigation Measures and Conditions [40 CFR 1505.2(c)]**

GOSR has summarized below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures or conditions must be incorporated into project contracts, development agreements, and other relevant documents. City of Schenectady staff and/or departments responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan. The mitigation plan must also identify staff and/or department responsible for assuring that SHPO, the Stockade Association and SHF will be include in discussions regarding re-use of the 1913 Pump Station.

<table>
<thead>
<tr>
<th>Law, Authority, or Factor</th>
<th>Mitigation Measures and Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clean Air Act</strong></td>
<td>All Project activities will comply with applicable federal, state, and local laws and regulations regarding construction emissions, including but not limited to NYCRR, NYSDEC Air Quality Management Plan, and the New York SIP. All necessary measures will be used to minimize fugitive dust emissions during construction activities. The preferred method for dust suppression is water sprinkling.</td>
</tr>
<tr>
<td><strong>Clean Air Act</strong></td>
<td>The proposed emergency generator is subject to the stationary RICE MACT regulations at 40 CFR 63 ZZZZ that govern emission limits and compliance requirements for existing and new stationary RICE. Any new compression ignition generator must comply with 40 CFR 60, Subpart III, and any new spark ignition generator must comply with 40 CFR 60, Subpart JJJJ. Compliance will be demonstrated by purchasing generators certified to the limits in these regulations.</td>
</tr>
<tr>
<td><strong>Contamination and Toxic Substances</strong></td>
<td>If radon testing shows levels high enough that mitigation is necessary, a radon barrier system will be considered to prevent radon gas penetration into the new pump station structure.</td>
</tr>
<tr>
<td><strong>Contamination and Toxic Substances</strong></td>
<td>All Project-related solid waste generated during demolition and construction will be managed and</td>
</tr>
<tr>
<td>Law, Authority, or Factor</td>
<td>Mitigation Measures and Conditions</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>transported in accordance with the NYS solid and hazardous waste rules.</td>
<td></td>
</tr>
<tr>
<td>Conformance with NYS Department of Environmental Conservation State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity GP-0-15-002</td>
<td>A stormwater management system will be designed in compliance with the requirements of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity GP-0-15-002 to address the stormwater from the Project site. BMPs, such as silt fence and erosion prevention, will be implemented, if required by permits or agency discretion.</td>
</tr>
<tr>
<td>Historic Preservation</td>
<td>SHPO has determined that the proposed project will have No Adverse Effect to Historic Properties provided that the following conditions are met:</td>
</tr>
<tr>
<td></td>
<td>1. The new structures be designed according to the GOSR letter dated October 31, 2017, which includes the proposed preliminary site plan, building drawings and renderings.</td>
</tr>
<tr>
<td></td>
<td>2. Consultation with SHPO during the ongoing design review for the new structures surrounding the existing pump station.</td>
</tr>
<tr>
<td></td>
<td>3. Consultation with SHPO of a construction protection plan for the existing pump station.</td>
</tr>
<tr>
<td></td>
<td>4. Ongoing consultation with SHPO of the reuse plan of the existing pump station.</td>
</tr>
<tr>
<td></td>
<td>5. Further consultation with SHPO if the Area of Potential Effect for the project is revised.</td>
</tr>
<tr>
<td>Historic Preservation</td>
<td>As part of the project, the City of Schenectady will continue to maintain and preserve the 1913 Pump Station as part of the City’s infrastructure. This is required to protect the historic, architectural and aesthetic value of this historic resource.</td>
</tr>
<tr>
<td>Historic Preservation</td>
<td>Final design specifications include protections for the 1913 Pump Station during construction of the new pump station, and a building condition survey will be performed on the existing Pump Station before installation of the excavation support system.</td>
</tr>
<tr>
<td>Law, Authority, or Factor</td>
<td>Mitigation Measures and Conditions</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Historic Preservation</td>
<td>The City of Schenectady will continue consultation with SHPO, the Stockade Association and SHF regarding proposals and plans for any potential reuse of the existing 1913 Pump Station. Any reuse and/or mitigation plan should identify City department/staff position responsible for assuring that SHPO, the Stockade Association and SHF will be included in reuse proposal discussions.</td>
</tr>
</tbody>
</table>

**Determination:**

- **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]  
  The project will not result in a significant impact on the quality of the human environment.

- **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]  
  The project may significantly affect the quality of the human environment.

Preparer Signature: _______________________________ Date: November 17, 2018

Name/Title/Organization: Cliff Jarman, Senior Environmental Scientist. Tetra Tech, Inc.

Certifying Officer Signature: _______________________________ Date: November 17, 2018

Revised May 9, 2019

Name/Title: Lori A. Shirley, Director, Bureau of Environmental Review and Assessment, Governor’s Office of Storm Recovery

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).
Appendix D-

SHPO Consultations, amended
December 20, 2018

Alicia Shultz
Governor's Office of Storm Recovery
38-40 State St.
Albany, NY 12207

Re: HTF/ GOSR/ HUD CDBG-DR/ NY Rising Program
North Ferry Street Pump Station Relocation
129 North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Shultz:

Thank you for continuing to request the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Feb. 15, 2018 in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, it is the opinion of SHPO that the proposed undertaking will have No Adverse Effect to Historic Properties listed in the State & National Register of Historic Places, provided the following conditions are met. We would appreciate the requested information be provided via our Cultural Resource Information System (CRIS) at www.nysparks.com/shpo/online-tools:

1. The new structures to be designed according to the GOSR letter dated October 31, 2017; which includes the proposed preliminary site plan, building drawings and renderings.
2. Consultation with this office during the ongoing design review for the new structures surrounding the existing pump station.
3. Consultation with this office of a construction protection plan for the existing pump station.
4. Ongoing consultation with this office of the reuse plan of the existing pump station.
5. Further consultation with this office if the APE for the project is revised (See attached map).

If I can be of further assistance, contact me at (518) 268-2187 Larry.moss@parks.ny.gov

Sincerely,

Larry K Moss, Historic Preservation Technical Specialist

CC: Matthew Smith, City of Schenectady
North Ferry Street Pump Station
October 31, 2017
Potential Area of Effect (APE) 15,000 Square Feet
August 07, 2018

Ms. Mary Barthelme
Governor’s Office of Storm Recovery
99 Washington Ave
Suite 1224
Albany, NY 12260

Re: GOSR
GOSR-North Ferry Street Pump Station, Schenectady
North Ferry Street, Schenectady, NY 12305
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the Phase II Archaeological Survey in accordance with Section 106 of the National Historic Preservation Act of 1966.

Based upon this review, it is the opinion of the New York SHPO that the Van Eps Historic Archaeological Site (09340.001832) is not eligible for the National Register of Historic Places.

If you have any questions or concerns I can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

Sincerely,

Daniel A. Bagrow
Scientist (Archaeology)

cc: Alicia Schultz, NYSHCR
    Kristopher Mierisch, Tectonic Engineering
March 05, 2018

Ms. Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave
Suite 1224
Albany, NY 12260
transmitted electronically

Re: GOSR
GOSR-North Ferry Street Pump Station, Schenectady
North Ferry Street
City of Schenectady
Schenectady County, NY 12305
16PR07821

Dear Ms. Barthelme:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

SHPO has reviewed the additional Phase 1 Archaeological Survey for the area immediately south of the existing pump house, which identified the Van Eps Historic Site (09340.001832).

Based on the results of the archaeological survey, avoidance of the archaeological site is recommended. If avoidance is not possible then a Phase 2 Archaeological Survey is recommended to determine if the archaeological site is eligible for listing on the State and National Register of Historic Places. If avoidance is chosen please submit a short term and long term avoidance plan for review.

If you have any questions or concerns I can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.
Sincerely,

Daniel A. Bagrow
Scientist (Archaeology)

cc: Alicia Shultz  NYS HCR
    Kristopher Mierisch  Tectonic Engineering and Surveying Consultants P.C.
November 8, 2017

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ HUD CDBG-DR/ NY Rising Program
North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for continuing to request the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 1, 2017 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, the SHPO has the following comments:
1. The above-ground buildings are acceptable to this office.
2. The SHPO continues to recommend a Phase 1 Archaeological Survey for any areas that will be subjected to ground disturbance which have not been previously surveyed.

Please contact Daniel Bagrow at 518-268-2160 or dan.bagrow@parks.ny.gov with any questions.

If I can be of further assistance, contact me at (518) 268-2187 Larry.moss@parks.ny.gov

Sincerely,

Larry K Moss, Historic Preservation Technical Specialist

CC: Alicia Shultz
October 31, 2017

Mr. Larry Moss
Historic Preservation Technical Specialist
New York State Office of Parks, Recreation and Historic Preservation
Division of Historic Preservation
Peebles Island
P.O. Box 189
Waterford, New York 12188

Re: North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County

16PR07821
Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear Mr. Moss:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR), an office of New York State Homes and Community Renewal’s Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery (“CDBG-DR”) funds from the United States Department of Housing and Urban Development (“HUD”), is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and request for consultation.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. A consultation request for the project described herein will also be sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans. In accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. §306108), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see attached figure). The design plans for the pump station have not been drafted to date. Attached are available renderings. The space surrounding the current pump station will be utilized and include an area of potential effect (APE) of approximately 19,000 square feet including the current building and new surrounding structures, landscaping, fencing and walkways. At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45’x 65’ sanitary sewage pump station building, including 40’ deep basement
- Stair and elevated floors
- Monorail hoist beam
- Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

Request for Comment: The purpose of this letter is to initiate consultation pursuant to Section 106 of the NHPA per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. GOSR respectfully requests your review of the proposed project described herein. If you have any questions or require additional information regarding this request, please feel free to contact me at (518) 474-0755 or via email at lori.shirley@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Alicia Shultz
Community Developer
Bureau of Environmental Review and Assessment
Governor’s Office of Storm Recovery
Enclosures:
Attachment 1: Project Location Map and Renderings
North Ferry Street Pump Station
October 31, 2017
Potential Area of Effect (APE)  19,000 Square Feet
August 15, 2017

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ HUD CDBG-DR/ NY Rising Program
North Ferry Street Pump Station Relocation
119 North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Barthelme:

Thank you for continuing to request the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Aug. 14, 2017 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, the SHPO has the following comments:

1. The location currently proposed for the new pump station is immediately southeast & southwest of the existing pump station. A Phase 1 Archaeological Survey (or Phase 1 Addendum Survey) is recommended for the current site design. A small portion of this APE may overlap with Berger’s June, 2017 report and a portion also overlaps with areas tested by Hartgen in 2002 but there are other areas that have not yet been tested. If you have any questions about the archaeological recommendations please contact Daniel Bagrow at 518-268-2160 or dan.bagrow@parks.ny.gov.

2. Any new above-ground structure in Riverside Park will adversely impact the Historic District and the NR-listed Pump Station building. The following are suggested modifications for the New Pump House:
   a. Color and material of the walls should be the same as that of the existing building (off-white stucco).
   b. Install windows on the east & west walls only.
   c. The above-roof mechanical shields (glass wall) should be as low as possible, with mat-finish panels the same color as the walls of the existing building.
   d. There should be no added parapet above the mechanical shields.
   e. Unless required by Code, eliminate the walkway on the second floor of the North elevation.
   f. Move the east wall of the emergency generator enclosure 8 feet to the West, if possible, or attach it to the south side of the Pump House building.
   g. The generator enclosure walls should be the same color as the existing building.
If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

Larry K Moss, Historic Preservation Technical Specialist

CC: Alicia Shultz
Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted June 7, 2017 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Based on this review, the SHPO has the following comments:

1. Three locations have been proposed for the new pump station: southwest of the existing, immediately southeast of the existing pump station & northeast of the house at 125 N. Ferry, and northeast of the existing. The southwest alternative has been archaeologically surveyed and OPRHP has no further archaeological concerns with this alternative but the southeast alternative and northeast alternative have not yet been tested. If those alternatives are still potential locations then a Phase 1 Archaeological Survey is recommended for those locations. If you have any questions about the archaeological recommendations please contact Daniel Bagrow at 518-268-2160 or dan.bagrow@parks.ny.gov.

2. Any new above-ground structure in Riverside Park will adversely impact the Historic District and the listed Pump House building. The SHPO looks forward to working with you to resolve the potential adverse effects.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

Larry K Moss, Historic Preservation Technical Specialist

CC: Alicia Shultz
I apologize for not including this - the PR number for this project is 16PR07821

From: Barthelme, Mary (STORMRECOVERY)
Sent: Wednesday, June 07, 2017 8:57 AM
To: Moss, Larry (PARKS); Bagrow, Dan (PARKS)
Cc: Salamack, Laurice (STORMRECOVERY); Shultz, Alicia (NYSHCR)
Subject: FW: North Ferry Street Pump Station potential locations

Hello Larry and Daniel,

GOSR has been provided with a possible second site for the pump station. Please see below a figure that shows the alternate pump station location. Please let me know if this submission should be sent through CRIS as well for a formal comment letter.

I believe SHPO would require a phase I here as was recommended by Daniel in the comment letter dated 11/23/16? I am double checking to make sure my understanding of the letter is correct.

Another question is: Does SHPO have any concerns with the impacts to the historic neighborhood of placing the station in this alternate site, in front of the existing station?

Thank you for any guidance you can provide and please let me know of any questions.

Thank you,

Mary Barthelme

Mary Barthelme
Environmental and Historic Preservation Specialist
Governor’s Office of Storm Recovery
99 Washington Avenue, Suite 1224, Albany NY 12260
O: (518) 473-0154 | C: (646) 706-6748 | F: (518) 474-6102
Mary.Barthelme@stormrecovery.ny.gov

This email and any attachments thereto are intended only for the identified recipients and are confidential. Any unauthorized use or disclosure of this communication is strictly prohibited. If you have received this communication in error, please notify the sender and destroy the email and all attachments immediately.
REVISED November 23, 2016

Mary Bartheime
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ CDBG-DR/ HUD/ NY Rising Program
North Ferry Street Pump Station Relocation
The foot of North Ferry St, Schenectady/ Schenectady County
16PR07821

Dear Ms. Bartheime:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the materials submitted Nov. 17, 2016 in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources.

Daniel Bagrow of the Archaeology Unit recommends a Phase 1 Archaeological Survey, regardless of which alternative is chosen. Hartgen Archeological Associates, Inc. completed a limited archaeological survey in the area in 2002 but the area they tested is predominantly outside of the proposed APE. The report would be helpful for informing any future work in the area but doesn't specifically cover the alternatives. If you have any questions or concerns, Mr. Bagrow can be reached at 518-268-2160 or dan.bagrow@parks.ny.gov.

The SHPO would prefer the city site the new building southwest of the existing building, since it would be behind the current building and out of sight of the park visitors. Since the new building would be hidden by the original historic building, it would not interfere with its historic character.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

Larry K Moss, Historic Preservation Technical Specialist
CC: Alicia Shultz
November 14, 2016

Mr. Larry Moss
Historic Preservation Technical Specialist
New York State Office of Parks, Recreation and Historic Preservation
Division of Historic Preservation
Peebles Island
P.O. Box 189
Waterford, New York 12188-0189

Re: Section 106 Compliance for North Ferry Street Pump Station Relocation, City of Schenectady, Schenectady County, New York

Dear Mr. Moss:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR), an office of New York State Homes and Community Renewal’s Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery (“CDBG-DR”) funds from the United States Department of Housing and Urban Development (“HUD”), is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and request for consultation.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. A consultation request for the project described herein will also be sent to the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans. In accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. §306108), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action.

Area of Potential Effect: The project will take place at the end of North Ferry Street in the City of Schenectady, New York (see Figure 1). The pump station will be located at one of the two proposed sites, though the official site has not been confirmed. The design plans for the pump station have not been drafted to date. This consultation is to determine if one of the two locations is preferable. One location is north of current pump station and second is located south of the current pump station (see Figure 1). At this time, it is anticipated that the structural components for the pump station will include the following design requirements:

- 45’x 65’ sanitary sewage pump station building, including 40’ deep basement
- Stair and elevated floors
- Monorail hoist beam
Exterior generator slab on grade

Assumptions:

- The building will be founded on mat foundation at a 40-foot +/- depth.
- Design of deep foundations (piles, caissons, etc.) will not be required.
- Above grade construction will be reinforced CMU with precast hollow core or precast double tee roof planks

Proposed Project Description: The City of Schenectady proposes to replace the existing North Ferry Street Pump Station, which was built in 1913 and is located in the Stockade District. The existing pump station site is prone to flooding from the Mohawk River. The ground floor elevation of the pump station is below the 100-year flood elevation resulting in inundation of the pump station dry well structure and submergence of critical electrical and control systems necessary for pumping operation during these flood events. As such, the new station must be designed to withstand flooding to an elevation of 235 feet to ensure continuous operation and reliability.

The architectural design of the pump station will be matched to the character of the neighborhood by incorporating concepts from the Riverfront Overlook and existing North Ferry Street Pump Station architectural fenestration and landscaping. Since the new building will respond closely in scale to the existing historic structure, their final relationship will need to be considered in the design. Once the new pump station is operational the City plans to repurpose the historic pump station and will not demolish it.

This project will improve septic and wastewater infrastructure to reduce flood damage and risk of pollution that would mitigate the type of devastation caused by Hurricane Irene and Tropical Storm Lee. The pump station is being designed with additional controls which will enable the City to convey flows through the existing interceptor sewer along Front Street which will allow for maximum flexibility for the long-term operations and maintenance of the system.

A review of CRIS indicates that part of the project area has already been surveyed as part of a previous archaeological survey, 02SR52605. Both locations proposed for the new pump station will be located outside of the footprint of this survey as shown on the proposed site plan. Significant new ground disturbance is expected to construct the new station and will require excavations and trenching work across the site.

Request for Comment: The purpose of this letter is to initiate consultation pursuant to Section 106 of the NHPA per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. GOSR respectfully requests your review of the proposed project described herein. If you have any questions or require additional information regarding this request, please feel free to contact me at (518) 474-0755 or via email at lori.shirley@nyshcr.org. Thank you for your time and consideration.
Sincerely,

Alicia Shultz  
Community Developer  
Bureau of Environmental Review and Assessment  
Governor’s Office of Storm Recovery

Enclosures:
Attachment 1: Project Location Map
Appendix G-
Public Comments
April 10, 2019  
Via Electronic Mail

Lori Shirley, Director  
Bureau of Environmental Review and Assessment  
Governor’s Office of Storm Recovery  
New York State Homes and Community Renewal  
38-40 State St.  
Albany, NY 12207

Re: CDBG-DR project-North Ferry Street Pump Station Relocation Project, Schenectady, New York

Dear Ms. Shirley:

Thank you for responding to comments submitted by the Stockade Association and Schenectady Heritage Foundation in the letter from William Hurst of Greenberg Traurig, LLC dated December 3, 2018. The follow-up discussion on December 20, 2018 and revision of the project Environmental Assessment (EA) have addressed many of our concerns.

We have reviewed the EA and Appendices you shared and have the following comments and observations. Schenectady Heritage Foundation (SHF) is a partner with the Stockade Association in these comments. They have requested that SHF be included with the Stockade Association in the EA, especially on pages 6, 26, 27, 30, 39, 44. Gloria Kishton, chair of Schenectady Heritage Foundation attended the meeting with the city on December 20 but is not clearly identified on the sign-in (Appendix I). She should be included in pg 26 organizations that attended.

Our concerns, raised in December 3 public comment, were about the omission of the 1913 National Register Pump Station from the discussion of no significant impact. Some of these concerns are addressed through the addition of the letter from SHPO that includes conditions placed on the project related to the construction plan to protect the existing pump station and ongoing consultation with SHPO for reuse of the existing pump station. Information contained in Appendix K, Final Design Specifications by CHA Engineering, appears to address plans during construction to protect, the integrity of the 1913 Pump Station, by monitoring of vibrations. It also appears to place expectations on the Contractor to protect adjacent properties from construction impacts. The Appendix K narrative places responsibility on Engineer and Owner for overseeing some of this protective activity. It is not clear if Engineer is a third party or staff of City of Schenectady (owner).

The letter from City of Schenectady (Appendix J) dated January 11, 2019 affirms the city’s commitment to maintain and preserve the 1913 Pump Station as part of the City’s infrastructure. There are no other details in this three sentence document. While mentioned multiple times in the EA that SHPO and Stockade Association and Schenectady Heritage Foundation have requested ongoing consultation on proposals and plans for this project, it is
not clear if GOSR will impose that expectation on the city. This is repeated on page 30 of the EA and refers to the city letter which does not make reference to protecting this historic resource. Again on pages 33 and 34, the EA assumes the 1913 Pump Station will continue historic, architectural and aesthetic value to the community without a stated commitment beyond one sentence from the city.

The Mitigation Measures and Conditions on pages 43 and 44 state that staff is responsible for implementing and monitoring these measures; designated staff need to be clearly identified. The Historic Preservation Mitigation Measures state, the City will continue consultation with SHPO and the Stockade Association and Schenectady Heritage Foundation regarding proposals and plans for any potential reuse of the existing 1913 Pump Station. This set of mitigation measures and the requirement to monitor them addresses our remaining concerns, if the mitigation plan clearly identifies staff responsible for assuring that the Stockade Association and Schenectady Heritage Foundation will be included in reuse proposal discussions.

Thank you for the opportunity to provide comment on this draft Environmental Assessment.

Sincerely,

Carol DeLaMarter, President
Stockade Association of Schenectady

Cc:
Suzanna Randall
Alicia Shultz
Gloria Kishton
February 7, 2019

VIA ELECTRONIC MAIL

William A. Hurst, Esq.
Greenberg Traurig, LLP
54 State Street, 6th Floor
Albany, New York 12207

Re: CDBG-DR project- North Ferry Pump Station Relocation Project, Schenectady, New York

Dear Mr. Hurst:

Thank you for the comments regarding the North Ferry Pump Station Relocation Project provided in your letter dated December 3, 2018.

Since publishing our Combined Notice of Finding of No Significant Impact, Notice of Intent to Request Release of Funds, and Final Notice and Public Review of a Proposed Action in a 100-year Floodplain on November 17, 2018, GOSR has met with your clients, the City of Schenectady, and the New York State Historic Preservation Office to discuss your clients’ concerns. Based on input provided by your clients, GOSR will prepare a revised Environmental Assessment pursuant to NEPA and will republish its Combined Notice of Finding of No Significant Impact, Notice of Intent to Request Release of Funds, and Final Notice and Public Review of a Proposed Action in a 100-year Floodplain. We anticipate completing these actions before the end of this month and will keep you informed of our progress accordingly.

Thank you again for your comments regarding the Project. Please contact me anytime should you have any questions or concerns, by telephone at (518) 474-0755 or e-mail at Lori.Shirley@nyshcr.org.

Sincerely,

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor’s Office of Storm Recovery
Hampton Plaza
38-40 State Street
Albany, New York 12207
CC:  By E-mail
Hon. Gary McCarthy
Mayor, City of Schenectady

Paul J. LaFond, Commissioner of General Services
City of Schenectady

Larry Moss, Historic Preservation Specialist
NYS Office of Parks, Recreation and Historic Preservation

By E-mail and U.S. Mail
Carol DeLaMarter, President
Stockade Association

By U.S. Mail
Gloria Kishton, Chair
Schenectady Heritage Foundation
December 3, 2018

VIA ELECTRONIC MAIL

Governor’s Office of Storm Recovery
99 Washington Avenue, Ste. 1224
Albany, New York 12224
Attn.: Lori A. Shirley, Certifying Officer

Re: North Ferry Pump Station Relocation Project, Schenectady, Schenectady County, New York (2015 NYS CDBG-DR).

Dear Ms. Shirley:

Introduction

I write on behalf of The Stockade Association of Schenectady, New York, Inc., and the Schenectady Heritage Foundation with the following comments in response to GOSR’s “Combined Notice of Finding of No Significant Impact, Notice of Intent to Request Release of Funds, and Final Notice and Public Review of a Proposed Action in a 100-Year Floodplain” dated and issued on November 17, 2018, relative to the above-captioned Project.

For the reasons discussed more fully below, the Stockade Association and the Schenectady Heritage Foundation respectfully but emphatically object to the Finding of No Significant Impact and/or the release of federal CDBG-DR funds for the Project based on GOSR’s failure to fulfill its historic resources review obligations under Sections 106 and/or 110 of the National Historic Preservation Act of 1966, 16 U.S.C. §§ 470(f) and 470(h)-2, et seq., as supplemented by the Advisory Council on Historic Preservation’s implementing regulations at 36 C.F.R. Pt. 800, and made applicable to GOSR here through 24 C.F.R. 58.5(a)(1)-(3), and/or under the National Environmental Policy Act, 42 U.S.C. 4231, et seq.

Interest in the Project

Listed on the National Register of Historic Places in 1973 (and later expanded), the Stockade Historic District currently includes approximately 390 properties covering approximately 90 acres. The “Stockade” has been continuously occupied for more than three centuries, and is characterized by dense streetscapes, narrow angled streets, and a rich variety of architectural types and styles.¹ Originally established in 1958, and incorporated in 1973, the

¹ See Breyer, L., National Register of Historic Places Inventory – Nomination Form, Stockade Historic District Boundary Expansion (June 1984).
Governor’s Office of Storm Recovery  
ATTN: Lori A. Shirley, Certifying Officer  
December 3, 2018  
Page 2

Stockade Association, a 501(c)(3) not-for-profit membership organization, was formed to preserve, protect and improve the Stockade Historic District. All of the Stockade Association’s board of directors and members reside in the Historic District, in close proximity to the Project.

The Schenectady Heritage Foundation is a 501(c) (3) charitable organization incorporated in 1979, whose board of directors is comprised of community-based volunteers. Its mission is to foster historic preservation in Schenectady County, focusing on physical aspects of those real properties which are listed in or eligible for the National Register of Historic Places, or adjacent thereto. Cooperating with local government, organizations, agencies, and private property owners, the Foundation aids historic building and neighborhood conservation and rehabilitation through education, advocacy, and financial assistance.

The Project

As described in GOSR’s Environmental Review Record (“ER Record”), “the existing North Ferry Pump Station, built in 1913, is located on the southern shore of the Mohawk River . . . in the historic Stockade District.” In fact, the properties at 119, 123, and 125 North Ferry Street, and the existing North Ferry Pump Station, were identified as “contributing” properties within the NR-listed District.

For the reasons described in the ER Record and elsewhere, GOSR and the City of Schenectady plan to construct a new pump station immediately adjacent to the existing 1913 Pump Station, which will connect to existing sewer infrastructure. The ER Record states, “[o]nce the new pump station is operational the City plans to remove the existing North Street Pump Station from service and repurpose the [1913 Pump Station].” To date, the record contains no further or additional information relative to the future fate of the soon-to-be-abandoned 1913 Pump Station.

The National Historic Preservation Act Requires GOSR to Impose on the City an Affirmative Maintenance Requirement Relative to the 1913 Pump Station Before it May Find No Significant Environmental Impact and/or Release CDBG-DR Funds for the Project

Controlling Legal Principles

Section 106 of the National Historic Preservation Act requires federal agencies, “prior to the approval of the expenditure of any Federal funds on the undertaking . . . [to] take into account the effect of the undertaking on any district, site, building, structure or object that is included in or eligible for inclusion in the National Register [of Historic Places].” 16 U.S.C. 470(f). The putative release of CDBG-DR funds to GOSR and/or the City in connection with the replacement of the

2 See ER Record at 5.
3 Nomination Form, supra, fn. 1 at 2.
4 ER Record at 6; see also ER Record at 17 (“The existing pump station fire [sic] is historic and would not be demolished but repurposed. Eventual use of the existing pump station has not been determined and is not part of this environmental report.”).

The NHPA “forces an agency . . . to stop and consider the consequences of its undertakings on any historic property, it assures that the agency does so by requiring it to receive comment from the ACHP, or agencies acting in its stead, and from the public before proceeding with any undertaking.” See Committee to Save Cleveland’s Hulett’s v. U.S. Army Corps of Engineers, 163 F. Supp. 2d 776, 787 (N.D. Ohio 2001) (reversing Army Corp finding of no adverse effect on historic properties). In other words, the NHPA’s full panoply of procedures apply to the North Ferry Pump Station Replacement Project. North Oakland Voters, 1992 U.S. Dist. LEXIS 19033, at *21 (“the complaint’s allegations of ‘Demolition by Neglect’ state a cause of action for violation of Section 106’s implementing regulations.”); South Portland Ave. Block Ass’n, Inc. v. Pierce, No. 87-4210, 1988 U.S. Dist. LEXIS 10714 (E.D.N.Y. 1988) (allowing NHPA suit to proceed against City defendants who received HUD funds.)

Initially, the ACHP regulations implementing the NHPA require the federal agency, in consultation with the State Historic Preservation Office, to (a) determine and document the area of potential effect; (b) identify historic properties within this scope of potential effects; (c) assess whether the undertaking will adversely effect any such historic properties; and (d) if an adverse effect is found, “proceed to consult further to resolve the adverse effect pursuant to [36 C.F.R.] § 800.6.” See generally 36 C.F.R. 800.5.

The Record Contains Insufficient Information on the Resolution of Adverse Effects

In the case of the North Ferry Pump Station Replacement Project, the 1913 Pump Station is within the “area of potential effect” of the federal undertaking by HUD here.5 The Advisory Council’s regulations deem the effect of a federal undertaking to be “adverse” “when [it] may diminish the integrity of the property’s location, design, setting . . . feeling or association.” 36 C.F.R. 800.9(b). Indeed, adverse effects include “neglect of the property resulting in its deterioration or destruction.” 36 C.F.R. §§ 800.9(b)(1) & 800.9(b)(4).

In correspondence dated July 11, 2017, and August 15, 2017, the New York State Historic Preservation Office (“SHPO”), as delegate of the Advisory Council on Historic Preservation, determined that “[a]ny new above-ground structure in Riverside Park will adversely impact the

5 See Tectonic Engineering, “Phase I/Phase II Archaeological Survey North Ferry Pump Station Relocation” (Jul. 30, 2018), at Fig. 4.
Historic District and the listed Pump House building." Several months later, on October 31, 2017, GOSR purported to “initiate consultation [with SHPO] pursuant to Section 106 of the NHPA.” However, it does not appear that GOSR ever invited public participation in this mandatory consultation process, as required by 36 C.F.R. 800.3(f)(3) and 36 C.F.R. 800.6(a)(2), or that formal consultation has ever occurred relative to appropriate methods to avoid and/or mitigate the admittedly adverse effects on the 1913 Pump Station.

The Stockade Association and the Schenectady Heritage Foundation respectfully submit that GOSR can neither issue a Finding of No Significant Impact nor certify compliance with the NHPA until it has adopted, in consultation with the SHPO and other consulting parties, including the Stockade Association and Schenectady Heritage Foundation, a firm, enforceable plan of maintenance and upkeep of the 1913 Pump Station. See North Oakland Voters, 1992 U.S. Dist. LEXIS at *3 (community advocacy group’s allegations that City knowingly neglected historic campus building “to the extent of imminent demolition through deterioration and vandalism” held to state a cause of action under the NHPA).

First, although there will presumably be excavation and fill activities on the site, the ER Record contains no information regarding what methods, if any, will be imposed to protect the 1913 Pump Station during construction. The suggestion that existing sewer infrastructure will be reused merely serves to heighten my clients’ concern that the 1913 Pump Station will be stripped of its useful assets and left to deteriorate. As previously stated, a federal agency may not permit “neglect of property resulting in its deterioration or destruction.” 36 C.F.R. 800.9(b)(1) and (b)(4).

Next, the Stockade Association and the Schenectady Heritage Foundation submit that the above-referenced certifications may not issue until GOSR imposes an enforceable plan by the City to secure the 1913 Pump Station against trespass and vandalism by, for example, maintaining windows and securing doors and other entries.

Finally, my clients have serious reservations as to whether the so-called “repurposing” of the 1913 Pump Station may properly be segmented from the instant environmental and historic review process. The record currently contains no information whatsoever as to what might trigger this “repurposing,” which agency would oversee it, or what affects it might have on the 1913 Pump Station and/or the greater Stockade Historic District. Remarkably, the record is devoid even of a representation to the effect that the “repurposing” would be consistent with the property’s historic character. This deferral of consideration contravenes the ACHP’s exhortation to federal agencies (and their delegates) to comply with the NHPA “as early as possible” (see 36 C.F.R. 800.4), as well as NEPA’s bar on improper segmentation. See, e.g., Taxpayer Watchdogs, Inc. v. Stanley, 819 F.2d 294, 298-99 (D.C. Cir. 1987) (“The rule against segmentation was developed to insure that interrelated projects the overall effect of which is environmentally significant, not be

---


7 See Correspondence from A. Moss, GOSR, to L. Moss, SHPO (Oct. 31, 2017).
fractionalized into smaller, less significant actions"). Accord Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers, 301 F.3d 50, 64 (D.D.C. 2018). Indeed, “[w]hen the segmented project has no independent justification, no life of its own, or is simply illogical when viewed in isolation, the segmentation will be held invalid.” Macht v. Skinner, 715 F.Supp. 1131, 1135 (D.D.C. 1989). That is this case, where the 1913 Pump Station would be left unattended with “no life of its own,” i.e., a zombie historic property.

In summary, the Stockade Association and the Schenectady Heritage Foundation respectfully submit that GOSR may not, consistent with the above legal prescriptions, indefinitely defer mitigation of the acknowledged adverse effects on the 1913 Pump Station to some future date, to be undertaken by some unknown entity, pursuant to some unknown standards. At a minimum, GOSR should immediately convene a public meeting and consultation session with, inter alia, SHPO and other consulting parties, including the Stockade Association and the Schenectady Heritage Foundation, to derive an appropriate plan of maintenance, upkeep and, if appropriate, repurposing of the 1913 Pump Station.

Should you have any questions regarding this correspondence, please do not hesitate to contact me at any time.

Respectfully submitted,

GREENBERG TRAURIG, LLP

[Signature]

William A. Hurst

WAH/rsb

cc: Carol DeLaMarter, President
    Stockade Association

    Gloria Kishton, Chair
    Schenectady Heritage Foundation

    Hon. Gary McCarthy
    Mayor, City of Schenectady, N.Y.

    R. Daniel Mackay, Deputy Commissioner
    N.Y.S. Office of Parks, Recreation and Historic Preservation

ALB 2166243v1
Appendix H-

Public Advisory Committee List
NORTH FERRY STREET PUMP STATION PUBLIC ADVISORY COMMITTEE

Robert Stern, 5 North Street, Schenectady, NY 12305
Fred Heitkamp, 12 North Street, Schenectady, NY 12305
Lorraine Poirier, 5 Ingersoll Ave., Schenectady, NY 12305
Susan DuFour, 32 Ingersoll Ave., Schenectady NY 12305
Rob Gavel, 29 North Ferry Street, Schenectady, NY, 12305
Joseph Fava, 27 North Ferry Street, Schenectady, NY, 12305
Marty & Connie Colangelo, 111 North Ferry Street, Schenectady, NY 12305
Cosimino Marruso, 120 North Ferry Street, Schenectady, NY 12305
Debra Ashline, 125 North Ferry Street, Schenectady, NY 12305
Larry Schmitt, 11 Front Street, Schenectady, NY, 12305
Robin White, 21 Front Street, Schenectady, NY, 12305 (also representing 1 Washington Ave.)
Peter Rumora, 31 Front Street, Schenectady, NY, 12305
Meredith Anker, 4 Washington Ave. Schenectady, NY, 12305
Mary D’Alessandro, 7 Washington Ave., Schenectady, NY, 12305
Joseph White, 124 Ferry Street, Schenectady, NY, 12305
Carol DeLamarter, 32 Washington Ave., Schenectady, NY, 12305
Appendix I-

12-20-2018 Meeting Sign In Sheet and follow up email
City of Schenectady
North Ferry Pump Station - Sign in

Gloria Kishton

Suzanne Leger, Schenectady Assoc./Heritage Fund

Carol DeaManter - President
Schenectady Assoc.

Gary McCarthy

Mike Miller

Paul Lavrinovich

Eric Randall

Gary Moss

Jim Shirley

Alicia Shultz

City of Schenectady
CHA

City of Schenectady

COSR

SHPO

COSR (Email) (Phone)

COSR BEPA
On behalf Stockade Association Board thank you for opportunity to meet on December 20 about concerns and response to about Environmental Review for this project. The discussion of project and inclusion of Historic Pump Station in environmental review was an important component in our comments.

As discussed we will wait for SHPO final recommendations with conditions to be submitted to GOSR for inclusion in any amended FONSI and RROF. As agreed SHPO comments will be considered by GOSR reviewers and draft will be shared with Stockade Association before final. Thanks in advance for chance to review this.
Appendix J-

City of Schenectady Letter-
Maintenance of 1913 Pump Station
January 11, 2019

Ms. Suzanna R. Randall, AICP
Senior Program Manager
Governor’s Office of Storm Recovery
99 Washington Avenue, Suite 1224
Albany, NY 12260

Re: Maintenance of the 1913 North Ferry Street Pump Station

Dear Suzanna:

We look forward to continuing our progress with the relocation and construction of the new North Ferry Street Pump Station.

In accordance with this project, the City of Schenectady will continue to maintain and preserve the 1913 Pump Station as part of the City’s infrastructure.

We appreciate all of your assistance and thank you for your partnership in the completion of this critical infrastructure project.

Very truly yours,

Gary McCarthy
Appendix K-
Final Design Specifications
1. BUILDING CONDITION SURVEY TO BE PERFORMED ON THE EXISTING PUMP STATION AND ANY BUILDING WITHIN 100 FEET OF THE PROPOSED PUMP STATION BEFORE INSTALLATION OF THE EXCAVATION SUPPORT SYSTEM.

2. INCLINOMETERS AND GROUNDWATER OBSERVATION WELLS TO BE INSTALLED WITHIN FIVE FEET OF THE EXCAVATION SUPPORT SYSTEM. FINAL LOCATION TO BE DETERMINED BY THE CONTRACTOR AND ENGINEER.

3. DEFORMATION MONITORING POINTS TO BE INSTALLED ON THE EXCAVATION SUPPORT SYSTEM AT LOCATIONS THAT WILL NOT INTERFERE WITH THE GRADES OR THE FINAL CONSTRUCTION. DEFORMATION MONITORING POINTS SHOWN ON THIS PLAN ARE THE MINIMUM REQUIRED.

4. SMP-1 TO SMP-5 TO BE INSTALLED ON THE EXISTING PUMP STATION FINAL LOCATION TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER AND OWNER BEFORE INSTALLATION. FINAL ELEVATION TO BE DETERMINED AT THE TIME OF INSTALLATION.

5. SMP-6 AND SMP-7 TO BE INSTALLED ON THE EXISTING STRUCTURES AT THE CLOSEST POINT TO THE PROPOSED CONSTRUCTION. FINAL LOCATION TO BE COORDINATED WITH PROPERTY OWNER AND ENGINEER.

ASSUMED EXCAVATION SUPPORT SYSTEM (LOCATION TBD BY CONSTRUCTION)

<table>
<thead>
<tr>
<th>POINT</th>
<th>X/Y LOCATION</th>
<th>ELEVATION (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMP-1</td>
<td>798706.9960/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-2</td>
<td>798742.0036/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-3</td>
<td>1371908.0017/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-4</td>
<td>1371907.9887/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-5</td>
<td>1371907.9758/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-6</td>
<td>798706.9784/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-7</td>
<td>798706.9960/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-8</td>
<td>798706.9784/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-9</td>
<td>798706.9960/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-10</td>
<td>798706.9784/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-11</td>
<td>798706.9960/42.0036</td>
<td>100</td>
</tr>
<tr>
<td>SMP-12</td>
<td>798706.9784/42.0036</td>
<td>100</td>
</tr>
</tbody>
</table>

NOT FOR CONSTRUCTION

Hydrostatic Level System

1/15/2019 32345

Drafting No: 501

STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NAME AND SIGNATURE OF THE SURVEYOR ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL.

ARCHITECTS, ENGINEERS, LANDSCAPE ARCHITECTS OR LANDSCAPERS SHALL STAMP THE DOCUMENT AND INCLUDE THE NAME AND SIGNATURE OF THE ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LANDSCAPER.

REGULATORY REVIEW RCS SNP

GEOTECHNICAL INSTRUMENTATION PLAN

C-501
PART 1 – GENERAL

1.1 SUMMARY

A. The purposes of the geotechnical instrumentation program are to:
   1. Provide supplemental pre-construction baseline data for comparison with construction and post-construction data.
   2. Monitor groundwater levels, piezometric pressures, ground surface movement, and movements of existing structures during construction, to determine whether they have been affected by construction activity and forewarn of unforeseen conditions that may require remedial or precautionary measures.
   3. Monitor performance of the Contractor’s temporary excavation support and groundwater control systems.
   4. Monitor construction-related vibration as described herein.

B. Work of this Section shall include, but not be limited to, all materials, equipment, labor and services required for the complete installation, baseline readings, and protection of the Geotechnical Instrumentation shown on the Contract Drawings and listed in this Specification Section. The instrumentation shall be installed under the observation of the dewatering and groundwater control system design engineer.

C. Contractor will monitor instrumentation as shown on the Contract Drawings and provide data to the Engineer after initial baseline readings are established as described herein.

D. The Contractor shall repair or replace geotechnical instrumentation damaged or destroyed during construction as described herein.

E. Geotechnical instrumentation shall be installed to monitor:
   1. The performance of the Contractor’s excavation support systems for open excavations.
   2. The performance of the Contractor’s dewatering system.
   3. The groundwater and piezometric levels outside the limits of the excavations.
   4. The vertical deformation of the ground surface and existing structures indicated on the Contract Drawings.
   5. Ground vibration levels at property lines due to construction activities.

F. The Contractor shall conduct a pre-construction baseline reading of all instrumentation immediately following installation and provide the data to the Engineer for comparison with construction and post-construction data.

G. The instruments installed by the Contractor shall be installed under the observation of the dewatering and groundwater control system design engineer. The dewatering and groundwater control system design engineer will determine if the installed instruments are acceptable. The Contractor shall replace within 48 hours, at no cost to the Owner, unsatisfactory instrumentation.

H. The approximate locations and related details of the geotechnical instrumentation are shown on Contract Drawings. Locations shown on the Contract Drawings shall be adjusted in the field, subject to review and acceptance by the Contractor’s dewatering and groundwater control system design engineer, considering observed subsurface conditions, utilities, or other obstructions and the Contractor’s means and methods.
I. Existing observation wells and piezometers shall be used along with new piezometers, as shown on the Contract Drawings, in order to allow the Contractor to monitor groundwater and piezometric level response to the dewatering operations during construction.

J. The Contractor shall protect and maintain the existing/proposed observation wells and piezometers indicated on the Contract Drawings with the exception of those instruments located within the limits of construction. Those instruments shall be protected and maintained until such time that they have demonstrated that performance requirements have been met, and excavation at the instrument location is necessary.

K. The Contractor shall obtain additional data from the instrumentation and/or furnish, install and monitor, and determine the need for additional instrumentation, as the Contractor considers necessary to monitor construction performance and safety aspects of the work. Furnishing, installing and monitoring of additional instrumentation shall be the Contractor's responsibility and shall be done at no additional cost to the Owner.

L. The Contractor shall be responsible for all instrumentation installations, including but not limited to the following:
   1. Provide and install instrumentation at the locations shown on the Contract Drawings or as determined by the Engineer.
   2. Maintain and protect instrumentation from damage for the duration of the Work of this Contract.
   3. Provide access to the instrumentation for reading at all times during construction.
   4. Provide and maintain adequate lighting and safe means of access to all instrumentation locations as required for data collection for the duration of this project. Schedule activities considering that this monitoring will occur throughout the duration of the project.

M. Provide as-built locations of all instrumentation, including Contractor installed instrumentation.

N. Obtain all necessary permits and permission from appropriate property owners to conduct all work associated with this Specification section. Provide copies of written permission with the geotechnical monitoring submissions.

O. Instrumentation data will be collected by the Contractor as specified herein.

P. The Contractor shall make independent interpretations of all data as it relates to construction performance and job safety aspects of the work.

1.2 RELATED SECTIONS
   A. Section 312319 – Dewatering and Groundwater Control.
   B. Section 315000 – Temporary Excavation Support Systems.
   C. Section 316333 – Micropile Design & Construction

1.3 QUALITY ASSURANCE
   A. The Contractor shall be responsible to install all instrumentation as shown on the Contract Drawings and in accordance with instrument manufacturer specifications (instructions). The Contractor shall repair or replace within 48 hours, any instrumentation that fails, for whatever reason, to perform its intended function, at no cost to the Owner.
B. Off-site benchmark(s) will be provided by the Owner. The Contractor’s surveyor shall tie all vertical survey measurements to the off-site benchmark(s).

C. Contractor shall perform a pre-construction survey to document existing conditions of all structures within 100 feet of the proposed pump station, as indicated on the Contract Drawings, including:
   1. Provide all equipment, materials, labor and services required to complete a preconstruction conditions survey.
   2. A detailed examination of a structure shall include interior basements and vaults, if any, all floors, and exterior visual survey of the property and building. The façade shall also be surveyed and documented from outside and inside.
   3. Video documentation of the interior and exterior shall be taken, showing visually evident structural faults, including but not limited to: Locations and sizes of cracks in floors, ceilings, and exterior and interior walls, especially instances of cracked or missing plaster; damaged masonry or roofing; damaged windows and doorways; walls which are not vertical or floors which are not horizontal; damage to foundations, including interior and basement walls; groundwater seepage/leakage conditions in basements, if any; and tightness of fit of doors and windows in their respective jambs.
   4. Monitoring of ambient vibrations and resonant frequency at the structures as described herein.
   5. The Contractor shall coordinate the pre-construction survey with the Engineer and property owners.

D. Qualifications:
   1. Contractor shall employ a qualified instrumentation installation specialist with a minimum of five years of experience in the installation of geotechnical instrumentation similar to that specified herein and completed instrumentation installations on at least two (2) projects of similar size and scope. Written documentation of qualifications shall be submitted to the Engineer before installation of devices begins.
   2. Contractor shall employ a professional land surveyor licensed in the State of New York to obtain baseline readings of all Ground Surface Monitoring Points and Structure Monitoring Points. Surveyor shall have previous similar experience surveying for the detection of structural or surface deformations.

1.4 SUBMITTALS

A. Submit the following a minimum of four weeks prior to installing any geotechnical instrumentation.

B. Prior to obtaining any material or equipment in connection with this Section, detailed shop drawings and product information shall be submitted and reviewed by the Engineer.

C. The Contractor shall submit for review by the Engineer the following information:
   1. Proposed plan showing locations of required geotechnical instrumentation and including the limits of Contractor-designed temporary excavation support systems with locations of excavation support monitoring points and any other Contractor proposed instrumentation. The geotechnical instrumentation plan shall be submitted with or prior to the Temporary Excavation Support Design submittal.
   2. Product information indicating the instrumentation sizes, material types, specifications, installation procedures, locations and other pertinent data for inclinometers.
   3. Name and relevant project experience list for the instrumentation installation specialist completing the installation of geotechnical instrumentation.
   4. Installation details for all geotechnical instrumentation shown on the Contract Drawings and any additional instrumentation proposed by the Contractor.
5. Test boring logs showing soil conditions for all observation wells and piezometers installed under this Contract.

6. As-built instrument location plan and instrument installation record sheets.

7. Contractor submittals shall be acceptable to the Engineer prior to undertaking the work. The Contractor is required to obtain an acceptable submittal and shall forward submittals in advance considering that re-submittals may be required.

8. All necessary permits and copies of written permission from appropriate property owners to conduct all work associated with this Specification section.

1.5 SAFETY

A. Method of construction shall be such as to ensure the safety of the work, project participants, the public, third parties, and adjacent property, whether public or private. All work shall conform to the requirements of all Federal, State, and local laws and regulations. The Contractor is solely responsible for maintaining safe work conditions at the site at all times. The Contractor’s safety officer shall administer an accident prevention program and shall prepare a code of safe practices and an emergency plan. Provide the Engineer with a copy of each prior to starting construction. Hold safety meetings and provide safety instruction for new employees.

B. Perform work such as to minimize safety hazards and exposure of workers and equipment to hazardous and potentially hazardous conditions in accordance with specified safety requirements.

C. In the event, methane or other flammable or toxic gases are encountered during construction, the Contractor shall notify the Engineer and immediately take steps to control gas concentrations as described in 29 CFR 1926.

D. In case of emergency likely to endanger excavation or adjacent structures, continuously maintain full work force 24 hours per day including weekends and holidays until emergency or hazardous conditions no longer jeopardize stability and safety of the work.

1.6 GROUND CONDITIONS

A. Soil boring logs and soil laboratory testing data, are available to prospective bidders for study and review. Bidders must make their own interpretation of subsurface conditions that will affect methods or the cost of construction of the Work. Bidders shall enlist the services of a professional engineer specializing in geotechnical design and evaluation, licensed in the state of New York to assist with their interpretation of subsurface conditions.

1.7 DEFINITIONS

A. Threshold Value: Value of instrumentation readings at which the Engineer and Contractor jointly assess necessity of altering methods, rate or sequence of construction.

B. Limiting Value: Value of instrumentation readings at which the Engineer can order the Contractor to cease construction operations, make site and affected properties secure, and take necessary and agreed-upon measures to mitigate unacceptable movements and to assure the safety of the work and the public.
PART 2 – PRODUCTS, EQUIPMENT AND MATERIALS

2.1 SUMMARY

A. Surface protection shall be flush with the ground surface in paved or other areas. For piezometers and extensometers surface protection shall consist of 5-inch inside diameter Flush Mount Well Cover, as manufactured by the Kenner Well Cover Company, Sherwood, Oregon, or acceptable equivalent.

2.2 INCLINOMETERS

A. Inclinometer casing shall be 2.75-inch O.D. ABS plastic casing with four grooves machined at 90 degrees. Manufacturer shall be Slope Indicator or approved equal. Inclinometer inner casing, along with associated couplings and end caps, shall also be provided and installed by the Contractor. Refer to the Contract Drawings for details.

B. The inclinometer probe, readout unit, cable and pulley assembly shall be provided by the Contractor.

C. Special grout Type A shall consist of a mixture of Type II cement and uniform sized fine ground or powdered non-drilling mud grade bentonite that has a stiffness similar to the medium (soil or D-wall) in which inclinometer casings will be installed. A polymer-based thixotropic additive may also be added to the mix if recommended by the manufacturer. Grout Type A shall be placed as shown on the Contract Drawings.

2.3 OBSERVATION WELLS AND PIEZOMETERS

A. Piezometers shall be screened in the granular deposit.

B. Provide piezometer screens with machine-slotted pipe, bottom caps and vented top caps as indicated on the Contract Drawings. The slotted pipe shall be 2-inch Schedule 80 PVC pipe with three rows of 0.01-inch wide slots on 120-degree centers, with a slot length to leave 0.25 inch between rows. The riser pipe shall be 2-inch Schedule 80 flush joint PVC pipe.


D. Granular bentonite shall be Enviroplug Medium, as manufactured by Wyo-Ben, Inc., Billings, MT, or Holeplug, as manufactured by Baroid Division, Petroleum Services, Inc., Houston, TX, or acceptable equivalent.

E. Special grout Type B shall consist of sanded, non-shrink grout and be placed as shown on the Contract Drawings.

2.4 STRUCTURE MONITORING POINTS

A. Structure Monitoring Points (SMPs) shall consist of a 1/4-inch diameter by 1-1/2-inch-long stainless-steel socket head cap screw, ASTM A307 UNC thread, screwed into a 3/4-inch long by 1/2-inch diameter tamp-in screw anchor. The anchor and casing shall meet the requirements of GSA Specification FF S 325 Group 1, Type 1, Class 1. These tamp-in screw anchors shall typically be installed into vertical surfaces of buildings.
2.5 GROUNDSURFACE MONITORING POINTS

A. Groundsurface Monitoring Points (GMPs) shall consist of a 1/4-inch-diameter masonry nail driven into an asphalt paved surface as indicated on the Contract Drawings. For concrete surfaces, the GMP shall be drilled and grouted in place. For gravel or unpaved surface, the GMP shall consist of a 2 feet long, No.3 rebar driven flush with the ground surface with a protective cover and flagging noting its location.

2.6 SEISMOGRAPHS

A. Seismographs shall be used to monitor vibrations at the locations indicated during installation of the excavation support system.

B. Seismographs shall consist of a 3-component geophone capable of measuring vibrations reporting to a central processor recording measurements of Peak Particle Velocity (PPV) at a sampling rate of 1,024 samples per second or greater, and meeting the requirements of the International Society of Explosives Engineers “Performance Specification for Blasting Seismographs”

C. Geophones shall be properly weighted with sand bags or affixed to surfaces as needed to ensure proper measurement of vibrations.

D. Seismograph shall have appropriate warning devices capable of notifying personnel when vibration thresholds have been approached. Contractor is responsible for recording and reporting seismograph measurements and notifying the Engineer immediately each time the measured PPV’s exceed 85 percent of the allowable PPV identified for the pump station in the Preconstruction Conditions Report.

E. If seismographs show any signs of damage or vandalism, the seismograph shall be immediately recalibrated and replaced.

2.7 HYDROSTATIC LEVEL SYSTEM

A. Hydrostatic level system shall be used to monitor settlement at the pump station.

B. The hydrostatic level system shall consist of a reference cell and settlement cells spaced at no more than 20 feet on-center along the walls being monitored. The hydrostatic level system shall be capable of measuring settlement or heave at a resolution of 0.001 inches or greater.

C. Settlement cells shall be properly affixed to the surface being monitored and in accordance with the manufacturer’s recommendations. The reference cell will be mounted at a stable location within the existing pump station away from any vibrating equipment or equipment that would otherwise interfere with the operation of the hydrostatic level system.

D. The hydrostatic level system shall be capable of automatically recording and reporting measurements and notifying the Engineer immediately if the alert and critical threshold values are exceeded.

E. The hydrostatic level system shall be powered by 120 VAC and be capable of transmitting data to a secure project specific website.

F. The hydrostatic level system will be capable of taking measurements at a minimum every 15 minutes 24 hours per day 7 days a week.

G. The hydrostatic level system data will be capable of processing and publishing data immediately to the secure project specific website.
H. The hydrostatic level system shall be capable of generating weekly reports and distributing them via email.

PART 3 – EXECUTION

3.1 GENERAL REQUIREMENTS

A. The Contractor shall install instruments, following the guidelines included in the manufacturers' instruction manuals, as detailed in the reviewed submittal, and as specified herein and shown on the Contract Drawings.

B. The instrumentation locations shown on the Contract Drawings are approximate. Prior to installation of any instrumentation, the Contractor shall evaluate field conditions and select proposed locations for the instrumentation. The Contractor shall submit to the Engineer for review the proposed locations for all instrumentation.

C. Installation procedures for instruments in boreholes shall be such that all steps in the procedure can be quality assured. Volumes of each increment of backfilling with sand and granular bentonite shall be small enough such that no bridging occurs, and the depth to the top of each backfill increment shall be checked after placement.

D. Prior to installing any instrument through drill casing or augers, all material adhering to the inside of the casing or augers, and all cuttings, shall be removed thoroughly.

E. Whenever withdrawing drill casing or augers during instrument installation in a borehole, care shall be taken to minimize the length of unsupported borehole and the rate of casing or auger withdrawal. Collapse of the borehole shall not be allowed to occur. Backfill material shall not be allowed to build up inside the casing or auger such that the instrument is lifted as the casing or auger is withdrawn. The casing or auger shall be withdrawn without rotation.

F. The Contractor shall notify the Engineer at least 48 hours prior to installing each instrument.

G. The Contractor shall install, monitor, and interpret data from instrumentation, in addition to that specified herein, that the Contractor deems necessary to ensure performance of the work in accordance with the Contract Documents, and the safety of personnel and the Work, at no additional cost to the Owner.

H. The Contractor shall allow access to all instruments at all times.

I. The Contractor shall extend installed instrumentation and reinstall flush mount well covers as necessary as grade changes occur, and revise instrument reference elevations as necessary.

J. An instrument that fails the specified post installation acceptance test shall be replaced by an identical instrument at no additional cost to the Owner.

K. After installation, flush mount well covers shall be free-draining.

L. As-built locations and elevations shall be submitted for all instrumentation and replacement instrumentation required during construction.
3.2 INSTALLATION

A. Observation Wells and Piezometers:
   1. Bentonitic drilling mud shall not be used.
   2. After completion of installation, the Contractor shall determine the location in horizontal position to an accuracy of 1 foot, and in elevation to an accuracy of 0.01 foot.
   3. Once the construction of the monitoring well has been completed, each well must be properly developed. Well development may be accomplished by surging and pumping, either mechanical or with an airline. The best method to be utilized will be governed by the physical characteristics of the aquifer and the depth of the well. Final approval of the development method and its duration length must be finalized by the Engineer.

B. Structure Monitoring Points:
   1. SMPs shall be installed at the locations shown on the Contract Drawings.
   2. All SMPs shall have the horizontal as-built location determined to an accuracy of 0.5 foot and the elevation to an accuracy of 0.005 foot.

C. Ground Surface Monitoring Points:
   1. All GMPs shall have the horizontal as-built location determined to an accuracy of 0.5 foot and the elevation to an accuracy of 0.005 foot.

D. Seismographs:
   1. The Engineer will approve the proposed locations of the seismograph adjacent to applicable structures to monitor vibration levels. Seismograph readings also will be recorded prior to construction as described herein.
   2. These locations will include the ground at points between 3 and 6 feet from the faces of structures or the floor slab near the closest exterior face of the buildings. Seismograph readings will be made at the designated locations when vibration-generating construction activities are taking place.

E. Installation of Inclinometers:
   1. After installation, the casing groove spiral shall not exceed one degree per 10 feet of length, the orientation of the grooves at the top of the casing shall be within 10 degrees of the planned orientation, and no part of the casing shall deviate from vertical by more than 4 percent of the depth to that part.
   2. One set of grooves, defined as the A-axis, shall be oriented perpendicular to the excavation. Casing groove orientation shall be maintained throughout installation.
   3. After completion of installation, a post-installation acceptance test shall be performed to verify that there is no grout in the inclinometer casing, that groove orientation and verticality are correct, and that the inclinometer probe tracks correctly in all four orientations.
   4. After completion of installation, the as-built location in horizontal position shall be determined to an accuracy of 0.5 foot, and the elevation of the top of the inclinometer casing to an accuracy of 0.01 foot. The point selected to determine horizontal position shall be indicated on the installation record sheet.

3.3 DATA COLLECTION

A. Collection and reporting of data from the instrumentation will be the responsibility of the Contractor. The Owner may, at their discretion, perform independent measurements of the instrumentation. The Contractor shall provide and facilitate safe access to the Work for the collection of data from the instrumentation.
B. The Contractor’s data shall be recorded on field data records, which shall include at least the following:
1. Project name.
2. Instrument type.
3. Date and time.
4. Observer.
5. Readout unit number.
6. Instrument number.
7. Readings.
8. Observed construction activities within 500 feet of the instrument.
10. Weather and temperature.

C. The Contractor will collect data from the instrumentation in accordance with the following schedule. The Contractor may, at their discretion, conduct more frequent data collection. Additional data collection shall be at no additional cost to the Owner. Contractor will obtain the following:
1. Observation Wells and Piezometers:
   a. Obtain a minimum of four initial water level readings over a period of at least 2 weeks prior to conducting the specified groundwater pumping test and prior to dewatering or excavation.
   b. Once dewatering activities have begun, bi-weekly readings of piezometers. Daily readings, will be obtained if threshold limits are reached as specified herein.
   c. During excavation, establish that dewatering activities are appropriate and dewatering goals have been met before excavation begins.
2. Inclinometers:
   a. Weekly readings. Daily readings will be obtained if threshold limits are reached as specified herein.
3. Extensometers:
   a. Weekly readings. Daily readings will be obtained if threshold limits are reached as specified herein.
4. Structure Monitoring Points, Ground Surface Monitoring Points:
   a. Obtain a minimum of three initial readings over a period of at least 2 weeks prior to the start of excavations.
   b. Weekly readings. Daily readings will be obtained if threshold limits are reached as specified herein.
5. Seismographs:
   a. The Engineer will approve an established baseline condition for vibrations which exist as a result of vehicular and train traffic, or other sources.
   b. The Contractor will also obtain baseline condition for possible vibrations inside applicable structures which exist as a result of ambient vibrations.
   c. Monitoring during any vibration-producing construction activities will consist of recording particle velocities in three directions and a resultant peak particle velocity. Full waveform data will be recorded. During all monitoring of vibration-producing construction activities, submit documentation to the Engineer upon request for all events that are responsible for the measured vibration levels.
3.4 THRESHOLD AND LIMITING VALUES

<table>
<thead>
<tr>
<th>INSTRUMENTATION LOCATION / TYPE</th>
<th>INSTRUMENT CRITERIA</th>
<th>THRESHOLD</th>
<th>LIMITING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZ (Drawdown Elevation – ft)</td>
<td></td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>SMPs (in.)*</td>
<td>Structures</td>
<td>0.25 Vertical</td>
<td>0.50 Vertical</td>
</tr>
<tr>
<td>GMPs (in.)</td>
<td>0.25 Vertical</td>
<td>0.50 Vertical</td>
<td></td>
</tr>
<tr>
<td>Inclinometers (in.)*</td>
<td>2.0</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Peak particle velocity (inch per second)</td>
<td>Property Limits</td>
<td>0.25</td>
<td>0.50</td>
</tr>
<tr>
<td>Hydrostatic Level System (in.)</td>
<td>0.25</td>
<td>0.50</td>
<td></td>
</tr>
</tbody>
</table>

Note: Limiting Movement for closest structure or adjacent utility governs

* Contractor’s Temporary Excavation Support Design Engineer shall advise if more stringent criteria is required.

3.5 DATA REPORTING

A. Instrumentation data will be submitted to the Engineer in a weekly summary. If a threshold or limiting values have been exceeded, the Engineer will be notified verbally and in writing within 24 hours and reading frequency will be increased as specified herein until mitigating measures have been taken or the readings reach equilibrium.

B. The instrumentation data will be presented to the Engineer in tabular form showing all previous readings for the instrument.

C. In addition, the data will be plotted as follows:
   1. Observation wells: Plot groundwater elevation versus time.
   2. Piezometers: Plot piezometric elevation versus time.
   3. SMPs and GMPs, if applicable: Plot vertical deformation versus time.
   4. Inclinometers: Plots of inclinometer data will be “cumulative change” data, showing absolute horizontal deformation versus depth, and “change” data showing incremental deflection versus depth, and will be prepared on 8-1/2-inch by 11-inch sheets using GTILT PLUS software or equivalent. The top of the inclinometer casing (excluding any extension length added during data collection) will be used as a datum for depth measurement. Multiple plots shall be on the same sheet to provide a time history, each labeled with the date. Each plot will include the instrument numbers and coordinate location.
   5. Seismographs: Plots of data will be the following types: full waveform plots.
      a. For seismograph full waveform data, the Contractor will provide plots consisting of a graphical display of the three component particle velocities and overpressure levels during the entire course of the vibration-producing construction activity.

D. Each week the Contractor shall submit to the Engineer a description of the work performed during that week, including:
   1. A description of groundwater control operations. This description shall include the pump locations and depths, times and durations of operation, and estimated quantity of flow from dewatering operations.
2. A summary of excavation support system construction activities. This summary shall include any sheet pile driving activities and other activities associated with construction of excavation support systems.

3. A summary of excavation and filling activities. This summary shall include a general description of where excavation has occurred during the week, together with plots of the elevation of the bottom of the excavation or top of the fill versus station.

4. A description of any unusual events that may have affected the instrumentation readings. This report shall include a description of any remedial or precautionary measures that were implemented during the week in response to geotechnical instrumentation or other data, including when they were implemented and for what reason. The report shall also include a description of any future remedial or precautionary measures that are planned in response to existing geotechnical instrumentation or other data.

5. The contractor shall notify the Engineer, 48 hours in advance of any activities that are likely to produce substantial vibrations such as pile driving, driving sheet piles, etc.

3.6 DAMAGE TO INSTRUMENTATION

A. The Contractor shall protect all instruments and appurtenant fixtures, leads, connections, and other components of instrumentation systems from damage due to construction operations, weather, traffic, and vandalism.

B. If an instrument is damaged or inoperative, including an existing instrument installed by others, the Contractor shall repair or replace the damaged or inoperative instrument within 48 hours at no additional cost to the Owner. The Engineer will determine whether repair or replacement is required. The Engineer may impose a work stoppage until the damaged or inoperative instrument is again operational, at no additional cost to the Owner.

3.7 REMOVAL

A. When the Geotechnical instrumentation is no longer required and with approval of the Engineer, the Contractor shall be responsible for properly decommissioning the observation wells and inclinometers and removing the deformation and structural monitoring points, hydrostatic level system and all appurtenances from the site. Contractor shall make appropriate repairs to existing structures caused by the installation of instruments.

END OF SECTION
SECTION 312319 – DEWATERING AND GROUNDWATER CONTROL

PART 1 – GENERAL

1.1 SUMMARY

A. The Contractor shall design, furnish, operate, maintain, and remove temporary dewatering systems to control groundwater during construction in a manner that is compliant with Section 310913 - Geotechnical Instrumentation to maintain stable, undisturbed subgrades and allow work to be performed under dry and stable conditions for cut and cover excavations.

B. The Contractor shall dewater or depressurize the main aquifer as described herein. The Contractor shall control and remove perched groundwater encountered as described herein.

C. The Contractor shall comply with permit and other regulatory requirements.

D. The Contractor shall retain the services of a specialty dewatering firm with a minimum of 5 years of experience in the design, installation, operation, monitoring, and removal of groundwater control systems for subsurface construction.

E. Dewatering and groundwater control work shall include, as a minimum:
   1. Lower the groundwater level within cut-and-cover excavations to at least 24 inches below the bottom of the excavation.
   2. Control and removal of perched groundwater from all cut-and-cover excavations.
   3. Protection of subgrade soils from disturbance.
   4. Coordination with and allowing for the installation of temporary excavation support systems.
   5. Prevention of surface waters entering excavations during construction.
   6. Implementation of necessary erosion and sedimentation control measures for disposing of discharge water as outlined in the Stormwater Pollution Prevention Plan (SWPPP).
   7. Adherence with federal, State and local codes, permits, rules and regulations.

F. Dewatering and depressurization methods may include, but are not limited to, deep wells, well points, vacuum well points or any combinations thereof. Drain trenches, sumps and similar passive dewatering methods may be used for the removal of perched groundwater but shall not be the primary method of groundwater control of the main aquifer.

G. Dewatering and groundwater control shall be accomplished in a manner that results in limited impacts to adjacent building, structures, utilities, or other facilities.

H. The design, installation, operation, monitoring, and removal of the dewatering and groundwater control system shall be coordinated with the design, installation, maintenance, and removal of all temporary excavation support systems (Section 315000 "Excavation Support and Protection").

I. Dewatering Groundwater Discharge Limits and Requirements:
   1. It shall be the Contractor’s responsibility to convey dewatering discharges in a manner that is consistent with the SWPPP and such that no other provision of these Contract Documents is violated.
1.2 RELATED SECTIONS

A. Section 310913 – Geotechnical Instrumentation.

B. Section 315000 – Excavation Support and Protection

1.3 QUALITY ASSURANCE

A. The Contractor shall employ the services of a specialty dewatering firm with a minimum of 5 years of experience in the design, installation, operation, monitoring, and removal of groundwater control systems for subsurface construction, and the firm shall be represented by individuals with the following minimum qualifications:

1. A State of New York licensed Professional Engineer (the Dewatering Professional) representing the specialty dewatering firm shall be responsible for the design of the groundwater control systems and oversight of its installation and operation. The New York State licensed Professional Engineer shall have completed the design of at least five successful dewatering projects of equal size and complexity and with equal systems within the last five years consisting of deep wells, well points and vacuum well points for heavy civil projects of similar size, type, and complexity within support of excavation systems.

2. The installation supervisor representing the specialty dewatering firm for the installation of the groundwater control dewatering systems shall have a minimum of 5 years of experience in installation of well points, deep wells, recharge systems, or equal systems.

3. The on-site superintendent representing the specialty dewatering firm responsible for day to day operation of the dewatering system shall have completed a minimum of five (5) successful dewatering projects of equal size and complexity with equal systems within the last five years consisting of system operation and troubleshooting, monitoring, maintenance of logs and other required documents, collection of samples, coordination of analysis of samples, and compliance with reporting requirements during pumping for heavy civil projects of similar size, type, and complexity.

1.4 SUBMITTALS

A. Submit the following a minimum of four weeks prior to start of any dewatering operations:

1. Proof of qualifications of both the Specialty Dewatering Firm and its representatives (Dewatering Professional, installation supervisor, and on-site superintendent).

2. A Dewatering Plan that includes the following items as a minimum:
   a. Dewatering plan layout, calculations, and details stamped and signed by the Dewatering Professional that conforms to the requirements of the dewatering permit(s) and all other applicable regulations and permits including: requirements for equipment, installation, operation and maintenance, monitoring, sampling and reporting.
   b. A list of equipment including, but not limited to, pumps, prime movers, and standby equipment.
   c. A description of the proposed method of dewatering; water containment; treatment and discharge; and installation, maintenance, and system removal procedures.
   d. A groundwater monitoring plan that addresses groundwater control and soil protection within the excavations and prevention of structural settlement outside the excavations.
   e. A description of erosion/sedimentation control measures, and methods of disposal of pumped water, including the size of settling tanks or other sediment control devices.
   f. A list of all applicable laws, regulations, rules, and codes to which dewatering design conforms and all required permits, notices and reports.
B. Data for the required discharge reports shall be collected by the Contractor and the Dewatering Professional and reported in writing to the Engineer on a daily (five days per week) basis. Data to be collected shall consist of daily sampling, daily measurement of flow rates and total volume, and description of any mitigation measures currently being implemented.

1.5 SAFETY

A. Method of construction shall be such as to ensure the safety of the work, project participants, the public, third parties, and adjacent property, whether public or private. All work shall conform to the requirements of all Federal, State, and local laws and regulations. The Contractor is solely responsible for maintaining safe work conditions at the site at all times. The Contractor’s safety officer shall administer an accident prevention program and shall prepare a code of safe practices and an emergency plan. Provide the Engineer with a copy of each prior to starting construction. Hold safety meetings and provide safety instruction for new employees.

B. Perform work such as to minimize safety hazards and exposure of workers and equipment to hazardous and potentially hazardous conditions in accordance with specified safety requirements.

C. In the event, methane or other flammable or toxic gases are encountered during construction, the Contractor shall notify the Engineer and immediately take steps to control gas concentrations as described in 29 CFR 1926.

D. In case of emergency likely to endanger excavation or adjacent structures, continuously maintain full work force 24 hours per day including weekends and holidays until emergency or hazardous conditions no longer jeopardize stability and safety of the Work.

1.6 GROUND CONDITIONS

A. Soil boring logs and soil laboratory testing data are available to prospective bidders for study and review. Bidders must make their own interpretation of subsurface conditions that will affect methods or the cost of construction of the Work. Bidders shall enlist the services of a professional engineer, specializing in the geotechnical design and evaluation, licensed in the State of New York to assist with their interpretation of subsurface conditions.

PART 2 – PRODUCTS, EQUIPMENT AND MATERIALS

2.1 MATERIALS

A. Provide piezometers in accordance with the submitted Dewatering Plan and as specified in Section 310913 "Geotechnical Instrumentation."

B. Provide casings, well screens, piping, fittings, pumps, power and other items required for groundwater control system.

C. Provide sand and gravel filter around the well screen. Wrapping geotextile fabric directly around the well screen shall not be allowed.

D. When deep wells, well points, or vacuum well points are used, provide pumping units capable of maintaining high vacuum and handling large volumes of air and water at the same time.

E. Provide and store auxiliary dewatering equipment, consisting of pumps and hoses on the site in the event of breakdown, at least one spare pump for every five (5) used.
F. Provide dewatering and appropriate treatment equipment and maintain erosion/sedimentation control devices as indicated or specified and in accordance with the Dewatering Plan.

G. Provide temporary pipes, hoses, flumes, or channels suitable for the transport of discharge water to the discharge location.

PART 3 – EXECUTION

3.1 GENERAL REQUIREMENTS

A. Execution of any earth excavation, installing temporary excavation support systems or shaft support, and dewatering shall not commence until the related submittals have been reviewed by the Engineer with all Engineer’s comments satisfactorily addressed, and designated representatives if the Specialty Dewatering Firm are on site and has begun the duties specified herein.

B. Furnish, install, operate, and maintain dewatering, treatment and/or discharge systems as indicated or specified and in accordance with the Dewatering Plan. No dewatering flows shall be discharged to surface waters either directly or indirectly without appropriate treatment described in the SWPPP.

C. Carry out the Dewatering Plan and Groundwater Control work in such a manner as to prevent undermining or disturbing foundations of existing building, structures, surface and subsurface facilities (including utilities and streets), or of work ongoing or previously completed.

D. Do not excavate until the dewatering system is operational.

E. Unless otherwise specified, continue dewatering uninterrupted until all structures, pipes, and appurtenances below groundwater level have been completed such that they will not be floated or otherwise damaged by an increase in groundwater elevation.

F. In the event that subgrade soils are disturbed or become unstable due to dewatering operation or an inadequate dewatering system, notify the Engineer, stabilize the subgrade, and modify system to perform as specified at no additional cost to the Owner. Disturbed or unstable subgrade materials shall be removed and replaced in accordance with Division 31 specifications at no additional cost to the Owner.

G. In the event that pumping results in boils, loss of fines, softening of the ground, or instability of the slopes, discontinue pumping from sumps and ditches, and modify and submit a revised Dewatering Plan to the Engineer within 24 hours.

H. If oil and/or other hazardous materials are encountered after dewatering begins, immediately notify the Engineer in accordance with the Contract Documents.

3.2 DISCHARGE OF GROUNDWATER

A. Contractor shall comply with all applicable local, state and federal permits, discharge authorizations and regulations.

B. Transport pumped or drained water to the specified discharge location in compliance with applicable permits and without interference to other work; damage to or contamination of pavement, other surfaces, or property; erosion; or siltation.

C. Provide separately controlled pumping lines.
D. Immediately notify the Engineer if groundwater is encountered that is suspected to be contaminated with substances other than those for which the treatment system has been designed. Under no circumstances will the Contractor discharge water found to be contaminated with oil or other potentially hazardous material.

E. Install and maintain erosion/sedimentation control devices at the point of discharge as indicated or specified and in accordance with the Dewatering Plan.

F. Obtain all federal, state, and local permits and variances to allow transport of materials on public roadways, should such transport be necessary.

### 3.3 FIELD QUALITY CONTROL

A. The Contractor shall be prepared to store, treat and discharge dewatering water in accordance with the SWPPP and applicable regulations.

B. The Contractor shall be solely responsible for the implementation requirements relative to monitoring and reporting of dewatering discharges.
   1. The Contractor shall sample and analyze each dewatering discharge and measure daily flow rates and total volume for each dewatering discharge on a daily basis (5 days per week).
   2. This information, along with a description of any mitigation measures currently being implemented shall be reported in writing to the Engineer on a daily (5 days per week) basis for the previous work day.

C. The Contractor shall include in his bid all costs required to:
   1. Furnish all labor, equipment and materials necessary to accurately measure daily flow rates and volumes and sample for total chlorides concentration of each dewatering discharge, on a daily basis, as required.
   2. Coordinate flow metering and total chloride sampling activities with the Engineer.
   3. Prepare, keep in proper order, maintain, and submit to the Engineer all flow and volume measurement and total chloride concentration sampling records as required.
   4. Maintain other logs and records in accordance with the Specifications, regulatory agency and permit requirements, and the Dewatering Plan.
   5. Report immediately to the Engineer any unusual or non-compliant discharges and termination of a discharge.
   6. Respond to dewatering discharge-related questions posed by the Owner, regulators or the Engineer.

D. The Engineer reserves the right to concurrently meter and/or sample dewatering discharge flows at any time.

### 3.4 REMOVAL

A. Do not remove dewatering system without prior approval from the Engineer.

B. Removal of the dewatering system shall be coordinated with the construction of the final structure so as not to induce undue hydrostatic pressure on the final structure until such time that the structure can resist that pressure.

C. Backfill and compact sumps or ditches with crushed stone wrapped with geotextile fabric in accordance with Division 31 specifications.
D. All dewatering wells shall be abandoned upon completion of the work, and completely backfilled with cement grout.

END OF SECTION
SECTION 312319.10 – WELLPOINT SYSTEM FOR DEWATERING

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes the installation of a complete well point system capable of dewatering an area for the purpose of construction or installation of piping and structures in the dry.

1.2 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

A. Method of Measurement:
   1. Well Point System for Dewatering will be measured by a lump sum (LS).
   2. The lump sum payment will be made on a pro rata basis, as calculated by the percent completion of the work item; 50 percent after installation of all wells is complete, and 50 percent when the well points are decommissioned.

B. Basis of Payment:
   1. The lump sum payment for the Well Point System for Dewatering shall include, but not be limited to all labor, materials and equipment necessary to install, monitor and decommission the wells in order to dewater the work area.

C. Payment will be made under the following items:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>PAY UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Well Point System for Dewatering</td>
<td>Lump Sum (LS)</td>
</tr>
</tbody>
</table>

PART 2 – PRODUCTS

2.1 EQUIPMENT

A. Well Points shall be similar or equal to Johnson dewatering well points with self-jetting features. Slot size shall be compatible with the aquifer being dewatered.

B. Header Pipe shall be of adequate size to properly conduct the water with minimum loss of efficiency.

C. Riser Pipes shall be of sufficient length to properly dewater the excavation within the limits of the pump.

D. Swing Joints shall be of the flexible or hose-type.

E. Valves shall be in good condition and capable of being throttled.

F. Pumps shall be of adequate capacity and proper design to perform the required jetting and pumping.

G. Filter Material shall be clean coarse sand of the proper gradation for the aquifer being dewatered.
PART 3 – EXECUTION

3.1 INSPECTION

A. Prior to commencing work, inspect each area where work is to be performed and report all unsatisfactory conditions to the Engineer.

B. Do not commence work until all unsatisfactory conditions have been eliminated.

3.2 INSTALLATION

A. Header Layout: Install header level or with slight slope up to the pump. Take care to eliminate any high points in the header which may trap air. All joints shall be air tight.

B. Well Points: Install well points spaced closely enough to properly dewater the excavation as required by the Engineer. Wash the well points in place by jetting. Cut the volume of jetting water down to reduce the return velocity and place filter material into the jetted hole with shovels.

C. Swing Joints: Connect riser pipes to header with swing joints. Provide a valve at each connection to keep the system in balance.

D. Discharge Pipe: Install discharge pipe from pump discharge to outfall point as approved by the Engineer.

E. Pump: Set pump carefully on firm soil or timber foundation at the lowest practical elevation to minimize suction lift and maximize drawdown.

3.3 OPERATION

A. Start pumping with swing joint valves partially open to prevent excessively high entry velocity. Open valves gradually as pumping continues and regulate as necessary to prevent points from running dry and to permit uniform lowering of the water table.

B. Maintain constant surveillance of the operation to observe any possible subsidence or ground movement due to the dewatering operations.

C. When system is no longer required, gradually decrease the pumping rate until the water table resumes its natural position so that the velocity of the returning ground water will be low enough as not to carry fines with it.

END OF SECTION
PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes, but is not limited to, the following:
   1. Shoring and bracing necessary to protect existing buildings, streets, walkways, utilities, and other improvements and excavation against loss of ground or caving embankments.
   3. Removal of shoring and bracing, as required.

B. The purpose of this work is to ensure the safety of workmen and the public exposed to the hazard of falling or sliding material. It shall be the Contractor’s responsibility to provide protection adequate for this purpose. Details of the excavation support system must conform with the requirements of Title 29 Code of Federal Regulations, Part 1926, Safety and Health Regulations for Construction (OSHA). The Engineer shall reserve the right to increase the minimum requirements set forth therein, depending on the hazard.

C. The contractor shall be responsible for choosing and sizing the support of excavation system. The size of the system shall be adequate for removal of material as indicated on the Drawings and to provide adequate space to meet the Contractor’s work requirements for its selected method of construction. The excavation support system shall be chosen such that its installation and performance controls groundwater, limits vibrations, limits ground movements and protects adjacent structures and facilities.

D. The Contractor shall bear the entire cost and responsibility of correcting any failure, damages, subsidence, upheaval or cave-ins as a result of improper installation, maintenance or design of the temporary excavation support systems. The Contractor shall pay for all claims, costs and damages that arise as a result of the work performed at no additional cost to the Owner.

E. If, in the judgment of the Engineer, the performance of the excavation support system exceeds the limiting values listed in Section 310913 "Geotechnical Instrumentation", the Owner can instruct the Contractor to stop work and implement remedial measures to arrest further movements. The Contractor shall take immediate steps to implement the remedial measures at no additional cost to the Owner.

1.2 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

A. Method of Measurement:
   1. Excavation Support System will be measured by a lump sum (LS).

B. Basis of Payment:
   1. The lump sum payment for the Excavation Support System shall include, but not be limited to all labor, materials, and equipment necessary to install, monitor and remove the excavation support system at the completion of the work.

C. Payment will be made under:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>PAY UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Excavation Support and Protection Systems</td>
<td>Lump Sum</td>
</tr>
</tbody>
</table>
1.3 PERFORMANCE REQUIREMENTS

A. Design, furnish, install, monitor, and maintain excavation support and protection system. The system must be capable of supporting excavation sidewalls, resisting soil and hydrostatic pressure, superimposed loads, construction loads and loads imposed by construction staging.

1. Delegated Design: Design excavation support and protection system, including comprehensive engineering analysis by a qualified professional engineer registered in New York State, using performance requirements and design criteria indicated.

2. Prevent surface water from entering excavations by grading, dikes, or other means.

3. **Install excavation support and protection systems without damaging existing buildings, structures, and site improvements adjacent to excavation.**


5. The design of the temporary excavation support system shall be coordinated with the dewatering system.

6. Excavation below the level of the base of any adjacent foundation or retaining wall shall not be permitted unless the design of the excavation and bracing includes an analysis of the stability of the structure supported by the foundation and as necessary, incorporates required bracing/underpinning of the foundation.

1.4 SUBMITTALS

A. Delegated-Design Submittal: For excavation support and protection system indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer registered in New York State responsible for their preparation.

B. Submit the following qualifications three weeks prior to the construction:

1. Qualifications of Contractor’s temporary excavation support system designer.

C. Submit a Temporary Excavation Support Plan stamped and signed by a Professional Engineer licensed and registered in the State of New York at least six weeks prior to start of the construction. Submit design calculations for review by the Engineer and third parties for an overall understanding of the project relating to access, maintenance of existing facilities and proper utilization of the site. The Contractor shall remain responsible for the adequacy and safety of the means, methods and sequencing of construction. The plan shall include the following items as a minimum:

1. The layout, depths, and extent of different types of vertical and lateral support elements relative to existing features and the permanent structures to be constructed, and methods and sequence of installation and removal of the support elements. Indicate sizes, shapes, and material specifications for all support elements.

2. Requirements of dewatering and depressurization elevation levels during the construction. Provide details of working slab, subdrains, and sump construction where applicable.

3. Minimum lateral distance from the edge of the excavation support system for use for vehicles, construction equipment, and stockpiled construction and excavated materials.

4. Details of materials handling, stockpiling, and disposal sites for excavated materials.

5. List of equipment used for installing the excavation support systems.

6. Provide an estimate of anticipated lateral and vertical deformation of the excavation support systems at each excavation stage.

7. Plans for environmental controls.

D. A plan of deformation monitoring points to monitor the performance of the excavation support system. The plan shall include a plan and elevation showing the monitoring point locations and frequency of monitoring. The plan shall also include Threshold and Limiting Values for movement,
in terms of inches, that are to be used during monitoring of performance of the excavation support system, as defined in Section 310913. System design calculations acceptable to local authorities having jurisdiction and shall include:

1. Loads on the excavation support system for all stages of excavation, bracing removal, and backfilling, including material, and equipment loads on adjacent ground during construction.
2. Design of wall and bracing members including all details for all stages of construction.
3. Theoretical deflections of excavation support system and deformation of structures, pipelines, and other improvement located within the area of influence of the excavation.
4. Submit to the Engineer, a plan of action to be implemented in the event any deformation exceeds the calculated theoretical deflections. The plan of actions shall be positive measures by the Contractor to limit further movement of the excavation support system. The remedial work/mitigating measures shall be at no additional cost to the owner.

E. Do not proceed with any support of excavation or protection activities until the submittal has been approved by the Engineer.

F. Contractor’s Design Engineer’s documentation shall include:
   1. On-site inspections of excavation support system as the system is constructed.
   2. Review of quality control measures and performance data.
   3. Certification that the excavation support system is constructed per the applicable design following completion of each support system and following any modifications by Contractor during construction.

1.5 QUALITY ASSURANCE

A. Conform to the requirements of the OSHA Standards and Interpretations: "Part 1926 Subpart P - Excavation, Trenching, and Shoring," and all other applicable laws, regulations, rules, and codes.

B. All welding shall be performed in accordance with AWS D1.1.

C. The Contractor shall submit for review a Temporary Excavation Support Plan (including design calculations and shop drawings for all proposed temporary excavation support systems) prepared by a Professional Engineer registered in the State of New York and having the following qualifications:
   1. Not less than 5 years of experience in the design of temporary excavation support systems of at least 35 feet deep of comparable type, size, and complexity as this project.
   2. Completed not less than five (5) successful temporary excavation support system projects of comparable type, size, and complexity as this project within the last 5 years.

D. Temporary Excavation Support System Installer's Qualifications:
   1. Not less than 5 years of experience in the installation temporary excavation support systems of at least 35 feet deep of comparable type, size, and complexity as this project.
   2. Completed not less than five (5) successful temporary excavation support system projects of comparable type, size, and complexity as this project within the last 5 years.

E. Install all temporary excavation support system under the supervision of a supervisor having the following qualifications:
   1. Not less than 5 years of experience in installation of temporary excavation support systems of at least 35 feet deep of comparable type, size, and complexity as this project.
   2. Completed at least five (5) successful temporary excavation support system projects of comparable type, size, and complexity as this project within the last 5 years.
F. The contractor shall have at least five years’ experience comparable to the work shown and specified, employing labor and supervisory personnel who are similarly experienced in this type of work.

1.6 SAFETY

A. Method of construction shall be such as to ensure the safety of the work, project participants, the public, third parties, and adjacent property, whether public or private. All work shall conform to the requirements of all federal, state, and local laws and regulations. The Contractor is solely responsible for maintaining safe work conditions at the site at all times. The Contractor’s safety officer shall administer an accident prevention program and shall prepare a code of safe practices and an emergency plan. Provide the Engineer with a copy of each prior to starting construction. Hold safety meetings and provide safety instruction for new employees.

B. Perform work such as to minimize safety hazards and exposure of workers and equipment to hazardous and potentially hazardous conditions in accordance with specified safety requirements.

C. In the event, methane or other flammable or toxic gases are encountered during construction, the Contractor shall notify the Engineer and immediately take steps to control gas concentrations as described in 29 CFR 1926.

D. In case of emergency likely to endanger excavation or adjacent structures, continuously maintain full work force 24 hours per day including weekends and holidays until emergency or hazardous conditions no longer jeopardize stability and safety of the work.

1.7 PROJECT CONDITIONS

A. Project-Site Information: A geotechnical report has been prepared for this Project and is available for information only. The opinions expressed in this report are those of the geotechnical engineer and represent interpretations of subsoil conditions, tests, and results of analyses conducted by geotechnical engineer. Bidders must make their own interpretation of subsurface conditions that will affect methods or the cost of construction of the Work. Bidders shall enlist the services of a professional engineer, specializing in geotechnical design and evaluation, licensed by the state of New York, to assist with their interpretation of subsurface conditions.

1. Owner will not be responsible for interpretations or conclusions drawn from the data
   a. Make additional test borings and conduct other exploratory operations necessary for excavation support and protection.
   b. The geotechnical report is included elsewhere in the Project Manual.

B. Before starting work, verify governing dimensions and elevations. Verify condition of adjoining properties. Take photographs or video tape to record any existing settlement or cracking of structures, pavements, and other improvements. Prepare a list of such damages, verified by dated photographs or video tape, and signed by Contractor and others conducting investigation.

C. During excavation, resurvey benchmarks weekly, maintaining accurate log of surveyed elevations for comparison with original elevations. Promptly notify Engineer if changes in elevations occur or if cracks, sags, or other damage is evident.

D. Survey Work: Engage a qualified land surveyor or professional engineer to survey adjacent existing buildings, structures, and site improvements; establish exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.

1. During installation of excavation support and protection systems, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations and positions for comparison
with original elevations and positions. Promptly notify Engineer if changes in elevations or positions occur or if cracks, sags, or other damage is evident in adjacent construction.

1.8 DESIGN CRITERIA

A. Design of temporary excavation support systems shall meet the following minimum requirements:
   1. Support systems shall be designed for earth pressures, hydrostatic pressure, equipment, traffic, temporary stockpiles, construction loads, and other surcharge loads.
   2. Design internal bracing to provide sufficient reaction to maintain stability.
   3. Limit movement of ground adjacent to the excavation support system and at structures to be within the allowable ground deformation as specified in Specification Section 310913 "Geotechnical Instrumentation."
   4. Design the embedment depth below bottom of excavation to minimize lateral and vertical earth movements, provide bottom stability and control groundwater.
   5. Design temporary excavation support system shall withstand an additional 2 feet of excavation below proposed bottom of excavation without redesign.

B. Store materials to prevent sagging. Keep concentrated loads, during storage and handling to levels below those that would produce permanent deformation of the materials.

1.9 EXISTING UTILITIES

A. Protect all existing active utility services and structures.

B. Notify municipal agencies and service utility companies having jurisdiction. Comply with requirements of governing authorities and agencies for protection, relocation, removal, and discontinuing of services.

C. Interruption of Existing Utilities: Do not interrupt any utility serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility according to requirements indicated:
   1. Notify Owner no fewer than 2 days in advance of proposed interruption of utility.
   2. Do not proceed with interruption of utility without Owner's written permission

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 GENERAL

A. In general, this item will be required wherever an excavation exceeds five feet in depth and the side slopes are not laid back to a safe gradient as set forth in Title 29 Code of Federal Requirements, Part 1926, Safety and Health Regulations for Construction (OSHA).

B. Wherever shoring is required, locate the system to clear permanent construction and to permit forming and finishing of concrete surfaces. Provide shoring system adequately anchored and braced to resist earth and hydrostatic pressures.

C. Before beginning construction, adequately protect existing structures, utilities, trees, shrubs, and other existing facilities. Design excavation support system to limit deformations that could damage
facilities, including utilities and structures. The repair of or compensation for damage to existing facilities shall be at no additional cost to the owner.

D. Installation of the temporary excavation support system shall not commence until the Engineer has reviewed the related excavation and dewatering submittals with all Engineer’s comments satisfactorily addressed.

E. Install excavation support system in accordance with the Contractor’s Temporary Excavation Support Plan.

F. The Contractor shall monitor movements of the excavation support system and report such movements to the Engineer. In events of the measured movements approaching or exceeding the allowable movements indicated in Section 310913 "Geotechnical Instrumentation," the Contractor shall take immediate steps to implement the Construction Contingency Plan to arrest further movement.

G. If settlement or deflection of support indicate that support system requires modification to prevent excessive movement, redesign and resubmit revised shop drawings and calculations to the Engineer at no additional cost to the owner.

H. If the Engineer is of the opinion that at any point sufficient or proper supports have not been provided, he may order additional supports placed at no additional cost to the Owner.

I. If unstable material is encountered during excavation, all necessary measures shall be taken immediately to prevent ground displacement.

J. Excavation shall be kept free of water at all times and a stable subgrade shall be maintained. Excavation shall be dewatered in accordance with the project specifications.

3.2 TEMPORARY EXCAVATION SUPPORT SYSTEM MATERIALS

A. Length Markings: Before installation is started, each section shall be marked so that the depth of the tip can be readily determined.

B. Install at the locations shown on the approved Temporary Excavation Support Plan. Install before starting excavation. Install to the design tip elevation shown on the Contractor’s reviewed Temporary Excavation Support Plan. The Contractor shall take all precautions against excessive vibrations in all areas. The Contractor shall be solely responsible for any damages caused directly or indirectly to structures, sewer and other utilities, and shall repair any such damage occurring due to his operations to the satisfaction of the Owner.

C. All material shall be protected from damage during installation.

D. Voids that occur outside the temporary excavation support system shall be filled immediately with compacted structural fill or flowable fill.

E. Requirements for the temporary excavation support system include the following:
   1. Install in the true and plumb position.
   2. Install such that it is in direct contact with the material to be retained.
   3. Install to the depths indicated on Temporary Excavation Support Plan.
4. Methods and equipment used shall conform to approved submittals.
5. Use templates or other temporary alignment facilities to maintain temporary excavation support system plumb and on line.
6. Control vibrations and noise associated with installation.
7. Pre-excavate as necessary to remove existing structures along alignment of the temporary excavation support system.
8. Temporary excavation support system shall be positioned within 2 inches of the design plan location along its length from top down to bottom of excavation grade. Design plan locations are to be established by the Contractor’s Professional Engineer and submitted to the Engineer for review.

F. The Contractor shall provide all inspection equipment to determine whether the temporary excavation support system has been started in their planned location, are vertical, and are within the allowable tolerance for position after installation.

3.3 INTERNAL LATERAL WALL BRACING (WALES AND STRUTS)

A. Use wales and struts as necessary to provide support of the excavation lateral support walls as required by the Contractor’s Temporary Excavation Support Plan. Include web stiffeners, plates, brackets, or angles as required to prevent rotation, crippling or buckling of connections and points of bearing between structural steel members. Allow for eccentricities due to fabrication and assembly. Consider effects of temperature changes.

B. Install and maintain all support members in continuous tight contact with each other and with the wall being supported.

C. Coordinate locations of all bracing and components thereof for temporary lateral excavation support with locations of permanent structures.

D. Control rate of excavation and installation of support members to minimize movement of adjacent ground surface.

E. Excavation shall proceed in accordance with the detailed sequence submitted by the Contractor and reviewed by the Engineer. It shall be the responsibility of the Contractor to schedule and sequence the work accordingly.

3.4 EARTH SOIL ANCHORS

A. Use drilled or driven anchors as necessary to provide support of the excavation lateral support walls as required by the Contractor’s Temporary Excavation Support Plan. Include trumpets, brackets, wedges, and welds at points needed for connections and points of bearing between structural steel members. Allow for eccentricities due to fabrication and assembly. Consider effects of temperature changes.

B. Install, test, and maintain all soil anchors in accordance with the requirements of the Post-Tensioning Institute.

C. Coordinate locations of all soil anchors and components thereof for temporary lateral excavation support with locations of existing permanent structures and property boundaries. Design and installation of soil anchors must include an evaluation of the effects of installation on adjacent structures.
D. The Owner has made no arrangements with neighboring property owners for the use of land for soil anchors. Excavation soil anchors, if used, shall not extend beyond the limits of property owned by the City of Schenectady.

3.5 DISPOSAL OF EXCAVATED MATERIALS

A. Remove and dispose of all excavated materials in accordance with the contract documents.

B. Dispose of contaminated soils in accordance with Federal and Local authority regulations.

C. Temporary stockpiling, if allowed, shall not exceed the safe height limitation in accordance with shop drawings.

3.6 EMERGENCY MEASURES

A. Whenever there is a condition that is likely to endanger the stability of the excavation or adjacent structures, the contractor shall operate with a full crew, 24 hours a day, including weekends and holidays, without intermission, until conditions no longer jeopardize the stability of the work.

3.7 REMOVAL AND REPAIRS

A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing and underlying soils or damaging structures, pavements, facilities, and utilities.

1. Remove excavation support and protection systems to a minimum depth of 5 feet (1200 mm) below overlying construction and abandon remainder.

2. Fill voids immediately with approved backfill compacted to density specified in Section 312305 "Structure Excavation, Backfilling and Compaction"

3. Repair or replace, as approved by Engineer adjacent work damaged or displaced by removing excavation support and protection systems.

3.8 RESTORATION

A. Furnish, compact, and backfill all excavations in accordance with the contract documents. Prepare the bottom of shaft excavations as a foundation for installing pipe and structures in accordance with the contract documents. Restore the work area disturbed by construction activities, and repair any damage caused to existing utilities, to its original, or better, condition. Paved areas shall be restored to match existing conditions as approved.

B. Remove and dispose of all trailers, temporary utilities, drainage facilities, temporary fencing, waste materials and surplus materials, and other site development facilities provided by the Contractor following backfilling of the excavation.

END OF SECTION
Appendix L-
Consent Order
By E-mail and Regular Mail

May 15, 2014

John Polster, Esq.
Corporation Counsel
City Schenectady
City Hall
105 Jay Street
Schenectady, NY 12305
JPolster@Schenectady.ny.gov

Re: Order on Consent
R4-2012-1218-117

Dear Mr. Polster:

Enclosed please find a copy of the fully executed Order on Consent referenced above.

Sincerely,

[Signature]

Richard Ostrov
Regional Attorney
Region 4

Enclosure

ec:  M. Klotz
     J. DiMura
     E. McTiernan
     S. Crisafuli
     A. Dzierwa
     J. Malcolm
STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of Violations
of the Environmental Conservation
Law ("ECL") Article 17 and
Title 6 of the Official Compilation
of Codes, Rules and Regulations of the
State of New York (6 NYCRR)

- by -

City of Schenectady
Respondent

ORDER ON CONSENT
(“ORDER”)

File No. R4-2012-1218-117

WHEREAS:

1. The Department of Environmental Conservation ("Department") is the State agency which has jurisdiction over the environmental law and policy of the State pursuant to, inter alia, Section 3-0301 of the Environmental Conservation Law. In particular, DEC is and has been responsible for the protection of the water resources of the State, pursuant to ECL Article 17 and the rules and regulations promulgated thereunder at Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR), Part 750, et seq.

JURISDICTION

2. Respondent, City of Schenectady, is a municipality of the State of New York that operates a waste water treatment plant located at 300 Anthony Street, Schenectady, New York (WWTP) that discharges through Outfall No. 001 to the Mohawk River, a Class A water body. The WWTP is regulated by a State Pollutant Discharge Elimination System permit, NY0020516 ("existing permit").

3. The existing permit identifies two combined sewer outfalls ("CSOs"). Outfall No. 003 ("Alco Regulator") discharges to the Mohawk River at Latitude (42/49/32) and Longitude (73/56/11). CSO Outfall No. 006 (Washington Avenue) was permanently sealed in 2008 and no longer discharges to the Mohawk River.
4. The permit contains Best Management Practices for CSOs, special conditions for a Long
Term Control Plan, and Post Construction Compliance Monitoring Plan to reduce the volume of
untreated CSO discharges. These permit requirements are typically included for CSO SPDES
permits and required under the United States Environmental Protection Agency (“EPA”) CSO
Control Policy.

PREVIOUS ORDERS ON CONSENT

5. Respondent is subject to Order on Consent R4-2005-0525-52 (June 25, 2005) (“June 25,
(“Modification”) that addressed inflow and infiltration ("I&I") issues and SPDES permit limit
violations.

to the Department as required pursuant to Paragraph 1 of the June 25, 2005 Order on Consent
Study as required pursuant to Paragraph 4 of the Modification’s Schedule of Compliance. This
information was reviewed as part of permit renewal application received in September 2012 and
the Department determined that the Respondent’s WWTP collection system would henceforth be
considered a separate sanitary sewer system and Outfall 003, a sanitary sewer overflow (SSO),
due to the Respondent’s improvements to the system.

OBJECTIVES AND FINDINGS OF ORDER

7. The existing SPDES permit identifies Outfall 003 as a combined sewer outfall (“CSO”).
CSOs are permitted outfalls during wet weather conditions. The recent Department
determination that Respondent no longer operates a combined sewer system, and that Outfall 003
is actually a SSO, requires that Respondent terminate the SSO discharge with regard to Outfall
003. Therefore, the objective of this Order is to eliminate the SSO from Outfall 003.

In addition to the permit modification, this transition will be accomplished through a
process that first requires Respondent to investigate the feasibility of eliminating its sanitary
sewer flows to Outfall 003 within a three year period from the effective date of this Order.
Respondent has provided the Department with preliminary information that suggests that SSOs
are occurring during wet weather events when the elevation of the Mohawk River exceeds
approximately 212 feet above sea level. Respondent will undertake an immediate investigation
to determine the causal connection between the frequency and duration of the SSOs at Outfall
003, susceptibility of the collection system to inflow and infiltration within the defined FEMA
floodplain boundaries, and the associated impacts from high water elevations of the Mohawk
River.

The Respondent, based on the investigation and findings, will submit to the Department
an approvable report determining whether there is a short term feasible remedy to eliminate the
wet weather SSOs from Outfall 003. A short term feasible remedy is defined as an action or
actions that can be implemented and completed within three years of the effective date of this
Order. Based on the Department’s review and approval of the short term remedy investigation
report, Respondent will submit to the Department either: (1) an approvable plan for
implementing the short term feasible remedy; or (2) begin the long term remedy investigation
leading to a long term remedy to eliminate the SSOs in accordance with the Schedule of
Compliance.
The Order’s Schedule of Compliance is intended to be a bridge from noncompliance to compliance, as expeditiously as possible. Schedules of Compliance require interim measures to mitigate the occurrences and duration of violations until final compliance is achieved. Interim measures are meant to protect water quality as much as possible during the implementation of the compliance schedule.

The Department’s Civil Penalty Policy seeks to achieve a consistent approach to the assessment of civil penalties but recognizes that “each region of the State, and indeed each individual case, varies from every other.” Penalties are assessed when a person or in this case, a municipality, is in violation of a statutory or regulatory provision such as a SPDES permit. The violator should be deterred from further violations and not benefit from its noncompliance.

The Department has determined that the Respondent’s existing financial distress supports no assessment of a civil penalty in this case. The Department is relying on the findings of the New York State Comptroller’s November 2012 audit report in making this determination. The audit found that the City of Schenectady is in fiscal distress and ended the 2011 fiscal year with an operating deficit of $4.8 million and an unassigned fund balance deficit of $1.9 million. The report also noted that Moody’s bond rating service has lowered the Respondent’s bond rating from A-1 to A-3 because of the City’s “declining financial position, delinquent real estate taxes, rising employee benefit expenditures, above average debt burden and below-average socio-economic indicators.”

LEGAL STATUS OF SANITARY SEWER OVERFLOWS

8. Respondent’s existing permit identifies CSO Outfall Nos. 003 (Alco Regulator) and 006 (Washington Avenue).

9. Respondent’s WWTP received 4.67 billion gallons of sanitary flow in 2013 and the Alco regulator averaged a release of approximately 53 million gallons per year of sanitary overflow during the past four years including wet weather events associated with Hurricane Irene and Tropical Storm Lee. The four year annual average without including Hurricane Irene and Tropical Storm Lee is approximately 31 million gallons. The WWTP therefore treated approximately 98.9% of the flows in the collection system including consideration of Hurricane Irene and Tropical Storm Lee events and approximately 99.9% of the flows excluding consideration of the Hurricane Irene and Tropical Storm Lee events.

10. A SSO is prohibited by the Clean Water Act. ECL § 17-0807(4): “any discharge not permitted by the provisions of this article, rules and regulations adopted or applicable pursuant hereto, the Clean Water Act, or provisions of a permit issued hereunder.”

11. ECL §17-0509 requires Respondent to provide effective secondary treatment as a minimum degree of treatment prior to the discharge of sanitary sewage into the surface waters of the state. There is no secondary treatment associated with Outfall No. 003

12. Respondent’s periodic discharges of untreated sewage from Outfall No. 003 to the Mohawk River are SSOs.
MODIFICATION OF EXISTING PERMIT

13. The Department and Respondent agree that the existing permit will need to be modified to terminate the SSO discharge from Outfall 003. The Department will provide a draft permit to the Respondent and the permit modification review will follow the procedural and substantive requirements of applicable state and federal regulations.

WAIVER OF HEARING

14. Respondent has affirmatively waived its right to a hearing as provided by law and has consented to the issuing of this Order and has agreed to be bound by the provisions, terms and conditions of this Order.

NOW, having considered this matter and being duly advised, IT IS HEREBY ORDERED THAT:

STIPULATED PENALTIES

I. A. In the event that Respondent fails to meet the deadlines in the Schedule of Compliance, Respondent shall, within thirty days following receipt of a written notice of a demand for payment from the Department, pay to the Department a stipulated penalty as follows:

<table>
<thead>
<tr>
<th>Days Overdue</th>
<th>Penalty Amount Per Day Overdue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 30</td>
<td>$500</td>
</tr>
<tr>
<td>31-40</td>
<td>$1000</td>
</tr>
<tr>
<td>41-50</td>
<td>$1500</td>
</tr>
<tr>
<td>51-60</td>
<td>$2000</td>
</tr>
<tr>
<td>more than 60</td>
<td>$2500</td>
</tr>
</tbody>
</table>

B. The stipulated penalties may be forgiven in whole or in part at the discretion of the Department based on Respondent’s totality of efforts in maintaining and achieving compliance with all the requirements in the Order.

C. The Department shall not be precluded from taking any action authorized by law, and the Department may seek sanctions provided in the ECL, in addition to assessing stipulated penalties as set forth in this Order. Should the Department seek penalties and/or sanctions beyond those stipulated in this Order, the Respondent shall be provided all rights mandated by applicable law and regulation.
FORCE MAJEURE

II. Respondent shall not suffer any penalty or be subject to any proceeding or action in the event it cannot comply with any requirement of this Order as a result of any Force Majeure Event, which events include, acts of nature, fires, explosions, epidemics, riots, war, rebellion, sabotage, delay in receiving permits or approvals from the Department or any other governmental agency after submitting a timely and complete application, the revocation of any such permits or approvals, or any other condition that was not caused by the negligence or willful misconduct of Respondent and that could not have been avoided by Respondent through the exercise of due care.

SCHEDULE OF COMPLIANCE

III. Respondent shall comply with the Schedule of Compliance and any milestone date and requirement in the Schedule of Compliance. All Department approved submittals shall be incorporated into and become an enforceable part of this Order; and Respondent shall implement them in accordance with their respective schedules and terms, as approved.

CONTACTS AND SUBMISSIONS

IV. All submittals and contracts required herein shall be made to the Region 4 office of DEC, 1130 North Westcott Road, Schenectady, NY 12306, Attn: Regional Water Engineer. The Department will contact and send correspondence regarding this Order to: Mayor, City of Schenectady, City Hall, Jay Street, Schenectady, New York 12305. Within 30 days of the effective date of this Order, Respondent shall designate a city employee or consultant who shall be the project manager and provide that information to the Respondent.

ACCESS

V. Respondent shall allow duly authorized agents and employees of DEC access to any facility, site, or records owned, operated, controlled, or maintained by Respondent, without prior notice, at such times as may be desirable or necessary, and/or perform such tests as the Department may deem appropriate, to copy such records, or to perform any other lawful duty or responsibility.

INDEMNIFICATION

VI. Respondent shall indemnify and hold harmless the Department, the State of New York, and their representatives and employees, for all claims, suits, actions, damages and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Order by Respondent, its employees, servants, agents, successors or assigns.

SUCCESSORS AND ASSIGNS

VII. The provisions of this Order shall be deemed to bind Respondent, its agents employees, successors, and assigns, and all persons, firms, and corporations acting under or for Respondent.
**EFFECTIVE DATE**

VIII. The effective date of this Order shall be the date that the Commissioner or his designee signs it. The Department will provide Respondent (or the Respondent’s Counsel) with a fully executed copy of this Order as soon as practicable after the Commissioner or his designee signs it.

**MODIFICATION**

IX. This Order is the entire agreement of the parties, and no provision of the Order shall be deemed waived or otherwise modified except as is specifically set forth in a writing executed by the Commissioner or Regional Director of DEC indicating intent to modify this Order.

**SUPERCEDEDENCE OF PREVIOUS ORDERS**

X. The terms, conditions and provisions of this Order and its Schedule of Compliance supersedes the terms, conditions and provisions and the Schedules of Compliance of the previous June 25, 2005 Order and its Modification.

**OTHER RIGHTS**

XI. Nothing contained in this Order shall be construed as barring, diminishing, adjudicating or in any way affecting (1) any legal, administrative or equitable rights or claims, actions, suits, causes of action, or demands whatsoever that the Department may have against anyone other than Respondent; (2) any right of the Department to enforce administratively or at law or in equity, the terms, provisions and conditions of this Order; (3) any right of the Department to bring any future action, either administrative or judicial, for any other violations of the ECL, the rules and regulations promulgated there under, or conditions contained in orders or permits, if any, issued by the Department to Respondent; (4) the summary abatement powers of the Department, either at common law or as granted pursuant to statute or regulation; and (5) natural resources damages. The Respondent doesn’t waive its right to contest such actions above except as specifically waived in this Order by Respondent and except to the extent that Respondent’s defense is based on the failure of the Respondent to fund the Schedule of Compliance requirements or Respondent’s officials, employees or contractors failure to perform a requirement of this Order.

**FULL SETTLEMENT**

XII. This Order settles the civil and administrative violations identified herein.
QUARTERLY REPORTS AND MEETINGS

XIII. By the 15th day of the month following each calendar year quarter, Respondent shall submit a report to the Department certifying its compliance with the requirements of the Schedule of Compliance. The quarterly report shall also include information on the following actions by the Respondent: response and reports on SSOs, revisions to the Asset Management Plan, notifications of SSOs, and requests for sewer extensions and connections.

Respondent’s consultant and/or technical staff shall meet with Department staff on the second Wednesday at 10 A.M. following each calendar year quarter at the Department’s Region 4 Office unless another date and/or time and/or place has been agreed upon by the parties.

XIV. SUBMITTED DOCUMENT PURSUANT TO ORDER

1. All documents submitted pursuant to this Order are subject to Department review approval except for quarterly reports. The Department shall review each of the submittals to determine whether it was prepared, and whether the work done to generate the data and other information in the submittal was done, in accordance with this Order and generally accepted technical and scientific principles. The Department shall notify Respondent in writing of its approval or disapproval of the submittal. If the Department approves a submittal it shall be incorporated as an enforceable part of this order including the compliance schedules associated with the corrective actions specified in the submittal.

a. If the Department disapproves a submittal, it shall so notify Respondent in writing and shall specify the reasons for its disapproval. Within the time frame set forth in that written notification, Respondent shall make a revised submittal to the Department that addresses and resolves all of the Department’s stated reasons for disapproving the first submittal.

b. After receipt of the revised submittal, the Department shall notify Respondent in writing of its approval or disapproval. If the revised submission is not approvable as submitted, the Department, at its option, may disapprove it or may approve it on condition that Respondent accepts such modifications as may be specified by Department to make it approvable. If Respondent does not accept such modifications, the revised submission will be disapproved. If the Department disapproves the revised submittal, Respondent shall be in violation of this Order.

c. Respondent shall modify a submittal upon the Department’s direction to do so if the Department determines, as a result of reviewing data generated by an activity required under this Order or as a result of reviewing any other data or facts, that further work is necessary. The Department agrees that any modifications it specifies will be reasonable and consistent with customary engineering standards.

TERMINATION OF ORDER

XV. This Order shall be deemed completely satisfied and shall terminate upon Respondent’s written certification, and DEC’s written verification, of timely completion of all the requirements in the Schedule of Compliance.
THIRD PARTIES

XVI. This Order is made strictly for the purposes of the Department, the State of New York and the United States Environmental Protection Agency and is not intended for use by any third party.
DATED: 5/15, 2014
Rotterdam, New York

Joseph Martens
Commissioner
New York State Department of
Environmental Conservation

BY:

Eugene J. Kelly
Regional Director
Region 4
CONSENT BY RESPONDENT
City of Schenectady

Respondent hereby consents to the issuing and entering of this Order, waives its right to a hearing herein, and agrees to be bound by the provisions, terms and conditions contained herein.

BY: [Signature]
TITLE: Mayor

DATE: 5/14/2014

STATE OF NEW YORK )
 )ss.:
COUNTY OF )

On the 14th day of May in the year 2014 before me, the undersigned, a Notary Public in and for the State, personally appeared, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

[Signature]
Notary Public
Qualified in the County of:
My Commission Expires:

APRIL G. VALENTINO
Commissioner of Deeds
Qualified in Schenectady County
Commission Expires July 1, 2014

SCHENECTADY CORPORATION COUNSEL
APPROVED FOR SIGNATURE
SCHEDULE OF COMPLIANCE

Measuring Sanitary Sewer Water Contributions from Outfall 003 During SSOs

1. Within 30 days of the effective date of the Order, Respondent shall submit to the Department an approvable methodology for calculating and estimating the flow of each sanitary sewer overflow event from the Alco Regulator to Outfall 003 and the SSO data shall be submitted in the Quarterly Reports. Respondent shall also comply with all other applicable federal and state notification and reporting requirements in 6 NYCRR Part 750 et seq. the permit, and the Sewage Pollution Right to Know Law and regulations promulgated there under.

Investigation to Eliminate SSO Discharges

2. Upon the effective date of this Order, Respondent shall commence an investigation, prepared by a Professional Engineer licensed in and by the State of New York ("Professional Engineer") to: (1) identify potential sources of infiltration and inflow to the collection system tributary to the Alco regulator and Outfall 003 focusing the investigation on system components identified within the defined FEMA floodplain boundaries; and (2) evaluate the impacts, if any, of Mohawk River water levels on the frequency and duration of SSOs and manhole discharges along Front Street. The investigation shall be consistent with the Department’s Division of Water Guidelines for Sanitary Sewer Overflows Abatement Analysis dated April 24, 2009.

3. Within 120 days of the effective date of this Order, Respondent shall provide temporary chlorination, at approximately 10 gallons of sodium hypochlorite per million gallons of sewage discharged, at the ALCO regulator for the duration of each SSO.

4. Within 365 days of the effective date of this Order, Respondent shall complete the investigation conducted pursuant to Paragraph 2 and submit to the Department an approvable investigation report prepared by the Professional Engineer providing either a: (1) Sanitary Sewer Overflow Mitigation Plan which identifies the short term feasible remedy to eliminate the wet weather SSOs from Outfall 003 and includes an implementation schedule with interim milestone dates for the short term feasible remedy and physical elimination of the SSO; or (2) notice with supporting technical and cost information that there is no short term feasible remedy. A short term feasibility remedy shall have the meaning as defined in Paragraph 7 of the Order.

Long Term Study and Plan to Eliminate SSOs

5. If pursuant to Paragraph 4 of the Schedule of Compliance there is no approvable short term feasible remedy, Respondent shall have:

a. 120 days from the date of approval of the Report submitted pursuant to Paragraph 4 of the Schedule of Compliance to submit to the Department an approvable Professional Engineer’s report that assesses and evaluates whether there are interim feasible methods for floatables removal and/or retention of sanitary sewer flows prior to its discharge from Outfall 003. The feasibility study shall evaluate the potential to reasonably mitigate or lessen the effects of the SSO discharge on the best usages of the Mohawk River at a minimum during the bathing season. The report shall also include an expeditious schedule with interim milestone dates for implementing any feasible measures identified in the report.

b. 365 days from the date of approval of the Report submitted pursuant to Paragraph
4 of the Schedule of Compliance to submit to the Department an approvable long term Sanitary Sewer Overflow Mitigation Plan and a schedule with annual milestone dates prepared by a Professional Engineer with a date of completion no later than December 31, 2023. The plan shall be considered completed when the SSOs permanently cease and shall include provisions to physically eliminate the SSO.

**Asset Management Plan**

6. Respondent shall submit an approvable Assessment Management Plan ("AMP") for the wastewater collection system to the Department within 12 months of the Department’s approval of either a short term feasible remedy pursuant to Report submitted pursuant to Paragraph 4 of the Compliance Schedule or a long term Sanitary Sewer Overflow Mitigation Plan submitted pursuant to Paragraph 5 of the Compliance Schedule. The AMP shall be developed in accordance with the U.S. EPA’s April 2008 “Asset Management: A Best Practices Guide”. Respondent shall update the AMP as necessary and submit changes to the Department for review and approval as needed. The AMP will include the following information and any other information or measures inherent in the AMP development and implementation process:

A. An inventory of assets (including both equipment and personnel);

B. An assessment of criticality and condition and lifespan of equipment under the full range of flows experienced in the collection system;

C. A ranking and prioritization of asset maintenance and improvements based on the subparagraph B assessment and the schedule in the Plan; and

D. An itemized capital budget plan for funding and maintaining continuous compliance with its permit and regulations in 6 NYCRR Part 750 et seq. The approved AMP will be an enforceable part of this Order. The AMP shall be incorporated into Respondent’s permit. Upon incorporation into Respondent’s permit, the AMP provision shall cease to be enforceable under this Order.

**Sewer Extension and Connections to Collection System Serving Outfall 003**

7. The Respondent has documented the removal of inflow and infiltration (I&I) and collection system improvements associated with Outfall No. 003 (Alco Regulator) since January 1, 2008. Based upon documentation submitted by the Respondent to the Department, improvements completed since January 1, 2008 reduce peak wet weather flows or increase system conveyance by 3.5 mgd (includes adjustment based on 4:1 offset requirements), which could allow the Respondent to add some new sewer connections without the expectation of increasing the SSO discharges. Because some new economic development projects have already been planned, the Respondent may make the following connections to the sewer district, subject to any necessary sewer extension approval by the Department, without the need for any offsets:

1. General Electric Energy Storage (GE Power and Water)

2. Alco Brownfield Development Projects

3. Town of Glenville - Additional flows or new connections subject to the 2 million gallon per day allowable flow limit contract between the Respondent and the Town.
4. The Robinson Block Project (commercial & residential development on Erie Boulevard, South Ferry Street, and State Street)

5. Projects designated under the START-UP NY Program that fall within a mile radius of Schenectady County Community College

Any new connection to the collection system or change in use of an existing connection that is located either upstream or downstream of the Alco Regulator and is tributary to the 42 inch Front Street interceptor or the 3 ft. 7 inch by 6 ft. (4 x 6) main interceptor and is greater than 2,500 gallons per day ("gpd") will require that a 4:1 offset* be provided; credits can be created by new projects to achieve the required offset value. Such requests must be accompanied by appropriate documentation and prepared/certified by a Professional Engineer licensed to practice in New York State. Respondent must also comply with the requirements specified in 6 NYCRR Part 750-2.10 (Special Provisions - New or Modified Disposal Systems or Service Areas) with regards to the submittal of an engineering report/plans and sewer extension requests and subsequent review/approval by the Department.

* Mitigation projects that qualify for the offset include infiltration and inflow reduction, collection system improvements, and green infrastructure projects. Respondent may submit to the Department for review and approval a report prepared by a New York State Licensed Professional Engineer demonstrating that connections downstream of the Alco Regulator will not cause or contribute to an SSO or increase its flow or duration. The report shall include a hydraulic analysis using real time and/or historic data. If the report is approved by the Department, the Respondent will be exempt from the 4:1 offset for downstream connections to the 4 x 6 main interceptor.

8. Respondent shall provide notification within two hours to the Department, health department, contiguous municipalities and downstream Mohawk River water supply districts of the commencement and conclusion of a SSO from Outfall No. 003. The window for notification shall begin when Respondent opens the Alco regulator. The SSO episode shall conclude when the Alco Regulator is closed. The information shall be included in the Quarterly Reports. This notification provision does not affect Respondent’s other statutory and regulatory notice and reporting requirements including but not limited to the Sewage Pollution Right to Know Act.

Modification of SPDES Permit

9. The Respondent agrees to SPDES permit modifications to remove the identification of Outfall 003 as an CSO and the Long Term Control Plan requirements. Respondent agrees to waive any of its rights to request a hearing pursuant to 6 NYCRR 621 to challenge these modifications.
CITY COUNCIL
SCHENECTADY, NEW YORK

RESOLUTION NO. 2014-114
Councilmember Mr. Riggi offered the following:

A Resolution Authorizing the City to Enter into a Consent Order with the NYS Department of Environmental Conservation

WHEREAS, the New York State Department of Environmental Conservation (DEC) and City of Schenectady ("City"), have been negotiating a consent order being requested by the DEC; and

WHEREAS, the DEC is requesting the consent order to address some outstanding issues existing within the City's sanitary sewer collection system; and

WHEREAS, the parties have cooperated and participated in extensive reviews and negotiations:

NOW, THEREFORE BE IT,

RESOLVED, that the Mayor is hereby authorized to participate to execute an "Order on Consent" in substantial compliance with the draft appended hereto, subject to the approval of the Corporation Counsel.

Approved as to form this 12th day of May, 2014.

John R. Folster, Esq.
CORPORATION COUNSEL

RESOLUTION adopted unanimously by Councilmembers
MAY 12 2014
approved by Mayor MAY 14 2014