



Consolidated Edison Company  
of New York, Inc.  
31-01 20th Avenue  
Long Island City NY 11105-2048  
www.conEd.com

September 4, 2018

Mr. Douglas MacNeal  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, NY 12233-1011

**RE: Consolidated Edison Company of New York, Inc.  
East 173rd Street Works Site (Site #V00552-2) Periodic Review Report  
Voluntary Cleanup Agreement Index No. D2-0003-02-08**

Dear Mr. MacNeal:

The enclosed Periodic Review Report has been prepared under Con Edison's Voluntary Cleanup Agreement Index No. D2-0003-02-08 for the East 173rd Street Works Site (Site #V00552-2). This report provides the required inspection and certification of the institutional controls and engineering controls of the site for the period from August 16, 2017 to August 16, 2018.

Please feel free to contact me at 718-204-4288 should you have any questions or if you need any assistance during your review of this submittal.

Sincerely,

*for*

Richard Rienzo  
Project Manager  
EH&S, Remediation  
Consolidated Edison Company of NY, Inc.

Attachments: Periodic Review Report

cc: Kenneth Kaiser, Department Manager EHS Remediation  
Albert DeMarco, NYSDOH  
Lawrence Scoones, City of New York, Parks & Recreation  
Correspondence File

**EAST 173RD STREET WORKS FORMER MGP SITE  
STARLIGHT PARK, BRONX, NEW YORK  
OPERABLE UNIT 1 PERIODIC REVIEW REPORT  
(NYSDEC VCA INDEX NO. D2-0003-02-0/SITE NO: V00552)**



**CONSOLIDATED EDISON CO. OF NEW YORK, INC.  
31-01 20<sup>th</sup> Avenue  
Long Island City, NY 11105**

*Prepared by:*

**GEI Consultants, Inc., P.C.  
5586 Post Road, Suite 1  
East Greenwich, RI 02818**

**August 2018**

# Table of Contents

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<b>Abbreviations and Acronyms</b>	<b>iii</b>
<b>1. Introduction</b>	<b>1</b>
1.1 Site Summary	1
1.2 Effectiveness of the Remedial Program	1
1.3 Compliance with SMP	2
1.4 Recommendations	2
<b>2. Site Overview</b>	<b>3</b>
2.1 Pre-Remedy Nature and Extent	3
2.2 Remedial Program Chronology	4
2.3 Remedial Action Objectives	4
<b>3. Evaluation of Remedy</b>	<b>5</b>
<b>4. Institutional Control Plan Compliance Report</b>	<b>6</b>
4.1 Institutional Control Requirements	6
4.2 Institutional Control Compliance	6
4.2.1 Site Inspection	7
4.2.2 NYC DDC Comfort Station Construction Activities	7
4.2.3 Future Soil Management Plan Compliance	8
<b>5. Monitoring Plan Compliance</b>	<b>9</b>
5.1 Post-Remedial Groundwater Monitoring Plan	9
5.1.1 Future Groundwater Monitoring	9
<b>6. Conclusions and Recommendations</b>	<b>10</b>
6.1 Institutional Controls	10
6.2 Periodic Groundwater Monitoring	10
6.3 Performance and Effectiveness of the Remedy	10
6.4 Future Periodic Review Report Submittals	11
<b>References</b>	<b>12</b>

## Figures

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- 1 Site Location Map
- 2 Pre-Remediation Site Layout Map
- 3 Remedial Site Plan
- 4 NYC DDC Construction Areas

## Appendices

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- A Photo Documentation
- B NYSDOT Construction Drawings
- C Annual Inspection and Certification Checklist
- D Institutional and Engineering Controls Certification Form

MO/ah/gtb1v-fs01/Data/WPROC/Project/CON-ED/East 173rd Street/Site Management Plan/Periodic Review Reports/August 2018-PRR/PRR.V00552.2018-08-17.E173rdStWorks.doc



## Abbreviations and Acronyms

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AWQS	New York State Ambient Water Quality Standards
cgs	current ground surface
Con Edison	Consolidated Edison Company of New York, Inc.
DER	Division of Environmental Remediation
DNAPL	Dense Non-Aqueous Phase Liquid
GEI	GEI Consultants, Inc.
MGP	Manufactured Gas Plant
NYC DDC	New York City Department of Design and Construction
NYCDPR	New York City Department of Parks and Recreation
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
OU-1	Operable Unit 1
ppm	parts per million
PRR	Periodic Review Report
RA	Remedial Action
RAOs	Remedial Action Objectives
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
SM	Site Management
SMP	Site Management Plan
SVOCs	Semi-Volatile Organic Compounds
VCA	Voluntary Cleanup Agreement
VOCs	Volatile Organic Compounds

# 1. Introduction

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GEI Consultants, Inc., P.C. (GEI), on behalf of Consolidated Edison Company of New York, Inc. (Con Edison), presents this Operable Unit 1 (OU-1) Periodic Review Report (PRR), which presents a summary of the implementation of, and compliance with, site-specific Site Management (SM) requirements completed by Con Edison from August 16, 2017 to August 16, 2018 at the East 173<sup>rd</sup> Street Works former manufactured gas plant (MGP) site located in Bronx, New York (**Figure 1**). This report has been prepared in accordance with the requirements of Section 6 of *Division of Environmental Remediation (DER)-10, Technical Guidance for Site Investigation and Remediation*, and the Voluntary Cleanup Agreement, Index No. D2-0003-02-08 (VCA) signed by Con Edison and the New York State Department of Environmental Conservation (NYSDEC).

## 1.1 Site Summary

The East 173<sup>rd</sup> Street former MGP site (the Site) is located between the Sheridan Expressway and the Bronx River in the neighborhood of West Farms, in the Borough of the Bronx, New York (**Figure 1**). The Site was owned by Con Edison and its predecessor companies from 1859 to 1945, when it was bought by the City of New York.

Con Edison has completed a remedial investigation and a NYSDEC-approved remedy for the Site. The remedial investigations determined the presence of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in subsurface-soil samples at concentrations that exceed the NYSDEC-established project Soil Cleanup Criteria (i.e., soil-containing dense non-aqueous phase liquid [DNAPL] tar and/or concentrations of total SVOCs greater than 500 parts per million [ppm], and/or concentrations of VOCs greater than 10 ppm). The DNAPL tar was limited to discrete areas within the former MGP boundary, at depths between 8 and 20.5 feet below current ground surface (cgs). The DNAPL tar represented a continuing source for VOC and SVOC groundwater contamination. Groundwater at Starlight Park is not used for irrigation or as a drinking water source.

A remedial action was completed at the Site to remove impacted soils that exceed the project Soil Cleanup Criteria. The remedy included the installation and maintenance of a clean fill cover cap and underlying visible demarcation barrier in all portions of the OU-1 area where excavation was required to meet the project Soil Cleanup Criteria.

## 1.2 Effectiveness of the Remedial Program

The remedial action was completed in November 2007. A Remedial Action Report detailing the excavation, confirmation sampling program, backfill, and clean cover installation was approved by the NYSDEC in 2010. Post remediation groundwater sampling was conducted semi-annually per the Site Management Plan (SMP) from April 2008 to April 2011. Four rounds of samples

were collected from on-site monitoring wells. No MGP-related impacts were observed in the groundwater results. During the recent New York State Department of Transportation (NYSDOT) and New York City Department of Design & Construction (NYC DDC) construction at the Site, the demarcation barrier proved effective at preventing uncontrolled excavation below the clean cover.

To date, the remedial program has been successful at meeting the remedial objectives for the Site.

### **1.3 Compliance with SMP**

All work conducted at the Site during the monitoring period was in compliance with the NYSDEC-approved SMP. No corrective action is necessary at this time.

### **1.4 Recommendations**

Con Edison does not recommend any changes to the SMP at this time. Con Edison recommends that the annual frequency of PRRs be continued until all construction related to the NYSDOT Greenways Project and Starlight Park is completed. Following the completion of all construction, Con Edison may request to decrease the frequency of PRR.

The requirements for discontinuing periodic groundwater sampling were met in April 2010. With NYSDEC approval upon evaluation of the groundwater monitoring data, the on-site monitoring wells were properly abandoned in May 2010.

## 2. Site Overview

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The Site is located between the Sheridan Expressway and the Bronx River in the neighborhood of West Farms, in the Borough of the Bronx, New York (**Figure 1**). The Site is defined as all land occupied by former MGP operations. The term “on site” refers to land within the boundary of the former MGP. The Site is approximately 3 acres in size and is located within the central portion of Starlight Park (approximately 8 acres), a part of the Bronx River Park. The former MGP property boundary and the locations of MGP structures are shown in **Figure 2**.

Starlight Park is currently owned by the City of New York and is operated by the New York City Department of Parks and Recreation (NYCDPR) and continues to have construction related to recreational facilities occurring on site. The current Starlight Park conditions and construction is documented in **Appendix A** and **Appendix B**.

### 2.1 Pre-Remedy Nature and Extent

Con Edison completed a comprehensive NYSDEC-approved remedial investigation (RI) from April 2003 to April 2004 for the Site pursuant to the VCA. The compounds detected in the soil and groundwater at the Site included VOCs, SVOCs, and inorganic compounds. Many of the inorganic and organic compounds detected in the on-Site soil and groundwater can be associated with MGP residues; however, some of these detected compounds also typically occur in urban fill, which forms the uppermost soil layer of the Site.

**Soil** – The uppermost soils layer, urban fill, was not impacted by the former MGP operations. Physical evidence of MGP residue and analytical results indicated that on-Site subsurface soil was impacted by the former MGP operations. VOCs and SVOCs were detected in subsurface-soil samples at concentrations that exceed the NYSDEC-established project Soil Cleanup Criteria. The samples exhibiting the highest SVOC concentrations were collected from on-Site subsurface soils containing DNAPL tar. The DNAPL tar was limited to discrete areas within the former MGP boundary, at depths between 8 and 20.5 feet below cgs.

**Groundwater** – Groundwater samples collected from on-Site wells located in areas of MGP-impacted subsurface soils and along the hydraulically downgradient Site boundary contained concentrations of VOCs and SVOCs above the New York State Ambient Water Quality Standards (AWQS) for a GA Water Class. The DNAPL tar represented a continuing source for VOC and SVOC groundwater contamination. Groundwater at Starlight Park is not used for irrigation or as a drinking water source.

## 2.2 Remedial Program Chronology

A remedial program was implemented in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) and OU-1 Final Design Report. The remediation requirements for OU-1 included excavation of impacted soils, installation of a clean cover, institutional controls and post-remediation groundwater monitoring.

Excavation of materials was required to meet the NYSDEC-approved cleanup criteria for the Site. The NYSDEC required the removal of visible tar impacts and soil containing total VOC concentrations greater than 10 ppm or total SVOC concentration greater than 500 ppm. The NYSDEC allowed for reuse of site soils meeting the cleanup criteria as backfill at the Site below the clean fill cover. The NYSDEC further required that a warning demarcation barrier be installed between the reused soils and the clean fill cover. The cover requirements included a 3-foot-thick clean fill cover throughout the athletic field proposed by the NYCDPR and a 6-foot-thick clean fill cover outside the ball field proposed by the NYCDPR and inside the former MGP site footprint and inside the remedial excavation outside the former MGP footprint.

Remedial activities began in January 2007. All remedial excavation work was completed in September 2007. The excavation was backfilled in accordance with RAWP and the clean cover system was installed. The Site was rough graded to the remedial restoration grade, which was approximately 7 inches below the proposed park grade to allow for topsoil, landscaping materials, synthetic turf, drainage and pavement as part of the park reconstruction. Remedial activities were completed in November 2007. A summary of the remediation is shown in **Figure 3**.

## 2.3 Remedial Action Objectives

As described in the NYSDEC-approved RAWP and Remedial Action Report (RAR), the remediation requirements for OU-1 included excavation of impacted soils, installation of a clean cover, institutional controls and post-remediation groundwater monitoring. The remediation requirements were developed to meet the site-specific remedial action objectives (RAOs) identified in the RAWP. These RAOs include:

- Eliminate, to the extent practical, the potential human health exposure of Starlight Park visitors and maintenance/construction workers to MGP-related contaminants
- Eliminate, to the extent practicable, potential impacts to the environment from MGP-related contaminants
- To the extent practicable, excavate and remove identified DNAPL and MGP-related contaminants

### 3. Evaluation of Remedy

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As described in the RAR and April 2010 groundwater report, the remediation conducted has met the site-specific RAOs established in the RAWP. Specifically, the remedy has met or continues to meet the following RAOs.

- Eliminate, to the extent practical, the potential human health exposure of Starlight Park visitors and maintenance/construction workers to MGP-related contaminants.
  - The remedy established a clean soil cover system above the re-used backfill materials which consisted of 3 to 6 feet of clean fill above the demarcation barrier. The institutional controls established in the SMP and subsequent new park construction prevents uncontrolled access to materials below the demarcation barrier.
  - During the recent park reconstruction, workers were not exposed to soils below the demarcation barrier.
- Eliminate, to the extent practicable, potential impacts to the environment from MGP-related contaminants.
  - The remedy removed the source of groundwater impacts at the Site by removing MGP-related contaminants which did not meet the site-specific cleanup criteria.
  - Post remedial groundwater sampling demonstrated that the source removal was effective.
- To the extent practicable, excavate and remove identified DNAPL and MGP-related contaminants.
  - The remedial excavation was planned to remove identified DNAPL and MGP-related contaminants. Additional excavations were conducted to remove impacts identified during excavations.
  - Post excavation confirmation sampling demonstrated that the remedy met this RAO.

## 4. Institutional Control Plan Compliance Report

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### 4.1 Institutional Control Requirements

The institutional controls set forth by the SMP are as follows:

- Annual inspection and certification by a New York State-Licensed Professional Engineer to confirm that the land use restrictions specified in the RAWP for the Site are being complied with, and that the engineering and institutional controls specified in the RAWP are in place and remain effective to control the risk of potential exposure to subsurface residual contamination by users of Starlight Park, Parks Department employees, or permittees.
- Notification to the NYSDEC prior to any action that could jeopardize the integrity of the completed Remedial Action (RA) construction activities, including excavation work below the clean fill cover and demarcation barrier installed at the Site as part of RA construction activities.
- A prohibition on the use of the Site for any purpose other than a public park without the prior written approval of the NYSDEC.
- A prohibition on the development of water supply or irrigation wells on the Site
- Implementation of a NYSDEC-approved Soil Management Plan for intrusive work performed below the clean fill cover and demarcation barrier installed at the Site. This Soil Management Plan can be found in the SMP.

The institutional controls only apply to the area within the boundary of the former MGP footprint and any areas outside the MGP footprint boundary for which the excavation of contaminated soil and installation of an underlying demarcation barrier was required as part of the RA construction activities. A detailed description of the institutional controls is provided in Sections 3, 4, and 5 of the SMP.

### 4.2 Institutional Control Compliance

The clean fill cover was inspected to determine if any disruption was made including erosion or any other disturbances. The final surface elevation of the surface cover was surveyed by the NYSDOT contractor prior to the start of construction of the turf playing surface to confirm the surface elevation had not changed since completion of the site remedy. The construction drawings showing the final elevations of the turf playing surface are provided in **Appendix B**. The elevation of the playing field was installed to meet these drawings. As-built drawings from the NYSDOT Contractor will be submitted to the NYSDEC upon receipt. Based on the periodic

inspections and elevation data provided, the thickness of the cover has not changed. There was no further construction at the Site in the area of the site cover during this monitoring period.

During site visits, it was confirmed that the Site is being used as a public park in the manner specified in the NYCDPR's Starlight Park reconstruction plan and irrigation or water wells have not been installed on-site.

The Site is still owned by the City of New York. A post remediation agreement exists between NYCDPR and Con Edison.

#### **4.2.1 Site Inspection**

A periodic review inspection was conducted by Con Edison and GEI on August 15, 2018. Photographs of the site conditions during the site walk are included in **Appendix A**. A copy of the Annual Inspection and Certification Checklist is included in **Appendix C**. A copy of the NYSDEC Institutional and Engineering Controls Certification Form is included in **Appendix D**. Evidence of minor surface erosion was noted in vegetated areas of the site. The minor erosion noted does not affect the integrity of the clean soil cover system at the site.

The NYC DDC contractor was on-site completing construction of the boathouse and design of the comfort station for the park is ongoing (**Figure 4**). The boathouse is located in the southern section of the park in an area outside of the remediation area and the clean soil cap. No intrusive work has been conducted within the limits of the remediation area and the clean soil cover for the boathouse construction. Active construction of the boathouse was occurring during the August 15, 2018 site inspection.

#### **4.2.2 NYC DDC Comfort Station Construction Activities**

Con Edison has met with the NYC DDC regarding the proposed comfort station construction. The comfort station was originally planned within the limits of the clean soil cover and Con Edison provided NYC DDC copies of all applicable reports and figures for their use in the design of the comfort station. NYC DDC has relocated the proposed location of the comfort station outside of the remediation area north of the limits of the clean soil cover. The original proposed location of the comfort station and the new proposed location of the comfort station are included in **Figure 4**. NYC DDC has been asked to submit the draft plans for the comfort station to Con Edison for review when they are available.

Future utility work may be conducted along the western boundary of the limits of the clean soil cover for the installation of the comfort station. Con Edison will coordinate with NYC DDC to ensure that work within the limits of the clean soil cover complies with the requirements of the SMP.



#### ***4.2.3 Future Soil Management Plan Compliance***

During any intrusive activities, on-site compliance with the SMP will be monitored by Con Edison. The Greenways Project portion of the site construction is completed at this time. NYC DDC is continuing construction of the boathouse on the Site and is preparing to go out to bid for the construction of the comfort station. Con Edison will evaluate the proposed construction plans, when available, and notify the NYSDEC if the construction will impact the remedy.

## **5. Monitoring Plan Compliance**

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### **5.1 Post-Remedial Groundwater Monitoring Plan**

After the NYSDEC determined that the required RA construction activities had been properly completed, Con Edison performed periodic groundwater sample collection from on-site monitoring wells to evaluate and document the improvement of groundwater quality. A detailed description of the post-remedial groundwater monitoring is provided in Section 2 of the SMP.

Ten on-site monitoring wells were periodically sampled after the completion of the RA construction activities. Groundwater samples were collected from these monitoring wells semi-annually for two years, starting in April 2008 and ending in April 2010 when the wells were decommissioned with NYSDEC approval during the reconstruction of Starlight Park. The results of the groundwater monitoring program were summarized in the September 2011 Periodic Review Report.

#### **5.1.1 Future Groundwater Monitoring**

No future groundwater monitoring is planned for the Site. Groundwater monitoring wells were decommissioned with NYSDEC approval in April 2010.

## **6. Conclusions and Recommendations**

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The requirements of the SMP were met during site activities during the reporting period (August 16, 2017 to August 16, 2018).

### **6.1 Institutional Controls**

The institutional controls established in the SMP and described above in subsection 4.1 were complied with during the reporting period.

- An annual inspection and certification by a New York State-Licensed Professional Engineer was completed on August 15, 2018 to confirm that the land use restrictions specified in the RAWP for the Site are being complied with, and that the engineering and institutional controls specified in the RAWP are in place and remain effective to control the risk of potential exposure to subsurface residual contamination by users of Starlight Park, Parks Department employees, or permittees.
- The Site continues to be used as a public park.
- No water supply or irrigation wells have been installed on the Site.
- The boathouse construction work implemented during the reporting period did not trigger the requirements of the Soil Management Plan.

### **6.2 Periodic Groundwater Monitoring**

Groundwater monitoring was completed in accordance with the requirements of the RAWP and SMP. The analytical data from the four sampling events showed no impact from site MGP-related contaminants. The requirement to complete a minimum of four periodic sampling events was met during the reporting period and groundwater monitoring was discontinued. Based on the lack of MGP-related contaminants in groundwater, this no longer represents a potential exposure pathway at the Site.

The groundwater monitoring wells were decommissioned with NYSDEC approval in April 2010.

### **6.3 Performance and Effectiveness of the Remedy**

The periodic groundwater monitoring program has demonstrated that the source of groundwater contamination at the site has been removed.

The institutional controls have proved effective in preventing uncontrolled exposure to material below the demarcation barrier. During the completed NYSDOT Greenways Project construction, workers did not come into contact with materials below the demarcation barrier.

## **6.4 Future Periodic Review Report Submittals**

Future PRR submittals will occur on an annual basis until all construction activities on-site are completed. At that time, the frequency of the PRR submittals will be re-evaluated.

## References

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Consolidated Edison Company of New York, Inc., 2010. *Well Abandonment Summary East 173<sup>rd</sup> Street Former Manufactured Gas Plant, Bronx, New York Site ID: V00552*. May 19, 2010.

GEI Consultants, Inc., 2003a. *Focused Remedial Investigation, East 173<sup>rd</sup> Street Works, Bronx, New York*. April 2003.

GEI Consultants, Inc., 2003b. *Supplemental Remedial Investigation Work Plan* dated August 28, 2003.

GEI Consultants, Inc., 2004a. *Supplemental Remedial Investigation, East 173<sup>rd</sup> Street Works, Bronx, New York – Data Summary Report*. April 16, 2004.

GEI Consultants, Inc., 2004b. *Remedial Action Work Plan, East 173<sup>rd</sup> Street Works (Starlight Park), Operable Unit No. 1 (OU-1), Bronx, New York Site ID: V00552*. August 24, 2004.

GEI Consultants, Inc., 2004c. *Operable Unit No. 1 Data Report, East 173<sup>rd</sup> Street Works, Bronx, New York Site ID: V00552*. November 5, 2004.

GEI Consultants, Inc., 2005. *Air Monitoring Work Plan*. April 27, 2005.

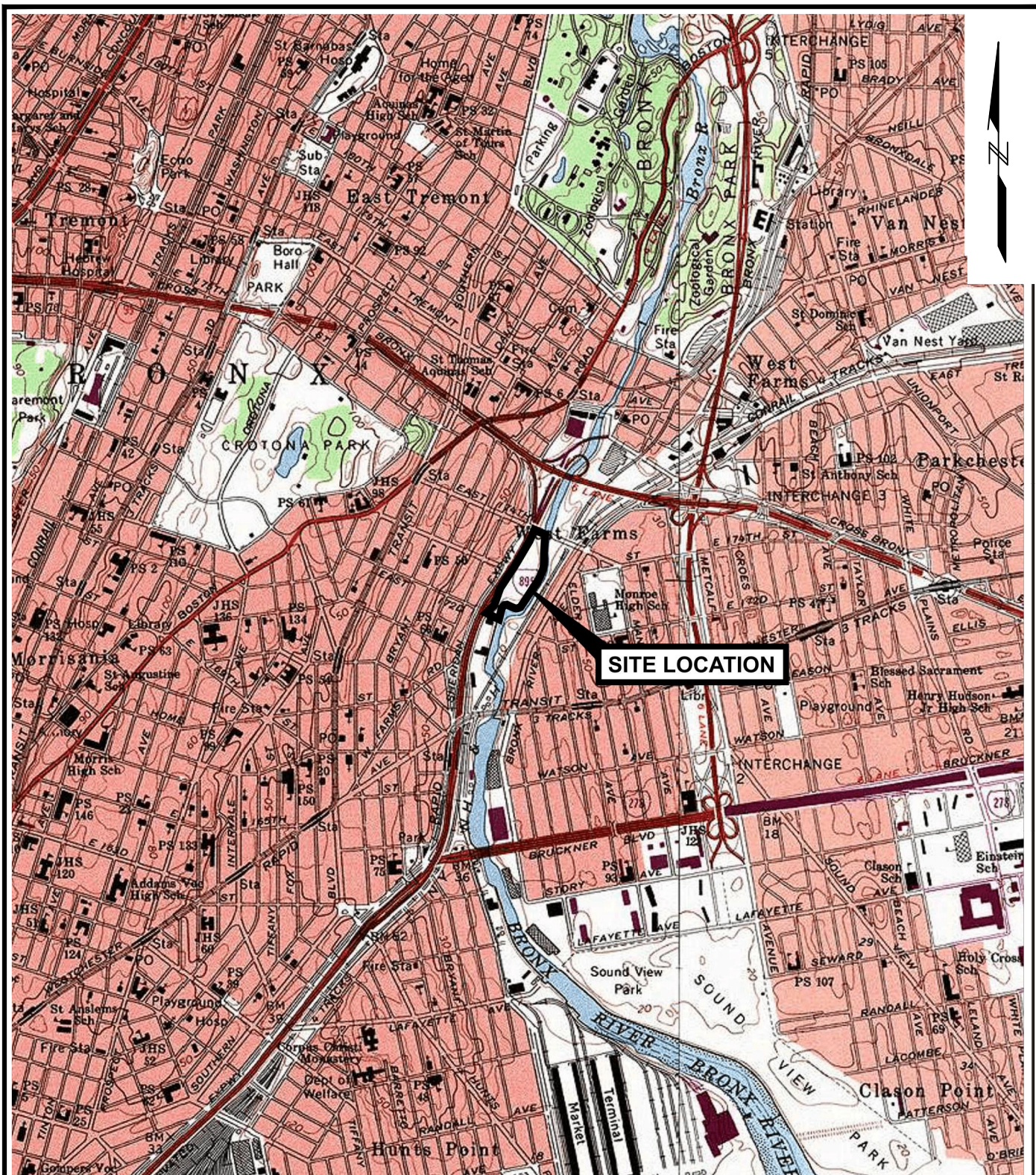
GEI Consultants, Inc., 2010. *Operable Unit No. 1 Remedial Action Report, East 173<sup>rd</sup> Street Works, Bronx, New York Site ID: V00552*. March 15, 2010.

GEI Consultants, Inc., 2010. *Operable Unit No. 1 Site Management Plan, East 173<sup>rd</sup> Street Works, Bronx New York Site ID: V00552*. March 2010.

## Figures

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0 2000' 4000'



SCALE: 1" = 2000'

SOURCE: Map created with TOPO! © 2001 National Geographic  
(www.nationalgeographic.com/topo)

Periodic Review Report  
East 173rd Street Works  
Bronx, New York

Consolidated Edison Company  
of New York, Inc.



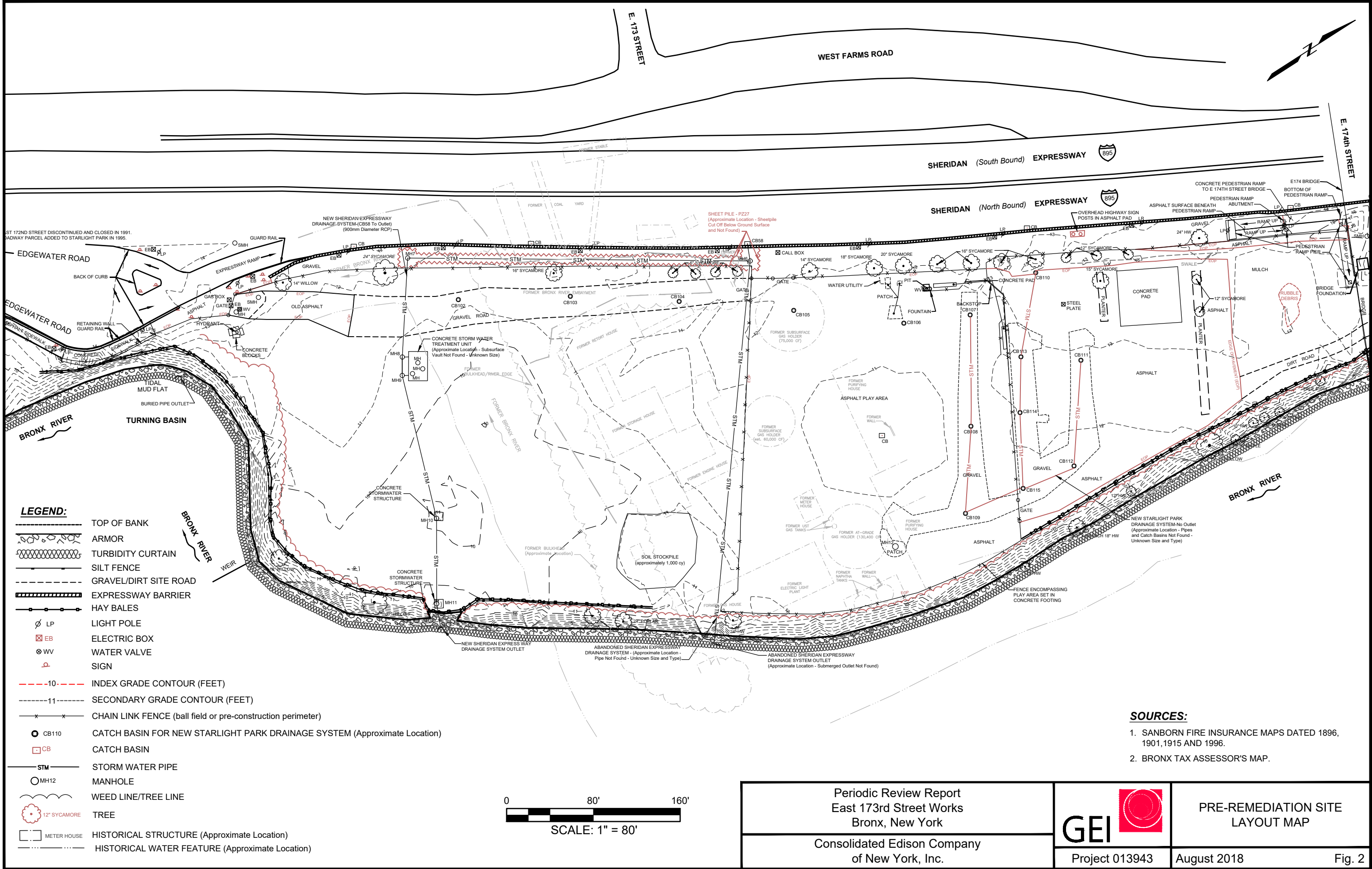
Project 013943

SITE LOCATION MAP

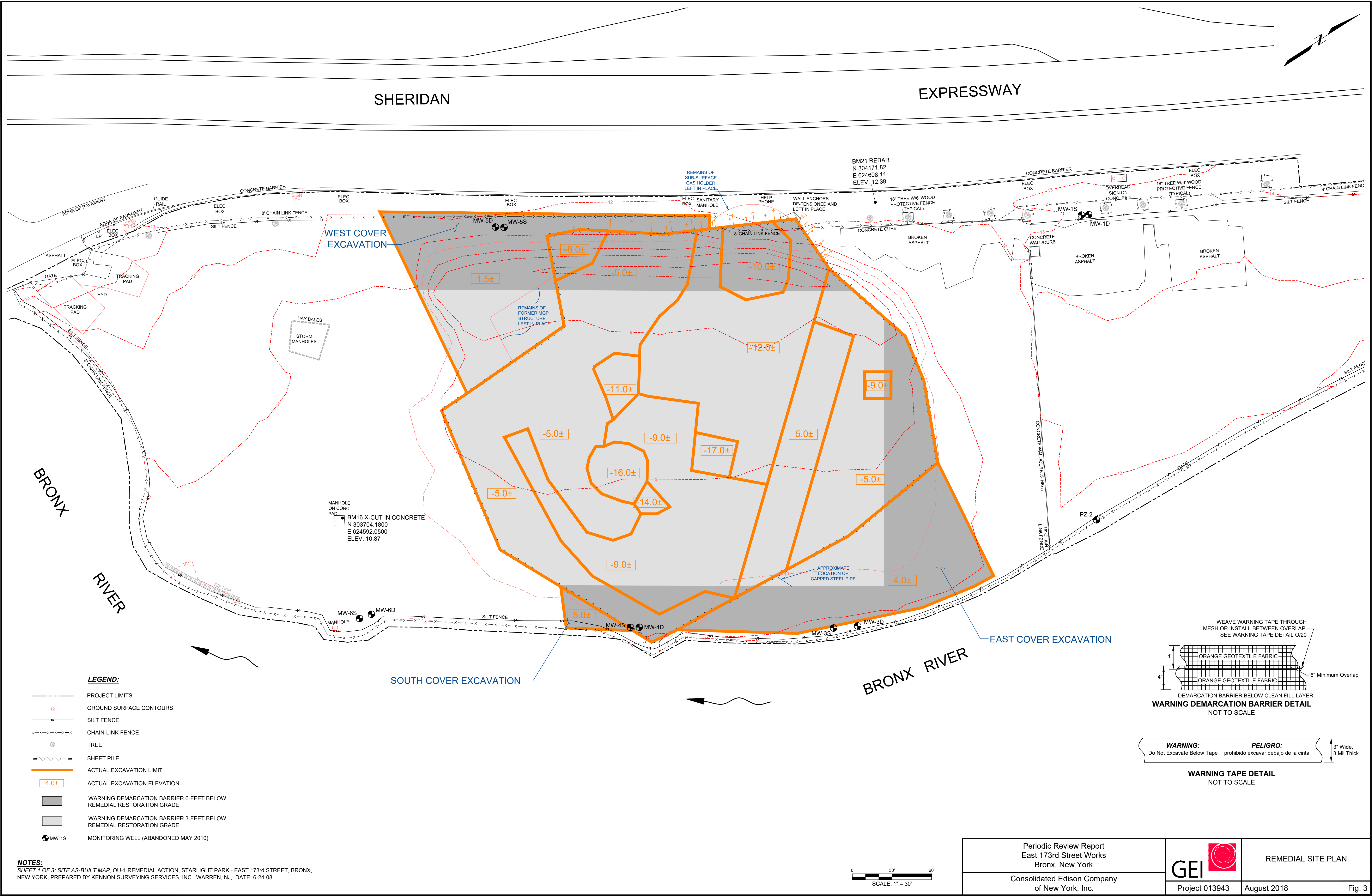
August 2018

Fig. 1

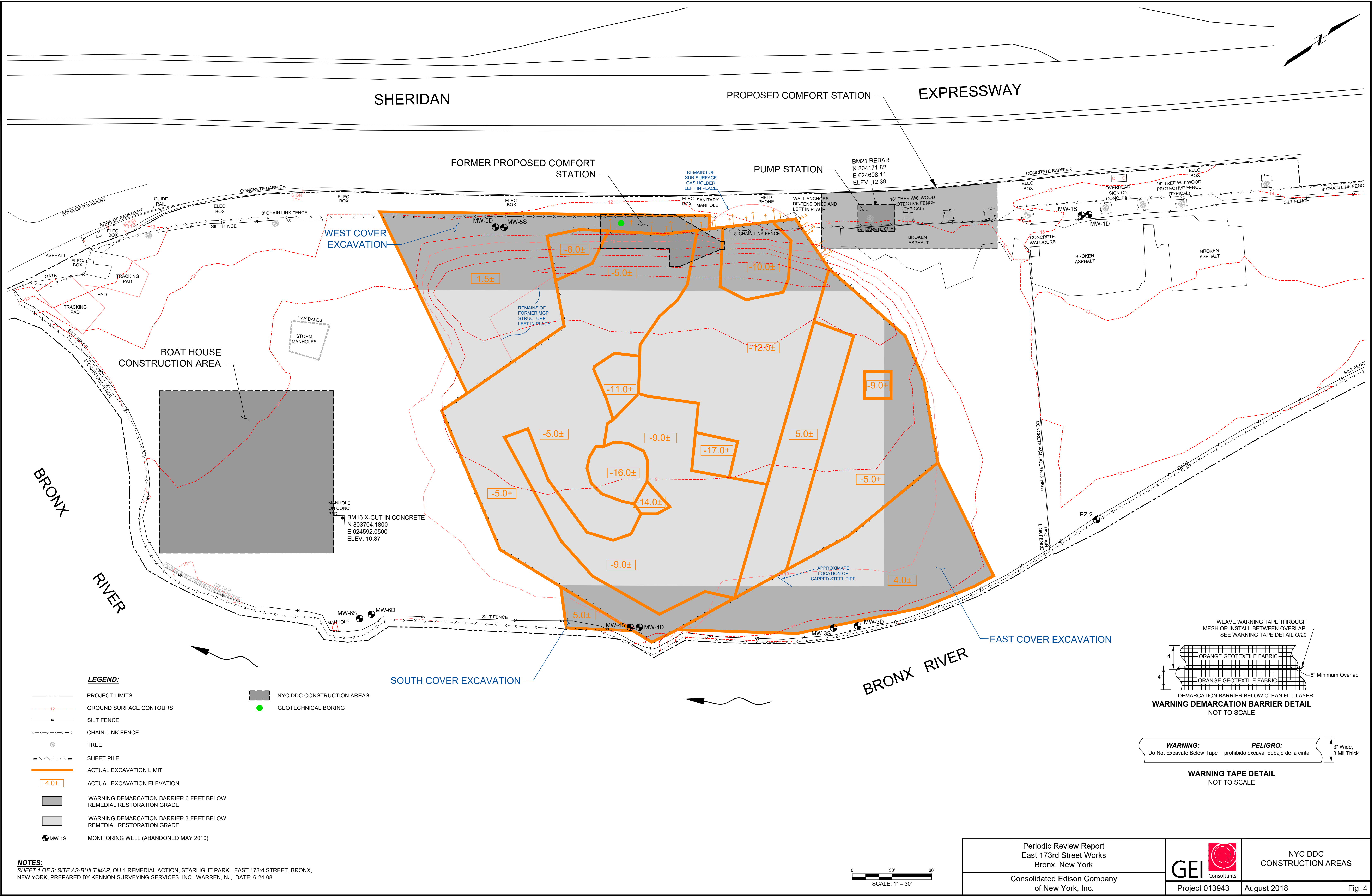












## **Appendix A**

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### **Photo Documentation**



Appendix A  
Photo Documentation  
East 173<sup>rd</sup> Street Works Former MGP Site (Starlight Park)



**PHOTOGRAPH 1**  
August 2017 Site Conditions



**PHOTOGRAPH 2**  
August 2017 Site Conditions



Appendix A  
Photo Documentation  
East 173<sup>rd</sup> Street Works Former MGP Site (Starlight Park)



**PHOTOGRAPH 3**  
August 2017 Site Conditions



**PHOTOGRAPH 4**  
August 2017 Site Conditions



Appendix A  
Photo Documentation  
East 173<sup>rd</sup> Street Works Former MGP Site (Starlight Park)



**PHOTOGRAPH 5**  
August 2018 Site Conditions



**PHOTOGRAPH 6**  
August 2018 Site Conditions



Appendix A  
Photo Documentation  
East 173<sup>rd</sup> Street Works Former MGP Site (Starlight Park)



**PHOTOGRAPH 7**  
August 2018 Site Conditions



**PHOTOGRAPH 8**  
August 2018 Site Conditions

## **Appendix B**

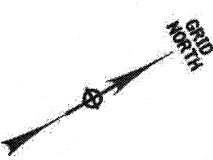
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### **NYSDOT Construction Drawings**



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DESIGNED BY = G. ZILINSKA  
CHECKED BY = B. NEMIROVSKY  
ESTIMATED BY = A. BASS  
DRAFTED BY = G. ZILINSKA  
CHECKED BY = B. NEMIROVSKY  
+ +

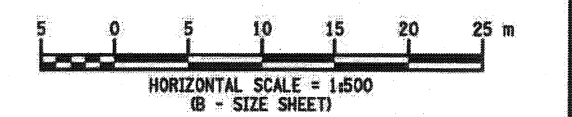
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BRONX COUNTY				
BRONX RIVER GREENWAY				
WESTCHESTER AVENUE TO EAST TREMONT AVENUE				



REFERENCES	DWG
1. EXISTING CONDITIONS PLANS	EXP-10
2. HORIZONTAL ALIGNMENT PLANS	HAP-5, 6
3. VERTICAL ALIGNMENT DRAWINGS	PRO-04A, 05, 06A
4. LIGHTING PLANS	LTP-10
5. PLANTING & PLANT CARE PLANS	LAP-10
6. ROW ACQUISITION PLANS	RWP-10
7. UTILITY PLANS	UTP-10
8. CONTRACT & WORK LIMIT	KEY-1
9. LANDSCAPE AREA 8	LA-08M
10. LANDSCAPE AREA 7	LA-07M

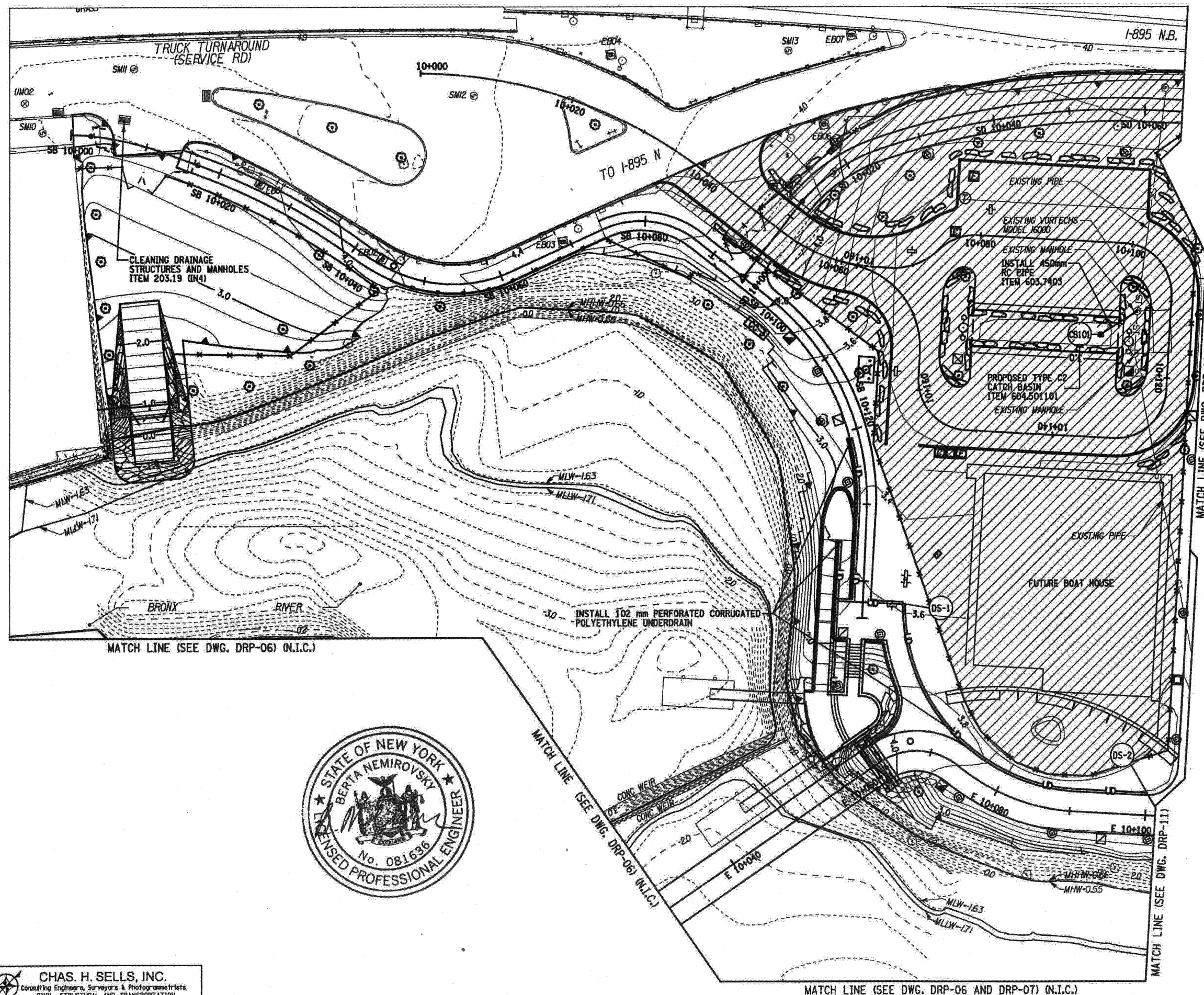
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	STORM/EDGE DRAIN SEWER LINE
	DRAINAGE STRUCTURE AND ASSOCIATED PIPE RUN (REFER TO DRAINAGE TABLES FOR PAYMENT ITEMS AND QUANTITIES.)
	NOT IN CONTRACT TO BE CONSTRUCTED BY NEW YORK CITY DEPARTMENT OF PARK AND RECREATION

NOTE:  
1. SEE DWG. DRT-01 FOR PAYMENT ITEMS ASSOCIATED WITH THE INSTALLATION OF UNDERDRAIN PIPES ADJACENT TO RETAINING WALLS.



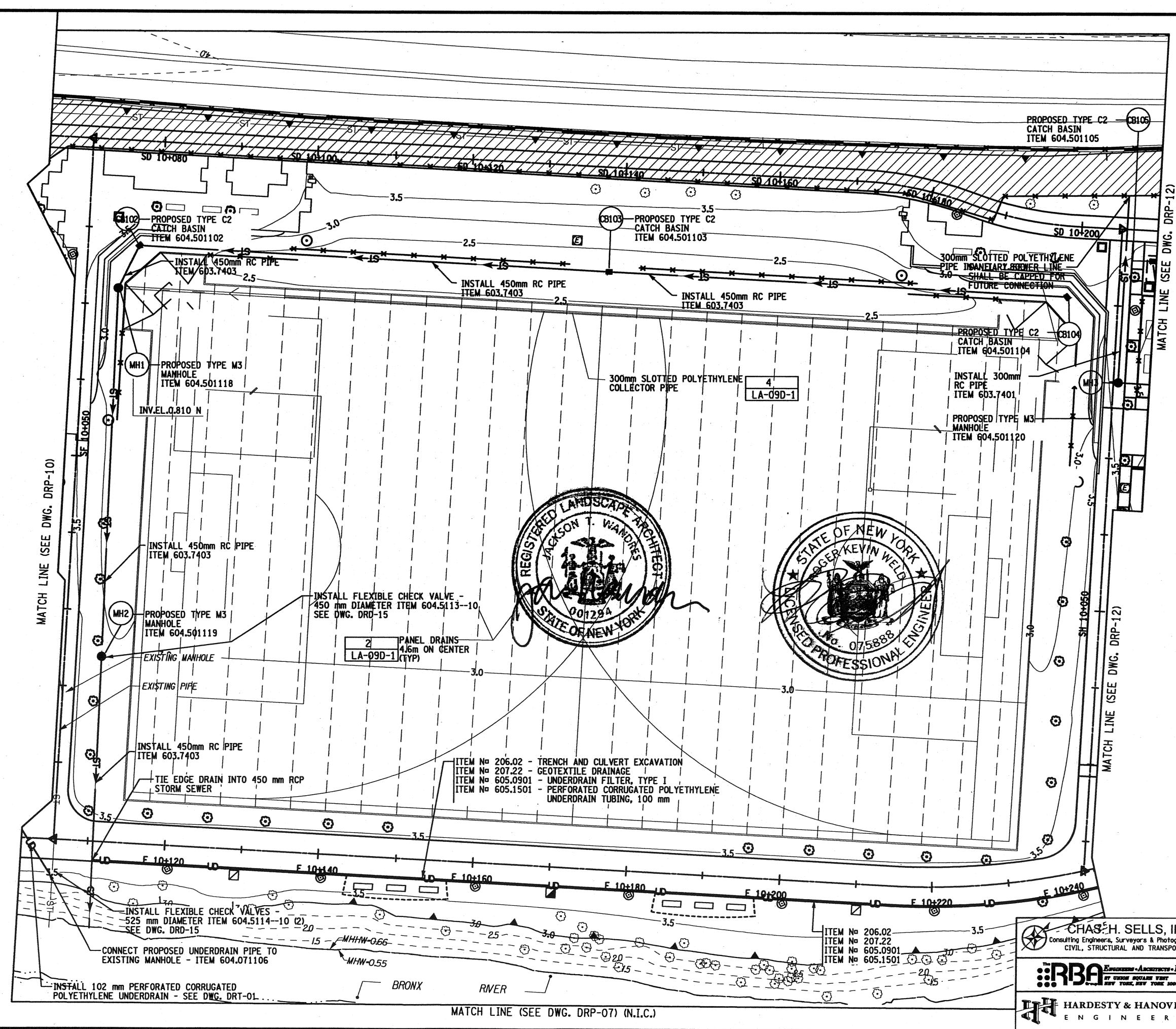
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AS BUILT REVISIONS

SIGNATURE	DATE
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STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION	
REGION 11	DRAWING NO. DRP-10

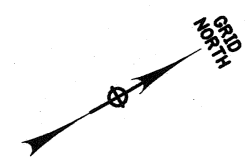


CHAS. H. SELLS, INC.  
Consulting Engineers, Surveyors & Photogrammetrists  
CIVIL, STRUCTURAL AND TRANSPORTATION

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BRONX COUNTY				
BRONX RIVER GREENWAY				
WESTCHESTER AVENUE TO EAST TREMONT AVENUE				



REFERENCES	DWG
1. EXISTING CONDITIONS PLANS	EXP-11
2. HORIZONTAL ALIGNMENT PLANS	HAP-6
3. VERTICAL ALIGNMENT DRAWINGS	PRO-04A, 04B, 06A, 06B, 07, 08
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5. PLANTING & PLANT CARE PLANS	LAP-11
6. ROW ACQUISITION PLANS	RWP-11
7. UTILITY PLANS	UTP-11
8. CONTRACT & WORK LIMIT	KEY-1
9. LANDSCAPE AREA 8	LA-08M
10. LANDSCAPE AREA 9	LA-09M
11. LANDSCAPE AREA 10	LA-10M

LEGEND:	
— UD —	UNDERAIN/EDGE DRAIN DRAINAGE LINE
— ST —	STORM/EDGE DRAIN SEWER LINE
MH1	DRAINAGE STRUCTURE AND ASSOCIATED PIPE RUN (REFER TO DRAINAGE TABLES FOR PAYMENT ITEMS AND QUANTITIES.)
[Hatched Box]	NOT IN CONTRACT TO BE CONSTRUCTED BY NEW YORK CITY DEPARTMENT OF PARK AND RECREATION

**NOTE:**  
SEE DETAILS ON LA-09D-1 FOR 300MM SLOTTED POLYETHYLENE COLLECTOR PIPE AND STRIP DRAINS. DETAILS, MATERIALS AND WORK FOR THESE SYNTHETIC TURF DRAINS PAID FOR UNDER ITEM 615.0710-39 SYNTHETIC TURF-TUFTED NYLON WITH SEWN SEAMS

5 0 5 10 15 20 25 m  
HORIZONTAL SCALE = 1:500  
(B - SIZE SHEET)

ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED AS BUILT REVISIONS		
SIGNATURE	DATE	
SURFACE DRAINAGE AND GRADING PLAN		
STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION		
REGION 11	DATE	DRAWING NO. DRP-11

CHAS. H. SELLS, INC.  
Consulting Engineers, Surveyors & Photogrammetrists  
CIVIL, STRUCTURAL AND TRANSPORTATION

**RBA** ENGINEERS-ARCHITECTS-PLANNERS  
BY UNION SQUARE WEST  
NEW YORK, NEW YORK 10006

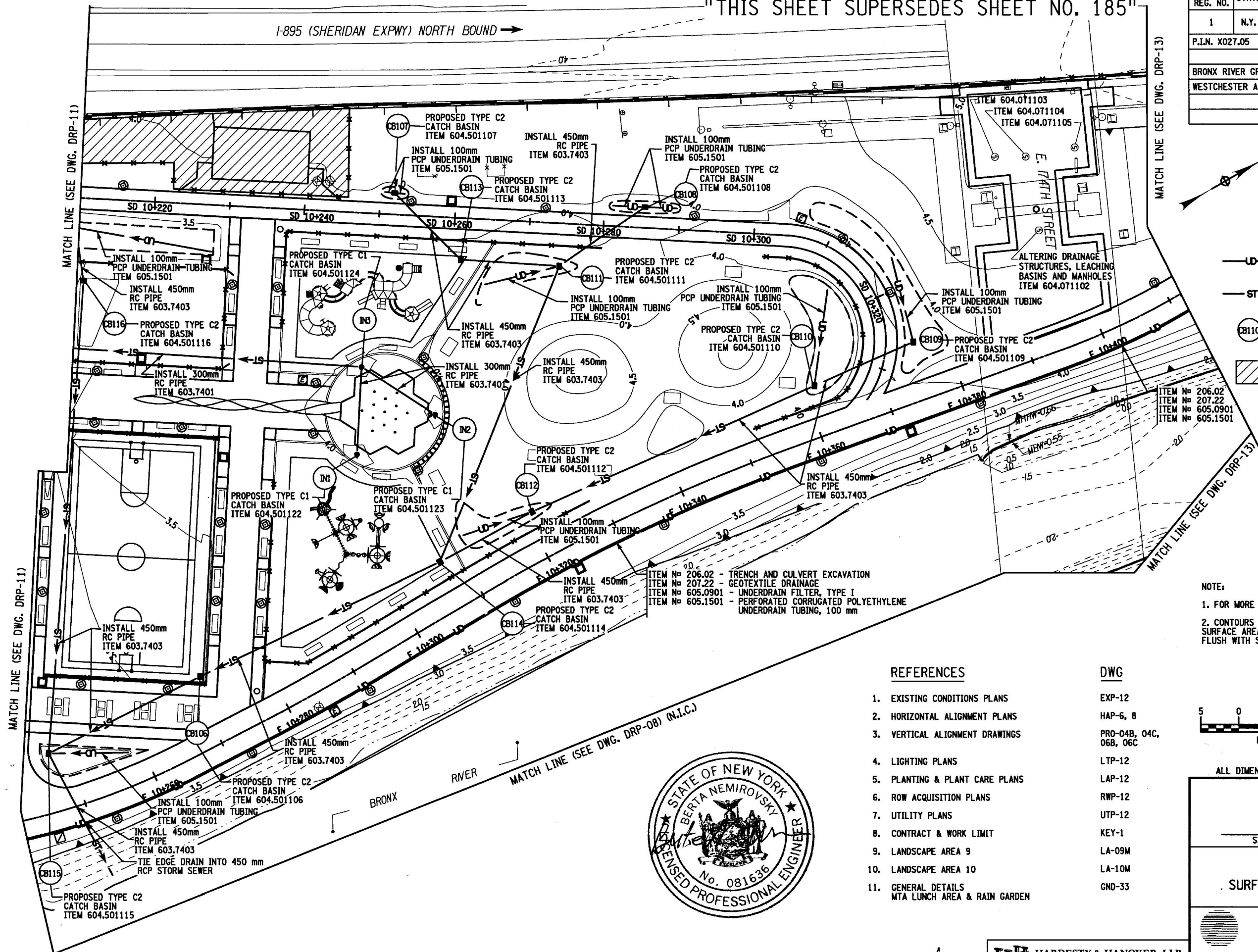
**HA** HARDESTY & HANOVER, LLP  
ENGINEERING



USER = gbagg DATE/TIME = 31-JUL-2009 08:48 DUC NAME = X02705.dgn  
DESIGN SUPERVISOR R. WELD  
JOB MANAGER J.LAU/B.NEMIROVSKY DESIGNED BY G.ZILINSKA  
CHECKED BY B.NEMIROVSKY ESTIMATED BY ABASS  
DRAFTED BY G.ZILINSKA CHECKED BY B.NEMIROVSKY

"THIS SHEET SUPERSEDES SHEET NO. 185"

FED ROAD REG. NO.	STATE	CONTRACT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	D261003	185A1	
P.I.N. X027.05		B.I.N.		
BRONX COUNTY				
BRONX RIVER GREENWAY				
WESTCHESTER AVENUE TO EAST TREMONT AVENUE				



- LEGEND:
- UD — UNDERDRAIN/EDGE DRAIN DRAINAGE LINE
  - ST — STORM/EDGE DRAIN SEWER LINE
  - CB110 DRAINAGE STRUCTURE AND ASSOCIATED PIPE RUN (REFER TO DRAINAGE TABLES FOR PAYMENT ITEMS AND QUANTITIES.)
  - ▨ NOT IN CONTRACT TO BE CONSTRUCTED BY NEW YORK CITY DEPARTMENT OF PARK AND RECREATION

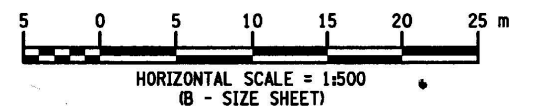
- NOTE:
- FOR MORE DETAILS SEE LANDSCAPE AREAS.
  - CONTOURS REPRESENT UNDERLYING CONCRETE OF PLAY SURFACE AREA. TOP OF PLAY SURFACE 0.1 m HIGHER AND FLUSH WITH SURROUNDING CURB.

#### REFERENCES

- EXISTING CONDITIONS PLANS
- HORIZONTAL ALIGNMENT PLANS
- VERTICAL ALIGNMENT DRAWINGS
- LIGHTING PLANS
- PLANTING & PLANT CARE PLANS
- ROW ACQUISITION PLANS
- UTILITY PLANS
- CONTRACT & WORK LIMIT
- LANDSCAPE AREA 9
- LANDSCAPE AREA 10
- GENERAL DETAILS  
MTA LUNCH AREA & RAIN GARDEN

#### DWG

- EXP-12
- HAP-6, 8
- PRO-04B, 04C, 06B, 06C
- LTP-12
- LAP-12
- RWP-12
- UTP-12
- KEY-1
- LA-09M
- LA-10M
- GND-33



ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED  
AS BUILT REVISIONS

SIGNATURE DATE

SURFACE DRAINAGE AND GRADING PLAN



STATE OF NEW YORK  
DEPARTMENT OF TRANSPORTATION

REGION 11 DATE DRAWING NO. DRP-12



83 / 103

HARDESTY & HANOVER, LLP  
ENGINEERING

## **Appendix C**

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### **Annual Inspection and Certification Checklist**

**Starlight Park**  
**Bronx, New York**  
NYSDEC VCA Index No. 02-0003-02-08  
Site No. V00522-2

**ANNUAL INSPECTION AND CERTIFICATION CHECKLIST**

**Date:** August 15, 2018  
**Inspector (Professional Engineer):** Matthew J. O'Neil, P.E.  
**Weather Conditions:** 85°F, Sunny

**Inspection (Annually)**

1. Inspection of entire clean fill cover system completed. (Including visual inspection and survey.) ☒ Yes ☐ No

Survey previously conducted by NYSDOT Contractor during Greenway Project Construction.

**Engineered Control**

2. Are there any animal burrows greater than 6 inches relative to the surrounding grade noted within the limits of the clean fill cover? ☐ Yes\* ☒ No

Describe: \_\_\_\_\_

If yes, describe location, diameter, and depth. Burrow holes shall be repaired following the cover system design criteria and using similar materials as the system in place. Certification of the repair will be made by a New York-Licensed Professional Engineer.

3. Are there any areas of settlement and/or erosion and/or unauthorized excavations or protrusions greater than 6 inches within the area of the clean fill cover system relative to the as-built surface grade of the cover? ☐ Yes\* ☒ No

Describe: \_\_\_\_\_

If yes, describe location, size, and amount of settlement. Repair engineering control deficiencies using cover system design criteria and using similar materials as the system in place. Certification of the repair will be made by a New York-Licensed Professional Engineer.

**Park-Wide Inspection**

4. Are the Park cover materials (e.g., buildings, pavement) in the area of the clean fill cover system damaged? ☐ Yes ☒ No

Describe: \_\_\_\_\_

5. Have irrigation or drinking water wells been installed in the Park? ☐ Yes\* ☒ No

Describe: \_\_\_\_\_

**Land Use Changes**

6. Is the current land use of the area within the limits of the clean cover fill system being used as a public park? ☒ Yes ☐ No

If no, describe: \_\_\_\_\_

7. If applicable, is an environmental easement on file in the Land Division of Records of the New York City Registrar's office? ☐ Applicable ☒ Not Applicable

If applicable, confirm easement and any amendments are properly recorded.

Provide the following information for the recorded easement.

Book Number: \_\_\_\_\_

Page Number: \_\_\_\_\_

Date easement was filed in Registrar's office: \_\_\_\_\_

- Have any amendments and/or additional filings been recorded that may modify or supersede the easement? ☐ Yes ☐ No

If yes, explain: \_\_\_\_\_

**Authorized Excavations**

8. Where any authorized excavations conducted at the site during the last year? ☐ Yes ☒ No

Provide a brief description of the authorized excavation to include the specific location and date of the work as well as the authorized work plan or notification date.

**Corrective Actions**

Description and scheduled date of any required corrective action (animal burrow repair, erosion repair, settlement repair, unauthorized excavation repair).

\*For items that are checked, notify Consolidated Edison of New York, Inc. within 24 hours.

Inspector's Signature: \_\_\_\_\_

Date: 8/15/2018 \_\_\_\_\_

Reviewed by: \_\_\_\_\_

Date: 8/16/2018 \_\_\_\_\_

Submit Inspection Reports to:

Site Plan Attached

Consolidated Edison of New York, Inc.  
Mr. Richard Rienzo, P.E.  
31-01 20<sup>th</sup> Avenue/Building 136, 2<sup>nd</sup> Floor  
Long Island City, New York 11105-2048

## Appendix D

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### Institutional and Engineering Controls Certification Form



Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



Site Details		Box 1	
Site No.	V00552		
Site Name CE - E. 173rd St. - Bronx Works			
Site Address: West Farms Rd. & Bronx River    Zip Code: 10460			
City/Town: Bronx			
County: Bronx			
Site Acreage: 10.0			
Reporting Period: August 16, 2017 to August 16, 2018			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.			
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b>			
5.	Is the site currently undergoing development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/>
Signature of Owner, Remedial Party or Designated Representative	Date



**Description of Institutional Controls**ParcelOwnerInstitutional Control

30190100

NYC Dept. of Parks and Recreation

Soil Management Plan

Site Management Plan

Land use restriction to restricted residential, specifically a park, unless approved by the Department. Groundwater use restriction unless approved by the Department. Maintenance of a three and six foot deep clean soil cover with a soil management plan if excavation is required underneath that. Soil vapor intrusion study and soil vapor mitigation if necessary, when buildings are constructed on the site. Annual certification with reporting of site activities.

All site management and land and groundwater use restrictions are enforced via an MOU between the property owner (NYC Dept. of Parks and Recreation) and the responsible party (Con Edison). This control was in considered in place when the Department approved the Site Management Plan which included the MOU.

**Description of Engineering Controls**ParcelEngineering Control

30190100

Cover System

### Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

**X**

☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

**X**

☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

IC CERTIFICATIONS  
SITE NO. V00552

Box 6


**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Richard Rienzo at 31-01 20<sup>th</sup> Ave, Astoria NY 11105  
print name print business address

am certifying as Consolidated Edison Co. of NY (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

8/15/18  
Date

IC/EC CERTIFICATIONS


Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Matthew J. O'Neil, P.E. at 5586 Post Road, East Greenwich, RI 02818  
print name print business address

am certifying as a Professional Engineer for the Remedial Party

  
Signature of Professional Engineer, for the Owner or  
Remedial Party, Rendering Certification



8/15/18  
Date