Former ACME Steel Partition Company
KINGS COUNTY
BROOKLYN, NEW YORK

CONSTRUCTION COMPLETION REPORT

NYSDEC Site Number: 224192

Prepared for:

New York State Department of Transportation
47-40 21st Street
Long Island City, NY 11101

Prepared by:

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Revisions to Final Approved Construction Completion Report:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

JANUARY 2022

CERTIFICATION STATEMENT

I, James Peronto, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Interim Remedial Measures Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Interim Remedial Measures Work Plan.

I certify that the data submitted to the Department with this Construction Completion Report demonstrates that the remediation requirements set forth in the Interim Remedial Measures Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established for the remedy.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the Site are contained in an environmental notice created and recorded with the Office of the City Register of the City of New York, (ID No 2019040100503001).

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site and that such plan has been approved by the Department.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all information and statements in this certification form 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, James Peronto, of TRC Engineers, Inc., am certifying as Owner’s Designated Site Representative for the site.

NYS Professional Engineer #83861	01/27/2022 Date	Signature

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

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List of Acronyms

BGS	Below Ground Surface
BUD	Beneficial Use Determination
CAMP	Community Air Monitoring Plan
CMP	Contaminant Management Plan
DER	Division of Environmental Remediation
DWR	Daily Work Report
ECL	Environmental Conservation Law
EPM	Environmental Planning and Management
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCV	Hampton Clarke Veritech
IRM	Interim Remedial Measures
NYCRR	New York Code, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
QAPP	Quality Assurance Project Plan
SCO	Soil Cleanup Objective
SKE	Skanska Kiewitt ECCO
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SWPPP	Stormwater Pollution Prevention Plan
SVOC	Semivolatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
UST	Underground Storage Tank
VOC	Volatile Organic Compound

1. Background and Site Description

The New York State Department of Transportation (NYSDOT) entered into an Order on Consent Index No. R2-0827-14-05 with the New York State Department of Environmental Conservation (NYSDEC) in July 2014, to investigate and remediate the property known as the Former ACME Steel Partition Company site (hereafter referred to as the "Site") located at 513 Porter Avenue in Brooklyn, New York (see Figure 1). The Site is an approximate 40,000 square foot or 0.92-acre property. The property was remediated to Restricted Residential Use and will be used for a public park owned by the City of New York and operated by the New York City Department of Parks and Recreation and named the Sgt. William Dougherty Park. In addition, the northern-most portion of the Site was redeveloped by NYSDOT under the Kosciuszko Bridge Reconstruction Project (hereafter referred to as the K Bridge) and is occupied by parts of Cherry Street and the Brooklyn Queens Expressway.

The Site is located in the County of Kings, New York and is identified as Block 2811 and Lot 14 on the City of New York Tax Map # 128-C. The Site is situated on an approximately 0.92-acre area bounded by the Brooklyn Queens Expressway to the north, Anthony Street to the south, Porter Avenue to the east, and the remaining portion of the park and Vandervoort Avenue to the west. A figure showing the original Site layout prior to the reconstruction of the block and park is provided as Figure 2. The block on which the original ACME Site was located was reconstructed as part of the K Bridge Reconstruction Project. The block reconstruction resulted in the original Site area being split into three parcels that include what is now a new park area (Parcel 46), a portion of the park and a new realigned Cherry Street to the north (Parcel 47), and a new retaining wall and entrance ramp to the new Kosciuszko Bridge (Parcel 48). The Site area located within the limits of the park and subject to the environmental notice is shown on the as-built site survey plan on Figure 3. The boundaries of the Site and associated parcels are depicted on maps of the block and are more fully described in the metes and bounds site description that is part of the NYSDOT Acquisition Maps for the Site and the survey map provided in Appendix A. Also attached is Figure 4 created from one of the acquisition maps, which depicts the original Site lot limits (513 Porter Avenue) and shows the three parcels that make up the Site lot.

An electronic copy of this Construction Completion Report (CCR) with all supporting documentation is included as Appendix B.

2. Summary of Site Remedy

2.1. Remedial Action Objectives

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this Site.

2.1.1. Soil RAOs

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.

2.2. Description of Selected Remedy

The Site was remediated in accordance with the remedy selected by the NYSDEC in the Interim Remedial Measures Work Plan dated November 2014.

The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

1. Excavation and removal of soil/fill exceeding toxicity characteristic leaching procedure (TCLP) lead toxicity hazardous waste characteristic level of 5 mg/kg (per 40 CFR Part 261 and 6 NYCRR Part) or greater from boring locations B4-E and S-4 which included soil from a 0- to 5-foot distance around each location and from a depth between grade and 5 feet below ground surface (bgs) at each location;
2. Installation of a physical demarcation layer, consisting of orange plastic safety/snow fencing material on the top elevation of remaining residual contaminated soils across the entire Site to provide a visual reference/warning of the bottom depth of the clean cover for any future subsurface soil excavation activities on the Site;
3. Construction and maintenance of an engineered composite cover system consisting of either asphalt or concrete pavement/pavers or a minimum of two feet of environmentally clean fill in open landscaped areas with soil that meets NYSDEC Restricted Residential Use soil cleanup objectives (SCOs (6 NYCRR Part 375-6.8(b)) listed in Table 1 to prevent human exposure to contaminated soil/fill remaining at the Site;
4. Execution and filing of an Environmental Notice to restrict land use and prevent future exposure to any contamination remaining at the Site.
5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;
6. Periodic certification of the institutional and engineering controls listed above.

3. Interim Remedial Measures, Operable Units AND Remedial Contracts

The remedy for this Site was performed as a single project, and no other interim remedial measures, operable units or separate construction contracts were performed.

4. Description of Remedial Actions Performed

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved Interim Remedial Measures (IRM) Work Plan for the Former ACME Steel Partition Co. Site (November, 2014). All deviations from the IRM Work Plan are noted below.

4.1. Governing Documents

4.1.1. Site Specific Health & Safety Plan (HASP)

A site-specific Health and Safety Plan (HASP) prepared by TRC and dated September 2014 was included as Appendix B of the IRM Work Plan approved by NYSDEC.

The design/build contractor Skanska/Kiewitt/ECCO (SKE) prepared a Health and Safety Program Plan for their work on the project Site associated with the K Bridge Phase 1 Redevelopment Project.

DeFoe prepared a site-specific Health and Safety Plan (HASP) dated July 2017 for the park construction activities that addressed protection of site workers during the management of existing potentially contaminated site soils during their work.

Each of the above contractors that prepared HASPs were responsible for ensuring that the HASP was complied with for all of the remedial and invasive work that they performed at the Site.

4.1.2. Quality Assurance Project Plan (QAPP)

The site-specific QAPP prepared by TRC and dated September 2014 was included as Appendix C of the IRM Work Plan approved by the NYSDEC. The QAPP describes the specific objectives, organization, functional activities and quality assurance/ quality control procedures associated with the field investigation activities that are designed to achieve the project data quality objectives.

4.1.3. Contaminated Material Handling Plan (CMHP)

For the site work associated with the K Bridge project, a Contaminant Management Plan (CMP) was initially prepared for NYSDOT for the K Bridge Project by Environmental Planning and Management (EPM) Inc. and dated August 2012 and was last revised by TRC and dated December 2014. The CMP was prepared for construction work activities that disturb soil, groundwater, aboveground and underground tanks, drums, and other containers of hazardous materials encountered during the course of construction on the Site.

For the Site work associated with the park construction activities, a Contaminated Material Handling Plan (CMHP) dated July 2017 was prepared by PT Consultants Inc. for DeFoe Corporation. The CMHP described the procedures to be followed for the handling and segregation of contaminated soils, soil storage/stockpiling, and heavy equipment decontamination.

4.1.4. Stormwater Pollution Prevention Plan (SWPPP)

For the site work associated with the K Bridge project, a Stormwater Pollution Prevention Plan (SWPPP) dated May 2013 was prepared for NYSDOT for the K Bridge Project by Hardesty & Hanover, LLP. The SWPPP was prepared in accordance with the State Pollutant Discharge Elimination System (SPDES) General Permit, the New York Standards and Specifications for Erosion and Sediment Control, and the August 2010 New York State Stormwater Management Design Manual. Prior to and throughout construction, the Erosion and Sediment Control Plan drawings included with the SWPPP were updated by SKE as needed.

SKE was responsible for ensuring that the erosion and sediment controls for the Site construction activities performed by SKE as part of the K Bridge project were performed in conformance with requirements presented in the New York State Standards and Specifications for Erosion and Sediment Control and the site-specific Stormwater Pollution Prevention Plan (SWPPP) dated May 2013.

4.1.5. Community Air Monitoring Plan (CAMP)

A site-specific Community Air Monitoring Plan (CAMP) prepared by TRC was included as Appendix D of the IRM Work Plan approved by NYSDEC. The CAMP required real-time dust monitoring at the downwind perimeter of the Site during ground disturbance activities that impacted existing soils/fill below the demarcation layer.

4.2. Remedial Program Elements

4.2.1. Contractors and Consultants

The following provides a listing of contractors and consultants that provided services for work performed on the Site and their associated tasks:

- Skanska/Kiewitt/ECO III (SKE) Joint Venture performed the Site construction activities associated with the K Bridge project including the demolition of the on-site building, the construction of the road features for Cherry Street and the BQE, the installation of chain-link fencing around the park Site area perimeter, excavation and removal of the two hazardous lead-contaminated soil locations on the Site, and the placement of the orange demarcation layer over the park Site area prior to the placement of a minimum of 2-foot thick layer of gravel across the park Site area to temporarily cover and stabilize the Site prior to the start of the park construction,
- HNTB Corporation was the lead designer for the K Bridge project and worked closely with SKE as the Design/Build team for the project,
- Wang Technology (Wang) under contract to SKE performed noise, dust, and geotechnical (seismograph) monitoring during the K Bridge project,
- Jersey Boring and Drilling Co., Inc., under contract to SKE decommissioned previously existing groundwater monitoring wells on the Site.
- LiRo Engineers (LiRo) under contract to SKE was responsible for Quality Control construction inspection and served as the Resident Engineer and qualified inspector for stormwater inspections during the K Bridge construction activities associated with the Site,
- STV Inc. under contract to NYSDOT was responsible for construction management and quality assurance during construction of the K Bridge project and provided an Oversight Environmental Compliance Monitor (OECM) to verify compliance with the project environmental requirements,
- WSP USA, formerly WSP | Parsons Brinckerhoff was the Owners Engineer for K Bridge Phase 1 project,
- Environmental Planning & Management, Inc. (EPM) under contract to NYSDOT provided environmental consulting support to NYSDOT during the K Bridge project,
- DeFoe Corporation was the contractor responsible for the park construction that included the final cover construction for the park portion of the Site,
- PT Consultants, Inc under contract to DeFoe provided waste management consulting services to DeFoe during the park construction activities,
- TRC Engineers, Inc. (TRC) provided environmental consulting support under contract to SKE during the K Bridge Phase 1 construction and during the park construction continued to provide environmental support for the implementation of Site remedial measures directly to NYSDOT under a term contract with NYSDOT, and
- Hampton Clarke Veritech (HCV) Laboratories, Inc. (HCV) under contract to SKE performed laboratory chemical analysis of Site samples.

The certifying Engineer of Record responsible for documenting compliance with the IRM Work Plan:

- TRC, James Peronto, P.E.

4.2.2. Site Preparation

The following provides an overview of the general timeline for some of the site preparation activities:

- Mobilization: May 2014 - Establish construction office trailers off site for the K Bridge project.
- Erosion and Sediment Controls: June 2015 - Silt fence and stabilized site construction entrance.
- Chain-Link Fence Install: June 2015.

A pre-construction meeting for the K Bridge Project was held with representatives of NYSDOT and all major site contractors on June 4, 2014 at the NYSDOT Region 11 office in Queens, New York.

On June 18, 2014, a project meeting to discuss environmental aspects of the K Bridge Project was held with SKE, NYSDOT, and NYSDEC representatives at NYSDOT's Region 11 office in Long Island City, Queens.

On February 6, 2017, a meeting was held to discuss the IRM requirements of the Sgt. William Dougherty Park project with NYSDOT, NYSDEC, SKE, and TRC at NYSDOT's Region 11 office in Long Island City, Queens. The various park cover types, thicknesses, and locations were presented on park design drawings. In addition, the interim capping plan and requirements for the park Site area during the transition time from SKE's K Bridge site work to DeFoe's park construction work were discussed.

On April 5, 2017, a project kickoff meeting to discuss the environmental aspects of the Sgt. William Dougherty Park project was held with NYSDOT, TRC, and DeFoe (park construction contractor) at NYSDOT's Region 11 office. Issues and IRM work plan requirements discussed included the contractor's responsibilities associated with excavation activities below the on-site demarcation layer (e.g., dust controls, erosion controls, security, employee OSHA training and medical monitoring, equipment decontamination), on-site contaminated soil management, off-site contaminated soil management, clean imported backfill and cover criteria, and as-built drawings and property survey. In addition, TRC's responsibilities associated with the project were discussed including documentation review and collection (e.g., waste transporter and disposal facility documentation, proposed clean backfill/cover documentation, as-built drawings, waste transport and disposal records), construction oversight/monitoring during work below the demarcation layer, and reporting (e.g., monthly progress reports, final report).

On June 2, 2017, a kickoff meeting was held at the park Site with NYSDOT, TRC, and DeFoe and their subconsultants PT Consulting (environmental) and Pro Safety (safety). Issues discussed included the project requirements for site-specific contractor HASP and OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) training and medical monitoring requirements for site workers (29CFR 1910.120), CAMP dust control measures and monitoring, soil stockpiling/covering, as-built surveys (demarcation layer, final cover), imported clean soil, offsite soil disposal, and cover/demarcation layer.

4.2.3. General Site Controls

During construction, the Site was provided with a chain-link fence that extended along the entire perimeter of the block. Locking gates for the fence were provided at the northeast corner of the site at the intersection of Cherry Street and Porter Avenue and off Anthony Street.

Erosion and sedimentation controls established for the Site include perimeter silt fencing with some supplemental hay bales at several locations and a gravel-covered stabilized construction entrance at the gated Site entrance.

4.2.4. Nuisance Controls

The stabilized construction entrance was maintained by regrading and redressing with stone as needed for continued effectiveness.

Construction trucks and heavy equipment leaving the work Site were broom swept at the entrance prior to leaving the Site to remove visible loose soil adhered to the undercarriage or tires. The Contractors swept the sidewalk and roadway at the Site construction entrance of soil tracked from the work Site by construction vehicles or heavy equipment.

For the K Bridge project, a water spreader truck was used as needed on-site and on the stabilized site entrance to control dust. During the K Bridge construction project, a wet vacuum street sweeper truck was also used as needed on adjacent public roadways to control dust and clean up tracked soil.

A water hose hooked to a nearby fire hydrant was used during the park construction to spray the exposed soil ground surface and stabilized entrance to control dust from the Site.

4.2.5. CAMP Results

The CAMP network for the K Bridge Project included one permanent stationary particulate and volatile organic compound (VOC) monitoring station (AM-01) located just east of the ACME Site near the intersection of Meeker Avenue and Van Dam Street between the Site and the nearest residences. The AM-01 stationary monitoring equipment was equipped with telemetry that automatically notified both SKE, LiRo, and NYSDOT personnel 24 hours per day of action level alarm exceedances with email alerts. Upon receipt of these exceedance alerts during working hours, SKE assessed the source and instituted appropriate corrective measures, as necessary. Most particulate and VOC action level exceedances at this monitor were due to either high humidity or precipitation, which adversely impacted the filters and required filter replacement and recalibration. In addition, several exceedances at station AM-01 at the busy traffic intersection occurred when SKE was not working and were believed to be due to adjacent roadway traffic (e.g., air brakes). There were no particulate or VOC exceedances at this station that were reported to be related to construction activities on the ACME Site.

During the park construction activities by DeFoe, TRC conducted dust and VOC monitoring during Site excavation activities below the demarcation layer (i.e., into the underlying existing Site soils). Dust monitoring was conducted by TRC with dust monitoring stations at the Site perimeter at locations upwind and downwind of the excavation work. Preset audible alarms notified Site personnel of any dust criteria exceedances and the immediate need for dust controls. TRC also monitored for the presence of any visible dust. In addition, TRC conducted VOC monitoring of the air adjacent to and downwind of excavations with a hand-held portable organic vapor monitor (equipped with a photo ionization detector (PID)). Any exceedances of air monitoring criteria are documented in the TRC Daily Reports included in Appendix C. Generally, the only dust criteria exceedances occurred during hot dry periods at the construction entrance due to truck traffic and water sprayed from a hydrant hose was used to suppress this dust.

4.2.6. Reporting

The following reports were prepared for the Site construction activities:

- LiRo prepared Daily Work Reports (DWRs) to document their oversight of SKE construction activities on the K Bridge Project including any related Site work. Copies of the DWRs provided by NYDOT to TRC for construction activities associated with lead soil hot spot removal, the new Cherry Street portion that cross the Site, and the UST removals on the Site are provided in Appendix C. In addition, various construction progress photos along with a construction photo log prepared from photos provided by NYSDOT is provided in Appendix C.
- TRC prepared Daily Field Activity Reports for the days that TRC was on-site to document the monitoring activities performed by TRC for Site construction activities that occurred below the demarcation layer (i.e., the buried orange-colored plastic safety fencing material). The daily reports include an annotated design drawing that shows the locations where the demarcation layer was penetrated and restored by the contractor in TRC's presence. At the completion of TRC's monitoring, TRC prepared a composite annotated design drawing that shows all of the locations where the demarcation layer was penetrated in TRC's presence. A copy of this composite annotated drawing is provided in Appendix C. Photo Logs with Site photos taken by TRC on these days accompany the reports. Copies of the reports are provided in Appendix C.
- TRC prepared Monthly Progress Reports for the project for submittal to NYSDEC. The monthly reports summarize the remedial measure activities conducted at the Site during the month. Copies of these reports are provided in Appendix C.

Copies of all daily and monthly reports with associated photos are included in electronic format in Appendix C.

4.3. Contaminated Materials Removal

4.3.1. Soil Disposal

Hazardous Lead Soil Hot Spots

In accordance with the IRM Work Plan, elevated lead levels were removed from two "hot spot" soil boring locations (B4-E and S-4) identified on the Site during environmental site investigations completed by NYSDOT in preparation for the K Bridge project. The two boring locations are shown on Figure 2 from the supplemental site investigation report presented in Appendix D. Soil at the two locations was found to have elevated lead concentrations exceeding the toxicity characteristic leaching procedure (TCLP) lead toxicity hazardous waste characteristic level of 5 mg/kg (per 40 CFR Part 261 and 6 NYCRR Part 371) thereby characterizing the soil as hazardous waste for transport and disposal. As a result, soil at each location was excavated by SKE under TRC oversight from a distance out to 5 feet around each location (i.e., 10 foot by 10 foot square area) and down to a 5-foot depth below grade.

On February 13, 2015, a total of 73.04 tons of soil was excavated from the two TCLP lead "hot spot" boring locations, loaded directly into dump trucks, and transported off site by J&D Trucking Inc., 3526 NW Boulevard, Vineland, New Jersey for disposal at the following facility:

Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032

Copies of the waste transporter permits/licenses, waste disposal facility permit, completed disposal facility waste application/profile, facility approval, and completed hazardous waste manifests are provided in Appendix E.

On February 13, 2015, TRC collected post removal confirmation soil samples from each sidewall and bottom of the two soil excavations for TCLP lead testing to verify a complete removal of the TCLP lead hazardous soils. The confirmation soil sample TCLP lead data is summarized in Table 2. The attached Figure 5 shows the locations of these two hot-spot soil removals and associated confirmation soil samples. As shown on Figure 5, removal location S-4 is in the Former ACME Steel site area located outside of the Sgt. Dougherty Park area. The post removal confirmation soil sample data indicated low (less than 1 ppm) to nondetectable TCLP lead levels with no exceedances of the 5 ppm TCLP lead hazardous waste criterion. As a result, the lead hazardous soil hot-spot removal was deemed complete. A layer of orange plastic safety fencing was placed across the bottom of each excavation as a visible demarcation layer between the clean backfill and underlying soils. The excavations were backfilled with clean sand from 110 Sand Company of Melville, New York. Copies of the field notes and confirmation soil sample laboratory data report are provided with the lead-contaminated soil disposal documentation in Appendix E.

Park Construction Soils

During the construction of the Sgt. William Dougherty Park, soils were excavated from the Site for installation of buried utilities and the construction of foundations. Soils that were excavated from below the orange safety fence demarcation layer installed across the site (below the interim gravel cover), were stockpiled on the Site for proper offsite disposal. The two soil disposal facilities used by the park construction contractor, DeFoe, for the Site soils were the following:

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
732-541-8909

Bayshore Soil Management, LLC
75 Crows Mill Road, PO Box 290
Keasbey, NJ 08832
732-738-6000

Prior to the offsite transport and disposal of the soil at either facility, TRC prepared and sent notification letters to both Clean Earth and Bayshore that included available Site soil contaminant documentation and informed the facilities that the soil is being generated from a site that is being remediated under a Consent Order between NYSDOT and NYSDEC. Copies of these two disposal facility notification letters are provided in Appendix E.

Based on the TRC notification letter, Clean Earth issued a pre-approval letter for the soil dated August 4, 2017. In addition, PT Consultants, Inc., under contract to DeFoe Corp., completed and submitted a waste material profile sheet to Clean Earth for the non-hazardous soil. With the material profile, PT Consulting provided Clean Earth a copy of a Waste Characterization Letter Report prepared by PT Consulting and dated July 27, 2017 that included the results of the soil sample waste characterization test results for a soil stockpile at the Site. Based on the completed material profile and soil waste characterization result letter, Clean Earth issued an acceptance letter dated August 3, 2017 for the non-hazardous soil. Copies of this documentation for the Clean Earth approval is provided in Appendix E.

In response to the TRC notification letter, Bayshore Soil Management (Bayshore) issued a letter dated July 5, 2017 that indicated their acceptance of the non-hazardous soil contingent upon additional waste characterization data. PT Consultants completed and submitted a generator waste profile along with the Waste Characterization Letter Report with the soil stockpile sample test data. In response to that submittal, Bayshore issued an acceptance letter dated August 3, 2017 for the non-hazardous soil which is provided in Appendix E.

During the period from August 4, 2017 to December 18, 2017, non-hazardous soils were excavated from the park construction activities on the Site and transported offsite for disposal. A total of 432.92 tons of non-hazardous contaminated soil were disposed of at the Bayshore facility and 1,686.95 tons were disposed of at the Clean Earth Carteret facility. These site soil disposal quantities are summarized in Table 3. Copies of the non-hazardous waste manifests along with logs summarizing the manifests and associated daily truck loads are provided in Appendix E.

4.3.2. On-Site Soil Reuse

During the Phase 1 construction of the K Bridge, soils were excavated by SKE from the Site during the realignment of the adjacent Cherry Street and for associated utilities along Cherry Street. The estimated quantity of these soils is approximately 5,000 cubic yards. Those soils were reused within the limits of the K Bridge project in accordance with the project-specific NYSDEC beneficial use determination (BUD) approved dated September 18, 2014 for the K Bridge project. This BUD allowed the on-site reuse of soils generated within the limits of the K Bridge project when used below concrete or asphalt paved surfaces or at least two feet of clean soil and no reuse of grossly contaminated soils. A copy of the BUD approval letter is provided in Appendix F.

Near the completion of the Phase I K Bridge project from March 21-27, 2017, two feet of existing soils were excavated from across the ACME Site by SKE to provide for the placement of a gravel cover across the Site to stabilize the site soils to prevent the offsite transport of dust and stormwater pollutants prior to the park development. Based on the soil truckloads removed from the Site as documented in TRC's daily reports, this resulted in the removal of approximately 3,760 cubic yards of soil from the Site. The excavated soils were moved off site to a temporary K Bridge project stockpile location for reuse within the K Bridge project limits. Prior the placement of the gravel cover across the ACME Site, plastic orange safety fencing was installed across the surface as a visible demarcation layer between the clean gravel and underlying Site soils. The ¾-inch blue stone gravel was obtained by SKE from the Inwood Materials Terminal in Inwood, New York (with the original source being the Peckham Materials Corporation quarry located in Catskill, New York). The demarcation layer and gravel cover were installed by SKE from March 28-31, 2017. A final as-built grading plan drawing (Drawing No. GRD 26, Sheet No. 76) that provides the pre-cover grades (demarcation layer elevation) and post cover grades and final gravel cover topography as completed by SKE at the end of K Bridge Phase 1 is provided in Appendix J (file name = SKE Pre and Post Gravel Grades on SGT Dougherty Site Topo.pdf). Copies of TRC Daily Field Activity Reports for this activity are included in Appendix C.

During the park construction, parts of the demarcation layer installed by SKE across the Site was penetrated to allow for the construction of deeper subgrade features including the storm drainage system (piping, catch basins, manholes) and structural measures (e.g., concrete footings, concrete retaining walls, concrete planter boxes). Where the demarcation layer was penetrated, it was replaced at the bottom of the new deeper excavations. Survey location and elevation documentation for these excavations was provided by the NYSDOT. TRC developed an as-built demarcation layer location plan as Figure 6 from the original SKE drawing and NYSDOT survey documentation.

4.3.3. Underground Storage Tank Removals

On March 3, 2015, SKE discovered a 2,000-gallon steel underground storage tank (UST) in the north central portion of the former ACME Steel site while conducting site clearing/grading. The former UST location is shown on the tank closure location plan provided with the tank closure documentation in Appendix G. This former UST location is shown on Figure 7 that shows all UST removal locations from the former ACME Steel site area. As is evident from Figure 7, this former UST location is outside of the limits of the existing Sgt. Dougherty Park area. Based on records found on the online NYSDEC Bulk Storage Database, this tank (registration #2-600073 Tank ID 100) is a former oil UST that was closed in place by the ACME Steel Partition Co. in 1996. The steel tank was corroded but had no signs of leaks. Post removal soil excavation soil sampling consisting of one composite soil sample and one grab sample from the former tank location was conducted by HCV on March 6, 2015. A summary data table and HCV laboratory data report are provided with the tank closure documentation in Appendix G. The soil sample results showed low levels of metals and semivolatile organic compounds (SVOCs). However, no organic vapor readings were detected in the soil with a portable photoionization detector and no signs of potential petroleum contamination (e.g., staining, odors) were noted in the soil. On March 11, 2015, the tank was properly closed with the tank removed from the Site for off-site disposal/salvage by Atlas Disposal Options, Inc., 311 East Blackwell Street, Dover, New Jersey. The tank removal documentation is provided in Appendix G.

On March 22, 2017, two 550-gallon steel USTs were discovered by SKE in the southwestern portion of the site while conducting site soil grading activities in preparation for an interim gravel cover across the Site. The former UST location is shown on the tank closure location plan provided with the tank closure documentation in Appendix G. This former UST location is also shown on Figure 7 that depicts the UST removal locations on the Former ACME Steel site. This former UST location is within the limits of the existing Sgt. Dougherty Park area. No information was found for these tanks in the online NYSDEC Bulk Storage Database. The tanks contained what appeared to be a gasoline and water mixture. The steel tanks were corroded but had no evidence of leaks. Atlas Disposal Options pumped out the tank contents (990 gallons) on March 23, 2017 for offsite treatment/disposal at Cycle Chem, Inc., 217 South First Street, Elizabeth, New Jersey. The empty tanks were removed from the ground on March 23, 2017 and properly closed under PBS Number 2-600073 Tank IDs 200 and 300. The top and bottom concrete slabs at the UST were removed from the tank excavation for offsite disposal/recycling. No petroleum staining or odors were observed in the surrounding soil. On March 24, 2017, a post tank removal soil sample was collected by TRC from the tank excavation sidewalls and bottom for laboratory testing by HCV for lead, VOCs, and SVOCs. The soil sample lab test results indicate no exceedances of NYSDEC Unrestricted Use soil cleanup objectives. On March 29, 2017, the two tanks were removed from the Site for off-site disposal/salvage by Atlas Disposal Options. The tank removal documentation is provided in Appendix G. In addition, copies of the Daily Field Activity Reports completed by TRC for the days that TRC was on-site to oversee the Site regrading and placement of the interim gravel cover, which coincided with these UST removals, are provided in Appendices C and G.

4.4. Imported Backfill

For the backfill of the two lead soil hotspot removals in February 2015, sand imported from 110 Sand Company, Melville, New York was used to backfill the two excavations to grade. Under NYSDEC DER-10 Section 5.4(e)(3)(ii)(1), soil or sand imported from a virgin mine/pit requires at least one round of characterization samples for the initial 100 cubic yards of material, in accordance with Table 5.4(e)10, which specifies two discrete grab samples for VOCs and one composite sample (comprised of 3 to 5 grabs) for SVOCs, inorganics and pesticides/PCBs. This soil testing showed no detections above unrestricted use SCOs. The documentation for this sand source is provided in Appendix H.

In March 2017, near the completion of the K Bridge Phase 1 construction project, gravel was imported by SKE for use as an interim cover for the Site. A minimum 2-foot thick gravel cover was placed across the Site for erosion and dust control in the interim prior to the start of the park construction. Prior to the placement of the gravel layer, a demarcation layer, consisting of orange plastic safety fencing material, was placed across the Site soils. Although, the gravel was imported from the Inwood Materials Terminal in Inwood, New York, the original source of the blue stone gravel was the Peckham Materials Corporation quarry located in Catskill, New York. Under DER-10 Section 5.4(e)(5)(i), gravel, rock or stone, consisting

of virgin material from a permitted mine or quarry may be imported, without chemical testing, to be used as backfill beneath pavement, buildings or as part of the final site cover, provided that it contains less than 10% by weight material which would pass through a size 80 sieve. ASTM #57 stone specification is referenced on the bluestone material shipping tickets for this project. The ASTM #57 aggregate specification specifies no more than 5% passing a No. 8 sieve (2.36 mm) which has larger openings than a No. 80 sieve (180 microns). Documentation for this permitted mine gravel source is provided in Appendix H.

During the park construction, the following backfill materials were imported by DeFoe for use as subgrade and landscaping: recycled concrete aggregate (RCA), sand, gravel, and topsoil. Documentation for the sources of each of these borrow materials is provide in Appendix H. The following provides a summary of the source of each of these imported backfill materials.

Recycled concrete aggregate (RCA) was imported from Evergreen Recycling of Corona, Inc. (EROC), Flushing, New York for use as subgrade on the Site. Under DER-10 Section 5.4(e)(5)(ii), recycled concrete or brick from a NYSDEC-registered construction and demolition debris processing facility may be imported, without chemical testing, to be used as backfill beneath pavement, buildings or as part of the final site cover, provided that it contains less than 10% by weight material which would pass through a size 80 sieve. NYSDEC approved the use of EROC RCA as subgrade for use on the Site in an email dated August 11, 2017. The borrow source documentation is provided in Appendix H.

Sand was imported from Cedar Bride Sand in Barnegat, New Jersey for use as subgrade and utility excavation backfill on the Site. Under DER-10 Section 5.4(e)(3)(ii)(1), soil or sand imported from a virgin mine/pit requires at least one round of characterization samples for the initial 100 cubic yards of material, in accordance with Table 5.4(e)10. The soil testing conducted showed no detections above unrestricted use SCOs. NYSDEC approved the use of the sand on the Site as subgrade and backfill in an email dated August 17, 2017. The borrow source documentation is provided in Appendix H.

Gravel was imported from Tilcon New York quarry in Haverstraw, New York for use as subbase on the Site. Under DER-10 Section 5.4(e)(5)(i), gravel, rock or stone, consisting of virgin material from a permitted mine or quarry may be imported, without chemical testing, to be used as backfill beneath pavement, buildings or as part of the final site cover, provided that it contains less than 10% by weight material which would pass through a size 80 sieve. In a July 13, 2017 email, NYSDEC verified that no pre-approval is required to use the gravel as long as the material is from a permitted source and the documentation to that effect is provided. The Tilcon quarry borrow source documentation is provided in Appendix H.

Topsoil was imported for use in the planting beds and tree pits from Natures Choice Corporation, Middlesex, New Jersey. The topsoil was sampled by TRC for laboratory testing for VOCs, SVOCs, pesticides, herbicides, polychlorinated biphenyls (PCBs), metals, and cyanide. The soil appeared to be a manufactured soil and consist of dark brown to black sandy soil, with silt, some organic matter (mostly shredded wood mulch), and trace small rocks (<2”). No apparent signs of potential contamination, including staining or malodor, were noted in the soil. The soil sample lab results indicate the detection of several pesticides, SVOCs, and metals above Unrestricted Use SCOs. However, there were no detections above Restricted Residential SCOs and therefore the topsoil meets the clean soil cover criteria applicable to the ACME Site. TRC completed and submitted a NYSDEC Request to Import/Reuse Fill or Soil Form to NYSDEC for this topsoil on June 19, 2018. NYSDEC approved this request in an email dated June 25, 2018. A copy of the NYSEC email approval and the submitted request to import soil along with the supporting documentation including the TRC Daily Field Activity Report for the soil sampling, the laboratory soil data report, soil data summary table, and Natures Choice permit are provided in Appendix H.

A summary listing of all sources of imported backfill material with quantities for each source is provided in Table 4. Copies of available source facility documentation including material shipping tickets documenting the quantities imported for the entire park construction are provided in Appendix H.

4.5. Contamination Remaining at the Site

Based on the site investigation findings, the following summarizes those findings that represent residual Site contamination. This summary takes into account the removal of soils during the excavation of two

lead-contaminated hot spots and 2-feet of soil from across the Site for the placement of an interim gravel cover over the Site. The sample data tables and figures that summarize the prior site investigation findings are presented in Appendix D. Those tables and figures have been amended by TRC by crossing out the soil data and sample locations associated with soil that has since been removed from the Site (described in Section 4.3) or is located off of Site park area (i.e., in new Cherry Street/entrance ramp area to the north or within the off-site park area at the west end of the block).

Soil

Soil samples were collected from three well borings and eleven soil borings installed on the Block 2811 area that included both the Former ACME Steel Partition Company area located at 513 Porter Avenue (the Site) and the adjoining park area. The monitoring well MW-3 and the borings B-9, B-10 and B-11 were all located on the park area which was not part of the Site. Therefore, the soil sample results associated with those locations are not presented below in the summary of residual Site soil contamination.

The results of the Site Characterization Findings Report dated April 7, 2014 represent the following existing Site soil conditions, not including any soil data associated with the two lead contaminated soil hot spot removals (borings B4-E and S-4) and the 0-2 ft. bgs surface soil interval that was removed from the Site for erosion and dust control during Phase 1 of the bridge reconstruction project (as summarized in Section 2.3):

- Urban fill was encountered at a maximum depth of 20 feet bgs.
- Petroleum and chemical odors were apparent in deeper soils at the groundwater table interface. Shallow soils exhibited minor or no impacts. Measurable free-phase product was not observed on groundwater in any Site wells.
- No VOCs were detected in any of the soil samples at concentrations above Restricted Residential SCOs.
- Petroleum-related VOCs (e.g., benzene, toluene, xylenes) were detected above Protection of Groundwater SCOs in one soil sample collected from B1 (5-10'). Samples from deeper intervals of soil boring B1 were submitted for laboratory analysis and petroleum-related VOCs were not detected above the Protection of Groundwater SCOs. 1,2,4-Trimethylbenzene was detected in soil sample B2 (55-58') above the Protection of Groundwater SCO (3.6 ppm) in the sample that intersected the water table. However, there were no detections above Class GA Values in groundwater sampled from the temporary well point at soil boring B2.

The results of the Supplemental Site Characterization Findings Report dated June 23, 2014 indicate the following soil conditions not including any data associated with the near surface soil interval (0-2 ft. bgs) that has since been removed from the site during the site reconstruction regrading as well as the two lead-contaminated soil hot spot removals:

- PCE was detected in supplemental soil borings above Unrestricted Use and Protection of Groundwater SCOs (1.3 ppm) in soil samples B3-C (2-4') at 4.7 ppm and B3-C (4-6') at 3.1 ppm. None of the PCE detections exceed the Restricted Residential SCO.
- TCE was not detected in soil samples above the Protection of Groundwater SCO.
- Naphthalene was detected above the Unrestricted Use SCO (12 ppm) in soil sample MW2-I (15-20') at 74 ppm. Naphthalene did not exceed either respective Restricted Residential SCO in any samples. Additionally, minor detections of acetone were reported above the Unrestricted Use SCO but below the Restricted Residential Use SCO.
- Lead was detected in supplemental soil borings above the Restricted Residential SCO (400 ppm) in soil samples S2 (5-10') at 820 ppm and SGI-A (5-10') at 540 ppm.
- Arsenic was detected in supplemental soil borings above Restricted Residential and Commercial SCOs (16 ppm) in samples MW2-B (5-10') at 25 ppm, MW2-F (10-15') at 23 ppm, MW2-H (5-10') at 22 ppm, S6 (5-10') at 19 ppm, and SGI-A (5-10') at 26 ppm.
- Mercury was detected in supplemental soil borings above the Restricted Residential SCO (0.81 ppm) in soil samples S-2 (5-10') at 1.1 ppm, S-3 (5-10') at 0.82 ppm, and SGI-A (5-10') at 1.7 ppm.
- Cadmium was detected in a supplemental soil boring above the Restricted Residential SCO (4.3 ppm) in soil sample S2 (5-10') at 5.2 ppm.

Table 1 and Figure 3 of the Site Characterization Findings Report and Table 1 of the Supplemental Site Characterization Findings Report provided in Appendix D summarize the results of all soil samples collected that exceed the Unrestricted Use SCOs, the Restricted Residential Use, and Protection of Groundwater SCOs at the site at the time of the indicated site investigations and are believed to be generally representative of the existing Site soil conditions. However, the sample data for the near surface sample interval (0-2 ft. bgs) that was removed from the site during the site reconstruction regrading as well as the sample data associated with the two completed lead hazardous soil hot spot removals have been crossed out on the tables and figures provided in Appendix D.

Groundwater

Three permanent monitoring wells and eleven temporary well points were installed on the Block 2811 area that included both the Former ACME Steel Partition Company area located at 513 Porter Avenue (the Site) and the adjoining former park area. The monitoring well MW-3 and the temporary well points installed at B-9, B-10 and B-11 were all located on the former park area which was not part of the Site. Therefore, the groundwater sample results associated with those locations are not presented below. Currently, there are no remaining groundwater monitoring wells on the ACME Site or rest of the park area.

The results of the Site Characterization Findings Report dated April 7, 2014 indicate the following Site groundwater conditions:

- PCE was detected above the Class GA value of 5 parts per billion (ppb) in groundwater samples collected from prior on-site wells MW-1 (57 ppb), MW-2 (70 ppb), B-6 (20 ppb), and B-7 (10 ppb). TCE was detected above the Class GA value of 5 ppb in groundwater samples collected from MW-1 (5.8 ppb), MW-2 (14 ppb), and B-7 (80 ppb).
- Petroleum-related VOCs (i.e., benzene, ethylbenzene, toluene and xylenes (BTEX); 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,4,5-tetramethylbenzene) were detected in the groundwater sample collected from well MW-2.

Figure 2 from the Site Characterization Findings Report and provided in Appendix D presents both the sample locations and a groundwater contour map for the site.

The results of the Groundwater Sampling for Compound Specific Isotope Analysis letter report dated August 27, 2014 indicate the following Site groundwater conditions:

- PCE was detected above the Class GA value of 5 parts per billion (ppb) in groundwater samples collected from on-site wells MW-1 (24.1 ppb) and MW-2 (119 ppb). PCE was also detected in the two upgradient offsite wells (DEC-005 at 20.4 ppb and DEC-026 at 29.8 ppb).
- TCE was detected above the Class GA value of 5 ppb in groundwater samples collected from on-site well MW-2 (22.2 ppb).
- The petroleum-related VOCs benzene, ethylbenzene, and xylene (BTEX) were detected above the respective Class GA values in well MW-2.
- Two upgradient off-site NYSDEC wells showed elevated levels of TCE, PCE, and cis-1,2-dichloroethene above Class GA values.

All on-site groundwater monitoring wells including wells MW-1, MW-2, and MW-3 were permanently closed on November 12-13, 2014. The well closure records are provided in Appendix I.

Table 2 and Figure 4 of the Site Characterization Findings Report and an Accutest laboratory data summary table and Figure 2 from the Groundwater Sampling for Compound Specific Isotope Analysis letter report provided in Appendix D summarize the results of all samples of groundwater that exceed the SCGs and present site maps with the groundwater sample locations.

This groundwater sample data represents the site groundwater conditions at the time of the associated groundwater sampling in 2014. No additional groundwater sampling and testing has been conducted on the Site after that date or the completion of the remedial action.

Soil Vapor

Soil vapor samples were collected from six soil gas points installed on the Block 2811 area that included both the Former ACME Steel Partition Company area located at 513 Porter Avenue (the Site) and the adjoining park area. The soil gas points SG-5 and SG-6 were located on the park area which was not

part of the Site. Therefore, the soil vapor sample results associated with those two locations are not presented below in the summary of Site soil vapor conditions.

The results of the Site Characterization Findings Report dated April 7, 2014 indicate the following Site soil vapor conditions:

- Petroleum- and chlorinated solvent-related VOCs were detected at elevated concentrations in soil vapor. However, methane was not detected in any of the soil vapor samples at concentrations exceeding the lower explosive limit.
- PCE and TCE levels were detected at elevated concentrations in the soil gas vapor at all four on-site locations.

Table 3 and Figure 5 of the Site Characterization Findings Report provided in Appendix D summarize the results of all samples of soil vapor and present a site map with the soil vapor sample locations. This soil vapor data represents the Site conditions at the time of the associated soil vapor sampling in 2014. No additional soil vapor sampling and testing has been conducted after that date or after completion of the remedial activities.

Since contaminated soil and groundwater remain beneath the site after completion of the Remedial Action, Institutional and Engineering Controls are required to protect human health and the environment. These Engineering and Institutional Controls (ECs/ICs) are described in the following sections. Long-term management of these EC/ICs and residual contamination will be performed under the Site Management Plan (SMP) approved by the NYSDEC.

4.6. Cover System

Exposure to remaining contamination in soil/fill at the site is prevented by a cover system placed over the Site. This cover system is comprised of an engineered composite cover system consisting of asphalt pavement, concrete pavement or pavers, or a minimum of two feet of environmentally clean fill in landscaped areas having exposed soil that meets the requirements of 6 NYCRR Part 375-6.8(b) for the protection of public health for Restricted Residential Use SCOs. The cover system is underlain by a physical demarcation layer consisting of orange-colored plastic safety fencing as a visual reference between the cover and underlying residual contaminated soils.

The depth to the demarcation layer varies across the Site. The demarcation layer was installed at the completion of Phase 1 of the K Bridge project with an overlying 2-foot gravel cover. When the park was constructed later, the various covers/subbases shown on Figures 8a, 8b, and 8c were installed above the demarcation and gravel to meet the appropriate final grades for the park. As a result, the demarcation layer depth varies by location for each cover type depending on the final site grades. Therefore, a topographic map of the installed demarcation layer is provided on Figure 6 and can be used with the final site grade information (provided on Figure 3) to determine the depth to the demarcation layer at a particular location on the Site. In addition, at deep park construction excavation locations (e.g., utilities, concrete planting boxes, footings) that penetrated the original demarcation layer, elevations for the replaced demarcation layer are also provided on Figure 6 for those locations.

The Park as-built drawing presented as Drawing PVP-02 (Sheet No. 42R2) in Appendix J (file name = ACME Site AsBuilt Park Plan D263241_X73143_CPH_PVP_02_R2.pdf) show the location of each cover type built at the Site. Drawing D-01 (Sheet 76) in Appendix J (file name = AsBuilt Park Cover Details Pavement Sections from MEXIS_APP.BC_CONST_ NOTICE_ADMIN.pdf) shows the as-built cross sections for each remedial cover type used on the site. Figure 8 depicts the as-built cover types located on the Site area with cross sections of each cover type provided on Figures 8a, 8b, and 8c. An Excavation Work Plan, which outlines the procedures required in the event the cover system and/or underlying residual contamination are disturbed, is provided in Appendix D of the SMP.

4.7. Other Engineering Controls

The remedy for the site did not require the construction of any other engineering control systems.

4.8. Institutional Controls

The site remedy requires that an environmental notice be executed and recorded for the property. The environmental notice is an informational document that provides a legal description of the site property boundaries and a site map and notice of the following: contamination exists on the property subject to the provisions of a Site Management Plan (SMP), there shall be no disturbance or excavation of the Site that threatens the integrity of the engineering controls or may result in a significant increased threat of harm or damage as a result of exposure to soils, there shall be no disturbance, removal, or otherwise interference with the engineering controls unless a waiver is obtained from NYSDEC, restricting the use of the Site to Restricted Residential use as described in 6 NYCRR Part 375-1.8(g)(2)(ii) unless a waiver is obtained from NYSDEC, and restricting the use of groundwater without treatment unless otherwise approved by NYSDEC.

The environmental notice for the Site was executed by the Department on March 25, 2019 and filed with the NYC Department of Finance Office of the City Register on April 2, 2019. The City Register File Number (CRFN) for this filing is 2019000104113. A copy of the environmental notice and proof of filing is provided in Appendix K. An aerial photograph is provided on the as-built site survey plan as Figure 9 to present the boundary of the Site area subject to the SMP and environmental notice.

4.9. Deviations from the IRM Work Plan

As described herein, the remedial measures were implemented in substantial conformance with the IRM Work Plan.

TABLES

TABLE 1
CLEAN SOIL CRITERIA
FORMER ACME STEEL PARTITION SITE
513 PORTER AVENUE, BROOKLYN, NY

Contaminant	CAS Number	Restricted-Residential SCO
Arsenic	7440-38-2	16[f]
Barium	7440-39-3	400
Beryllium	7440-41-7	72
Cadmium	7440-43-9	4.3
Chromium, hexavalent [g]	18540-29-9	110
Chromium, trivalent[g]	16065-83-1	180
Copper	7440-50-8	270
Total Cyanide [h]		27
Lead	7439-92-1	400
Manganese	7439-96-5	2,000[f]
Total Mercury		0.81[i]
Nickel	7440-02-0	310
Selenium	7782-49-2	180
Silver	7440-22-4	180
Zinc	7440-66-6	10,000 [d]
2,4,5-TP Acid (Silvex)	93-72-1	100[a]
4,4'-DDE	72-55-9	8.9
4,4'-DDT	50-29-3	7.9
4,4'-DDD	72-54-8	13
Aldrin	309-00-2	0.097
alpha-BHC	319-84-6	0.48

TABLE 1 (continued)
CLEAN SOIL CRITERIA
FORMER ACME STEEL PARTITION SITE
513 PORTER AVENUE, BROOKLYN, NY

Contaminant	CAS Number	Restricted-Residential SCO
beta-BHC	319-85-7	0.36
Chlordane (alpha)	5103-71-9	4.2
delta-BHC	319-86-8	100[a]
Dibenzofuran	132-64-9	59
Dieldrin	60-57-1	0.2
Endosulfan I	959-98-8	24[h]
Endosulfan II	33213-65-9	24[h]
Endosulfan sulfate	1031-07-8	24[h]
Endrin	72-20-8	11
Heptachlor	76-44-8	2.1
Lindane	58-89-9	1.3
Polychlorinated biphenyls	1336-36-3	1
Acenaphthene	83-32-9	100[a]
Acenapthylene	208-96-8	100[a]
Anthracene	120-12-7	100[a]
Benz(a)anthracene	56-55-3	1[f]
Benzo(a)pyrene	50-32-8	1[f]
Benzo(b)fluoranthene	205-99-2	1[f]
Benzo(g,h,i)perylene	191-24-2	100[a]
Benzo(k)fluoranthene	207-08-9	3.9
Chrysene	218-01-9	3.9

TABLE 1 (continued)
CLEAN SOIL CRITERIA
FORMER ACME STEEL PARTITION SITE
513 PORTER AVENUE, BROOKLYN, NY

Contaminant	CAS Number	Restricted-Residential SCO
Dibenz(a,h)anthracene	53-70-3	0.33[e]
Fluoranthene	206-44-0	100[a]
Fluorene	86-73-7	100[a]
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]
m-Cresol	108-39-4	100[a]
Naphthalene	91-20-3	100[a]
o-Cresol	95-48-7	100[a]
p-Cresol	106-44-5	100[a]
Pentachlorophenol	87-86-5	6.7
Phenanthrene	85-01-8	100[a]
Phenol	108-95-2	100[a]
Pyrene	129-00-0	100[a]
1,1,1-Trichloroethane	71-55-6	100[a]
1,1-Dichloroethane	75-34-3	26
1,1-Dichloroethene	75-35-4	100[a]
1,2-Dichlorobenzene	95-50-1	100[a]
1,2-Dichloroethane	107-06-2	3.1
cis-1,2-Dichloroethene	156-59-2	100[a]
trans-1,2-Dichloroethene	156-60-5	100[a]
1,3-Dichlorobenzene	541-73-1	49
1,4-Dichlorobenzene	106-46-7	13

TABLE 1 (continued)
CLEAN SOIL CRITERIA
FORMER ACME STEEL PARTITION SITE
513 PORTER AVENUE, BROOKLYN, NY

Contaminant	CAS Number	Restricted-Residential SCO
1,4-Dioxane	123-91-1	13
Acetone	67-64-1	100[b]
Benzene	71-43-2	4.8
Butylbenzene	104-51-8	100[a]
Carbon tetrachloride	56-23-5	2.4
Chlorobenzene	108-90-7	100[a]
Chloroform	67-66-3	49
Ethylbenzene	100-41-4	41
Hexachlorobenzene	118-74-1	1.2
Methyl ethyl ketone	78-93-3	100[a]
Methyl tert-butyl ether	1634-04-4	100[a]
Methylene chloride	75-09-2	100[a]
n-Propylbenzene	103-65-1	100[a]
sec-Butylbenzene	135-98-8	100[a]
tert-Butylbenzene	98-06-6	100[a]
Tetrachloroethene	127-18-4	19
Toluene	108-88-3	100[a]
Trichloroethene	79-01-6	21
1,2,4-Trimethylbenzene	95-63-6	52
1,3,5- Trimethylbenzene	108-67-8	52
Vinyl chloride	75-01-4	0.9

TABLE 1 (continued)
CLEAN SOIL CRITERIA
FORMER ACME STEEL PARTITION SITE
513 PORTER AVENUE, BROOKLYN, NY

Contaminant	CAS Number	Restricted-Residential SCO
Xylene (mixed)	1330-20-7	100[a]

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes (from table at 6NYCRR Subpart 375-6):

[a] The SCOs for restricted-residential use were capped at a maximum value of 100 ppm.

[c] The SCOs for the protection of groundwater were capped at a maximum value of 1000 ppm.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[h] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

[i] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

Source: 6NYCRR Subpart 375-6: Remedial Program Soil Cleanup Objectives, Effective December 14, 2006

TABLE 2
WASTE DISPOSAL SUMMARY
FORMER ACME STEEL PARTITION SITE
513 PORTER AVENUE, BROOKLYN, NY

Facility	Material Type (Source)	Date	Quantity
Clean Earth of New Jersey 115 Jacobus Avenue Kearny, NJ 07032	Lead Hazardous (D008) Soil (from lead hot spot removal)	2/13/2015	73.04 tons
Cycle Chem 217 South First Street Elizabeth, NJ 07206	Non-hazardous Petroleum Impacted Water (from 2-550 gallon USTs removal)	3/23/2017	990 gallons
Bayshore Soil Management 75 Crows Mill Road Keasbey, NJ 08832	Non-hazardous Contaminated Soil (from park construction activities)	8/4/2017	432.92 tons
Clean Earth of Carteret 24 Middlesex Avenue Carteret, NJ 07008	Non-hazardous Contaminated Soil (from park construction activities)	8/4/2017 8/7/2017 8/14/2017 11/6/2017 12/18/2017 Total =	220.03 396.73 383.18 449.32 237.69 1,686.95 tons

TABLE 3
LEAD HOT SPOT POST REMOVAL CONFIRMATION SOIL SAMPLE DATA SUMMARY
FORMER ACME STEEL SITE
513 PORTER AVENUE, BROOKLYN, NY

Sample Location	Sample ID	TCLP Lead Criteria(*) (mg/l)	TCLP Lead Concentration (mg/l)
S-4	S-4N	5	ND < 0.050
	S-4S	5	ND < 0.050
	S-4E	5	0.068
	S-4W/DUP-1 (1)	5	0.061/0.37
	S-4B	5	0.095
B-4E	B4E-N	5	0.084
	B4E-S	5	ND < 0.050
	B4E-E	5	0.18
	B4E-W	5	0.060
	B4E-B	5	0.11

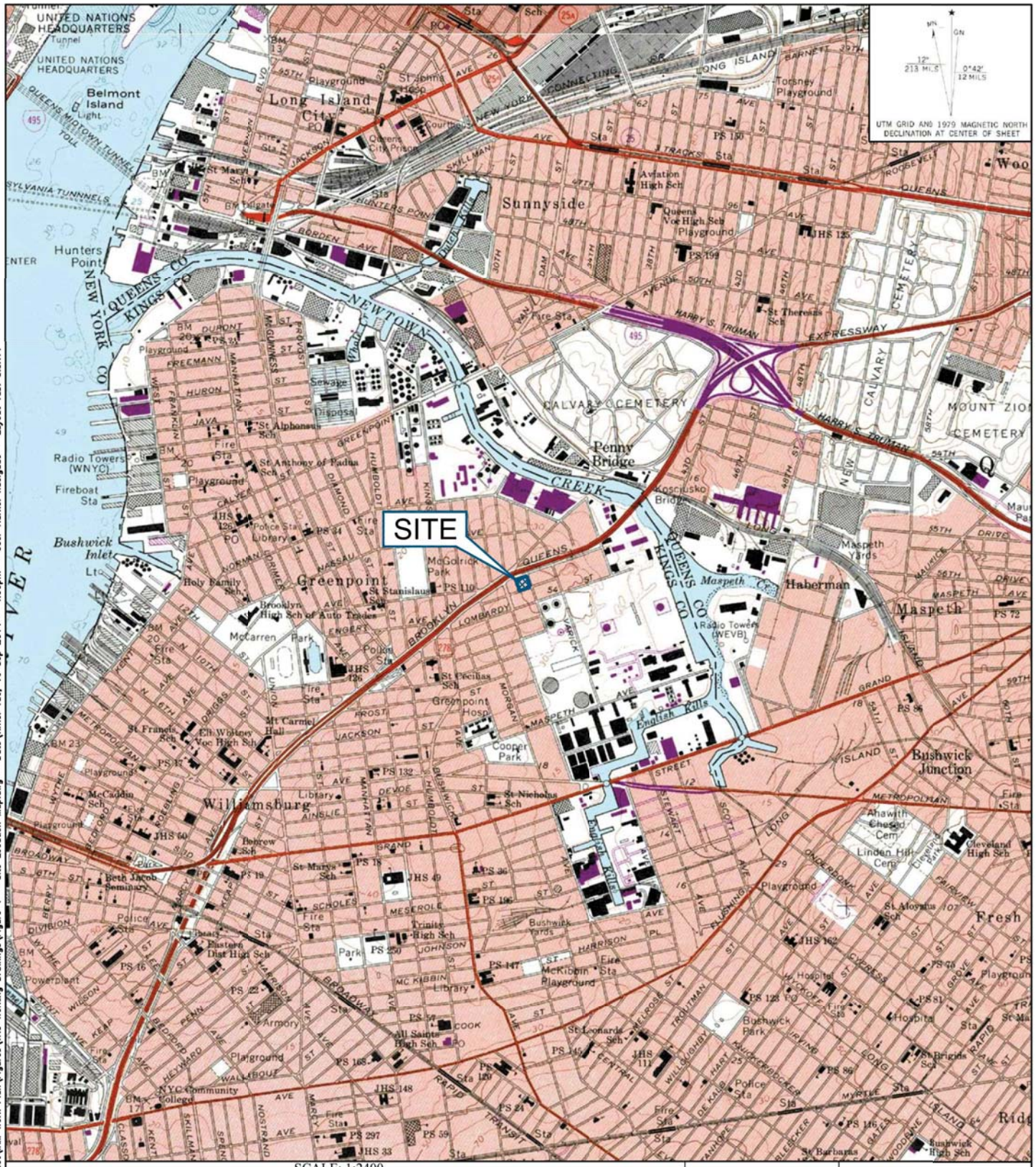
NOTES:
(1) Sample DUP-1 is a blind duplicate of sample S-4W.
ND = Not Detected at or above Reporting Limit indicated.
(*) Hazardous waste toxicity characteristic criteria per 40 CFR Section 261.24 and 6 NYCRR Section 371.3.

TABLE 4
IMPORTED BORROW MATERIAL SUMMARY
FORMER ACME STEEL SITE
513 PORTER AVENUE, BROOKLYN, NY

Material Source	Material/Use	Quantity
Evergreen Recycling of Corona, Inc. 127-50 Northern Blvd. Flushing, New York, 11368 718-205-8038	3/4" Recycled Concrete Aggregate (RCA)/ Subbase	915 cubic yards(*)
Cedar Bridge Sand 201 Rt. 539 Barnegat, NJ 08005 (supplied by Eastern Concrete Materials and NY Sand & Stone)	Sand/Subbase & Utility Backfill	109.59 tons (*)
Tilcon New York, Inc. 162 Old Mill Road West Nyack, New York 10994 800-872-7762	Gravel (Item 304.03)/Subbase	453.15 tons (*)
Natures Choice Corporation 398 Lincoln Blvd., Building 1 Middlesex, New Jersey 08846 973-969-3299	Topsoil/Planting Beds & Tree Pits Shredded Bark Mulch/Planting Beds	440 cubic yards (*) 100 cubic yards (*)
Inwood Materials Terminal 1 Sheridan Blvd. Inwood, NY 11096 (from Peckham Materials Corp. quarry in Catskill, NY)	3/4" Gravel/Temporary Cover	3,800 cubic yards (estimated based on soil removal quantity for area)
110 Sand Company 13 Spagnoli Road Melville, New York 11747 631-249-4108	Sand/Backfill Hot Spot Removal Locations	75 tons (estimated based on soil removal quantity for locations)

NOTES:
(*) This quantity is the amount used for the entire Sgt. Dougherty Park project site; the portion used on the ACME Site area was not documented.
Available material documentation including shipping tickets are provided in Appendix H.

FIGURES



SCALE: 1:2400

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 KILOMETER

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER

QUADRANGLE LOCATION

BROOKLYN, N. Y.

N4037.5—W7352.5/7.5

1967

PHOTOREVISED 1979

AMS 6265 III NW—SERIES V821

MAP OBTAINED THROUGH USE OF MAPTECH TERRAIN NAVIGATOR PRO SOFTWARE.

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

DESIGNED BY: KS	
DRAWN BY: HD	
CHECKED BY: CG	
DATE: SEPTEMBER 2014	
SCALE: AS SHOWN	
PROJECT NUMBER: 252356.0000.0004	

PROJECT NAME:

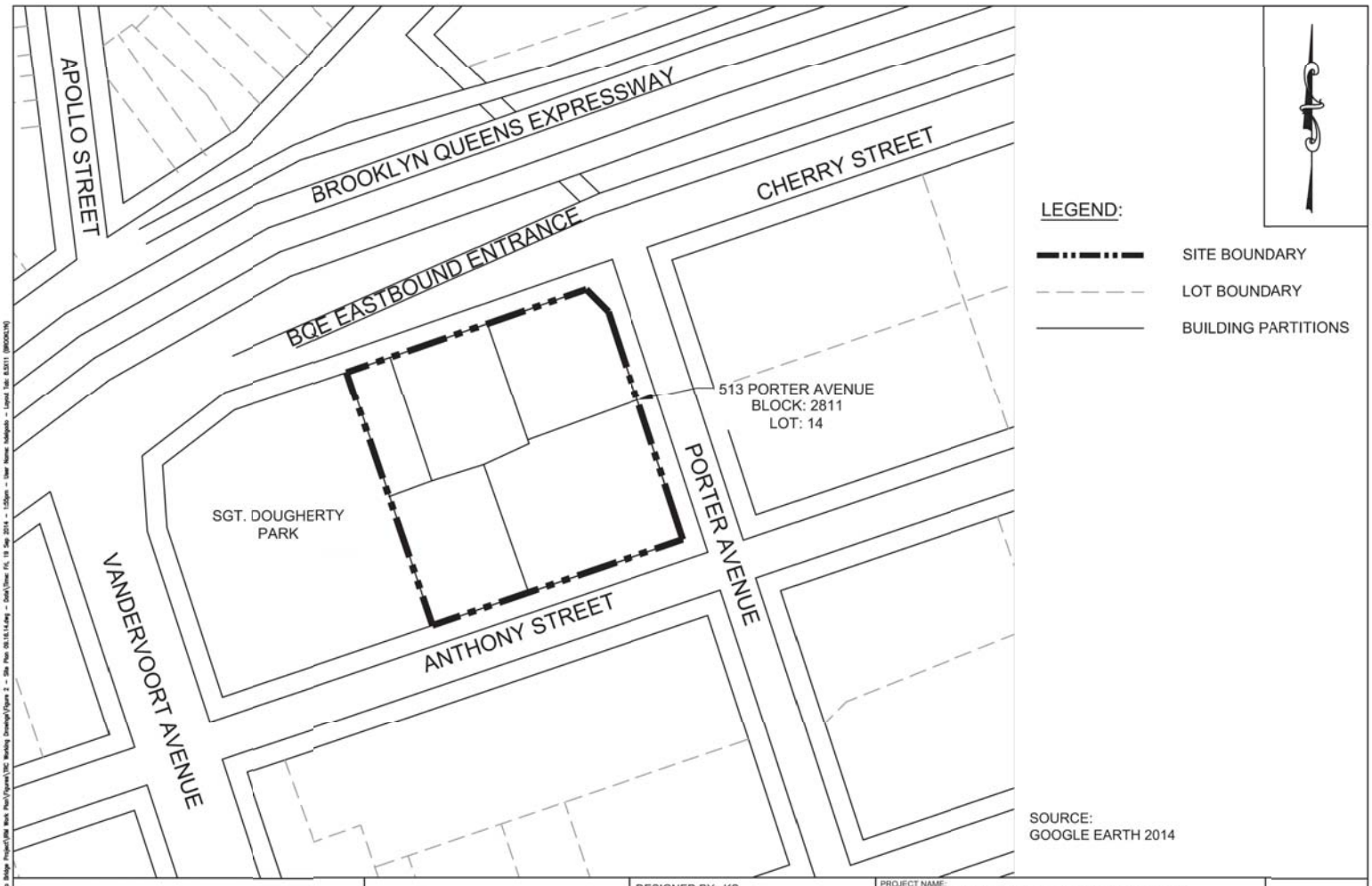
FORMER ACME STEEL PARTITION CO.
513 PORTER AVENUE
BROOKLYN, NEW YORK 11222

DRAWING TITLE:

SITE LOCATION MAP

FIGURE
1

Path\Name: I:\Projects\200726 – Kosciuszko Bridge Project\RM Work Plan\Figures\TRC Working Drawings\Figure 1 – Site Location Map.dwg – Date\Time: Tue, 16 Sep 2014 – 4:00pm – User Name: hdelgado – Layout Tab: 8.5X11



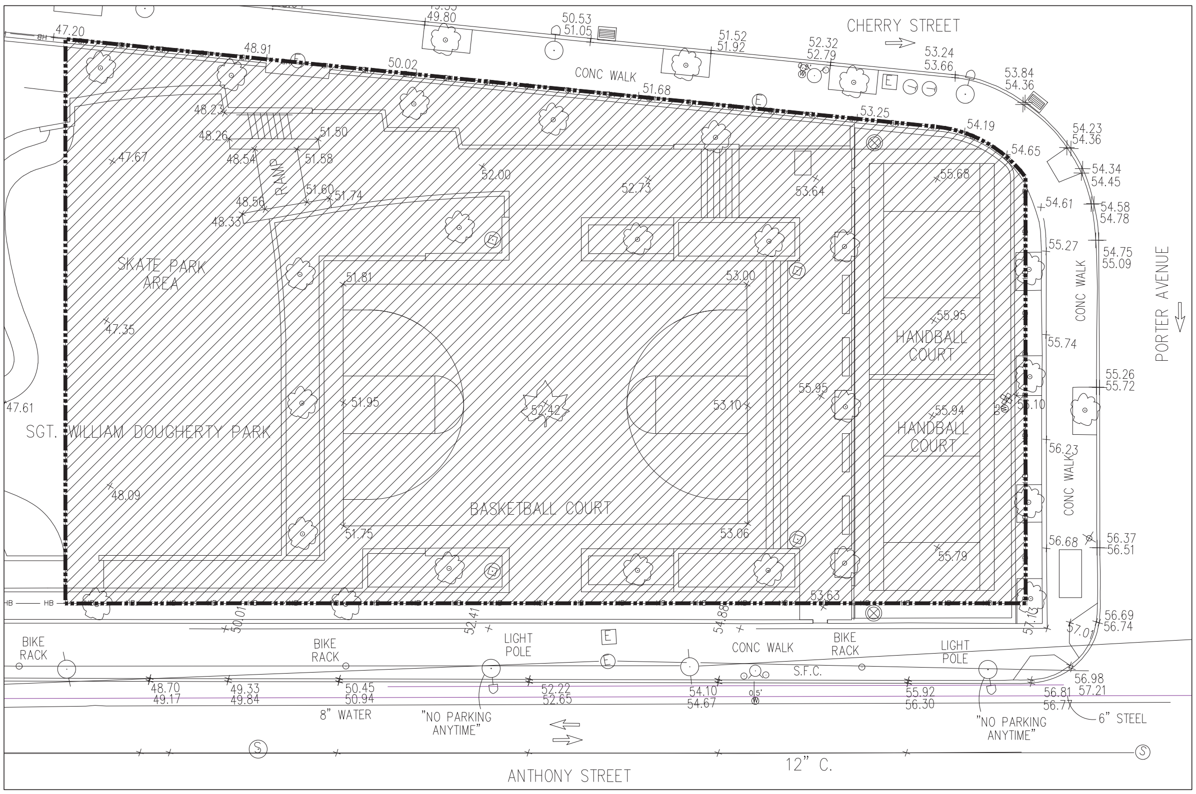
0 100' 200'

APPROXIMATE SCALE: 1"=100'
PAPER SIZE: 8½" x 11"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

DESIGNED BY: KS	PROJECT NAME: FORMER ACME STEEL PARTITION CO. 513 PORTER AVENUE BROOKLYN, NEW YORK 11222
DRAWN BY: HD	
CHECKED BY: CG	
DATE: SEPTEMBER 2014	DRAWING TITLE: ORIGINAL SITE LAYOUT PLAN
SCALE: AS SHOWN	
PROJECT NUMBER: 252356.0000.0004	

FIGURE 2

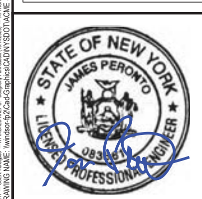


LEGEND (SYMBOLS NOT TO SCALE):

- HYDRANT
- UTILITY POLE WITH LIGHT
- UTILITY POLE
- STREET SIGN
- TREE PIT AND TREE SIZE
- ELECTRIC MANHOLE COVER
- SEWER MANHOLE COVER
- 0.5' GAS VALVE
- 0.5' WATER VALVE
- WATER MANHOLE COVER
- CATCH BASIN
- BIKE RACK
- LAMP POLE
- ELECTRIC HANDHOLE
- WATER FOUNTAIN
- 6" CLEANOUT
- GAS METER
- 47.35 SPOT ELEVATION
- HB — HB CITY BOUNDARY LINES
- PARCEL DIVISION LINE
- FORMER ACME STEEL SITE WITHIN PARK AREA LIMITS (ADDED BY TRC)
- FORMER ACME STEEL SITE WITHIN PARK AREA

NOTES (FROM SURVEY MAP):

1. HORIZONTAL COORDINATES ARE REPORTED ON NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE NAD 83/CORS96 DATUM IN U.S. SURVEY FEET.
2. ELEVATIONS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. PLANIMETRIC PARK FEATURES SHOWN APPROX. 25' BEYOND THE VICINITY OF THE COMFORT STATION SHOWN FROM SUPPLIED MAPPING ENTITLED "X73143_VZ_3DFEA.DWG".
4. SURVEY IS BASED ON EXISTING PHYSICAL CONDITIONS FOUND AT THE SITE ON NOVEMBER 30, 2018, DECEMBER 12 & DECEMBER 13, 2018.
5. THIS SURVEY IS NOT INTENDED AS A TITLE SURVEY.
6. BLOCK & LOT NUMBERS, RIGHT OF WAY (R.O.W.) WIDTHS, AND STREET NAMES AS PER CURRENT TAX MAP INFORMATION.
7. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAIL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
8. WETLAND, ENVIRONMENTAL, AND/OR HAZARDOUS MATERIALS LOCATION, IF ANY, ARE NOT PART OF THIS CONTRACT.
9. PARK FEATURES SHOWN FOR REFERENCE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION OF ANY TYPE.
10. LOT 14 IS TO BE QUITCLAIMED BY MAP128-C PARCEL180 FROM NYSDOT TO THE CITY OF NEW YORK DEPARTMENT OF PARKS AND RECREATION.



PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.

DATE:
DECEMBER 10, 2021

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING THE FINAL SITE SURVEY DRAWING TITLED "FINAL AS-BUILT COMFORT STATION SGT. DOUGHERTY PARK KINGS COUNTY STATE OF NEW YORK" DATED DECEMBER 18, 2018 AND THE ENVIRONMENTAL NOTICE SURVEY DRAWING TITLED "NYSDEC SITE: 224192 513 PORTER AVENUE BLOCK 2811 LOT 14" DATED MARCH 21, 2019 PREPARED BY MJ ENGINEERING AND LAND SURVEYING, P.C. UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D.

PROJECT NORTH

0 20' 40'
SCALE: 1" = 20'
SHEET SIZE: 11" BY 17"

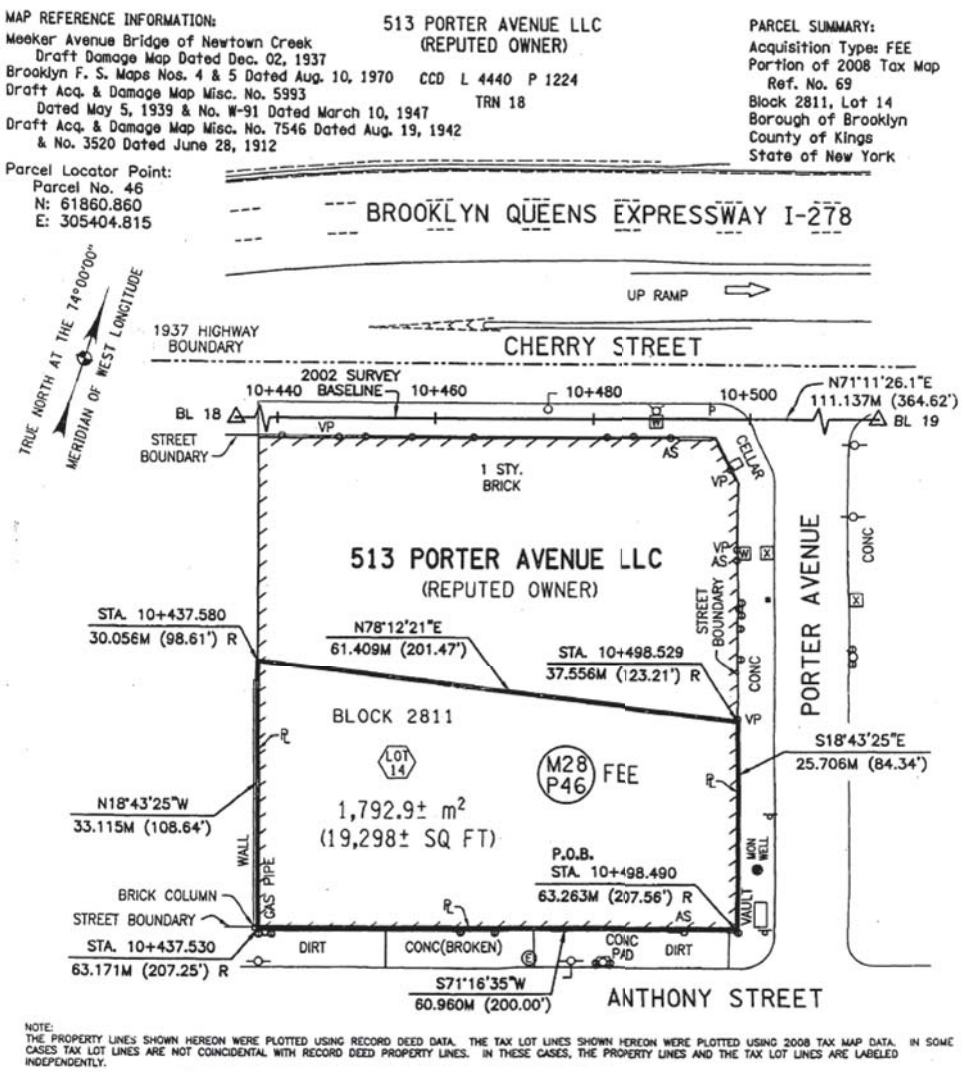
TRC
21 Griffin Road North
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
AS-BUILT SITE SURVEY PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356.0004.0000
FILE:	Fig.3 - As-Built Site Survey Plan.dwg

FIGURE 3



SOURCE:
MAP TITLED "NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP, MAP No. 28, PARCEL Nos.46-48, SHEET 1 OF 6 SHEETS".

SCALE CHANGED FROM 1:500 METRIC TO 1"=80 FEET.

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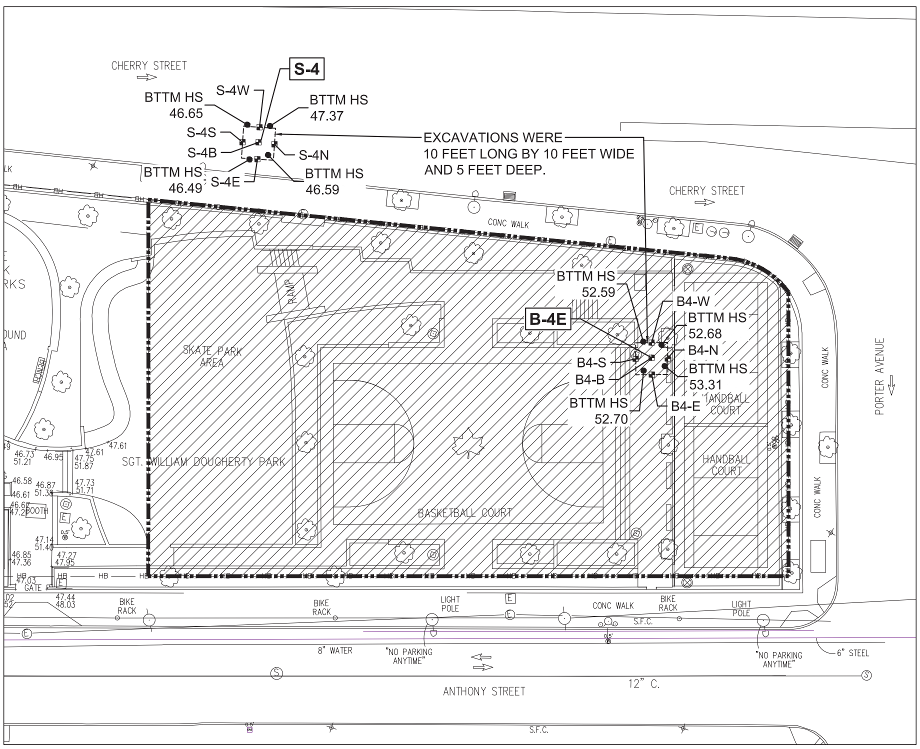
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

PROJECT:
FORMER ACME STEEL PARTITION CO.
513 PORTER AVENUE
BROOKLYN, NEW YORK 11222

TITLE:
PARCEL IDENTIFICATION PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356-000004-000000
FILE:	Fig. 4 -Parcel ID Plan.dwg

FIGURE 4



0 30' 60'

SCALE: 1" = 30'
SHEET SIZE: 11" BY 17"

LEGEND (SYMBOLS NOT TO SCALE):

- FORMER ACME STEEL SITE WITHIN PARK AREA LIMITS
- FORMER ACME STEEL SITE WITHIN PARK AREA
- S-4N — SOIL LEAD HOT-SPOT SAMPLE LOCATION AND IDENTIFICATION NUMBER (N, S, E, OR W = SIDEWALL, B = BOTTOM)

COORDINATES LIST:

LOCATION	NORTHING (Y)	EASTING (X)	ELEVATION
B-4E	203006.0909	1001919.9150	
BTTM HS	203010.8626	1001921.5360	52.68
BTTM HS	203010.0197	1001915.8500	52.59
BTTM HS	203001.4622	1001918.8120	52.70
BTTM HS	203004.8966	1001924.6140	53.31
S-4	203051.3426	1001770.9430	
BTTM HS	203027.5974	1001786.0710	46.59
BTTM HS	203024.4345	1001781.0220	46.49
BTTM HS	203034.4860	1001776.9230	46.65
BTTM HS	203036.3913	1001783.7560	47.37

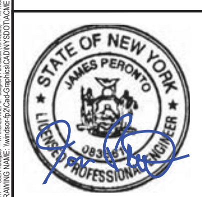
NOTES:

1. HORIZONTAL COORDINATES ARE REPORTED ON NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE NAD 83/CORS96 DATUM IN U.S. SURVEY FEET.
2. ELEVATIONS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

REFERENCES:

1. HOT SPOT EXCAVATION SURVEY DATA PROVIDED BY SKANSKA IN FILE NAMED "513 PORTER HS.TXT".

PROJECT NORTH



PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.

DATE:
DECEMBER 10, 2021

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING THE FINAL SITE SURVEY DRAWING TITLED "FINAL AS-BUILT COMFORT STATION SGT. DOUGHERTY PARK KINGS COUNTY STATE OF NEW YORK" DATED DECEMBER 18, 2018, THE ENVIRONMENTAL NOTICE SURVEY DRAWING TITLED "NYSDEC SITE: 224192 513 PORTER AVENUE BLOCK 2811 LOT 14" DATED MARCH 21, 2019 PREPARED BY MJ ENGINEERING AND LAND SURVEYING, P.C., AND OTHER DRAWING REFERENCES. UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D

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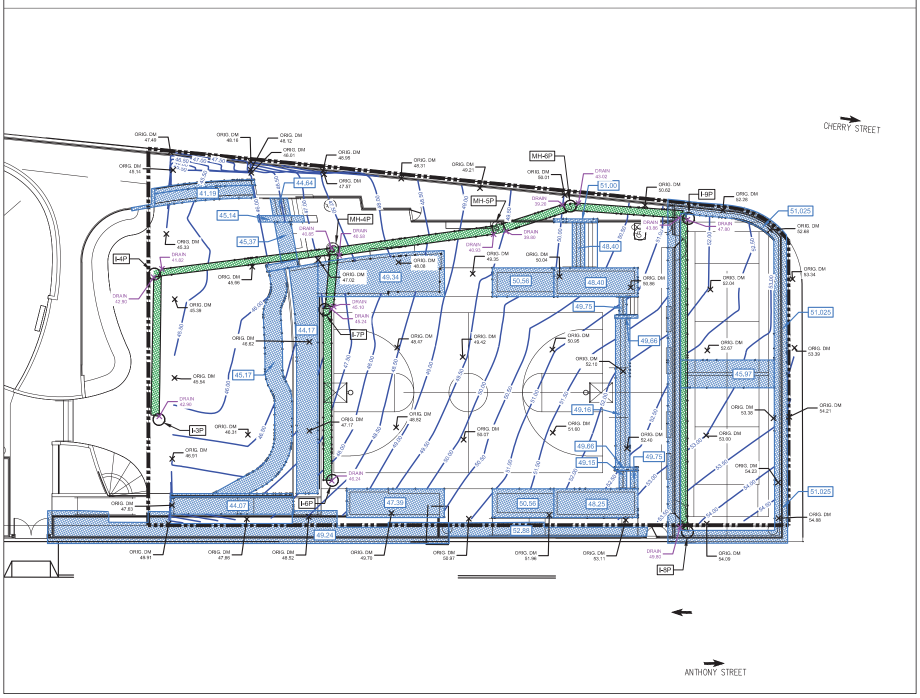
21 Griffin Road North
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
SOIL LEAD HOT-SPOT REMOVAL LOCATION PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356.0004.0000
FILE:	Fig.5 - Soil Lead Hot-Spot Removal Loc. Plan.dwg

FIGURE 5



LEGEND (SYMBOLS NOT TO SCALE):

- FORMER ACME STEEL SITE WITHIN PARK AREA LIMITS
- 53.00 — DEMARCATION LAYER SURFACE ELEVATION CONTOUR (0.50 FOOT INTERVALS)
- ORIG. DM 52.68 — ORIGINAL DEMARCATION LAYER SURFACE SPOT ELEVATION
- DRAIN 43.86 — EXCAVATION SPOT ELEVATION FOR STORM DRAINAGE SYSTEM THAT WENT BELOW DEMARCATION LAYER
- 52.33 — DEMARCATION LAYER ELEVATION FOR EXCAVATION THAT WENT BELOW ORIGINAL DEMARCATION LAYER
- FOUNDATION AREAS WHERE DEMARCATION LAYER WAS REPLACED
- STORM DRAINAGE SYSTEM AREAS WHERE DEMARCATION LAYER WAS REPLACED
- MH-## — STORM MANHOLE
- I-## — STORM DRAIN

NOTES:

1. HORIZONTAL COORDINATES ARE REPORTED ON NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE NAD 83/CORS96 DATUM IN U.S. SURVEY FEET.
2. ELEVATIONS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

REFERENCES:

1. EXCAVATION SURVEY DATA PROVIDED BY NYSDOT CAD FILE NAMED "ST.DOUGHERTYPARK_EXCAVATION.DGN".
2. AS-BUILT MATERIALS PLAN BASEMAP PROVIDED BY NYSDOT CAD FILE NAMED "D263241_X73143_CPH_MP_02_R2.DGN".
3. ORIGINAL DEMARCATION LAYER SPOT ELEVATIONS USED TO GENERATE DEMARCATION LAYER TOPGOGRAPHY PROVIDED BY SKANSKA IN CAD FILE NAMED "SGT DOUGHERTY SUB-BASE TOPO.DWG".

0 30' 60'

SCALE: 1" = 30'
SHEET SIZE: 11" BY 17"

PROJECT NORTH

STATE OF NEW YORK · JAMES PERONTO · LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.

DATE:
DECEMBER 10, 2021

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING DEMARCATION LAYER ELEVATION DATA IN SKANSKA CAD FILE "SGT DOUGHERTY SUB-BASE TOPO.DWG", NYSDOT CAD DRAWING FILE "ST.DOUGHERTYPARK_EXCAVATION", NYSDOT CAD DRAWING FILE "D263241_X73143_CPH_MP_02_R2, THE ENVIRONMENTAL NOTICE SURVEY DRAWING TITLED "NYSDEC SITE: 224192 513 PORTER AVENUE BLOCK 2811 LOT 14" DATED MARCH 21, 2019 PREPARED BY MJ ENGINEERING AND LAND SURVEYING, P.C., AND OTHER DRAWING REFERENCES.
UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D

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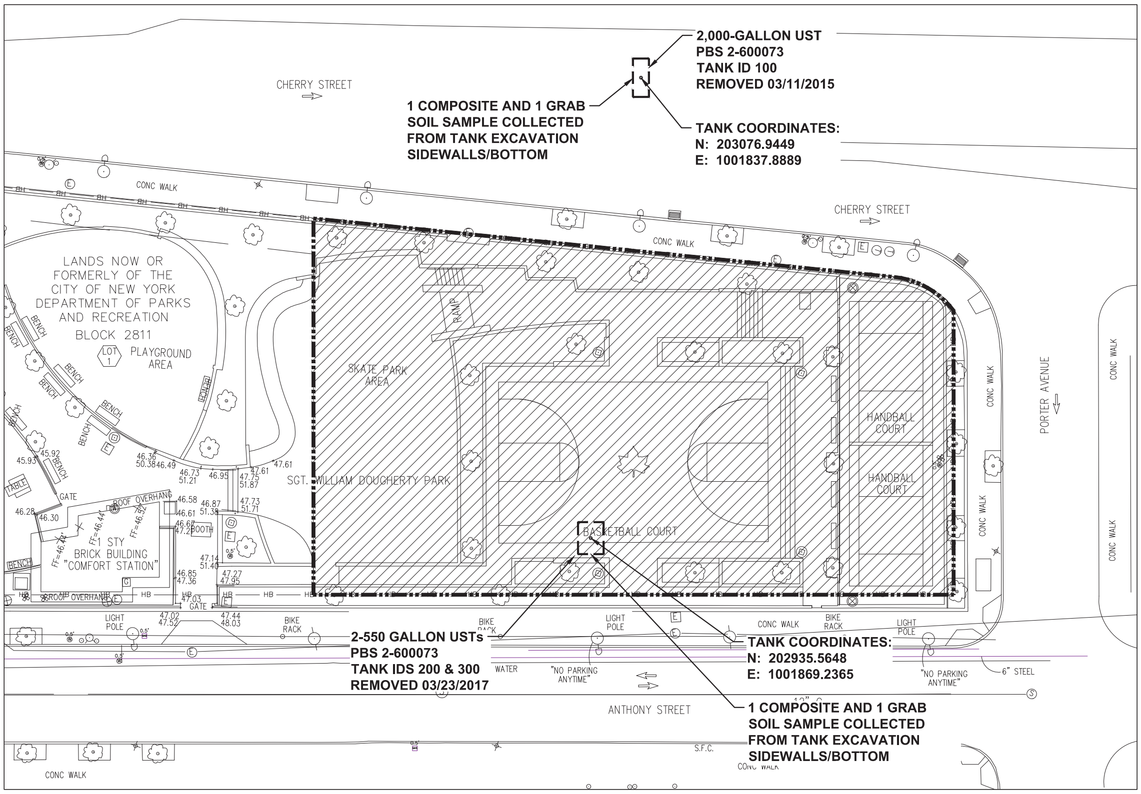
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
AS-BUILT DEMARCATION LAYER LOCATION PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356.0004.0000
FILE:	Fig.6 - As-Built Demarc. Layer Loc. Plan.dwg

FIGURE 6



LEGEND (SYMBOLS NOT TO SCALE):

- FORMER ACME STEEL SITE WITHIN PARK AREA LIMITS
- FORMER ACME STEEL SITE WITHIN PARK AREA
- APPROXIMATE LOCATION OF FORMER TANK

NOTES:

1. HORIZONTAL COORDINATES ARE REPORTED ON NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE NAD 83/CORS96 DATUM IN U.S. SURVEY FEET.
2. ELEVATIONS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

REFERENCES:

1. TANK LOCATION INFORMATION FOR 2-550 GALLON USTS PROVIDED IN NYSDOT CAD DRAWING FILE TITLED "SGT DOUGHERTY SUB-BASE TOPO.DWG".
2. TANK LOCATION INFORMATION FOR 2,000 GALLON UST PROVIDED ON SKANSKA DRAWING TITLED "PETROLEUM BULK STORAGE TANK CLOSURE LOCATION PLAN, BLOCK 2811, LOT 14 BROOKLYN" DATED OCTOBER 14, 2016.

PROJECT NORTH

SCALE: 1" = 30'
SHEET SIZE: 11" BY 17"

PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.
DATE:
DECEMBER 10, 2021

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING THE FINAL SITE SURVEY DRAWING TITLED "FINAL AS-BUILT COMFORT STATION SGT. DOUGHERTY PARK KINGS COUNTY STATE OF NEW YORK" DATED DECEMBER 18, 2018 AND THE ENVIRONMENTAL NOTICE SURVEY DRAWING TITLED "NYSDEC SITE: 224192 513 PORTER AVENUE BLOCK 2811 LOT 14" DATED MARCH 21, 2019 PREPARED BY MJ ENGINEERING AND LAND SURVEYING, P.C. UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D

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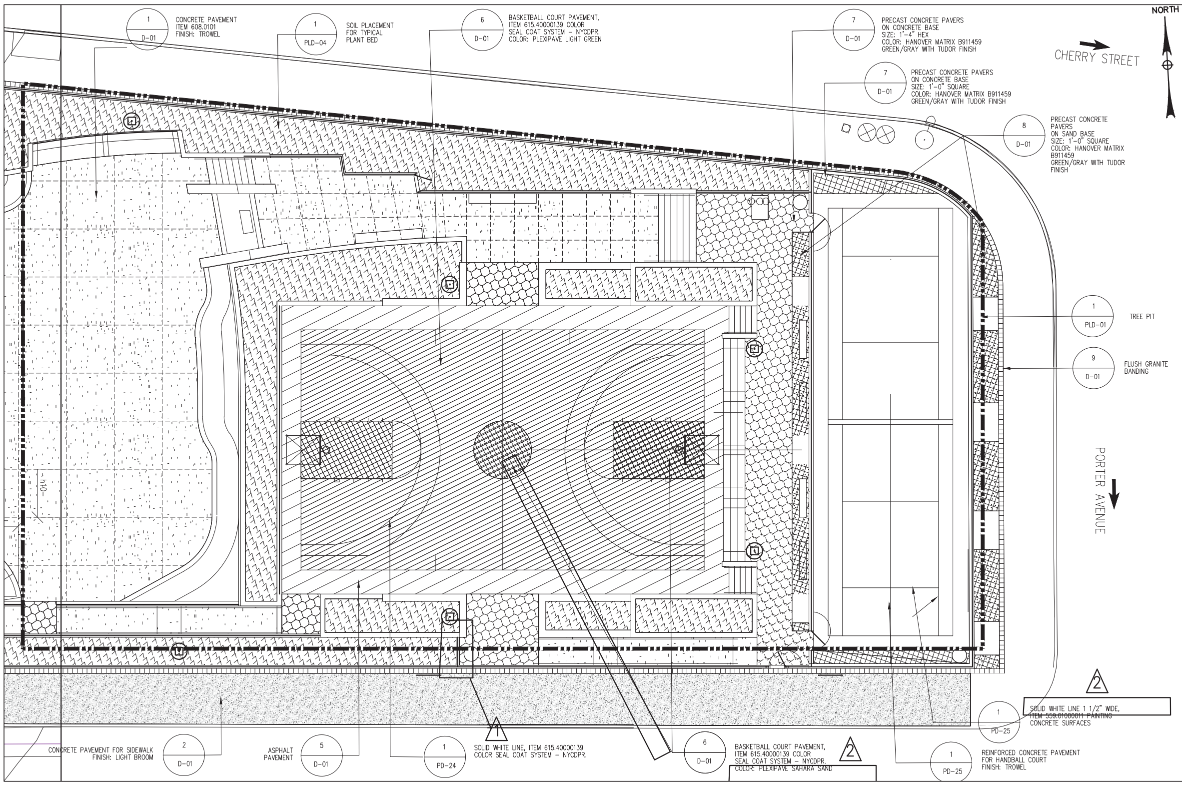
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
FORMER UST LOCATION PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356.0004.0000
FILE:	Fig.7 - Fmr. UST Loc. Plan.dwg

FIGURE 7



SYMBOL	DESCRIPTION
	JOINT KEY POINTS
- - - - -	1/8" EXPANSION JOINT
———	1/8 SAWCUT JOINT
1 / D-01	CONCRETE PAVEMENT ITEM 608.0101 FINISH: SKATEPARK - TROWEL FINISH: WALKWAYS - LIGHT BROOM
1 / PD-25	REINFORCED CONCRETE PAVEMENT FOR HANDBALL COURT FINISH: TROWEL
2 / D-01	CONCRETE PAVEMENT FOR SIDEWALK FINISH: LIGHT BROOM
7 / D-01	PRECAST CONCRETE PAVERS ON CONCRETE BASE SIZE: 1'-4" HEX COLOR: HANOVER MATRIX B911459 GREEN/GRAY WITH TUDOR FINISH
7 / D-01	PRECAST CONCRETE PAVERS ON CONCRETE BASE SIZE: 1'-0" SQUARE COLOR: HANOVER MATRIX B911459 GREEN/GRAY WITH TUDOR FINISH
8 / D-01	PRECAST CONCRETE PAVERS ON SAND BASE SIZE: 1'-0" SQUARE COLOR: HANOVER MATRIX B911459 GREEN/GRAY WITH TUDOR FINISH
5 / D-01	ASPHALT PAVEMENT
6 / D-01	BASKETBALL COURT PAVEMENT, ITEM 615.40000139 COLOR SEAL COAT SYSTEM - NYCDPR. COLOR: PLEXIPAVE LIGHT GREEN
6 / D-01	BASKETBALL COURT PAVEMENT, ITEM 615.40000139 COLOR SEAL COAT SYSTEM - NYCDPR. COLOR: PLEXIPAVE SAHARA SAND (2)
1 / PLD-04	SOIL PLACEMENT FOR TYPICAL PLANT BED

NOTE:
1. CROSS SECTION DETAILS FOR ABOVE COVER TYPES PROVIDED ON FIGURES 8a, 8b, AND 8c.

LEGEND (SYMBOLS NOT TO SCALE):

- FORMER ACME STEEL SITE WITHIN PARK AREA LIMITS (ADDED BY TRC)
- (2) AS-BUILT REVISIONS

PROJECT NORTH

0 20' 40'

SCALE: 1" = 20'
SHEET SIZE: 11" BY 17"

PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.

DATE:
DECEMBER 10, 2021

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING THE AS-BUILT FINAL SITE COVER PLAN TITLED "PAVEMENT PLAN 02" DRAWING NO. PVP-02 DATED 07/20/2018 AND PREPARED FOR THE NYSDOT WITH NY PE STAMP BY JIMMY W. LAU (#001216), AND INSPECTIONS BY THE CERTIFYING PE (TRC) AND OTHERS ACTING UNDER THE DIRECTION OF THE PE AS DOCUMENTED BY DAILY FIELD ACTIVITY REPORTS (TRC). UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D.

TRC
21 Griffin Road North
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

PROJECT:

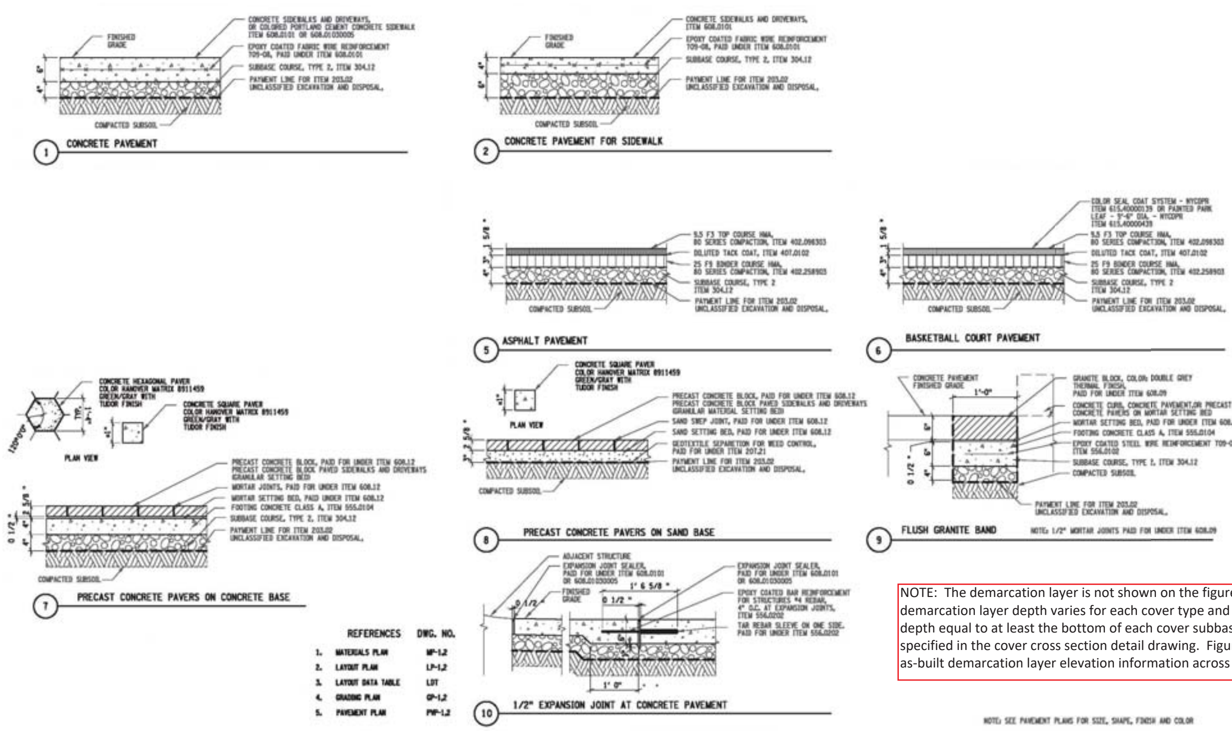
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:

AS-BUILT SITE COVER PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356.0004.0000
FILE:	Fig.8 - As-Built Site Cover Plan.dwg

FIGURE 8



NOTE: The demarcation layer is not shown on the figure. The demarcation layer depth varies for each cover type and is located at a depth equal to at least the bottom of each cover subbase course layer specified in the cover cross section detail drawing. Figure 8 provides the as-built demarcation layer elevation information across the Site.

STATE OF NEW YORK · JAMES PERONTO · 083561 · LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.
DATE:
JANUARY 17, 2022

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING THE AS-BUILT FINAL SITE COVER PLAN TITLED "DETAILS-PAVING" DRAWING NO. D-01 DATED 08/22/2016 AND PREPARED FOR THE NYSDOT WITH NY PE STAMP BY JIMMY W. LAU (#001216), AND INSPECTIONS BY THE CERTIFYING PE (TRC) AND OTHERS ACTING UNDER THE DIRECTION OF THE PE AS DOCUMENTED BY DAILY FIELD ACTIVITY REPORTS (TRC). UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D

TRC
21 Griffin Road North
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

NOT TO SCALE
SHEET SIZE: 11" BY 17"

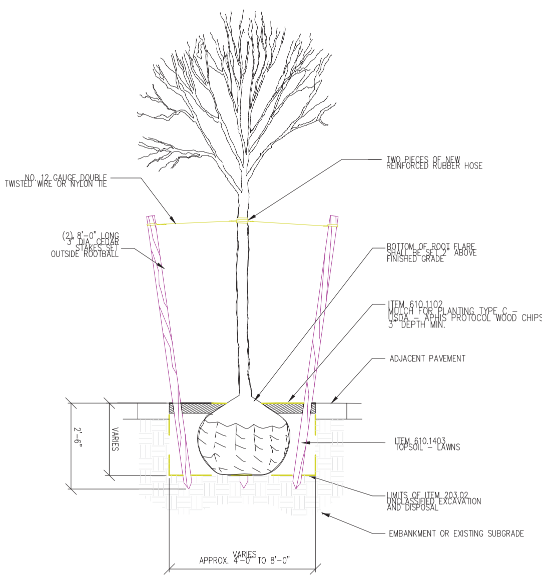
PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
AS-BUILT SITE COVER CROSS SECTION DETAILS PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356.0004.0000
FILE:	Fig.8a - As-Built Site Cover X-Sct. Det. Plan.dwg

FIGURE 8a

Version: 2017-10-21



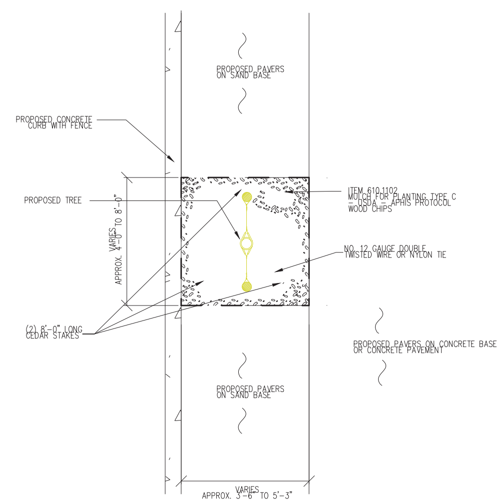
SECTION

1 TYPICAL TREE PIT

SCALE; NTS

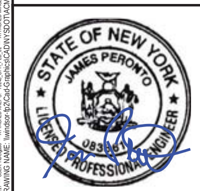
NOTES:

1. REMOVE TOP TWO THIRDS OF WIRE BASKET AND WRAP
2. INSTALL OR CUT STAKES TO WITHIN 4" OF TOP OF GUYING WIRE OR TIE



PLAN

NOTE: The demarcation layer is not shown on the figure. The demarcation layer depth varies for each cover type and is located at a depth equal to at least the bottom of the topsoil layer indicated in the cover cross section detail drawing. Figure 8 provides the as-built demarcation layer elevation information across the Site.



PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.

DATE:
JANUARY 17, 2022

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING THE AS-BUILT FINAL SITE COVER PLAN TITLED "PLANTING AND PLANT CARE DETAILS - TREE PIT" DRAWING NO. PLD-01 DATED 08/22/2016 AND PREPARED FOR THE NYSDOT WITH NY PE STAMP BY JIMMY W. LAU (#001216), AND INSPECTIONS BY THE CERTIFYING PE (TRC) AND OTHERS ACTING UNDER THE DIRECTION OF THE PE AS DOCUMENTED BY DAILY FIELD ACTIVITY REPORTS (TRC). UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D.

TRC
21 Griffin Road North
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

NOT TO SCALE
SHEET SIZE: 11" BY 17"

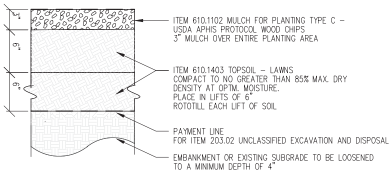
PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
AS-BUILT SITE COVER CROSS SECTION DETAILS PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	JANUARY 2022
PROJ. NO.:	252356.0004.0000
FILE:	Fig.8b - As-Built Site Cover X-Sct. Det. Plan.dwg

FIGURE 8b

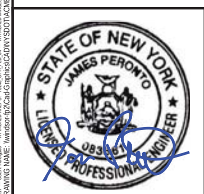
Version: 2017-10-21



1 SOIL PLACEMENT FOR TYPICAL PLANT BEDS

SCALE; NTS

NOTE: The demarcation layer is not shown on the figure. Figure 8 provides the as-built demarcation layer elevation information across the Site. All landscaped areas have a minimum of 2 feet of clean soil cover meeting Restricted Residential Use SCOs.



PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.

DATE:
JANUARY 17, 2022

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NO.	BY	DATE	REVISION	APP'D.

TRC
21 Griffin Road North
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

NOT TO SCALE
SHEET SIZE: 11" BY 17"

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
AS-BUILT SITE COVER CROSS SECTION DETAILS PLAN

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	JANUARY 2022
PROJ. NO.:	252356.0004.0000
FILE:	Fig.8c - As-Built Site Cover X-Sct. Det. Plan.dwg

FIGURE 8c

0 30' 60'

SCALE: 1" = 30'
SHEET SIZE: 11" BY 17"

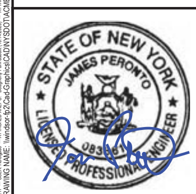
LEGEND (SYMBOLS NOT TO SCALE):

- FORMER ACME STEEL SITE WITHIN PARK AREA LIMITS
- FORMER ACME STEEL SITE WITHIN PARK AREA

REFERENCES:

1. AERIAL IMAGE SOURCED FROM WWW.NEARMAP.COM DATED OCTOBER 19, 2021.

PROJECT NORTH



PROFESSIONAL ENGINEER:
JAMES PERONTO, P.E.

DATE:
DECEMBER 10, 2021

THIS AS-BUILT DRAWING PROFESSIONAL ENGINEER (PE) CERTIFICATION IS BASED ON A PRODUCT OF OR COMPILATION OF INFORMATION AND/OR DOCUMENTATION PROVIDED BY OTHERS INCLUDING THE FINAL SITE SURVEY DRAWING TITLED "FINAL AS-BUILT COMFORT STATION SGT. DOUGHERTY PARK KINGS COUNTY STATE OF NEW YORK" DATED DECEMBER 18, 2018, THE ENVIRONMENTAL NOTICE SURVEY DRAWING TITLED "NYSDEC SITE: 224192 513 PORTER AVENUE BLOCK 2811 LOT 14" DATED MARCH 21, 2019 PREPARED BY MJ ENGINEERING AND LAND SURVEYING, P.C., AND OTHER DRAWING REFERENCES. UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING SECTION 7909(2)), IT IS A VIOLATION OF THE LAW FOR ANY PERSON TO ALTER THIS DOCUMENT THAT BEARS THE SEAL OF THE PROFESSIONAL ENGINEER, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

NO.	BY	DATE	REVISION	APP'D

TRC
21 Griffin Road North
Windsor, CT 06095
Phone: 860.298.9692
www.trccompanies.com

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
FORMER ACME STEEL SITE / PART OF CURRENT SGT. DOUGHERTY PARK
BROOKLYN, NEW YORK

TITLE:
SITE AERIAL PHOTOGRAPH

DRAWN BY:	H. DELGADO
CHECKED BY:	J. PERONTO
APPROVED BY:	J. PERONTO
DATE:	DECEMBER 2021
PROJ. NO.:	252356.0004.0000
FILE:	Fig.9 - Site Aerial Photograph.dwg

FIGURE 9