GOWANUS CANAL OWLS HEAD CSO FACILITY

CONSTRUCTION PROTECTION PLAN FOR HISTORIC ARCHITECTURAL RESOURCES: CONSTRUCTION PACKAGE 3

Prepared on behalf of the New York City Department of Environmental Protection

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CONSTRUCTION PROTECTION PLAN

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Construction Package 3

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INTRODUCTION

As specified in the Final Environmental Impact Statement (FEIS) for the Gowanus Canal CSO Facilities Project (the "Project"), a Construction Protection Plan (CPP) is required to avoid adverse physical impacts on historic architectural resources that are located within 90 feet of the proposed construction activities.[1] This CPP was therefore prepared based upon the requirements stipulated in The New York City Department of Buildings (DOB) *Technical Policy and Procedure Notice #10/88*, regarding procedures for the avoidance of damage to historic structures resulting from adjacent construction; the New York City Landmarks Preservation Commission (LPC) guidelines described in *Protection Programs for Landmark Building and Guidelines for Construction Adjacent to a Historic Landmark;* and the National Park Service's *Preservation Tech Notes, Temporary Protection Number 3: Protecting a Historic Structure During Adjacent Construction*. This CPP will be implemented in consultation with the New York State Historic Preservation Office (SHPO) and LPC as appropriate.

This CPP focuses on the activities related to construction of the Gowanus Canal Combined Sewer Overflow (CSO) facility at the Owls Head site, including excavation and new construction activities that would occur under Construction Package (CP) 3. As described in the FEIS, the Owls Head Site is within the boundaries of the State/National Register-eligible Gowanus Canal Historic District as identified by SHPO but does not contain any contributing buildings.

A: CONSTRUCTION ACTIVITIES AT THE OWLS HEAD SITE

The CSO facility is proposed to be located within a peninsula containing a cluster of five properties along 5th Street between 2nd Avenue and the southern side of the Gowanus Canal as it bends toward the west near the 4th Street turning basin (see **Figure 1**). The four properties south of 5th Street, including 5th Street, are privately owned and the property north of 5th Street is a City-owned property occupied by the New York City Department of Sanitation (DSNY). Uniform Land Use Review Procedure (ULURP) was completed for site acquisition of these properties as well as an amendment to the City Map to eliminate 5th Street between 2nd Avenue and the Canal. For the purposes of preparing the design, the project has been divided into four separate construction packages (CPs):

[1] Through its Technical Policy and Procedure Notice (TPPN) #10/88, the New York City Department of Buildings (DOB) outlines procedures for the avoidance of damage to historic structures resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource. TPPN #10/88 was issued by DOB on June 6, 1988, to supplement Building Code regulations with regard to historic structures.

- CP-1 is a site preparation contract and is subject to a separate Construction Protection Plan. Therefore, this Construction Protection Plan applies only to the work to be performed under CP-3 as described below.
- CP-2 includes most subsurface work and remediation activities. It includes construction of the support of excavation (SOE) including dewatering of the excavation and other construction activities within the SOE; the excavation, stabilization, and disposal of soils; construction of the facility tank (substructure); and construction of the 2nd Avenue pumping station (substructure).
- CP-3 includes superstructure construction of the CSO facility including installation of all facility equipment, 2nd Avenue Pumping Station, new outfall and influent chamber, reconstruction of 2nd Avenue diversion chamber, and installation of force mains. New 6" and 8" force mains will be installed in the roadbeds of 2nd Avenue and 8th Street, leading from the new 2nd Avenue Pumping Station and discharging upstream of the 3rd Avenue regulator weir at the intersection of 3rd Avenue and 8th Street. A 16" pipe that would process effluent from the Owls Head facility would also be installed that would follow the force main route. A continuous, low permeability SOE walls and jet grouting will be used for temporary excavation support for construction of these pipes.
- CP-4 includes relocation of the composting facilities to their permanent location and construction of open space and community facilities surrounding the CSO facility.

C: HISTORIC ARCHITECTURAL RESOURCES TO BE PROTECTED

OWLS HEAD SITE

Two (2) historic buildings/structures that contribute to the significance of the State/National Register-eligible Gowanus Canal Historic District will be protected during excavation/construction activities that will occur under CP-3 within 90 feet of the Owls Head Site.

- 141 6th Street: one- story brick warehouse located at the northeast corner of 6th Street and 2nd Avenue (see **Resource A on Figure 1**)
- 33-41 2nd Avenue: one-story brick warehouse, built circa 1935, located at the southeast corner of 6th Street and 2nd Avenue (see **Resource B on Figure 1**)

Properties not Required to be Protected

Properties identified in the Draft National Register of Historic Places Registration Form prepared in 2013 for the Gowanus Canal Historic District, identified as garage and office buildings at 1-25 2nd Avenue in that report, have been demolished. These buildings were located on the east side of 2nd Avenue between the building at 141 6th Street and the 4th Street Basin. Sometime between 2014 and 2016, these buildings were replaced with a new three-story building that houses New York City Department of Corrections offices. Therefore, as the new building is not historic, and post-dates the determination of State/National Register eligibility of the Gowanus Canal Historic District made by SHPO in 2012 and preparation of the Draft National Register of Historic Places Registration Form in 2013, this building does not require protection under this Construction Protection Plan.

In addition, restoration of the Gowanus Canal bulkhead is occurring as part of a separate contract and is being monitored by professional archaeologists. Therefore, the Gowanus Canal bulkhead is not included as a structure requiring protection as part of this CPP.

FORCE MAINS/EFFLUENT DISCHARGE ROUTES

Twenty (20) historic buildings/structures that contribute to the significance of the State/National Register-eligible Gowanus Canal Historic District will be protected during construction activities that will occur on 2nd Avenue and 8th Street to install the new force main and effluent pipes, as these resources are located within 90 feet of the route of the sewer infrastructure:

- 141 6th Street: one- story brick warehouse located at the northeast corner of 6th Street and 2nd Avenue (see **Resource A on Figure 1**)
- 33-41 2nd Avenue: one-story brick warehouse, built circa 1935, located at the southeast corner of 6th Street and 2nd Avenue (see **Resource B on Figure 1**)
- 43-51 2nd Avenue: one-story brick warehouse built circa 1935 (with 2nd Ave façade covered in stucco), located at the northeast corner of 2nd Avenue and 7th Street (see **Resource C on Figure 1**)
- 138-148 7th Street: one-story brick warehouse built circa 1940, located at the southeast corner of 2nd Avenue and 7th Street (see **Resource D on Figure 1**)
- 42-66 2nd Avenue are five (5)two-story brick buildings (the 42 2nd Avenue façade is covered in stucco) that are included as part of the Kentile Building Complex with address at 83-125 9th Street as noted in the 2013 Draft National Register of Historic Places Registration Form. The Kentile Building Complex is an industrial complex of offices, factories, warehouses, and garages. The buildings in the complex were built in three phases—circa 1920, 1949, and 1955 (see Resource **E** on Figure 1).
- 113-115 8th Street: two-story brick factory built circa 1905 (see **Resource F on Figure 1**)
- 160-166 7th Street: two-four-story brick factory built circa 1890 that extends through-block between 7th and 8th Streets (see **Resource G on Figure 1**)
- 168-180 7th Street (a.k.a. 125-129 8th Street): three-story brick factory built circa 1890 that extends through-block between 7th and 8th Streets (see **Resource H on Figure 1**)
- 131-139 8th Street: one -story brick factory built circa 1900 (see **Resource I on Figure 1**)
- 182 7th Street: one story brick warehouse built circa 1940 that extends through-block between 7th and 8th Streets (see **Resource J on Figure 1**).
- 94-110 8th Street: one-two- story brick factory built in 1924 with a one-story addition built circa 1935 (see **Resource K on Figure 1**)
- 112 8th Street: one-story brick warehouse built circa 1960 (see **Resource L on Figure 1**)
- 114 8th Street: two-story mixed-use brick dwelling built circa 1955 (see **Resource M on Figure 1**)
- 116-120 8th Street: three (3) one-story brick warehouses built circa 1910 and 1960 (see **Resource N on Figure 1**)

Properties not Required to be Protected

Properties identified in the Draft National Register of Historic Places Registration Form prepared in 2013 for the Gowanus Canal Historic District/SHPO's online Cultural Resource Information System (CRIS) identify two properties within 90 feet of the route of the sewer infrastructure as not contributing to the significance of the Gowanus Canal Historic District. These are a one-story utilitarian garage clad in vertical metal siding that was built circa 1990 at 53-67 2nd Avenue (at the northeast corner of 2nd Avenue and 8th Street) and a one-story

utilitarian brick warehouse built in 1926 at 107-111 8th Street (on the north side of 8th Street). Therefore, these buildings do not require protection under this Construction Protection Plan.

C: CONSTRUCTION PROTECTION MEASURES

The following protective measures will be implemented for the historic architectural resources located within 90 feet of the Owls Head site and the force main/effluent discharge piping routes as described above:

1. To the extent permitted by the property owners, a preconstruction inspection of the historic architectural resources will be undertaken by an engineer licensed to practice in the State of New York (the "Inspecting Architectural Resources Engineer"). The preconstruction inspections will assess the existing conditions of these structures with respect to building façades, windows, slabs, masonry walls, etc., and to document any noticeable pre-existing damage where possible. The inspection will include all exterior areas from the ground floor level to the roof and include all sidewalks, curbs, setbacks, parapets, and coping. An interior building inspection will also be undertaken, to be limited to accessible public ground floor areas. The Inspecting Architectural Resources Engineer will have experience working with historic structures.
2. A written report will be prepared by the Inspecting Architectural Resources Engineer based on the preconstruction inspection. The written report will be supplemented with photo-documentation—in the form of 4- x 6-inch color photographs keyed to a map or plan—in order to provide a clear record of existing conditions and any problem areas. This report shall be provided to the New York City Department of Environmental Protection (DEP).
3. Based on the preconstruction inspection, and as deemed necessary by the project's Structural Engineer (the "Project Engineer"), crack monitors shall be installed across existing cracks (and new cracks as required) to permit changes in crack width to be measured. The crack monitors shall be monitored periodically, as deemed appropriate by the Project Engineer. Should any new cracking or widening of existing cracks occur in any of the historic architectural resources during excavation or construction, the Project Engineer will evaluate the seriousness of the widening, identify possible reasons for the widening, and modify on-site construction activities that are causing the problem, including cessation of work. Additional crack monitors will be installed as determined necessary by the Project Engineer and cracks monitored more frequently, if required, until the Project Engineer deems the cracks to be stable.
4. Seismic monitor(s) will be installed by a Vibration Monitoring Consultant in areas deemed necessary by the Project Engineer during excavation and other construction operations that would cause vibrations in the historic architectural resources. *TPPN #10/88* stipulates that vibrations from the driving of sheet piles and excavation shall be monitored with seismographs. General building construction (installation of foundations, erection of steel) would also require the use of heavy equipment and may also generate vibration. Seismograph(s) will be installed to the extent permitted by the building owners. The seismograph(s) will continuously monitor vibration levels and be located such that they are away from the general public but that they are accessible to the technicians who must monitor them. Logs of seismic monitoring will be maintained. Seismic monitoring data for the historic architectural resources shall be submitted to LPC and/or SHPO upon request.

5. Controls on construction vibration will be required as per LPC standards. LPC and *TPPN #10/88* requirements are for a maximum peak particle velocity of 0.5 inches per second for historic structures. In addition, an appropriate lower alert level will be established such that if an alert level is reached or exceeded, construction procedures may be reviewed and modified as needed.
6. Vibration levels at the designated locations will be monitored continuously throughout construction hours. Logs of the measured vibration levels will be provided by the Vibration Monitoring Consultant on a monthly basis or upon request of the Project Engineer. Prior to the commencement of demolition and excavation operations, the seismograph(s) will be installed and tested to confirm that they are in working order and to enable taking baseline readings.
7. If the seismograph monitoring indicates that any excessive project-specific vibration (that meets or exceeds the maximum acceptable peak particle velocity threshold) is detected, the Vibration Monitoring Consultant will verify the accuracy of the seismograph equipment and evaluate the possibility of measurement errors. If the measured vibration level is verified and can be directly correlated to specific construction activities, and the recorded measurement exceeds the specified threshold criteria, the Vibration Monitoring Consultant will inform the Construction Contractor and DEP to stop the work causing this excessive vibration, and the historic architectural resources will be inspected for any structural degradation that may have occurred due to the measured excess vibration event. If any damage to a historic architectural resource was sustained, it will be secured, and the work that caused any damage will be altered to reduce the vibration levels to within acceptable limits. Where damage has occurred, the resumption of all work must be authorized by the Project Engineer. Any repairs that can be reasonably attributed to the proposed project's vibration activities will be undertaken with the permission of the property owner. Any repairs would also be undertaken in consultation with SHPO.
8. A staging area will be identified on a site plan for the Owls Head site to show the locations of construction equipment including site access, perimeter fencing, sidewalk sheds, and construction equipment including cranes, hoists, and dumpsters. Where possible, equipment would be located within the staging area to mitigate the potential for damage to nearby historic architectural resources.
9. Based on the preconstruction inspection of the buildings (as described in items #1 & #2) and the proposed construction activities, the Project Engineer will make a recommendation to DEP for any additional monitoring, beyond what is provided under items #3-8, to adequately assess movement over the course of construction, together with any protocols or steps necessary to monitor and protect the integrity of the historic architectural resources during excavation and construction activities.
10. The Project Engineer will verify that underground utilities serving the historic architectural resources listed above are protected from damage.
11. All other provisions of the New York City Building Code applicable to construction activities, protection of adjacent structures and utilities, and specific sections dealing with dewatering, excavation and foundation operations will be met. Construction of the Project will be performed in a safe manner with controlled inspections as required by the New York City Department of Buildings.

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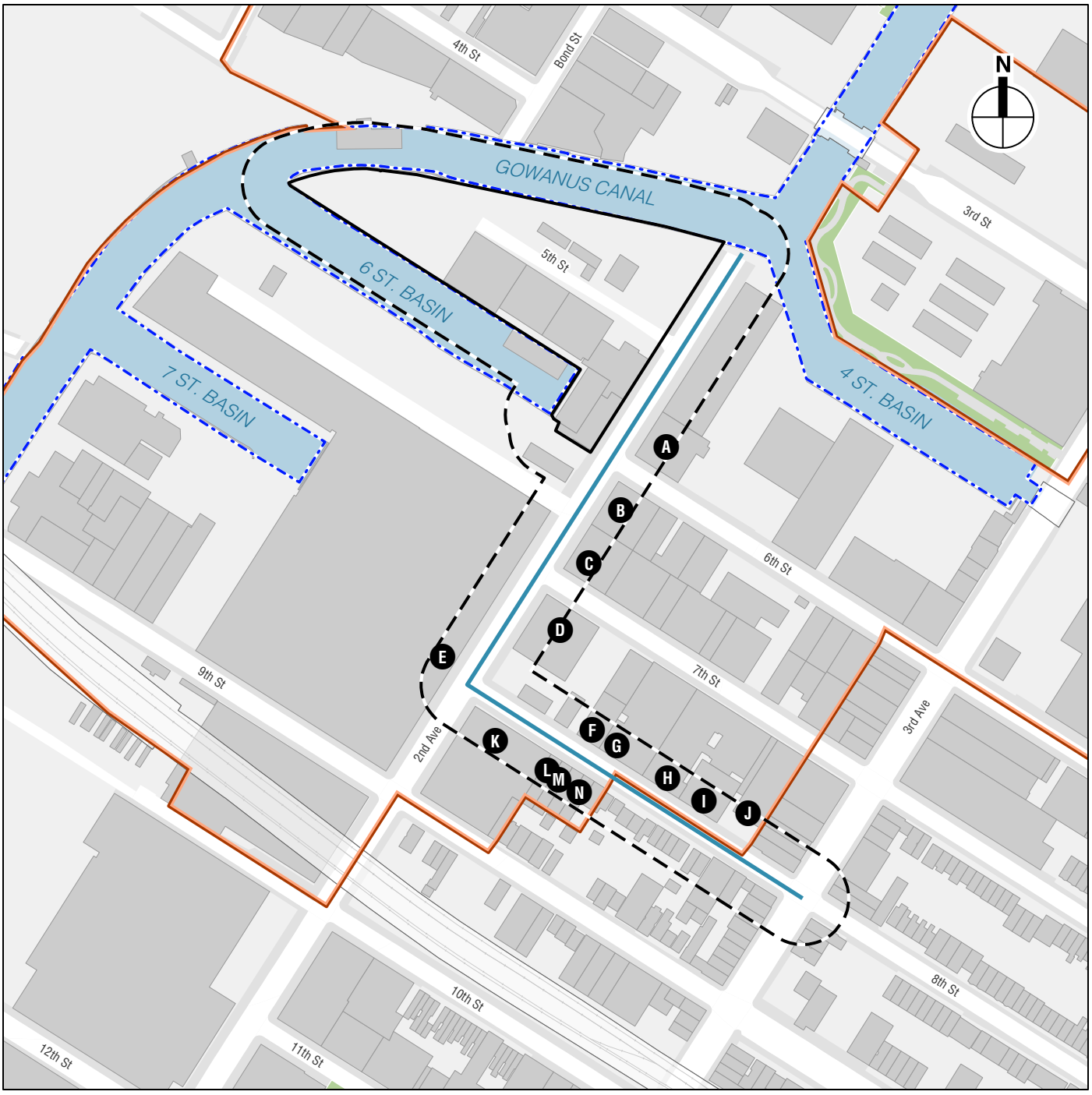

0 500 FEET

- Owls Head Site
- Gowanus Canal
- 90-foot perimeter (CSO Facility and Force Main/Effluent Discharge lines)
- Force Main and Effluent Discharge lines
- S/NR Eligible Gowanus Canal Historic District
- A Historic Building within 90ft of Owls Head Site

CSO FACILITIES FOR GOWANUS CANAL CONSTRUCTION PROTECTION PLAN

Construction Package 3: Owls Head Site

Figure 1