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INTERIM REMEDIAL MEASURES WORK PLAN

2250 East 69th Street Site
2250 East 69th Street
Brooklyn, Kings County, New York
Block 8437, Lot 54
NYSDEC Site No. C224404

PREPARED FOR:
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New York, New York 10018

PREPARED BY:
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LKB PROJECT NO: 10321.LK

NOVEMBER 4, 2025

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LIST OF ACRONYMS

ACRONYM	DEFINITION
amsl	Above Mean Sea Level
AOC	Area of Concern
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BGS	Below Ground Surface
C&D	Construction and Demolition
CAMP	Community Air Monitoring Plan
Cc	Coefficient of Curvature
CP	Commissioner's Policy
CP Plan	Citizen Participation Plan
Cu	Coefficient of Uniformity
DER	Division of Environmental Remediation
DOT	Department of Transportation
EM	Electromagnetic
FEMA	Federal Emergency Management Agency
GPR	Ground-Penetrating Radar
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
IRM	Interim Remedial Measures
IRMCCR	Interim Remedial Measures Construction Completion Report
IRMWP	Interim Remedial Measures Work Plan
Lb/ft3	Pounds per cubic foot
LNAPL	Light Non-Aqueous Phase Liquid
mg/kg	Milligrams per Kilogram
MTBE	Methyl Tertiary Butyl Ether
NYCDEP	New York City Department of Environmental Protection
NYCDOB	New York City Department of Buildings
NYCRR	New York Code, Rules, and Regulations
NYCOER	New York City Office of Environmental Remediation
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety and Health Administration

ACRONYM	DEFINITION
PCB	Polychlorinated Biphenyls
PFAS	Per-and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PID	Photoionization Detector
PPE	Personal Protective Equipment
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance / Quality Control
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
SCO	Soil Cleanup Objective
SPEED	Searchable Property Environmental Electronic Database
SVOC	Semi-Volatile Organic Compound
TAL	Target Analyte List
TCL	Target Compound List
TOGS	Technical and Operational Guidance Series
TPH	Total Petroleum Hydrocarbons
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
UUSCO	Unrestricted Use Soil Cleanup Objective
VI	Vapor Intrusion
VOC	Volatile Organic Compound

CERTIFICATION

I, Richard J. Tobia, P.E., certify that I am currently a New York State registered professional engineer and that this Interim Remedial Measures Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation.



Richard J. Tobia, P.E.

Seal

095039-1
License Number

11/4/25
Date

INTERIM REMEDIAL MEASURES WORK PLAN
2250 East 69th Street Site
2250 East 69th Street
Brooklyn, New York
Block 8437, Lot 54
NYSDEC Site No. C224404

1.0 INTRODUCTION

This Interim Remedial Measures Work Plan (IRMWP) has been prepared by Lockwood, Kessler & Bartlett, Inc. (LKB) on behalf of 2300 69 Property LLC (the Volunteer) for the property located at 2250 East 69th Street in Brooklyn, New York (the Site). The Volunteer is participating in the New York State Brownfield Cleanup Program (BCP) pursuant to a Brownfield Cleanup Agreement (BCA) executed on May 10, 2024. The Site is identified as New York State Department of Environmental Conservation (NYSDEC) Site No. C224404. The Site will be investigated and remediated in accordance with the BCP for its intended future use.

The approximately 1.38-acre Site is currently vacant but most recently consisted of a gravel storage yard for materials and equipment for Falco Construction Corp., a former fuel canopy structure and concrete pad used for storage, two shipping containers used as open-air workshops, limited landscaped areas, and a bulkhead on the southwestern side of the Site. From the 1940s to early 1980s, the Site was a petroleum bulk storage terminal. Based on available information collected to date, the primary contaminants of concern for the Site are petroleum, semi-volatile organic compounds (SVOCs), and metals. During investigations conducted to date, approximately up to six feet of light non-aqueous phase liquid (LNAPL) has been identified in some of the Site monitoring wells.

This IRMWP has been developed to facilitate the completion of stormwater improvements and the prompt removal of LNAPL ahead of the broader site-wide Remedial Action Work Plan (RAWP).

This IRMWP has been prepared in general accordance with NYSDEC Division of Environmental Remediation (DER)-10 / Technical Guidance for Site Investigation and Remediation (May 3, 2010). The IRMWP describes the procedures to minimize stormwater infiltration and begin to recover LNAPL from known areas of LNAPL at the Site. The interim remedial measures, as described in this IRMWP, will be summarized in an Interim Remedial Measures Construction Completion Report (IRMCCR). All work will be completed in accordance with this IRMWP.

1.1 Site Description

The Site is in Brooklyn, Kings County, New York and is identified as Block 8437, Lot 54 on the New York City Tax Map. **Figure 1** shows the Site location. The Site encompasses one lot and a total of 1.38 acres. According to the New York City Department of Buildings (NYCDOB), the Site is identified with the following addresses: 2250 to 2260 East 69th Street. The Site is in an urban area with a mix of commercial and residential buildings. The Site is bounded by East 69th Street to the northeast, East Mill Basin waterway to the southwest, a construction storage yard to the northwest, and Avenue W to the southeast.

Exterior areas on the Site include a gravel storage yard formerly used for materials and equipment for Falco Construction Corp., a former fuel canopy structure and concrete pad used for storage, two shipping containers used as open-air workshops, limited landscaped areas, and a bulkhead on the southwestern side of the property (along the East Mill Basin).

The Site is currently vacant, and the proposed redevelopment of the Site includes the change of use from the storage yard (steel beams, wood piles, and construction equipment [i.e., cranes]) to an asphalt-paved parking lot with a dispatch office to support logistics-related uses. Based on a review of the New York City Department of City Planning and Land Use Mapping program, the Site is zoned M1-1 (manufacturing district). The M1 districts are often buffers between M2 and M3 districts and adjacent residential or commercial districts. M1 districts typically include light

industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Nearly all industrial uses are allowed in M1 districts if they meet the stringent M1 performance standards. Offices, hotels, and most retail are also permitted in M1 districts. The neighboring properties are currently used for a combination of commercial and residential uses. A zoning change is not required as part of the proposed redevelopment, as a parking lot supporting logistics use is a permitted use for the M1 district.

The Site is generally flat with a slight slope to the south. Stormwater at the Site is expected to infiltrate the unpaved areas of the Site and flow via surface flow towards the surrounding properties and East Mill Basin.

1.2 Surrounding Land Use

The Site is in a highly developed urban area in Brooklyn, New York. The surrounding properties are identified as the following:

Northwest: Construction storage yard operated by Falco Construction Corp. (2240 East 69th Street).

Northeast: East 69th Street, followed by Pizzirusso Bros landscapers (2235-2269 East 69th Street), a dwelling (6917 Avenue W), and a vacant commercial building (6902 Avenue W).

Southwest: East Mill Basin (waterway).

Southeast: Avenue W, followed by an office, warehouse, and equipment/vehicle maintenance building operated by Falco Construction Corp. (2300 East 69th Street).

Based on visual observations made during a Site reconnaissance and a review of the New York

City Office of Environmental Remediation (NYCOER) Searchable Property Environmental E-Database (SPEED) and the New York City Oasis mapping programs, no parks, healthcare facilities, or schools were identified in the vicinity (500 feet) of the Site. However, a total of 110 residences were located within 500 feet of the Site.

1.3 Historic Use of the Site

Based on a review of reasonably ascertainable historical information, it appears that the Site consisted of wetlands and a creek prior to filling activities in the 1920s/1930s. From the 1940s to early 1980s, the Site was a petroleum bulk storage terminal operated by Argus Gas & Oil Sales Co. Inc., Jay Tee Fuel Oil Corp., Tidewater Oil Co., Ross Oil Corp., Premium Coal & Oil Co. Inc., and Mobil Oil Corp. The former fuel canopy structure (currently used for material storage) was constructed on the Site in 1963. The bulk petroleum storage terminal was razed in the early 1980s, and Falco Construction Corp. utilized the Site for the storage of construction materials and equipment until mid-2025.

1.4 Site Geology and Hydrogeology

According to the United States Department of Agriculture (USDA) Web Soil Survey, soil at the Site consist primarily of urban land. Urban land soils are those that have been so altered by human activities that the soil has lost its original characteristics and is thus unidentifiable.

Based upon findings of the subsurface investigations completed, soils encountered below the footprint of the Site consist of fill material (sand and silty clay with concrete, brick, and gravel) from ground surface to approximately 8.5 feet below ground surface (bgs), followed by silt clay and medium to fine sand to boring termination depth at 15.0 feet bgs. Bedrock was not encountered during the investigations.

Review of the Surficial Geologic Map of New York, Lower Hudson Sheet (New York State Geologic Survey, 1989) indicated that the Site is located in an Artificial Fill and Outwash Sand and Gravel area. The Outwash Sand and Gravel formation is noted as coarse to fine gravel with sand, proglacial fluvial deposition, well rounded, and stratified. Review of the Geologic Map of New York, Lower Hudson Sheet (New York State Museum and Science Service, 1970) indicated that the Site is located in a coastal plain deposits area (Monmouth Group, Matawan Group, and Magothy Formation) characterized by silty clay, glauconitic clay, sand, and gravel.

Groundwater was encountered at depths ranging from approximately 3.56 to 6.49 feet bgs in permanent and temporary monitoring wells installed at the Site. Groundwater flow direction is to the south.

In accordance with New York Codes, Rules, and Regulations Title 6 (6 NYCRR) Part 701: Classifications -Surface Waters and Groundwater, groundwater at the site is identified as Class GA (fresh groundwater). There are no known groundwater supply wells on the Site, and currently there are no known deed restrictions on the use of groundwater at the Site. Groundwater in the vicinity of the Site is not utilized for industrial, agriculture, or public supply purposes. Groundwater is tidally influenced and shows evidence of saltwater intrusion.

1.5 Wetlands and Floodplain

According to a letter entitled *RE: DEC Wetlands Jurisdictional Determination No. 2-6105-00161-00019*, prepared by the NYSDEC and dated May 14, 2007, none of the Site is located within NYSDEC freshwater wetlands jurisdiction. The letter also noted the Site is not located within NYSDEC tidal wetlands jurisdiction, except for an approximately 1,024 square foot area landward of the bulkhead. This jurisdictional area is fenced off to prevent access and use. No naturally occurring surface water bodies were observed on the Site. The East Mill Basin waterway adjoins the Site to the southwest.

Review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) identified that portions of the Site are in the Special Flood Hazard Area Subject to Inundation by the 1% Annual Chance Flood (Zone AE). Additional areas on the Site are noted in Zone X (Other Flood Areas) described as areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

1.6 Areas of Concern (AOCs)

Based on the Site's history and previous reports prepared for the Site, the AOCs applicable to the remedial investigation (RI) include the following:

Former Petroleum Bulk Storage Tanks – From the 1940s to early 1980s, the Site was operated as a petroleum bulk storage terminal with petroleum storage including the following: a 30,000-gallon fuel oil tank "in earthen mound;" two fuel oil tanks (total capacity of 912,000 gallons) "covered by earthen mound;" and one 250,000-gallon fuel oil tank "in earthen mound." The former tank farm encompassed an approximately 16,375-square foot area.

Former Fueling Canopy – During the petroleum bulk storage terminal operations discussed above, a former fueling canopy was operated in an area separate from the former tank farm. The former fueling canopy together with the piping from the former tank farm to the canopy is an AOC consisting of approximately 2,835 square feet in area.

It should be noted that it was reported that all former petroleum bulk storage tanks and appurtenances (i.e., piping and fill ports) within the former terminal were removed from the Site in the early 1980s.

Based on available information collected to date, the primary contaminants of concern for the Site are petroleum, semi-volatile organic compounds (SVOCs), and metals. During Site characterization and remedial investigation (RI) activities, light non-aqueous phase liquid (LNAPL)

was identified in temporary monitoring wells, permanent monitoring wells, and a recovery well at the Site.

Potential receptors include residences to the northeast and the East Mill Basin waterbody to the southwest.

2.0 SOIL, GROUNDWATER & LNAPL CHARACTERIZATION

The RI activities were conducted in April and May 2025 to further investigate and delineate the Site contaminants associated with the former bulk storage and handling of petroleum oils. The RI scope of work included the following: installation of temporary monitoring wells to visually delineate LNAPL and the collection of a product sample for characterization; the collection of soil samples to evaluate soil impacts and characteristics and to evaluate potential future remedial alternatives; the installation of permanent monitoring wells and a recovery well and the collection of groundwater samples and water elevations to confirm groundwater flow direction and delineate groundwater impacts; the installation of transducers in the monitoring wells to evaluate potential tidal influence; the installation of temporary soil vapor points and the collection of soil vapor samples; and the collection of an ambient air sample.

2.1 Soil Findings

All soil samples were analyzed for the complete target compound list (TCL)/target analyte list (TAL) suite of analyses, which include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), TAL metals (including hexavalent chromium), cyanide, 1,4-dioxane, and per-and polyfluoroalkyl substances (PFAS).

Review of the soil analytical data identified the following. A thorough evaluation of the soil results will be provided in the Remedial Investigation Report (RIR).

- **VOCs** –Concentrations of acetone exceeding the NYSDEC Unrestricted Use Soil Cleanup Objective (UUSCO) only were detected at several locations. Acetone detections are assumed to be a result of laboratory contamination. In addition, there were also detections of 2-butanone at V-16 (6.5-7.0), methylene chloride at V-14 (5.0-5.5), and n-propylbenzene at MW-1 (5.0-5.5) exceeding the UUSCO only.

- **SVOCs** – Detections of 1,4-dioxane, 3-methylphenol/4-methylphenol, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, and phenol were reported; however, the detections only exceeded the UUSCO. Several SVOC compounds exceeding various NYSDEC Soil Cleanup Objectives (SCOs) at V-12 (4.5-5.0), V-13 (0.5-1.0), V-13 (6.0-6.5), V-14 (0.5-1.0), V-13 (7.0-7.5), and V-15 (0.5-1.0). Based on the random distribution, lateral and vertical, these exceedances are more likely characteristic of Site-wide fill material.

- **Pesticides** – Slight exceedances of only the UUSCO were encountered in several sample locations for 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT. The detections may be characteristic of the Site-wide fill material.

- **PCBs** – Detections of Aroclor 1242, Aroclor 1254, Aroclor 1260, and/or total PCBs were noted in exceedance of the UUSCO only at V-10 (14.5-15), V-14 (6-6.5), V-16 (6.5-7), MW-3 (3.5-4), and MW-4 (7-7.5). Based on the historical operations and storage of heating oil, the detections are more characteristic of the Site-wide fill material than heating oil.

- **Metals** – Exceedances of lead and other metals (arsenic, cadmium, copper, mercury, nickel, and zinc) were noted in a number of the borings and at various sample depths. Exceedances were generally of the UUSCO only. Higher concentrations of lead were noted in V-13 (0.5-1) and V-16 (1.0-1.5, duplicate sample). Detections of hexavalent chromium in soil ranged from non-detect to 0.522 milligrams per kilogram (mg/kg) and does not exceed the UUSCO of 1.0 mg/kg. The metals detections are more likely characteristic of the Site-wide fill material than heating oil.

- **PFASs** – No detections of perfluorooctanesulfonic acid (PFOS) or perfluorooctanoic acid (PFOA) were identified in exceedance of the proposed soil cleanup guidance values (draft

Commissioner's Policy 51 [CP-51]), except for at one location (V-13). PFOS was detected in V-13 at 0.00194 mg/kg at 6.0-6.5 feet bgs and 0.0013 mg/kg at 14.5-15.0 feet bgs, which exceed the UUSCO guidance of 0.00088 mg/kg. PFOA was detected at 6.0-6.5 feet bgs at 0.000893 mg/kg, which exceeds the UUSCO of 0.00066 mg/kg.

The sample locations are depicted on **Figure 2**.

2.2 Groundwater Findings

Five permanent monitoring wells (MW-1 through MW-5) and one product recovery well (RW-1) were installed at the Site. The well locations are depicted on **Figure 2.**

Pressure transducers were installed in three of the five monitoring wells (MW-2, MW-3, and MW-4) to assess the influence of tidal changes on the groundwater elevation at the Site. Transducers were set in wells that vary in distance from the East Mill Basin water body. The change in water table elevation varied with distance to East Mill Basin from 0.319 feet (MW-2), 0.403 feet (MW-3) to 2.55 ft (MW-4) with MW-4 being located closest to East Mill Basin; the fluctuation in the groundwater table is higher closer to the adjacent water body. This fluctuation will result in a thicker smear zone in that area.

The monitoring wells were surveyed on April 23, 2025, by a New York-licensed surveyor. Groundwater depth varies with the tides but ranged from 3.56 to 6.49 feet below ground surface for all wells during the two gauging events. These depths coincide with a groundwater elevation ranging from 0.52 to 4.13 feet above mean sea level (ASML). Groundwater flows generally to the south / southwest.

The monitoring wells were gauged and sampled one week following installation on April 23, 2025. All groundwater samples were analyzed for the complete TCL/TAL suite of analyses, which

include VOCs, SVOCs, pesticides/PCBs, TAL metals (including hexavalent chromium), cyanide, 1,4-dioxane, and PFAS. Hexavalent chromium analysis was to be conducted on all groundwater samples; however, due to a laboratory error, the analysis could not be conducted. The hexavalent chromium groundwater analysis will be completed during the supplemental RI activities. The following is a summary of the key findings. A thorough evaluation of the groundwater results will be provided in the RIR.

- **VOCs** – The following VOCs exceeded groundwater standards: 1,2,4,5-tetramethylbenzene, 2-butanone (methyl ethyl ketone), acetone, isopropylbenzene (cumene), and n-propylbenzene. The detections of benzene compounds are typical for petroleum contamination sites. Acetone and 2-butanone are typically not associated with weathered No. 2 fuel oil compounds. The acetone detections are assumed to be a result of laboratory contamination. The detection of acetone and 2-butanone may also be the result of biological processes occurring or other sources in the groundwater at the Site. (*Acetone and 2-Butanone Creation Associated with Biological and Chemical Remediation of Environmental Contamination, T. Fowler, B. Thompson, J. Mueller, Remediation 2011)*. The detections of benzene compounds are typical for petroleum contamination sites.

- **SVOCs** – The following SVOCs were identified in exceedance of groundwater standards: acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k) fluoranthene, chrysene and indeno(1,2,3-cd)pyrene. The detections of these compounds are typical for petroleum contamination sites and historic fill sites. Although detections were noted in the most upgradient well (MW-2), detections were typically higher in the LNAPL areas of the Site.

- **Pesticides/PCBs** – No pesticide or PCB compounds were identified in exceedance of the groundwater standards.

- **Metals** – Exceedances of metals varied with the location of the monitoring wells and proximity to the water body. Sodium and magnesium, associated with seawater, were detected in most of the wells , but were greatest in MW-4 which is the well that is closest to the waterbody and most influenced by tides. Based on concentration of sodium and magnesium detected in this well, this well is experiencing saltwater intrusion. MW-4 also had exceedances for antimony, arsenic, beryllium, cadmium, copper, mercury, nickel, and thallium that were not observed in the other wells. The varying concentrations of aluminum, chromium, iron, lead, manganese and selenium are likely due to historic fill or historic operations.

  PFAS – PFOA and PFOS were detected in all five groundwater monitoring wells. The highest concentration of PFOS was in MW-3 (canopy area) and the highest concentration of PFOA was in MW-2 (most upgradient northern well). The total of PFOS and PFOA was also the greatest in MW-2, which suggests that PFOS and PFOA are most likely due to an off-site source.

2.3 LNAPL Findings

Following a one-week stabilization of the wells, LNAPL was identified in three of the six wells (MW-1, MW-5, and RW-1). The initial LNAPL measurements were 6 inches (MW-1), 1 inch (MW-5) and 1.5 inches (RW-1) on April 23, 2025. Please note, the construction of the recovery well differs from the monitoring well in the diameter (4-inch versus 2-inch) as well as the screen type and screen open area.

On May 22, 2025, LKB collected additional LNAPL and groundwater elevation readings from the monitoring wells (MW-1 to MW-5) and the recovery well (RW-1) at the Site. The data was used to further evaluate LNAPL thickness across the Site and groundwater flow direction. LNAPL was noted in four of the six wells: MW-1 (6 feet, 4.4 inches), MW-3 (0.24 inches), MW-5 (sheen), and

RW-1 (5.76 inches). Please note, the quantities measured varied greatly in the wells over time. It is expected that quantities of LNAPL will increase with time as the material partitions from the soil/water environment.

Temporary monitoring wells were installed radiating out from the recovery well in an attempt to delineate the LNAPL plume. Refusal at approximately 7 feet bgs was encountered in all but one temporary well location (TW-4). The use of temporary wells during the RI was considered to be ineffective as the wells were designed to be installed at depths greater than 7 feet. Based on visual inspection of the direct push and rotary drill heads and driller observations, the obstruction was determined to be competent concrete. It is surmised from these observations and the locations of the former ASTs depicted on the historic Sanborn maps, that the obstruction(s) are slabs and/or footings for the former above ground tanks and associated structures.

LNAPL delineation appears to be complete to the southwest through the northeast. Refinement of the delineated areas may be warranted. Based on the location of MW-1 in relation to the western Site boundary and the quantity of free product present in the well, the free product very likely extends northwest and west to the adjacent lot (Lot 49). Delineation in these directions is not complete.

The LNAPL was sampled and tested to determine the density, kinematic viscosity, and total petroleum hydrocarbon (TPH) fingerprint of the oil. Based on the testing, the LNAPL is weathered No. 2 fuel oil. The LNAPL impacts identified at the Site are the result of on-Site historical release(s).

One soil sample collected from approximately the groundwater table was analyzed for grain size, permeability, and bulk density. Results of the testing showed that the sample as being moist, dark grayish brown silty sand. Grain size analysis showed the makeup as being 17.4% gravel, 64.3% sand and 18.3% silt and clay. The coefficient of uniformity (Cu) and coefficient of curvature

(Cc) were 12.95 and 2.29, respectively, which is typical for a well graded sand. The bulk density resulted in 123.3 pounds per cubic foot (lb/ft3) with a moisture content of 10.26 % and a dry density of 111.9 lb/ft3. The constant head permeability of granular soils resulted in a permeability of 1.17E-3 cm/sec @20oC (1.17E-5 m/sec). These data support the relative quick recovery of the wells and movement of the LNAPL.

3.0 QUALITY ASSURANCE PROJECT PLAN

A Quality Assurance Project Plan (QAPP) has been prepared to guide the implementation of the proposed IRM activities.

3.1 Project Technical Personnel and Contractors

The table below summarizes the planned principal personnel to participate in the IRM activities.

Project Technical Personnel and Contractors			
Name	**Company**	**Responsibility**	**Contact Information**
Richard J. Tobia, P.E.	Lockwood, Kessler & Bartlett, Inc.	Project Manager	(908) 448-2627
Richard J. Tobia, P.E.	Lockwood, Kessler & Bartlett, Inc.	New York-licensed Professional Engineer	(908) 448-2627
Joshua M. Sewald, P.E.	Dynamic Engineering	Civil Engineering	(973) 755-7200
TBD	TBD	Stormwater Installation Contractor	TBD
Michael Baldwin	PAL Environmental Safety Corp.	Environmental Services Contractor	(718) 349-0900
Matt Fekelman	Ground Penetrating Radar Systems Inc.	Geophysical Contractor	(484) 889-5874

TBD – to be determined (NYSDEC will be updated when contract is awarded for this work)

3.2 Sampling Methodology

No samples for investigative purposes will be collected as part of the IRM activities. If necessary, separate phase product and associated fluids will be sampled for waste characterization purposes for off-site disposal. End point soil samples will be collected from the base of the excavation in accordance with DER-10 requirements. In addition, one sample from the bottom of each sidewall will be collected for every 30 linear feet of sidewall (Figure 3). Soil samples may be

collected for waste characterization purposes for off-site disposal. Sampling for waste characterization will entail in-situ sampling of soils in the proposed stormwater detention structure location and stormwater conveyance trench areas or sampling of a stockpile.

The endpoint and waste characterization soil samples will be collected in dedicated laboratory-provided bottles (for liquid sampling), Encore samplers and laboratory-provided containers for soils, all secured, labeled, and placed in a storage/transportation cooler and cooled to acceptable temperatures (e.g., four degrees Celsius) with ice. Samples will then be transported by a field courier to the laboratory following proper chain of custody procedures. The courier will relinquish custody to the log-in sample custodian upon arrival at the New York Environmental Laboratory Accreditation Program [ELAP]-certified laboratory.

Equipment will be operated in accordance with the manufacturer's specifications, including calibration of all field instruments, which will be performed prior to the initiation of field work and on a schedule indicated by the manufacturer.

3.3 Report Logs

Daily construction or activity logs will be completed during the course of IRM activities. A field log will be completed on a daily basis, which will describe all field activities including project number and site address; date and time; weather conditions; on-Site personnel and associated affiliations; and a description of field activities.

3.4 Laboratory

No investigation samples will be collected as part of the IRM activities. End point soil samples will be collected at a rate of one sample per every 900 square feet of excavation area and one per

every 30 feet of sidewall. End point samples will be analyzed for the Part 375 list of VOCs, SVOCs, PCBs, pesticides, and metals.

Waste characterization soil sampling will be conducted in accordance with the sample frequency and analysis requirements of a licensed disposal or reuse facility. Typical waste characterization analysis could include but is not limited to VOCs, SVOCs, pesticides/PCBs, TAL metals, extractable petroleum hydrocarbons (EPH), total petroleum hydrocarbons (TPH) diesel-range organics (DRO) and gasoline range organics (GRO), and toxicity characteristic leaching procedure (TCLP) metals.

Waste Characterization Sampling Summary (Soil)						
Matrix Type	**Analytical Parameter**	**Analytical Method**	**Sample Preservation**	**Sample Container**	**Sample Holding Time**	**Estimated Number of Samples Collected ****
Soil	VOC	8260	Cool, 4°C	Encore	48 Hours	15
Soil	SVOC	8270	Cool, 4°C	8 oz Glass	14 Days	15
Soil	Pesticides	8081	Cool, 4°C	8 oz Glass	14 Days	15
Soil	PCB	8082	Cool, 4°C	8 oz Glass	14 Days	15
Soil	TAL Metals	6010/7471	None	8 oz Glass	6 Months	15
Soil	EPH	NJDEP EPH	Cool, 4°C	4 oz Glass	14 Days	2
Soil	TPH-DRO	8015	Cool, 4°C	4 oz Glass	14 Days	2
Soil	TPH-GRO	8015	Cool, 4°C	4 oz Glass	14 Days	2
Soil	TCLP Metals	6010	None	8 oz Glass	6 Months	2

**The estimated number of samples is based on the total volume of soil estimated to be exported from the Site (1,157.22 cubic yards), as outlined on the Cut/Fill Plan, prepared by Dynamic Engineering and dated August 6, 2025

and 3,600 square feet of excavation on Site. A copy of the plan is included in **Appendix B**. Typical disposal facility characterization sampling frequency is one sample per 800 cubic yards.

4.0 INTERIM REMEDIAL MEASURES WORK PLAN

The objective of the IRM is to minimize stormwater infiltration and to begin to recover LNAPL in known areas of LNAPL at the Site while the LNAPL plume is still being delineated and before full-scale LNAPL recovery methods can be engineered and deployed. Additional remedial activities to address LNAPL and associated groundwater impacts will be performed under a site-wide RAWP.

4.1 Health & Safety Plan

A Health and Safety Plan (HASP) has been prepared to guide the conduct of the IRM work in the event that petroleum hydrocarbons and/or hazardous substances are encountered during the performance of the field activities. A copy of the HASP is included as **Appendix A**. The purpose of the HASP is to minimize the likelihood of exposure of VERTEX employees to hazardous concentrations of chemicals encountered during field activities, minimize impacts to the environment, and provide safety guidelines for subcontractors.

Investigative and other work performed under this IRMWP will be in full compliance with applicable health and safety laws and regulations, including site and Occupational Safety & Health Administration (OSHA) worker safety requirements and Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements. Confined space entry, if any, will comply with OSHA requirements and industry standards, and will address potential risks. The parties performing the investigation work will ensure that performance of work is in compliance with the HASP and applicable laws and regulations. Field activities will be completed with OSHA level D personal protective equipment (PPE) consisting of hard hats, safety glasses, protective gloves and steel toed boots.

An emergency contact sheet with names and phone numbers for all pertinent project personnel as well as regulatory hotline information is included in the HASP. That document will define the specific project contacts for use in case of emergency.

Health and safety activities will be monitored throughout the IRMWP activities, and the HASP will be subject to change, as necessary, based on new conditions that may be encountered during the IRM activities.

4.2 Citizen Participation

In accordance with BCP requirements, a Citizens Participation Plan (CP Plan) has been prepared and has been submitted to the NYSDEC under separate cover. The CP Plan provides a summary of the BCP and citizen participation activities, Site information, project contacts, and the RI and IRM process.

4.3 Permitting

The following construction and stormwater connection permits are required by the NYCDOB or other agencies for implementation of the proposed Site alterations and stormwater control measures. All required permits have been approved, with the exception of the SWPPP, which is currently being revised and resubmitted as noted below.

- Alteration-Certificate of Occupancy (Alt-CO)
- Builder's Pavement Plan (BPP)
- Street Tree Plan and Planting Permit
- Curb Cut Permit (3 total)
- Site Connection Proposal (sewer)
- Industrial Wastewater Discharge Permit Waiver
- Stormwater Pollution Prevention Plan (SWPPP) – minor rejection, being resubmitted with additional stormwater planter square footage (1,500 square feet)

No permits will be required for the completion of the LNAPL recovery activities.

4.4 Utility Clearance and Geophysical Evaluation

As part of the IRM activities, LKB's and the owner's subcontractors will contact the New York one call system prior to initiating intrusive activities. VERTEX will also retain the services of a geophysics subcontractor to conduct a below grade geophysical survey using ground-penetrating radar (GPR) and electromagnetic (EM) evaluation to mark-out subsurface utilities and "clear" any proposed excavation locations prior to excavation. In addition, the geophysical evaluation will be conducted to evaluate potential remnants of the former bulk storage tank farm and potential below-grade piping associated with the former fueling canopy.

4.5 Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) was developed to provide specific procedures for monitoring, documenting, and responding to potential airborne contaminants during ground-intrusive remedial activities at the Site. The purpose of the CAMP is to protect downwind community (i.e., off-Site receptors including residences, businesses, and on-Site workers not directly involved in the intrusive work) from potential releases associated with remedial work, including, but not limited to, all intrusive activities as well as during grading, excavating, and loading out of any soil/fill material, conducted at the Site. A copy of the CAMP is included in Appendix D of the NYSDEC-approved RIWP.

CAMP readings will be recorded and reported to the NYSDEC/New York State Department of Health (NYSDOH) on a weekly basis, and exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH project managers on the same day or the next business day (if after hours). Reporting of the CAMP exceedance will include the nature of the exceedance, the

reason for the exceedance, corrective actions taken, and a summary of the effectiveness of the corrective actions taken.

4.6 Stormwater / LNAPL Recovery IRM

4.6.1 Stormwater Measures

A stormwater drainage system will be installed at the Site to minimize stormwater infiltration. Minimizing stormwater infiltration at the Site will have the beneficial effect of reducing the leaching of contaminants from soils and LNAPL into groundwater and will also reduce the capillary and head pressure in the LNAPL source area. Minimizing these forces and fluctuations in the capillary fringe will help to stabilize the LNAPL plume, prevent further spreading of the plume, and aid in LNAPL recovery efforts. The installation will include but is not limited to the removal of the existing metal fuel canopy, the existing masonry shed, masonry wall, and any remaining scrap located on site. The majority of the equipment, metal, and scrap has already been removed from the Site.

The stormwater drainage system will be comprised of an underground detention basin (Stormtrap Double Tap), surface water inlet catch basins, an outlet control structure, associated manholes, an Up-Flo filter (Hydro International), and below-grade transference system pipe runs. The system design drawings are provided in **Appendix B**.

Three stormwater inlets, the majority of the detention basin (2/3), an outlet control structure, and a particulate filter system will be located on the Site. An additional inlet and approximately 1/3 of the detention basin are located on the adjacent property to the northwest. The drainage system is designed to service the entire fenced area of the Site with the exception of the sidewalk area adjacent to East 69th Street. Installation of the system will include grading of the Site to allow for proper slope, drainage, and capture of the stormwater. Small aprons immediately

surrounding the catch basins may be paved to prevent erosion. Filter fabric will be utilized in the catch basins to collect sediment or until grass can be established.

The detention basin is essentially an underground tank that temporarily holds stormwater and controls the flow of the recovered stormwater discharge to a particulate filtration system prior to entering the city stormwater system outfall. The system seeks to minimize stormwater infiltration at the Site while minimizing ponding and loading of stormwater in the areas where LNAPL has been identified.

The invert of the detention basin will be set at an elevation of 3.75 feet. The Site surface grade at the basin will be between 8.25 and 9.50 feet in elevation. The overall basin dimension is 170.5 x 30.33 x 4 feet in depth. The detention basin will be situated outside the area of the known LNAPL.

Stormwater inlet structure outlet pipe inverts will be set at 4.45 to 4.50 feet above mean sea level (amsl) in elevation. These elevations are situated above the groundwater table and are not expected to interfere with or intercept LNAPL, if present in the installation area. Based on data acquired during the remedial investigation, the groundwater table ranges from 0.5 to 3.5 feet amsl in elevation. Existing surface elevations ranging from 6.0 to 8.6 feet amsl will be graded to 6.95 to 9.25 feet asml. An overlay of the drainage system plan on the existing Site Plan is provided as **Figure 3**.

4.6.1.1 End Point Sampling

Post excavation soil samples will be collected from the base and sidewall of the proposed detention basin (tank) in accordance with DER-10 requirements. The samples will be analyzed for the Part 375 list of VOCs, SVOCs, PCBs, pesticides, and metals. The detention basin covers an area of 3,600 square ft (30 ft x 120 ft) on the Site. Based on an area of 3,600 square feet and 270 feet

of sidewall, one end point sample will be collected for every 900 square feet and every 30 linear feet of sidewall (13 samples in total). In accordance with DER-10, for the collection of samples in an excavation for VOC analysis, if samples are collected (i) within 24 hours of excavation, they will be collected from the zero to six-inch interval at the excavation floor; or (ii) after 24 hours, the samples will be taken at six to twelve inches, and no water should be present in the excavation bottom where bottom samples are collected (Figure 3).

4.6.2 LNAPL Recovery

In conjunction with the planned stormwater measures to limit infiltration at the Site, VERTEX proposes implementing a LNAPL recovery IRM to address the presence of free product at the Site. This targeted IRM enables immediate response to LNAPL impacts, thereby reducing potential risks to public health and the environment through timely removal of free product in select areas. Further, by addressing the LNAPL in conjunction with the installation of the stormwater control devices, the Volunteer is reducing the risk of further migration of the plume and dissolution of contaminants into the groundwater. The IRM will also provide valuable information regarding the movement and recovery of mobile LNAPL at the Site.

During the recent proposed investigation and delineation activities, VERTEX's contractor utilized an excavator to locate the former oil storage tank footings. As the groundwater table appears to be deeper than the footings, groundwater with the presence of LNAPL was not identified within the former footprint of the fuel oil tanks.

Using the data collected to date, including the known location of LNAPL at the Site and the properties of LNAPL, LKB's licensed engineer will design a LNAPL collection system of sufficient size and depth to effectively intercept and collect LNAPL. The design will take into account tidal and seasonal groundwater fluctuations. Perforated, corrugated polyethylene pipe or other collection piping will be installed in a horizontal/vertical position up to two (2) feet below and

above the groundwater table to act as a LNAPL collection sump/trench in areas previously identified with LNAPL. The pipe will be set in a bed of pea gravel or clean aggregate and surrounded by pea gravel or clean aggregate to allow for the passive collection of LNAPL in the trench/sump. A concrete manhole or vertical access sump will be grouted at the surface to prevent surface water runoff from entering the trench/sump. The open end of the manhole/pipe will be covered with a lid to allow for access into the sump to collect measurements of the LNAPL and allow for easy access to recover LNAPL with a vacuum truck. This IRM will allow for the recovery of the LNAPL to begin as soon as practicable. The recovery system will provide data for the design and installation of a possible longer term LNAPL recovery trench/sump at the Site as part of the RAWP.

LNAPL will be removed from the recovery sumps via a vacuum truck. Recovery events may occur more frequently initially until the point at which recovery rates begin to slow. The vacuum truck will remove oil and oily water from each sump via a dip pipe or hose set at a level slightly below the oil/water interface. As the groundwater is relatively shallow, the vacuum truck driver will be able to visualize or stick the oil in each sump. As recovery rates slow, passive recovery methods will be evaluated to replace active recovery. It is expected that two to three recovery trenches/sumps will be installed at the Site to implement the LNAPL recovery IRM. NYSDEC will be provided sketches of the proposed IRM recovery systems planned for installation for review and approval. A site plan will be provided with the location of the proposed structures. Likely locations for recovery sumps/trenches are depicted on Figure 4. Upon review of the additional RI site data, the number of sumps/trenches will be determined in consultation with the NYSDEC. Imported pea stone or aggregate will be from a virgin quarry site. Stone/aggregate will meet the requirements of DER-10. The sieve analysis for any material will be submitted for NYSDEC's review and approval prior to importation. The Request to Reuse form with all supporting documentation will be submitted to NYSDEC for any backfill material to be imported to the Site. All liquids generated during the installation of the recovery sump/trench will be containerized and recovered LNAPL and oily water that is pumped or vacuumed from a recovery system will be

disposed of offsite at a permitted facility in accordance with Sections 5.5 Materials Disposal Off-Site and Section 5.7 Fluids Management and all applicable local, State, and Federal regulations.

5.0 IMPLEMENTATION MEANS & METHODS

5.1 Soil Screening Methods

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed during all excavations into known or potentially contaminated material (remaining contamination). A qualified environmental professional (QEP) will perform the screening. Soil screening will be performed when invasive work is done.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that can be reused on-Site as backfill.

5.2 Soil Staging Methods

If soil stockpiles are created during the installation of stormwater measures or other excavation activities, they will be managed in accordance with appropriate erosion and sediment control measures and located within the boundaries of the Site. Erosion control measures may include:

- Cover stockpiles with polyethylene sheeting.
- Install hay bales or silt fencing to prevent runoff.
- Maintain stockpiles away from storm drains and surface water drainage courses; and
- Maintain stockpiles of manageable size.

Contaminated stockpiles that will be sent off-Site as waste will be placed on a 6-mil (minimum) polyethylene substrate and covered with polyethylene and shall be surrounded by silt fences with booms and/or hay bales where necessary to prevent erosion or run-off migration during precipitation events.

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters, and other discharge points.

Stockpiles will be kept covered at all times with appropriate anchored tarps. Stockpiles will be routinely inspected, and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by the NYSDEC.

5.3 Materials Excavation and Load-Out

A QEP as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reported to a PE who is licensed and registered in New York State will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the Site and its contractors are responsible for safe execution of all invasive and other work performed under this IRMWP.

The presence of utilities and easements on the Site will be investigated by the QEP. It will be determined whether a risk or impediment to the planned work under this IRMWP is posed by utilities or easements on the Site. A site utility stakeout will be completed for all utilities prior to any ground intrusive activities at the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and New York State Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements).

A truck wash will be operated on-Site, as appropriate. The QEP will be responsible for ensuring that all outbound trucks will be cleaned of impacted soil before leaving the Site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-Site in an appropriate manner as outlined in Section 5.7.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site soil tracking. The QEP will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials. Material accumulated from the street cleaning and egress cleaning activities will be disposed of off-Site at a permitted landfill facility in accordance with all applicable local, State, and Federal regulation.

5.4 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Site will be secured with either tightfitting opaque covers that are secured on the sides and/or back, or opaque covers that are locked on all sides. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes are as follows: northwest on East 69th Street; left onto Avenue U, right onto East 68th Street; left onto Veterans Boulevard; left onto Ralph Avenue; right onto Avenue T; and a right onto Flatbush Avenue. A map of the truck route is provided as **Figure 5**. All trucks

loaded with Site materials will exit the vicinity of the Site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-Ste queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks will be performed on-Site to the extent practicable in order to minimize off-Site disturbance.

5.5 Materials Disposal Off-Site

All material excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed off-Site in a permitted facility in accordance with all local, State and Federal regulations. Unregulated off-Site management of materials from this Site will not occur without formal NYSDEC project manager approval. Off-Site disposal facilities for excavated soils will be identified and disposal documentation will be provided to the NYSDEC project manager for review prior to the start of fieldwork. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, (e.g. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, construction and demolition [C&D] debris recovery facility).

Actual disposal quantities and associated documentation will be reported to the NYSDEC in the IRM Construction Completion Report. This documentation will include, but will not be limited to

waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soil taken off-Site will be handled consistent with 6 NYCRR Parts 360, 361, 362, 363, 364, and 365. Material that does not meet Unrestricted Soil Cleanup Objectives (SCOs) is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 360-15 registered or permitted facility).

5.6 Materials Reuse On-Site

The QEP will ensure that procedures defined for material reuse in this IRMWP are followed and that unacceptable material (i.e., contaminated) does not remain on-Site. Contaminated on-Site material, including historic fill and contaminated soil, that is acceptable for reuse on-Site will be placed below the demarcation layer or impervious surface, and will not be reused within the cover system or within landscaping berms. Contaminated on-Site material may only be used beneath the Site cover as backfill for subsurface utility lines with prior approval from the NYSDEC project manager.

Proposed materials for reuse on-Site must be sampled for full suite analytical parameters including PFAS and 1,4-dioxane. The sampling frequency will be in accordance with DER-10 Table 5.4(e)10 unless prior approval is obtained from the NYSDEC project manager for modification of the sampling frequency.

Soil Quantity (cubic yards)	Contaminant and Sample Type		
	VOCs	SVOCs, Inorganics, PCB/Pesticides	
	Discrete Samples	Composite	Discrete Samples/Composite
0 - 50	1	1	3 – 5 discrete samples from different locations will comprise a
50 - 100	2	1	

Soil Quantity (cubic yards)	Contaminant and Sample Type		
	VOCs	SVOCs, Inorganics, PCB/Pesticides	
	Discrete Samples	Composite	Discrete Samples/Composite
100 – 200	3	1	composite sample for analysis
200 – 300	4	1	
300 – 400	4	2	
400 – 500	5	2	
500 - 800	6	2	
800 – 1,000	7	2	
> 1,000	Add an additional 2 VOC and 1 composite sample for each additional 1,000 cubic yards		

The analytical results of soil/fill material testing must meet the Site use criteria presented in NYSDEC DER-10 Appendix 5 – Allowable Constituent Levels for Imported Fill or Soil for all constituents listed, and the NYSDEC Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances [November 2022 or date of current version, whichever is later] guidance values. Approvals for modifications to the analytical parameters must be obtained from the NYSDEC project manager prior to the sampling event.

Soil/fill material for reuse on-Site will be segregated and staged as described in Section 5.2. The anticipated size and location of stockpiles will be provided in the 15-day notification to the NYSDEC project manager. Stockpile locations will be based on the location of Site excavation activities and proximity to nearby site features. Material reuse on-site will comply with requirements of NYSDEC DER-10 Section 5.4(e)4. Any modifications to the requirements of DER-10 Section 5.4(e)4 must be approved by the NYSDEC project manager.

Concrete crushing or processing on-Site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and

grubbing of the Site may only be reused on-Site with written approval from the NYSDEC project manager.

5.7 Fluids Management

All liquids to be removed from the Site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, oil water, and LNAPL will be handled, transported and disposed off-Site at a permitted facility in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site, and will be managed off-Site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream, or river) is not anticipated during the IRM activities, but must be performed under a State Pollutant Discharge Elimination System (SPDES) permit.

5.8 Backfill from Off-Site Sources

All materials proposed for import onto the Site will be approved by the QEP prior to receipt at the Site. Aggregates from a virgin quarry source are acceptable as backfill and bedding material. A letter from the quarry stating that these materials are from a virgin uncontaminated source is required. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review. A copy of the form is presented in **Appendix C**.

Material from industrial sites, spill sites, other environmental remediation sites, or potentially contaminated sites will not be imported to the Site. All imported soils will meet the backfill and

cover soil quality standards established in 6 NYCRR 375-6.7(d) and DER-10 Appendix 5 for industrial use.

Soils that meet 'general' fill requirements under 6 NYCRR Part 360.13, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC project manager. Chemical analysis for imported soils is required for review for acceptance by the QEP. Soil material will be sampled for the full suite of analytical parameters, including PFAS and 1, 4-dioxane. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soil will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

5.9 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-Site and on-Site. Use of specific odor control methods on a routine basis is not anticipated to be necessary. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted, and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the IRMCCR.

All necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to

eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that connect be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

5.10 Dust Control Plan

Particulate monitoring must be conducted according to the CAMP. If particulate levels at the Site exceed the thresholds listed in the CAMP or if airborne dust is observed on the Site or leaving the Site, the dust suppression techniques listed below will be employed. The remedial party will also take measure listed below to prevent dust production in the Site.

A dust suppression plan that addresses dust management during invasive on-Site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved using a dedicated on-Site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface; and
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling.

5.11 Contingency Plan

If underground storage tanks (USTs) or other previously unidentified contaminant sources are found during subsurface excavations to implement the IRM, excavation activities will be suspended until the issue can be assessed and sufficient equipment is mobilized to address the condition. The NYSDEC project manager will be promptly notified of the discovery. Sampling will be performed on any identified material as necessary to determine the nature of the material and proper disposal method. Any tanks that are encountered will be closed in accordance with NYSDEC regulations and guidance. Identification of unknown or unexpected contaminated media by screening during invasive Site work will be promptly communicated by phone, within two hours, to NYSDEC's project manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline.

Soil that is rejected by a receiving facility (i.e. re-use facility) shall be properly manifested and be sent either to a facility that is able to accept the soil or returned to the site of origin. The reasoning for rejection shall be noted. This soil shall remain separate from other Site soil and be properly disposed. The paper trail shall be complete for all soil leaving or entering the Site.

5.12 Other Nuisances

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

6.0 REPORTING

6.1 Monthly Progress Reports

In accordance with the BCA, monthly progress reports will be provided to the NYSDEC and NYSDOH. The progress reports will include at a minimum: all actions relative to the Site during the previous reporting period and those anticipated during the next reporting period; all approved activity modifications (changes of work scope and/or schedule); all results of sampling and tests and all other data received or generated in connection with the Site in the previous reporting period; information regarding percentage of completion; unresolved delays encountered or anticipated that may affect the future schedule, and efforts to mitigate such delays; and information regarding activities undertaken in support of the CP Plan during the previous reporting period and those anticipated for the next reporting period.

Daily reports will be provided to the NYSDEC and NYSDOH project managers during intrusive remedial and construction activities.

6.2 IRM Construction Completion Report

Upon completion of installation of the stormwater control measures and several IRM LNAPL vacuum events, LKB will prepare an IRMCCR in accordance with NYSDEC DER-10 and submit the IRMCCR to NYSDEC and NYSDOH. The IRMCCR will include the following: a summary of field observations for the IRM activities; an evaluation of IRM analytical results and findings; daily logs; as-built figures; disposal documentation; and conclusions and recommendations for further assessment/activities (if warranted). The IRMCCR will summarize the nature and extent of contamination encountered during implementation of the IRMs. LNAPL recovery events will be continued until it is determined that active recovery is no longer practical and the switch to

passive recovery will be implemented or until measures outlined in the RAWP can be implemented.

The report will include Site location and sample location figures, color photographic documentation, summary of methods, laboratory reports and data summaries, and other pertinent support documentation as required by applicable NYSDEC regulations.

An Interim Site Management Plan (ISMP) will be prepared and delivered along with the IRMCCR. The ISMP will follow the NYSDEC's June 2025 SMP template and will provide final recovery procedures and recovery/sampling timeframes. The following outline will be followed for the plan:

ES EXECUTIVE SUMMARY

1.0 INTRODUCTION

- 1.1 General
- 1.2 Revisions and Alterations
- 1.3 Notifications

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

- 2.1 Site Location and Description
- 2.2 Physical Setting
- 2.3 Investigation and Remedial History
- 2.4 Remedial Action Objectives
- 2.5 Remaining Contamination

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

- 3.1 General
- 3.2 Institutional Controls
- 3.3 Engineering Controls

4.0 MONITORING AND SAMPLING PLAN

- 4.1 General

4.2 Site-wide Inspection

4.3 Treatment System Monitoring and Sampling

4.4 Post-Remediation Media Monitoring and Sampling

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

5.2 Remedial System (or Other EC) Performance Criteria

5.3 Operation and Maintenance of Treatment System(s)

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

6.2 Green Remediation Evaluation

6.3 Remedial System Optimization

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

7.2 Periodic Review Report

7.3 Corrective Measures Work Plan

7.4 Remedial System Optimization Report

8.0 REFERENCES

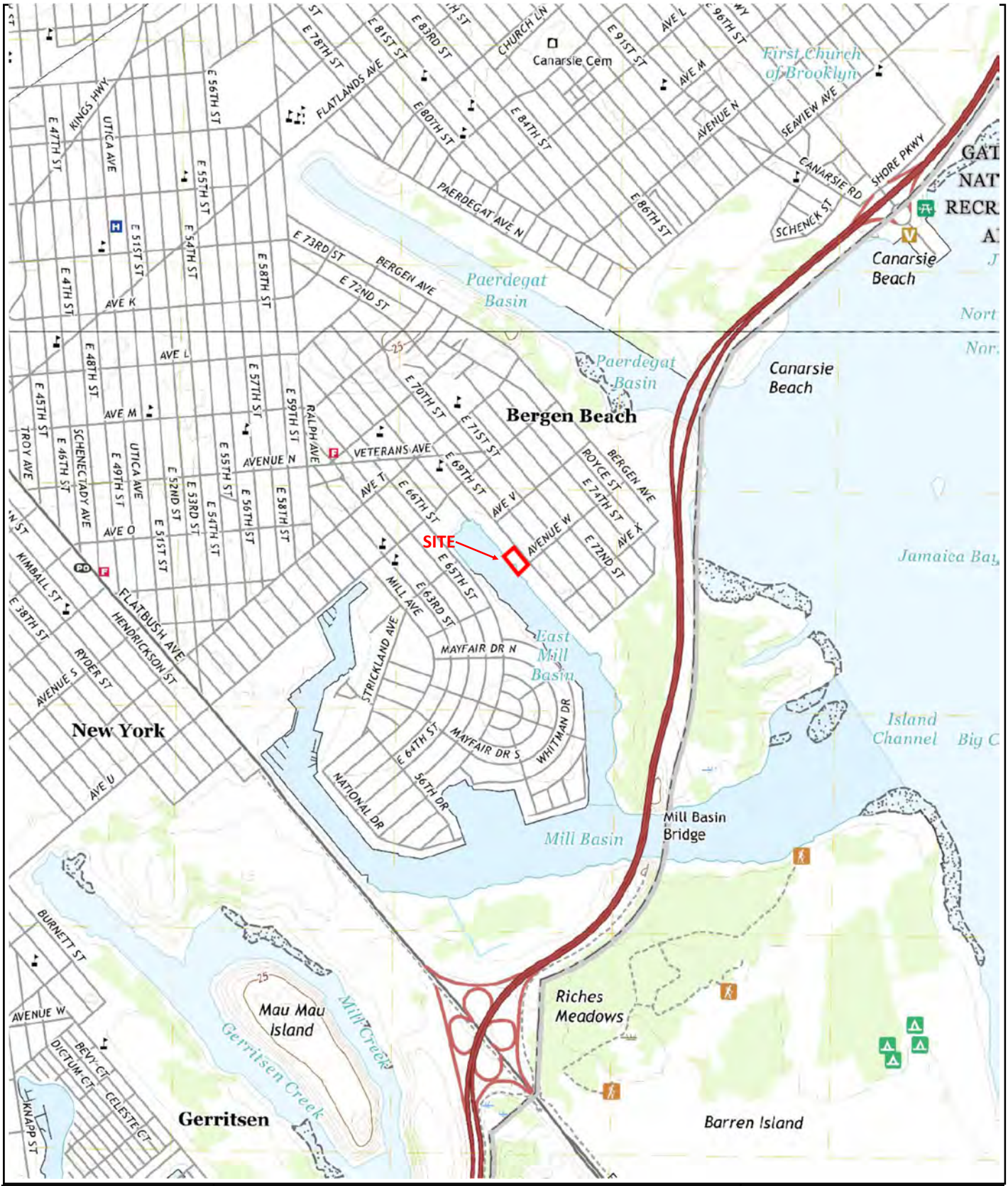
6.3 Implementation Schedule

The following is the estimated schedule to implement the IRM activities.

ESTIMATED IRM PROJECT SCHEDULE	
ACTIVITIES	**COMPLETION DATE**
IRM Work Plan (IRMWP)	
Submit IRMWP to NYSDEC	08/11/2025
Receive NYSDEC Comments	10/29/2025
Address NYSDEC Comments & Submit Revised IRMWP to NYSDEC	10/30/2025

ESTIMATED IRM PROJECT SCHEDULE	
ACTIVITIES	**COMPLETION DATE**
NYSDEC Approval of IRMWP	11/14/2025
IRM Implementation	
Implement LNAPL IRM Activities	12/01/2025
Implement Stormwater IRM Activities	12/01/2025
Complete IRM Construction Activities	01/30/2026
IRM Construction Completion Report	
Submit Draft IRMCCR to NYSDEC	02/27/2026
NYSDEC Review of IRMCCR	04/10/2026
Address NYSDEC Comments to IRMCCR	04/24/2026
NYSDEC Approval of IRMCCR	05/08/2026

FIGURES



LKB Project No. 10321.LK

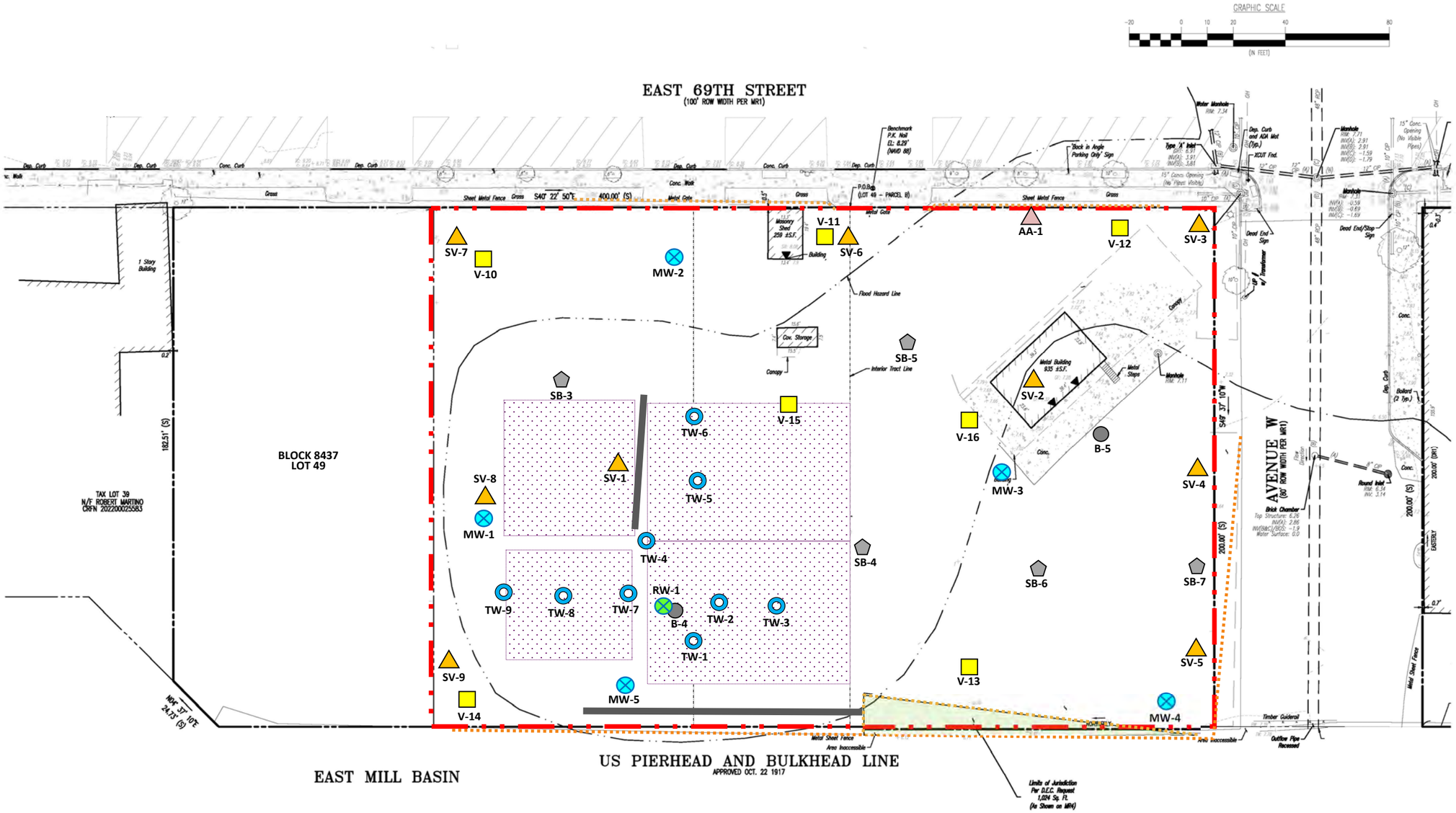
SITE LOCATION MAP

2250 East 69th Street Site
2250 East 69th Street
Brooklyn, New York

USGS Topographic Map, Coney Island, NJ (2019); Scale 1:24,000

Lockwood, Kessler & Bartlett, Inc.
One Aerial Way · Syosset, NY 11791
516.938.0600 www.lkbinc.com

FIGURE NO. 1



- April 2023 Sample Location
- September 2023 Sample Location
- Temporary Monitoring Well (May 2025)
- Monitoring Well
- Recovery Well
- Soil Vapor Point
- Ambient Air Sample
- Soil Boring
- Former Bulk Storage Tank
- Site Boundary
- Wall / Fence
- Chain-link Fence

SAMPLE LOCATION MAP

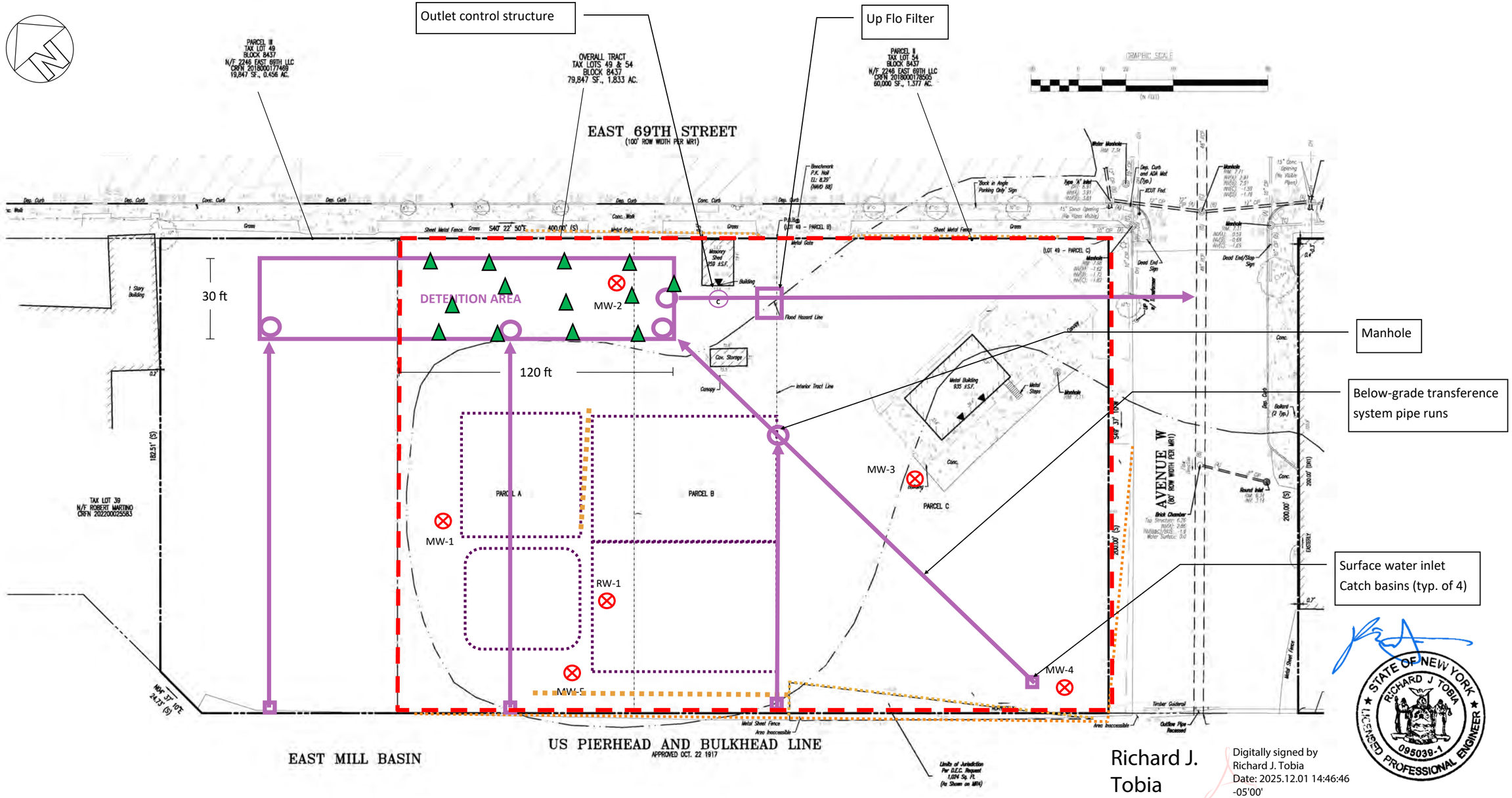
2250 EAST 69th STREET
BROOKLYN, NY

LKB PROJECT NO. 10321.LK

LKB CONSULTING ENGINEERS
A VERTEX COMPANY

ENGINEERING EXCELLENCE SINCE 1889

FIGURE 2



Monitoring Well/Recovery Well
Site Boundary
Post Excavation Soil Sample
Property Boundary
Wall / Fence
Former AST

Proposed Stormwater IRM Measures

2250 EAST 69th STREET
BROOKLYN, NY

LKB PROJECT NO. 010321

LKB CONSULTING ENGINEERS
A VERTEX COMPANY

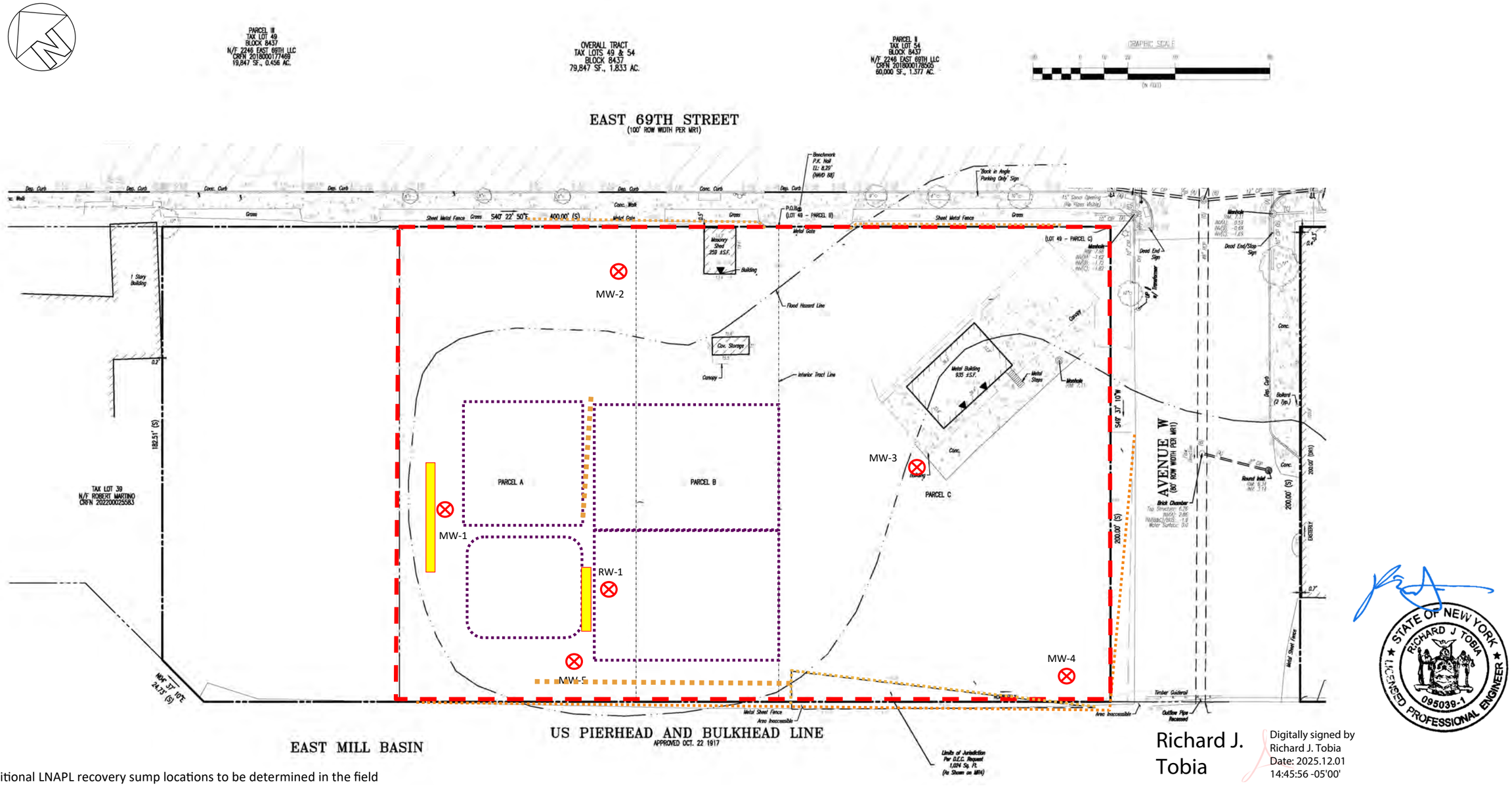
ENGINEERING EXCELLENCE SINCE 1889

FIGURE 3

STATE OF NEW YORK
RICHARD J TOBIA
LICENSED PROFESSIONAL ENGINEER
095039-1

Richard J. Tobia

Digitally signed by Richard J. Tobia
Date: 2025.12.01 14:46:46 -05'00'



Additional LNAPL recovery sump locations to be determined in the field

Richard J. Tobia

Digitally signed by Richard J. Tobia
Date: 2025.12.01 14:45:56 -05'00'

STATE OF NEW YORK
RICHARD J TOBIA
095039-1
LICENSED PROFESSIONAL ENGINEER

- Proposed LNAPL Recovery Sump/Trench
- Monitoring Well/Recovery Well
- Site Boundary
- Property Boundary
- Wall / Fence
- Former AST

Proposed LNAPL Recovery IRM Measures

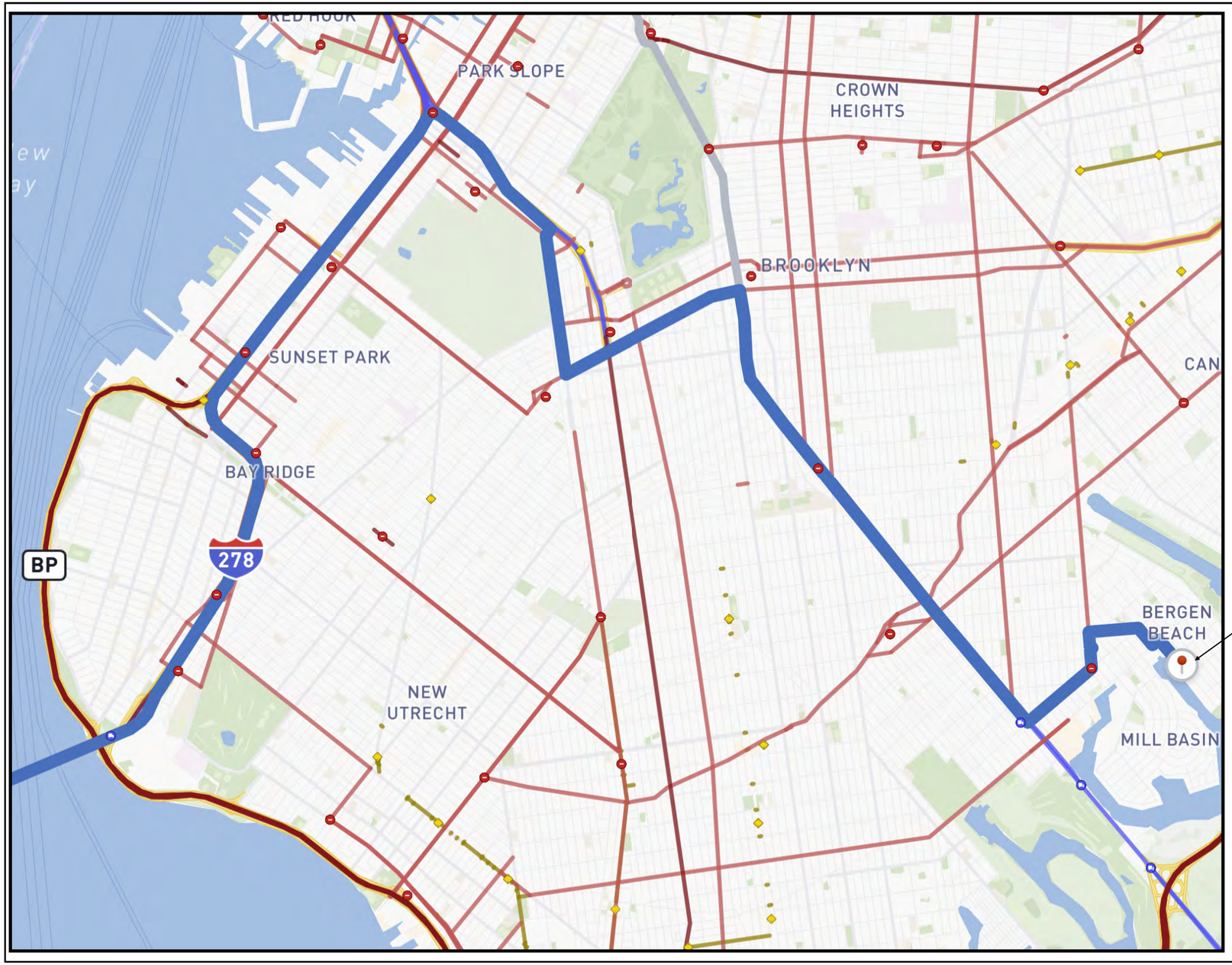
2250 EAST 69th STREET
BROOKLYN, NY

LKB PROJECT NO. 010321

LKB CONSULTING ENGINEERS
A VERTEX COMPANY

ENGINEERING EXCELLENCE SINCE 1889

FIGURE 4





Materials Transportation Route Map

2250 EAST 69th STREET
BROOKLYN, NY

LKB PROJECT NO. 010321

LKB CONSULTING ENGINEERS
A VERTEX COMPANY

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FIGURE 5

Appendix A:
Health and Safety Plan

LKB CONSULTING ENGINEERS
ENGINEERING EXCELLENCE SINCE 1889

Lockwood, Kessler & Bartlett, Inc.
One Aerial Way · Syosset, NY 11791
516.938.0600 www.lkbinc.com

2250 East 69th Street Site
2250 East 69th Street
Brooklyn, New York 11234
Block 8437, Lot 54
NYSDEC Site No. C224404

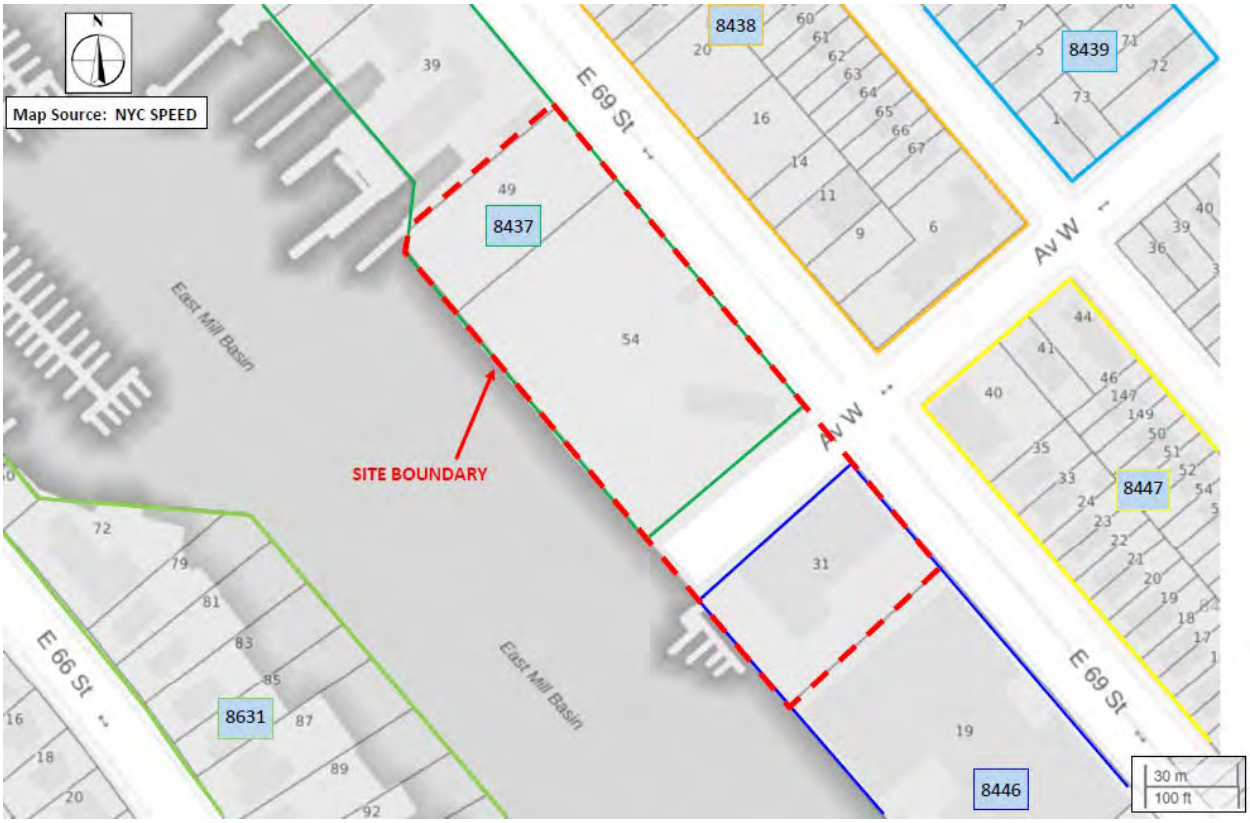
SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP)

PREPARED FOR:
2300 69 Property LLC
4 Bryant Park, Suite 200
New York, New York 10018

PREPARED BY:
Lockwood, Kessler & Bartlett, Inc.
One Aerial Way
Syosset, New York 11791

LKB PROJECT NO: 10321.LK

JUNE 2024



Prepared by: Blair Gomes **Signature:** Blair Gomes **Date:** 03/22/2024

Project Manager: Timothy Biercz **Signature:** **Date:** 03/22/2024

HandS Team Member: Richard Tobia, P.E. **Signature:** **Date:** 03/22/2024

HASP Limitations and Acknowledgement

This Health and Safety Plan (HASP) addresses those activities and Site procedures to be followed by The Vertex Companies, LLC (VERTEX) and Lockwood, Kessler & Bartlett, Inc. (LKB) personnel during work performed at this Site. *This HASP is designed to comply with Occupational Safety and Health Administration (OSHA) standards, such as HAZWOPER, 29 CFR 1910.120, and VERTEX Companies Safety Polices, so compliance with this HASP is required by VERTEX/LKB personnel.* The content of this HASP may change or undergo revision based upon additional information made available to VERTEX/LKB. Changes proposed must be approved by VERTEX's HandS Team and the Project Manager.

The information in this HASP supplements the health and safety training that each VERTEX/LKB employee receives. It is not possible to discover, evaluate, and provide protection for all possible hazards, which may be encountered. This plan is written for the specific-site conditions, purposes, dates, and personnel specified, and must be amended if these conditions change.

Compliance with this HASP is required by persons who enter the Site.

This HASP will expire one year after the HandS Team's Signature Date, or if Site conditions change. A review and approval by the HandS Team is required to extend the HASP duration.

VERTEX Colleagues

Name:		Signature:		Date:	
Name:		Signature:		Date:	
Name:		Signature:		Date:	
Name:		Signature:		Date:	

Subcontractors, Owner, and Others

Subcontractors must review this HASP but must prepare their own site-specific HASP based upon their company health and safety program, and the risks and precautions of their work on the site. The subcontractor HASP will be at a minimum consistent with the provisions of this HASP.

This HASP is not intended to satisfy the requirement for the owner or designated subcontractor to prepare their own site-specific HASPs. This HASP does not relieve the owner, subcontractor, or their designated representatives of their responsibility to comply with all federal, state and local laws, regulations and ordinances governing worker health and safety.

VERTEX expressly disclaims any and all guarantees or warranties, expressed or implied that this plan will meet the specific needs or requirements of any subcontractor or its employees. VERTEX, therefore, cannot and does not assume any liability by the use or reuse of this plan by any client, subcontractor or their employees or agents. Any reliance on this plan or the information herein will be at the sole risk and liability of such party.

Employer: _____

Name:_____ Employer:_____ Signature:_____ Date:_____

Name:_____ Employer:_____ Signature:_____ Date:_____

Name:_____ Employer:_____ Signature:_____ Date:_____

Employer: _____

Name:_____ Employer:_____ Signature:_____ Date:_____

Name:_____ Employer:_____ Signature:_____ Date:_____

Name:_____ Employer:_____ Signature:_____ Date:_____

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Job Safety Analyses

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Safety Data Sheets

Hospital Map and Directions

VERTEX SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP)

2250 East 69th Street
Brooklyn, New York
LKB Project No. 10321.LK

1.0 CONTACT INFORMATION

EMERGENCY PERPAREDNESS EQUIPMENT LOCATIONS

Fire extinguisher (10 lbs)	On-site
First aid kit	VERTEX/LKB
Decontamination area	On-site
H&S Plan and other related documents	On-site folder

EMERGENCY PHONE NUMBERS

Ambulance, Police, and Fire	911, in case of emergency.
Poison Control Center	1-800-222-1222
Chemtrec	1-800-424-9300
National Response Center	1-800-424-8802
Utility Clearance (National)/Local Phone #	811
One Call Ticket Number	Driller to call in prior to drilling activities
Local Fire Department	718-332-9292
Local Police Department	718-238-4411
Water/Sewer Department	718-595-7000
Electrical Company	National Grid: 1-800-892-2345
Gas Company	Con Ed: 1-800-914-9112
WorkCare Injury Intervention	1-888-449-7787

HOSPITAL INFORMATION

Mount Sinai Brooklyn	718-252-3000 3201 Kings Highway Brooklyn, New York 11234

A HOSPITAL MAP AND DIRECTIONS ARE ATTACHED

PERTINENT SITE CONTACT INFORMATION

Site Contact	Mr. Peter Derbar 718-974-4262
Project Manager	Timothy Biercz 3322 Route 22 West Branchburg, New Jersey 732-690-3083
Health and Safety (HandS) Phone Number	339-499-4995
HandS Team Member working on this HASP:	Richard Tobia, P.E. 908-500-2369

2.0 SITE DESCRIPTION AND RELEVANT INFORMATION

The Site is in Brooklyn, Kings County, New York and is identified as Block 8437, Lot 54 on the New York City Tax Map. The Site encompasses one lot and a total of 1.38 acres. According to the New York City Department of Buildings (NYCDOB), the Site is identified with the following addresses: 2250 to 2260 East 69th Street. The Site is in an urban area with a mix of commercial and residential buildings. The Site is bounded by East 69th Street to the northeast, East Mill Basin waterway to the southwest, a construction storage yard to the northwest, and Avenue W to the southeast.

Exterior areas on the Site include a gravel storage yard for materials and equipment for Falco Construction Corp., a former fuel canopy structure and concrete pad used for storage, two small sheds used as workshops, limited landscaped areas, and a bulkhead on the southwestern side of the property (along the East Mill Basin).

2.1 Relevant Information

Based on a review of reasonably ascertainable historical information, it appears that the Site consisted of wetlands and a creek prior to filling activities in the 1920s/1930s. From the 1940s to early 1980s, the Site was a petroleum bulk storage terminal operated by Argus Gas & Oil Sales Co. Inc., Jay Tee Fuel Oil Corp., Tidewater Oil Co., Ross Oil Corp., Premium Coal & Oil Co. Inc., and Mobil Oil Corp. The former fuel canopy structure (currently used for material storage) was constructed on the Site in 1963. The bulk petroleum storage terminal was razed in the early 1980s, and Falco Construction Corp. has utilized the Site for the storage of construction materials and equipment since that time.

2.2 Anticipated Chemicals

- Petroleum-related volatile organic compounds (VOCs)
- Polycyclic aromatic hydrocarbons (PAHs)
- Metals

2.3 Scope of Work and Tasks

The VERTEX scope of work for this project includes the following tasks:

- Site reconnaissance.
- Geophysical survey.
- Borehole advancement using a direct-push drill rig.
- Borehole advancement using a hollow-stem auger drill rig.
- Installation of permanent monitoring/recovery wells.
- Installation of soil vapor points.
- Collection of soil, soil vapor, groundwater, and free product samples.
- Disposal of investigation-derived waste (IDW).

2.4 Subcontractors Scope of Work

Geophysical Evaluation

- Investigation utilizing Electromagnetic (EM), Utility Location (UL) and/or Ground Penetrating Radar (GPR) technology to clear proposed boring locations, verify locations of current below-grade utilities, and scan for potential underground storage tanks (USTs) and associated below-grade piping.

Borehole, Vapor Point, and Monitoring Well Installation

- Installation of soil borings, vapor points, and permanent monitoring/recovery wells via direct-push and hollow-stem auger drilling methodologies.

Drum Disposal

- Disposal of IDW (soil cuttings and purge water) generated during the installation of permanent monitoring/recovery wells, development of wells, and groundwater sampling events.

3.0 JOB SAFETY ANALYSES

The following Job Safety Analyses (JSAs) will be followed during this project. The JSAs are included in the Attachments Section:

1. Site Reconnaissance and GPR Survey Oversight
2. Drilling Oversight
3. Monitoring Well Installation
4. Soil Sampling
5. Groundwater Sampling
6. Soil Vapor and Indoor Air Sampling
7. Virus Avoidance

3.1 Site Reconnaissance/Site Entrance

Access to the northern portion of the Site (north of Avenue W) is via a gated entrance on East 69th Street and gated entrance on Avenue W. Access to the southern portion of the Site (south of Avenue W) is via a gated entrance on East 69th Street. Access to the building on the southern portion of the Site is locked outside of typical working hours.

3.2 Ladders

Ladders are not anticipated to be used during LKB's investigative activities. We can minimize risk when using a ladder by:

- Using a LKB-owned ladder.
- Thoroughly inspect the ladder before each use.
- Ascending and descending the ladder with three contact points.

- Using ladders of the appropriate height, materials, and construction for the work being performed.
- Securing the ladder, and where applicable maintaining appropriate ladder angle prior to ascension.
- Never move a ladder while occupied.
- Using a hoist to bring tools and materials to the work area.

3.3 **Special Risks**

Take precautions when handling contaminated soil/groundwater.

4.0 WORK ZONES

Work zones in an environmental remediation project typically include three specific areas:

1. The Support Zone
2. The Decontamination Zone
3. The Exclusion Zone

The following tables provide general guidelines for the establishment of work zones. The information provided should be adjusted if warranted by field observations, such as traffic, and measurements, laboratory analytical results, or at the request of the HandS Team.

ACTIVITY	GENERAL WORK ZONE RADIUS (FEET)	WORK ZONE EVALUATION
Soil/Sediment Sampling	5	The Site supervisor may modify the work zone radius based upon field conditions (examples below): Physical barriers or walls that may reduce the work zone to the barrier or wall. High traffic area may increase the work zone to allow for worker safety.
Drilling	15	The Site supervisor may modify this radius based upon the specific equipment being use. Generally, height of equipment plus 5 feet.
Overhead Power Lines	10	Assumes < 50 kV. Additional 4-inches per 50 kV.

5.0 CLEANLINESS AND HYGIENE

5.1 Housekeeping

Proper housekeeping is the foundation for a safe work environment. It prevents incidents and fires, as well as creating a businesslike work area. Materials will be stored in a stable manner so that they will not be subject to falling. Rubbish, scraps, and debris will be removed from the work area on a daily basis to job-site dumpster or truck as required. Materials and supplies will not be left in stairways, walkways, near floor openings or at the edge of the building when exterior walls are not built.

5.2 Hygiene Facilities

Hygiene facilities include washing and toilet facilities. The hygiene facilities for this project will be located inside the building on the southern adjoining property and will consist of a permanent restroom.

6.0 AIR MONITORING AND ACTION LEVELS

Air monitoring is required whenever we anticipate exposure to airborne chemicals or dust. The purpose of air monitoring is to keep track of the concentration of the contaminants of concern (COC) and minimize the exposure to VERTEX colleagues, workers and the general public. The following table presents the air monitoring methods, exposure guidelines and action levels.

Contact the HandS Team to establish the values that are appropriate for the purpose and for the COCs. If you have questions or surpass an action level in the field, contact the HandS Team for guidance.

MONITORING PROTOCOLS AND ACTION LIMITS FOR PETROLEUM VOCs		
Range	**PPE**	**Action**
Background to 5 ppmv	LEVEL D	Continue air monitoring.
Above 5 ppmv	LEVEL D	Pause work and contact the Project Manager and the HandS Team for guidance.

6.1 Exposure Guidelines

Airborne Contaminant Monitoring VERTEX Responses Based on Level D PPE				
Parameter	**Contaminant Measurements**	**VERTEX Response**	**Comments**	**Frequency of Measurement**
VOCs – normal concentration: 0 - 5 ppm Depending on the concentration you may sense an oily odor	< 5 ppm	Continue working	VOCs are a group of compounds with various PELs. Benzene and vinyl chloride have low PEL, each is 1 ppm. A PID is usually used to measure VOCs. The lamp selected, usually either 10.6 or 11.7eV must be appropriate for the contaminants of concern. If the work is intended to be completed only in Level D PPE, then work should stop at 5 ppm. A decision would be made at that point about whether to use a Draeger Tube to test for benzene, or to wear a respirator.	VOCs will be continuously logged in the datalogger.
	5 – 10 ppm	**Temporarily stop work and contact the CIH**		
	1-5 mg/m^3	**Temporarily stop work and contact the CIH**		
	> 5 mg/m^3	**Stop work, respiratory protection will be required**		

7.0 DECONTAMINATION

Our goal is always to keep contaminated material where it belongs, either on a project site or in an appropriate waste disposal process. We should avoid taking contaminated materials with us on our clothes or the bottoms of our work boots, into our vehicles, or to our homes. This practice applies to staff who may encounter hazardous materials/waste, and it is also reasonable to manage nuisance dirt from sites in a responsible manner.

LKB supports proper project planning and execution to minimize risks. This requires:

- Planning before going to the Site:
- Responsible actions at the Site:
- After you leave the Site:

It is critical that decontamination takes place prior to break periods and at the end of the day to reduce the chances of ingesting contaminants or carrying them off the Site.

Decontamination to be performed:

- Remove PPE and dispose of disposable items.
- Wash hard hats and safety glasses.
- Rinse work boots in a boot wash.

8.0 SIMULTANEOUS OPERATIONS

Simultaneous operations are activities that may be taking place at the same time as LKB's or our subcontractor's work. The following activities will be taking place nearby to our work:

- No other simultaneous operations will be taking place.

9.0 TRAINING AND MEDICAL SURVEILLANCE

9.1 Training

Colleagues and workers assigned to a LKB project must have proper training and experience to enable our project to be performed successfully. At a minimum, completion of the OSHA 10-Hour Construction Safety training session and 40-Hour HAZWOPER in accordance with OSHA standard, 29 CFR 1910.120 is required for all VERTEX colleagues.

9.2 Medical Surveillance

Field staff who are exposed to chemicals will participate in LKB's Medical Surveillance Program. Our program is administered by our Human Resources Department. The examination is responsive to many chemicals, but not all chemicals, so prior to a project, the Project Manager should check with Human Resources or the HandS Team, especially if unusual chemicals or elements are involved in the scope of work. LKB colleagues can verify the content of their exams by contacting Human Resources. The colleague must successfully pass the physical examination prior to field work on the project.

10.0 SAFETY MEETINGS

Safety meetings are vital to set the tone for safe work performance at the beginning of a project and each day. These meetings should be attended by all project participants, that is, LKB colleagues, contractors, and client staff if they are on-site. Several types of meetings may take place during a project:

- Kick-off meeting. This meeting begins a project and may take place at the field site or in an office or trailer. The scope of work should be reiterated, along with the hazards and precautions. This meeting is important to setting the tone and expectations for performance.

- Daily tailgate safety meeting. Held at the beginning of each shift, this meeting reiterates the scope of work planned during the shift, the hazards, and precautions. Ideally, a different person, including contractor workers, would lead the meeting each day of a project to engage everyone and make each meeting fresh.

- Post project meeting. Although this meeting does not always take place, it is a good idea to wrap up a project and share what went well and what should be improved the next time the project team is together or share lessons to take to the next project regardless of the team.

- Root cause analysis meeting is held following an incident or near miss to understand the root cause of what went wrong or almost went wrong (near miss) to reduce the chance of recurrence and to share lessons learned. These discussions are an essential part of any people-based safety program.

11.0 EMERGENCY RESPONSE PLAN

Incidents and near misses, no matter how minor, must be reported immediately to the Project Safety Supervisor or VERTEX HandS Team! The Safety Hotline is 339.499.4995. Other information is included in the Contact Information chart at the beginning of this HASP. Directions to the nearest hospital are attached at the end of the HASP so that they can be posted in an accessible location.

11.1 Emergency Incident

The nature of our work makes emergencies on site a continual possibility. Although emergencies are unlikely and occur infrequently, a contingency plan is required to ensure timely and appropriate response actions. The contingency plan is reviewed at the tailgate safety meetings. Discuss client Emergency Response Plans with all project participants so that everyone knows their part and expectations.

Upon Incident, Near Miss, Physical Reaction or Excessive Exposure: Leave area immediately and seek appropriate medical assistance. This may include, but not be limited to, any of the following physiological reactions:

- Dizziness
- Nausea
- Rash
- Asthmatic Reaction
- Abdominal Pain
- Distorted Vision of Hearing
- Excessive Coughing
- Edema or Localized Swelling
- Headaches

- Exposure to High/Cold Temperatures

11.2 Upon Emergency Incident, Take the Following Actions:

1. Size-up the situation based on the available information.
2. Follow the VERTEX Wallet Card calling directions. You must speak directly to a person: Notify:
   a. Your Supervisor/Site Supervisor, follow any client required procedures.
   b. Call the VERTEX HandS Team at 339-499-4995.
   c. Call Human Resources.
   d. Call your Project Manager/Client.
   e. Call Account Manager.
3. Only respond to an emergency if personnel are sufficiently trained and properly equipped.
4. As appropriate, evacuate site personnel and notify emergency response agencies, e.g., fire, police, etc.
5. As necessary, request assistance from outside sources and/or allocate personnel and equipment.
6. Consult the posted emergency phone list and contact key personnel.
7. Prepare an incident/near miss report. Forward incident report to Project Manager/VERTEX HandS Team within 24 hours via the HandS@vertexeng.com email.

11.3 Upon Medical Emergency, Take the Following Actions:

1. Assess the severity of the injury and perform first aid/CPR as necessary to stabilize the injured person. Follow universal precautions to protect against exposure to bloodborne pathogens.
2. Get medical attention for the injured person immediately. Call 911 or consult the Emergency Contacts list which must be posted at the site.

3. Follow the VERTEX Wallet Card calling directions. You must speak directly to a person: Notify:
   a. Your Supervisor/Site Supervisor, follow any client required procedures.
   b. For any injuries, call WorkCare at 888-449-7787. For international calls, use 714-456-2107. WorkCare has qualified medical practitioners tending the phone to offer a telephone triage of the situation. WorkCare will provide guidance on how to transport the injured individual.
   c. Call the VERTEX HandS Team at 339-499-4995
   d. Call Human Resources
   e. Call your Project Manager/Client
   f. Call Account Manager.
4. Prepare an incident report. The Site Safety officer is responsible for its preparation and submittal to the Health and Safety Manager within 24 hours by email at HandS@vertexeng.com.
5. You can reach Human Resources at HR@vertexeng.com.

12.0 NEAR MISS/UNSAFE CONDITION REPORTING

Reporting of near misses and unsafe conditions is a critical piece of our health & safety learning, and it comes with "no cost," because nothing was damaged, and no one was hurt. A near miss is defined as an event that "almost happened but did not." An unsafe condition is simply a potentially unsafe condition that is recognized before it even becomes a near miss. A good litmus test for reporting is, "Do you think someone who has less experience would benefit from learning about your event or unsafe condition?" If so, please go ahead and report it. The Near Miss Incident Report can be used for this purpose. The HandS Team also accepts emails or even a phone call to report to make sharing of information as easy as possible. Call the HandS Team number that is found in the Contacts information, or email at HandS@vertexeng.com.

ATTACHMENTS

JOB SAFETY ANALYSES

VERTEX The VERTEX Companies Health & Safety - A HANDS on Approach to Safety

Task to Be Performed:	**Geoprobe Drilling Oversight**	**Analyzed By:**	T. Biercz
		Date	3/22/2024
Project Name & Location:	**2250 East 69th Street, Brooklyn, New York**		

Possible Risks at a Glance	**Engineering Controls at a Glance**
Possible risks include associated with groundwater sampling include: **1. Vehicular traffic;** **2. Potential to encounter utilities;** **3. Excessive noise;** **4. Drill rig moving and heated mechanisms;** **5. Muscle strains from lifting;** **6. Eye injury from dust and debris;** **7. Inhalation of dust and debris;** **8. Lacerations;** **9. Muscle strain from heavy lifting;** **10. Slip/Trip/Fall hazards due to uneven terrain, equipment, debris, and/or slippery surfaces.** **11. Mechanical failure leading to injury or property damage; and,** **12. Pinch points.** **13. Heat stress**	**None**
	Work Practice Controls at a Glance
	*** Wear appropriate PPE.** *** Practice safe drilling and oversight techniques.** *** Implement procedures to avoid heat stress.** *** Implement procedures for working safely around heavy equipment.**
	Personal Protective Equipment at a Glance
	Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, hearing protection, work gloves, hard hat, and reflective safety vest.

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic.	* Set up work area demarcation, including cones and caution tape, or greater if needed, to establish work area. * Position vehicle so that field crew is protected from site traffic. *Unload as close to work area as safely possible.	Field Staff
2	Utility Clearance	1. Potential to encounter underground or aboveground utilities while drilling.	Complete utility clearance using State One Call, GPR services, and hand augur or other strategy such as vacuum excavation to 5 feet bgs.	Field Staff
3	Geoprobe drill rig operation	1. Excessive noise is generated by rig operations.	When the engine is used at high RPMs or soil samples are being collected, use hearing protection.	Drilling subcontractor and field staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
3	Geoprobe drill rig operation	2. During drill rig operation, surfaces will become hot and cause burns if touched, and COCs in the soil will more readily vaporize generating airborne contaminants.	* Use caution handling equipment and wear proper work gloves - nitrile gloves are not sufficient when contacting hot surfaces; use a heavy duty glove. * Air monitoring should be performed in accordance with the HASP to monitor the potential volatilization of COCs.	Drilling subcontractor
		3. Moving parts of the drilling rig can pull you in, causing injury. Pinch points on the rig and auger connections can cause pinching or crushing of body parts.	* Stay at least 5 feet away from moving parts of the drill rig. * Know where the kill switch is, and have the drillers test it to verify that it is working. * Do not wear loose clothing and tie back long hair. * Avoid wearing jewelry when drilling. * Ensure that the work area demarcation is effective at keeping unauthorized people out of the work zone around the drill rig.	Drilling subcontractor and field staff
		4. Dust and debris can cause eye injury and soil cuttings and/or water could contain COCs.	Wear safety glasses and stay as far away from actual drilling operation as practicable. Wear appropriate gloves to protect from COCs.	Drilling subcontractor and field staff
		5. Drilling equipment laying on the ground (i.e. augurs, split spoons, decon equipment, coolers, etc.) create a tripping hazard. Water from decon buckets generate mud and cause a slipping hazard.	* Keep equipment and trash picked up and store away from the primary work area. * Wear footwear with ankle support.	Drilling subcontractor
		6. The raised derrick can strike overhead utilities, tree limbs, or other elevated items.	* Never move the rig with the derrick up. * Ensure there is proper clearance to raise the derrick. * Survey the surrounding area to ensure that you are far enough away from overhead power lines.	Drilling subcontractor

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Task to Be Performed:	**Groundwater Sampling**	**Analyzed By:**	T. Biercz
		Date	3/22/2024
Project Name & Location:	2250 East 69th Street, Brooklyn, New York		

Possible Risks at a Glance	**Engineering Controls at a Glance**
Possible risks include associated with groundwater sampling include: **1. Vehicular traffic;** **2. Tripping/slipping hazards;** **3. Pinch points;** **4. Lacerations;** **5. Muscle strains from lifting;** **6. Electrical shock; and** **7. Exposure to contaminated vapors and/or water.**	**None**
	Work Practice Controls at a Glance
	Wear appropriate PPE, practice safe sampling techniques.
	Personal Protective Equipment at a Glance
	Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, work gloves, hard hat, and reflective safety vest.

Step #	**Specific Steps in the Task**	**Hazards and Risks by Step That Must Be Controlled**	**Precautions Actions to Avoid the Risks**	**Responsible Person**
1	Stage at pre-determined sampling location and set up work zone and sampling equipment	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely as possible.	Field Staff
		2. Sampling equipment, tools, and monitoring well covers can cause tripping hazard.	Keep equipment picked up and monitor any changes to site condition.	Field Staff
2	Open wells to equilibrate and gauge wells	1. When squatting down, personnel can be difficult to see by vehicular traffic.	Wear Class II traffic vest if wells are located in/near vehicular traffic. Use tall cones and the buddy system if practicable.	Field Staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
2	Open wells to equilibrate and gauge wells	2. Pinch points on well vaults can pinch or lacerate fingers.	Use correct tools to open well vault/cap. Wear leather gloves when removing well vault lids, and chemical protective gloves when gauging. Wear proper PPE including safety boots, knee pads, and safety glasses.	Field Staff
		3. Lifting sampling equipment can cause muscle strain.	Unload as close to work area as safely possible; use proper lifting and reaching techniques and body positioning; don't carry more than you can handle and get help moving heavy or awkward objects.	Field Staff
		4. Pressure can build up inside well causing cap to release under pressure.	Keep head away from well cap when removing. If pressure relief valves are on well, use prior to opening.	Field Staff
		5. Vapors from open wells.	Conduct air monitoring as wells are opened. When opening wells, be positioned downwind when possible.	Field Staff
3	Begin purging well and collecting parameter measurements	1. Electrical shock can occur when connecting/disconnecting pump from battery.	Make sure equipment is turned off when connecting/disconnecting. Wear leather gloves. Use GFCIs when using power tools and pumps. Do not use in the rain or run electrical cords through wet areas.	Field Staff
		2. Purge water can spill or leak from equipment.	Stop purging activities immediately, stop leakage and block any drainage grate with absorbent pads. Call PM to notify them of any reportable spill.	Field Staff
		3. Water spilling on the ground can cause muddy/slippery conditions.	Be careful when walking around work area and wear proper safety boots.	Field Staff
		4. Lacerations can occur when cutting materials such as plastic tubing.	When cutting tubing, use tubing cutter. No open fixed blades should ever be used. When possible, wear leather safety gloves.	Field Staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
3	Begin purging well and collecting parameter measurements	5. Purge water can splash into eyes.	Pour water slowly into buckets/drums to minimize splashing. Wear safety glasses and recommended PPE.	Field Staff
4	Collect groundwater sample	1. Sample water can splash into eyes.	Minimize splashing potential by wearing safety glasses and appropriate gloves.	Field Staff
		2. Sample containers could break/leak preservative.	Discard any broken sample containers properly. Wear appropriate eye and hand protection.	Field Staff
5	Staging of purged well water	1. Muscle strains can occur when moving purge water or drums.	If using buckets, do not fill buckets up to the top. Always keep lid on buckets when travelling or moving them to another location. Only half fill buckets so bucket weight is manageable.	Field Staff
		2. Spilling or splashing of purge water.	Make sure that purge water is properly contained with a lid to avoid spilling/splashing the purge water. Wear long sleeve shirts while sampling.	Field Staff

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Task to Be Performed:	**Monitoring Well Installation**	**Analyzed By:**	T. Biercz
		Date	3/22/2024
Project Name & Location:	2250 East 69th Street, Brooklyn, New York		

Possible Risks at a Glance	**Engineering Controls at a Glance**
Possible risks include associated with groundwater sampling include: **1. Vehicular traffic;** **2. Potential to encounter utilities;** **3. Excessive noise;** **4. Drill rig moving and heated mechanisms;** **5. Muscle strains from lifting;** **6. Eye injury from dust and debris;** **7. Lacerations;** **8. Muscle strain from heavy lifting; and** **9. Slip/Trip/Fall hazards due to equipment, debris, and/or slippery surfaces.**	**None** **Work Practice Controls at a Glance** **Wear appropriate PPE, practice safe drilling and installation techniques.** **Personal Protective Equipment at a Glance** **Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, hearing protection, work gloves, hard hat, and reflective safety vest.**

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely as possible.	VERTEX
2	Utility Clearance	1. Potential to encounter underground or aboveground utilities while drilling.	Complete utility clearance using State One Call, GPR services, and/or hand augur to 5 feet bgs.	VERTEX/Sub Contractor
3	General drill rig operation	1. Excessive noise is generated by rig operations.	When the engine is used at high RPMs or soil samples are being collected, use hearing protection.	Sub Contractor

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	
3	General drill rig operation	2. During drill rig operation, surfaces will become hot and cause burns if touched, and COCs in the soil will more readily vaporize generating airborne contaminates.	Use caution handling equipment and wear proper work gloves. Air monitoring should b e performed in accordance with the HASP to monitor the potential volatilization of COCs.	Sub Contractor
		3. Moving parts of the drilling rig can pull you in, causing injury. Pinch points on the rig and auger connections can cause pinching or crushing of body parts.	Stay at least 5 feet away from moving parts of the drill rig. Know where the kill switch is, and have the drillers test it to verify that it is working. Do not wear loose clothing and tie back long hair. Avoid wearing jewelry when drilling. Cone off work area to keep general public away from the drill rig.	Sub Contractor
		4. Dust and debris can cause eye injury and soil cuttings and/or water could contain COCs.	Wear safety glasses and stay as far away from actual drilling operation as practicable. Wear appropriate gloves to protect from COCs.	Sub Contractor
		5. Drilling equipment laying on the ground (i.e. augurs, split spoons, decon equipment, coolers, etc.) create a tripping hazard. Water from decon buckets generate mud and cause a slipping hazard.	Keep equipment and trash picked up and store away from the primary work area. Wear footwear with ankle support.	Sub Contractor
		6. The raised derrick can strike overhead utilities, tree limbs, or other elevated items.	Never move the rig with the derrick up. Ensure there is proper clearance to raise the derrick. Ensure that you are far enough away from overhead power lines.	Sub Contractor
4	Monitoring well installation	1. Monitoring well construction materials can clutter the work area causing tripping hazards.	Well construction materials should be picked up during the well installation process.	Sub Contractor

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	
4	Monitoring well installation	2. Heavy lifting can cause muscle strains.	Use proper lifting and reaching techniques and body positioning; don't carry more than you can handle and get help moving heavy or awkward objects.	Sub Contractor
		3. Lacerations can occur when cutting materials, such as bags or plastic tubing.	When cutting items, ensure that proper cutting tools are utilized. When possible, wear leather safety gloves.	Sub Contractor
		4. Well packed material (i.e. sand, grout, bentonite) can become airborne and get in your eyes.	Wear safety glasses for protection from airborne sand and dust.	Sub Contractor
		5. Cutting the top of the well to size can cause jagged/sharp edges on the top of the well casing.	Wear gloves when working with the top of the well casing, and file any sharp jagged edges that resulting from cutting to size.	Sub Contractor
5	Soil cutting and purge water management.	1. Moving full drums can cause back injury and/or pinching/crushing injury.	Employ proper lifting techniques and body positioning. Don't carry more than you can handle; get assistance from an associate or a lift assist device for heavy objects. Wear leather work gloves and clear all walking and work areas of debris prior to moving a drum.	VERTEX/Sub Contractor

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Task to Be Performed:	**Site Reconnaissance and GPR Survey Oversight**	**Analyzed By:**	T. Biercz
		Date	3/22/2024
Project Name & Location:	2250 East 69th Street, Brooklyn, New York		

Possible Risks at a Glance	**Engineering Controls at a Glance**
Possible risks include associated with site reconnaissance and GPR survey oversight include: **1. Vehicular collision/damage;** **2. Slip, trip, and fall hazards;** **3. Heavy equipment operations;** **4. Scratch, scrape, and impalement hazards;** **5. Muscle strains;** **6. On site traffic;** **7. Lack of communications;** **8. Changing site conditions;** **9. Personal injury from energized equipment;** **10. Exposure to automotive fuel and maintenance chemicals; and,** **11. Use of ladder to reach elevated areas.**	**None** *** Wear appropriate PPE, practice safe site reconnaissance techniques.**
	Personal Protective Equipment at a Glance
	Long pants and steel toed work boots with defined heel, and limited Level D PPE including reflective safety vest. Additional Level D PPE including steel-toe boots, chemical resistant gloves, work gloves, hard hat, and safety glasses when applicable.

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Commuting to and from the work site.	1. Vehicular collision/damage	Wear seatbelts. Drive defensively by: (a) looking down road to determine limiting factors, (b)	Field Staff
2	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely possible.	Field Staff
3	GPR oversight	1. Slips/trips/falls.	Wear footwear with proper ankle support and be vigilant for trip hazards. Be aware that floors may be slippery from lubricants, etc. Walk around these slick areas when possible, otherwise take small steps to maintain balance, especially if you are carrying anything.	Field Staff

		2. On-site traffic.	Watch for vehicular traffic on site. Obtain visible acknowledgement (e.g., hand signal) from the operator of a vehicle before moving around the vehicle. Maintaining only eye contact with vehicle operators is NOT sufficient.	Field Staff

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Task to Be Performed:	**Soil Sampling**	**Analyzed By:**	T. Biercz
		Date	3/22/2024
Project Name & Location:	2250 East 69th Street, Brooklyn, New York		

Possible Risks at a Glance	**Engineering Controls at a Glance**
Possible risks include associated with soil sampling include: **1. Vehicular traffic;** **2. Potential to encounter utilities;** **3. Excessive noise;** **4. Drill rig moving and heated mechanisms;** **5. Muscle strains from lifting;** **6. Eye injury from dust and debris;** **7. Lacerations;** **8. Hand strains and blisters; and** **9. Slip/Trip/Fall hazards due to equipment, debris, and/or slippery surfaces.**	**None** **Work Practice Controls at a Glance** **Wear appropriate PPE, practice safe boring and sampling techniques.** **Personal Protective Equipment at a Glance** **Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, hearing protection, work gloves, hard hat, and reflective safety vest.**

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic.	Field Staff
2	Utility Clearance	1. Potential to encounter underground or aboveground utilities while drilling.	Complete utility clearance using State One Call, GPR services, and/or hand augur to 5 feet bgs.	Field Staff
3	Installation of boring using drill rig.	1. Excessive noise is generated by rig operations.	When the engine is used at high RPMs or soil samples are being collected, use hearing protection.	Field Staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
3	Installation of boring using drill rig.	2. During drill rig operation, surfaces will become hot and cause burns if touched, and COCs in the soil will more readily vaporize generating airborne contaminates.	Use caution handling equipment and wear proper work gloves. Air monitoring should b e performed in accordance with the HASP to monitor the potential volatilization of COCs.	Field Staff
		3. Moving parts of the drilling rig can pull you in, causing injury. Pinch points on the rig and auger connections can cause pinching or crushing of body parts.	Stay at least 5 feet away from moving parts of the drill rig. Know where the kill switch is, and have the drillers test it to verify that it is working. Do not wear loose clothing and tie back long hair. Avoid wearing jewelry when drilling. Cone off work area to keep general public away from the drill rig.	Field Staff
		4. Dust and debris can cause eye injury and soil cuttings and/or water could contain COCs.	Wear safety glasses and stay as far away from actual drilling operation as practicable. Wear appropriate gloves to protect from COCs.	Field Staff
		5. Drilling equipment laying on the ground (i.e. augurs, split spoons, decon equipment, coolers, etc.) create a tripping hazard. Water from	Keep equipment and trash picked up and store away from the primary work area. Wear footwear with ankle support.	Field Staff
		6. The raised derrick can strike overhead utilities, tree limbs, or other elevated items.	Never move the rig with the derrick up. Ensure there is proper clearance to raise the derrick. Ensure that you are far enough away from overhead power lines.	Field Staff
4	Installation of boring using hand auger, sample probe, and/or trowel	1. Muscle strains from pulling/pushing could occur when installing the boring and when removing the auger from the hole.	Stretch out back/arms/shoulders prior to beginning activities. Using a firm grip on the handle, slowly turn the ager and progress downward in 6" increments. Slowly pull the auger from the hole using legs and proper lifting techniques. Ask for assistance if necessary.	Field Staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
4	Installation of boring using hand auger, sample probe, and/or trowel	2. Hand strain and blisters could develop from prolonged hand augering.	Select proper gloves for the task (wear padded mechanics glove when turning auger). If hot spots develop on hands, re-adjust gloves or change to better padded gloves.	Field Staff
		3. Over-exertion could occur when trying to force an auger forward if there is refusal.	If refusal occurs, stop work. Remove auger from the hole and check hole with flashlight. Do not over-exert by using excessive force.	Field Staff
		4. Fatigue can occur due to strenuous nature of hand augering activities.	Take rest breaks as needed or switch out task with another employee.	Field Staff
5	Collection of soil sample	1. Contact with impacted soils	Wear chemical protective gloves as outlined in the HASP and wear safety glasses.	Field Staff
		2. Sharp edges and broken glassware can cause lacerations.	Discard any broken sample containers or glass properly. Do not overtighten containers. Wear cut-resistant gloves when handling sample containers.	Field Staff
		3. Containerizing and moving soil cuttings can cause muscle strains.	Dispose of leftover soil cuttings in a drum or bucket and dispose properly. Only fill buckets half full due to weight and strength of bucket. Wear leather work gloves and use good lifting techniques when handling buckets.	Field Staff
6	Decontamination of hand auger, sample probe, and/or trowel	1. Exposure to COCs during equipment decontamination.	Wear chemical protective gloves as outlined in the HASP and wear safety glasses.	Field Staff

		2. The end of the auger/probe has sharp/pointed edges; lacerations can occur.	Use a brush to scrub off soils. Wear cut-resistant gloves when handling auger. Do not reach into the	Field Staff
Step #	**Specific Steps in the Task**	**Hazards and Risks by Step That Must Be Controlled**	**Precautions Actions to Avoid the Risks**	**Responsible Person**
7	Fill in sample location	1. Open boreholes are a trip hazard.	Fill in holes with sand or bentonite. Pack down chips as best as possible, adding water as necessary.	Field Staff
		2. Muscle strain can occur from lifting bags of sand and/or bentonite.	Use proper lifting techniques and body positioning.	Field Staff

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Task to Be Performed:	**Soil Vapor and Indoor Air Sampling**	**Analyzed By:**	T. Biercz
		Date	6-Jun-24
Project Name & Location:	2250 East 69th Street, Brooklyn, NY		

Possible Risks at a Glance	**Engineering Controls at a Glance**
Possible risks include associated with indoor soil vapor and indoor air sampling include: **1. Vehicular traffic;** **2. Potential to encounter utilities;** **3. Excessive noise;** **4. Moving/vibrating and hot parts of the hammer drill and drill bit;** **5. Eye injury from dust and debris;** **6. Electrical hazards;** **7. Hand strain and blisters;** **8. Over-exertion and fatigue; and** **9. Slip/Trip/Fall hazards due to equipment, debris, and/or slippery surfaces.**	**None**
	Work Practice Controls at a Glance
	Wear appropriate PPE, practice safe drilling and sampling techniques.
	Personal Protective Equipment at a Glance
	Level D PPE including safety glasses, steel-toe work boots, chemical resistant and cut-resistant work gloves, hearing protection, hard hat, and reflective safety vest.

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls.	1. Personnel could be hit by vehicular traffic	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic.	Field Staff
2	Utility Clearance.	1. Potential to encounter underground utilities while drilling.	Complete utility clearance using Dig Safe notification.	Field Staff
3	Installation of soil vapor point using hammer drill with 5/8" (or appropriate drill bit) as well as hammer and mallet.	1. Excessive noise is generated by hammer drill.	When hammer drill is being utilized, use hearing protection.	Field Staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
3	Installation of soil vapor point using hammer drill with 5/8" (or appropriate drill bit) as well as hammer and mallet.	2. Immediately after drilling, the drill bit or blade/cutter may be very hot and could burn you.	Do not touch drill bit or blade/cutter immediately after the drilling. Wear cut-resistant work gloves at all times.	Field Staff
		3. Moving and vibrating parts of the hammer drill can cause you to lose control and cause injury. Pinch points on the hammer drill equipment can cause pinching of body parts.	Always keep a firm footing when using power tools, making sure you have balance and control before you start the job. Firmly grasp the tool handle and auxiliary handle (if provided) to maintain control. Always hold or brace the tool securely. Brace against stationary objects for maximum control. Do not wear loose clothing and tie back long hair. Avoid wearing jewelry when drilling. Wear steel-toe work boots when drilling. Cone off work area to keep general public away from the drilling operation.	Field Staff
		4. Dust and debris from drilling can cause eye injury and sub-slab soil could contain COCs.	Wear safety glasses at all times. Wear appropriate chemical resistant gloves to protect from COCs.	Field Staff
		5. Drilling and sampling equipment laying on the ground (i.e., Summa canisters, electrical cords, extension cords) create a tripping hazard.	Keep equipment and trash picked up and store away from the primary work area. Wear footwear with ankle support.	Field Staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
		6. Hammer drill power cord and any extension cords used could pose an electrical hazard.	Grounded tools (3-pronged cords) must be plugged into a properly grounded installed outlet. Extension cords with 3-prong grounding plugs must be plugged into 3-prong outlets when using grounded tools. Do not use power tools in wet conditions. Do not abuse the power cord, do not carry the tool by its cord, or pull the cord to unplug it. Replace damanged cords immediately.	Field Staff
		7. Hand strain and blisters could develop from prolonged use of hand drill.	Select proper cut-resistant work gloves for the task. If hot spots develop on hands, re-adjust gloves or change to better padded gloves. Take rest breaks as needed.	Field Staff
		8. Fatigue can occur due to strenuous nature of hammer drill & vapor point installation activities.	Take rest breaks as needed.	Field Staff
4	Collection of soil vapor samples and indoor air samples using Summa canisters.	1. Sample containers could be damaged during the job.	Discard any damaged sample containers properly. Wear appropriate eye and hand protection.	Field Staff

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Task to Be Performed:	**Virus Avoidance JSA** ***NOTE:*** *This JSA is meant to cover VERTEX work with an on-site component and be used in conjunction with existing VERTEX's task-specific procedures. This JSA must be modified as needed for the scope of work.* ** Guidance is appropriate for our construction sites, Phase I ESAs, Cause & Origin (C&O) investigations, insurance assessments, asbestos surveys, IAQ assessments, radon sampling, PCAs, and other site visit scopes that require being physically present on-site.* ** Special guidance is provided for multi-tenant facilities and facilities with large numbers of occupants, including apartment complexes, hospitals, schools/higher education, nursing homes, assisted living, office buildings, and hotels; airport; cruise ships.*	**Analyzed By:** **Date**	Philip Platcow and Genevieve Reynolds 17-Sep-20
Project Name & Location:	VERTEX field-activities requiring in-person presence of VERTEX team members at field sites		

Possible Risks at a Glance	Engineering Controls at a Glance
* Possible exposure to the virus that causes COVID-19 Note: This guidance must be combined with JSAs for site-work tasks have their own risks and precautions that must be addressed, such as electrical risks, falling, tripping, chemicals, etc.	* Do not go to the site if you can achieve your objectives remotely. * Good preparation before you go to a project site can avoid incidents of all types. * For construction sites, order construction trailers that are large enough to allow at least a separation between employees of 6 feet/2m. * Determine if any restrictions in the location to which you are going might limit the effectiveness of the visit and impact achieving all the goals of the visit.
	Work Practice Controls at a Glance
	* Establishing a distance of 6 feet/2m between people, when possible. * Conducting work off-hours, when fewer people are around, when possible. * Avoid any contact with confirmed positive COVID-19 or presumptive positive cases. * Obey any restrictions imposed by the various states of emergency or other community restrictions. * Implement cleaning/disinfection procedures in job trailers. * Discuss wellness *daily* to ensure that all project participants are feeling well at the beginning of every shift.
	Personal Protective Equipment at a Glance
	* Bring gloves, hand sanitizer, to the visit to use. If hand sanitizer is in short supply, use cleaning/disinfectant wipes, or simply identify places where you can wash your hands with soap and water. *Depending on the VERTEX task(s), some level of respiratory protection may be needed. Please contact Philip Platcow to discuss the task, airborne hazards and the need for protection. * You should wear a surgical or N/KN-95 when more substantial respiratory protection is <u>not</u> required. Cloth masks are not preferred when better protection is available. When you are walking around a site or traveling to and from, you should wear a mask. If there is more than one VERTEX colleague on a project site or at a meeting, an effort should be made to wear the same mask for uniformity. *Utilize other PPE as required for the specific task, such as steel-toed work boots, safety glasses, hardhats, etc.

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Preparing for a site visit or other work task requiring that the VERTEX team member be physically present at a site.		Determine if going to the location is absolutely necessary to achieve the project goal. * Can we use a technology tool to avoid the need to be on a site? * Can we attend a meeting by remote video?	Project managers/field colleagues
			When setting up a site visit: * Ask if the facility is open and operating, and which hours may have fewer people present at the site. * Ask your site contact if any cases or voluntary isolations/quarantines have been reported among employees/tenants/etc. at the location. * Tactfully ask if there is anyone else who might be aware of cases.	Project managers/field colleagues
			For sites between 3 and 6 hours from your office, consider driving rather than taking a train or plane to your destination.	Field colleagues
			If you must take a plane: * Wear a sugical or cloth mask while traveling these areas. * Make an effort to avoid crowds, create a 6 feet/2m (or greater if possible) distance between you and others while in the waiting areas and in lines to the extent possible. * Although you may feel uncomfortable, it is fine to wear nitrile gloves. * Bring disinfectant wipes for seats, arm rests, tray tables, etc. * Wash hands frequentily and carry a small container of hand sanitizer.	Field colleagues

			* Select a good level hotel, such as, Courtyard and above, where you can count on it being clean under normal circumstances. * Call the hotel and ask if they have had any COVID-19 cases. * When checking in/out, keep a 6 foot/2m distance from the hotel employees and any other guests. * Bring your own pen to sign documents. Many people may have used those hotel pens. * Bring disinfectant wipes to go back over surfaces and high touch areas like knobs, lights, thermostat, and stay away from people as possible. * Use a wipe to disinfect the room key and the TV remote control. If you use any glasses, wash them again prior to use. * Wear a sugical or cloth mask and gloves as you go through the hotel. * Do not use the fitness center during this time at all; go for a run or walk outdoors if it's in a safe area. * Select a hotel with a refrigerator so that you do a bit of shopping (breakfast and lunch anyway) and minimize the meals you take in the presence of others. Indeed, these common areas may be closed anyway. * Follow other, typical safety procedures, such as parking under lights, choose a hotel that requires you to enter through the lobby, etc. * During this time, it is even more important to consider wellness: eat properly, get some exercise, get a good amount of sleep.	
			Make sure you have nitrile gloves and hand sanitizer, or other available and appropriate sanitization supplies and PPE, in your field kit before you set out for the project location.	Field colleagues
			For scopes that require a municipal research component, consider calling or submitting a FOIA to local offices to confirm records are available before visiting in person. Give yourself enough time for the office visit so that you can wait, if needed, to get in a cabinet/folder that someone else may be standing near. Then approach when they move. Wear a surgical or cloth mask in these offices.	Project managers/field colleagues
			Obey all local/State/Federal restrictions in place on work in the site area, such as stop-work orders for construction sites, shelter-in-place orders, etc.	Project managers/field colleagues
			For multi-tenant residential visits: Ask the site management to notify more units than you need, to complete the scope. For example, if your scope requires access to 20% of the units, request that the property notify 25% or even 30%. This will allow you to skip units during the visit if it becomes necessary. This is always a good approach because all sorts of scenarios may come up that prohibit you from getting into one unit or space or another.	Project managers/field colleagues

			For multi-tenant residential visits: request access to vacant units when the scope can be completed by visiting vacant units. Note that this may not be appropriate for all scopes.	Project managers/field colleagues
2	During your task		At the start of the on-site portion of the assessment, ask the site contacts again if any cases (confirmed or presumptive positive) or voluntary isolations have been reported at the property. This is an evolving situation, and cases may have been reported since you set up the visit.	Field colleagues
			Please bring a surgical or cloth mask, gloves, hand sanitizer, etc. to the visit to use.	Field colleagues
			As much as possible, avoid touching high-contact surfaces (railings, knobs, switches, etc.), particularly in high-occupancy areas like clubhouses. We want to avoid touching railings, but we also need to be careful walking up/down stairs as well. Use your surgical or cloth mask, and nitrile gloves for protection.	Field colleagues
Step #	**Specific Steps in the Task**	**Hazards and Risks by Step That Must Be Controlled**	**Precautions Actions to Avoid the Risks**	**Responsible Person**
			As always, wash hands frequently (esp. before eating) for about 20 second, up to the elbow, and avoid touching your face. This actually takes some practice to get used to.	Field colleagues
			* While at the property, maintain a distance of 6 feet/2m (or greater, if possible) between people, when possible. Remember that people who are not showing visible symptoms or even exhibiting an elevated temperature may still be capable of spreading COVID-19. * Wear your mask, unless the scope of work requires a higher level of respiratory protection.	Field colleagues
			For Construction Sites: * Discuss measuring temperatures of individuals coming on to the site. * Signage about proper hygiene practices should be installed on the outside of job trailers or at the gate wherever possible. * Ensure an adequate number of hand-washing stations on job sites to facilitate better hygiene. * Minimize sharing of tools and wipe down tools with disinfectant prior to another worker using a tool. * Have daily discussions about wellness with colleagues and workers at the beginning of each shift to ensure that all are feeling well. Anyone who is sick should be sent home. * Wear your mask.	Project Managers and Field colleagues

			* Site meetings should be done at a distance and outdoors whenever possible. Meetings in trailers should be avoided. If possible, people who do not need to attend a meeting in person, should attend remotely. * Wear your mask. * No hand-shaking.	Field colleagues
			At the end of your visit, wash your hands and clean your camera/phone, pen, clipboard, etc. before getting back in your vehicle.	Field colleagues
			* For multi-tenant residential visits: When knocking on unit doors, stand back and to the side when a tenant answers, to increase distance between you and the tenant. With respiratory syndromes such as COVID-19, when possible, you want to maintain a 6 feet/2m (or greater, when possible) distance from people. * Wear your mask.	Field colleagues
			* For multi-tenant residential visits: If a tenant/occupant appears visibly ill (coughing, sneezing, obvious sweating, etc.), tactfully apologize for the interruption, and skip the unit and move on. This is an example of why it is a good idea to request access to more units than the scope requires. Requesting additional units may also be important if tenants deny access to site inspectors due to COVID-19-related concerns. * Wear your mask.	Field colleagues
			Remember, you do not have to enter work areas, spaces or units if you do not feel comfortable. If you have questions, please feel free to reach out to your manager or the HandS Team.	Field colleagues

DAILY TAILGATE SAFETY MEETING FORMS

THE VERTEX® COMPANIES, INC.

DAILY SAFETY LOG

DATE: _____ SITE LOCATION: _____

WEATHER: _____ PROJECT NUMBER: _____

TOPICS DISCUSSED

- ☐ Expected Activities
- ☐ Health and Safety Emergency Numbers
- ☐ Hospital Location
- ☐ Work Areas (Posted)
- ☐ Standing Orders
- ☐ Confined Space Entry
- ☐ Slip, Trip, Fall
- ☐ Manual Lifting
- ☐ Utility Locations
- ☐ Mechanical Hazards
- ☐ Emergency Communications
- ☐ Electrical Hazards
- ☐ Other_____
- ☐ Chemical Hazards
- ☐ Bonding and Grounding
- ☐ Heavy Equipment
- ☐ Traffic hazards
- ☐ Heat/Cold Stress
- ☐ Noise Hazards
- ☐ Lock-out/Tag-out
- ☐ Excavation Hazards
- ☐ Venting/Inerting
- ☐ Biological Hazards
- ☐ Meeting Place
- ☐ Other_____

PERSONAL PROTECTIVE EQUIPMENT

- ☐ Energized Systems
- ☐ Eye Protection
- ☐ Hearing Protection
- ☐ Gloves (Specify Type)
- ☐ Respiratory Protection (Specify Type)
- ☐ Engineering Controls (Specify Type)
- ☐ Other_____
- ☐ Hard Hat
- ☐ Protective Clothing
- ☐ Retrieval System
- ☐ Backup system
- ☐ Lighting
- ☐ Other_____

Additional Comments Observations, Deficiencies / Corrective Actions Taken:

_____

_____

_____

MEETING CONDUCTED BY:_____

Meeting Attended By:

_____ _____

_____ _____

_____ _____

_____ _____

NEAR MISS/INCIDENT REPORT FORMS

VERTEX®

INCIDENT INVESTIGATION REPORT

To: _____

cc: _____
Workers Compensation Administrator (if employee injured)

Project name: _____

_____

Project number: _____

Date of the incident: _____

Prepared by: _____

Position: _____

Office: _____

Telephone number: _____

Fax number: _____

Time of the incident: _____ a.m. ☐ p.m. ☐

☐ Check if time cannot be determined

LOCATION OF THE INCIDENT

Street address: _____

City, State, Zip Code: _____ County: _____

Did the incident occur on VERTEX premises? Yes ☐ No ☐

EMPLOYEES INVOLVED

VERTEX employees involved: _____

_____

_____

Subcontractors involved: _____

_____

Other parties involved: _____

_____

INFORMATION ABOUT THE INCIDENT

What was the employee(s) doing just before the incident occurred? *Describe the activity as well as the tools, equipment, or material the employee was using. Be specific. Examples: "Climbing a ladder while carrying roofing material"; "Daily computer key-entry"; "Verifying masonry installation from scaffolding"; "Operating an aerial lift*

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

Revision Date: 1/10/2017

VERTEX®

INCIDENT INVESTIGATION REPORT (Continued)

INFORMATION ABOUT THE INCIDENT (continued)

What happened? *Clearly describe how the incident occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker developed soreness in wrist over time"; "Worker displaced loose brick which fell 25 feet and landed on a parked vehicle;" "Worker raised work platform while railing was beneath exterior light fixture, contacting the fixture and knocking it off the wall."*

Was the employee performing regular job duties? Yes ☐ No ☐

Was safety equipment provided? Yes ☐ No ☐ Was safety equipment used? Yes ☐ No ☐

REPORT OF INJURY

Did an injury or illness occur? Yes ☐ No ☐ *(skip to next section if "No")*

Injured Employee Information

Name: _____ Office: _____

Home address: _____ Gender: M ☐ F ☐ No. of dependents: _____

_____ Marital status: _____

Home telephone number: _____ Date of birth: _____

Occupation (regular job title): _____

Department: _____

What was the injury or illness? *Describe the part(s) of the body affected and how it was affected. Be more specific than "hurt," "pain," or "sore." Examples: "Strained back"; "Carpal tunnel syndrome, left wrist"*

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VERTEX®

INCIDENT INVESTIGATION REPORT (Continued)

REPORT OF INJURY (continued)

Describe the object or substance that directly harmed the employee. *Examples: "Concrete floor"; "Chlorine."*

Did the employee die? Yes ☐ No ☐ Date of death: _____

NOTE: Attach any police reports or related diagrams to this report.

Medical treatment required? Yes ☐ No ☐ First Aid Only ☐

Name of physician of health care professional: _____

If treatment was provided away from the work site, provide the information below:

Facility name: _____

Street address: _____

City: _____ State: _____ Zip code: _____

Telephone number: _____

Was the employee treated in an emergency room? Yes ☐ No ☐

Was the employee hospitalized overnight as an in-patient? Yes ☐ No ☐

PROPERTY DAMAGE

Did property damage occur? Yes ☐ No ☐ *(skip to next section if "No")*

VERTEX property damaged: _____

_____

VERTEX client property damaged: _____

_____

Other property damaged: _____

_____

Trespassers, vandalism or illegal activity: _____

_____

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

VERTEX®

INCIDENT INVESTIGATION REPORT (Continued)

PROPERTY DAMAGE (continued)

Wildlife or environmental damage: _____

_____

Motor vehicle involved? Yes ☐ No ☐ - If "Yes", **attach police report** and insurance information.

WITNESS INFORMATION (attach additional sheets for other witnesses)

Were there witnesses to the incident? Yes ☐ No ☐

Name: _____ Company: _____

Street Address: _____

City: _____ State: _____ Zip code: _____

Telephone number: _____

CORRECTIVE ACTION(S)

Corrective action(s) taken by unit reporting the incident:

Corrective action still to be taken (by whom and when) with suggestions to prevent a similar incident:

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

Revision Date: 1/10/2017

VERTEX®

INCIDENT INVESTIGATION REPORT (Continued)

REPORTING AND ACKNOWLEDGEMENT

Name of employee the incident was first reported to: _____

Date of Report: _____ Time of Report: _____

I have reviewed this investigation report and agree, to the best of my recollection, with its contents.

Name of reporting employee (print): _____ Telephone Number: _____

Signature of reporting employee: _____ Date: _____

Name of injured employee (print): _____ Telephone Number: _____

Signature of injured employee: _____ Date: _____

The signatures below indicate that appropriate personnel have been notified of the incident.

Title	Printed Name	Signature	Telephone Number	Date
Corporate Health & Safety Manager				
Supervisor				
Site Safety Coordinator (if applicable)				

Subsequent pages to be completed by the Health and Safety Representative, Human Resources, and Workers Compensation Carrier, respectively.

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

VERTEX®

INCIDENT INVESTIGATION REPORT (Continued)

To Be Completed by the Health and Safety Representative

Classification of Incident:

☐ Injury ☐ Illness ☐ Property damage with no injury or illness

Result of Incident:

☐ Property damage
☐ First aid only
☐ Days away from work
☐ Remained at work but incident resulted in job transfer or work restriction
☐ Incident involved days away and job transfer or work restriction
☐ Medical treatment only
☐ Was incident investigated?

No. of days away from work _____

Date employee left work _____

Date employee returned to work _____

No. of days placed on restriction or job transfer: _____

OSHA Recordable Case Number _____

Reason for Incident: ☐ Lack of Knowledge/Experience ☐ Improper Attitude
☐ Human Limitation ☐ Condition

Corrective Action: ☐ Instruction/Training
☐ Motivation/Discipline
☐ Proper Placement
☐ Repair/Eliminate
☐ Recommended Management

Suggestions for Changes to Avoid a Similar Incident? _____

_____

Signed: _____ Date: _____

Printed Name: _____

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

VERTEX®

INCIDENT INVESTIGATION REPORT (Continued)

To Be Completed by Human Resources

Date of hire: _____ Hire date for current job: _____

Wage information: $ _____ per ☐ Hour ☐ Day ☐ Week ☐ Month ☐ Year

Position at time of hire: _____

Current position: _____ Shift hours: _____

State in which employee was hired: _____

Status: ☐ Full-time ☐ Part-time Hours per week: _____ Days per week: _____

Temporary job end date: _____

To Be Completed during Report to Workers Compensation Carrier

Date reported: _____ Reported by: _____

Confirmation number: _____

Name of contact: _____

Field office of claims adjuster: _____

For claims:

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

THE VERTEX® COMPANIES, INC.

NEAR MISS FORM

This is an official document to be initiated by a VERTEX employee, please answer correctly and with much detail as possible. This report should be forwarded to the OHSM within 24 hours of the near miss.

EMPLOYEE(S) INVOLVED: _____ DATE & TIME OF INCIDENT:

PERSON COMPLETING FORM: _____ DATE: _____

PROJECT NAME / NUMBER: _____ TIME: _____ AM/PM

NEAR MISS LOCATION (ADDRESS): _____

DESCRIBE NEAR MISS: (Defined as an event or situation that could have resulted in an accident, injury, or illness but DID NOT, either by chance of time/distance or through timely intervention). Describe fully, the protocol / procedures being followed including all substances, machinery, equipment (including personnel protective equipment) being used as related to the near miss.

_____

_____

SUBCONTRACTORS OR OTHER COMPANY INVOLVED? NO ☐ IF YES, DESCRIBE

_____

ON A SCALE OF 1 TO 10 HOW SEVERE COULD THE EVENT HAVE BEEN?

Least Severe 1 2 3 4 5 6 7 8 9 10 Most Severe

WHAT IS THE PROBABILITY OF AN INCIDENT IF THIS WERE TO OCCUR AGAIN (HIGH, MEDIUM, LOW)?
(Example: HIGH = task occurs frequently and by numerous individuals; MEDIUM = task occurs on a regular basis by certain individuals; LOW = minor or no injury, no lost dollar)

☐ LOW ☐ MEDIUM ☐ High

WHAT ARE THE SUGGESTED CORRECTIVE ACTIONS? _____

_____

_____

_____

_____

_____

EMPLOYEE _____ _____ _____
Printed Name Signature Date

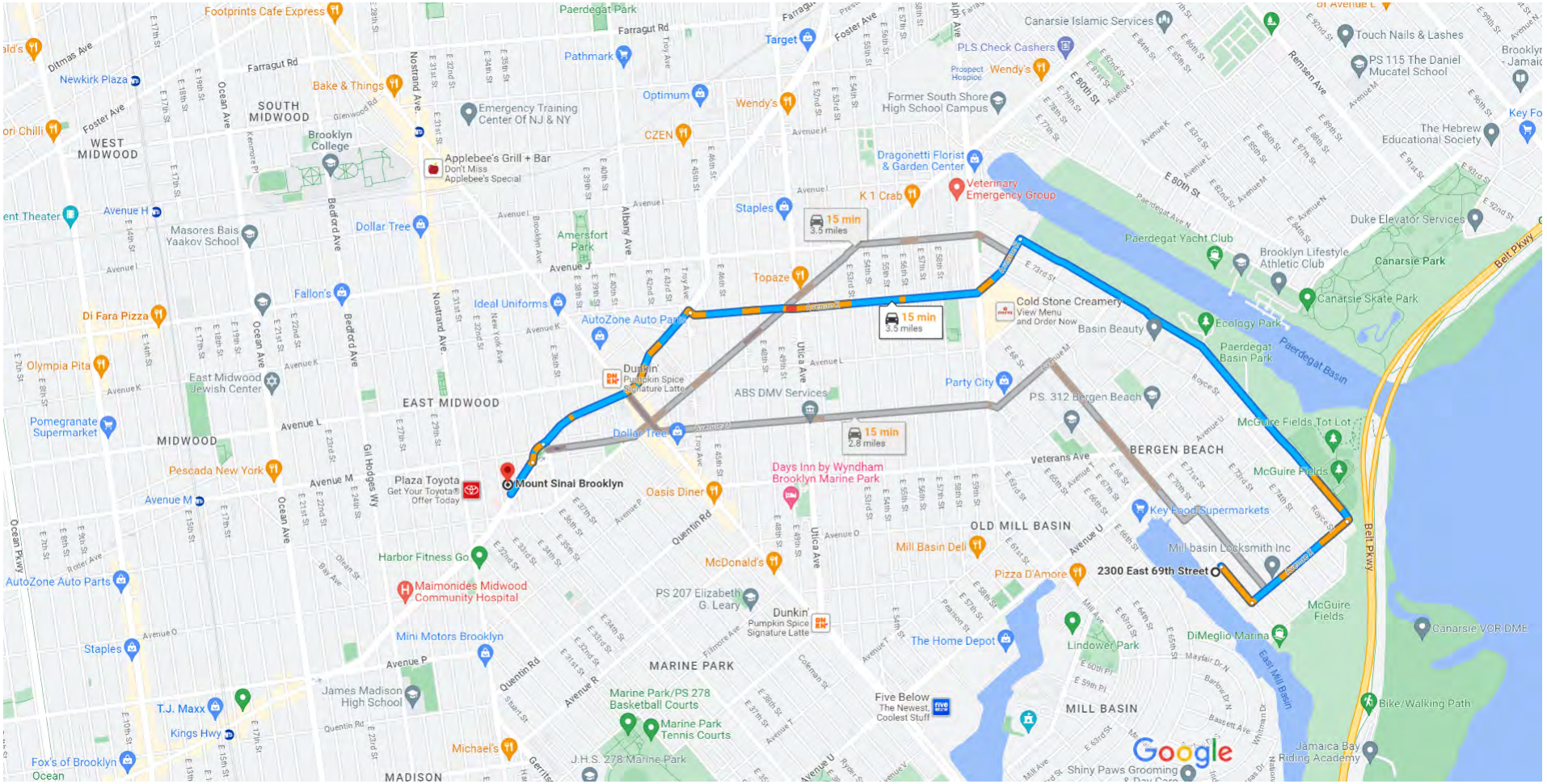
CHSM _____ _____ _____
Printed Name Signature Date

ATTACHMENTS ☐ YES ☐ NO

DIRECTIONS TO THE HOSPITAL

2300 E 69th St, Brooklyn, NY 11234 to Mount Sinai Brooklyn, 3201 Kings Hwy, Brooklyn, NY 11234

Drive 3.5 miles, 15 min



Map data ©2023 Google 1000 ft

2300 E 69th St
Brooklyn, NY 11234

↑ 1. Head southeast on E 69th St toward Avenue X

0.1 mi

2. Turn left at the 1st cross street onto Avenue X

0.3 mi

3. Avenue X turns slightly left and becomes Bergen Ave

1.2 mi

4. Turn left onto Avenue K

Pass by IHOP (on the left)

1.0 mi

5. Turn left onto Kings Hwy

0.6 mi

6. At the traffic circle, take the 2nd exit and stay on Kings Hwy

331 ft

7. Turn right to stay on Kings Hwy

Destination will be on the right

0.1 mi

Mount Sinai Brooklyn

3201 Kings Hwy, Brooklyn, NY 11234

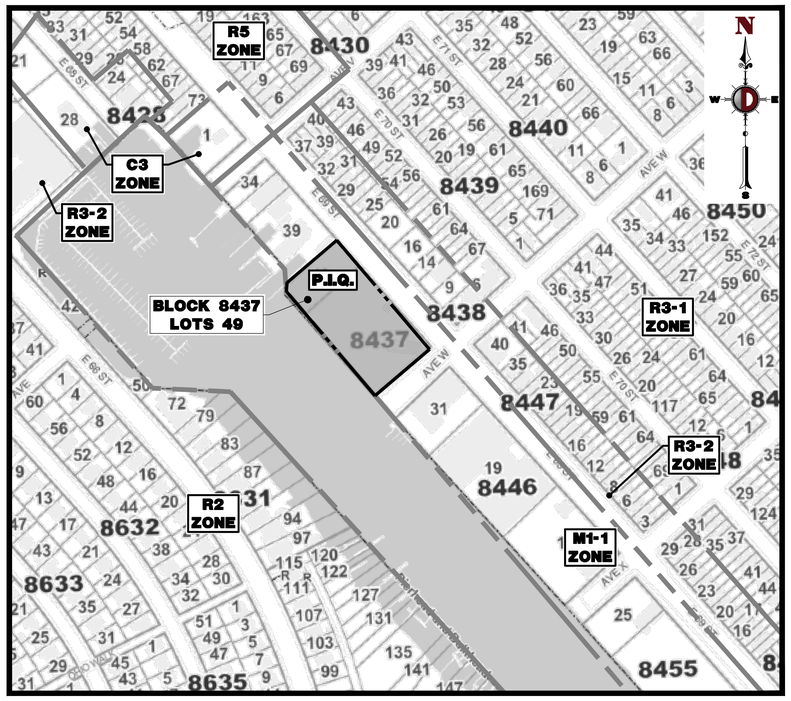
Appendix B:
Site Stormwater Engineering Documents

PRELIMINARY AND FINAL SITE PLAN

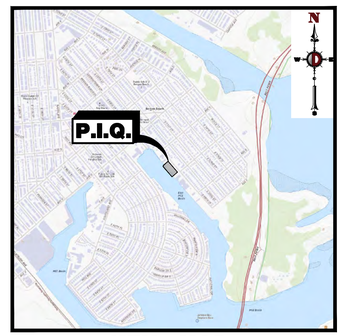
FOR

2300 69 STREET PROPERTY LLC
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)

BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN
KINGS COUNTY, NEW YORK



AREA MAP
1" = 200'



KEY MAP
1" = 2000'

DRAWING INDEX	
COVER SHEET	1 of 9
AERIAL MAP	2 of 9
ZONING PLAN	3 of 9
SITE PLAN	4 of 9
GRADING PLAN	5 of 9
CONSTRUCTION DETAILS	6 of 9
CONSTRUCTION DETAILS	7 of 9
2007 FEMA EFFECTIVE FIRM	8 of 9
2013 FEMA PRELIMINARY FIRM	9 of 9

FILING LIST:
ALT-CO#: B01097393-I1
BPP#: 340912766
DPR#: 43462
CO#: B01097393-S2
CO#: B01097393-S3
CO#: B01097393-P1 (FORMERLY S4)
SCH#: SCK-1813/24-1
SWPPS#: S324824

Zhanna Chervony
APPROVED
Date: 03/14/2025

PREPARED BY
DYNAMIC ENGINEERING CONSULTANTS, P.C.
50 PARK PLACE - SUITE 901
NEWARK, NJ 07102
WWW.DYNAMICEC.COM

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A PHONE CALL CAN BE YOUR INSURANCE POLICY

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Plotted: 03/06/25 - 9:51 AM, By: jcdelmedia
File: P:\DEC\PC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\D4918230254BCK3.dwg, ---> 01 COVER SHEET

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REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

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DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

PROJECT: **2300 69 STREET PROPERTY LLC**
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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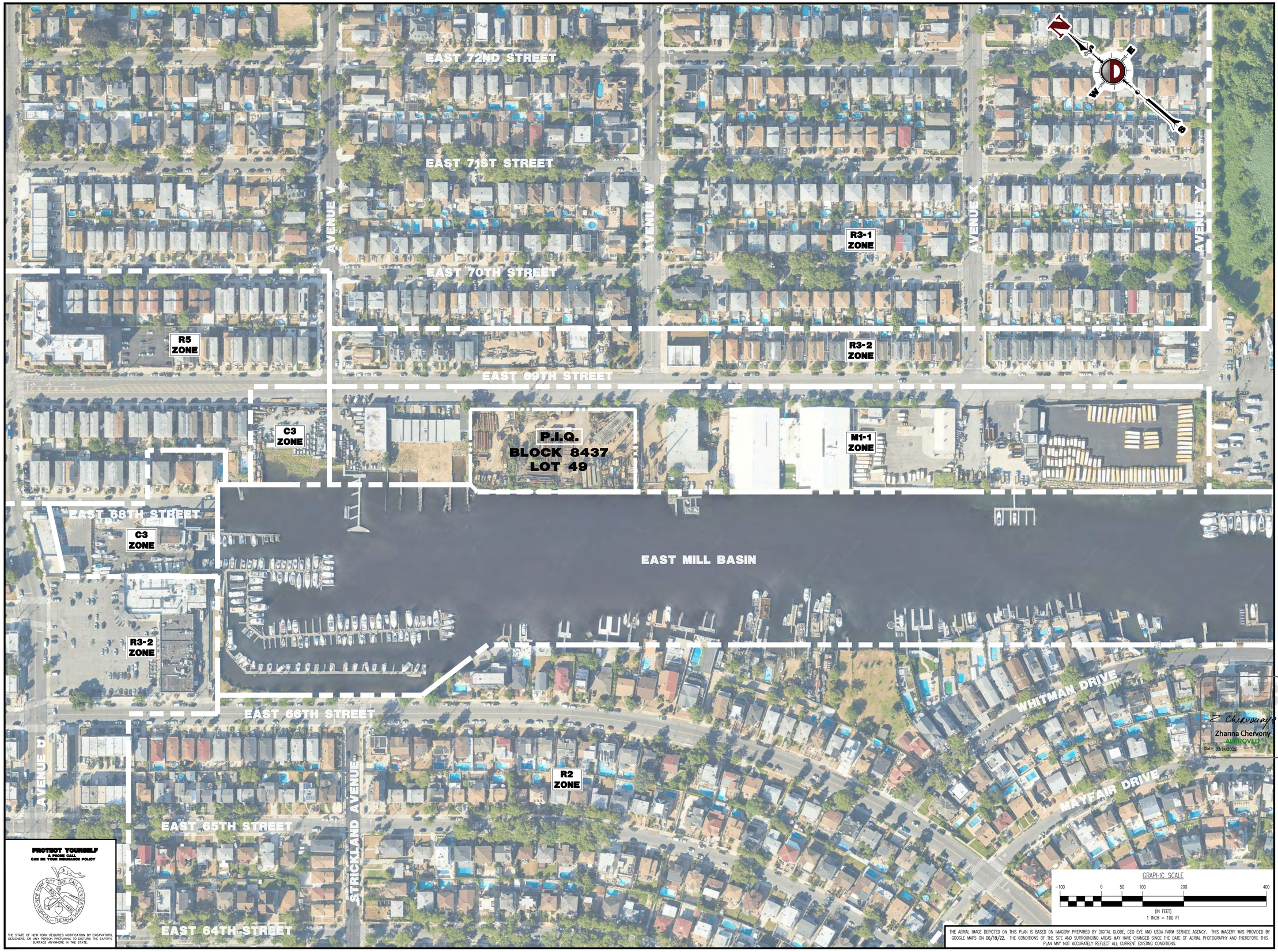
ZACHARY A. KAMM
LICENSED PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE:
COVER SHEET
ALT CO #B01097393-I1

SCALE: (H)AS (V)SHOWN | DATE: 10/04/2024
PROJECT No: 4918-23-02548

SHEET No: C-101.00 1 OF 9 | Rev. #: 3



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GRAPHIC SCALE

-100 0 50 100 200 400

(IN FEET)
1 INCH = 100 FT

THE AERIAL IMAGE DEPICTED ON THIS PLAN IS BASED ON IMAGERY PREPARED BY DIGITAL GLOBE, GEO EYE AND USDA FARM SERVICE AGENCY. THIS IMAGERY WAS PROVIDED BY GOOGLE MAPS ON 06/19/22. THE CONDITIONS OF THE SITE AND SURROUNDING AREAS MAY HAVE CHANGED SINCE THE DATE OF AERIAL PHOTOGRAPHY AND THEREFORE THIS PLAN MAY NOT ACCURATELY REFLECT ALL CURRENT EXISTING CONDITIONS.

Plotted: 03/06/25 - 9:53 AM By: jcdelmedia
File: P:\DESPC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\04918230254840A3.dwg, ----> 02 AERIAL MAP

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REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
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Zhanna Chervony
APPROVED
Date: 03/14/2025

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STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 107071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE:
AERIAL MAP
ALT CO #B01097393-I1

SCALE: (H) 1" = 100' (V) | DATE: 10/04/2024
PROJECT No: 4918-23-02548

SHEET No: C-102.00 2 OF 9 | Rev. #: 3

ZONING ANALYSIS

ADDRESS 2240 EAST 69 STREET, BROOKLYN, NEW YORK
BLOCK 8437 LOT 49
LOT SIZE LOT 49 = 79,838 SF
ZONING DISTRICT M1-1 MAP# 23D

THE FOLLOWING IS A GENERAL ZONING STUDY FOR COMMERCIAL VEHICLE STORAGE DEVELOPMENT:

42-191 USES PERMITTED:
EXISTING: VACANT
PROPOSED: USE GROUP IX(C) – COMMERCIAL VEHICLE STORAGE. – **COMPLIES**

43-02 STREET TREES:
(STREET FRONTAGE – CURB CUTS)/25
(400 – 3)/25 = 15.88 = 16 TREES REQUIRED
TOTAL NUMBER OF:
EXISTING TREES TO PROTECT 8
PROPOSED TREES TO PLANT ONSITE 1
(NYC DPR APPROVED STREET TREE PLAN ON 01/22/2025)

62-326/43-12 MAX. FAR: 1.0
79,838 SF X 1.0 = 79,838 SF
PROPOSED FAR: 0 (NO BUILDING PROPOSED) – **COMPLIES**

62-33 WATERFRONT YARDS:
NOT REQUIRED FOR DEVELOPMENTS COMPRISED PREDOMINANTLY OF USE GROUP IX IN MANUFACTURING DISTRICTS.
YARDS SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE DISTRICT REGULATIONS.
NO BUILDING PROPOSED. – **COMPLIES**

43-25 MIN SIDE YARD:
NO SIDE YARD REQUIRED.
HOWEVER IF AN OPEN AREA EXTENDING ALONG A SIDE LOT IS PROVIDED, IT SHALL BE AT LEAST 8 FT WIDE.
NO BUILDING PROPOSED. – **COMPLIES**

44-26 MIN REAR YARD: 20 FT
NO BUILDING PROPOSED. – **COMPLIES**

62-34 WATERFRONT HEIGHT AND SETBACK:
EXEMPT DEVELOPMENTS:
USE GROUPS IV(B), IX OR X IN MANUFACTURING DISTRICTS
NO BUILDING PROPOSED. – **COMPLIES**

43-43 HEIGHT AND SETBACK:
MAX. FRONT WALL HT.: 30 FT OR 2 STORIES, WHICHEVER LESS
SKY EXPOSURE PLANE: 1 TO 1
SETBACKS: 15 FT (WIDE STREET)
NO BUILDING PROPOSED. – **COMPLIES**

62-51 VISUAL CORRIDOR:
NOT REQUIRED FOR DEVELOPMENTS COMPRISED PREDOMINANTLY OF USE GROUP IX IN MANUFACTURING DISTRICTS

62-52a APPLICABILITY OF WATERFRONT PUBLIC ACCESS AREA:
EXEMPT DEVELOPMENTS: USE GROUPS IV(B), IX OR X IN MANUFACTURING DISTRICTS.

44-21 ACCESSORY PARKING (PRC-D2):
1 PER 2,000 SF OR 1 PER 3 EMPLOYEES, WHICHEVER GREATER.
NO EMPLOYEES, NO FLOOR AREA, NO PARKING REQUIRED, NONE PROVIDED. – **COMPLIES**

44-50 ACCESSORY LOADING (LRC-B): – **N/A**

44-60/36-70 BICYCLE PARKING: – **N/A**

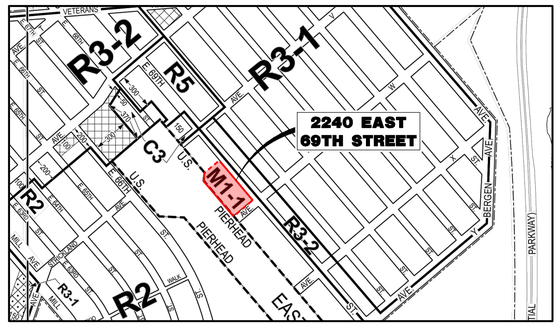
ENERGY CODE COMPLIANCE NOTE

2020 NYCECC COMMERCIAL ENVELOPE TABULAR ANALYSIS				
NYCECC CITATION	ITEM DESCRIPTION	CODE PRESCRIPTIVE VALUE (ECC)	PROPOSED DESIGN VALUE	SUPPORTING DOCUMENTATION
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	CONSTRUCTION OF VEHICLE STORAGE LOT	NOT APPLICABLE – NO BUILDING PROPOSED	NOT APPLICABLE – NO BUILDING PROPOSED	SITE PLAN SHEET C-104.00

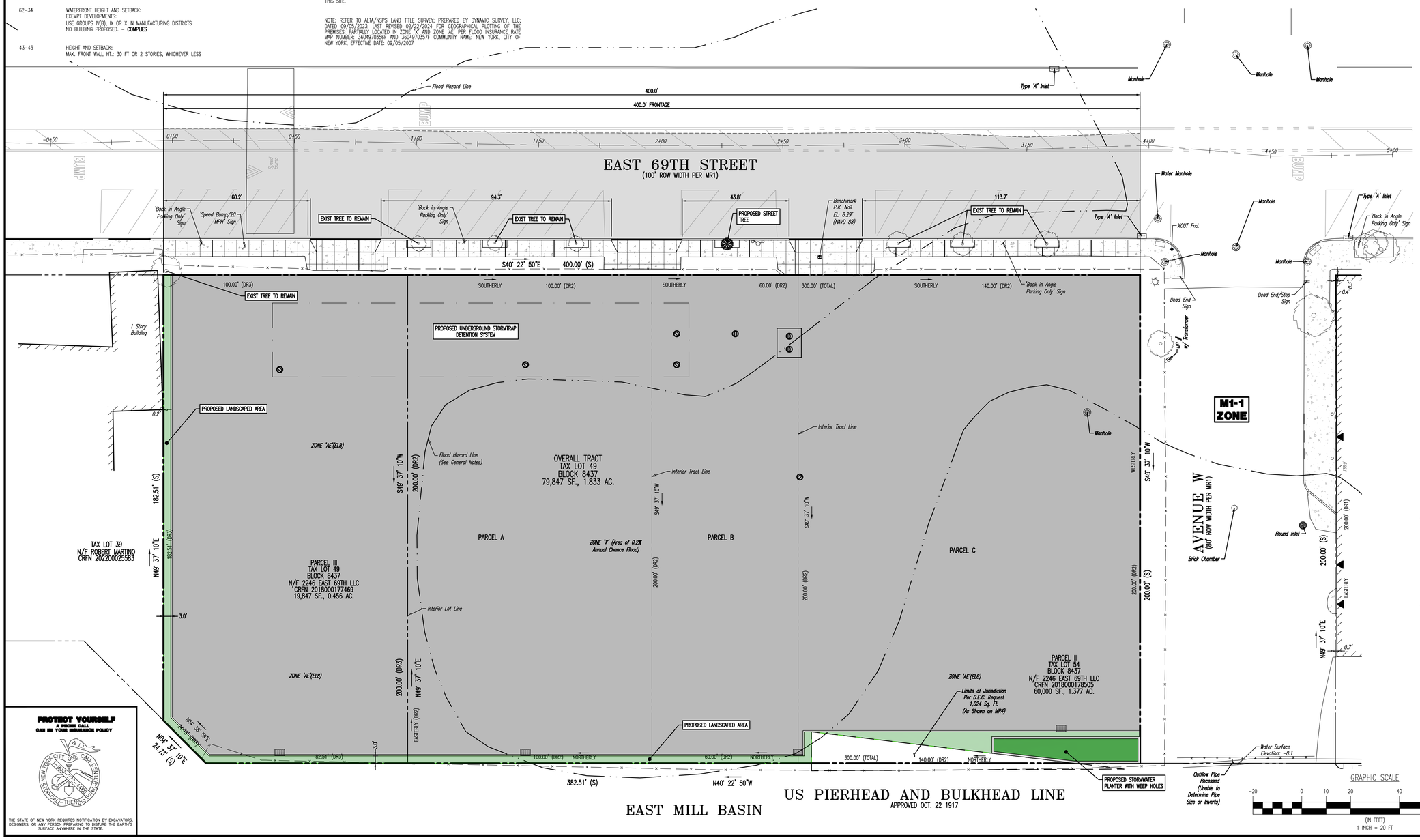
ENERGY CODE COMPLIANCE STATEMENT:
TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 NEW YORK CITY CONVERSATION CODE (NYCECC)

PROPOSED IMPROVEMENTS WILL NOT RESULT IN ANY INCREASE IN ELECTRICAL SERVICE ON THIS SITE.

NOTE: REFER TO ALTA/NSPS LAND TITLE SURVEY; PREPARED BY DYNAMIC SURVEY, LLC; DATED 09/05/2023; LAST REVISED 02/22/2024 FOR GEOGRAPHICAL PLOTTING OF THE PREMISES; PARTIALLY LOCATED IN ZONE "X" AND ZONE "AE" PER FLOOD INSURANCE RATE MAP NUMBER: 36047C0356F AND 36047C0357F COMMUNITY NAME: NEW YORK, CITY OF NEW YORK, EFFECTIVE DATE: 09/05/2007



NYC ZONING MAP - 23D
SCALE: 1" = 600'



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REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

PROJECT: **2300 69 STREET PROPERTY LLC**
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: —

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NYC Buildings
Z. Chervonaya
Zhanna Chervony
APPROVED
Date: 03/14/2025

ZACHARY A. KAMM
LICENSED PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 107071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE:
ZONING PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V) | DATE: 10/04/2024
PROJECT No: 4918-23-02548

SHEET No: C-103.00 3 OF 9 | Rev. #: 3

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Plotted: 03/06/25 – 9:53 AM By: jcdealmeida
File: P:\DESPC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\U4918230254BAC23.dwg, ----> 03 ZONING PLAN

GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:
   ALTA/NSPS LAND TITLE SURVEY
   DYNAMIC SURVEY, LLC
   50 PARK PLACE
   NEWARK, NJ 07102
   DATED: 09/05/2023
   LAST REVISED: 02/22/2024
   SURVEY FILE NO: 4918-23-02426

2. OWNER: 2300 69 STREET PROPERTY LLC
   2240 EAST 69TH STREET
   BROOKLYN, NY 11234

   PARCEL DATA: BLOCK 8437, LOT 49
   2240 EAST 69TH STREET
   BROOKLYN, KINGS COUNTY, NEW YORK

3. THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SAID SUBMISSION WAIVERS.

4. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.

5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.

6. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.

7. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.

8. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.

9. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

10. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

11. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.

12. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

13. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME DYNAMIC ENGINEERING CONSULTANTS, P.C. , ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.

14. NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C., NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.

15. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

16. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.

17. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.

18. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CONNECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

19. ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

20. THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SIGNAGE OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.

21. CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTOR'S RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.

22. CONTRACTOR TO BE ADVISED THAT THE ENGINEER WAS NOT PROVIDED WITH FINAL FLOOR PLAN DRAWINGS FOR THE BUILDING AT THE TIME OF SITE PLAN DESIGN. AS A RESULT, ENTRANCE DOOR LOCATIONS AS DEPICTED HEREON MAY NOT BE FINAL AND MUST BE CONFIRMED WITH THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. THE HANDICAP ACCESSIBLE PARKING SPACES AND THE ASSOCIATED RAMPS AND ACCESSIBLE ROUTE MUST COMPLY WITH NJAC 5:23-7 AND THE HANDICAP PARKING SPACES MUST BE LOCATED AS THE NEAREST SPACES TO THE ENTRANCE. CONTRACTOR TO NOTIFY OWNER AND ENGINEER IMMEDIATELY OF ANY DISCREPANCY PRIOR TO CONSTRUCTION.

23. THE NORMAL HOURS OF OPERATION WILL BE FROM 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY.

CODE COMPLIANCE

406.10.1 CURB CUTS
FOR THE PURPOSE OF THIS SECTION, A CURB CUT SHALL INCLUDE ALL SPLAYS WHEN DETERMINING THE TOTAL LENGTH OF CUT CURB. ALL CURB CUTS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. THE AGGREGATE LENGTH OF CURB CUTS SHALL NOT EXCEED 60 PERCENT OF ANY STREET FRONTAGE 100 FEET (30,480 MM) OR LESS IN LENGTH. NO SINGLE CURB CUT SHALL EXCEED 30 FEET (9144 MM) IN LENGTH, AND THERE SHALL NOT BE MORE THAN TWO CURB CUTS ON ANY STREET FRONTAGE 100 FEET (30,480 MM) OR LESS IN LENGTH. THE MINIMUM DISTANCE BETWEEN TWO CURB CUTS SHALL BE 5 FEET (1,524 MM).
2. FOR EACH 50 FEET (15,240 MM) OF STREET FRONTAGE LENGTH OVER 100 FEET (30,480 MM), AN ADDITIONAL CURB CUT NO GREATER THAN 30 FEET (9,144 MM) IN LENGTH MAY BE PERMITTED.
3. NO CURB CUT SHALL COMMENCE WITHIN 8 FEET (2,438 MM) OF A SIDE LOT LINE.
   EXCEPTIONS:
   A. FOR OPEN PARKING LOTS ON CORNER LOTS AND ON LOTS WITH STREET FRONTAGE LENGTH OF 50 FEET (15,240 MM) OR LESS, THE CURB CUT MAY COMMENCE NO LESS THAN 30 INCHES (762 MM) FROM THE SIDE LOT LINE.
   B. IN OPEN OR ENCLOSED PARKING GARAGES WHERE A LEVEL LANDING HAVING A MINIMUM DIMENSION OF 20 FEET (6,096 MM) IS PROVIDED AT THE DISCHARGE POINT OF ALL RAMPS AT THE STREET LEVEL WITHIN THE PROPERTY LINE, THE CURB CUT MAY COMMENCE NO LESS THAN 30 INCHES (762 MM) FROM A SIDE LOT LINE.
4. NO CURB CUT, INCLUDING SPLAYS, SHALL BE LESS THAN 10 FEET (3,048 MM) IN LENGTH.

406.9.4 SURFACING
ALL DRIVEWAYS, PARKING STALLS, AND OPEN SPACES USED FOR THE PARKING OR STORAGE OF MOTOR VEHICLES SHALL BE SURFACED WITH CONCRETE ASPHALT, OR EQUIVALENT DURABLE, DUSTLESS MATERIAL.

406.9.4.1 DRAINAGE. OPEN PARKING LOTS SHALL BE GRADED AND MAINTAINED SUCH THAT NO DRAINAGE WILL FLOW INTO ABUTTING SIDEWALKS AND ADJOINING PROPERTIES.

406.9.4.2 NONPOROUS SURFACES. WHERE THE SURFACE PAVING OF AN OPEN PARKING LOT IS NONPOROUS, SUCH LOT SHALL BE DRAINED AS REQUIRED BY THE NEW YORK CITY PLUMBING CODE.

406.9.4.3 RESURFACING. RESURFACING OF EXISTING OPEN PARKING LOTS SHALL COMPLY WITH THIS SECTION.

406.9.7.2 SCREEN ENCLOSURES
OPEN PARKING LOTS SHALL PROVIDE A PERIMETER SCREEN ENCLOSURE AS PER THIS SECTION UNLESS OTHERWISE REQUIRED BY THE NEW YORK CITY ZONING RESOLUTION. SUCH SCREEN ENCLOSURE MAY BE CONSTRUCTED AS A MASONRY WALL, WOVEN WIRE FENCE, IRON PICKET FENCE, OR UNIFORMLY PAINTED FENCE OF FIRE RESISTANT MATERIAL AT LEAST 4 FEET (1,219 MM) HIGH, BUT NOT MORE THAN 8 FEET (2,438 MM) ABOVE FINISHED GRADE, SUBJECT TO THE LIMITATIONS OF SECTION 3111. SUCH ENCLOSURES SHALL COMPLETELY SEPARATE THE LOT FROM ADJOINING PREMISES AND PUBLIC SIDEWALKS. OPENINGS SHALL BE LIMITED AS PROVIDED FOR IN SECTION 406.9.5.1.
EXCEPTION: SCREENING SHALL NOT BE REQUIRED FOR ANY PORTION OF THE LOT ADJACENT TO AN EXISTING WALL LOCATED AT THE LOT LINE.

APPENDIX G COMPLIANCE
– PROPERTY IS LOCATED IN FLOOD ZONE AE

G102.1–4 SITE IMPROVEMENTS INCLUDING GRADING, PAVING AND OTHER LAND DISTURBING ACTIVITIES ARE REQUIRED TO COMPLY WITH APPENDIX G.

G303.5 STORM DRAINAGE WILL BE DESIGNED TO MINIMIZE DAMAGE TO PERSONS OR PROPERTY AND SHALL MEET THE REQUIREMENTS OF ASCE24.

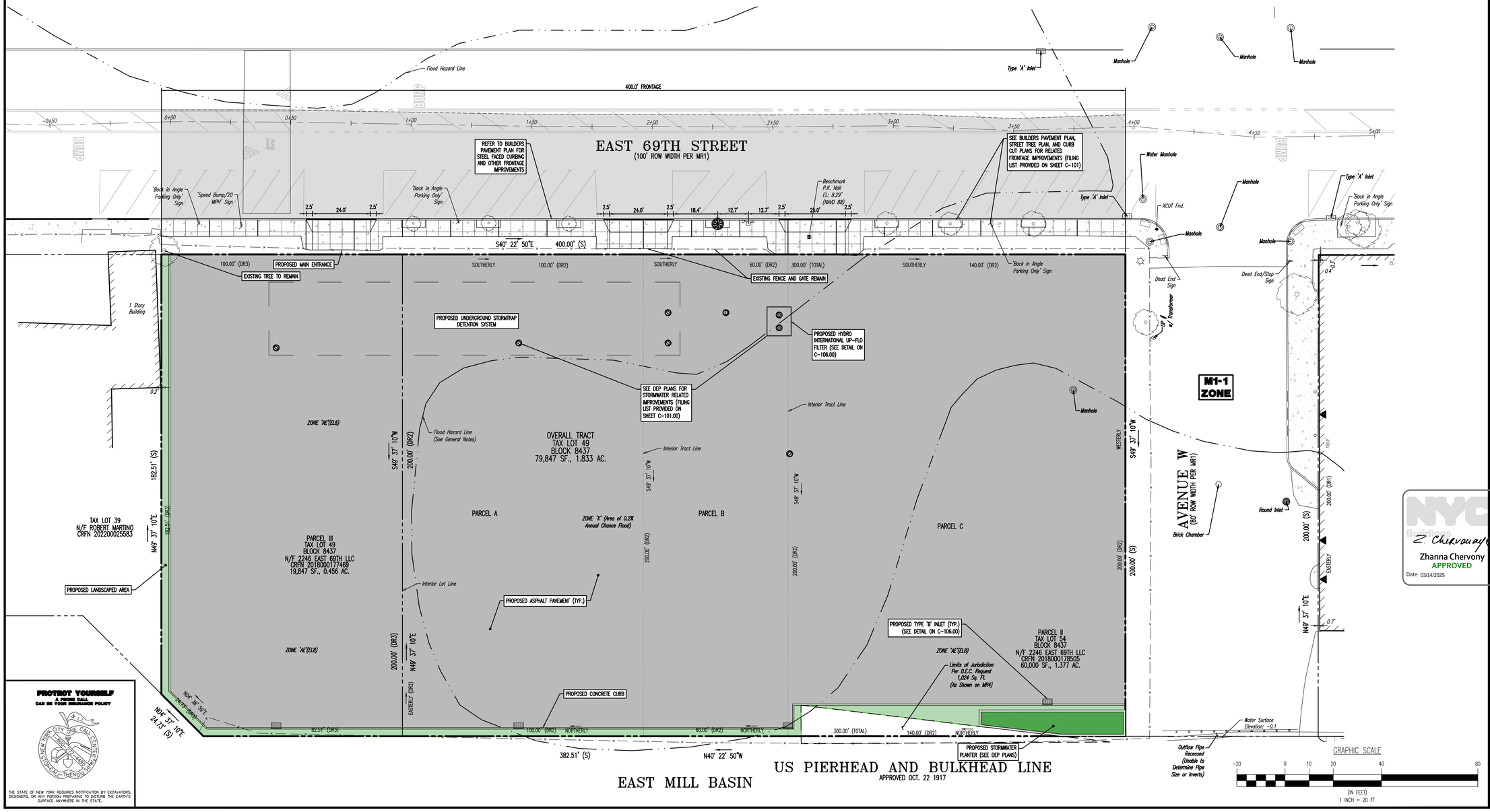
G303.6 STREETS AND SIDEWALKS SHALL BE DESIGNED TO MINIMIZE POTENTIAL FOR INCREASING FLOOD LEVELS.

G308.8 ANY GRADING AND/OR FILL, IF REQUIRED, SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION.

NOTE: REFER TO ALTA/NSPS LAND TITLE SURVEY; PREPARED BY DYNAMIC SURVEY, LLC; DATED 09/05/2023; LAST REVISED 02/22/2024 FOR GEOGRAPHICAL PLOTTING OF THE PREMISES; PARTIALLY LOCATED IN ZONE 'X' AND ZONE 'AE' PER FLOOD INSURANCE RATE MAP NUMBER: 36047C0536F AND 36047C0537F COMMUNITY NAME: NEW YORK, CITY OF NEW YORK, EFFECTIVE DATE: 09/05/2007

PAVEMENT LEGEND

PROPOSED ASPHALT PAVEMENT



EAST MILL BASIN

US PIERHEAD AND BULKHEAD LINE
APPROVED OCT. 22 1917

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Plotted: 03/05/25 – 1:50 PM, By: jcdesimeida
File: P:\DEC\PC PROJECTS\4918 Tomfridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\24918230254845C3.dwg, ----> 04 SITE PLAN

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DYNAMIC SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: –

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
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NYC Buildings
Z. Chervonaya
Zhanna Chervony
APPROVED
Date: 03/14/2025

ZACHARY A. CRAMM
LICENSED PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 107071
JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: SITE PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V) | DATE: 10/04/2024
PROJECT No: 4918-23-02548

SHEET No: C-104.00 4 OF 9 | Rev. #: 3

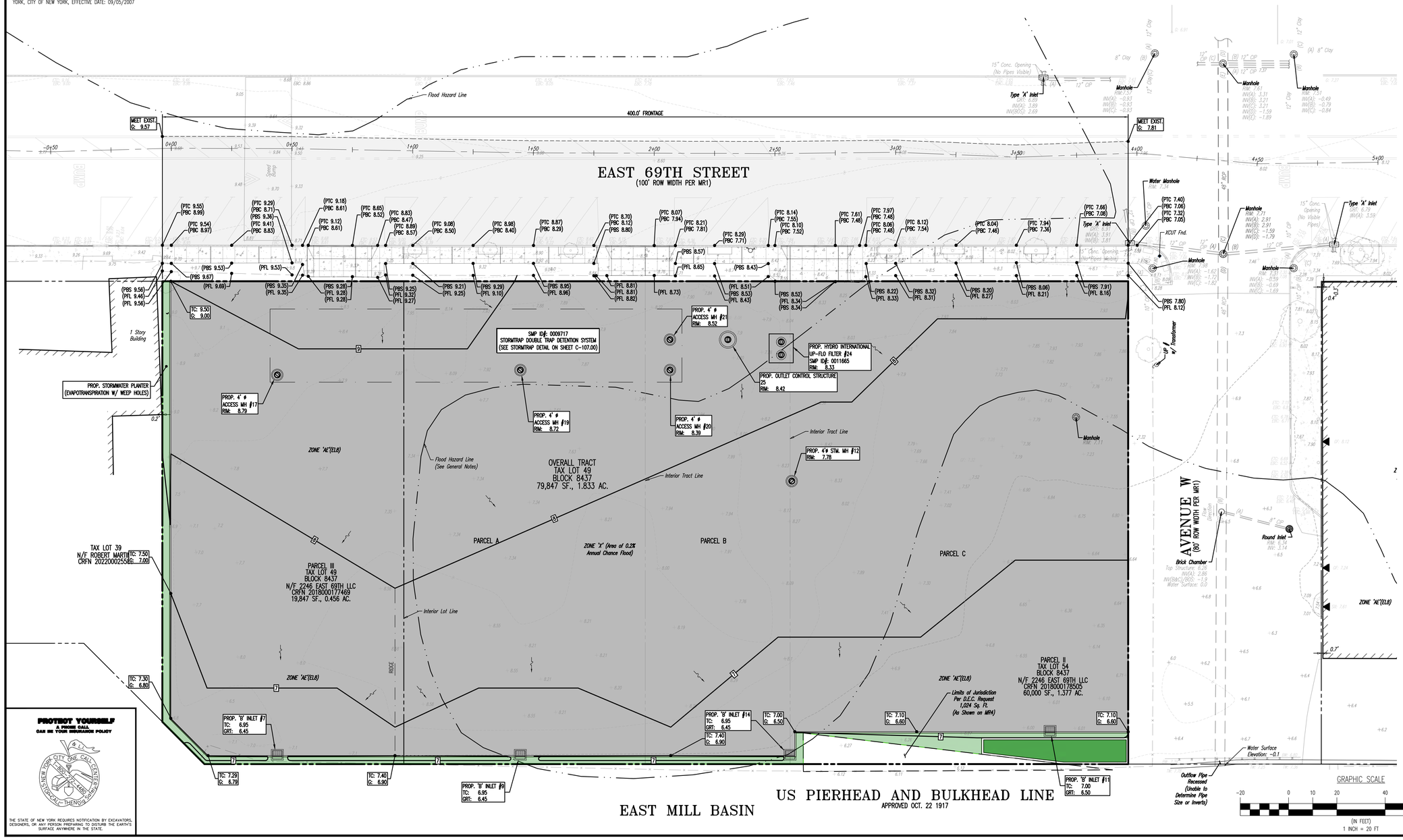
GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL ISLAND GUTTERS, CURBS AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1/2% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
4. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN ADA PARKING SPACES AND ADA ACCESS AISLES. CONTRACTOR TO ENSURE A MAXIMUM OF 5% RUNNING SLOPE AND 2% CROSS SLOPE ALONG ALL OTHER PORTIONS OF ON-SITE ACCESSIBLE ROUTE, WITH THE EXCEPTION OF RAMPS AND CURB RAMPS. CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. CONTRACTOR TO ENSURE ALL CHANGES IN LEVEL ALONG ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM HEIGHT OF 1/4" OR 1/2" WITH A BEVELED EDGE WITH A MAXIMUM SLOPE OF 1:2 (50%). CONTRACTOR TO ENSURE ALL GAPS ALONG ALL ACCESSIBLE ROUTES HAVE A MAXIMUM WIDTH OF 1/2", PLACED SO THE LONG DIMENSION IS PERPENDICULAR TO THE PATH OF TRAVEL.
10. CONTRACTOR TO REFER TO LATEST ADA GUIDELINES AND BUILDING CODE FOR ON-SITE ACCESSIBILITY REQUIREMENTS. CONTRACTOR TO REFER TO LATEST PROWAG GUIDELINES FOR ACCESSIBILITY REQUIREMENTS WITHIN THE PUBLIC RIGHT-OF-WAY.
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONTRACTOR'S PROPOSED MEANS AND MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DEFINED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.

NOTE: REFER TO ALTA/NSPS LAND TITLE SURVEY; PREPARED BY DYNAMIC SURVEY, LLC; DATED 09/05/2023; LAST REVISED 02/22/2024 FOR GEOGRAPHICAL PLOTTING OF THE PREMISES; PARTIALLY LOCATED IN ZONE "X" AND ZONE "AE" PER FLOOD INSURANCE RATE MAP NUMBER: 36047970356F AND 36047970357F COMMUNITY NAME: NEW YORK, CITY OF NEW YORK, EFFECTIVE DATE: 09/05/2007

GRADING/UTILITY GRAPHIC LEGEND

- PROPERTY LINE (PARCEL IN QUESTION)
- OFF-SITE PROPERTY LINES
- EXIST. GUY WIRE
- EXIST. LIGHT POLE
- EXIST. BUILDING LIGHT
- EXIST. SHOE BOX LIGHT
- EXIST. COBRA LIGHT POLE
- EXIST. TRAFFIC SIGNAL POLE
- EXIST. MANHOLE
- EXIST. "A" INLET
- EXIST. "B" INLET
- EXIST. "E" INLET
- EXIST. YARD INLET
- EXIST. FLARED END SECTION
- EXIST. HEADWALL
- EXIST. UTILITY POLE
- EXIST. MONITORING WELL
- APPROX. TEST PIT LOCATION
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. GAS VALVE
- EXIST. GAS METER
- EXIST. ELECTRIC METER
- EXIST. ELECTRIC BOX
- EXIST. CLEAN OUT
- EXIST. WELL
- EXIST. WATER SHUT OFF VALVE
- EXIST. TELEPHONE BOX
- EXIST. CABLE TV BOX
- PROP. HEADWALL
- PROP. WATER VALVE
- PROP. GAS VALVE
- PROP. STORM CLEANOUT
- PROP. SANITARY CLEANOUT
- PROP. AREA LIGHT
- PROP. OUTLET CONTROL STRUCTURE
- PROP. DRAINAGE MANHOLE
- PROP. SANITARY SEWER MANHOLE
- PROP. "A" INLET
- PROP. "B" INLET
- PROP. "E" INLET
- PROP. YARD INLET
- PROP. FLARED END SECTION
- EXIST. CABLE LINE
- PROP. CABLE LINE
- EXIST. ELECTRIC LINE
- PROP. ELECTRIC LINE
- EXIST. FIBER OPTIC LINE
- PROP. FIBER OPTIC LINE
- EXIST. GAS LINE
- PROP. GAS LINE
- EXIST. OVERHEAD WIRES
- PROP. OVERHEAD WIRES
- EXIST. TELEPHONE LINE
- PROP. TELEPHONE LINE
- EXIST. WATER LINE
- PROP. WATER LINE
- EXIST. FIRE SERVICE
- PROP. FIRE SERVICE
- EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
- PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
- EXIST. SANITARY SEWER LINE
- PROP. SANITARY SEWER LINE
- EXIST. FORCE MAIN
- PROP. FORCE MAIN
- EXIST. STORM DRAIN LINE
- PROP. STORM DRAIN LINE
- UNDERGROUND UTILITY QUALITY LEVEL
- EXIST. MINOR CONTOUR & ELEVATION
- EXIST. MAJOR CONTOUR & ELEVATION
- PROP. FINISH GRADE CONTOUR & ELEVATION
- PROP. DIRECTION OF DRAINAGE FLOW ARROW
- EXIST. SPOT ELEVATIONS
- EXIST. GUTTER ELEV.
- EXIST. TOP OF CURB ELEV.
- EXIST. FINISH FLOOR ELEV.
- EXIST. GARAGE FLOOR ELEV.
- PROP. GRADE SPOT ELEV.
- PROP. TOP OF CURB & FINISHED GRADE ELEV.
- PROP. FINISHED FLOOR ELEV.
- PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
- PROP. TOP OF EXTENDED CURB, (GH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB



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Plotted: 03/06/25 - 9:54 AM, By: jdeelmeida
File: P:\DEP\C PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\04918230225484CO3.dwg, ----> 05 GRADING PLAN

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DYNAMIC SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

THIS PLANS SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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LICENSED PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

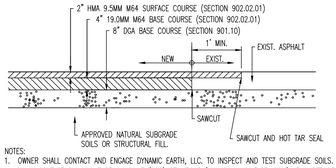
Z. Chervony
Zhanna Chervony
APPROVED
Date: 03/14/2025

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: GRADING PLAN
ALT CO #B01097393-I1

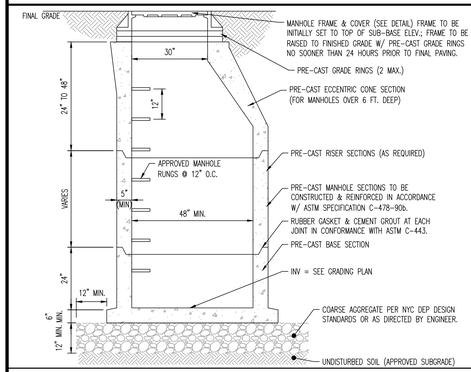
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PROJECT No: 4918-23-02548

SHEET No: C-105.00 5 OF 9 | Rev. #: 3

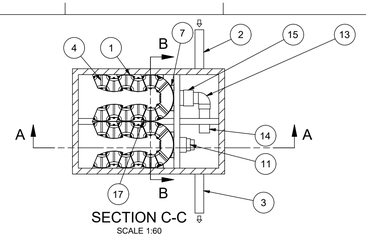


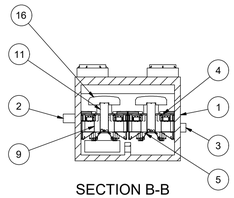
NOTES:
1. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
2. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
3. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

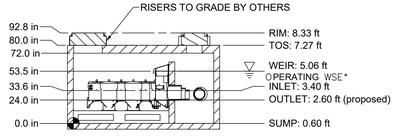
ASPHALT PAVEMENT DETAIL
NOT TO SCALE



TYPICAL PRECAST STORM MANHOLE
NOT TO SCALE







CAPACITIES:
1. MINIMUM PERFORMANCE: 80% REMOVAL. NJDEP - NJDEP BLEND; NJCAT, SIL-CO-SIL 106 (d50 = 22 MICRONS) AT THE PEAK TREATMENT FLOW.
2. MAXIMUM NUMBER OF MODULES PER OUTLET MODULE: 38
3. NJDEP PEAK TREATMENT FLOW: .056 cfs (25 gpm) per module, CPZ

ADDITIONAL DESIGN INFORMATION:
1. * NORMAL OPERATING W.S.E. IS 2.46' ABOVE THE OUTLET INVERT AT THE PEAK TREATMENT FLOW OF .056 cfs (25 gpm) per module. FOR A GIVEN FLOW THE HEAD REQUIREMENT CAN BE REDUCED BY ADDING ADDITIONAL FILTERS.
2. UNIT SHALL CONFORM TO HS20-44 LOAD RATINGS.

CONTRACTOR NOTES:
1. STRUCTURE WALL AND SLAB THICKNESS ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING THE STRUCTURE.
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.
4. CONTRACTOR IS RESPONSIBLE FOR MATERIALS AND LABOR TO BRING CASTINGS TO FINISHED GRADE.
5. ACTUAL DEPTH OF STRUCTURE MAY VARY DEPENDING ON AVAILABLE PRECAST FORMS. CONTRACTOR TO MEASURE HEIGHT OF STRUCTURE TO ENSURE THAT DEPTH OF EXCAVATION IS CORRECT.
6. UNIT MUST BE INSTALLED ON A LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM OF 6" LEVEL ROCK BASE UNLESS SPECIFIED. CONTRACTOR IS RESPONSIBLE TO VERIFY BASE SPECIFICATIONS.
7. ALL PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT OR BOOTS AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.

PARTS LIST				
ITEM	QTY	DESCRIPTION	TYPE	SIZE (in)
1	1	PRECAST VAULT		8ft X 12ft
2	1	UFF INLET PIPE	DIP	8
3	1	UFF OUTLET PIPE	DIP	8
4	24	MODULE LID		
5	10	SUPPORT FRAME		
6	2	COVER 30 IN		30
7	6	TRIANGLE SUPPORT BRACKET		
8	2	COVER 24 IN		24
9	24	MODULE BODY		
10	4	SUPPORT FRAME LH		
11	2	OUTLET MODULE		
12	4	SUPPORT FRAME RH		
13	1	MCMASTER-CARR 4880K173		
14	1	MCMASTER-CARR 48925K27		
15	1	FERNCO 1056-1515 & 15.2-10.6 EB		
16	2	BYPASS HOOD		
17	2	FOOT WALL MOUNTING BRACKET	CPZ	

REVISION HISTORY

REV	DESCRIPTION	BY	CHK	DATE
-	FIRST RELEASE	EKM	JDP	12/17/2024

PROJECTION

IF IN DOUBT ASK

DATE: 12/17/2024 | SCALE: 1:60
DRAWN BY: EKM | CHECKED BY: JDP | APPROVED BY:

TITLE:
CPZ UP-FLO FILTER
8ft X 12ft

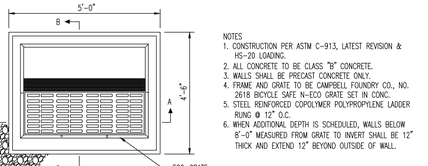
24 MODULES

UFF MTD1
TURNBRIDGE EQUITIES - 2240 EAST 69TH STREET - BROOKLYN
BROOKLYN, NY
Patent: www.hydro-int.com/patents

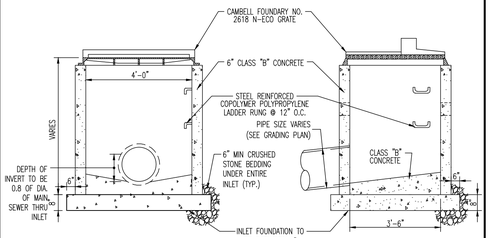
Hydro International
hydro-int.com
©2024 HYDRO INTERNATIONAL

WEIGHT: | MATERIAL:
STOCK NUMBER: 1
DRAWING NO.: 24-1264580-UFF-1
SHEET SIZE: B | SHEET: 1 OF 2 | Rev: -

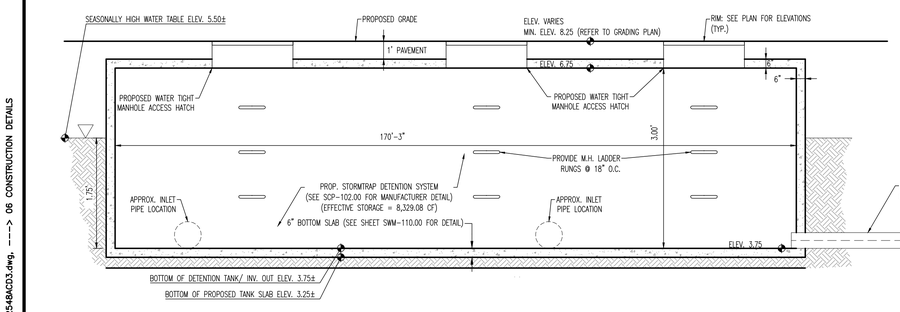
HYDRO INTERNATIONL DETAIL
NOT TO SCALE



NOTES
1. CONSTRUCTION PER ASTM C-913, LATEST REVISION & HS-20 LOADING.
2. ALL CONCRETE TO BE CLASS "B" CONCRETE.
3. WALLS SHALL BE PRECAST CONCRETE ONLY.
4. FRAME AND GRATE TO BE CAMPBELL FOUNDRY CO., NO. 2618 BICYCLE SAFE N-ECO GRATE SET IN CONC.
5. STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG @ 12" O.C.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW 8'-0" MEASURED FROM GRATE TO INVERT SHALL BE 12" THICK AND EXTEND 12" BEYOND OUTSIDE OF WALL.

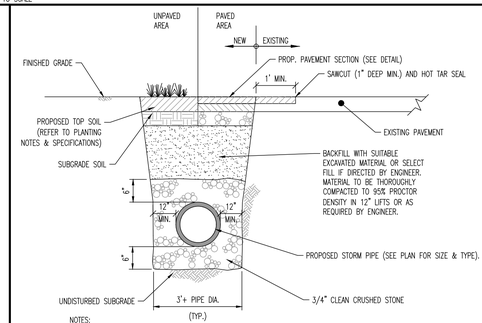


TYPE 'B' INLET
NOT TO SCALE



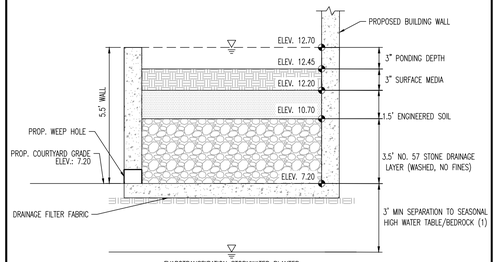
NOTES:
1. TANK FOOTPRINT = 5,164.96 SF (SEE SHEET SWM-110.00)
2. EFFECTIVE STORAGE AREA BETWEEN ELEVATIONS 3.75 AND 6.75 = 8,329.08 CF (SEE SHEET SWM-110.00)

STORMTRAP DETENTION TANK DETAIL
NOT TO SCALE



NOTES:
1. PAVEMENT SECTION SHALL BE PER PAVEMENT DETAIL OR TO MATCH ADJOINING EXISTING PAVEMENT SECTION.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST OSHA STANDARDS.
3. ALL TRENCHES IN EXISTING PAVEMENT SHALL BE SAWCUT.
4. ALL DISTURBED TRAFFIC STRIPING AND PAVEMENT MARKING SHALL BE REPLACED WITH KIND MATERIAL.

STORM SEWER TRENCH DETAIL
NOT TO SCALE



1. VERTICAL SEPARATION REQUIREMENTS ARE WAIVED FOR PRACTICES ENCLOSED IN CONCRETE WITH ADEQUATE ANCHORING TO WITHSTAND UPLIFT PRESSURES.
2. REFER TO STRUCTURAL PLANS FOR ALL WALL AND SLAB DIMENSIONING AND REQUIRED REINFORCEMENT.

EVAPOTRANSPIRATION STORMWATER PLANTER DETAIL
NOT TO SCALE

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Plotted: 03/06/25 - 9:55 AM By: jodealmeida
File: P:\DEDPC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\04918230254804C03.dwg, ----> 06 CONSTRUCTION DETAILS

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REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

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DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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NYC Building
Z. Chervonagora
Zhanna Chervony
APPROVED
Date: 03/14/2025

ZACHARY A. KAMM
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: CONSTRUCTION DETAILS
ALT CO #B01097393-I1

SCALE: (H) NOT TO (V) SCALE | DATE: 10/04/2024
PROJECT No: 4918-23-02548

SHEET No: C-106.00 6 OF 9 | Rev. #: 3

GENERAL NOTES:

1. STRUCTURE PROXIMITY LOADING DISCLAIMER:

   STORMTRAP MODULES AND FOUNDATION ARE NOT DESIGNED TO ACCEPT ANY ADDITIONAL LOADING FROM ANY NEARBY STRUCTURES WHICH INCLUDE BUT ARE NOT LIMITED TO: RETAINING WALLS, FOUNDATIONS, SLOPES, BUILDINGS, BUILDING LOADS, RETAINING WALLS, LIGHT POLES, BOLLARDS, SIGNPOSTS, FENCES, ADDITIONALLY, STORMTRAP IS NOT RESPONSIBLE FOR INSTALLATION CONFLICTS ARISING FROM ANY OF THESE NEARBY STRUCTURES. IF ADDITIONAL LOADING CONSIDERATIONS ARE REQUIRED FOR STRUCTURAL DESIGN OF STORMTRAP, PLEASE CONTACT STORMTRAP IMMEDIATELY. FOR LIGHT POLES SHOWN OVER THE TOP OF THE SYSTEM, STORMTRAP WILL PROVIDE A 3'-0" LATERAL DISTANCE CAVITY AROUND THE LIGHT POLE TO ACCOMMODATE IT. THE EOR TO TAKE RESPONSIBILITY FOR ENSURING THE LIGHT POLE IS NOT IMPACTING ANY LOADING ON THE STORMTRAP MODULES AND FOUNDATION.

2. TREE LOADING DISCLAIMER:

   THE NUMBER OF TREES OR WEIGHT OF TOTAL PLANT MATERIAL PRESENT ON TOP OF A SINGLE STORMTRAP MODULE SHALL NOT EXCEED 16,000 LBS. THE REQUIREMENTS LISTED HERE APPLY AT BOTH THE TIME OF INSTALLATION AND FOR THE LIFE OF THE TREES AND PLANTS IN QUESTION. THE EOR AND LANDSCAPE ARCHITECT ARE RESPONSIBLE FOR ENSURING THAT TREE AND OTHER PLANT ROOTS DO NOT INTERFERE WITH OR COMPROMISE THE FUNCTIONAL AND STRUCTURAL INTEGRITY OF STORMTRAP'S UNDERGROUND MODULES. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ROOT GROWTH INTO THE STORMTRAP SYSTEM FROM ADJACENT OR OVERHEAD TREES. FURTHERMORE, THE ROOTS OF THE TREES MUST BE CONTAINED TO PREVENT FUTURE DAMAGE TO THE STORMTRAP SYSTEM. STORMTRAP ACCEPTS NO LIABILITY FOR DAMAGES CAUSED BY TREES OR OTHER VEGETATION PLACED AROUND OR ON TOP OF THE SYSTEM.

3. PRE-TREATMENT/SEDIMENT/FILTER CHAMBER DISCLAIMER:

   FOR SYSTEMS CONTAINING PRE-TREATMENT, SEDIMENTATION AND/OR FILTER CHAMBERS: IF REQUIRED TO BE SEALED TO PREVENT SAND AND/OR PRE-TREATED WATER FROM MIGRATING INTO ADJOINING MODULES, IT IS THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT THOSE MODULES ARE SEALED.

4. OUTLET CONTROL STRUCTURE DISCLAIMER (IF SHOWN ON THESE PLANS):

   IF A WATERTIGHT SOLUTION IS REQUIRED FOR AN OUTLET CONTROL STRUCTURE, ALL EXTERIOR COLD JOINTS, INCLUDING JOINT BETWEEN TOP AND BASE MODULES, BETWEEN TOP AND BASE OF ADJOINING SYMONS WALLS, AND JOINTS BETWEEN MODULE AND ADJACENT END PANELS WILL BE THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO PROVIDE AND INSTALL THE WATERTIGHT APPLICATION PER THE EOR'S SPECIFICATION.

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2300 E 69th Street
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SCALE: NTS

SHEET TITLE: GENERAL NOTES

SHEET NUMBER: 1.0

STRUCTURAL DESIGN LOADING CRITERIA

LIVE LOADING AASHTO HS-20 HIGHWAY LOADING

GROUND WATER 7.5ft(1.9 ft SF)
SOIL BEARING PRESSURE 2000PSF

SOIL DENSITY 120 PCF

EQUIVALENT UNSATURATED
LATERAL ACTIVE EARTH PRESSURE:35 PSF / FT.

EQUIVALENT SATURATED
LATERAL ACTIVE EARTH PRESSURE:80 PSF/FT.
APPLICABLE CODES: AASHTO LRFD
ACI-318

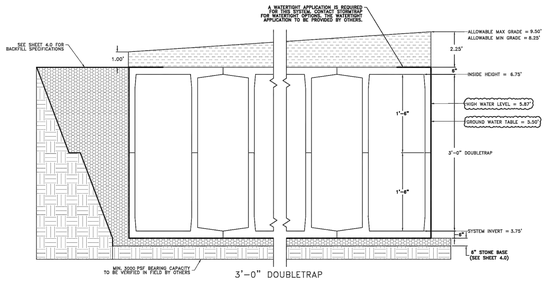
BACKFILL TYPE:SEE SHEET 4.0 FOR BACKFILL OPTIONS

STORMTRAP SYSTEM INFORMATION

UNIT HEADROOM: 3'-0" DOUBLETRAP
WATER STORAGE PROV
ELEV. 5.75'-5.83' 8,529.08 CUBIC FEET

SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.00' MAX. 2.25' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OWNER PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE @ 5.50'. IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.
5. SYSTEM DESIGN INTENT IS TO CONTAIN WATER AND / OR PREVENT GROUNDWATER MIGRATION INTO THE SYSTEM. IF A WATERTIGHT SOLUTION IS REQUIRED FOR AN OUTLET CONTROL STRUCTURE, THE EOR IS REQUIRED FOR SEALING OF SYSTEM. IF MODULE JOINTS AND SEAMS, SOLUTION TO BE PROVIDED AND INSTALLED BY CONTRACTOR IN ACCORDANCE WITH THIRD PARTY WATER-PROOFING SUPPLIER'S PRODUCT SPECIFICATIONS.



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SHEET TITLE: DOUBLETRAP DESIGN CRITERIA

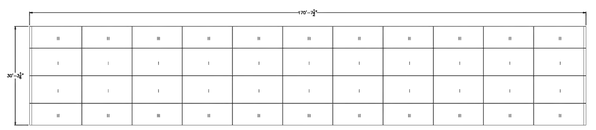
SHEET NUMBER: 1.1

BILL OF MATERIALS

QTY.	UNIT TYPE	DESCRIPTION	TOP WEIGHT	BASE WEIGHT
64	I	3'-0" DOUBLETRAP	13877	13877
8	II	3'-0" DOUBLETRAP	–	–
64	III	3'-0" DOUBLETRAP	10748	10748
8	IV	3'-0" DOUBLETRAP	–	–
0	V1	3'-0" DOUBLETRAP	–	–
0	V1-1	3'-0" DOUBLETRAP	–	–
0	V1-2	3'-0" DOUBLETRAP	–	–
0	V1-3	3'-0" DOUBLETRAP	–	–
0	V1-4	3'-0" DOUBLETRAP	–	–
0	SPII	3'-0" DOUBLETRAP	–	–
4	T2 PANEL	8" THICK PANEL	3367	
4	T4 PANEL	8" THICK PANEL	2650	
1	T4 PANEL	4" THICK PANEL		
5	JOINT WRAP/30' PER ROLL			
14	JOINT TAPE/45.5' PER ROLL			
	TOTAL PIECES = 88			
	TOTAL PANELS = 8			
	HEAVIEST PICK WEIGHT = 12,877			

DESIGN CRITERIA
ALLOWABLE MAX GRADE = 9.50'
ALLOWABLE MIN GRADE = 8.25'
HIGH WATER LEVEL = 5.83' / 8.75'
SYSTEM INVERT =3.75'

NOTES:
1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
4. SP = INDICATES A MODULE WITH MODIFICATIONS.
5. P = INDICATES A MODULE WITH A PANEL ATTACHMENT.
6. CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.
7. IN ORDER FOR STORMTRAP TO GENERATE APPROVAL DRAWINGS, CIVIL ENGINEERING DRAWINGS MUST BE PROVIDED TO STORMTRAP FOR REVIEW. THESE DRAWINGS MUST INCLUDE ALL PROPOSED UTILITIES, INVERTS, SURFACE GRADES, AND SURFACE FEATURES. FINAL GRADING PLANS SHALL ALSO INCLUDE MINIMUM AND MAXIMUM GRADES OVER THE TOP OF THE STORMTRAP SYSTEM.



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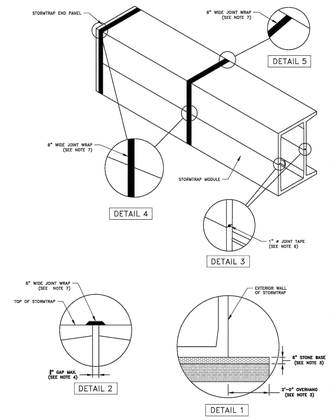
SCALE: NTS

SHEET TITLE: DOUBLETRAP SYSTEM LAYOUT

SHEET NUMBER: 2.0

STORMTRAP INSTALLATION SPECIFICATION

1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891 (STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST UTILITY STRUCTURES). THE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER PLACEMENT AND COMPACTION OF THE BACKFILL MATERIALS. THE INSTALLING CONTRACTOR SHALL BE KNOWLEDGEABLE IN THE FOLLOWING ASTM C891 IN ITS ENTIRETY AND IMPLEMENTING ALL APPROPRIATE MEASURES. THE INSTALLING CONTRACTOR OWNS AND IS RESPONSIBLE FOR THE STORMTRAP SYSTEM UPON REMOVAL OF THE MODULES FROM THE DELIVERY TRUCK THROUGH FINAL CONSTRUCTION. FINAL CONSTRUCTION IS ACHIEVED WHEN ALL MODULES ARE SET, FULLY BACKFILLED AND THE FINAL PAVEMENT OR LANDSCAPING IS COMPLETE. THE INSTALLING CONTRACTOR SHALL PROVIDE ANY COUNTERMEASURES NECESSARY TO RESIST UPLIFT/BUOYANCY BEYOND "FINAL CONSTRUCTION" IS ACHIEVED.
2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
3. STORMTRAP MODULES CAN BE PLACED ON A LEVEL, 6" FOUNDATION OF 3/4" AGGREGATE EXTENDING 2'-0" PAST THE OUTSIDE OF THE SYSTEM (SEE DETAIL 2). IF THE SPACE EXISTS, THE MODULES SHALL BE SET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
4. STORMTRAP MODULES ARE NOT WATERTIGHT. IF A WATERTIGHT SOLUTION IS REQUIRED, CONTACT STORMTRAP FOR RECOMMENDATIONS. THE WATERTIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE INSTALLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATERTIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER.
5. THE HORIZONTAL JOINT BETWEEN THE TOP AND BASE LEG CONNECTIONS OF ALL PERIMETER STORMTRAP MODULES SHALL BE SEALED WITH PREFORMED MASTIC JOINT TAPE ACCORDING TO ASTM C891, 8.5 AND 8.13. (SEE DETAIL 3). THE MASTIC JOINT TAPE DOES NOT PROVIDE A WATERTIGHT SEAL.
6. ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 9" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN , NON-WOVEN GEOTEXTILE BACKING MATERIAL. THE JOINT WRAP SHALL BE INSTALLED WITH A MINIMUM 4" OVERLAP. A PRIMER OR SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 2, 4, & 6) THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SEAL AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
   - 7.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE JOINT WRAP IS TO BE APPLIED.
   - 7.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
   - 7.3. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
8. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND TO DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
10. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.



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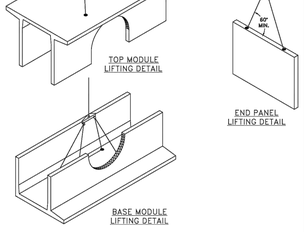
SCALE: NTS

SHEET TITLE: DOUBLETRAP INSTALLATION SPECIFICATION

SHEET NUMBER: 3.0

STORMTRAP MODULE LIFTING SPECIFICATION

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL (4) CHAINS/CABLES ARE SECURED PROPERLY TO THE LIFTING ANCHORS AND IN EQUAL TENSION WHEN LIFTING THE STORMTRAP MODULE.
2. MINIMUM 7'-0" CHAIN/CABLE LENGTH TO BE USED TO LIFT STORMTRAP MODULES (SUPPLIED BY CONTRACTOR).
3. CONTRACTOR TO ENSURE MINIMUM LIFTING ANGLE IS 60° FROM TOP SURFACE OF STORMTRAP MODULE. SEE DETAIL.
4. IT IS UNDERSTOOD AND AGREED THAT AT ALL TIMES DURING WHICH HOISTING AND RIGGING EQUIPMENT IS BEING SUPPLIED TO THE PURCHASER, OPERATOR OF SUCH EQUIPMENT SHALL BE IN CHARGE OF HIS ENTIRE EQUIPMENT AND SHALL AT ALL TIMES BE THE JUDGE OF THE SAFETY AND PROPERTY OF ANY SUGGESTION TO HIM FROM THE SELLER, ITS AGENTS OR EMPLOYEES IS PURCHASER AGREES TO SAVE, INDEMNIFY AND HOLD HARMLESS SELLER FROM ALL LOSS, CLAIMS, DEMANDS OR CAUSES OF ACTION, WHICH MAY ARISE FROM THE EXISTENCE OR OPERATION OF SAID EQUIPMENT.



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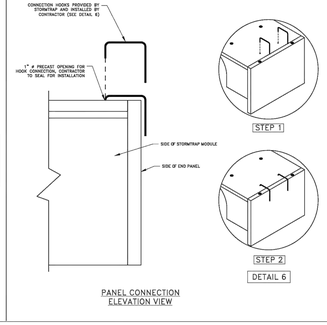
SCALE: NTS

SHEET TITLE: DOUBLETRAP INSTALLATION SPECIFICATION

SHEET NUMBER: 3.1

END PANEL ERECTION/INSTALLATION SPECIFICATION

1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



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ZONE CHART

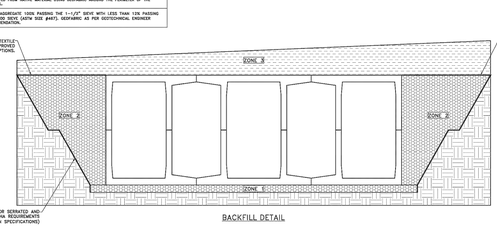
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1	FOUNDATION AGGREGATE	#3 @"3 STONE ANGULAR AGGREGATE (SEE NOTE 4)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 130 PCF

APPROVED ZONE 2 BACKFILL OPTIONS

OPTION	REMARKS
6" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR AGGREGATE. NO SIZE OF THIS MATERIAL SHALL BE LARGER THAN 1.5" (SIZE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL (WITH SIZE @#57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER OF RECORD.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 5% PASSING THE #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE LESS THAN PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE: 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 15% PASSING THE #200 SIEVE (WITH SIZE @#67). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

STORMTRAP ZONE INSTALLATION SPECIFICATION/PROCEDURE

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST BE DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT THE BACKFILL MATERIAL IS PROPERLY COMPACTED AND SETTLEMENT DOES NOT OCCUR. IN ORDER TO HELP PREVENT ANY MIGRATION ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN FACE AREA TO BE BACKFILLED MUST BE STEPPED OR SCARIFIED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISTURB THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION INTO THE STONE AGGREGATE, GEOFABRIC MUST BE PLACED BETWEEN THE NATIVE EARTH AND THE STONE AGGREGATE. SIDES MUST BE SET AND ALL SIDES MUST BE FULLY BACKFILLED BEFORE TRAVEL OVERTOP THE SYSTEM IS PERMITTED. SEE NOTE 2 FOR EXCEPTIONS AND LIMITATIONS.
2. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED IN MINIMUM 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN LIVE LOAD LISTED ON SHEET 1.0 TRAVEL OVERTOP THE SYSTEM. IF TRAVEL OVER THE SYSTEM OCCURS BEFORE THE MINIMUM COVER DEPTH IS ACHIEVED, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. IF TRAVEL OVER THE SYSTEM IS REQUIRED PRIOR TO ACHIEVING FINAL GRADE, THE SYSTEM SHALL TRAVEL PARALLEL TO THE LONGITUDINAL AXIS OF THE STORMTRAP MODULES WHENEVER POSSIBLE.
3. THE VIBRATORY FUNCTION OF ANY ROLLER, COMPACTOR, VEHICLE, ETC. SHALL NOT BE USED OVERTOP THE SYSTEM WITHOUT PRIOR APPROVAL FROM STORMTRAP. IN SOME CASES, HAND COMPACTION MAY BE NECESSARY TO ENSURE THAT THE ALLOWABLE DESIGN LOADING IS NOT EXCEEDED.
4. STONE AGGREGATE FOUNDATION IN ZONE 1 IS RECOMMENDED FOR LEVELING PURPOSES ONLY (OPTIONAL).



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SHEET TITLE: DOUBLETRAP BACKFILL SPECIFICATION

SHEET NUMBER: 4.0

ACCESS OPENING SPECIFICATION

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 3'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 4'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 2'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS NOTED OTHERWISE. SEE SHEET 2.0 FOR ACCESS OPENING LOCATIONS. STEPS ARE NOT INCLUDED UNLESS OTHERWISE SPECIFIED. SEE SHEET 2.0 FOR SIZES AND LOCATIONS.
2. UNLESS OTHERWISE SPECIFIED, PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PSI3-PFC OR APPROVED EQUAL (SEE STEP DETAIL) ARE RECOMMENDED FOR ACCESS OPENINGS. THE FIRST STEP SHALL BE LOCATED NEXT STEP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1'-12" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL ENSUING STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN TREAD. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 3' TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)

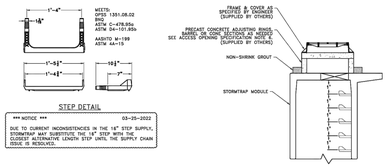
PIPE OPENING SPECIFICATION

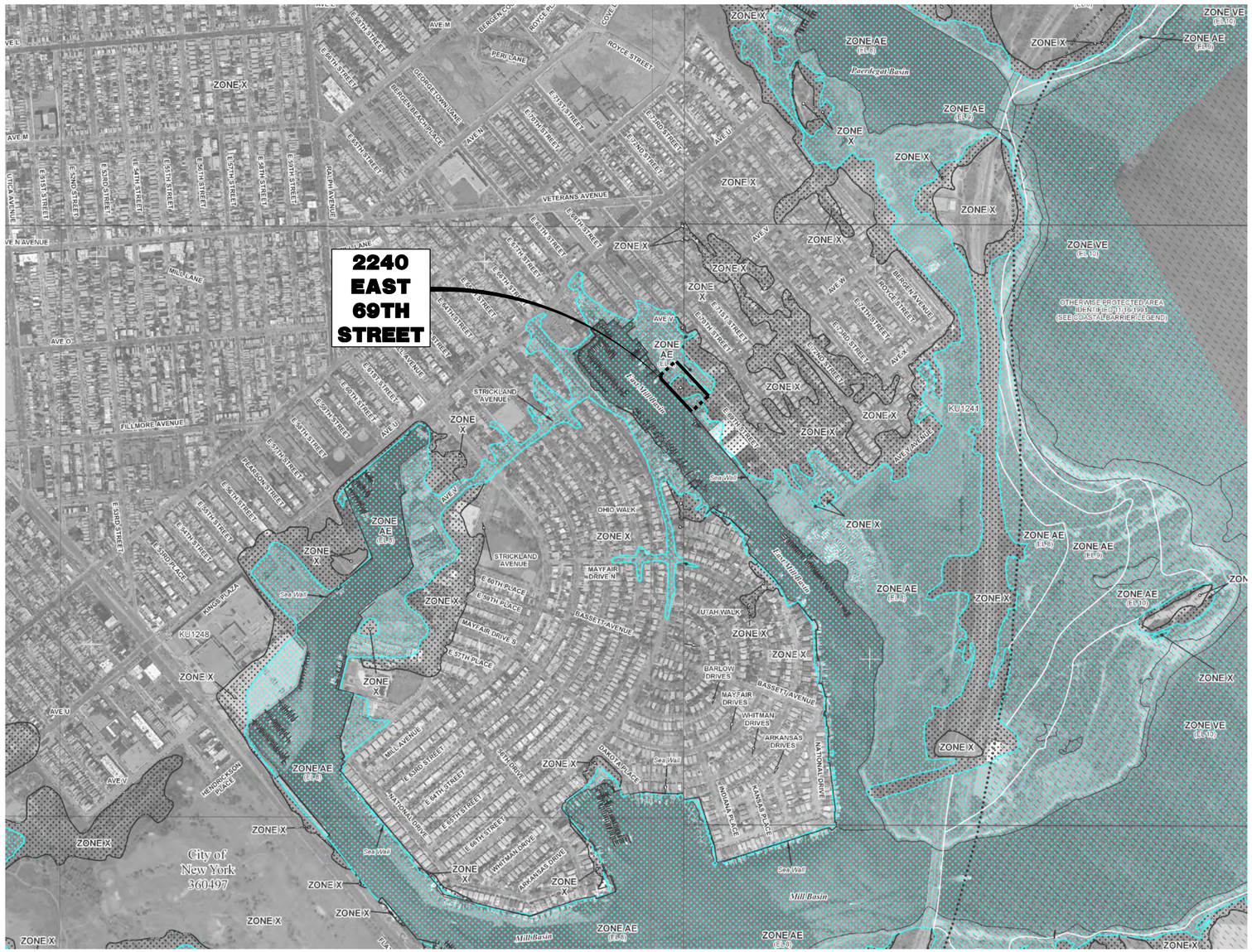
1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
2. CONNECTING PIPES MAY BE INSTALLED WITH A 1'-0" CONCRETE COLLAR AND AN AGGREGATE CRADLE (AS REQUIRED) FOR AT LEAST ONE PIPE LENGTH (SEE PIPE SPECIFICATIONS). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH, NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MAY BE USED.
3. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

PIPE INSTALLATION INSTRUCTIONS

1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET INCLUDING BUT NOT LIMITED TO CONCRETE COLLARS, AGGREGATE CRADLES, GRADE RINGS, RISER SECTIONS, ETC., ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE/REQUIREMENTS.


1'-4"
WELD: OPSI 1351.08.02 BASE: ASTM C-478.86a ASTM 94-101.85b
AASHTO M-199 ASTM A4-15
1'-5½"
1'-4½"
1½"
1"
STEP DETAIL
*** NOTICE *** 03-25-2022
DUE TO CURRENT INCONSISTENCIES IN THE 14" STEP SUPPLY, STORMTRAP MAY SUBSTITUTE THE 14" STEP WITH THE CLOSEST ALTERNATIVE LENGTH STEP UNTIL THE SUPPLY CHAIN ISSUE IS RESOLVED.
FRAME & COVER AS SPECIFIED BY ENGINEER (SUPPLIED BY OTHERS)
PRECAST CONCRETE ADJUSTING RINGS, BARREL OR CONE SECTIONS AS NEEDED SEE ACCESS OPENING SPECIFICATIONS (SUPP



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations (BFEs) shown on this map apply only landward of 0.0° National Geodetic Vertical Datum of 1929 (NGVD 29). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was New York State Plane FIPSZONE 3104. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the National Geodetic Vertical Datum of 1929. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3182
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the Department of Information Technology and Telecommunication, City of New York. This information was derived from digital orthophotos produced at a scale of 1:1,200 with 2-foot pixel resolution from photography dated 2004.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map showing the layout of map panels for this jurisdiction.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

COASTAL BARRIER LEGEND

11-16-1991 Otherwise Protected Area

FLOOD INSURANCE NOT AVAILABLE FOR STRUCTURES – NEWLY BUILT OR SUBSTANTIALLY IMPROVED ON OR AFTER NOVEMBER 16, 1991 – NOT USED IN A MANNER CONSISTENT WITH THE PURPOSE OF THE OTHERWISE PROTECTED AREAS.

Comments or concerns regarding the Coastal Barrier Resources System or Otherwise Protected Areas should be directed to the Coastal Barrier Coordinator at the U.S. Fish and Wildlife Service; (413) 253-8657.

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 (EL 987) — Base Flood Elevation line and value; elevation in feet* (Base Flood Elevation value where uniform within zone; elevation in feet*)

* Referenced to the National Geodetic Vertical Datum of 1929

- (A)—(A) Cross section line
- (23)—(23) Transect line
- 87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 7850 000 FT 1000-meter Universal Transverse Mercator grid values, zone 18
- 600000 FT 5000-foot grid ticks: New York State Plane coordinate system, Long Island zone (FIPSZONE 3104), Lambert Conformal Conic projection
- DX5510 Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

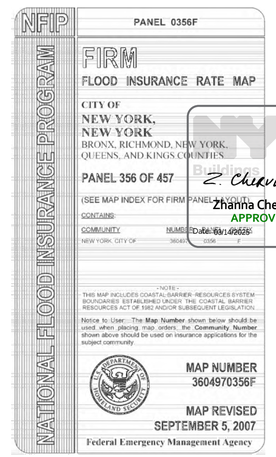
INITIAL NFIP MAP DATE
June 28, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS
June 11, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE
November 19, 1983

FLOOD INSURANCE RATE MAP REVISIONS
September 5, 2007 – to update map format, to change Special Flood Hazard Areas, and to reflect updated topographic information.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



GRAPHIC SCALE

-500 0 250 500 1000 2000
(IN FEET)
1 INCH = 500 FT

PROTECT YOURSELF
A PHONE CALL
CAN BE YOUR INSURANCE POLICY

THE STATE OF NEW YORK REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

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Plotted: 03/06/25 – 9:51 AM By: jdesilmeida
File: P:\DECPC PROJECTS\4918 Tombridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\2491823025484CFE3.dwg, ----> 08 2007 FEMA EFFECTIVE FIRM

DYNAMIC ENGINEERING CONSULTANTS, P.C. SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: —

PROJECT: **2300 69 STREET PROPERTY LLC**
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

811 Know what's below. Call before you dig.

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

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BETHLEHEM, PENNSYLVANIA • T: (610) 419-4400
ALLEN, TEXAS • T: 972.234.2720
HOUSTON, TEXAS • T: 281.789.6480
AUSTIN, TEXAS • T: 512.346.2444
DELRAY BEACH, FLORIDA • T: (561) 921-8570
ANNAPOLIS, MARYLAND • T: 410.921.3000
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JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

NYC Buildings
Zhanna Chervony
APPROVED
Date: 6/1/2025

TITLE: 2007 FEMA EFFECTIVE FIRM
ALT CO #B01097393-I1

SCALE: (H) 1" = 500' (V) | DATE: 10/04/2024
PROJECT No: 4918-23-02548

SHEET No: C-108.00 8 OF 9 | Rev. #: 3



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was New York Long Island State Plane FIPSZONE 3104. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3182
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the Department of Information Technology and Telecommunication, City of New York (DoITT). This information was derived from digital orthophotos produced at a scale of 1:1,200 with 2-foot pixel resolution from photography dated April 2008.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

The AE Zone category has been divided by a **Limit of Moderate Wave Action (LiMWA)**. The LiMWA represents the approximate landward limit of the 1.5- foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange (FMIX) at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) LEGEND

11-16-1991 Otherwise Protected Area (OPA)

FLOOD INSURANCE NOT AVAILABLE FOR STRUCTURES NEWLY BUILT OR SUBSTANTIALLY IMPROVED ON OR AFTER NOVEMBER 16, 1991, IN DESIGNATED OPAs WITHIN THE CBRS.

Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this FIRM were transferred from the official CBRS source map(s) for this area and are depicted on this FIRM for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources Act, as amended, and maintained by the U.S. Fish and Wildlife Service (FWS). The official CBRS maps used to determine whether or not an area is located within the CBRS are available for download at http://www.fws.gov. For an official determination of whether or not an area is located within the CBRS, or for any questions regarding the CBRS, please contact the FWS field office for this area at (631) 776-1401.

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** — No Base Flood Elevations determined.
- **ZONE AE** — Base Flood Elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL. 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- Culvert, Flume, Penstock or Aqueduct
- Road or Railroad Bridge
- Footbridge
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 7°6000 N — 1000-meter Universal Transverse Mercator grid values, zone 18
- 600000 FT — 5000-foot grid values: New York State Plane coordinate system, Long Island zone (FIPSZONE 3104), Lambert Conformal Conic projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

INITIAL NFIP MAP DATE
June 28, 1974
FLOOD HAZARD BOUNDARY MAP REVISIONS
June 11, 1976
FLOOD INSURANCE RATE MAP EFFECTIVE
November 16, 1983
FLOOD INSURANCE RATE MAP REVISIONS

For descriptions of revisions see Notice to Users page in the Flood Insurance Study report.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

NFIP — NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0356G

FIRM

FLOOD INSURANCE RATE MAP

CITY OF,
NEW YORK
NEW YORK
BRONX, RICHMOND, NEW YORK, QUEENS, AND KINGS COUNTIES

PANEL 356 OF 457

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NEW YORK, CITY OF	360497	0356	G

- NOTE -

THIS MAP INCLUDES BOUNDARIES OF THE COASTAL BARRIER RESOURCES SYSTEM ESTABLISHED UNDER THE COASTAL BARRIER RESOURCES ACT OF 1982 AND/OR SUBSEQUENT ENABLING LEGISLATION.

PRELIMINARY
DECEMBER 5, 2013

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
3604970356G

MAP REVISED

Federal Emergency Management Agency

GRAPHIC SCALE

-500 0 250 500 1000 2000

(IN FEET)
1 INCH = 500 FT

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THE STATE OF NEW YORK REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

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Plotted: 03/06/25 – 9:44 AM By: jcdesilmeida
File: P:\DEC\PC PROJECTS\4918 Tumbridge Equities\23-02548 Brooklyn NY\Dwg\Alternative CO Plans\04918230254BACFP3.dwg, ----> 09 2013 FEMA PRELIMINARY FIRM

DYNAMIC ENGINEERING CONSULTANTS, P.C. · SURVEY · TRAFFIC

REV.	DATE	COMMENTS	BY
3	03/06/25	REVISED PER DOB COMMENTS	JCD
2	02/17/25	REVISED PER DOB COMMENTS	IRP
1	02/05/25	REVISED PER DOB COMMENTS	IRP

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

PROJECT: **2300 69 STREET PROPERTY LLC**
PROPOSED COMMERCIAL VEHICLE STORAGE (ALT-CO)
BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

811 — Know what's below. Call before you dig. — PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

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MARLTON, NEW JERSEY • T: 856.334.2200
NEW YORK, NEW JERSEY • T: 973.755.7200
STONE RIDGE, NEW JERSEY • T: 732.974.0198
PHILADELPHIA, PENNSYLVANIA • T: 215.383.4988
PHILADELPHIA, PENNSYLVANIA • T: 215.383.4988
BETHLEHEM, PENNSYLVANIA • T: 610.419.4400
ALLEN, TEXAS • T: 972.534.2720
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ANNAPOLIS, MARYLAND • T: 410.541.9300
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NYC — DEPARTMENT OF BUILDINGS — APPROVED

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LICENSED PROFESSIONAL ENGINEER
NEW YORK LICENSE NO. 097071

Zhanna Chervony
APPROVED

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: 2013 FEMA PRELIMINARY FIRM
ALT CO #B01097393-I1

SCALE: (H) 1" = 500' (V) | DATE: 10/04/2024
PROJECT No: 4918-23-02548

SHEET No: C-109.00 — 9 OF 9 | Rev. #: 3

GENERAL NOTES

1. THE LOT AND BLOCK NUMBERS SHOWN ARE BASED ON THE DIGITAL TAX MAP OF THE BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK.
2. HORIZONTAL DATUM – NAD 83 (2011), BASED ON GPS FIELD OBSERVATION PERFORMED BY DYNAMIC SURVEY ON AUGUST 07, 2023, UTILIZING THE LEICA RTK CORS NETWORK.
3. VERTICAL DATUM – NAVD 88 (GEOID 12A), BASED ON GPS FIELD OBSERVATIONS PERFORMED BY DYNAMIC SURVEY ON AUGUST 07, 2023, UTILIZING THE LEICA RTK CORS NETWORK. (BROOKLYN DATUM = NAVD 1988 + 1.46')
4. FIELD WORK PERFORMED BY DYNAMIC SURVEY ON AUGUST 09, 2023.
5. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONDITIONS THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. PROPERTY IS SUBJECT TO SUB-SURFACE CONDITIONS AND/OR ENCROACHMENTS NOT DISCLOSED BY PUBLIC RECORD, IF ANY.
6. DYNAMIC SURVEY MAKES NO GUARANTEES THAT ALL UTILITIES ARE SHOWN AND ANY LOCATIONS SHOWN ARE APPROXIMATE BASED ON MARKOUT UNLESS NOTED OTHERWISE. ALL UTILITY LOCATIONS MUST BE VERIFIED WITH THE PROPER UTILITY COMPANIES PRIOR TO ADDITIONAL DESIGN, EXCAVATION OR CONSTRUCTION. CONTACT UTILITIES TOLL FREE 1-800-272-4480.
7. NOT ALL LOT LINES OUTSIDE THE BOUNDARY OF THE SUBJECT PROPERTY SHOWN HEREON HAVE BEEN FIELD SURVEYED AND ARE SHOWN AS A GRAPHICAL REPRESENTATION OF EXISTING LOT LINES BASED ON DEED, FILED MAPS AND TAX MAP INFORMATION.
8. THIS SURVEY WAS PERFORMED BASED ON A TITLE COMMITMENT ISSUED BY CHICAGO TITLE INSURANCE COMPANY, TITLE NUMBER: CT23-00352-K, EFFECTIVE COMMITMENT DATE: JULY 4, 2023.
9. THIS PLAN RELIES UPON THE NOTED TITLE POLICY TO IDENTIFY ALL DOCUMENTS OF RECORD FOR REVIEW IN CONNECTION TO THIS SURVEY.
10. BY GRAPHICAL PLOTTING THE PREMISES IS PARTIALLY LOCATED IN ZONE "X" ((OTHER FLOOD AREAS), (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.)

    AND IS PARTIALLY LOCATED IN ZONE "AE" (EL 8) (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD). (THE 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. AREAS OF SPECIAL FLOOD HAZARD INCLUDE ZONES A, A1-A30, AE, AH, AO, AR, A99, V1-V3 AND VE. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD.)

    PER FLOOD INSURANCE RATE MAP NUMBER: 3604970356F AND 3604970357F, COMMUNITY NAME: NEW YORK, CITY OF, EFFECTIVE DATE: 09/05/2007.
11. NO WETLANDS DELINEATION MARKERS WERE OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK. THE EXISTENCE OR NONEXISTENCE OF WETLANDS OR OPEN WATERS THAT MAY BE REGULATED BY THE STATE OF NEW YORK AND/OR THE GOVERNMENT OF THE UNITED STATES IS NOT A PART OF THIS SURVEY.
12. NO ATTEMPT WAS MADE OR LIABILITY IS ASSUMED TO DETERMINE IF ANY PORTION OF THIS PROPERTY IS CLAIMED BY THE STATE OF NEW YORK AS TIDELANDS.
13. THE OFFSETS SHOWN ON THIS PLAN SHALL NOT BE USED AS THE BASIS FOR THE CONSTRUCTION OF FENCES OR ANY OTHER PERMANENT STRUCTURES.
14. PARKING SPACE COUNT: 0 REGULAR SPACES, 0 HANDICAP SPACES, 0 TOTAL SPACES.
15. SUBJECT PROPERTY HAS DIRECT ACCESS TO EAST 69TH STREET AND AVENUE W A PUBLIC RIGHT OF WAY.
16. NO EVIDENCE OF RECENT EARTH WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WERE OBSERVED IN THE PROCESS OF CONDUCTION THE FIELDWORK.
17. NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES HAVE BEEN MADE AVAILABLE TO THE SURVEYOR BY THE CONTROLLING DISTRICT OR EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WERE OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.
18. A ZONING REPORT HAS NOT BEEN PROVIDED TO THE SURVEYOR AS OF THE DATE OF THIS SURVEY.

TIDAL ELEVATION

REFERS TO NAVD 1988 AS FOLLOWS:

MEAN HIGHER HIGH WATER	2.28'
MEAN HIGH WATER	1.96'
BROOKLYN DATUM	1.46'
NAVD 1988	0.00'
MEAN SEA LEVEL	-0.20'
MEAN TIDE LEVEL	-0.30'
MEAN LOW WATER	-2.56'
MEAN LOWER LOW WATER	-2.77'

TIDAL ELEVATIONS BASED ON:

TIDAL DATUMS AND ELEVATION SHEET "851 8750 TIDAL 749 (KVO580) THE BATTERY, NEW YORK HARBOR, NY" (TIDAL EPOCH 1983-2001)

BENCHMARK: 851 8750 TIDAL 749 (KVO580) 15.89' (NAVD 1988 (1991))

MAP REFERENCES

1. SECTIONAL MAP NO. 88, PROVIDED BY THE BOROUGH OF BROOKLYN TOPOGRAPHICAL BUREAU, DATED: 5/29/92.
2. A PLAN ENTITLED "MAP OF BERGEN BEACH IN THE TOWN OF FLATLANDS KINGS COUNTY N.Y., BELONGING TO PERCY G. WILLIAMS AND THOMAS ADAMS JR.', PREPARED BY CHARLER CROOKE, DATED MAY 1893, FILED IN THE OFFICE OF THE REGISTER OF THE COUNTY OF KINGS AS MAP #1018.
3. A PLAN ENTITLED "PIERHEAD AND BULKHEAD LINES, JAMAICA BAY, ROCKAWAY INLET, SHEEPSHEAD BAY AND ADJACENT WATERS, BOUROUGHS OF BROOKLYN AND QUEENS, NEW YORK CITY AND NASSAU COUNTY NEW YORK' MAP NO. 18N, DATED AUGUST 02, 1935.

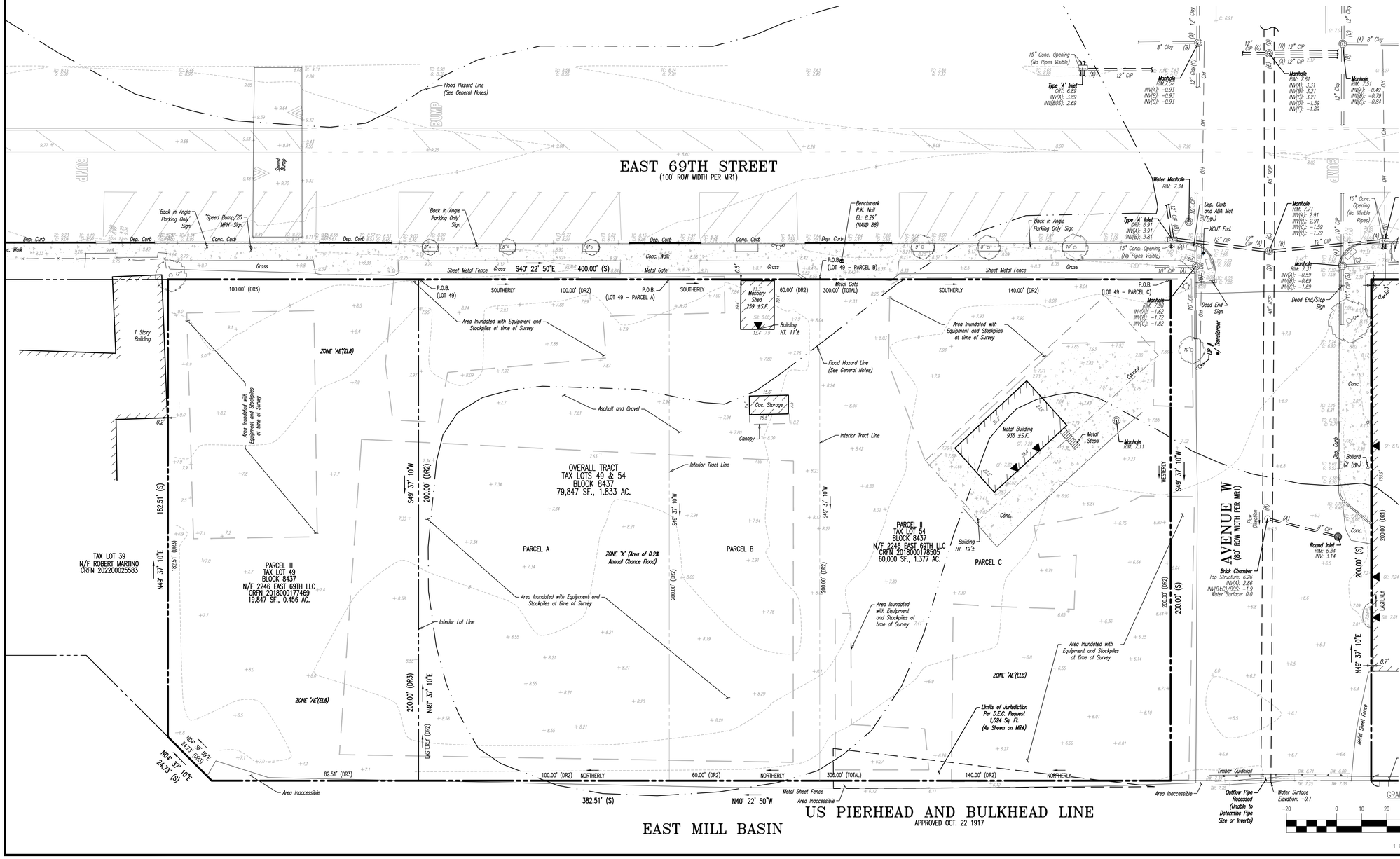
DEED REFERENCES

1. CRFN 2018000177432 – LOT 31
2. CRFN 2018000177469 – LOT 49
3. CRFN 2018000178505 – LOT 54

SCHEDULE B - SECTION 2 EXCEPTIONS

(2) ONE DOLLAR CONDEMNATION CLAUSE CONTAINED IN DEED FROM THE CITY OF NEW YORK TO REGENT BOAT CORP. DATED APRIL 10, 1957 AND RECORDED MAY 27, 1957 IN LIBER 8541 PAGE 453. – NOT A SURVEY RELATED MATTER

(10) RIGHTS AND EASEMENTS OF THE BROOKLYN HEIGHTS RAILROAD COMPANY AS CONTAINED IN A CERTAIN AGREEMENT (UNRECORDED) BETWEEN THE BROOKLYN HEIGHTS RAILROAD COMPANY AND PERCY C. WILLIAMS AND THOMAS ADAMS, JR. DATED 11/15/1895, AS SAME IS RECITED IN LIBER 4703 PAGE 115. – ITS LOCATION CANNOT BE DETERMINED FROM THE RECORD DOCUMENT; REFERENCED DOCUMENT NOT CONTAINED IN TITLE COMMITMENT.



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Plotted: 12/20/24 – 4:39 PM, By: jierretti
File: P:\2ECPC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254SSEC1.dwg, ----> 03 EXISTING CONDITIONS PLAN

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REV.	DATE	COMMENTS	BY
1	12/18/24	REVISED PER NYCDEP SWPPP DISAPPROVAL DATED 11/19/2024	JDMS

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PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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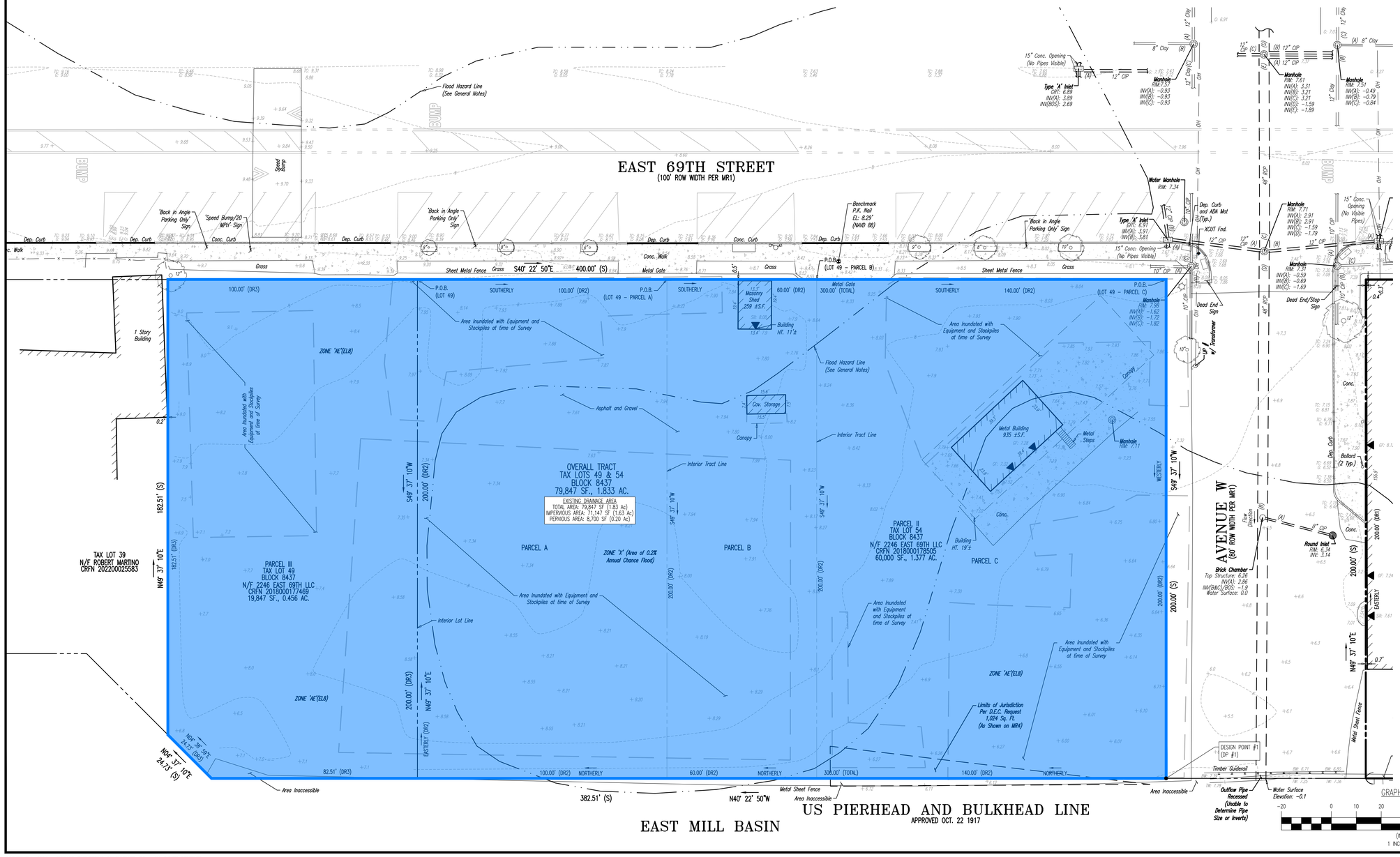
STATE OF NEW YORK
ZACHARY A. KAMM
LICENSED PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE:
EXISTING CONDITIONS PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V) | DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-103.00 | Rev. #: 1
3 OF 16



EAST MILL BASIN

US PIERHEAD AND BULKHEAD LINE
APPROVED OCT. 22 1917

Plotted: 12/20/24 - 4:40 PM By: bpernett
File: F:\DEPC PROJECTS\Work Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254SECDA1.dwg, ----> 04 EXISTING CONTRIBUTING DRAINAGE AREA PLAN

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DESIGNED BY: JCD
CHECKED BY: ZAK
CHECKED BY: —

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STATE OF NEW YORK — ZACHARY A. KAMM — LICENSED PROFESSIONAL ENGINEER — No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: EXISTING CONTRIBUTING DRAINAGE AREA PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V)
DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-104.00
4 OF 16
Rev. #: 1

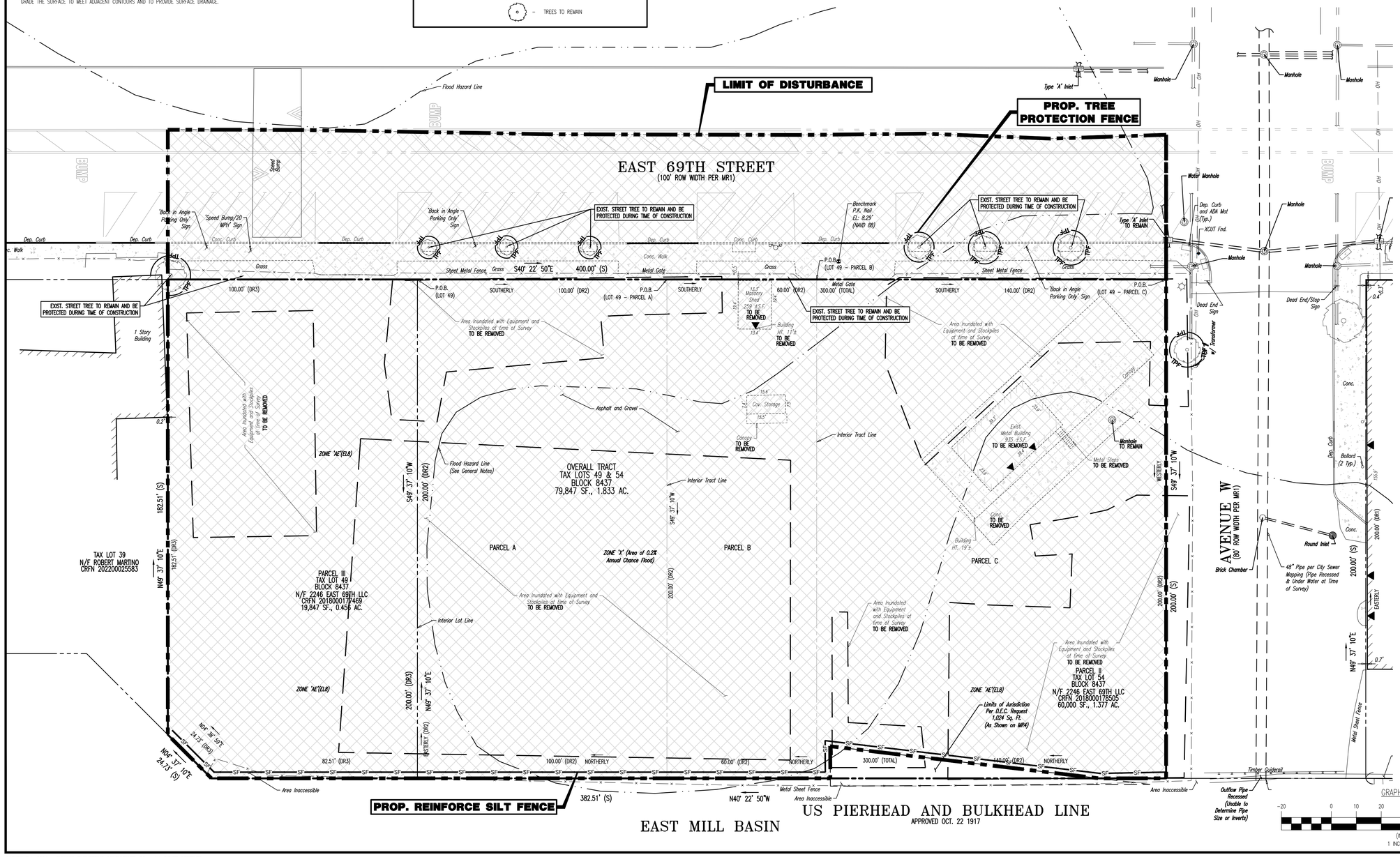
DEMOLITION NOTES

1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.
2. PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
3. COMPLETE DEMOLITION WORK ABOVE EACH FLOOR OR TIER BEFORE DISTURBING ANY OF THE SUPPORTING MEMBERS OF THE LOWER LEVELS.
4. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
5. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER THEM TO THE GROUND.
6. BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY OWNER.
7. LOCATE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE MATERIALS SO AS TO NOT IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
8. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING AND SUPPORTS TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED (AND ADJACENT FACILITIES, IF APPLICABLE).
9. DEMOLISH AND REMOVE ALL FOUNDATION WALLS, FOOTINGS AND OTHER MATERIALS WITHIN THE AREA OF THE DESIGNATED FUTURE BUILDING. ALL OTHER FOUNDATION SYSTEMS, INCLUDING BASEMENTS, SHALL BE DEMOLISHED TO A DEPTH OF NOT LESS THAN ONE FOOT BELOW PROPOSED PAVEMENT OR, BREAK BASEMENT FLOOR SLABS. SEAL ALL OPEN UTILITY LINES WITH CONCRETE. CONTRACTOR TO REVIEW STRUCTURE PRIOR TO DEMOLITION TO DETERMINE IF BASEMENT, CRAWL SPACE OR ANY SUB-STRUCTURE EXISTS. ANY SUB-STRUCTURE, INCLUDING BASEMENTS SHALL BE REMOVED IN ITS ENTIRETY OR AS DIRECTED BY OWNER.
10. ERECT AND MAINTAIN COVERED PASSAGEWAYS IN ORDER TO PROVIDE SAFE PASSAGE FOR PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT DAMAGE AND PERSONAL INJURY TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS. PLACE THE SAFETY AND PROTECTION OF THE SURROUNDING COMMUNITY AND PROPERTY AT THE HIGHEST PRIORITY.
11. REFRAIN FROM USING ANY EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES.
12. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
13. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
14. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
15. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
16. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
17. DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO ENSURE THE CONTINUATION OF SERVICE.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEDURES ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.
19. VERIFY THAT ALL ENVIRONMENTAL CONCERNS INCLUDING BUT NOT LIMITED TO ASBESTOS, LEAD BASED PAINT, HAZMAT MATERIALS, UNDERGROUND STORAGE TANKS, AND TRANSFORMERS HAVE BEEN REMOVED PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES. THESE ARE NOT SHOWN ON THE PLANS. REFER TO ENVIRONMENTAL REPORTS AND DOCUMENTS FOR LOCATIONS AND DISPOSAL PROCEDURES.

NOTES
1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED AT THE MAIN FOR WATER, AT THE CLEAN-OUT FOR SEWER AND THE SHUT-OFF VALVE OR MAIN FOR GAS IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY REQUIREMENTS.
4. ALL EXISTING DEBRIS SHALL BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY COMPANY REQUIREMENTS.

DEMOLITION PLAN LEGEND

- PROPOSED LIMIT OF DISTURBANCE LINE
- TPF — TPF — PROPOSED TREE PROTECTION FENCE LINE
- SF — SF — SF — PROPOSED REINFORCED SILT FENCE
- EXISTING IMPROVEMENTS TO BE REMOVED UNLESS OTHERWISE NOTED
- TREES TO REMAIN



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PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED CONTRACTORS' YARD
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2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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ZACHARY A. KRAMM, P.E.
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: DEMOLITION PLAN
ALT CO #B01097393-I1

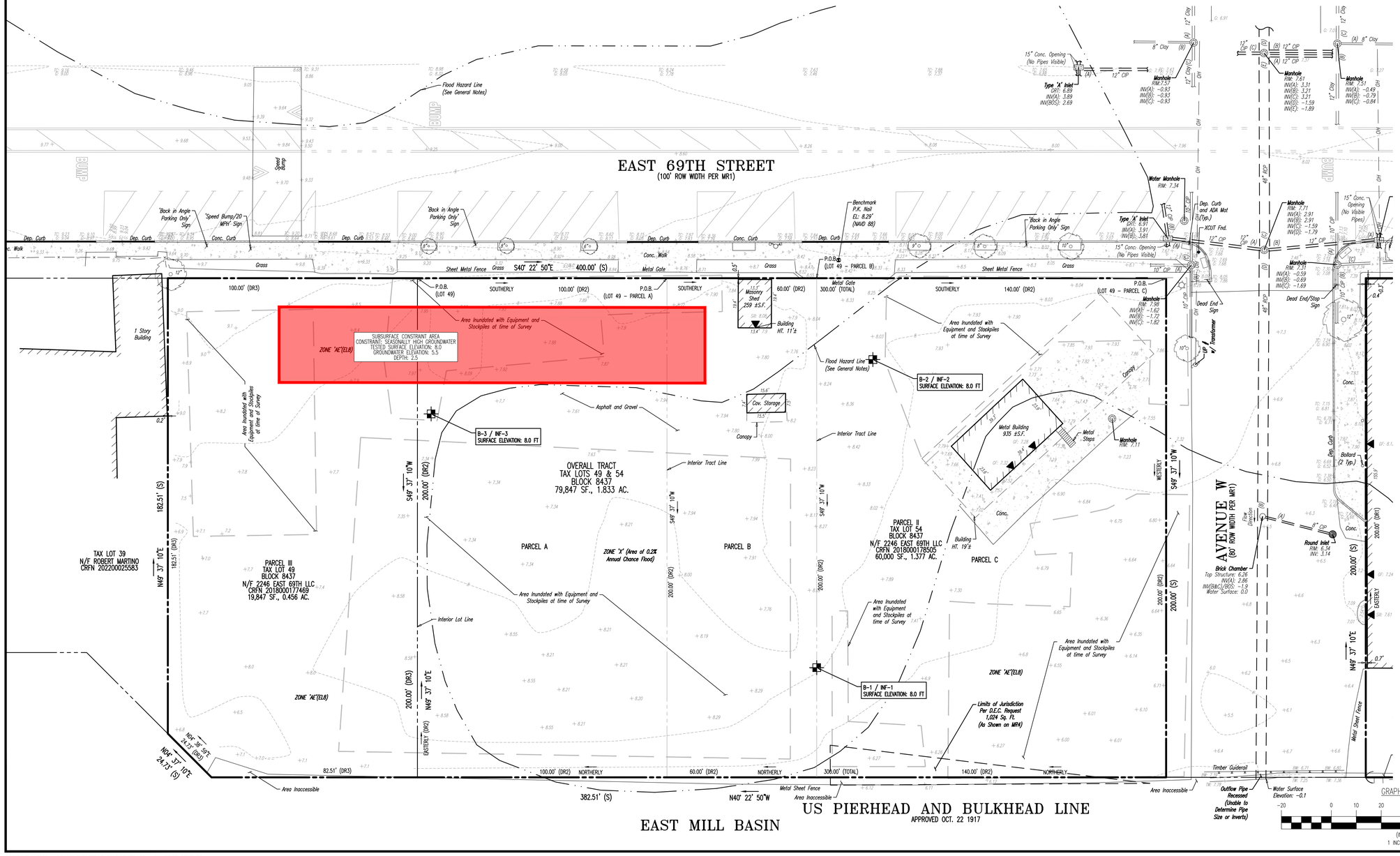
SCALE: (H) 1" = 20' (V) | DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-105.00 5 OF 16 | Rev. #: 1

Plotted: 12/20/24 – 4:41 PM, By: bennett
File: F:\DEPC PROJECTS\4918 Tumbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254858R1.dwg, ----> 05 DEMOLITION PLAN

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SEASONAL HIGH GROUNDWATER AND PERMEABILITY SUMMARY					
PERMEABILITY TEST ID	ELEVATION (FT)	GROUNDWATER		INFILTRATION TESTING	
		DEPTH (FT)	ELEVATION (FT)	DEPTH (FT)	RATE (IN/HR)
B-1/INF-1	8.0	5.0	3.0	4.0	13.0
B-2/INF-2	8.0	2.5	5.5	2.0	2.5
B-3/INF-3	8.0	2.5	5.5	2.0	0.0



US PIERHEAD AND BULKHEAD LINE
APPROVED OCT. 22 1917

EAST MILL BASIN

Plotted: 12/20/24 - 4:42 PM, By: ipernett
File: T:\DEPC PROJECTS\49\8 Tumbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\2491823025485ST1.dwg, ----> 06 GEOTECHNICAL TESTING PLAN

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ZACHARY A. KAMM
STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
No. 097639
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE:
GEOTECHNICAL TESTING PLAN
ALT CO #B01097393-11

SCALE: (H) 1" = 20' (V)
DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-106.00
6 OF 16
Rev. #: 1

GENERAL NOTES

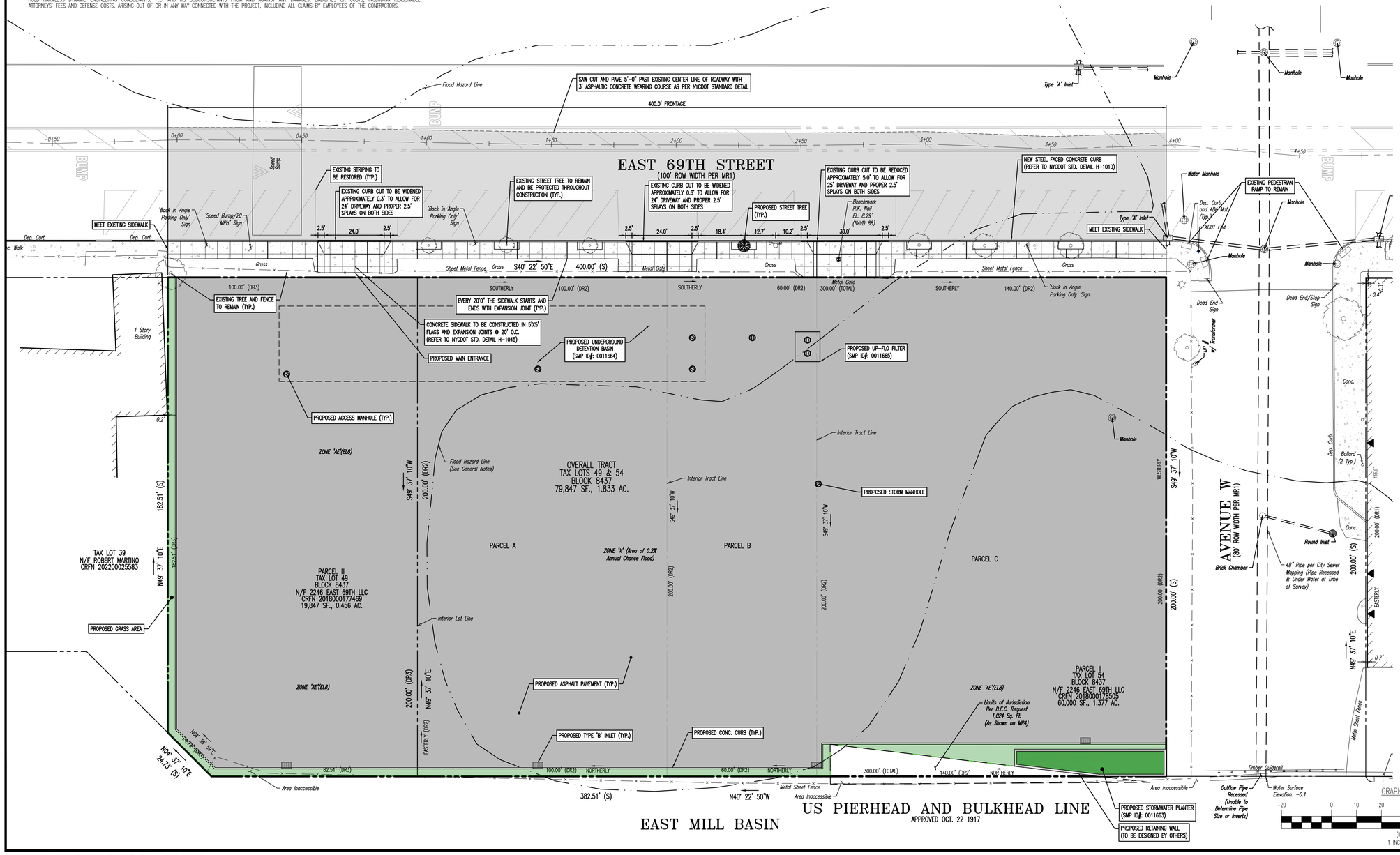
1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:
   ALTA/NSPS LAND TITLE SURVEY
   DYNAMIC SURVEY, LLC
   50 PARK PLACE
   NEWARK, NJ 07102
   DATED: 09/05/2023
   LAST REVISED: 02/22/2024
   SURVEY FILE NO: 4918-23-02426
2. OWNER: 2300 69 STREET PROPERTY LLC
   4 BRYANT PARK, SUITE 200
   NEW YORK, NY 10018
3. PARCEL DATA: BLOCK 8437, LOTS 49 & 54
   2240 EAST 69TH STREET
   BROOKLYN, KINGS COUNTY, NEW YORK
4. THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SAID SUBMISSION WAIVERS.
5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
6. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
7. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.
8. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
9. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
10. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
11. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
12. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
13. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
14. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME DYNAMIC ENGINEERING CONSULTANTS, P.C. , ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.
15. NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C., NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.
16. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
17. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.
18. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.
19. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CONNECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
20. ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
21. THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SIGNAGE OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.
22. CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTORS RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.
23. CONTRACTOR TO BE ADVISED THAT THE ENGINEER WAS NOT PROVIDED WITH FINAL FLOOR PLAN DRAWINGS FOR THE BUILDING AT THE TIME OF SITE PLAN DESIGN. AS A RESULT, ENTRANCE DOOR LOCATIONS AS DEPICTED HEREON MAY NOT BE FINAL AND MUST BE CONFIRMED WITH THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. THE HANDICAP ACCESSIBLE PARKING SPACES AND THE ASSOCIATED RAMPS AND ACCESSIBLE ROUTE MUST COMPLY WITH NJAC 5:23-7 AND THE HANDICAP PARKING SPACES MUST BE LOCATED AS THE NEAREST SPACES TO THE ENTRANCE. CONTRACTOR TO NOTIFY OWNER AND ENGINEER IMMEDIATELY OF ANY DISCREPANCY PRIOR TO CONSTRUCTION.
24. THE NORMAL HOURS OF OPERATION WILL NOT BE OUTSIDE OF 6:00 AM TO 6:00 PM.

ZONING ANALYSIS

ADDRESS	2240 EAST 69TH STREET		
BLOCK 8446	LOT 31,	BLOCK 8437	LOT 49 & 54
ZONING DISTRICT	M1-1	MAP # 23D	
LOT AREA	79,847 SQUARE FEET		
PROPOSED USE	PROPOSED CONTRACTORS' YARD		

PAVEMENT LEGEND

PROPOSED ASPHALT PAVEMENT



DYNAMIC ENGINEERING CONSULTANTS, PC
SURVEY • TRAFFIC

BY	DATE	REV.	COMMENTS
JDMS	12/18/24	1	REVISED PER NYCDEP SWPPP DISAPPROVAL DATED 11/19/2024

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JDMS
DESIGNED BY: JCD
CHECKED BY: ZAK
CHECKED BY: _

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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LICENSED PROFESSIONAL ENGINEER
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JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: SITE PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V)
DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-107.00
7 OF 16
Rev. #: 1

Plotted: 12/20/24 - 4:43 PM, By: iperretti
File: P:\DEPC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254BS1.dwg, ----> 07 SITE PLAN

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PLANTING NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED; INCLUDING ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, INCIDENTALS, AND CLEAN-UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT. LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS, AND INJURIES.
4. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE (1) YEAR FROM THE DATE OF ACCEPTANCE FOR TREES AND SHRUBS. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD WILL BE REJECTED.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1 (REV. 2001) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
8. ALL PLANTS SHALL BE PLANTED IN AMENDED TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. LARGE PLANTING AREAS TO INCORPORATE FERTILIZER AND SOIL CONDITIONERS AS STATED IN PLANTING SPECIFICATIONS.
9. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
10. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH "WILT-PROOF" OR EQUAL AS PER MANUFACTURER'S INSTRUCTIONS.
11. NO PLANT, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO FEET FROM EXISTING STRUCTURES AND SIDEWALKS.
12. SET ALL PLANTS PLUMB AND STRAIGHT, SET AT SUCH LEVEL THAT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
13. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING UTILIZING CLEAN, SHARP TOOLS. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES WILL NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
14. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
15. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES AS A RESULT OF CONSTRUCTION OPERATIONS. ALL EXISTING TREES SHALL BE FERTILIZED WITH A REGULAR GARDEN FERTILIZER (5-10-5) UPON COMPLETION OF WORK. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR TO ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH SHARP TOOLS AND FILLED AROUND WITH TOPSOIL. COMPLETELY SATURATE THESE AREAS WITH WATER. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR IS TO PROTECT ALL EXISTING TREES TO REMAIN BY ERECTING TREE PROTECTION FENCE AT THE DRIP LINE. THIS WILL ENSURE NO COMPACTION OF THE ROOT MASS.
16. ALL PLANTING BEDS SHALL BE MULCHED WITH 4" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.
17. NEW PLANTING AREAS AND SOD SHALL BE ADEQUATELY IRRIGATED OR WATERED TO ESTABLISH THE PROPOSED PLANTS AND LAWN.
18. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE INSTALLED, INSPECTED AND APPROVED BY THE MUNICIPAL LANDSCAPE ARCHITECT. THE MUNICIPAL ENGINEER AND LANDSCAPE ARCHITECT SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER AS REQUIRED BY OR ASSOCIATED WITH A SUBDIVISION OR SITE PLAN APPROVAL BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT SHALL BE INSTALLED DURING THE FOLLOWING PLANTING SEASONS:

TYPE	DATES
PLANTS	3/15 TO 12/15
LAWN	3/15 TO 6/15
	9/15 TO 12/1

FURTHERMORE, THE FOLLOWING TREE VARIETIES SHALL NOT BE PLANTED DURING THE FALL PLANTING SEASON DUE TO THE HAZARDS ASSOCIATED WITH DIGGING THESE TREES IN THIS SEASON.

ACER RUBRUM	POPULUS VARIETIES
BETULA VARIETIES	PRUNUS VARIETIES
CARPINUS VARIETIES	PYRUS VARIETIES
CRATAEGUS VARIETIES	QUERCUS VARIETIES
KOELREUTERIA	SALIX WEEPING VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES
PLATANUS ACERIFOLIA	

ANY PLANTINGS INSTALLED IN CONFLICT WITH THIS REQUIREMENT MUST RECEIVE THE WRITTEN APPROVAL BY THE MUNICIPAL ENGINEER OR LANDSCAPE ARCHITECT, PRIOR TO PLANTING. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL REQUIRE THE REMOVAL OF THE PLANTING IN QUESTION. THIS REQUIREMENT DOES NOT APPLY TO SEEDING OR SODDING OR PLANTINGS SPECIFICALLY FOR SOIL STABILIZATION PURPOSES. THE PLANTING ASSOCIATED WITH ANY LOT GIVEN A CERTIFICATE OF OCCUPANCY OUTSIDE THESE PERIODS SHALL BE PROVIDED DURING THE PREVIOUS OR NEXT APPROPRIATE SEASON.

19. ALL DISTURBED AREAS TO BE TREATED WITH TOPSOIL SEED SOD STABILIZATION METHOD.

STORMWATER PLANTER MEDIA

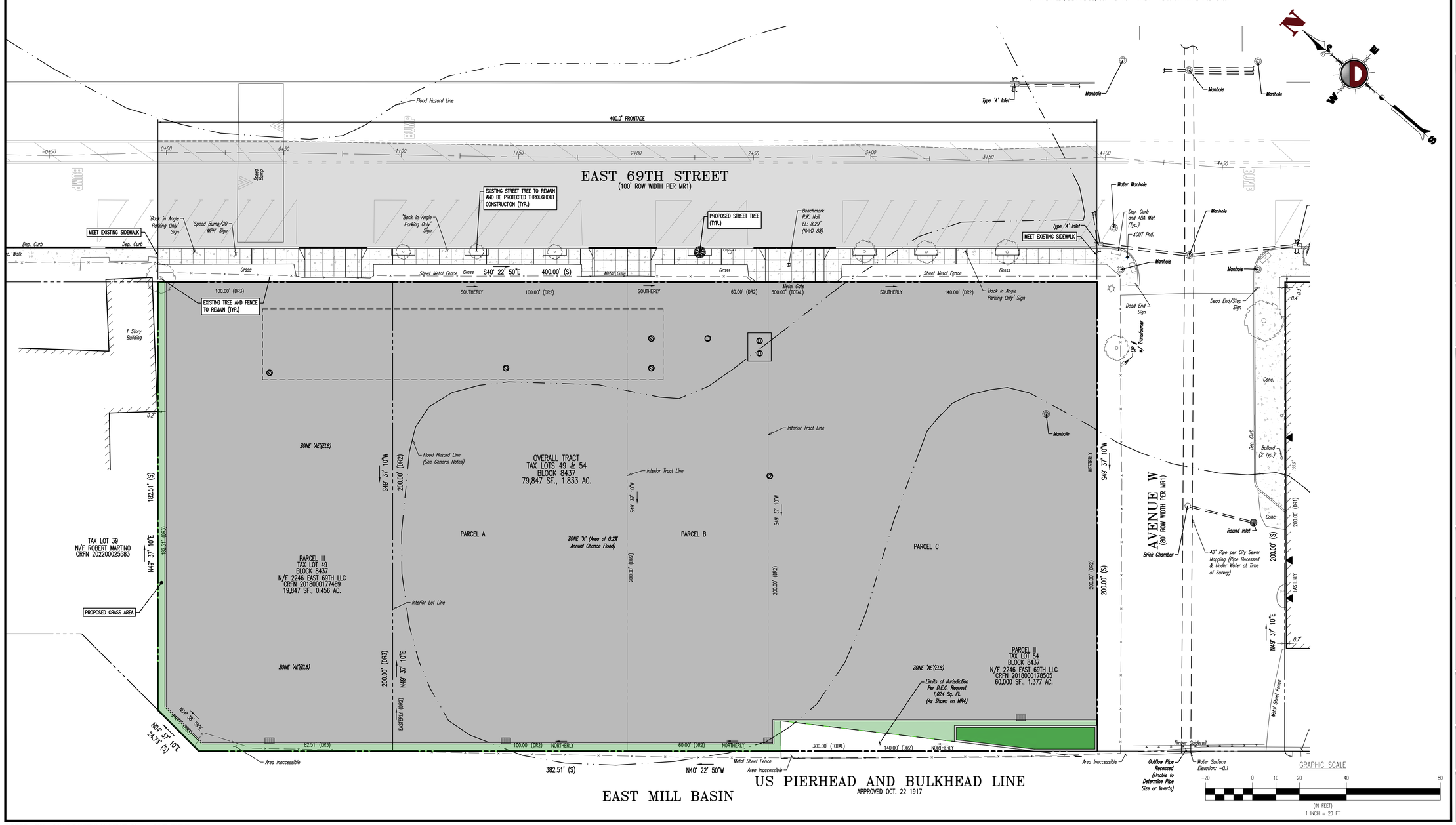
THE MEDIA COMPOSITION SHALL BE EQUIVALENT TO TABLE 4.6 OF NYC STORMWATER MANUAL AND IS AS FOLLOWS:

- MULCH (SURFACING MEDIA) – COMPOSED OF SHREDDED HARDWOOD, AGED 6–MONTHS MINIMUM
- ENGINEERED SOIL MS4 AREAS – COMPOSITION BY VOLUME IS: mSAND (0.05–2MM), 35–60% SILT (0.002–0.05MM), 30–55% CLAY (<0.002MM), 10–25% ORGANIC MATTER (1.5–4%)
- ADDITIONAL GUIDANCE:
  - pH 5.2–7.0 PHOSPHOROUS > 75 LBS/ACRE POTASSIUM > 85 LBS/ACRE MAGNESIUM > 35 LBS/ACRE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIALS OVER 1" IN DIAMETER. BRUSH OR SEEDS FROM NOXIOUS WEEKS.
- STONE BASE MEDIA – COMPOSED OF ASTM NO. 57 STONE, CLEAN AND FREE OF FINES. MAXIMUM WAS LOSS OF 0.5% MAXIMUM ABRASION OF 10% FOR 100 REVOLUTIONS AND 50% FOR 500 REVOLUTIONS.

PLANTING SPECIFICATIONS

1. SCOPE OF WORK
   A. THIS WORK SHALL CONSIST OF PERFORMING, CLEARING AND SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
2. MATERIALS
   A. GENERAL – ALL MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION (D.O.T.) MANUAL OF ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) OR APPROVED EQUAL
   B. PLANTS – ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS.
   C. TOPSOIL – LOAMY SILT, HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, pH RANGE BETWEEN 4.5 – 7, BE FREE OF DEBRIS, ROCKS LARGER THAN TWO INCHES (2"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   D. MULCH – FOUR (4") INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH.
3. FERTILIZER AND SOIL CONDITIONER – PLANTED AREAS
   A. ORGANIC FERTILIZER – SHALL BE PROCESSED SEWER SLUDGE WITH MINIMAL CONTENT OF 1% NITROGEN AND 2% PHOSPHORIC ACID, EQUAL TO "NITROHUMUS".
   B. ORGANIC FERTILIZER AND SOIL CONDITIONER – SHALL BE "ORO– POWER" AND ORGANIC BASE MATERIALS COMPRISED OF DECOMPOSED ANIMAL AND VEGETABLE MATTER AND COMPOSTED TO SUPPORT BACTERIAL CULTURES, CONTAINING NO POULTRY OR HUMAN WASTE. GUARANTEED ANALYSIS (3–3–1): NITROGEN 5% PHOSPHATE 3%, POTASH 1%. 50% HUMUS AND 15% HUMIC ACIDS.
4. GENERAL BARK MULCH/DRAINAGE
   A. LANDSCAPE WORK SHALL COMMENCE AS SOON AS THOSE PORTIONS OF THE SITE ARE AVAILABLE. CONTRACTOR TO UTILIZE WORKMANLIKE STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH DAY'S WORK. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STOCKPILED OR DISPOSED OF. ALL PAVED SURFACES SHALL BE SWEPT CLEAN AT THE END OF EACH DAYS WORK.
5. WEEDING
   A. BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
6. TOPSOILING
   A. CONTRACTOR TO PROVIDE A 4" THICK TOPSOIL LAYER IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO PROVIDE A 4" UNSETTLED THICKNESS. TOPSOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON–SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM.
7. SOIL CONDITIONING:
   A. CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6". ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE. SPREAD EVENLY IN ALL PLANTING AREAS AND TILL (2 DIRECTIONS) INTO TOP 4" WITH THE FOLLOWING PER 1,000 SQ. FT.:
      20 POUNDS "ORO–POWER"
      100 POUNDS AGRICULTURAL GYPSUM
      20 POUNDS NITROFORM (COURSE) 38–0–0 BLUE CHIP

   SOIL MODIFICATIONS:
   A. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. USE COMPOSTED BARK, RECYCLED YARD WASTE OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.5.
   B. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
   C. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
8. PLANTING
   POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
   A. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACK FILLED WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
      1 PART PEAT MOSS BY VOLUME
      1 PART COW MANURE BY VOLUME
      3 PARTS TOPSOIL BY VOLUME
      21 GRAM 'AGRIFORM' PLANTING TABLETS AS FOLLOWS:
         2 TABLETS PER 1 GAL. PLANT
         3 TABLETS PER 5 GAL. PLANT
         4 TABLETS PER 15 GAL. PLANT
         LARGER PLANTS (2") TWO TABLETS PER 1/2" DIAM. OF TRUNK CALIPER
   B. PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL PREPARED SOIL AROUND BALL OF PLANT 1/2 WAY, AND INSERT PLANT TABLETS. COMPLETE BACK FILL AND WATER THOROUGHLY.
   C. ALL PLANTS SHALL BE SET SO THAT, THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE AS THEY BORE TO THE NATURAL GRADE BEFORE BEING TRANSPLANTED.
   D. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH TREE.
   E. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACK FILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
   F. PRUNE ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS TO A MIN. OF 7' BRANCHING HEIGHT.
9. GROUND COVER
   A. ALL GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING GROUND COVER.
   B. SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON DRAWINGS.
   C. IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
   D. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE–EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE–EMERGENT. PRE–EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION.
10. FINISH GRADING
    A. ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS .1 FOOT OF FINISH GRADE.
    B. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY.
    C. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
11. GUARANTEE
    A. CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM ACCEPTANCE OF JOB. OWNER TO SECURE A MAINTENANCE BOND FROM THE CONTRACTOR FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE COMMENCEMENT OF THE GUARANTEE PERIOD AND PASSES A FINAL INSPECTION BY THE OWNER OR OWNERS REPRESENTATIVE.
12. CLEANUP
    A. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
    B. MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY WITH HERBICIDE AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
    C. MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. MAINTENANCE (ALTERNATE BID) COST PER MONTH AFTER INITIAL 90–DAY MAINTENANCE PERIOD.



REV.	DATE	COMMENTS	DRAWN BY
1	12/18/24	REVISED PER NYCDEP SWPPP DISAPPROVAL DATED 11/19/2024	JDMS

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PROJECT: **2300 69 STREET PROPERTY LLC**
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

DESIGNED BY: JCD | DRAWN BY: JDMS | CHECKED BY: ZAK | CHECKED BY: —

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JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: **LANDSCAPE PLAN**
ALT CO #B01097393–I1

SCALE: (H) 1" = 20' (V) | DATE: 09/06/2024
PROJECT No: 4918–23–02548

SHEET No: **SWM–108.00** 8 OF 16 | Rev. #: 1

Plotted: 12/20/24 – 4:44 PM By: jperrett
File: P:\DEPC PROJECTS\4918 Turnbridge Equities\23–02548 Brooklyn NY\Dwg\Site Plans\04918230254BSL1.dwg, ----> 08 LANDSCAPE PLAN

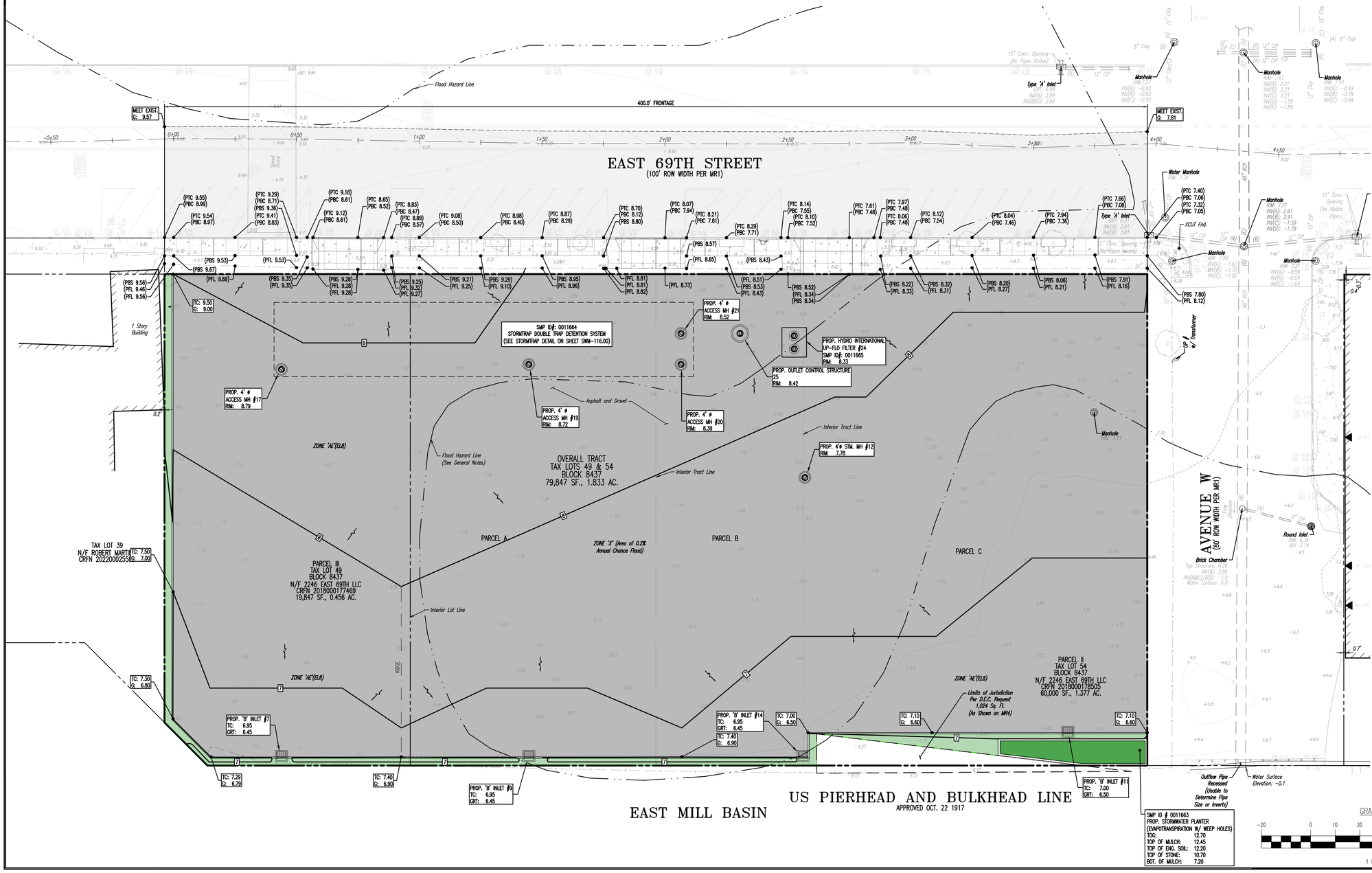
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GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557, MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL ISLAND GUTTERS, CURBS AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1/2% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
4. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN ADA PARKING SPACES AND ADA ACCESS AISLES. CONTRACTOR TO ENSURE A MAXIMUM OF 5% RUNNING SLOPE AND 2% CROSS SLOPE ALONG ALL OTHER PORTIONS OF ON-SITE ACCESSIBLE ROUTE, WITH THE EXCEPTION OF RAMPS AND CURB RAMPS. CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. CONTRACTOR TO ENSURE ALL CHANGES IN LEVEL ALONG ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM HEIGHT OF 1/4" OR 1/2" WITH A BEVELED EDGE WITH A MAXIMUM SLOPE OF 1:2 (50%). CONTRACTOR TO ENSURE ALL GAPS ALONG ALL ACCESSIBLE ROUTES HAVE A MAXIMUM WIDTH OF 1/2", PLACED SO THE LONG DIMENSION IS PERPENDICULAR TO THE PATH OF TRAVEL.
10. CONTRACTOR TO REFER TO LATEST ADA GUIDELINES AND BUILDING CODE FOR ON-SITE ACCESSIBILITY REQUIREMENTS. CONTRACTOR TO REFER TO LATEST PROWAG GUIDELINES FOR ACCESSIBILITY REQUIREMENTS WITHIN THE PUBLIC RIGHT-OF-WAY
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONTRACTOR'S PROPOSED MEANS AND MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DEFINED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.

GRADING/UTILITY GRAPHIC LEGEND

PROPERTY LINE (PARCEL IN QUESTION)
OFF-SITE PROPERTY LINES
EXIST. GUY WIRE
EXIST. LIGHT POLE
EXIST. BUILDING LIGHT
EXIST. SHOE BOX LIGHT
EXIST. COBRA LIGHT POLE
EXIST. TRAFFIC SIGNAL POLE
EXIST. MANHOLE
EXIST. "A" INLET
EXIST. "B" INLET
EXIST. "E" INLET
EXIST. YARD INLET
EXIST. FLARED END SECTION
EXIST. HEADWALL
EXIST. UTILITY POLE
EXIST. MONITORING WELL
APPROX. TEST PIT LOCATION
EXIST. FIRE HYDRANT
EXIST. WATER VALVE
EXIST. GAS VALVE
EXIST. GAS METER
EXIST. ELECTRIC METER
EXIST. ELECTRIC BOX
EXIST. CLEAN OUT
EXIST. WELL
EXIST. WATER SHUT OFF VALVE
EXIST. TELEPHONE BOX
EXIST. CABLE TV BOX
PROP. HEADWALL
PROP. WATER VALVE
PROP. GAS VALVE
PROP. STORM CLEANOUT
PROP. AREA LIGHT
PROP. OUTLET CONTROL STRUCTURE
PROP. DRAINAGE MANHOLE
PROP. SANITARY SEWER MANHOLE
PROP. "A" INLET
PROP. "B" INLET
PROP. "E" INLET
PROP. YARD INLET
PROP. FLARED END SECTION
EXIST. CABLE LINE
PROP. CABLE LINE
EXIST. ELECTRIC LINE
PROP. ELECTRIC LINE
EXIST. FIBER OPTIC LINE
PROP. FIBER OPTIC LINE
EXIST. GAS LINE
PROP. GAS LINE
EXIST. OVERHEAD WIRES
PROP. OVERHEAD WIRES
EXIST. TELEPHONE LINE
PROP. TELEPHONE LINE
EXIST. WATER LINE
PROP. WATER LINE
EXIST. FIRE SERVICE
PROP. FIRE SERVICE
EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
EXIST. SANITARY SEWER LINE
PROP. SANITARY SEWER LINE
EXIST. FORCE MAIN
PROP. FORCE MAIN
EXIST. STORM DRAIN LINE
PROP. STORM DRAIN LINE
UNDERGROUND UTILITY QUALITY LEVEL
EXIST. MINOR CONTOUR & ELEVATION
EXIST. MAJOR CONTOUR & ELEVATION
PROP. FINISH GRADE CONTOUR & ELEVATION
PROP. DIRECTION OF DRAINAGE FLOW ARROW
EXIST. SPOT ELEVATIONS
EXIST. GUTTER ELEV.
EXIST. TOP OF CURB ELEV.
EXIST. FINISH FLOOR ELEV.
EXIST. GARAGE FLOOR ELEV.
PROP. GRADE SPOT ELEV.
PROP. TOP OF CURB & FINISHED GRADE ELEV.
PROP. FINISHED FLOOR ELEV.
PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
PROP. TOP OF EXTENDED CURB, (GH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB



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File: F:\DEC\PC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254SS01.dwg, ----> 09 GRADING PLAN

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DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE:
GRADING PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V) | DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-109.00 9 OF 16 | Rev. #: 1

GRADING/UTILITY GRAPHIC LEGEND

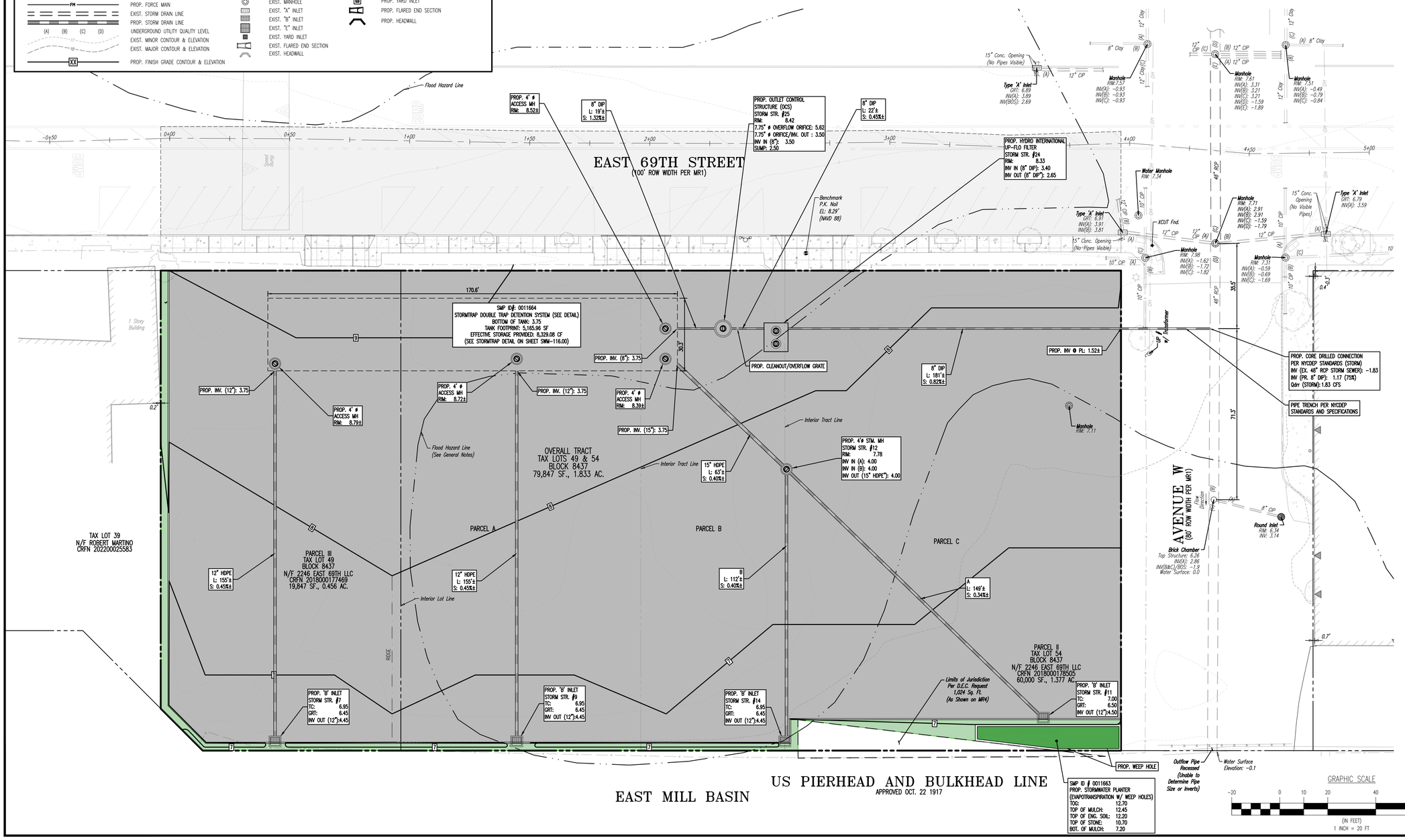
PROPERTY LINE (PARCEL IN QUESTION)
OFF-SITE PROPERTY LINES
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PROP. CABLE LINE
EXIST. ELECTRIC LINE
PROP. ELECTRIC LINE
EXIST. FIBER OPTIC LINE
PROP. FIBER OPTIC LINE
EXIST. GAS LINE
PROP. GAS LINE
EXIST. OVERHEAD WIRES
PROP. OVERHEAD WIRES
EXIST. TELEPHONE LINE
PROP. TELEPHONE LINE
EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
EXIST. WATER LINE
PROP. WATER LINE
EXIST. FIRE SERVICE
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EXIST. SANITARY SEWER LINE
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EXIST. FORCE MAIN
PROP. FORCE MAIN
EXIST. STORM DRAIN LINE
PROP. STORM DRAIN LINE
UNDERGROUND UTILITY QUALITY LEVEL
EXIST. MINOR CONTOUR & ELEVATION
EXIST. MAJOR CONTOUR & ELEVATION
PROP. FINISH GRADE CONTOUR & ELEVATION

EXIST. MONITORING WELL
APPROX. TEST PIT LOCATION
EXIST. SPOT ELEVATIONS
EXIST. GUTTER ELEV.
EXIST. TOP OF CURB ELEV.
EXIST. FINISH FLOOR ELEV.
EXIST. GARAGE FLOOR ELEV.
EXIST. FIRE HYDRANT
EXIST. WATER VALVE
EXIST. GAS VALVE
EXIST. GAS METER
EXIST. ELECTRIC METER
EXIST. ELECTRIC BOX
EXIST. CLEAN OUT
EXIST. WELL
EXIST. WATER SHUT OFF VALVE
EXIST. TELEPHONE BOX
EXIST. CABLE TV BOX
EXIST. UTILITY POLE
EXIST. GUY WIRE
EXIST. LIGHT POLE
EXIST. BUILDING LIGHT
EXIST. SHOE BOX LIGHT
EXIST. COBRA LIGHT POLE
EXIST. TRAFFIC SIGNAL POLE
EXIST. MANHOLE
EXIST. "A" INLET
EXIST. "B" INLET
EXIST. "C" INLET
EXIST. YARD INLET
EXIST. FLARED END SECTION
EXIST. HEADWALL

PROP. GRADE SPOT ELEV.
PROP. TOP OF CURB & FINISHED GRADE ELEV.
PROP. FINISHED FLOOR ELEV.
PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
PROP. TOP OF EXTENDED CURB, (GH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB
PROP. DIRECTION OF DRAINAGE FLOW ARROW
PROP. WATER VALVE
PROP. GAS VALVE
PROP. STORM CLEANOUT
PROP. SANITARY CLEANOUT
PROP. AREA LIGHT
PROP. OUTLET CONTROL STRUCTURE
PROP. DRAINAGE MANHOLE
PROP. SANITARY SEWER MANHOLE
PROP. "A" INLET
PROP. "B" INLET
PROP. "C" INLET
PROP. YARD INLET
PROP. FLARED END SECTION
PROP. HEADWALL

DRAINAGE NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
2. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
3. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
4. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
5. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
6. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.



US PIERHEAD AND BULKHEAD LINE
APPROVED OCT. 22 1917

EAST MILL BASIN

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File: P:\2022PC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254SSU1.DWG, ----> 10 DRAINAGE PLAN

DYNAMIC ENGINEERING CONSULTANTS, P.C. SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
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DRAWN BY: JDMS
DESIGNED BY: JCD
CHECKED BY: ZAK
CHECKED BY: —

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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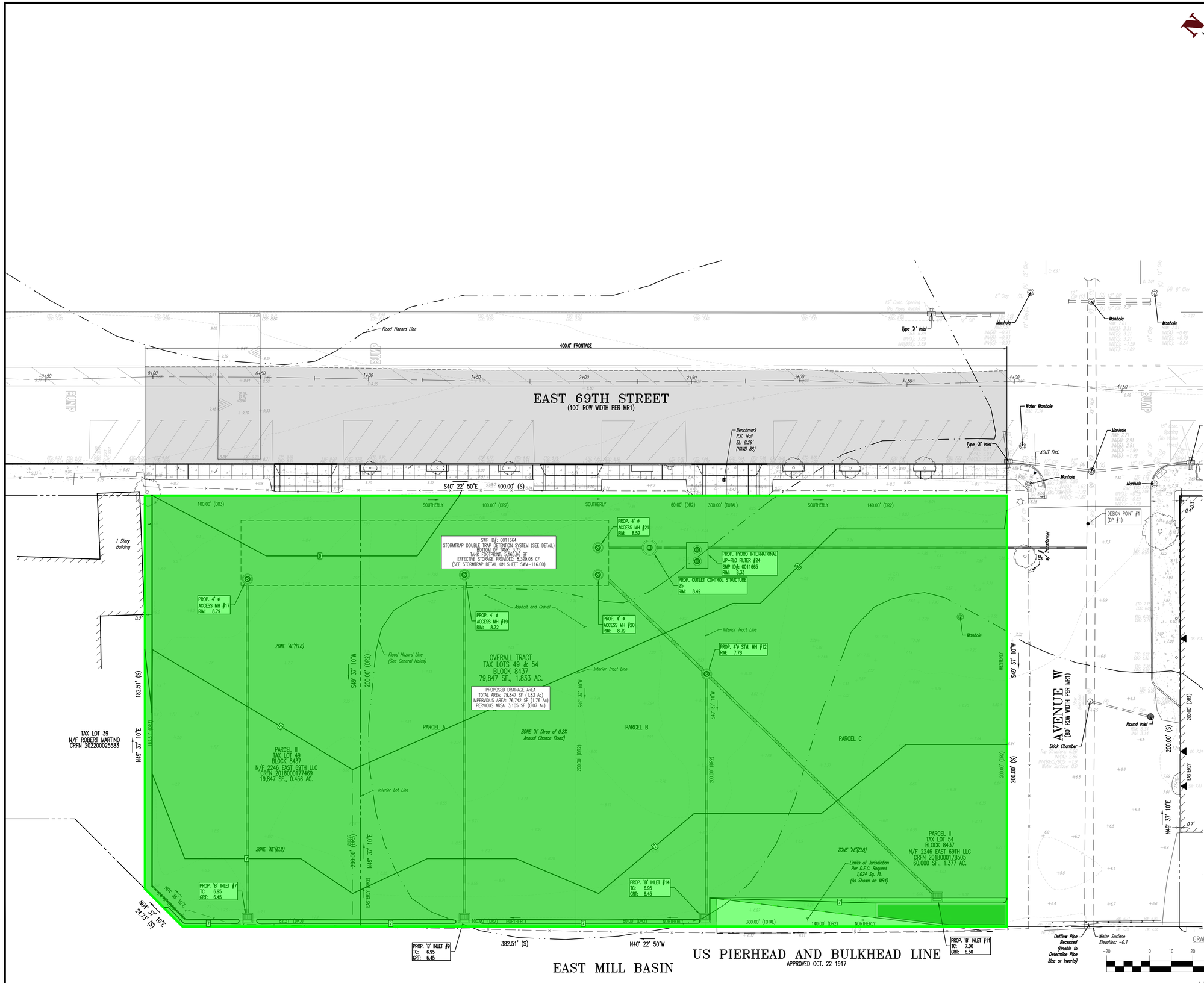
ZACHARY A. KAMM
STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE:
DRAINAGE PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V)
DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-110.00
10 OF 16
Rev. #: 1



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JDMS	11/19/2024	1	REVISED PER NYCDEP SWPPP DISAPPROVAL, DATED
	12/18/24	1	

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TITLE:
PROPOSED CONTRIBUTING DRAINAGE AREA PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20'
(V)
DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: **SWM-111.00**
11 OF 16
Rev. #: 1

Plotted: 12/20/24 - 4:46 PM By: jberrett
File: P:\DE\PC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254BSPCDA1.DWG, ----> 11 PROPOSED CONTRIBUTING DRAINAGE AREA PLAN

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SOIL EROSION & SEDIMENT CONTROL NOTES:

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BE BOUND IN ACCORDANCE WITH THE STATE STANDARDS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
3. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO STATE STANDARDS.
4. STABILIZATION SPECIFICATIONS – TEMPORARY SEEDING AND MULCHING:
   – LIME – 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER – 11 LBS/1,000 SF; 10–20–10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4".
   – SEEDS:
   COOL SEASON:
   PERENNIAL RYE GRASS 100LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
   WARM SEASON:
   PEARL MILLET AT 20 LBS/AC. OR OTHER APPROVED SEEDS; PLANT BETWEEN MAY 15 AND AUGUST 15.
   – MULCH – SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF TO BE APPLIED ACCORDING TO THE STATE STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER.
5. TEMPORARY BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS IN ACCORDANCE WITH THE STATE STANDARDS.
6. A SUB–BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, SUB–BASE WILL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.
7. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUN–OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
8. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACK FILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES CREATER 3:1).
9. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
10. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOOD PLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES MUST BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE.
11. A CRUSHED STONE VEHICLE WHEEL CLEANING BLANKET WILL BE INSTALLED IMMEDIATELY AFTER INITIAL SITE DISTURBANCE AND WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. BLANKET SHALL BE 1–1/2" TO 2" CRUSHED STONE AND AT LEAST 30' X 100', AND MUST BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.
12. MAXIMUM SLIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
13. ANY INDIVIDUAL ACCESS ROADS OR DRIVES MUST BE STABILIZED WITH 2–1/2" CRUSHED STONE PRIOR TO COMMENCEMENT OF CONSTRUCTION IN THAT AREA.
14. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
15. ALL CATCH BASIN INLETS MUST BE PROTECTED WITH A CRUSHED STONE OR HAY BALE FILTER (SEE DETAIL).
16. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUT FALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
17. ALL DE–WATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHALL BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC (SEE DETAIL).
18. PERMANENT VEGETATION TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
19. PERMANENT STABILIZATION SPECIFICATIONS: SEEDING
20. PERMANENT STABILIZATION SPECIFICATIONS: MULCHING
    A. MULCH MATERIALS TO BE UNROTTED SALT HAY, HAY, OR SMALL GRAIN STRAW AT THE RATE OF 1.5 TO 2 TONS PER ACRE OR 70 TO 90 POUNDS PER 1,000 SQ. FT.
    B. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF SOIL SURFACE WILL BE COVERED.
    C. MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY ONE OF THE FOLLOWING METHODS:
    (1) PEG AND TWINE
    (2) MULCH NETTING
    (3) LIQUID MULCH–BINDERS
21. ALL UNSTABILIZED AREAS TO BE SPRINKLED WITH WATER UNTIL WET AT THE BEGINNING OF EACH DAY TO CONTROL DUST.
22. ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF 12" OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION.
23. AT THE TIME OF SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION, ANY SOIL NOT SUITABLE TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER WILL BE REMOVED OR TREATED IN SUCH A WAY TO PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. (IF REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON–VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE PROVIDED.)
24. ALL SITE WORK FOR SITE PLANS WILL HAVE TO BE COMPLETED PRIOR TO THE SOIL CONSERVATION DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY .
25. THE SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF SITE EROSION PROBLEMS DURING CONSTRUCTION. THE DISTRICT SHALL BE NOTIFIED IN WRITING 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY LAND DISTURBANCE.
26. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RECERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

STABILIZATION SPECIFICATIONS - PERMANENT SEEDING

– PERMANENT STABILIZATION SPECIFICATIONS: SEEDING
1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN
2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

PERENNIAL RYEGRASS	1/2 LB/1,000 SQ. FT
KENTUCKY BLUEGRASS	1 LB/1,000 SQ. FT
	1 1/2 LB/1,000 SQ. FT
SPREADING RESCUE	1 1/2 LB/1,000 SQ. FT
FERTILIZER (20:10:10)	14 LB/1,000 SQ. FT

3. GERMINATION RATES WILL VARY AS TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

– PERMANENT STABILIZATION SPECIFICATIONS: MULCHING
1. MULCH MATERIALS TO BE UNROTTED SALT HAY, HAY, OR SMALL GRAIN STRAW AT THE RATE OF 1.5 TO 2 TONS PER ACRE OR 70 TO 90 POUNDS PER 1,000 SQ. FT.
2. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF SOIL SURFACE WILL BE COVERED.
3. MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY ONE OF THE FOLLOWING
   (1) PEG AND TWINE
   (2) MULCH NETTING
   (3) LIQUID MULCH–BINDERS

SEQUENCE OF CONSTRUCTION:

PHASE # 1: PROJECT CONSTRUCTION

STAGE #1: SITE CLEARING, SHED DEMOLITION AND PAVEMENT DEMOLITION
CONSTRUCTION ACTIVITY: DEMOLITION AND REMOVAL OF EXISTING DEBRIS; DEMOLITION AND REMOVAL OF THE EXISTING SHEDS & PAVEMENT SECTIONS
PRACTICE(S) INSTALLED PRIOR TO ACTIVITY: SILT FENCE; STABILIZED CONSTRUCTION ENTRANCE; INLET PROTECTION (SITE)
PRACTICES INSTALLED DURING ACTIVITY: SOIL STOCKPILE
PRACTICES INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY: TEMPORARY STABILIZATION

STAGE #2: UNDERGROUND STORMWATER INFRASTRUCTURE
CONSTRUCTION ACTIVITY: INSTALLATION OF STORMWATER CONVEYANCE PIPING, DETENTION AND WATER QUALITY SYSTEMS.
PRACTICE(S) INSTALLED PRIOR TO ACTIVITY: SILT FENCE; STABILIZED CONSTRUCTION ENTRANCE; INLET PROTECTION (SITE)
PRACTICES INSTALLED DURING ACTIVITY: NONE
PRACTICES INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY: NONE

STAGE #3: EARTHWORK, SITE GRADING AND FRONTAGE IMPROVEMENTS
CONSTRUCTION ACTIVITY: GRADING AND EARTHWORK ON SITE; INSTALLATION OF FRONTAGE IMPROVEMENTS (CURBING, SIDEWALK AND PAVEMENT RESTORATION.
PRACTICE(S) INSTALLED PRIOR TO ACTIVITY: SILT FENCE; STABILIZED CONSTRUCTION ENTRANCE; INLET PROTECTION (ROW); CONCRETE WASHOUT FACILITY
PRACTICES INSTALLED DURING ACTIVITY: NONE
PRACTICES INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY: NONE

STAGE #4: FINAL PACING AND LANDSCAPING
CONSTRUCTION ACTIVITY: CONCRETE CURBING, ASPHALT PAVING AND FINAL LANDSCAPING IS COMPLETED
PRACTICE(S) INSTALLED PRIOR TO ACTIVITY: SILT FENCE; STABILIZED CONSTRUCTION ENTRANCE; INLET PROTECTION (SITE); CONCRETE WASHOUT FACILITY

PRACTICES INSTALLED DURING ACTIVITY: FINAL STABILIZATION
PRACTICES INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY: NONE

STABILIZATION SPECIFICATIONS - TEMPORARY SEEDING AND MULCHING

– LIME – 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER – 11 LBS/1,000 SF; 10–20–10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4".

– SEEDS:

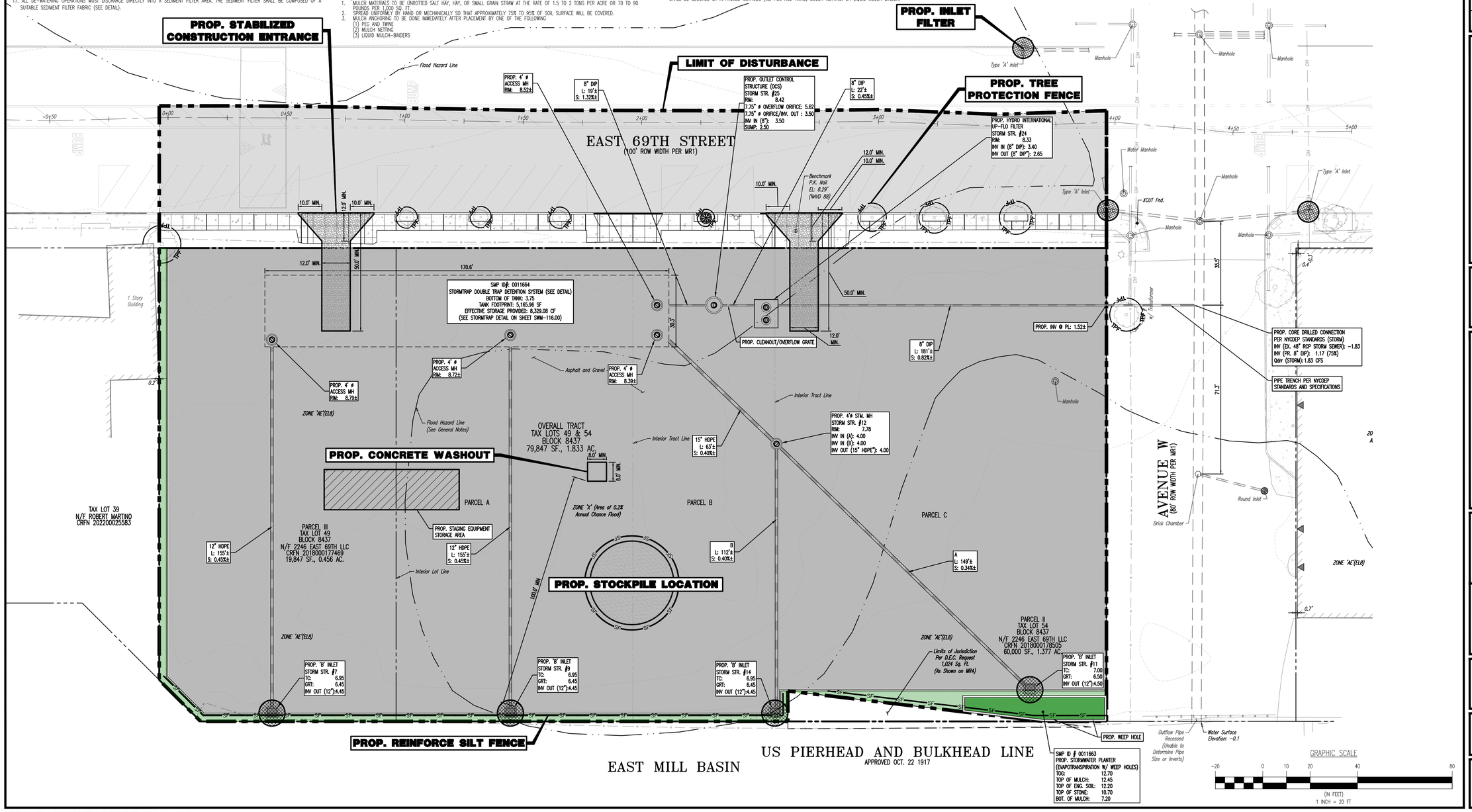
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THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

SEE SHEET 13 OF 16 FOR SOIL EROSION & SEDIMENT CONTROL DETAILS

LIMIT OF DISTURBANCE (TOTAL) = 102,522 SF. (2.35 Ac.)
LIMIT OF DISTURBANCE (ON-SITE) = 79,153 SF. (1.82 Ac.)
LIMIT OF DISTURBANCE (R.O.W.) = 23,369 SF. (0.54 Ac.)



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JDMS	1	12/18/24	REVISED PER NYCDEP SWPPP DISAPPROVAL DATED 11/19/2024

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TITLE:
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ALT CO #B01097393–I1

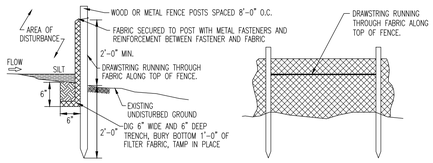
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Plotted: 12/20/24 – 4:47 PM, By: iperrett
File: P:\[DEC]PC PROJECTS\4918 Turnbridge Equities\23–02548 Brooklyn NY\Dwg\Site Plans\U4918230254BSE1.dwg, ----> 12 SOIL EROSION & SEDIMENT CONTROL PLAN

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THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY



1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5 PERCENT
3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE SIDES.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
5. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE TOWNSHIP ENGINEER OR SOIL CONSERVATION DISTRICT.
6. THE BARRIER SHALL BE REMOVED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD A MIN. DIAMETER THICKNESS OF 1 1/2 INCHES.
8. A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
9. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE GROUND. FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

REINFORCED SILT FENCE DETAIL
NOT TO SCALE

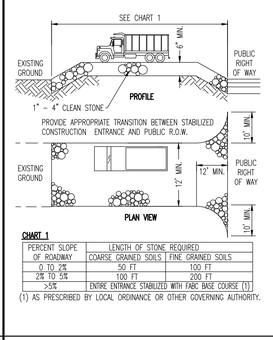


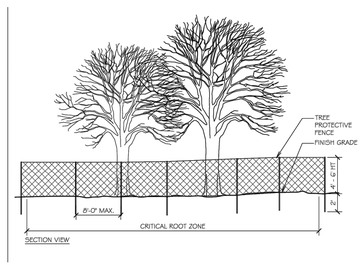
CHART 1

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200 FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1)	

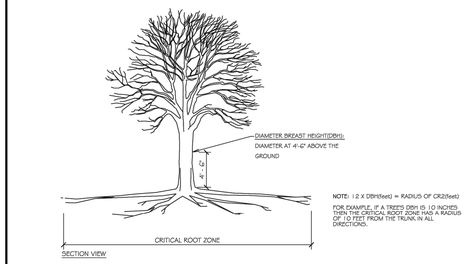
(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

1. STONE SIZE – USE 1–4 INCH STONE OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE, IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



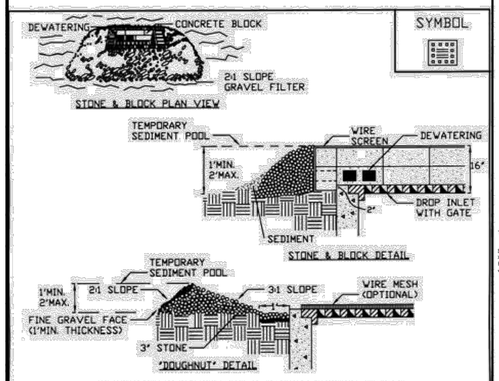
TREE PROTECTIVE FENCE FOR GROVES DETAIL
NOT TO SCALE



NOTE: 12 X DBH(feet) = RADIUS OF CRZ(feet)

FOR EXAMPLE, IF A TREE'S DBH IS 1.0 INCHES THEN THE CRITICAL ROOT ZONE HAS A RADIUS OF 10 FEET FROM THE TRUNK IN ALL DIRECTIONS.

CALCULATING CRITICAL ROOT ZONE DETAIL
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

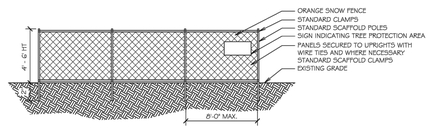
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2–3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAXIMUM DRAINAGE AREA 1 ACRE

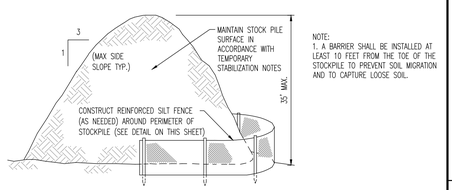
ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE.

STONE & BLOCK DROP INLET PROTECTION

INLET FILTER COMBINED DETAIL
NOT TO SCALE

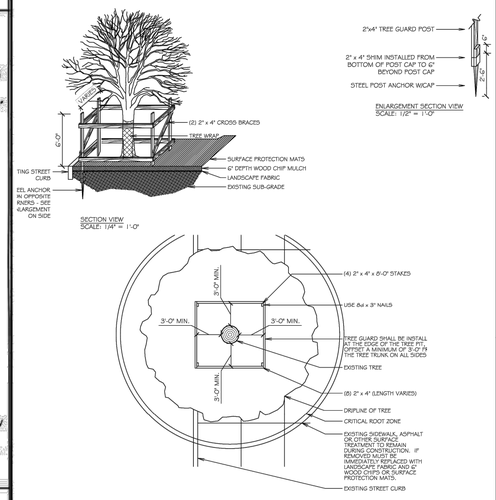


TREE PROTECTIVE DETAIL
NOT TO SCALE

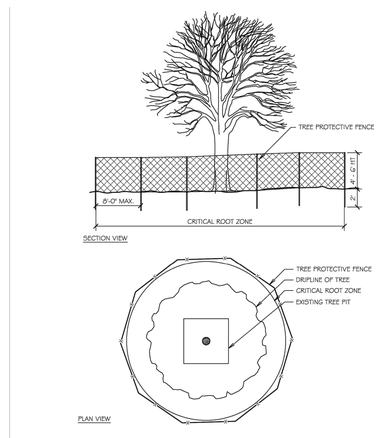


NOTE:
1. A BARRIER SHALL BE INSTALLED AT LEAST 10 FEET FROM THE TOE OF THE STOCKPILE TO PREVENT SOIL MIGRATION AND TO CAPTURE LOOSE SOIL.

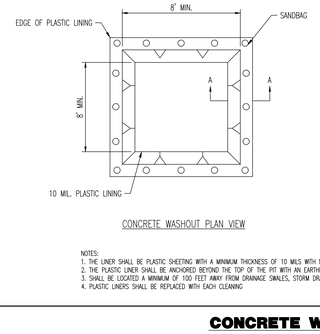
TEMPORARY STOCKPILE DETAIL
NOT TO SCALE



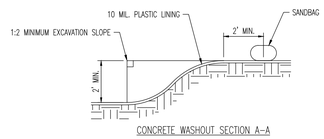
TREE GUARD WITH CRITICAL ROOT ZONE GROUND PROTECTION DETAIL
NOT TO SCALE



TREE PROTECTIVE FENCE AT CRITICAL ROOT ZONE DETAIL
NOT TO SCALE



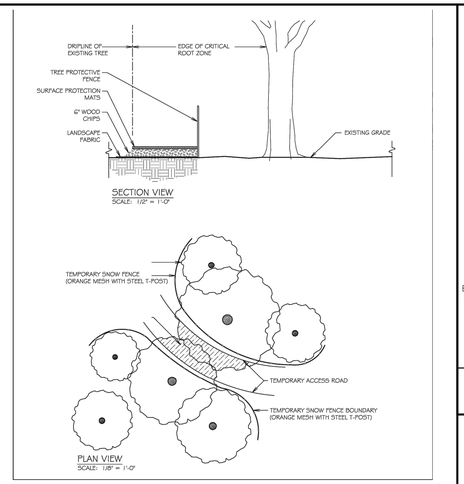
CONCRETE WASHOUT PLAN VIEW



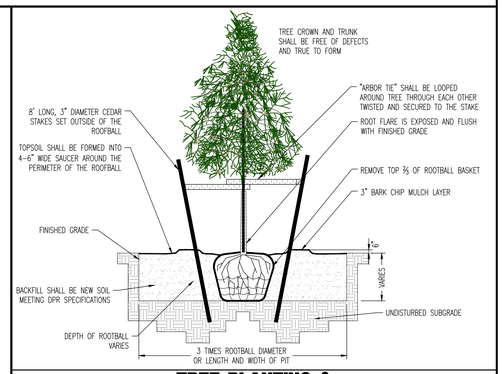
CONCRETE WASHOUT SECTION A–A

NOTES:
1. THE LINER SHALL BE PLASTIC SHEETING WITH A MINIMUM THICKNESS OF 10 MILS WITH NO HOLES OR TEARS
2. THE PLASTIC LINER SHALL BE ANCHORED BEYOND THE TOP OF THE PIT WITH AN EARTHEN BERM, SAND BAG, STONE OR OTHER STRUCTURAL MATERIAL, EXCEPT AT ACCESS POINT
3. SHALL BE LOCATED A MINIMUM OF 100 FEET AWAY FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS
4. PLASTIC LINERS SHALL BE REPLACED WITH EACH CLEANING

CONCRETE WASHOUT DETAIL



TREE PROTECTIVE FENCE WITH GROUND PROTECTION DETAIL
NOT TO SCALE



TREE PLANTING & STAKE DETAIL
NOT TO SCALE

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REV.	DATE	COMMENTS	BY
1	12/18/24	REVISED PER NYCDEP SWPPP DISAPPROVAL, DATED 11/19/2024	JDMS

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DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

PROJECT: **2300 69 STREET PROPERTY LLC**
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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NEW YORK LICENSE No. 097639

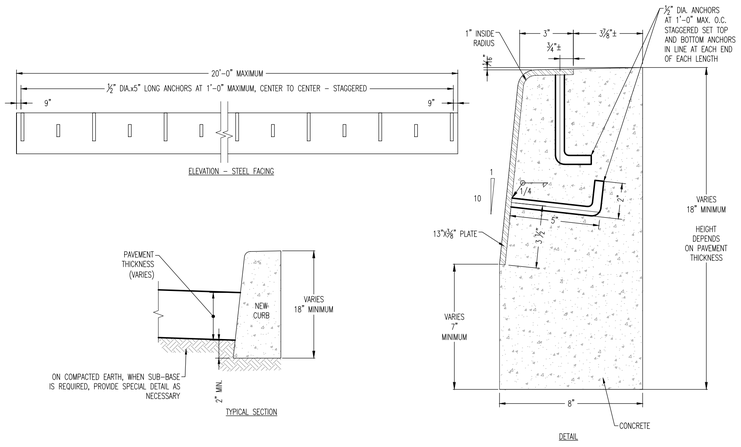
TITLE: **SOIL EROSION & SEDIMENT CONTROL DETAILS**
ALT CO #B01097393–11

SCALE: (W) AS (V) SHOWN | DATE: 09/06/2024
PROJECT No: 4918–23–02548

SHEET No: **SWM–113.00** 13 OF 16 | Rev. #: 1

Plotted: 12/20/24 – 4:47 PM, By: jberrett
File: P:\DEC/PC PROJECTS\4918 Turnhofger Equities\23–02548 Brooklyn NY\Dwg\Site Plans\04918230254SSE1.dwg, ----> 13 SOIL EROSION & SEDIMENT CONTROL DETAILS

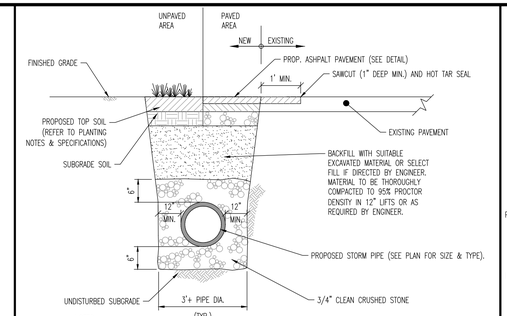
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NOTES:

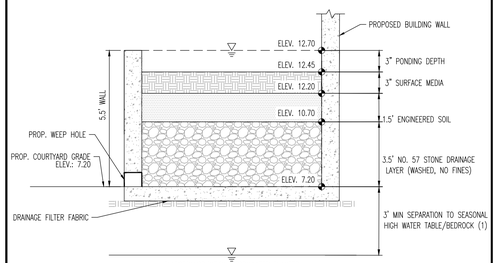
1. EXPANSION JOINTS IN THE STEEL CURB FACING AND CONCRETE BACKING SHALL BE AT A MAXIMUM SPACING OF 24 FEET.
2. THE EXPANSION JOINTS OF THE CURB AND STEEL CURB FACING SHALL LINE UP WITH THE EXPANSION JOINTS OF THE CONCRETE SIDEWALKS, WHEREVER POSSIBLE.
3. NO PIECE OF STEEL CURB FACING HAVING LESS THAN TWO (2) WELDED DOWELS MAY BE INSTALLED UNLESS IT IS WELDED TO THE ADJACENT STEEL CURB FACING.
4. 1/2"DIA.x6" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.
5. STRUCTURAL STEEL (ASTM DESIGNATION A36).
6. SURFACE TO BE CLEANED AND PAINTED AS PER NYCDOT STANDARDS HIGHWAY SPECIFICATIONS, SECTION 2.13 COLOR OF TOP COAT SHALL BE GRAY AS APPROVED BY THE ENGINEER.
7. WHERE TWO (2) PIECES OF STEEL CURB FACING ARE JOINED BUT NOT WELDED, TWO (2) ONE-HALF (1/2) INCH RODS, TWENTY FOUR (24) INCHES LONG SHALL BE INSERTED INTO THE CONCRETE BACKING, ONE-HALF (1/2) THE LENGTH AT EACH SIDE OF THE JOINT.
8. CONCRETE TO BE CLASS B-32, AIR-ENTRAINED.
9. CORNER CURB: VERTICAL FACE WILL BE ACCEPTABLE FOR CORNER CURB PROVIDING THE ENDS ARE WARPED TO FORM A TRANSISION WITH ADJACENT BATTERED FACE CURBS.

STEEL FACED CONCRETE CURB - STEEL FACING
TYPE D NYCDOT STD H-1010
NOT TO SCALE



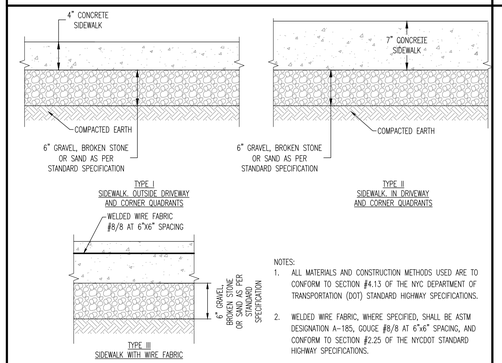
NOTES:
1. PAVEMENT SECTION SHALL BE PER PAVEMENT DETAIL OR TO MATCH ADJOINING EXISTING PAVEMENT SECTION.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST OSHA STANDARDS.
3. ALL TRENCHES IN EXISTING PAVEMENT SHALL BE SAWCUT.
4. ALL DISTURBED TRAFFIC STRIPING AND PAVEMENT MARKING SHALL BE REPLACED WITH KIND MATERIAL.

STORM SEWER TRENCH DETAIL
NOT TO SCALE



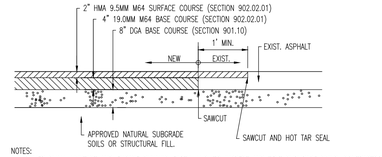
1. VERTICAL SEPARATION REQUIREMENTS ARE WAIVED FOR PRACTICES ENCLOSED IN CONCRETE WITH ADEQUATE ANCHORING TO WITHSTAND UPLIFT PRESSURES.
2. REFER TO STRUCTURAL PLANS FOR ALL WALL AND SLAB DIMENSIONING AND REQUIRED REINFORCEMENT.

EVAPOTRANSPIRATION STORMWATER PLANTER DETAIL
NOT TO SCALE



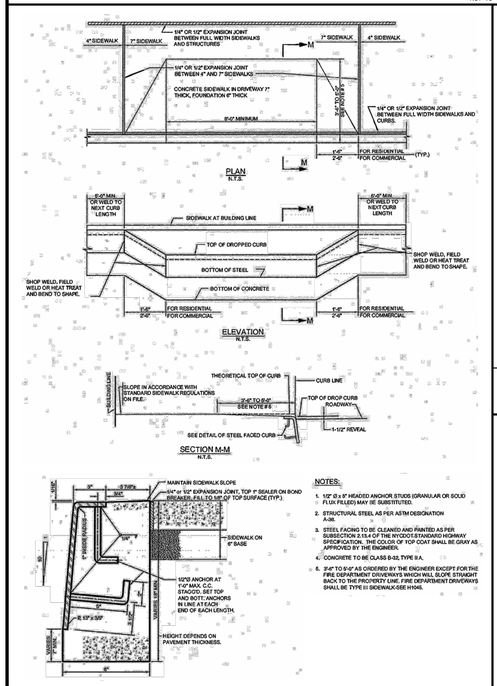
NOTES:
1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION #4.13 OF THE NYC DEPARTMENT OF TRANSPORTATION (DOT) STANDARD HIGHWAY SPECIFICATIONS.
2. WELDED WIRE FABRIC, WHERE SPECIFIED, SHALL BE ASTM DESIGNATION A-185, GOUGE #8/8 AT 6"x6" SPACING, AND CONFORM TO SECTION #2.25 OF THE NYCDOT STANDARD HIGHWAY SPECIFICATIONS.

CONCRETE SIDEWALK - NYCDOT STD H-1045
NOT TO SCALE



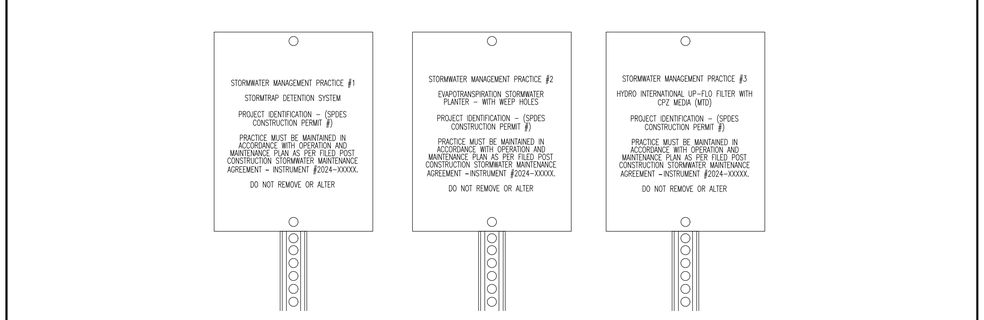
NOTES:
1. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
2. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
3. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

ASPHALT PAVEMENT DETAIL
NOT TO SCALE

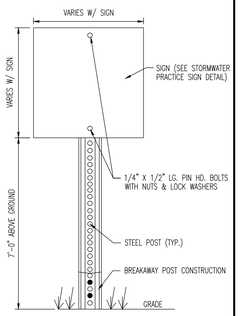


NOTES:
1. 1/2" Ø x 6" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.
2. STRUCTURAL STEEL AS PER ASTM DESIGNATION A-36.
3. STEEL FACING TO BE CLEANED AND PAINTED AS PER SUBSECTION 2.13.4 OF THE NYCDOT STANDARD HIGHWAY SPECIFICATION. THE COLOR OF TOP COAT SHALL BE GRAY AS APPROVED BY THE ENGINEER.
4. CONCRETE TO BE CLASS B-32, TYPE II A.
5. 3'-6" TO 5'-6" AS ORDERED BY THE ENGINEER EXCEPT FOR THE FIRE DEPARTMENT DRIVEWAYS WHICH WILL SLOPE STRAIGHT BACK TO THE PROPERTY LINE. FIRE DEPARTMENT DRIVEWAYS SHALL BE TYPE III SIDEWALK-SEE HIGHL

STEEL FACED DROP CURB - DRIVEWAYS
NYCDOT STD H-1015
NOT TO SCALE



STORMWATER PRACTICE SIGN DETAILS
NOT TO SCALE



SIGN POST DETAIL
NOT TO SCALE

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REV.	DATE	COMMENTS	BY
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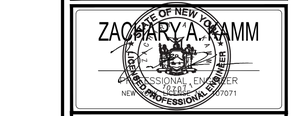
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DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: –

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
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BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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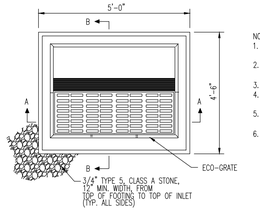
TITLE: CONSTRUCTION DETAILS
ALT CO #B01097393-I1

SCALE: (H) AS (V) SHOWN | DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-114.00 | Rev. #: 1
14 OF 16

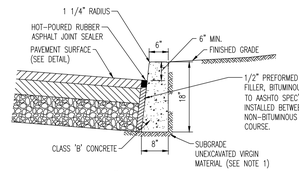
Plotted: 12/20/24 – 4:47 PM, By: jberrett
File: P:\DEDPC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230254BSD1.DWG, ----> 14 CONSTRUCTION DETAILS

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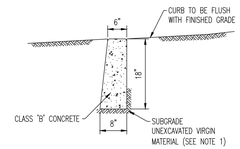


NOTES
1. CONSTRUCTION PER ASTM C-913, LATEST REVISION & H5-20 LOADING.
2. ALL CAST IN PLACE CONCRETE TO BE N.Y.S.D.O.T. CLASS "A" CONCRETE.
3. WALLS SHALL BE PRECAST CONCRETE ONLY.
4. FRAME AND GRATE TO BE CAMPBELL FOUNDRY CO., NO. 2618 BICYCLE SAFE N-ECO GRATE SET IN CONC.
5. STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG @ 12" O.C.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW 8'-0" MEASURED FROM GRATE TO INVERT SHALL BE 12" THICK AND EXTEND 12" BEYOND OUTSIDE OF WALL.

TYPE 'B' INLET
NOT TO SCALE



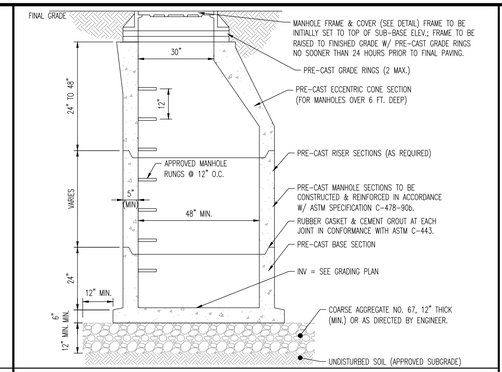
6" CURB REVEAL



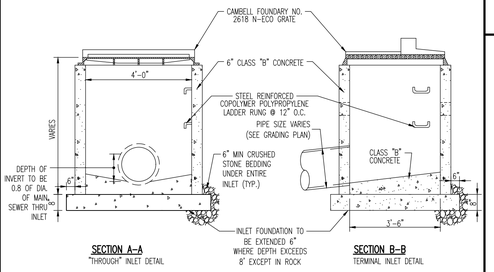
FLUSH CURB

NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO POURING.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTOM-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.
3. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
4. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".

CONCRETE CURB DETAIL
NOT TO SCALE

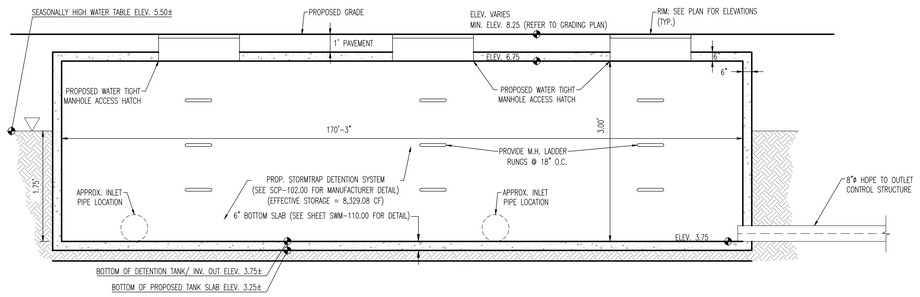


TYPICAL PRECAST STORM MANHOLE
NOT TO SCALE



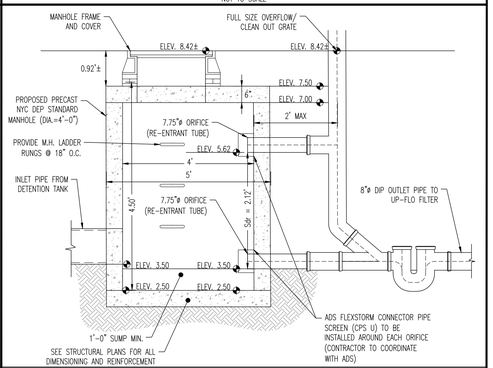
SECTION A-A
"THROUGH" INLET DETAIL

SECTION B-B
TERMINAL INLET DETAIL

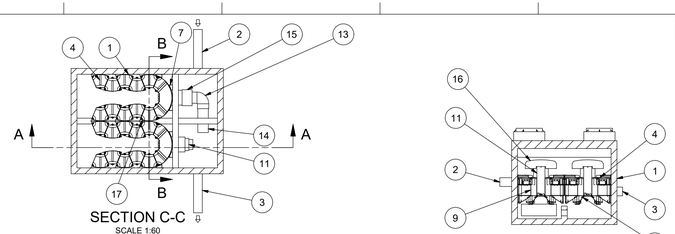


NOTES:
1. TANK FOOTPRINT = 5,164.96 SF (SEE SHEET SWM-110.00)
2. EFFECTIVE STORAGE AREA BETWEEN ELEVATIONS 3.75 AND 6.75 = 8,329.08 CF (SEE SHEET SWM-110.00)

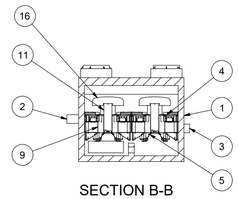
STORMTRAP DETENTION TANK DETAIL
NOT TO SCALE



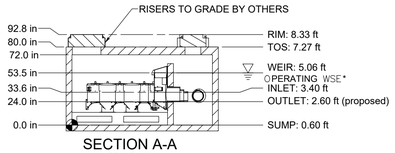
OUTLET CONTROL STRUCTURE DETAIL
NOT TO SCALE



SECTION C-C
SCALE 1:60



SECTION B-B
SCALE 1:60



SECTION A-A
SCALE 1:60

CAPACITIES:
1. MINIMUM PERFORMANCE: 80% REMOVAL. NJDEP - NJDEP BLEND; NJCAT, SIL-CO-SIL 106 (d50 = 22 MICRONS) AT THE PEAK TREATMENT FLOW.
2. MAXIMUM NUMBER OF MODULES PER OUTLET MODULE: 38
3. NJDEP PEAK TREATMENT FLOW: .056 cfs (25 gpm) per module, CPZ

ADDITIONAL DESIGN INFORMATION:
1. * NORMAL OPERATING W.S.E. IS 2.46' ABOVE THE OUTLET INVERT AT THE PEAK TREATMENT FLOW OF .056 cfs (25 gpm) per module. FOR A GIVEN FLOW THE HEAD REQUIREMENT CAN BE REDUCED BY ADDING ADDITIONAL FILTERS.
2. UNIT SHALL CONFORM TO HS20-44 LOAD RATINGS.

CONTRACTOR NOTES:
1. STRUCTURE WALL AND SLAB THICKNESS ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING THE STRUCTURE.
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.
4. CONTRACTOR IS RESPONSIBLE FOR MATERIALS AND LABOR TO BRING CASTINGS TO FINISHED GRADE.
5. ACTUAL DEPTH OF STRUCTURE MAY VARY DEPENDING ON AVAILABLE PRECAST FORMS. CONTRACTOR TO MEASURE HEIGHT OF STRUCTURE TO ENSURE THAT DEPTH OF EXCAVATION IS CORRECT.
6. UNIT MUST BE INSTALLED ON A LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM OF 6" LEVEL ROCK BASE UNLESS SPECIFIED. CONTRACTOR IS RESPONSIBLE TO VERIFY BASE SPECIFICATIONS.
7. ALL PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT OR BOOTS AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.

REVISION HISTORY				
REV	DESCRIPTION	BY	CHK	DATE
-	FIRST RELEASE	EKM	JDP	12/17/2024

PARTS LIST				
ITEM	QTY	DESCRIPTION	TYPE	SIZE (in)
1	1	PRECAST VAULT		8ft X 12ft
2	1	UFF INLET PIPE	DIP	8
3	1	UFF OUTLET PIPE	DIP	8
4	24	MODULE LID		
5	10	SUPPORT FRAME		
6	2	COVER 30 IN		30
7	6	TRIANGLE SUPPORT BRACKET		
8	2	COVER 24 IN		24
9	24	MODULE BODY		
10	4	SUPPORT FRAME LH		
11	2	OUTLET MODULE		
12	4	SUPPORT FRAME RH		
13	1	MCMASTER-CARR 4880K173		
14	1	MCMASTER-CARR 48925K27		
15	1	FERNCO 1056-1515 & 15.2-10.6 EB		
16	2	BYPASS HOOD		
17	2	FOOT WALL MOUNTING BRACKET	CPZ	

PROJECTION

IF IN DOUBT ASK

DATE	SCALE
12/17/2024	1:60
DRAWN BY: EKM	CHECKED BY: JDP
APPROVED BY:	

Title: CPZ UP-FLO FILTER 8ft X 12ft

24 MODULES

UFF MTD1
TURNBRIDGE EQUITIES - 2240 EAST 69TH STREET - BROOKLYN
BROOKLYN, NY
Patent: www.hydro-int.com/patents

Hydro International
hydro-int.com

©2024 HYDRO INTERNATIONAL

WEIGHT:	MATERIAL:
STOCK NUMBER: 1	
DRAWING NO: 24-1264580-UFF-1	
SHEET SIZE: B	SHEET: 1 OF 2
	Rev: -

HYDRO INTERNATIONL DETAIL
NOT TO SCALE

DYNAMIC ENGINEERING CONSULTANTS, PLLC
SURVEY • TRAFFIC

BY	DESCRIPTION	DATE
JDMS	1 REVISED PER NYCDEP SWPPP DISAPPROVAL DATED 11/19/2024	12/18/24

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JDMS | DESIGNED BY: JCD | CHECKED BY: ZAK | CHECKED BY: _

PROJECT: **2300 69 STREET PROPERTY LLC**
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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NOTARY PUBLIC, STATE OF NEW YORK
REGISTERED PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: **CONSTRUCTION DETAILS**
ALT CO #B01097393-I1

SCALE: (H) AS (V) SHOWN | DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: **SWM-115.00** 15 OF 16 | Rev. #: 1

Plotted: 12/20/24 - 4:47 PM, By: jperrelli
File: P:\DEDPC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\049182302548SD1.DWG, ----> 15 CONSTRUCTION DETAILS

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GENERAL NOTES:

1. STRUCTURE PROXIMITY LOADING DISCLAIMER:

   STORMTRAP MODULES AND FOUNDATION ARE NOT DESIGNED TO ACCEPT ANY ADDITIONAL LOADING FROM ANY NEARBY STRUCTURES NEXT TO OR OVER THE TOP OF STORMTRAP. EXAMPLES OF NEARBY STRUCTURES MAY INCLUDE BUT ARE NOT LIMITED TO: BUILDINGS, FOUNDATIONS, RETAINING WALLS, LIGHT POLES, BOLLARDS, SIGNPOSTS, FENCES, ADDITIONALLY, STORMTRAP IS NOT RESPONSIBLE FOR INSTALLATION CONFLICTS ARISING FROM ANY OF THESE NEARBY STRUCTURES. IF ADDITIONAL LOADING CONSIDERATIONS ARE REQUIRED FOR STRUCTURAL DESIGN OF STORMTRAP, PLEASE CONTACT STORMTRAP IMMEDIATELY. FOR LIGHT POLES SHOWN OVER THE TOP OF THE SYSTEM, STORMTRAP WILL PROVIDE A 3'-0" LATERAL DISTANCE CAVITY AROUND THE LIGHT POLE TO ACCOMMODATE IT. THE EOR TO TAKE RESPONSIBILITY FOR ENSURING THE LIGHT POLE IS NOT IMPACTING ANY LOADING ON THE STORMTRAP MODULES AND FOUNDATION.

2. TREE LOADING DISCLAIMER:

   THE NUMBER OF TREES OR WEIGHT OF TOTAL PLANT MATERIAL PRESENT ON TOP OF A SINGLE STORMTRAP MODULE SHALL NOT EXCEED 16,000 LBS. THE REQUIREMENTS LISTED HERE APPLY AT BOTH THE TIME OF INSTALLATION AND FOR THE LIFE OF THE TREES AND PLANTS IN QUESTION. THE EOR AND LANDSCAPE ARCHITECT ARE RESPONSIBLE FOR ENSURING THAT TREE AND OTHER PLANT ROOTS DO NOT INTERFERE WITH OR COMPROMISE THE FUNCTIONAL AND STRUCTURAL INTEGRITY OF STORMTRAP'S UNDERGROUND MODULES. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ROOT GROWTH INTO THE STORMTRAP SYSTEM FROM ADJACENT OR OVERHEAD TREES. FURTHERMORE, THE ROOTS OF THE TREES MUST BE CONTAINED TO PREVENT FUTURE DAMAGE TO THE STORMTRAP SYSTEM. STORMTRAP ACCEPTS NO LIABILITY FOR DAMAGES CAUSED BY TREES OR OTHER VEGETATION PLACED AROUND OR ON TOP OF THE SYSTEM.

3. PRE-TREATMENT/SEDIMENT/FILTER CHAMBER DISCLAIMER:

   FOR SYSTEMS CONTAINING PRE-TREATMENT, SEDIMENTATION AND/OR FILTER CHAMBERS; IF REQUIRED TO BE SEALED TO PREVENT SAND AND/OR PRE-TREATED WATER FROM MIGRATING INTO ADJOINING MODULES, IT IS THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT THOSE MODULES ARE SEALED.

4. OUTLET CONTROL STRUCTURE DISCLAIMER (IF SHOWN ON THESE PLANS):

   IF A WATERTIGHT SOLUTION IS REQUIRED FOR AN OUTLET CONTROL STRUCTURE, ALL EXTERIOR COLD JOINTS, INCLUDING JOINT BETWEEN TOP AND BASE OF ADJOINING SYWONS WALLS, AND JOINTS BETWEEN MODULE AND ADJACENT END PANELS WILL BE THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO PROVIDE AND INSTALL THE WATERTIGHT APPLICATION PER THE EOR'S SPECIFICATION.

StormTrap
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4548 / F:331-318-5547

ENGINEER INFORMATION:
Dynamic Engineering
50 Park Place
Mezzanine Level
Newark, NJ
973-755-7200

PROJECT INFORMATION:
2300 E 69th Street
Brooklyn, NY

CURRENT ISSUE DATE:
11/20/2024

ISSUED FOR:
PRELIMINARY

REV.	DATE:	ISSUED FOR:	OWN BY:
1	11/20/2024	PRELIMINARY	SG
1	08/12/2024	PRELIMINARY	LR

SCALE: NTS

SHEET TITLE: GENERAL NOTES

SHEET NUMBER: 1.0

STRUCTURAL DESIGN LOADING CRITERIA

LIVE LOADING AASHTO HS-20 HIGHWAY LOADING

GROUND WATER TABLE @ 5.50
SOIL BEARING PRESSURE 2000 PSF

SOIL DENSITY 120 PCF

EQUIVALENT UNSATURATED
LATERAL ACTIVE EARTH PRESSURE:35 PSF / FT.

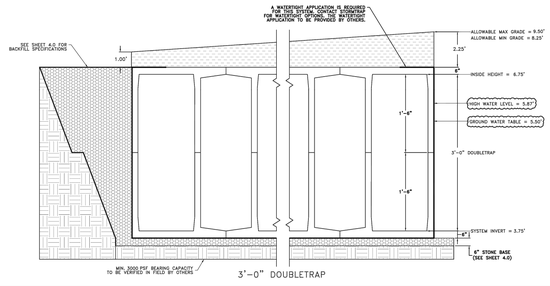
EQUIVALENT SATURATED
LATERAL ACTIVE EARTH PRESSURE:80 PSF/FT. (IF WATER TABLE PRESENT)
APPLICABLE CODES: AASHTO LRFD 2017
ACI-318
BACKFILL TYPE:SEE SHEET 4.0 FOR BACKFILL OPTIONS

STORMTRAP SYSTEM INFORMATION

UNIT HEADROOM: 3'-0" DOUBLETRAP
WATER STORAGE PROV
ELEV. 3.72'-5.83' - 8,329.08 CUBIC FEET

SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.00' MAX. 2.25' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE @ 5.50'. IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.
5. SYSTEM DESIGN INTENT IS TO CONTAIN WATER AND / OR PREVENT GROUNDWATER MIGRATION INTO THE SYSTEM. IF A WATERTIGHT SOLUTION IS REQUIRED FOR AN OUTLET CONTROL STRUCTURE, A WATERTIGHT SOLUTION IS REQUIRED FOR SEALING OF SYSTEM IF MODULE JOINTS AND SEAMS. SOLUTION TO BE PROVIDED AND INSTALLED BY CONTRACTOR IN ACCORDANCE WITH THIRD PARTY WATER-PROOFING SUPPLIER'S PRODUCT SPECIFICATIONS.

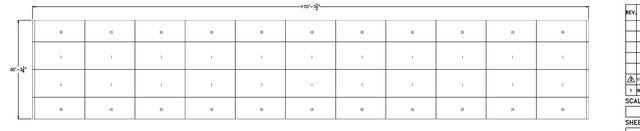


BILL OF MATERIALS

QTY.	UNIT TYPE	DESCRIPTION	TOP WEIGHT	BASE WEIGHT
64	I	3'-0" DOUBLETRAP	13877	13877
8	II	3'-0" DOUBLETRAP	–	–
64	III	3'-0" DOUBLETRAP	10746	10746
0	IV	3'-0" DOUBLETRAP	–	–
0	V1	3'-0" DOUBLETRAP	–	–
0	V1-1	3'-0" DOUBLETRAP	–	–
0	V1-2	3'-0" DOUBLETRAP	–	–
0	V1-3	3'-0" DOUBLETRAP	–	–
0	V1-4	3'-0" DOUBLETRAP	–	–
0	SPII	3'-0" DOUBLETRAP	–	–
4	T2 PANEL	8" THICK PANEL	3387	
4	T4 PANEL	8" THICK PANEL	2650	
1	6" JOINT TAPE	125' PER ROLL	–	
5	JOINT WRAP/30"	PER ROLL		
58	JOINT TAPE/4.5"	PER ROLL		
TOTAL PIECES = 88				
TOTAL PANELS = 8				
HEAVIEST PICK WEIGHT = 12,877				

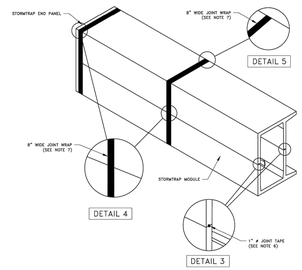
DESIGN CRITERIA
ALLOWABLE MAX GRADE = 9.50'
ALLOWABLE MIN GRADE = 8.25'
MAXIMUM ALLOWABLE GRADE = 9.75'
SYSTEM INVERT =3.75'

NOTES:
1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
4. SP = INDICATES A MODULE WITH MODIFICATIONS.
5. P = INDICATES A MODULE WITH A PANEL ATTACHMENT.
6. CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.
7. IN ORDER FOR STORMTRAP TO GENERATE APPROVAL DRAWINGS, CIVIL ENGINEERING DRAWINGS MUST BE PROVIDED TO STORMTRAP FOR REVIEW. THESE DRAWINGS MUST INCLUDE ALL PROPOSED STORMTRAP SYSTEMS, INCLUDING INVERT ELEVATIONS, FINAL GRADING PLANS SHALL ALSO INCLUDE MINIMUM AND MAXIMUM GRADES OVER THE TOP OF THE STORMTRAP SYSTEM.



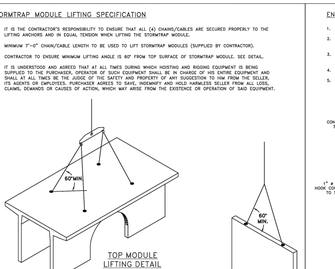
STORMTRAP INSTALLATION SPECIFICATION

1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891 (STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES). DOES NOT PRECLUDE OTHER APPLICABLE CONSTRUCTION METHODS FOLLOWING ASTM C891 IN ITS ENTIRETY AND IMPLEMENTING ALL APPROPRIATE MEASURES. THE INSTALLING CONTRACTOR OWNS AND IS RESPONSIBLE FOR THE STORMTRAP SYSTEM UPON REMOVAL OF THE MODULES FROM THE DELIVERY TRUCK THROUGH "FINAL CONSTRUCTION". FINAL CONSTRUCTION IS ACHIEVED WHEN ALL MODULES ARE SET, FULLY BACKFILLED, AND ALL SITE WORK IS COMPLETED AND STABILIZED. ALL TEMPORARY SHORING, BRACING, AND COUNTERMEASURES NECESSARY TO RESIST UPLIFT/BUOYANCY BEFORE "FINAL CONSTRUCTION" IS ACHIEVED.
2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
3. STORMTRAP MODULES CAN BE PLACED ON A LEVEL, 6" FOUNDATION OF 3" AGGREGATE EXTENDING 3'-0" PAST THE OUTSIDE OF THE SYSTEM (SEE DETAIL 2). IF THE SPACE EXISTS, THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
4. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED 3" (SEE DETAIL 2). IF THE SPACE EXCEEDS 3", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
5. STORMTRAP MODULES ARE NOT WATERTIGHT. IF A WATERTIGHT SOLUTION IS REQUIRED, CONTACT STORMTRAP FOR RECOMMENDATIONS. THE WATERTIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATERTIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER.
6. THE HORIZONTAL JOINT BETWEEN THE TOP AND BASE LEG CONNECTIONS OF ALL PERIMETER STORMTRAP MODULES SHALL BE SEALED WITH PREFORMED MASTIC JOINT TAPE ACCORDING TO ASTM C891, 8.3 AND 8.13. (SEE DETAIL 3). THE MASTIC JOINT TAPE DOES NOT PROVIDE A WATERTIGHT SEAL.
7. ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 9" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN POLYPROPYLENE FABRIC. THE JOINT WRAP SHALL BE INSTALLED ON A CLEAN, DRY SURFACE PRIMED WITH A RUBBER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 2, 4, & 5). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SOIL AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
   - 7.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE JOINT WRAP IS TO BE APPLIED.
   - 7.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
8. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
9. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND TO DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
10. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.



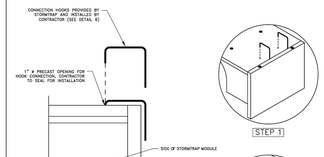
STORMTRAP MODULE LIFTING SPECIFICATION

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL (4) CHAINS/CABLES ARE SECURED PROPERLY TO THE LIFTING ANCHORS AND IN EQUAL TENSION WHEN LIFTING THE STORMTRAP MODULE.
2. MINIMUM 7'-0" CHAIN/CABLE LENGTH TO BE USED TO LIFT STORMTRAP MODULES (SUPPLIED BY CONTRACTOR).
3. CONTRACTOR TO ENSURE MINIMUM LIFTING ANGLE IS 60° FROM TOP SURFACE OF STORMTRAP MODULE. SEE DETAIL.
4. IT IS UNDERSTOOD AND AGREED THAT AT ALL TIMES DURING WHICH HOISTING AND RIGGING EQUIPMENT IS BEING SUPPLIED TO THE PURCHASER, OPERATOR OF SUCH EQUIPMENT SHALL BE IN CHARGE OF HIS ENTIRE EQUIPMENT AND SHALL AT ALL TIMES BE THE JUDGE OF THE SAFETY AND PROPERTY OF ANY SUGGESTION TO HIM FROM THE SELLER, ITS AGENTS OR EMPLOYEES. PURCHASER AGREES TO SAVE, INDEMNIFY AND HOLD HARMLESS SELLER FROM ALL LOSSES, CLAIMS, DEMANDS OR CAUSES OF ACTION, WHICH MAY ARISE FROM THE EXISTENCE OR OPERATION OF SAID EQUIPMENT.



END PANEL ERECTION/INSTALLATION SPECIFICATION

1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



ZONE CHART

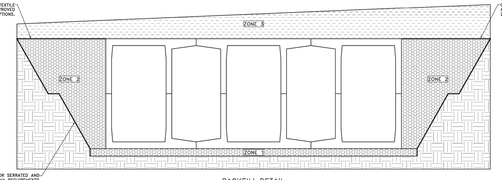
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1	FOUNDATION AGGREGATE	#1 (ET) STONE ANGULAR AGGREGATE (SEE NOTE 4)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PCF

APPROVED ZONE 2 BACKFILL OPTIONS

OPTION	REMARKS
6" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR STONE, PLACED IN THE HORIZONTAL LAYERS FROM THE 1/2" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL (WITH SIZE #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 5% PASSING THE #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL
ROAD PACK	STONE AGGREGATE: 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 15% PASSING THE #200 SIEVE (ASTM SIZE #467). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

STORMTRAP ZONE INSTALLATION SPECIFICATION/PROCEDURE

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST BE DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION, AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT THE BACKFILL IS PROPERLY PLACED AND COMPACTED. ALL BACKFILL MUST BE PLACED IN SUCH A MANNER AS TO PREVENT ANY MIGRATING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR BENCATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISTURB THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, GEOFABRIC MUST BE PLACED BETWEEN THE NATIVE EARTH AND THE BACKFILL MATERIAL. ALL BACKFILL AND COMPACTION MUST BE SET AND ALL SIDES MUST BE FULLY BACKFILLED BEFORE TRAFFIC OVERTOP THE SYSTEM IS PERMITTED. SEE NOTE 2 FOR EXCEPTIONS AND LIMITATIONS.
2. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED IN MINIMUM 6" LIFTS, AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN LIVE LOAD LISTED ON SHEET 1.0 TRAVEL OVERTOP THE SYSTEM. IF TRAVEL OVER THE SYSTEM OCCURS BEFORE THE MINIMUM DESIGN COVER IS ACHIEVED, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. IT IS THE RESPONSIBILITY OF THE OWNER TO ENSURE THAT THE LOADS ON THE SYSTEM SHALL TRAVEL PARALLEL TO THE LONGITUDINAL AXIS OF THE STORMTRAP MODULES WHENEVER POSSIBLE.
3. THE VIBRATORY FUNCTION OF ANY ROLLER, COMPACTOR, VEHICLE, ETC. SHALL NOT BE USED OVERTOP THE SYSTEM WITHOUT PRIOR APPROVAL FROM STORMTRAP. IN SOME CASES, HAND COMPACTION MAY BE NECESSARY TO ENSURE THAT THE ALLOWABLE DESIGN LOADING IS NOT EXCEEDED.
4. STONE AGGREGATE FOUNDATION IN ZONE 1 IS RECOMMENDED FOR LEVELING PURPOSES ONLY (OPTIONAL).



ACCESS OPENING SPECIFICATION

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 4'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 2'-0" OF CLEARANCE FROM THE SIDE WALL OF THE STORMTRAP MODULE (SEE DETAILS 1 & 2). UNLESS OTHERWISE NOTED, ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE LEG UNLESS OTHERWISE SPECIFIED. SEE SHEET 2.0 FOR SIZES AND LOCATIONS.
2. UNLESS OTHERWISE SPECIFIED, PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PS3-PFS OR APPROVED EQUAL (SEE STEP DETAIL) ARE PROVIDED INSIDE ANY MODULE WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL ENSUING STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE
3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)

PIPE OPENING SPECIFICATION

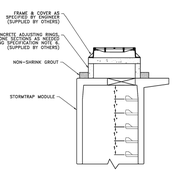
1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
2. CONNECTING PIPES MAY BE INSTALLED WITH A 1'-0" CONCRETE COLLAR AND AN INLET/OUTLET PIPE CRADLE (SEE NOTCHED PIPE CONNECTION DETAIL). THE PIPE CONNECTION DETAIL, A STRUCTURAL GRADE CONCRETE OF HIGH STRENGTH, NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MAY BE USED.
3. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

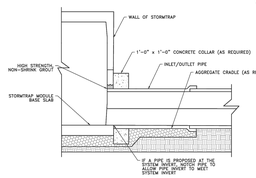
PIPE INSTALLATION INSTRUCTIONS

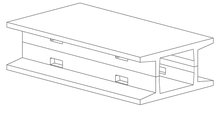
1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET INCLUDING BUT NOT LIMITED TO CONCRETE COLLARS, AGGREGATE CRADLES, GROUT, GASKETS, PIPE SEALS, ETC. ARE PROVIDED AS A GUIDE ONLY AND ARE SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE/REQUIREMENTS.

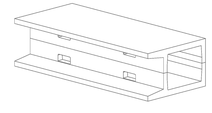














NOTES:
1. OPENING LOCATIONS AND SHAPES MAY VARY.
2. SP = INDICATES A MODULE WITH MODIFICATIONS.
3. P = INDICATES A MODULE WITH A PANEL ATTACHMENT.
4. POCKET WINDOW OPENINGS ARE OPTIONAL.

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REV.	DATE	DESCRIPTION	BY
1	12/18/24	REVISED PER NYCDEP SWPPP DISAPPROVAL DATED 11/19/2024	JDMS

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DRAWN BY: JDMS
DESIGNED BY: JCD
CHECKED BY: ZAK
CHECKED BY: —

PROJECT: 2300-69 STREET PROPERTY LLC
PROPOSED CONTRACTORS' YARD
BLOCK 8437, LOTS 49 & 54
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097071

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

TITLE: CONSTRUCTION DETAILS
ALT CO #B01097393-I1

SCALE: (H) AS (V) SHOWN
DATE: 09/06/2024
PROJECT No: 4918-23-02548

SHEET No: SWM-116.00 16 OF 16
Rev. #: 1

Plotted: 12/20/24 – 4:47 PM, By: ipernett
File: T:\DEPC PROJECTS\4918 Tumbridge Equities\23-02548 Brooklyn NY\Dwg\Site Plans\04918230225485D1.DW

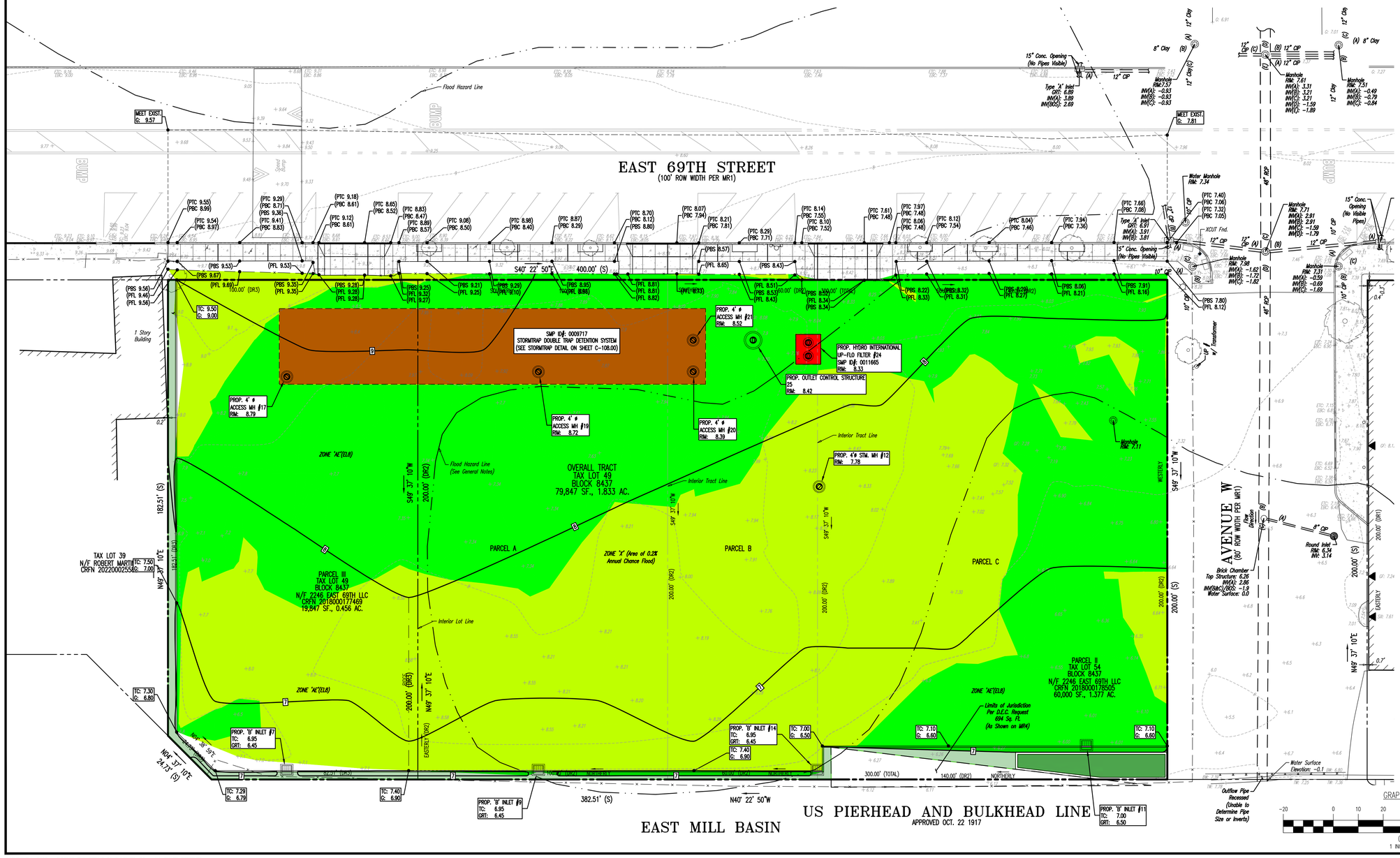
ELEVATION TABLE

NUMBER	COLOR	MINIMUM ELEVATION	MAXIMUM ELEVATION
1		-8	-6
2		-6	-4
3		-4	-2
4		-2	0
5		0	2

Volume Summary							
Name	**Type**	**Cut Factor**	**Fill Factor**	**2d Area** (Sq. Ft.)	**Cut** (Cu. Yd.)	**Fill** (Cu. Yd.)	**Net** (Cu. Yd.)
EW-EG VS FG W-STM	full	1.000	1.000	77535.02	1622.49	465.27	1157.22<Cut>

Totals				
	2d Area (Sq. Ft.)	**Cut** (Cu. Yd.)	**Fill** (Cu. Yd.)	**Net** (Cu. Yd.)
Total	77535.02	1622.49	465.27	1157.22<Cut>

* Value adjusted by cut or fill factor other than 1.0



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JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

REV.	DATE	COMMENTS	BY

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DRAWN BY: DJS
DESIGNED BY: JCD
CHECKED BY: ZAK
CHECKED BY: —

PROJECT: 2300 69 STREET PROPERTY LLC
PROPOSED COMMERCIAL VEHICLE STORAGE
BLOCK 8437, LOT 49
2240 EAST 69TH STREET
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

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TITLE:
CUT/FILL PLAN
ALT CO #B01097393-I1

SCALE: (H) 1" = 20' (V)
DATE: 08/06/2025
PROJECT No: 4918-23-02548

SHEET No: 1 OF 1
Rev. #: 0

Plotted: 08/06/25 - 6:32 PM, By: dsanderson
File: P:\DEC\PC PROJECTS\4918 Turnbridge Equities\23-02548 Brooklyn NY\Dwg_Project Source Files\VR-GRADE-SITE.DWG, ----> CUT-FILL PLAN

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Appendix C:
NYSDEC Soil Import Form

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

Site Name:

Site Number:

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that passes a size 100 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Name and address of fill source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

_____ _____

Signature Date

_____

Print Name

_____

Firm

Revised February 2025