

925 – 927 ATLANTIC AVENUE
BROOKLYN, NEW YORK 11238

Remedial Action Work Plan

NYC VCP Number: 16CVCP066K
E-Designation Site Number: 16EH-N045K
NYSDEC Spill No. 1507933
USEPA No. 1143621

Prepared for:

Elevation Holdings LLC
308 Malcolm X Boulevard
Brooklyn, NY 11233

Prepared by:

Alpha – Hydro Environmental
1503 Wave Avenue
Medford, NY 11763

APRIL 2016

REMEDIAL ACTION WORK PLAN

TABLE OF CONTENTS

LIST OF ACRONYMS

CERTIFICATION

EXECUTIVE SUMMARY	i
COMMUNITY PROTECTION STATEMENT.....	A
REMEDIAL ACTION WORK PLAN	1
1.0 SITE BACKGROUND	1
1.1 Site Location and Current Usage	1
1.2 Proposed Redevelopment Plan	2
1.3 Description of Surrounding Property.....	2
1.4 Remedial Investigation	2
2.0 REMEDIAL ACTION OBJECTIVES	7
3.0 REMEDIAL ALTERNATIVES ANALYSIS	8
3.1 Threshold Criteria	10
3.2. Balancing Criteria	11
4.0 REMEDIAL ACTION.....	18
4.1 Summary of Preferred Remedial Action.....	18
4.2 Soil Cleanup Objectives and Soil/Fill Management.....	21
4.3 Engineering Controls	25
4.4 Institutional Controls	27
4.5 Site Management Plan	28
4.6 Qualitative Human Health Exposure Assessment	29
5.0 REMEDIAL ACTION MANAGEMENT.....	34
5.1 Project Organization and Oversight.....	34
5.2 Site Security	34
5.3 Work Hours.....	34
5.4 Construction Health and Safety Plan	34
5.5 Community Air Monitoring Plan.....	35
5.6 Agency Approvals	37

5.7	Site Preparation.....	37
5.8	Traffic Control	41
5.9	Demobilization.....	42
5.10	Reporting and Record Keeping.....	42
5.11	Complaint Management.....	43
5.12	Deviations from the Remedial Action Work Plan	43
6.0	REMEDIAL ACTION REPORT	44
7.0	SCHEDULE.....	47

TABLE

Table 1 Imported Backfill and Clean Soil Limits

FIGURES

Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Layout of Proposed Site Development
Figure 4 Surrounding Land Usage
Figure 5 Excavation Plan
Figure 6 Endpoint Sampling Plan
Figure 7 Composite Cover System
Figure 8 Vapor Barrier Plan
Figure 9 Truck Route Map

APPENDICES

Appendix 1 Proposed Development Plans
Appendix 2 Citizen Participation Plan
Appendix 3 Sustainability Statement
Appendix 4 Soil/Materials Management Plan
Appendix 5 Vapor Barrier Specifications
Appendix 6 Site-Specific Construction Health and Safety Plan (CHASP)
Appendix 7 Waste Characterization Laboratory Results

LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
AS/SVE	Air Sparging/Soil Vapor Extraction
BOA	Brownfield Opportunity Area
CAMP	Community Air Monitoring Plan
C&D	Construction and Demolition
CEQR	City Environmental Quality Review
CFR	Code of Federal Regulations
CHASP	Construction Health and Safety Plan
COC	Certificate of Completion
CQAP	Construction Quality Assurance Plan
CSOP	Contractors Site Operation Plan
DCR	Declaration of Covenants and Restrictions
ECs/ICs	Engineering Controls and Institutional Controls
ELAP	Environmental Laboratory Accreditation Program
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations Emergency Response
IRM	Interim Remedial Measure
MNA	Monitored Natural Attenuation

NOC	Notice of Completion
NYS DEC	New York State Department of Environmental Conservation
NYC DEP	New York City Department of Environmental Protection
NYC DOHMH	New York State Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
NYC VCP	New York City Voluntary Cleanup Program
NYCRR	New York Codes Rules and Regulations
NYS DEC	New York State Department of Environmental Conservation
NYS DEC DER	New York State Department of Environmental Conservation Division of Environmental Remediation
NYS DOH	New York State Department of Health
NYS DOT	New York State Department of Transportation
ORC	Oxygen-Release Compound
OSHA	United States Occupational Health and Safety Administration
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PID	Photo Ionization Detector
QEP	Qualified Environmental Professional
QHHEA	Qualitative Human Health Exposure Assessment
RAOs	Remedial Action Objectives

RAR	Remedial Action Report
RAWP	Remedial Action Work Plan or Plan
RCA	Recycled Concrete Aggregate
RD	Remedial Design
RI	Remedial Investigation
RMZ	Residual Management Zone
SCOs	Soil Cleanup Objectives
SCG	Standards, Criteria and Guidance
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SSDS	Sub-Slab Depressurization System
SVOC	Semi-Volatile Organic Compound
TAL	Target Analyte List
TCL	Target Compound List
USGS	United States Geological Survey
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VOC	Volatile Organic Compound

CERTIFICATION

I, Ravi Korlipara, am currently a registered Professional Engineer licensed by the State of New York. I have primary direct responsibility for designing the remedial program for the Redevelopment Site located at 925 - 927 Atlantic Avenue, Brooklyn, NY, Site number 16CVCP066K.

I certify to the following:

- I have reviewed this document and the Stipulation List, to which my signature and seal are affixed.
- Engineering Controls developed for this remedial action were designed by me or a person under my direct supervision and designed to achieve the goals established in this Remedial Action Work Plan for this site.
- The Engineering Controls to be constructed during this remedial action are accurately reflected in the text and drawings of the Remedial Action Work Plan and are of sufficient detail to enable proper construction.
- This Remedial Action Work Plan (RAWP) has a plan for handling, transport and disposal of soil, fill, fluids and other materials removed from the property in accordance with applicable City, State and Federal laws and regulations. Importation of all soil, fill and other material from off-Site will be in accordance with all applicable City, State and Federal laws and requirements. This RAWP has provisions to control nuisances during the remediation and all invasive work, including dust and odor suppression.

Name

NYS PE License Number

Signature

Date

PE Stamp

I, David Oloke, am a qualified Environmental Professional. I will have primary direct responsibility for implementation of the remedial program for the site at 925 Atlantic Avenue, Brooklyn NY, site number 16CVCP066K. I certify to the following:

- This Remedial Action Work Plan (RAWP) has a plan for handling, transport and disposal of soil, fill, fluids and other materials removed from the property in accordance with applicable City, State and Federal laws and regulations. Importation of all soil, fill and other material from off-Site will be in accordance with all applicable City, State and Federal laws and requirements. This RAWP has provisions to control nuisances during the remediation and all invasive work, including dust and odor suppression.

QEP Name

QEP Signature

Date

EXECUTIVE SUMMARY

Elevation Holdings LLC is working with the NYC Office of Environmental Remediation (OER) in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a 5,000 ft² Site located at 925 - 927 Atlantic Avenue in the Clinton Hill section of Brooklyn, New York. A remedial investigation (RI) was performed to compile and evaluate data and information necessary to develop this Remedial Action Work Plan (RAWP). The remedial action described in this document provides for the protection of public health and the environment consistent with the intended property use, complies with applicable environmental standards, criteria and guidance and conforms to applicable laws and regulations.

Site Location and Background

The Site is located in the Clinton Hill section of Brooklyn, New York and is identified as Block 2018 and Lot 57 on the New York City Tax Map. Figure 1 is a Site location map. The subject property is improved with a one-story concrete block building with a mezzanine and cellar foundation built in 1930 (estimated). The building is currently vacant.

The nearest cross street to the Site is St James Place to the west and Grand Avenue to the east. Atlantic Avenue subway line runs in an east-west direction and is approximately 100 feet south of the subject property.

Based on information gathered from the New York City Department of City Planning, the subject property is approximately 5,000 square feet (sf) in area. The Site ground surface elevation is approximately 81 feet above mean sea level (USGS topographic map Brooklyn NY, revised 1995). The latitude and longitude are 40.680700 degrees north and 73.961900 degrees west respectively (see Figure 2 – Site Map).

Summary of Redevelopment Plan

The proposed redevelopment plan for the Site consists of new 7-story building with a full cellar. The building is zoned R7A/C2-4 – Residential FAR is 3.45; Parking is not required. The height of the building will be 71'-4", with a 10' setback at 50' facing Atlantic Ave. The building footprint will be 3,030 SF. The building will have 21 new residential units – (19 single level apartments & 2 duplex apartments).

The two 1st floor duplex apartments will each have access to lower levels located in the Cellar. Each will have a private rear yard, which will also extend down to the Cellar level. The 6th floor front apartment will have a private terrace facing Atlantic Avenue. There will be a communal terrace on the 7th floor facing Atlantic Avenue. The building will have a 569 SF communal exercise room located on the 1st floor. The building will have one residential elevator, which travels from the Cellar to the 8th floor.

The proposed two private rear yards will be set back approximately 40 feet from the north property boundary and capped with at least two feet of clean soil and landscaped. The proposed use is consistent with existing zoning for the property (Figure 3 - Architectural Plans).

The remedial action contemplated under this RAWP may be implemented independently of the proposed redevelopment plan.

Summary of Surrounding Property

The area surrounding the Site consists of a mix of residential and commercial properties. Fig. 4 shows the surrounding land usage of the adjacent properties listed below as well as properties located up to 500 feet away from the Site. No hospitals, daycare facilities or schools are located within a 250 ft radius of the Site. The following surrounding and/or adjacent properties were identified based on the OER's Searchable Property Environmental E-Database.

North: 500 Grand Avenue, adjacent property (Block 2018, Lot 7501) – Developed as multi-family walkup building.

South: 970 Atlantic Avenue, opposite side of the Street (Block 1124, Lot 34) – Developed as mixed residential and commercial buildings

East: 929 – 933 Atlantic Avenue, adjacent property (Block 2018, Lot 54, 55 & 56) – Vacant lot (former auto glass repair shop).

West: 923 Atlantic Avenue, adjacent property (Block 2018, lot 59) – Developed as one story commercial building and utilized as restaurant equipment sale and repair shop.

Summary of Past Site Uses and Areas of Concern

A Phase I Environmental Site Assessment Report was prepared by Alpha-Hydro Environmental (AHE) in February 20, 2015. A copy of the Phase I have been sent to the OER. Based on the Sanborn Maps, it shows that the subject property consists of two separate lots from 1887 – 1934 and was improved with four-story store buildings. During 1950 – 2007, the Sanborn Map identified the subject property as an auto wheel alignment shop. The City Directory Abstract for the subject property indicates that 925 Atlantic Avenue over the years had multiple tenants which included Sica Wheel Alignment Corp (1965 – 2013), Atlantic Wheel & Rim Co. Inc.(1949 – 1960) and was a mixed use residential and commercial property during 1934. At 927 Atlantic Avenue, the City Directory Abstracts identified its former use as a residential/commercial property from 1928 through 1934.

The former hydraulic lift area located within the building is considered an area of concern based on the work performed on 10/23/15. During the removal of the hydraulic lifts, it was discovered that one of the hydraulic tanks may have leaked. NYSDEC Spill No. 1507933 and EPA No. 1143621 were assigned to the Site. The DEC Spill Case Manager is Mr. Santosh Mahat (Environmental Engineer 1, Region 2).

The AOCs identified for this Site include:

1. The Site was historically utilized as an auto repair/wheel alignment shop
2. Historic fill layer is present at the Site from grade to depths of at least 10 feet below grade.
3. Former Hydraulic lift area located within the building at the western portion of the site

Summary of Work Performed under the Remedial Investigation

1. Conducted Site inspection to identify AOCs and physical obstructions
2. Performed geophysical survey across the entire Site to investigate for the existence of potential underground storage tanks, underground utility lines and other anomalies that may be present beneath the Site.
3. Installed five soil probes across the entire project Site, and collected ten soil samples and one duplicate for chemical analysis from the soil borings to evaluate soil quality;

4. A total of four attempts were made to install temporary monitoring wells but all resulted in abortive temporary wells.
5. Installed a total of three soil vapor probes on the subject property one of which was installed in the basement.
6. Excavated and removed two existing front and rear in-ground hydraulic lifts, dismantled and removed a below ground wheel alignment racks and obtained waste characterization soil samples from the hydraulic lift excavation.

Summary of Findings of Remedial Investigation

1. Elevation of the Site is approximately 80 feet above mean sea level
2. Depth to groundwater is approximately 70 feet as determined from adjacent site (929 Atlantic Avenue).
3. Groundwater flow is generally from east to west beneath the Site.
4. Depth to bedrock at the site could not be determined due to the limited subsurface investigation performed at the Site.
5. The stratigraphy of the site, from the surface down consists of historic fill to approximately 10 feet which is underlain by native brown, fine grain sandy clay.
6. Analytical results were compared to NYSDEC 6NYCRR Part 375-6.8 Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Residential Use SCOs. The RI showed no VOCs and Pesticides at a concentration above Unrestricted Use SCOs. Several SVOCs were detected within the historic fill and exceeded Unrestricted Use SCOs. Of these, benzo(a)anthracene (max. of 19,900 µg/Kg), benzo(a)pyrene (max. of 5420 µg/Kg), benzo(b)-fluoranthene (max. of 6460 µg/Kg), benzo(k)fluoranthene (max. of 8670 µg/Kg), chrysene (max. of 18400 µg/Kg), dibenzo(a)anthracene (max. 1530 of µg/Kg) and Indeno (1,2,3-cd) pyrene (max. of 2850 µg/Kg) exceeded Restricted Use and Unrestricted use residential SCOs in four shallow soil sampling locations. The metals barium (max. of 779 mg/Kg), chromium (max. of 30.2 mg/Kg), copper (max. of 88.8 mg/Kg), lead (max. of 2710 mg/Kg), zinc (max. of 759 mg/Kg) and mercury (max. of 0.934 mg/Kg) were detected above the Unrestricted Residential Use SCOs. Of these,

barium, lead and mercury exceeded Restricted Residential Use SCOs. Aroclor 1260 (max. of 0.0395 $\mu\text{g}/\text{Kg}$) was detected in soil boring SP-2 at close proximity to the in-ground hydraulic lift at the 0-2 foot depth interval. Waste characterization results from the hydraulic lifts area indicates that all targeted compounds analyzed were below the NYSDEC 6NYCRR Part 375-6.8 Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Residential Use SCOs. Overall, soil results are consistent with historic fill material at sites throughout NYC.

7. Groundwater samples could not be obtained from all four attempts made at the site. Monitoring well borings were completed at four different locations to depths ranging from 65 feet to 70 feet below grade. Refusals were encountered at monitoring well location. Groundwater at the neighboring site, 925 Atlantic Avenue, was identified at 70 feet below grade.

8. Soil vapor samples collected during the RI were compared to the compounds listed in New York State Department of Health (NYSDOH) Vapor Intrusion Matrices and USEPA Building Assessment and Survey Evaluation Database. Soil vapor sample results indicated petroleum related VOCs at a low concentration. One chlorinated VOC - tetrachloroethylene (PCE) was detected at a maximum concentration of 99 $\mu\text{g}/\text{m}^3$ exceeding the USEPA 2001 Building Assessment Survey and Evaluation 90th Percentile, while there was no detection for trichloroethylene (TCE) or carbon tetrachloride in any of the three soil vapor samples. Other compound detected at low concentration includes acetone (max. of 120 $\mu\text{g}/\text{m}^3$). Petroleum-related VOCs (BTEX) were detected at a maximum concentration of 271.4 $\mu\text{g}/\text{m}^3$.

Summary of the Remedial Action

The proposed remedial action achieves protection of public health and the environment for the intended use of the property. The proposed remedial action achieves all of the remedial action objectives established for the project and addresses applicable standards, criterion, and guidance; is effective in both the short-term and long-term and reduces mobility, toxicity and volume of contaminants; is cost effective and implementable; and uses standards methods that are well established in the industry.

The proposed remedial action will consist of:

1. Preparation of a Community Protection Statement and performance of all required NYC VCP Citizen Participation activities according to an approved Citizen Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establishment of Track 4 Site-Specific Soil Cleanup Objectives (SCOs).
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
5. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency specified by disposal facilities. A Waste Characterization Report documenting sample procedures, location, analytical results shall be submitted to NYCOER prior to the start of the remedial action.
6. Excavation of contaminated soil encountered in the vicinity of the former hydraulic lift area will be performed prior to excavation and removal of soil/fill exceeding Track 4 Site-Specific SCOs. For development purposes, the proposed footprint of the Site will be excavated to a depth of approximately 12 feet for the new building's cellar level. Approximately 2,500 tons of soil will be removed. The rear yard area of the Site will be landscaped and capped with at least two feet of clean soil.
7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID. Appropriate segregation of excavated media on-Site.
8. Management of excavated materials including temporarily stockpiling and segregating to prevent co-mingling of contaminated material and non-contaminated materials.
9. Removal of underground storage tanks (USTs) (if encountered) and closure of petroleum spills (if evidence of a spill/leak is encountered during Site excavation) in compliance with applicable local, State and Federal laws and regulations.
10. Transportation and off-Site disposal of all soil/fill material at permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.
11. Collection and analysis of end-point samples to determine the performance of the remedy

with respect to attainment of SCOs.

12. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
13. Installation of a vapor barrier system below the concrete slab of the building as well as behind foundation walls of the proposed building. The vapor barrier will consist of 20 – mil Raven Industries' VaporBlock 20 Plus, which is a seven layer co-extruded barrier made from state-of-the-art polyethylene and EVOH resins.
14. Construction and maintenance of an engineered composite cover consisting of 6 inch thick concrete building slab to prevent human exposure to residual soil/fill remaining under the Site.
15. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
16. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
17. Submission of a Remedial Action Report (RAR) that describes the remedial activities certifies that the remedial requirements have been achieved, defines the Site boundaries, and describes all Engineering and Institutional Controls to be implemented at the Site, and lists any changes from this RAWP.
18. Submission of a spill closure report to the NYSDEC for the assigned spill number 1507933 to be closed and removed from the NYSDEC database. The EPA assigned report number 1143621 for the site. A copy of the spill closure report will also be forwarded to the EPA for their review and comment. The spill closure report and no further action letter received from the NYSDEC will be incorporated into the remedial action report.
19. Submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
20. The property will continue to be registered with an E-Designation by the NYC Buildings Department. Establishment of Engineering Controls and Institutional Controls in this

RAWP and a requirement that management of these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.

COMMUNITY PROTECTION STATEMENT

The NYC Office of Environmental Remediation (OER) provides governmental oversight for the cleanup of contaminated property in NYC. This Remedial Action Work Plan (“cleanup plan”) describes the findings of prior environmental studies that show the location of contamination at the Site, and describes the plans to clean up the Site to protect public health and the environment.

This cleanup plan provides a very high level of protection for neighboring communities and also includes many other elements that address common community concerns, such as community air monitoring, odor, dust and noise controls, hours of operation, good housekeeping and cleanliness, truck management and routing, and opportunities for community participation. The purpose of this Community Protection Statement is to explain these community protection measures in non-technical language to simplify community review.

Project Information:

- Site Address: 925 - 927 Atlantic Avenue, Brooklyn NY
- NYC Voluntary Cleanup Program Project Number: 16CVCP066K

Project Contacts:

- OER Project Manager: Zach Schreiber, 212-788-3056
- Site Project Manager: David Oloke, 631 448-1862
- Site Safety Officer: Jason Falquecee, 631 521-5284
- Online Document Repository:<http://www.nyc.gov/html/oer/html/document-repository/document-repository.shtml>

Remedial Investigation and Cleanup Plan. Under the oversight of the NYC OER, a thorough study of this property (called a remedial investigation) has been performed to identify past property usage, to sample and test soils, groundwater and soil vapor, and identify contaminant sources present on the property. The cleanup plan has been designed to address all contaminant sources that have been identified during the study of this property.

Identification of Sensitive Land Uses. Prior to selecting a cleanup, the neighborhood was evaluated to identify sensitive land uses nearby, such as schools, day care facilities, hospitals and residential areas. The cleanup program was then tailored to address the special conditions of this community.

Qualitative Human Health Exposure Assessment. An important part of the cleanup planning for the Site is the performance of a study to find all of the ways that people might come in contact with contaminants at the Site now or in the future. This study is called a Qualitative Human Health Exposure Assessment (QHHEA). A QHHEA was performed for this project. This assessment has considered all known contamination at the Site and evaluated the potential for people to come in contact with this contamination. All identified public exposures will be addressed under this cleanup plan.

Health and Safety Plan. This cleanup plan includes a Construction Health and Safety Plan (CHASP) that is designed to protect community residents and on-Site workers. The elements of this plan are in compliance with safety requirements of the United States Occupational Safety and Health Administration (OSHA). This plan includes many protective elements including those discussed below.

Site Safety Coordinator. This project has a designated Site Safety Coordinator to implement the Health and Safety Plan. The Site Safety Coordinator maintains an emergency contact sheet and protocol for management of emergencies. The Site Safety Coordinator is Mr. Jason Falquecee. Mr. Falquecee can be reached at (631) 521 - 5284.

Worker Training. Workers participating in cleanup of contaminated material on this project are required to be trained in a 40-hour hazardous waste operators training course and to take annual refresher training. This pertains to workers performing specific tasks including removing contaminated material and installing cleanup systems in contaminated areas.

Community Air Monitoring Plan. Community air monitoring will be performed during this cleanup project to ensure that the community is properly protected from contaminants, dust and odors. Air samples will be tested in accordance with a detailed plan called the Community Air Monitoring Plan (CAMP). Results will be regularly reported to the NYC OER. This cleanup

plan also has a plan to address any unforeseen problems that might occur during the cleanup (called a ‘Contingency Plan’).

Odor, Dust and Noise Control. This cleanup plan includes actions for odor and dust control. These actions are designed to prevent off-Site odor and dust nuisances and include steps to be taken if nuisances are detected. Generally, dust is managed by application of physical covers and by water sprays. Odors are controlled by limiting the area of open excavations, physical covers, spray foams and by a series of other actions (called operational measures). The project is also required to comply with NYC noise control standards. If you observe problems in these areas, please contact the on-Site Project Manager, Mr. David Oloke at (631) 448-1862 or NYC Office of Environmental Remediation Project Manager, Zachariah Schreiber at (212) 788-3056.

Quality Assurance. This cleanup plan requires that evidence be provided to illustrate that all cleanup work required under the plan has been completed properly. This evidence will be summarized in the final report, called the Remedial Action Report. This report will be submitted to the NYC Office of Environmental Remediation and will be thoroughly reviewed.

Storm-Water Management. To limit the potential for soil erosion and discharge, this cleanup plan has provisions for storm-water management. The main elements of the storm water management include physical barriers such as tarp covers and erosion fencing, and a program for frequent inspection.

Hours of Operation. The hours for operation of cleanup will comply with the NYC Department of Buildings construction code requirements or according to specific variances issued by that agency. For this cleanup project, the hours of operation are 7:00AM to 6:00PM Monday through Friday in conformance with requirements of the NYC Department of Buildings.

Signage. While the cleanup is in progress, a placard will be prominently posted at the main entrance of the property with a laminated project Fact Sheet that states that the project is in the NYC Voluntary Cleanup Program, provides project contact names and numbers, and a link to the document repository where project documents can be viewed.

Complaint Management. The contractor performing this cleanup is required to address all complaints. If you have any complaints, you can call the facility Project Manager, Mr. Jason Falquecee (AHE) at (631) 448-1862, the NYC Office of Environmental Remediation Project Manager, Zachariah Schreiber at (212) 788-3056, or call 311 and mention the Site is in the NYC Voluntary Cleanup Program.

Utility Mark-outs. To promote safety during excavation in this cleanup, the contractor is required to first identify all utilities and must perform all excavation and construction work in compliance with NYC Department of Buildings regulations.

Soil and Liquid Disposal. All soil and liquid material removed from the Site as part of the cleanup will be transported and disposed of in accordance with all applicable City, State and Federal regulations and required permits will be obtained.

Soil Chemical Testing and Screening. All excavations will be supervised by a trained and properly qualified environmental professional. In addition to extensive sampling and chemical testing of soils on the Site, excavated soil will be screened continuously using hand-held instruments, by sight, and by smell to ensure proper material handling and management, and community protection.

Stockpile Management. Soil stockpiles will be kept covered with tarps to prevent dust, odors and erosion. Stockpiles will be frequently inspected. Damaged tarp covers will be promptly replaced. Stockpiles will be protected with silt fences. Hay bales will be used, as needed to protect storm water catch basins and other discharge points.

Trucks and Covers. Loaded trucks leaving the Site will be covered in compliance with applicable laws and regulations to prevent dust and odor. Trucks will be properly recorded in logs and records and placarded in compliance with applicable City, State and Federal laws, including those of the New York State Department of Transportation. If loads contain wet material that can leak, truck liners will be used. All transport of materials will be performed by licensed truckers and in compliance with all laws and regulations.

Imported Material. All fill materials proposed to be brought onto the Site will comply with rules outlined in this cleanup plan and will be inspected and approved by a qualified worker located on-Site. Waste materials will not be brought onto the Site. Trucks entering the Site with imported clean materials will be covered in compliance with applicable laws and regulations.

Equipment Decontamination. All equipment used for cleanup work will be inspected and washed, if needed, before it leaves the Site. Trucks will be cleaned at a truck inspection station on the property before leaving the Site.

Housekeeping. Locations where trucks enter or leave the Site will be inspected every day and cleaned regularly to ensure that they are free of dirt and other materials from the Site.

Truck Routing. Truck routes have been selected to: (a) limit transport through residential areas and past sensitive nearby properties; (b) maximize use of city-mapped truck routes; (c) limit total distance to major highways; (d) promote safety in entry to highways; (e) promote overall safety in trucking; and (f) minimize off-Site line-ups (queuing) of trucks entering the property. Operators of loaded trucks leaving the Site will be instructed not to stop or idle in the local neighborhood.

Final Report. The results of all cleanup work will be fully documented in a final report (called a Remedial Action Report) that will be available for public review online. A link to the online document repository and the public library with Internet access nearest the Site are listed on the first page of this Community Protection Statement. Access to the document repository is available online at the Clinton Hill Brooklyn Public Library - (380 Washington Avenue, Brooklyn, (718) 398 - 8713).

Long-Term Site Management. To provide long-term protection after the cleanup is complete, the property owner will be required to comply with an ongoing Site Management Plan that calls for continued inspection of protective controls, such as Site covers. The Site Management Plan is evaluated and approved by the NYC OER. Requirements that the property owner must comply with are established through a city environmental designation registered

with the Department of Buildings. A certification of continued protectiveness of the cleanup will be required from time to time to show that the approved cleanup is still effective.

REMEDIAL ACTION WORK PLAN

1.0 Project Background

Elevation Holdings LLC is working with the NYC Office of Environmental Remediation (OER) in the New York City Voluntary Cleanup Program (NYC VCP) and/or in the “E” Designation Program to investigate and remediate a property located at 925 - 927 Atlantic Avenue in the Clinton Hill section of Brooklyn, New York (the Site). A Remedial Investigation (RI) was performed to compile and evaluate data and information necessary to develop this Remedial Action Work Plan (RAWP) in a manner that will render the Site protective of public health and the environment consistent with the contemplated end use. This RAWP establishes remedial action objectives, provides remedial alternatives analysis that includes consideration of a permanent cleanup, and provides a description of the selected remedial action. The remedial action described in this document provides for the protection of public health and the environment, and complies with applicable environmental standards, criteria and guidance and applicable laws and regulations.

1.1 Site Location and Background

The Site is located in the Clinton Hill section of Brooklyn, New York and is identified as Block 2018 and Lot 57 on the New York City Tax Map. Figure 1 is a Site location map. The subject property is improved with a one-story concrete block building with a mezzanine and cellar foundation built in 1930 (estimated). The footprint of the building covers the entire lot, The cellar covers 10% of the lot. The building is currently vacant. Until 2015, the property was used as a wheel alignment and auto repair shop.

The nearest cross street to the Site is St James Place to the west and Grand Avenue to the east. The Atlantic Avenue Long Island Rail subterranean line runs in an east-west direction and is approximately 100 feet south of the subject property.

Based on information gathered from the New York City Department of City Planning, the subject property is approximately 5,000 square feet (sf) in area. The Site ground surface elevation is approximately 81 feet above mean sea level (USGS topographic map Brooklyn

NY, revised 1995). The latitude and longitude are 40.680700 degrees north and 73.961900 degrees west respectively (see Figure 2 – Site Map).

1.2 Redevelopment Plan

The proposed redevelopment plan for the Site consists of a new 7-story building with a full cellar. The building is zoned R7A/C2-4 – Residential FAR is 3.45; Parking is not required. The height of the building will be 71'-4", with a 10' setback at 50' in elevation facing Atlantic Ave. The building footprint will be 3,030 SF. The building will have 21 new residential units – (19 single level apartments & 2 duplex apartments). The building will be constructed to approximately 63 feet of the lot depth, with the remaining 37 feet reserved for open space(see Appendix 1 – Proposed Development Plans).

The two 1st floor duplex apartments will each have access to lower levels located in the Cellar. Each will have a private rear yard, which will also extend down to the Cellar level. The full site will be excavated to cellar depth or approximately 12 feet below grade. The 6th floor front apartment will have a private terrace facing Atlantic Avenue. There will be a communal terrace on the 7th floor facing Atlantic Avenue. The building will have a 569 SF communal exercise room located on the 1st floor. The building will have one residential elevator, which travels from the Cellar to the 8th floor. In addition to the accessory space for the first floor apartments, the cellar will also contain mechanical and storage rooms and bicycle parking.

The proposed two private rear yards will be set back approximately 37 feet from the north property boundary and capped with at least two feet of clean soil and landscaped. The proposed use is consistent with existing zoning for the property (Figure 3 - Architectural Plans).

The remedial action contemplated under this RAWP may be implemented independently of the proposed redevelopment plan.

1.3 Description of Surrounding Property

The area surrounding the Site consists of a mix of residential and commercial properties. Fig. 4 shows the surrounding land usage of the adjacent properties listed below as well as properties located up to 500 feet away from the Site. No hospitals, daycare facilities or schools are located

within a 250 ft radius of the Site. The following surrounding and/or adjacent properties were identified based on the OER's Searchable Property Environmental E-Database.

North: 500 Grand Avenue, adjacent property (Block 2018, Lot 7501) – Developed as multi-family walkup building.

South: Atlantic Avenue / 972 Atlantic Avenue, opposite side of the Site (Block 1124, Lot 35) – Developed as commercial and office buildings.

East: 929 - 933 Avenue, adjacent property (Block 2018, Lots 54, 55 & 56) – Formerly developed as one-story building utilized as auto glass repair shop. The one-story building was demolished in 2015 and the site is currently a vacant land.

West: 923 Atlantic Avenue, adjacent property (Block 2018, lot 59) – Currently utilized as restaurant equipment repair shop.

1.4 Summary of Past Site Uses and Areas of Concern

A Phase I Environmental Site Assessment Report was prepared by Alpha-Hydro Environmental (AHE) in February 20, 2015. A copy of the Phase I have been sent to the OER. Based on the Sanborn Maps, it shows that the subject property consists of two separate lots from 1887 – 1934 and was improved with four-story store buildings. During 1950 – 2007, the Sanborn Map identified the subject property as an auto wheel alignment shop. The City Directory Abstract for the subject property indicates that 925 Atlantic Avenue over the years had multiple tenants which included Sica Wheel Alignment Corp (1965 – 2013), Atlantic Wheel & Rim Co. Inc.(1949 – 1960) and was a mixed use residential and commercial property during 1934. At 927 Atlantic Avenue, the City Directory Abstracts identified its former use as a residential/commercial property from 1928 through 1934.

The former hydraulic lift area located within the building is considered an area of concern based on the work performed on 10/23/15. During the removal of the hydraulic lifts, it was discovered that one of the hydraulic tanks may have leaked. NYSDEC Spill No. 1507933 and EPA No. 1143621 were assigned to the Site. The DEC Spill Case Manager is Mr. Santosh Mahat (Environmental Engineer 1, Region 2).

The AOCs identified for this Site include:

1. The Site was historically utilized as an auto repair/wheel alignment shop
2. Historic fill layer is present at the Site from grade to depths of at least 10 feet below grade.
3. Former Hydraulic lift area located within the building at the western portion of the site

1.5 Summary of the Work Performed under the Remedial Investigation

1. Conducted Site inspection to identify AOCs and physical obstructions
2. Performed geophysical survey across the entire Site to investigate for the existence of potential underground storage tanks, underground utility lines and other anomalies that may be present beneath the Site.
3. Installed five soil probes across the entire project Site, and collected ten soil samples and one duplicate for chemical analysis from the soil borings to evaluate soil quality;
4. A total of four attempts were made to install temporary monitoring wells but all resulted in abortive temporary wells.
5. Installed a total of three soil vapor probes on the subject property one of which was installed in the basement.
6. Excavated and removed two existing front and rear in-ground hydraulic lifts, dismantled and removed a below ground wheel alignment racks and obtained waste characterization soil samples from the hydraulic lift excavation.

1.6 Summary of Findings of Remedial Investigation

A remedial investigation was performed and the results are documented in a companion document called “*Remedial Investigation Report, 925 - 927 Atlantic Avenue, Brooklyn, NY*”, dated January 2016 (RIR).

1. Elevation of the Site is approximately 80 feet above mean sea level
2. Depth to groundwater is approximately 70 feet as determined from adjacent site (929 Atlantic Avenue).

3. Groundwater flow is generally from east to west beneath the Site.
4. Depth to bedrock at the site could not be determined due to the limited subsurface investigation performed at the Site.
5. The stratigraphy of the site, from the surface down consists of historic fill to approximately 10 feet which is underlain by native brown, fine grain sandy clay.
6. Analytical results were compared to NYSDEC 6NYCRR Part 375-6.8 Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Residential Use SCOs. The RI showed no VOCs and Pesticides at concentration above Unrestricted Use SCOs. Several SVOCs were detected within the historic fill and exceeded Unrestricted Use SCOs. Of these, benzo(a)anthracene (max. of 19,900 µg/Kg), benzo(a)pyrene (max. of 5420 µg/Kg), benzo(b)-fluoranthene (max. of 6460 µg/Kg), benzo(k)fluoranthene (max. of 8670 µg/Kg), chrysene (max. of 18400 µg/Kg), dibenzo(a)anthracene (max. 1530 of µg/Kg) and Indeno (1,2,3-cd) pyrene (max. of 2850 µg/Kg) exceeded Restricted Residential SCOs in four shallow soil sampling locations. The metals barium (max. of 779 mg/Kg), chromium (max. of 30.2 mg/Kg), copper (max. of 88.8 mg/Kg), lead (max. of 2710 mg/Kg), zinc (max. of 759 mg/Kg) and mercury (max. of 0.934 mg/Kg) were detected above the Unrestricted Residential Use SCOs. Of these, barium, lead and mercury exceeded Restricted Residential SCOs. Aroclor 1260 (max. of 0.0395 µg/Kg) was detected in soil boring SP-2 at close proximity to the in-ground hydraulic lift at the 0-2 foot depth interval. Waste characterization results from the hydraulic lifts area indicates that all targeted compounds analyzed were below the NYSDEC 6NYCRR Part 375-6.8 Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Residential Use SCOs (see Appendix 7 – Waste Characterization Laboratory Results). Overall, soil results are consistent with historic fill material at sites throughout NYC.
7. Groundwater samples could not be obtained from all four attempts made at the site. Monitoring well borings were completed at four different locations to depths ranging from 65 feet to 70 feet below grade. Refusals were encountered at monitoring well location. Groundwater at the neighboring site, 925 Atlantic Avenue, was identified at 70 feet below grade.

8. Soil vapor samples collected during the RI were compared to the compounds listed in New York State Department of Health (NYSDOH) Vapor Intrusion Matrices and USEPA Building Assessment and Survey Evaluation Database. Soil vapor sample results indicated petroleum related VOCs at a low concentration. One chlorinated VOC - tetrachloroethylene (PCE) was detected at a maximum concentration of 99 $\mu\text{g}/\text{m}^3$ exceeding the USEPA 2001 Building Assessment Survey and Evaluation 90th Percentile, while there was no detection for trichloroethylene (TCE) or carbon tetrachloride in any of the three soil vapor samples. Other compounds detected at low concentration include acetone (max. of 120 $\mu\text{g}/\text{m}^3$). Petroleum-related VOCs (BTEX) were detected at a maximum concentration of 271.4 $\mu\text{g}/\text{m}^3$.

For more detailed results, consult the RIR. Based on an evaluation of the data and information from the RIR and this RAWP, disposal of significant amounts of hazardous waste is not suspected at this Site.

2.0 Remedial Action Objectives

Based on the results of the RI, the following Remedial Action Objectives (RAOs) have been identified for this Site:

Soil

- Prevent direct contact with contaminated soil.
- Prevent exposure to contaminants volatilizing from contaminated soil.
- Prevent migration of contaminants that would result in groundwater contamination.

Groundwater

- Remove contaminant sources causing impact to groundwater.
- Monitor groundwater improvement in response to contaminant source removal and/or treatment
- Prevent direct exposure to contaminated groundwater.
- Prevent exposure to contaminants volatilizing from contaminated groundwater.
- Prevent off-Site migration of contaminated groundwater above applicable groundwater standards.

Soil Vapor

- Prevent exposure to contaminants in soil vapor.
- Prevent migration of soil vapor into dwelling and other occupied structures.

3.0 Remedial Alternatives Analysis

The goal of the remedy selection process is to select a remedy that is protective of human health and the environment taking into consideration the current, intended and reasonably anticipated future use of the property. The remedy selection process begins by establishing RAOs for media in which chemical constituents were found in exceedance of applicable standards, criteria and guidance values (SCGs). A remedy is then developed based on the following ten criteria:

- Protection of human health and the environment;
- Compliance with SCGs;
- Short-term effectiveness and impacts;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume of contaminated material;
- Implementability;
- Cost effectiveness;
- Community acceptance;
- Land use; and
- Sustainability.

As required, a Track 1 Unrestricted Use scenario is evaluated for the remedial action. The following is a detailed description of the alternatives analyzed to address impacted media at the Site:

Alternative 1 involves:

- Selection of NYSDEC 6NYCRR part 375 Table 6.8 Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs).
- Removal of all soil/fill exceeding Track 1 Unrestricted Use SCOs throughout the Site and confirmation that Track 1 Unrestricted Use SCOs have been achieved with post-excavation endpoint sampling. Based on the results of the Remedial Investigation, it is expected that this alternative would be achieved by “excavating the entire Site to a depth

of approximately to 12 feet below grade to remove all historic fill”. If soil/fill containing analytes at concentrations above Unrestricted Use SCOs is still present at the base of the excavation after removal of all soil required for construction of the new building's cellar level is complete, additional excavation would be performed to ensure complete removal of soil/ fill that does not meet Track 1 Unrestricted Use SCOs.

- No Engineering or Institutional Controls are required for a Track 1 cleanup. As part of development, a vapor barrier system and sub-slab depressurization system would be installed beneath the basement foundation and behind foundation sidewalls of the new building to prevent any potential future exposures from off-Site soil vapor in the future;
- As part of development, placement of a composite cover over the entire Site as part of new development.

Alternative 2 involves:

- Establishment of Track 4 Site-Specific SCOs.
- Removal of all soil/fill exceeding Track 4 Site-Specific SCOs and Track 2 Restricted Residential SCOs for contaminants where no site-specific SCO has been established and confirmation that Track 4 Site-Specific SCOs and Track 2 RRSCOs, respectively, have been achieved with post-excitation confirmation sampling. As part of development, soil beneath the rear yard will be removed to a depth of 6 feet. Excavation for construction of the new building's cellar level would take the entire footprint of the building to a depth of approximately 12 feet below grade. If soil/fill containing analytes at concentrations above Track 4 Site-Specific SCOs is still present at the base of the excavation after removal of all soil required for construction of the new building's cellar is complete, additional excavation will be performed to ensure complete removal of soil that does not meet Track 4 Site-Specific SCOs;
- Placement of a final cover over the entire Site to prevent exposure to remaining soil/fill;
- Installation of a soil vapor barrier system beneath the building's cellar slab, and along foundation sidewalls to prevent any potential future exposures from off-Site soil vapor;
- Establishment of use restrictions including prohibitions on the use of groundwater from the Site; prohibitions of sensitive Site uses, such as farming or vegetable gardening, to

prevent future exposure pathways; and prohibition of a higher level of land use without OER approval;

- Establishment of an approved Site Management Plan (SMP) to ensure long-term management of these Engineering and Institutional Controls including the performance of periodic inspections and certification that the controls are performing as they were intended; and
- Continued registration as an E-designated property to memorialize the remedial action and the Engineering and Institutional Controls required by the RAWP.

3.1 Threshold Criteria

Protection of Public Health and the Environment

This criterion is an evaluation of the remedy's ability to protect public health and the environment, and an assessment of how risks posed through each existing or potential pathway of exposure are eliminated, reduced or controlled through removal, treatment, and implementation of Engineering Controls or Institutional Controls. Protection of public health and the environment must be achieved for all approved remedial actions.

Alternative 1 would be protective of human health and the environment by removing contaminated soil/fill exceeding Track 1 Unrestricted Use SCOs and groundwater protection standards, thus eliminating potential for direct contact with contaminated soil/fill once construction is complete and eliminating the risk of contamination leaching into groundwater.

Alternative 2 would achieve comparable protections of human health and the environment by excavating the historic fill at the Site and by ensuring that remaining soil/fill on-Site meets Track 4 Site-Specific SCOs, as well as by placement of Institutional and Engineering Controls, including a composite cover system and sub-slab depressurization system. The composite cover system would prevent direct contact with any remaining on-Site soil/fill. Implementing Institutional Controls including a Site Management Plan and continuing the E-designation would ensure that the composite cover system remains intact and protective of public health. Establishment of Track 4 Site-Specific SCOs would minimize the risk of contamination leaching into groundwater.

For both Alternatives, potential exposure to contaminated soils during construction would be minimized by implementing a Construction Health and Safety Plan (CHASP), an approved Soil/Materials Management Plan and Community Air Monitoring Plan (CAMP). Potential contact with contaminated groundwater would be prevented as its use is prohibited by city laws and regulations. Potential future migration of off-Site soil vapors into the new building would be prevented by installing a vapor barrier system below the new building's cellar slab and continuing the vapor barrier around foundation walls and also the installation of a sub-slab depressurization system to maintain negative pressure beneath the entire area of the building slab addressed by this RAP.

3.2. Balancing Criteria

Compliance with Standards, Criteria and Guidance (SCGs)

This evaluation criterion assesses the ability of the alternative to achieve applicable standards, criteria and guidance.

Alternative 1 would achieve compliance with the remedial goals, chemical-specific SCGs and RAOs for soil through removal of soil to achieve Track 1 Unrestricted Use SCOs and Groundwater Protection Standards. Compliance with SCGs for soil vapor would also be achieved by installing a passive SSDS and a vapor barrier system below the new building's cellar slab and continuing the vapor barrier around foundation walls, as part of development.

Alternative 2 would achieve compliance with the remedial goals, chemical-specific SCGs and RAOs for soil through removal of soil to meet Track 4 Site-Specific SCOs. Compliance with SCGs for soil vapor would also be achieved by installing a sub-slab depressurization system and a vapor barrier system below the new buildings' cellar slabs and continuing the vapor barrier around foundation walls. A Site Management Plan would ensure that these controls remained protective for the long term.

Health and safety measures contained in the CHASP and Community Air Monitoring Plan (CAMP) that comply with the applicable SCGs shall be implemented during Site redevelopment under this RAWP. For both Alternatives, focused attention on means and methods employed during the remedial action would ensure that handling and management of contaminated material

would be in compliance with applicable SCGs. These measures will protect on-Site workers and the surrounding community from exposure to Site-related contaminants.

Short-Term Effectiveness and Impacts

This evaluation criterion assesses the effects of the alternative during the construction and implementation phase until remedial action objectives are met. Under this criterion, alternatives are evaluated with respect to their effects on public health and the environment during implementation of the remedial action, including protection of the community, environmental impacts, time until remedial response objectives are achieved, and protection of workers during remedial actions.

Both alternatives 1 and 2 have similar short-term effectiveness during their respective implementations, as each requires excavation of historic fill material. Both alternatives would result in short-term dust generation impacts associated with excavation, handling, load out of materials, and truck traffic. Short term impacts would be higher for Alternative 1 because excavation of greater amounts of historical fill material would be required in areas beyond footprint of new building to achieve Track 1 SCOs. However, focused attention to means and methods during the remedial action, including community air monitoring and appropriate truck routing, would minimize or negate the overall impact of these activities.

An additional short-term adverse impact and risks to the community associated with both remedial alternatives is increased truck traffic. Truck traffic will be routed on the most direct course using major thoroughfares where possible and flaggers will be used to protect pedestrians at Site entrances and exits.

The effects of these potential adverse impacts to the community, workers and the environment for both alternatives would be minimized through implementation of corresponding control plans including a Construction Health and Safety Plan, a Community Air Monitoring Plan (CAMP) and a Soil/Materials Management Plan (SMMP), during all on-Site soil disturbance activities and would minimize the release of contaminants into the environment. Both alternatives provide short term effectiveness in protecting the surrounding community by decreasing the risk of contact with on-Site contaminants. Construction workers operating under appropriate

management procedures and a Construction Health and Safety Plan (CHASP) would be protected from on-Site contaminants (personal protective equipment would be worn consistent with the documented risks within the respective work zones).

Long-term effectiveness and permanence

This evaluation criterion addresses the results of a remedial action in terms of its permanence and quantity/nature of waste or residual contamination remaining at the Site after response objectives have been met, such as permanence of the remedial alternative, magnitude of remaining contamination, adequacy of controls including the adequacy and suitability of ECs/ICs that may be used to manage contaminant residuals that remain at the Site and assessment of containment systems and ICs that are designed to eliminate exposures to contaminants, and long-term reliability of Engineering Controls.

Alternative 1 would achieve long-term effectiveness and permanence related to on-Site contamination by permanently removing all impacted soil/fill and enabling unrestricted usage of the property.

Alternative 2 would provide long-term effectiveness by removing most on-Site contamination and attaining Track 4 Site-Specific SCOs; establishing Engineering Controls including a composite cover system across the Site; establishing Institutional Controls to ensure long-term management including use restrictions, a Site Management Plan and maintaining continued registration as an E-designation property to memorialize these controls for the long term. The SMP would ensure long-term effectiveness of all ECs and ICs by requiring periodic inspection and certification that these controls and restrictions continue to be in place and are functioning as they were intended assuring that protections designed into the remedy continue to provide the required level of protection.

Reduction of toxicity, mobility, or volume of contaminated material

This evaluation criterion assesses the remedial alternative's use of remedial technologies that permanently and significantly reduce toxicity, mobility, or volume of contaminants as their principal element. The following is the hierarchy of source removal and control measures that

are to be used to remediate a Site, ranked from most preferable to least preferable: removal and/or treatment, containment, elimination of exposure and treatment of source at the point of exposure. It is preferred to use treatment or removal to eliminate contaminants at a Site, reduce the total mass of toxic contaminants, cause irreversible reduction in contaminants mobility, or reduce of total volume of contaminated media.

Alternative 1 would permanently eliminate the toxicity, mobility, and volume of contaminants from on-Site soil by removing all soil in excess of Track 1 Unrestricted Use SCOs.

Alternative 2 would remove most of the historic fill at the Site, and all remaining on-Site soil/fill beneath the new building will meet Track 4 Site-Specific SCOs.

Alternative 1 would remove a greater total mass of contaminants from the Site. The removal of soil to 12 feet for the new development in both scenarios would lessen the difference in contaminant mass removal between these two alternatives.

Implementability

This evaluation criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of various services and materials required during its implementation, including technical feasibility of construction and operation, reliability of the selected technology, ease of undertaking remedial action, monitoring considerations, administrative feasibility (e.g. obtaining permits for remedial activities), and availability of services and materials.

The proposed remedial action is both feasible and implementable. The techniques, materials and equipment to implement Alternatives 1 and 2 are readily available and have been proven effective in remediating the contaminants present on the Site. They use standard materials and services that are well established technology. The reliability of each remedy is also high. There are no special difficulties associated with any of the activities proposed.

Cost effectiveness

This evaluation criterion addresses the cost of alternatives, including capital costs (such as construction costs, equipment costs, and disposal costs, engineering expenses) and site management costs (costs incurred after remedial construction is complete) necessary to ensure

the continued effectiveness of a remedial action.

Since historic fill at the Site was found to extend to a depth of up to 10 feet below grade during the RI, and the new building requires excavation of the entire Site to a depth of 12 feet, the costs associated with both Alternative 1 and Alternative 2 will likely be comparable. Costs associated with Alternative 1 could potentially be higher than Alternative 2 if soil with analytes above Track 1 Unrestricted Use SCOs is encountered below the excavation depth required for development. Additional costs would include installation of additional shoring/underpinning, disposal of additional soil, and import of clean soil for backfill. However, long-term costs for Alternative 2 are likely higher than Alternative 1 based on implementation of a Site Management Plan as part of Alternative 2.

The remedial plan would couple the remedial action with the redevelopment of the Site, lowering total costs. The remedial plan will also consider the selection of the most appropriate disposal facilities to reduce transportation and disposal costs during cleanup and redevelopment of the Site.

Community Acceptance

This evaluation criterion addresses community opinion and support for the remedial action. Observations here will be supplemented by public comment received on the RAWP.

This RAWP will be subject to a public review under the NYC VCP and will provide the opportunity for detailed public input on the remedial alternatives and the selected remedy. This public comment will be considered by OER prior to approval of this plan. The Citizen Participation Plan for the project is provided in Appendix 2. Observations here will be supplemented by public comment received on the RAWP. Under both alternatives, the overall goals of the remedial program, to protect public health and the environment and eliminate potential contaminant exposures, have been broadly supported by citizens in NYC communities.

Land use

This evaluation criterion addresses the proposed use of the property. This evaluation has considered reasonably anticipated future uses of the Site and takes into account: current use and historical and/or recent development patterns; applicable zoning laws and maps; NYS Department of State's Brownfield Opportunity Areas (BOA) pursuant to section 970-r of the general municipal law; applicable land use plans; proximity to real property currently used for residential use, and to commercial, industrial, agricultural, and/or recreational areas; environmental justice impacts, Federal or State land use designations; population growth patterns and projections; accessibility to existing infrastructure; proximity of the site to important cultural resources and natural resources, potential vulnerability of groundwater to contamination that might emanate from the site, proximity to flood plains, geography and geology; and current Institutional Controls applicable to the Site.

The current, intended, and reasonably anticipated future land use of the Site and its surroundings are compatible with the selected remedy of soil remediation. The proposed future use of the Site consists of new 7-story building with a full cellar. The building is zoned R7A/C2-4 – Residential FAR is 3.45; Parking is not required. The height of the building will be 71'-4", with a 10' setback at 50' facing Atlantic Ave. The building footprint will be 3,030 SF. The building will have 21 new residential units – (19 single level apartments & 2 duplex apartments). Following remediation, the Site will meet either Track 1 Unrestricted Use or Track 4 Site-Specific SCOs, both of which are protective of public health and the environment for its planned residential use. The proposed use is compliant with the property's zoning and is consistent with recent development patterns. The areas surrounding the site is urban and consists of predominantly mixed residential and commercial buildings in zoning districts designated for commercial and residential uses. The development would remediate a vacant contaminated lot and provide a modern residential building. The proposed development would clean up the property and make it safer, create new employment opportunities, living space for affordable and supportive housing and associated societal benefits to the community, and other economic benefits from land revitalization.

Temporary short-term project impacts are being mitigated through site management controls and truck traffic controls during remediation activities. Following remediation, the Site will meet

either Track 1 Unrestricted Use SCOs or Track 4 Site-Specific SCOs, both of which are protective of public health and the environment for its planned use.

The Site is not in close proximity to important cultural resources, including federal or state historic or heritage sites or Native American religious sites, natural resources, waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species. The Site is located in an urban area and not in proximity to fish or wildlife and neither alternative would result in any potential exposure pathways of contaminant migration affecting fish or wildlife. The remedial action is also protective of groundwater natural resources. The Site does not lie in a Federal Emergency Management Agency (FEMA)-designated flood plain. Both alternatives are equally protective of natural resources and cultural resources. Improvements in the current environmental condition of the property achieved by both alternatives considered in this plan are consistent with the City's goals for cleanup of contaminated land.

Sustainability of the Remedial Action

This criterion evaluates the overall sustainability of the remedial action alternatives and the degree to which sustainable means are employed to implement the remedial action including those that take into consideration NYC's sustainability goals defined in PlaNYC: A Greener, Greater New York. Sustainability goals may include: maximizing the recycling and reuse of non-virgin materials; reducing the consumption of virgin and non-renewable resources; minimizing energy consumption and greenhouse gas emissions; improving energy efficiency; and promotion of the use of native vegetation and enhancing biodiversity during landscaping associated with Site development.

While Alternative 2 would potentially result in lower energy usage based on reducing the volume of material transported off-Site, both remedial alternatives are comparable with respect to the opportunity to achieve sustainable remedial action. The remedial plan for either alternative would take into consideration the shortest trucking routes during off-Site disposal of historic fill and other soils, which would reduce greenhouse gas emissions and conserve energy used to fuel trucks. The New York City Clean Soil Bank program is available for reuse of any clean native soils under either alternative. A complete list of green remedial activities considered as part of the NYC VCP is included in a Sustainability Statement as Appendix 3.

4.0 Remedial Action

4.1 Summary of Preferred Remedial Action

The preferred remedial action alternative is the Track 4 Alternative. The preferred remedial action alternative achieves protection of public health and the environment for the intended use of the property. The preferred remedial action alternative will achieve all of the remedial action objectives established for the project and addresses applicable SCGs. The preferred remedial action alternative is effective in both the short-term and long-term and reduces mobility, toxicity and volume of contaminants. The preferred remedial action alternative is cost effective and implementable and uses standards methods that are well established in the industry.

The proposed remedial action will consist of:

1. Preparation of a Community Protection Statement and performance of all required NYC VCP Citizen Participation activities according to an approved Citizen Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establishment of Track 4 Site-Specific Soil Cleanup Objectives (SCOs) and Track 2 Restricted Residential SCOs for contaminants where no site-specific SCO has been established.
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
5. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency specified by disposal facilities. A Waste Characterization Report documenting sample procedures, location, analytical results shall be submitted to NYCOER prior to the start of the remedial action.
6. Excavation and removal of soil/fill exceeding Track 4 Site Specific SCOs. The entire footprint of the building area (about 60% of the property) will be excavated to a depth of approximately 12 feet below grade for development purposes. The rear yard (about 40% of the property) will be excavated to approximately 6 feet and backfilled with clean sand and landscaped. Approximately 2,500 tons of soil/fill will be removed from the Site and properly disposed at an appropriately licensed or permitted facility.

7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID. Appropriate segregation of excavated media on-Site.
8. Management of excavated materials including temporarily stockpiling and segregating to prevent co-mingling of contaminated material and non-contaminated materials.
9. Removal of underground storage tanks (USTs) (if encountered) and closure of petroleum spills (if evidence of a spill/leak is encountered during Site excavation) in compliance with applicable local, State and Federal laws and regulations.
10. Spill closure related to the former hydraulic lift area and any associated groundwater remediation will be managed under NYSDEC authority for Spill number 1507933. A USEPA case number 1143621 has been assigned to the Site due to the PCBs detected in the laboratory analytical results and the release of hydraulic fluids from the hydraulic tank beneath the Site.
11. Transportation and off-Site disposal of all soil/fill material at permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.
12. Collection and analysis of post-excavation confirmation samples to determine the performance of the remedy with respect to attainment of SCOs.
13. Demarcation of residential soil/fill in landscaped areas.
14. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
15. Due to the contamination identified on the neighboring site as well as the lack of groundwater data, a passive SSDS will be installed below the new building's cellar slab.
16. Construction of an engineered composite cover consisting of 6-inch thick concrete building slab with an 8-inch clean granular sub-base beneath all building areas, 4-inch poured concrete on a 6-inch sub-base in sidewalk areas, and two feet of clean soil in all open space and landscaped areas.
17. Installation of a vapor barrier system consisting of vapor barrier beneath the building slab and outside of sub-grade foundation sidewalls to mitigate soil vapor migration into the building. The vapor barrier will consist of a 20-mil Raven Industries' VaporBlock 20

Plus below the slab throughout the full building area and outside all sub-grade foundation sidewalls. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. The vapor barrier system is an Engineering Control for the remedial action. The remedial engineer will certify in the RAR that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building.

18. Installation of a passive sub-slab depressurization system (SSDS) consisting of “a network of horizontal pipe set in the middle of a gas permeable layer immediately beneath the building slab and vapor barrier system. The horizontal piping will consist of fabric wrapped, perforated schedule 40 4-inch PVC pipe connected to a 6-inch steel riser pipe that penetrates the slab and travels through the building to the roof. The gas permeable layer will consist of a 6-inch thick layer of 2-inch trap rock stone. The pipe will be finished at the roof line with a 6-inch goose neck pipe to prevent rain infiltration. The remedial engineer will certify in the RAR that the passive SSDS was designed and properly installed to establish a vacuum in the gas permeable layer and a negative (decreasing outward) pressure gradient across the building slab to prevent vapor migration into the building.
19. Performance of all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.
20. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
21. Submission of a RAR that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAWP, and describes all Engineering and Institutional Controls to be implemented at the Site.
22. Submission of an approved Site Management Plan (SMP) in the Remedial Action Plan (RAR) for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
23. Recording of a Declaration of Covenants and Restrictions that includes a listing of Engineering Controls and Institutional Controls and a requirement that management of

these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.

24. The property will continue to be registered with an E-Designation at the NYC Buildings Department. Establishment of Engineering Controls and Institutional Controls in this RAWP and a requirement that management of these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.

4.2 Soil Cleanup Objectives and Soil/Fill Management

Track 4 Soil Cleanup Objectives (SCOs) are proposed for this project. The SCOs for this Site are listed in 6 NYCRR Part 375 Table 6.8(b) - Restricted residential SCOs as amended by the following Track 4 Site-Specific SCOs:

<u>Contaminant</u>	<u>Track 4 SCOs</u>
Total SVOCs	250 ppm
Lead	1000 ppm
Mercury	1.5 ppm
Barium	750 ppm

Soil and materials management on-Site and off-Site, including excavation, handling and disposal, will be conducted in accordance with the Soil/Materials Management Plan in Appendix 4. Discrete contaminant sources (such as hotspots) identified during the remedial action will be identified by GPS or surveyed. This information will be provided in the Remedial Action Report.

Soil/Fill Excavation and Removal

The entire footprint of the proposed new 7 story building is approximately 60 feet long and 50 feet wide and 12 feet deep. During the process of excavation, equipment will be placed at the proposed rear yard and excavation in the rear yard may extend to approximately 6-feet below grade to achieve the desired depth within the location of the building footprint. The location of planned excavations is shown in Figure 5. The total quantity of soil/fill expected to be excavated and disposed off-Site is 2,500 tons. For each disposal facility to be used in the remedial action, a letter from the developer/QEP to the receiving facility requesting approval for disposal and a letter back to the developer/QEP providing approval for disposal will be submitted to OER prior to any transport and disposal of soil at a facility.

Disposal facilities will be reported to OER when they are identified and prior to the start of remedial action.

End-point Sampling

End-point samples will be analyzed for compounds and elements as described below utilizing the following methodology:

- Volatile organic compounds by EPA Method 8260;
- Semi-volatile organic compounds by EPA Method 8270;
- Target Analyte List metals; and
- Pesticides/PCBs by EPA Method 8081/8082.

Endpoint samples will be collected in the area of the hydraulic lifts including any requirements prescribed by NYSDEC.

New York State ELAP certified labs will be used for all end-point sample analyses. Labs performing end-point sample analyses will be reported in the RAR. The RAR will provide a tabular and map summary of all end-point sample results and will include all data including non-detects and applicable standards and/or guidance values.

Confirmation End-point Sampling

Removal actions for development purposes under this plan will be performed in conjunction with confirmation end-point soil sampling. Six confirmation samples will be collected from the base of the excavation at locations to be determined by OER. To evaluate attainment of Track 4 Site-specific SCOs, analytes will include those for which site-specific SCOs have been developed, including SVOCs, lead, mercury and barium according to analytical methods described above. If Track 1 Unrestricted Use SCOs are pursued, samples will be analyzed for VOCs, SVOCs, pesticides, PCBs and metals according to analytical methods described above. Proposed post-excavation confirmation sample locations are shown in Figure 6.

Hotspot End-point Sampling

End-point samples will be collected from the sidewalls and base of excavation at the hotspot location identified in the Remedial Investigation or during the remedial work at the site, according to the procedure listed below. Hotspots include HA-1 for lead and mercury; SP-1 for SVOCs, barium, copper, lead, zinc and mercury; SP-2 for SVOCs, PCBs, barium, lead, zinc and mercury; SP-3 for SVOCs, barium, copper, lead, zinc and mercury and SP-4 for SVOCs, chromium and lead.

For any hotspots identified during this remedial program, including any hotspots identified during the remedial action, hotspot removal actions will be performed to ensure that hotspots are fully removed and end-point samples will be collected at the following frequency:

1. For excavations less than 20 feet in total perimeter, at least one bottom sample and one sidewall sample biased in the direction of surface runoff.
2. For excavations 20 to 300 feet in perimeter:
 - For surface removals, one sample from the top of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.
 - For subsurface removals, one sample from each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.

3. For sampling of volatile organics, bottom samples should be taken within 24 hours of excavation, and should be taken from the zero to six-inch interval at the excavation floor. Samples taken after 24 hours should be taken at six to twelve inches.
4. For contaminated soil removal, post remediation soil samples for laboratory analysis should be taken immediately after contaminated soil removal. If the excavation is enlarged horizontally, additional soil samples will be taken pursuant to bullets 1-3 above.

Post-remediation end-point sample locations and depth will be biased towards the areas and depths of highest contamination identified during previous sampling episodes unless field indicators such as field instrument measurements or visual contamination identified during the remedial action indicate that other locations and depths may be more heavily contaminated. In all cases, post-remediation samples should be biased toward locations and depths of the highest expected contamination.

If either LNAPL and/or DNAPL are detected, appropriate samples will be collected for characterization and “finger print analysis” and required regulatory reporting (i.e. spills hotline) will be performed.

Quality Assurance/Quality Control

Report the basic QA/QC for the analytical program, including:

- Sample collection apparatus
- Sampling methods
- Decontamination methods
- Sample containers
- Holding time
- Preservatives including temperature
- Lab blanks
- Detection levels
- Standards for comparative analysis

Make sure the lab reports the results of lab blanks taken during the analytical program.

Import of Soils

Import of soils onto the property will be performed in conformance with the Soil/Materials Management Plan in Appendix 4. Imported soil will meet the lower of:

- Track 2 Restricted Residential Use SCO's, and
- Groundwater Protection Standards in Part 375-6.8.

The estimated quantity of soil to be imported into the Site for backfill and cover soil is 0 tons. The estimated quantity of onsite soil/fill expected to be reused/relocated on Site is 0 tons.

Reuse of Onsite Soils

Soil reuse is not planned on this project.

4.3 Engineering Controls

The excavation required for the proposed Site development will achieve Track 4 Site Specific SCOs. Engineering Controls will be employed in the remedial action to address residual contamination remaining at the site. The Site has three primary Engineering Control Systems that could be implemented: These are:

- (1) Composite Cover System
- (2) Soil Vapor Barrier System
- (3) Passive Sub-Slab Depressurization System

Composite Cover System

Exposure to residual soil/fill will be prevented by an engineered, composite cover system to be built on the Site. This composite cover system will be comprised of 6 inches of reinforced concrete slab underlain by 8 inches of clean sub-base material in building areas; 4 inches of asphalt pavement underlain by 6 inches of clean sub-base material in parking areas, and 2 feet of clean soil in open space areas. The proposed two private rear yards will be set back approximately 40 feet from the north property boundary and capped with at least two feet of clean soil and landscaped.

Figure 7 shows the typical design for each remedial cover type used on this Site.

The composite cover system will be a permanent engineering control. The system will be inspected and its performance certified at specified intervals as required by this RAWP and the Site Management Plan. A Soil and Materials Management Plan will be included in the Site Management Plan and will outline the procedures to be followed in the event that the composite cover system and underlying residual soil/fill is disturbed after the remedial action is complete. Maintenance of this composite cover system will be described in the Site Management Plan in the Remedial Action Report.

Vapor Barrier System

Migration of potential soil vapor from offsite will be mitigated with a combination of building slab and vapor barrier. The vapor barrier will consist of a 20-mil Raven Industries' VaporBlock 20 Plus, which is a seven layer co-extruded barrier made from state-of-the-art polyethylene and EVOH resins. The vapor barrier will be installed prior to pouring the building's concrete slab. The vapor barrier will extend throughout the area occupied by the footprint of the new building and up the foundation sidewalls in accordance with manufacturer specifications. The specifications for installation will be provided to the construction management company and the foundation contractor or installer of the liner. The specifications state that all vapor barrier seam, penetrations, and repairs will be sealed either by the tape method or weld method, according to the manufacturer's recommendations and instructions.

The project's Professional Engineer licensed by the State of New York will have primary direct responsibility for overseeing the implementation of the vapor barrier. A typical vapor barrier membrane detail is provided in Figure 8. Product specification sheets are provided in Appendix 5.

The Remedial Action Report will include a PE-certified letter (on company letterhead) from the primary contractor responsible for installation oversight and field inspections and a copy of the manufacturer's certificate of warranty.

The Vapor Barrier System is a permanent engineering control and will be inspected and its performance certified at specified intervals as required by this RAWP and the Site Management Plan. A Soil and Materials Management Plan will be included in the Site Management Plan and will outline the procedures to be followed in the event that the composite cover system and

underlying vapor barrier system is disturbed after the remedial action is complete. Maintenance of these systems will be described in the Site Management Plan in the Remedial Action Report.

Passive Sub-Slab Depressurization System

A passive sub-slab depressurization (SSD) system has been recommended for the site by the OER given the contamination identified on the neighboring site as well as the lack of groundwater data. The SSDS is a permanent engineering control. The system will be inspected and its performance certified at specified intervals as required by this RAWP and the Site Management Plan. Maintenance of this SSDS will be described in the Site Management Plan in the Remedial Action Report. The SSD system is intended to mitigate the migration of soil vapors beneath the Site. The SSD system design plan, including engineering drawings, equipment specifications and location of system components will be provided in the Stipulation Letter. The Remedial Action Report will include photographs (maximum of two photos per page) of the installation process, PE/RA certified letter (on company letterhead) from primary contractor responsible for installation oversight and field inspections, and a copy of the manufacturer's certificate of warranty.

4.4 Institutional Controls

Institutional Controls (IC) have been incorporated in this remedial action to manage residual soil/fill and other media and render the Site protective of public health and the environment. Institutional Controls are listed below. Long-term employment of EC/ICs will be established in a site-specific Site Management Plan (SMP) that will be included in the RAR.

Institutional Controls for this remedial action are:

- The property will continue to be registered with an E-Designation at the NYC Buildings Department. This RAWP includes a description of all ECs and ICs and summarizes the requirements of the Site Management Plan which will note that the property owner and property owner's successors and assigns must comply with the approved SMP;
- Submittal of a Site Management Plan in the RAR for approval by OER that provides procedures for appropriate operation, maintenance, monitoring, inspection, reporting and certification of ECs. SMP will require that the property owner and property owner's

successors and assigns will submit to OER a periodic written statement that certifies that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by OER; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. OER retains the right to enter the Site in order to evaluate the continued maintenance of any controls. This certification shall be submitted annually and will comply with RCNY §43-1407(1)(3).

- Vegetable gardens and farming on the Site are prohibited;
- Use of groundwater underlying the Site is prohibited without treatment rendering it safe for its intended use;
- All future activities on the Site that will disturb residual material must be conducted pursuant to the soil management provisions in an approved SMP;
- The Site will be used for residential use and will not be used for a higher level of use without prior approval by OER.

4.5 Site Management Plan

Site Management is the last phase of remediation and begins with the approval of the Remedial Action Report and issuance of the Notice of Completion (NOC) for the Remedial Action. The Site Management Plan (SMP) describes appropriate methods and procedures to ensure implementation of all ECs and ICs that are required by this RAWP. The Site Management Plan is submitted as part of the RAR but will be written in a manner that allows its use as an independent document. Site Management continues until terminated in writing by OER. The property owner is responsible to ensure that all Site Management responsibilities defined in this RAWP and the Site Management Plan are implemented.

The SMP will provide a detailed description of the procedures required to manage residual soil/fill left in place following completion of the remedial action in accordance with the Voluntary Cleanup Agreement with OER. This includes a plan for: (1) implementation of EC's and ICs; (2) operation and maintenance of EC's; (3) inspection and certification of IC's and EC's and (5) reporting.

Site management activities, reporting, and EC/IC certification will be scheduled on a periodic basis to be established in the RAR and the SMP and will be subject to review and modification by OER. The Site Management Plan will be based on a calendar year and certification reports will be due for submission to OER by July 30 of the year following the reporting period.

4.6 Qualitative Human Health Exposure Assessment

Investigations reported in the Remedial Investigation Report (RIR) are sufficient to complete a Qualitative Human Health Exposure Assessment (QHHEA).

The objective of the qualitative exposure assessment is to identify potential receptors and pathways for human exposure to the contaminants of concern (COC) that are present at, or migrating from, the Site. The identification of exposure pathways describes the route that the COC takes to travel from the source to the receptor. An identified pathway indicates that the potential for exposure exists; it does not imply that exposures actually occur.

Investigations reported in the Remedial Investigation Report (RIR) are sufficient to complete a Qualitative Human Health Exposure Assessment (QHHEA) for this project. As part of the VCP process, a QHHEA was performed to determine whether the Site poses an existing or future health hazard to the Site's exposed or potentially exposed population. The sampling data from the RI were evaluated to determine whether there is any health risk under current and future conditions by characterizing the exposure setting, identifying exposure pathways, and evaluating contaminant fate and transport. This QHHEA was prepared in accordance with Appendix 3B and Section 3.3 (b) 8 of the NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation.

Known and Potential Contaminant Sources

Based on the results of the Remedial Investigation Report the contaminants of concern found are:

Soil

- Metals, including barium, chromium, copper, lead, zinc and mercury exceeded the Unrestricted/Restricted Residential Use SCOs;
- SVOCs (PAH compounds) including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and

indeno(1,2,3-cd)pyrene exceeding the Unrestricted/Restricted Residential Use SCOs; and

- One PCBs (Aroclor 1260) was detected, however there are no SCOs currently available.

Groundwater

- Groundwater was not collected during the investigation at the site.

Soil Vapor

- Chlorinated VOCs detected above NYS DOH monitoring thresholds included PCE.
- Petroleum related VOCs were detected at moderate concentrations.

Nature, Extent, Fate and Transport of Contaminants

Soil: SVOCs, metals, and PCBs are present in the historic fill materials at shallow and/or deep depths. Seven SVOCs, six metals (barium, chromium, copper, lead, zinc and mercury) and one PCBs (Aroclor 1260) were detected in the shallow and/or deep soil samples above SCOs. Due to low contaminant concentration mostly in the shallow soils and the depth to groundwater which is in excess of fifty feet below grade, migration of contaminants to impact groundwater is not anticipated. The metals are considered to be relatively immobile and are unlikely to impact other environmental media.

Groundwater: No groundwater data was available. A groundwater monitoring well installed on the adjoining site to the east did not reveal contaminant concentrations exceeding the Groundwater Quality Standards. No offsite contaminants migrating to the site is anticipated.

Soil Vapor: Soil vapor sample results indicated petroleum related VOCs at a low concentration. One chlorinated VOC - tetrachloroethylene (PCE) was detected at a maximum concentration of 99 $\mu\text{g}/\text{m}^3$ exceeding the USEPA 2001 Building Assessment Survey and Evaluation 90th Percentile, while there was no detection for trichloroethylene (TCE) or carbon tetrachloride in any of the three soil vapor samples. Contaminants do not appear to be migrating onto the site from offsite as evidenced by the reported chlorinated VOCs.

Receptor Populations

On-Site Receptors - The Site currently consists of a one story building with a cellar at the southwest corner of the building. The building occupies the entire footprint of the site and could be accessed via a side entrance door and 12-foot mechanical rollup door. Onsite receptors are limited to trespassers, site representatives and visitors granted access to the property. During construction, potential on-site receptors include construction workers, site representatives, and visitors. Under proposed future conditions, potential on-site receptors include adult and child building residents, workers and visitors.

Off-Site Receptors: Potential off-site receptors within a 500 foot radius of the Site include adult and child residents; commercial and construction workers; pedestrians; and trespassers based on the following land uses within 500 feet of the Site:

1. Commercial Businesses – existing and future
2. Residential Buildings – existing and future
3. Building Construction/ Renovation – existing and future
4. Pedestrians, Trespassers, Cyclists – existing and future
5. Schools – existing and future

Potential Routes of Exposure

Three potential primary routes exist by which chemicals can enter the body: ingestion, inhalation, and dermal absorption. Exposure can occur based on the following potential media:

- Ingestion of groundwater or fill/ soil;
- Inhalation of vapors or particulates; and
- Dermal absorption of groundwater or fill/ soil.

Potential Exposure Points

Current Conditions: The site is currently paved with concrete, there are no potential exposure pathways from ingestion, inhalation, or dermal absorption of soil/ fill. Groundwater is not exposed at the site. The site is served by the public water supply and groundwater is not used at the site for potable supply and there is no potential for exposure. There is potential for soil vapor to migrate unto the site from adjacent properties.

Construction/ Remediation Conditions: During the remedial action, onsite workers will come into direct contact with surface and subsurface soils as a result of on-Site construction and excavation activities. On-Site construction workers potentially could ingest, inhale or have dermal contact with exposed impacted soil and fill. Similarly, off-Site receptors could be exposed to dust and vapors from on-Site activities. Due to the depth of groundwater, direct contact with groundwater is not expected. During construction, on-Site and off-Site exposures to contaminated dust from on-Site will be addressed through the Soil/Materials Management Plan, dust controls, and through the implementation of the Community Air-Monitoring Program and a Construction Health and Safety Plan.

Proposed Future Conditions: Under future remediated conditions, all soils in excess of Track 4 SCOs will be removed. The site will be fully capped, preventing potential direct exposure to soil and groundwater remaining in place, and engineering controls (vapor barrier/SSDS) will prevent any potential exposure due to inhalation by preventing soil vapor intrusion. The site is served by the public water supply, and groundwater is not used at the site. There are no plausible off-site pathways for oral, inhalation, or dermal exposure to contaminants derived from the site.

Overall Human Health Exposure Assessment

Potentially complete on-site exposure pathways appear to be present only during the current unremediated and construction phases. This assessment takes into consideration the reasonably anticipated use of the site, which includes a residential structure, site-wide surface cover, and a subsurface vapor barrier system for the building. After the remedial action is complete, there will be no remaining exposure pathways to identified contaminants. The SSDS and a vapor barrier system will prevent potential vapor intrusion. The composite cover system and use restrictions will prevent contact with residual soil or groundwater and continued protection after the remedial action will be achieved by the implementation of site management including periodic inspection and certification of the performance of remedial controls. Potential post-construction use of groundwater is not considered an option because groundwater in this area of New York City is not used as a potable water source. There are no surface waters in close proximity to the Site that could be impacted or threatened.

Based upon this analysis, complete on-Site exposure pathways appear to be present only during the current unremediated phase and the remedial action phase. Under current conditions, on-Site exposure pathways exist for site personnel. During remedial construction, on-Site and off-Site exposures to contaminated dust from historic fill material will be addressed through dust controls, and through the implementation of the Community Air Monitoring Program, the Soil/Materials Management Plan, and a Construction Health and Safety Plan. After the remedial action is complete, there will be no remaining exposure pathways to on-Site soil/fill, as all soil above Site-Specific SCOs will have been removed and a passive SSDS and a vapor barrier system will have been installed.

5.0 REMEDIAL ACTION MANAGEMENT

5.1 Project Organization and Oversight

Principal personnel who will participate in the remedial action include David Oloke, Project Manager-AHE and Jason Falquecee, Field Operations Officer. The Professional Engineer (P.E) for this project is Neville Patel (P.E), - Neville Engineering Group.

5.2 Site Security

Site access will be controlled by a chain link or wooden construction fence, which will surround the property.

5.3 Work Hours

The hours for operation of cleanup will comply with the NYC Department of Buildings construction code requirements or according to specific variances issued by that agency. The hours of operation will be conveyed to OER during the pre-construction meeting.

5.4 Construction Health and Safety Plan

The Health and Safety Plan is included in Appendix 6. The Site Safety Coordinator will be Jason Falquecees - AHE. Remedial work performed under this RAWP will be in full compliance with applicable health and safety laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements. Confined space entry, if any, will comply with OSHA requirements and industry standards and will address potential risks. The parties performing the remedial construction work will ensure that performance of work is in compliance with the HASP and applicable laws and regulations. The HASP pertains to remedial and invasive work performed at the Site until the issuance of the Notice of Completion.

All field personnel involved in remedial activities will participate in training required under 29 CFR 1910.120, including 40-hour hazardous waste operator training and annual 8-hour refresher training. Site Safety Officer will be responsible for maintaining workers training records.

Personnel entering any exclusion zone will be trained in the provisions of the HASP and will comply with all requirements of 29 CFR 1910.120. Site-specific training will be provided to

field personnel. Additional safety training may be added depending on the tasks performed. Emergency telephone numbers will be posted at the site location before any remedial work begins. A safety meeting will be conducted before each shift begins. Topics to be discussed include task hazards and protective measures (physical, chemical, environmental); emergency procedures; PPE levels and other relevant safety topics. Meetings will be documented in a log book or specific form.

An emergency contact sheet with names and phone numbers is included in the CHASP. That document will define the specific project contacts for use in case of emergency.

5.5 Community Air Monitoring Plan

Real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the exclusion zone or work area will be performed. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedances of action levels observed during performance of the Community Air Monitoring Plan (CAMP) will be reported to the OER Project Manager and included in the Daily Report.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings must be recorded and be available for OER personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate

monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for OER personnel to review.

5.6 Agency Approvals

All permits or government approvals required for remedial construction have been or will be obtained prior to the start of remedial construction. Approval of this RAWP by OER does not constitute satisfaction of these requirements and will not be a substitute for any required permit.

5.7 Site Preparation

Pre-Construction Meeting

OER will be invited to attend the pre-construction meeting at the Site with all parties involved in the remedial process prior to the start of remedial construction activities.

Mobilization

Mobilization will be conducted as necessary for each phase of work at the Site. Mobilization includes field personnel orientation, equipment mobilization (including securing all sampling equipment needed for the field investigation), marking/staking sampling locations and utility mark-outs. Each field team member will attend an orientation meeting to become familiar with the general operation of the Site, health and safety requirements, and field procedures.

Utility Marker Layouts, Easement Layouts

The presence of utilities and easements on the Site will be fully investigated prior to the performance of invasive work such as excavation or drilling under this plan by using, at a minimum, the One-Call System (811). Underground utilities may pose an electrocution, explosion, or other hazard during excavation or drilling activities. All invasive activities will be performed in compliance with applicable laws and regulations to assure safety. Utility companies and other responsible authorities will be contacted to locate and mark the locations, and a copy of the Markout Ticket will be retained by the contractor prior to the start of drilling, excavation or other invasive subsurface operations. Overhead utilities may also be present within the anticipated work zones. Electrical hazards associated with drilling in the vicinity of overhead utilities will be prevented by maintaining a safe distance between overhead power lines and drill rig masts.

Proper safety and protective measures pertaining to utilities and easements, and compliance with all laws and regulations will be employed during invasive and other work contemplated under this RAWP. The integrity and safety of on-Site and off-Site structures will be maintained during all invasive, excavation or other remedial activity performed under the RAWP.

Dewatering

Groundwater is present at approximately 70 feet below grade and dewatering is not expected. In the event that dewatering of groundwater during construction will be necessary, the water will be disposed into the New York City combined sanitary/storm sewer system. A permit to discharge will be obtained from the New York City Department of Environmental Protection (NYCDEP). As part of the permit to discharge, the location of discharge will be based on the Site-Specific

requirements of the DEP. The need for pretreatment will be determined by DEP's requirements for the discharge permit. If pretreatment is required by the DEP, it will be performed in accordance with the requirements of the DEP.

Equipment and Material Staging

Equipment and materials will be stored and staged in a manner that complies with applicable laws and regulations.

Stabilized Construction Entrance

Steps will be taken to ensure that trucks departing the Site will not track soil, fill or debris off-Site. Such actions may include use of cleaned asphalt or concrete pads or use of stone or other aggregate-based egress paths between the truck inspection station and the property exit.

Measures will be taken to ensure that adjacent roadways will be kept clean of project related soils, fill and debris.

Truck Inspection Station

An outbound-truck inspection station will be set up close to the Site exit. Before exiting the NYC VCP Site, trucks will be required to stop at the truck inspection station and will be examined for evidence of contaminated soil on the undercarriage, body, and wheels. Soil and debris will be removed. Brooms, shovels and potable water will be utilized for the removal of soil from vehicles and equipment, as necessary.

Extreme Storm Preparedness and Response Contingency Plan

Damage from flooding or storm surge can include dislocation of soil and stockpiled materials, dislocation of site structures and construction materials and equipment, and dislocation of support of excavation structures. Damage from wind during an extreme storm event can create unsafe or unstable structures, damage safety structures and cause downed power lines creating dangerous site conditions and loss of power. In the event of emergency conditions caused by an extreme storm event, the enrollee will undertake the following steps for site preparedness prior to the event and response after the event.

Storm Preparedness

Preparations in advance of an extreme storm event will include the following: containerized hazardous materials and fuels will be removed from the property; loose materials will be secured to prevent dislocation and blowing by wind or water; heavy equipment such as excavators and generators will be removed from excavated areas, trenches and depressions on the property to high ground or removed from the property; an inventory of the property with photographs will be performed to establish conditions for the site and equipment prior to the event; stockpile covers for soil and fill will be secured by adding weights such as sandbags for added security and worn or ripped stockpile covers will be replaced with competent covers; stockpiled hazardous wastes will be removed from the property; stormwater management systems will be inspected and fortified, including, as necessary: clean and reposition silt fences, haybales; clean storm sewer filters and traps; and secure and protect pumps and hosing.

Storm Response

At the conclusion of an extreme storm event, as soon as it is safe to access the property, a complete inspection of the property will be performed. A site inspection report will be submitted to OER at the completion of site inspection and after the site security is assessed. Site conditions will be compared to the inventory of site conditions and material performed prior to the storm event and significant differences will be noted. Damage from storm conditions that result in acute public safety threats, such as downed power lines or imminent collapse of buildings, structures or equipment will be reported to public safety authorities via appropriate means such as calling 911. Petroleum spills will be reported to NYS DEC within 2 hours of identification and consistent with State regulations. Emergency and spill conditions will also be reported to OER. Public safety structures, such as construction security fences will be repaired promptly to eliminate public safety threats. Debris will be collected and removed. Dewatering will be performed in compliance with existing laws and regulations and consistent with emergency notifications, if any, from proper authorities. Eroded areas of soil including unsafe slopes will be stabilized and fortified. Dislocated materials will be collected and appropriately managed. Support of excavation structure will be inspected and fortified as necessary. Impacted stockpiles will be contained and damaged stockpile covers will be replaced. Storm-water control systems and structures will be inspected and maintained as necessary. If soil or fill materials are

discharged off-Site to adjacent properties, property owners and OER will be notified and corrective measure plan designed to remove and clean dislocated material will be submitted to OER and implemented following approval by OER and granting of site access by the property owner. Impacted offsite areas may require characterization based on site conditions, at the discretion of OER. If on-Site petroleum spills are identified, a qualified environmental professional will determine the nature and extent of the spill and report to NYS DEC's spill hotline at DEC 800-457-7362 within statutory defined timelines.. If the source of the spill is ongoing and can be identified, it should be stopped if this can be done safely. Potential hazards will be addressed immediately, consistent with guidance issued by NYS DEC.

Storm Response Reporting

A site inspection report will be submitted to OER at the completion of site inspection. An inspection report established by OER is available on OER's website (www.nyc.gov/oer) and will be used for this purpose. Site conditions will be compared to the inventory of site conditions and material performed prior to the storm event and significant differences will be noted. The site inspection report will be sent to the OER project manager and will include the site name, address, tax block and lot, site primary and alternate contact name and phone number. Damage and soil release assessment will include: whether the project had stockpiles; whether stockpiles were damaged; photographs of damage and notice of plan for repair; report of whether soil from the site was dislocated and whether any of the soil left the Site; estimates of the volume of soil that left the site, nature of impact, and photographs; description of erosion damage; description of equipment damage; description of damage to the remedial program or the construction program, such as damage to the support of excavation; presence of onsite or offsite exposure pathways caused by the storm; presence of petroleum or other spills and status of spill reporting to NYS DEC; description of corrective actions; schedule for corrective actions. This report should be completed and submitted to OER project manager with photographs within 24 hours of the time of safe entry to the property after the storm event.

5.8 Traffic Control

Drivers of trucks leaving the NYC VCP Site with soil/fill will be instructed to proceed without stopping in the vicinity of the site to prevent neighborhood impacts. The planned route is shown on Figure 8.

5.9 Demobilization

Demobilization will include:

- As necessary, restoration of temporary access areas and areas that may have been disturbed to accommodate support areas (e.g., staging areas, decontamination areas, storage areas, temporary water management areas, and access area);
- Removal of sediment from erosion control measures and truck wash and disposal of materials in accordance with applicable laws and regulations;
- Equipment decontamination, and;
- General refuse disposal.

Equipment will be decontaminated and demobilized at the completion of all field activities. Investigation equipment and large equipment (e.g., soil excavators) will be washed at the truck inspection station as necessary. In addition, all investigation and remediation derived waste will be appropriately disposed.

5.10 Reporting and Record Keeping

Daily Reports

Daily reports providing a general summary of activities for each day of *active remedial work* will be emailed to the OER Project Manager by the end of the following day. Those reports will include:

- Project number and statement of the activities and an update of progress made and locations of excavation and other remedial work performed;
- Quantities of material imported and exported from the Site;
- Status of on-Site soil/fill stockpiles;
- A summary of all citizen complaints, with relevant details (basis of complaint; actions taken; etc.);
- A summary of CAMP results, noting all excursions, if any;
- Photograph of notable Site conditions and activities.

The frequency of the reporting period may be revised in consultation with OER project manager based on planned project tasks. Daily email reports are not intended to be the primary mode of

communication for notification to OER of emergencies (accidents, spills), requests for changes to the RAWP or other sensitive or time critical information. However, such information will be included in the daily reports. Emergency conditions and changes to the RAWP will be communicated directly to the OER project manager by personal communication. Daily reports will be included as an Appendix in the Remedial Action Report.

Record Keeping and Photo-Documentation

Job-site record keeping for all remedial work will be performed. These records will be maintained on-Site during the project and will be available for inspection by OER staff. Representative photographs will be taken of the Site prior to any remedial activities and during major remedial activities to illustrate remedial program elements and contaminant source areas. Photographs will be submitted at the completion of the project in the RAR in digital format (i.e. jpeg files).

5.11 Complaint Management

All complaints from citizens will be promptly reported to OER. Complaints will be addressed and outcomes will also be reported to OER in daily reports. Notices to OER will include the nature of the complaint, the party providing the complaint, and the actions taken to resolve any problems.

5.12 Deviations from the Remedial Action Work Plan

All changes to the RAWP will be reported to the OER Project Manager and will be documented in daily reports and reported in the Remedial Action Report. The process to be followed if there are any deviations from the RAWP will include a request for approval for the change from OER noting the following:

- Reasons for deviating from the approved RAWP;
- Effect of the deviations on overall remedy; and
- Determination that the remedial action with the deviation(s) is protective of public health and the environment.

6.0 Remedial Action Report

A Remedial Action Report (RAR) will be submitted to OER following implementation of the remedial action defined in this RAWP. The RAR will document that the remedial work required under this RAWP has been completed and has been performed in compliance with this plan. The RAR will include:

- Information required by this RAWP;
- Text description with thorough detail of all engineering and institutional controls As-built drawings for all constructed remedial elements Manifests for all soil or fill disposal;
- Required certifications, manifests and other written and photographic documentation of remedial work performed under this remedy;
- Site Management Plan;
- Description of any changes in the remedial action from the elements provided in this RAWP and associated design documents;
- Tabular summary of all end point and post-excavation sampling results and all material characterization results, QA/QC results for end-point sampling, and other sampling and chemical analysis performed as part of the remedial action;
- If applicable, test results or other evidence demonstrating that remedial systems are functioning properly;
- Account of the source area locations and characteristics of all contaminated material removed from the Site including a map showing the location of these excavations and hotspots, tanks or other contaminant source areas;
- Full accounting of the disposal destination of all contaminated material removed from the Site. Documentation associated with disposal of all material will include transportation and disposal records, and letters approving receipt of the material.
- Account of the origin and required chemical quality testing for material imported onto the Site.
- Continue registration of the property with an E-Designation by the NYC Department of Buildings.

- Reports and supporting material will be submitted in digital form and final PDF's will include bookmarks for each appendix.

Remedial Action Report Certification

The following certification will appear in front of the Executive Summary of the Remedial Action Report. The certification will include the following statements:

I, [name], am currently a registered professional engineer licensed by the State of New York. I performed professional engineering services and had primary direct responsibility for implementation of the remedial program for the [site name (address)] site, site number [VCP site number]. I certify to the following:

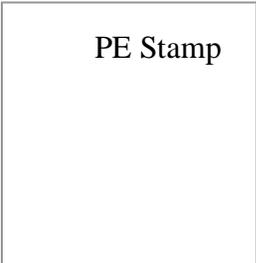
- I have reviewed this document, to which my signature and seal are affixed.
- Engineering Controls implemented during this remedial action were designed by me or a person under my direct supervision and achieve the goals established in the Remedial Action Work Plan for this site.
- The Engineering Controls constructed during this remedial action were professionally observed by me or by a person under my direct supervision and (1) are consistent with the Engineering Control design established in the Remedial action Work Plan and (2) are accurately reflected in the text and drawings for as-built design reported in this Remedial Action Report.
- The OER-approved Remedial Action Work Plan dated [date] and Stipulations in a letter dated [date] were implemented and that all requirements in those documents have been substantively complied with. I certify that contaminated soil, fill, liquids or other material from the property were taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

Name

PE License Number

Signature

Date



PE Stamp

I, [name], am a Qualified Environmental Professional. I had primary direct responsibility for implementation of the remedial program for the [site name (address)] site, site number [VCP site number]. I certify to the following:

- The OER-approved Remedial Action Work Plan dated August 15, 2012 and Stipulations in a letter dated September 10, 2014 were implemented and that all requirements in those documents have been substantively complied with. I certify that contaminated soil, fill, liquids or other material from the property were taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

QEP Name

QEP Signature

Date

7.0 SCHEDULE

The table below presents a schedule for the proposed remedial action and reporting. If the schedule for remediation and development activities changes, it will be updated and submitted to OER. Currently, a 1 month remediation period is anticipated.

Schedule Milestone	Weeks from Remedial Action Start	Duration (weeks)
OER Approval of RAWP	0	-
Fact Sheet 2 announcing start of remedy	0	-
Mobilization	1	1
Remedial Excavation	1	3
Demobilization	4	1
Submit Remedial Action Report	8	-

TABLE 1

TABLE 1
Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water	Unrestricted Use
		Residential	Restricted-Residential	Commercial	Industrial			
METALS								
Arsenic	7440-38 -2	16f	16f	16f	16f	13f	16f	13 ^c
Barium	7440-39 -3	350f	400	400	10,000 d	433	820	350 ^c
Beryllium	7440-41 -7	14	72	590	2,700	10	47	7.2
Cadmium	7440-43 -9	2.5f	4.3	9.3	60	4	7.5	2.5 ^c
Chromium, hexavalent ^h	18540-29-9	22	110	400	800	1e	19	1 ^b
Chromium, trivalent ^h	16065-83-1	36	180	1,500	6,800	41	NS	30 ^c
Copper	7440-50 -8	270	270	270	10,000 d	50	1,720	50
Total Cyanide ^h		27	27	27	10,000 d	NS	40	27
Lead	7439-92 -1	400	400	1,000	3,900	63f	450	63 ^c
Manganese	7439-96 -5	2,000f	2,000f	10,000 d	10,000 d	1600f	2,000f	1600 ^c
Total Mercury		0.81j	0.81j	2.8j	5.7j	0.18f	0.73	0.18 ^c
Nickel	7440-02 -0	140	310	310	10,000 d	30	130	30
Selenium	7782-49 -2	36	180	1,500	6,800	3.9f	4f	3.9 ^c
Silver	7440-22 -4	36	180	1,500	6,800	2	8.3	2
Zinc	7440-66 -6	2200	10,000 d	10,000 d	10,000 d	109f	2,480	109 ^c
PESTICIDES / PCBs								
2,4,5-TP Acid (Silvex)	93-72-1	58	100a	500b	1,000c	NS	3.8	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 e	17	0.0033 ^b
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 e	136	0.0033 ^b
4,4'-DDD	72-54-8	2.6	13	92	180	0.0033 e	14	0.0033 ^b
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19	0.005 ^c
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04g	0.02	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09	0.036
Chlordane (alpha)	5103-71 -9	0.91	4.2	24	47	1.3	2.9	0.094
delta-BHC	319-86-8	100a	100a	500b	1,000c	0.04g	0.25	0.04
Dibenzofuran	132-64-9	14	59	350	1,000c	NS	210	7
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1	0.005 ^c
Endosulfan I	959-98-8	4.8i	24i	200i	920i	NS	102	2.4
Endosulfan II	33213-65-9	4.8i	24i	200i	920i	NS	102	2.4
Endosulfan sulfate	1031-07 -8	4.8i	24i	200i	920i	NS	1,000c	2.4
Endrin	72-20-8	2.2	11	89	410	0.014	0.06	0.014
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38	0.042
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1	0.1
Polychlorinated biphenyls	1336-36 -3	1	1	1	25	1	3.2	0.1
SEMI-VOLATILES								
Acenaphthene	83-32-9	100a	100a	500b	1,000c	20	98	20
Acenaphthylene	208-96-8	100a	100a	500b	1,000c	NS	107	100 ^a
Anthracene	120-12-7	100a	100a	500b	1,000c	NS	1,000c	100 ^a
Benzo(a)anthracene	56-55-3	1f	1f	5.6	11	NS	1f	1 ^c
Benzo(a)pyrene	50-32-8	1f	1f	1f	1.1	2.6	22	1 ^c
Benzo(b) fluoranthene	205-99-2	1f	1f	5.6	11	NS	1.7	1 ^c
Benzo(g,h,i) perylene	191-24-2	100a	100a	500b	1,000c	NS	1,000c	100
Benzo(k) fluoranthene	207-08-9	1	3.9	56	110	NS	1.7	0.8 ^c
Chrysene	218-01-9	1f	3.9	56	110	NS	1f	1 ^c
Dibenz(a,h) anthracene	53-70-3	0.33e	0.33e	0.56	1.1	NS	1,000c	0.33 ^b
Fluoranthene	206-44-0	100a	100a	500b	1,000c	NS	1,000c	100 ^a
Fluorene	86-73-7	100a	100a	500b	1,000c	30	386	30
Indeno(1,2,3-cd) pyrene	193-39-5	0.5f	0.5f	5.6	11	NS	8.2	0.5 ^c
m-Cresol	108-39-4	100a	100a	500b	1,000c	NS	0.33e	0.33 ^b
Naphthalene	91-20-3	100a	100a	500b	1,000c	NS	12	12
o-Cresol	95-48-7	100a	100a	500b	1,000c	NS	0.33e	0.33 ^b
p-Cresol	106-44-5	34	100a	500b	1,000c	NS	0.33e	0.33 ^b
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8e	0.8e	0.8 ^b
Phenanthrene	85-01-8	100a	100a	500b	1,000c	NS	1,000c	100
Phenol	108-95-2	100a	100a	500b	1,000c	30	0.33e	0.33 ^b
Pyrene	129-00-0	100a	100a	500b	1,000c	NS	1,000c	100

TABLE 1
Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water	Unrestricted Use
		Residential	Restricted-Residential	Commercial	Industrial			
VOLATILES								
1,1,1-Trichloroethane	71-55-6	100a	100a	500b	1,000c	NS	0.68	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27	0.27
1,1-Dichloroethene	75-35-4	100a	100a	500b	1,000c	NS	0.33	0.33
1,2-Dichlorobenzene	95-50-1	100a	100a	500b	1,000c	NS	1.1	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02f	0.02 ^c
cis-1,2-Dichloroethene	156-59-2	59	100a	500b	1,000c	NS	0.25	0.25
trans-1,2-Dichloroethene	156-60-5	100a	100a	500b	1,000c	NS	0.19	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1e	0.1e	0.1 ^b
Acetone	67-64-1	100a	100b	500b	1,000c	2.2	0.05	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06	0.06
Butylbenzene	104-51-8	100a	100a	500b	1,000c	NS	12	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76	0.76
Chlorobenzene	108-90-7	100a	100a	500b	1,000c	40	1.1	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1	1
Hexachlorobenzene	118-74-1	0.33e	1.2	6	12	NS	3.2	0.33 ^b
Methyl ethyl ketone	78-93-3	100a	100a	500b	1,000c	100a	0.12	0.12
Methyl tert-butyl ether	1634-04 -4	62	100a	500b	1,000c	NS	0.93	0.93
Methylene chloride	75-09-2	51	100a	500b	1,000c	12	0.05	0.05
n-Propylbenzene	103-65-1	100a	100a	500b	1,000c	NS	3.9	3.9
sec-Butylbenzene	135-98-8	100a	100a	500b	1,000c	NS	11	11
tert-Butylbenzene	98-06-6	100a	100a	500b	1,000c	NS	5.9	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3	1.3
Toluene	108-88-3	100a	100a	500b	1,000c	36	0.7	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6	3.6
1,3,5-Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02	0.02
Xylene (mixed)	1330-20 -7	100a	100a	500b	1,000c	0.26	1.6	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes

a The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

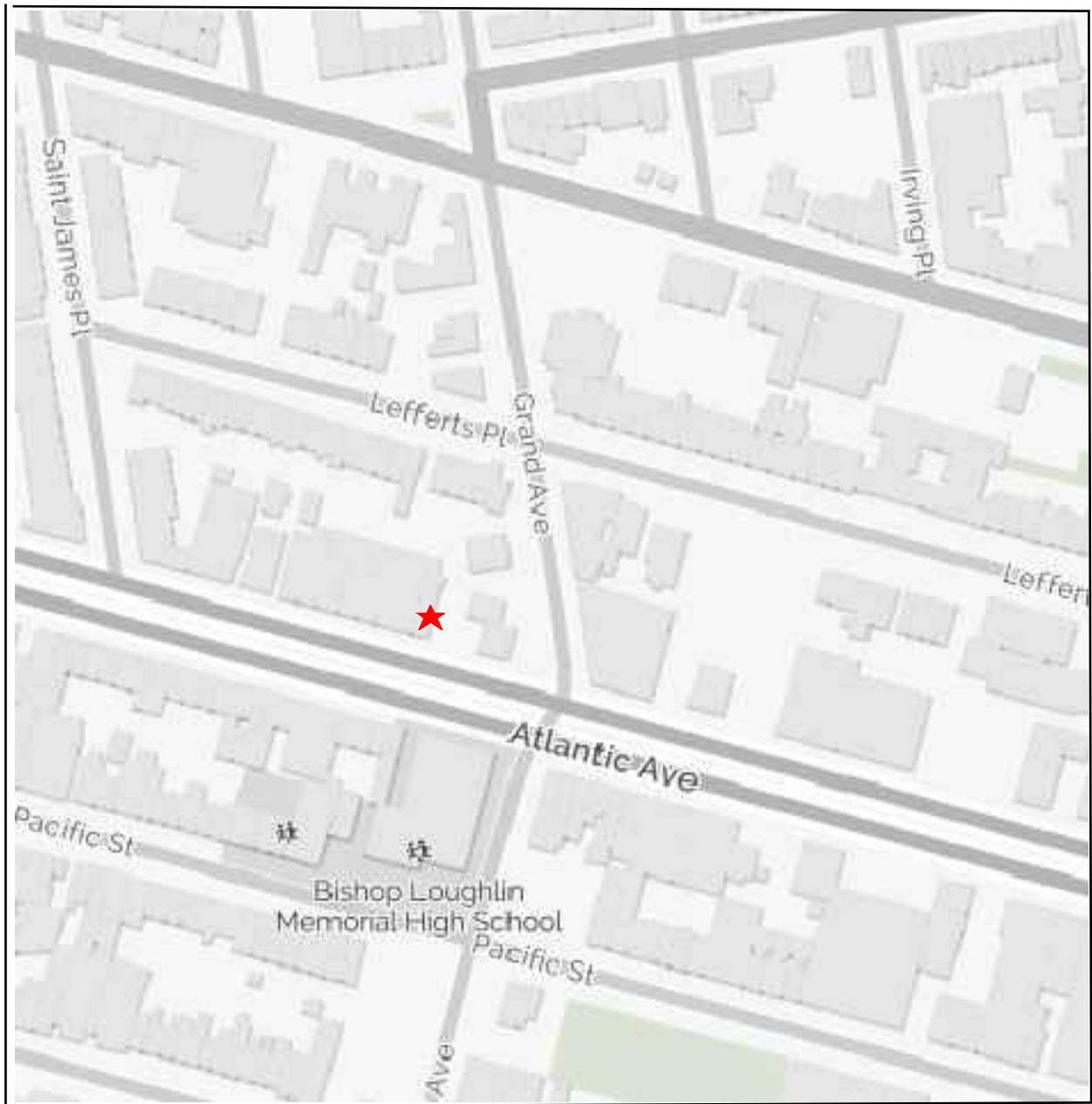
b The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

c The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

d The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

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

FIGURE 1
SITE LOCATION MAP



★ - SITE LOCATION



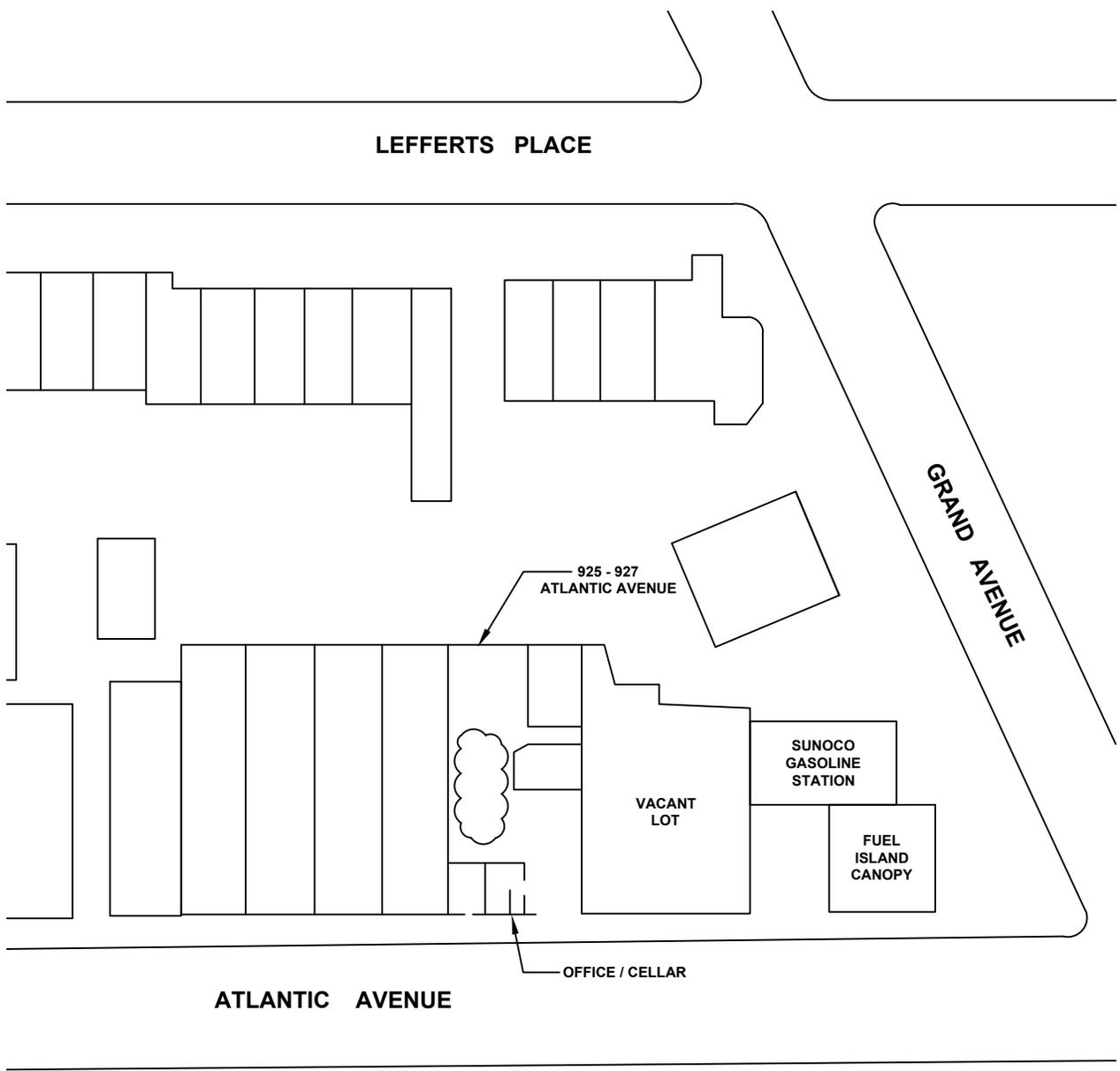
**ALPHA-HYDRO
ENVIRONMENTAL SERVICES**
A PARADIGM OF EXCELLENCE

1503 Wave Avenue, Medford NY 11763

**FIGURE 1
SITE LOCATION MAP**

DATE: 1/5/16	925 - 927 Atlantic Avenue Brooklyn, NY 11238
GEOLOGIST: D.O.	
DRAWN BY: J.F.	FILE NO: AH-15-10183

FIGURE 2
SITE PLAN



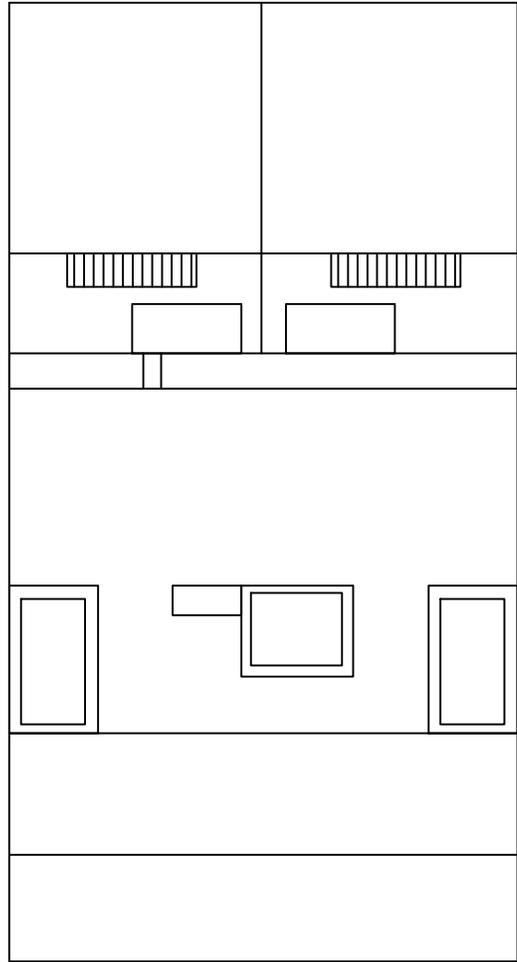
ALPHA-HYDRO
ENVIRONMENTAL SERVICES
 A PARADIGM OF EXCELLENCE

1503 Wave Avenue, Medford NY 11763

FIGURE 2
SITE PLAN

DATE:	1/5/16	925 - 927 Atlantic Avenue Brooklyn, NY 11238
GEOLOGIST:	D.O.	
DRAWN BY:	J.F.	FILE NO: AH-15-10183

FIGURE 3
LAYOUT OF PROPOSED SITE
DEVELOPMENT



← 49'-8" BUILDING →
 ← 50' PROPERTY →

← ATLANTIC AVENUE
 120' WIDE →

0 25 50
 SCALE



ALPHA-HYDRO
ENVIRONMENTAL SERVICES
 A PARADIGM OF EXCELLENCE

1503 Wave Avenue, Medford NY 11763

FIGURE 3

LAYOUT OF PROPOSED SITE DEVELOPMENT

DATE: 1/5/16	925 - 927 Atlantic Avenue
GEOLOGIST: D.O.	Brooklyn, NY 11238
DRAWN BY: J.F.	FILE NO: AH-15-10183

FIGURE 4
SURROUNDING LAND USAGE



★ - SITE LOCATION

LEGEND



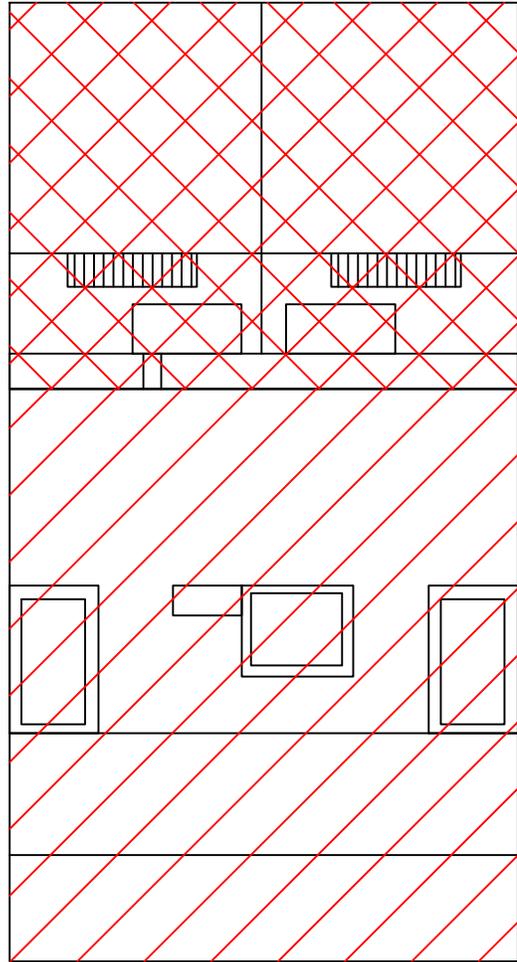
**ALPHA-HYDRO
ENVIRONMENTAL SERVICES**
A PARADIGM OF EXCELLENCE

1503 Wave Avenue, Medford NY 11763

FIGURE 4
SURROUNDING LAND USE

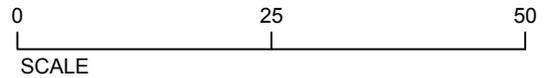
DATE: 1/5/16	925 - 927 Atlantic Avenue
GEOLOGIST: D.O.	Brooklyn, NY 11238
DRAWN BY: J.F.	FILE NO: AH-15-10183

FIGURE 5
EXCAVATION PLAN



49'-8" BUILDING
50' BUILDING

ATLANTIC AVENUE
120' WIDE



LEGEND	
	Area of Excavation to 12 ft
	Area of Excavation to 6 ft



**ALPHA-HYDRO
ENVIRONMENTAL SERVICES**

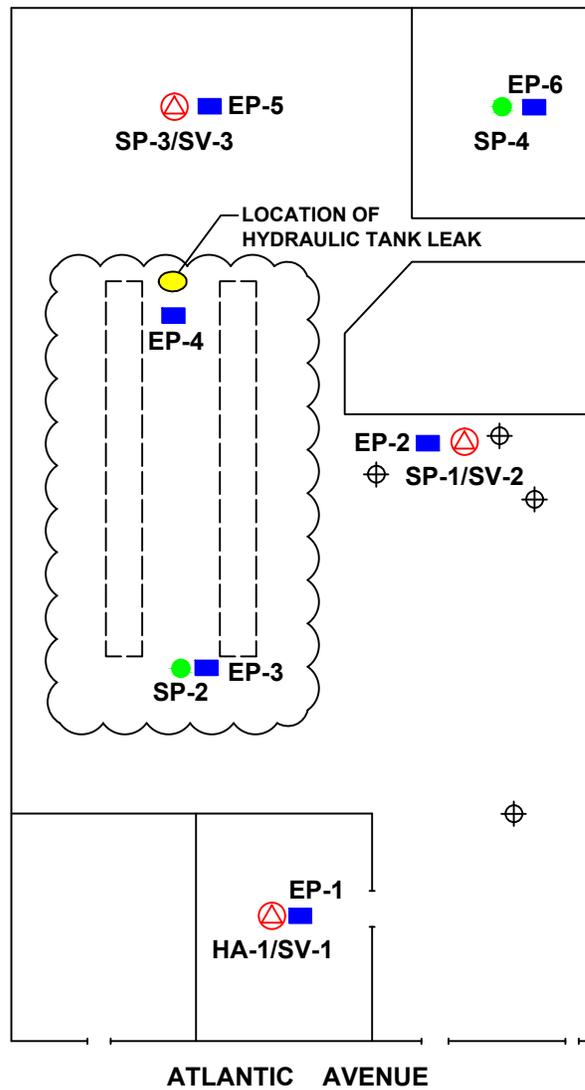
A PARADIGM OF EXCELLENCE

1503 Wave Avenue, Medford NY 11763

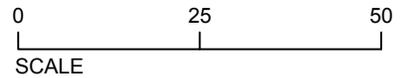
FIGURE 5
EXCAVATION PLAN

DATE: 1/5/16	925 - 927 Atlantic Avenue Brooklyn, NY 11238
GEOLOGIST: D.O.	
DRAWN BY: J.F.	FILE NO: AH-15-10183

FIGURE 6
ENDPOINT SAMPLING PLAN



LEGEND	
	Hand Auger / Soil Sample Location
	Soil Probe / Soil Sample Location
	Soil Probe Location
	Delineation for hydraulic lift location
	Active monitoring well location
	Delineation for steel alignment lift location
	Endpoint Sample Location



ALPHA-HYDRO
ENVIRONMENTAL SERVICES
 A PARADIGM OF EXCELLENCE

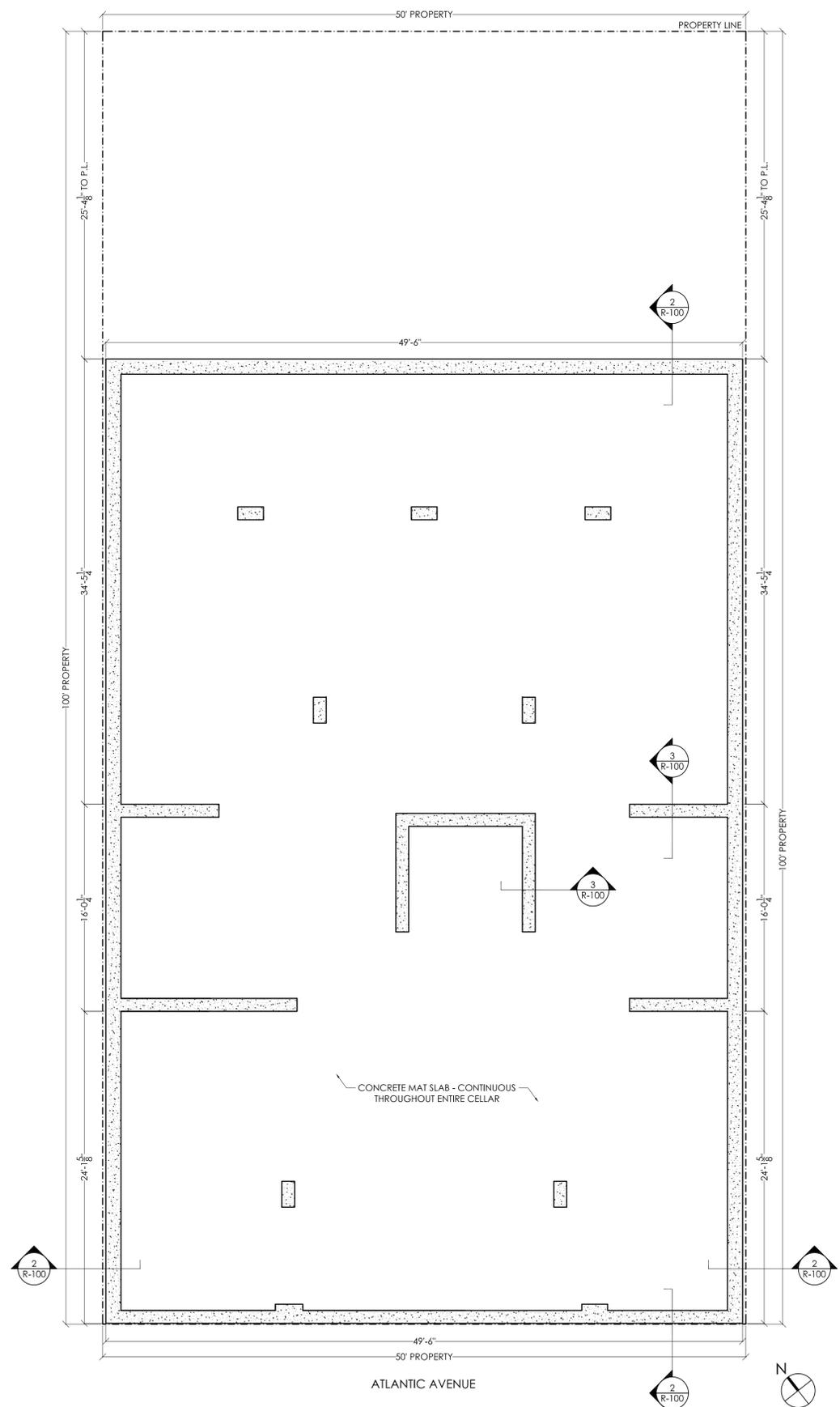
1503 Wave Avenue, Medford NY 11763

FIGURE 6

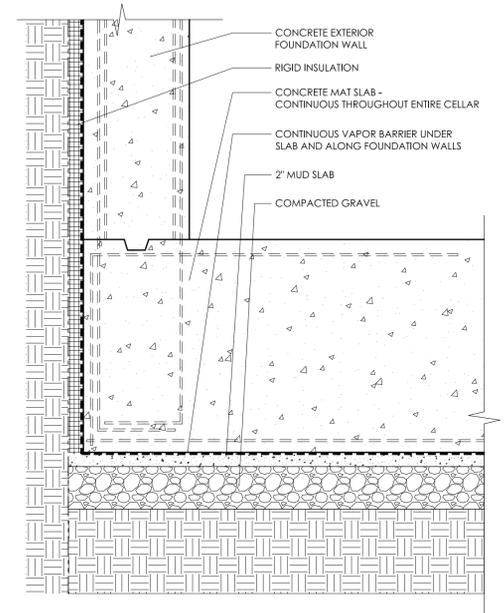
ENDPOINT SAMPLING PLAN

DATE: 1/5/16	925 - 927 Atlantic Avenue Brooklyn, NY 11238
GEOLOGIST: D.O.	
DRAWN BY: J.F.	FILE NO: AH-15-10183

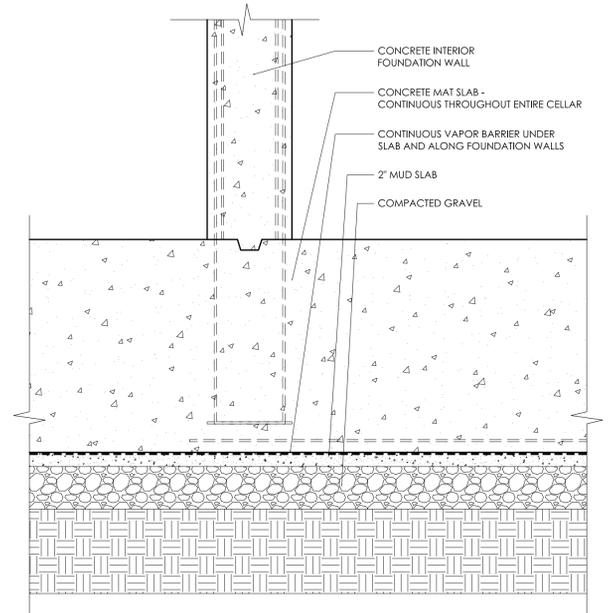
FIGURE 7
VAPOR BARRIER PLAN



1 FOUNDATION PLAN
3/16" = 1'-0"



2 TYPICAL FOUNDATION DETAIL AT EXTERIOR WALL
1" = 1'-0"



3 TYPICAL FOUNDATION DETAIL AT INTERIOR WALL
1" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



308 MALCOLM X BLVD. BROOKLYN, NY 11233 TEL: 718.544.3784 FAX: 718.412.1979

ARCHITECT OF RECORD

feingold & gregory · architects
116 west 63rd street - new york, n.y. - 10024
tel: (212) 595-8855 - fax: (212) 787-8992
ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY WORK IN PROGRESS UNLESS IT IS APPROVED IN WRITING BY THE ARCHITECT. OBTAIN WRITTEN APPROVAL FOR ANY CHANGES FROM THE ARCHITECT BEFORE COMMENCING SUCH WORK.



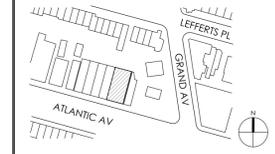
STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

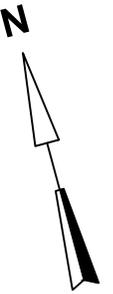
1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:
COMPOSITE COVER PLAN & DETAILS

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: OF 43
SHEET: **R-100.00**

SEAL & SIGNATURE
PAUL GREGORY, R.A.
REGISTERED ARCHITECT
STATE OF NEW YORK
026717

FIGURE 8
TRUCK ROUTE MAP



ALPHA-HYDRO
ENVIRONMENTAL SERVICES
 A PARADIGM OF EXCELLENCE

1503 Wave Avenue, Medford NY 11763

FIGURE 8
 TRUCKING ROUTE

DATE: 1/5/16

GEOLOGIST: D.O.

DRAWN BY: B.O.

ATLANTIC AVENUE
 BROOKLYN, NY 11238

FILE NO: AH- 15-10183

APPENDIX 1
PROPOSED DEVELOPMENT PLANS

925 ATLANTIC AVENUE

BROOKLYN, NY 11238

WORK DESCRIPTION

- PROPOSED NEW SEVEN (7) STORY, TWENTY-ONE (21) DWELLING UNITS
- THE BUILDING PROPOSED IS NOT TO BE CONSTRUCTED OF MODULAR OR PREFAB CONSTRUCTION.

OWNER

BROOKLAND CAPITAL
308 MALCOM X BLVD.
BROOKLYN, NY 11233
TEL. 718 544 3784

ARCHITECT OF RECORD

FEINGOLD & GREGORY ARCHITECTS
118 WEST 83RD STREET
NEW YORK, NY 10024
TEL. 212 595 6895

DESIGN ARCHITECT

ROART
304 MALCOM X BLVD.
BROOKLYN, NY 11233
TEL. 718 544 3784

STRUCTURAL ENGINEER

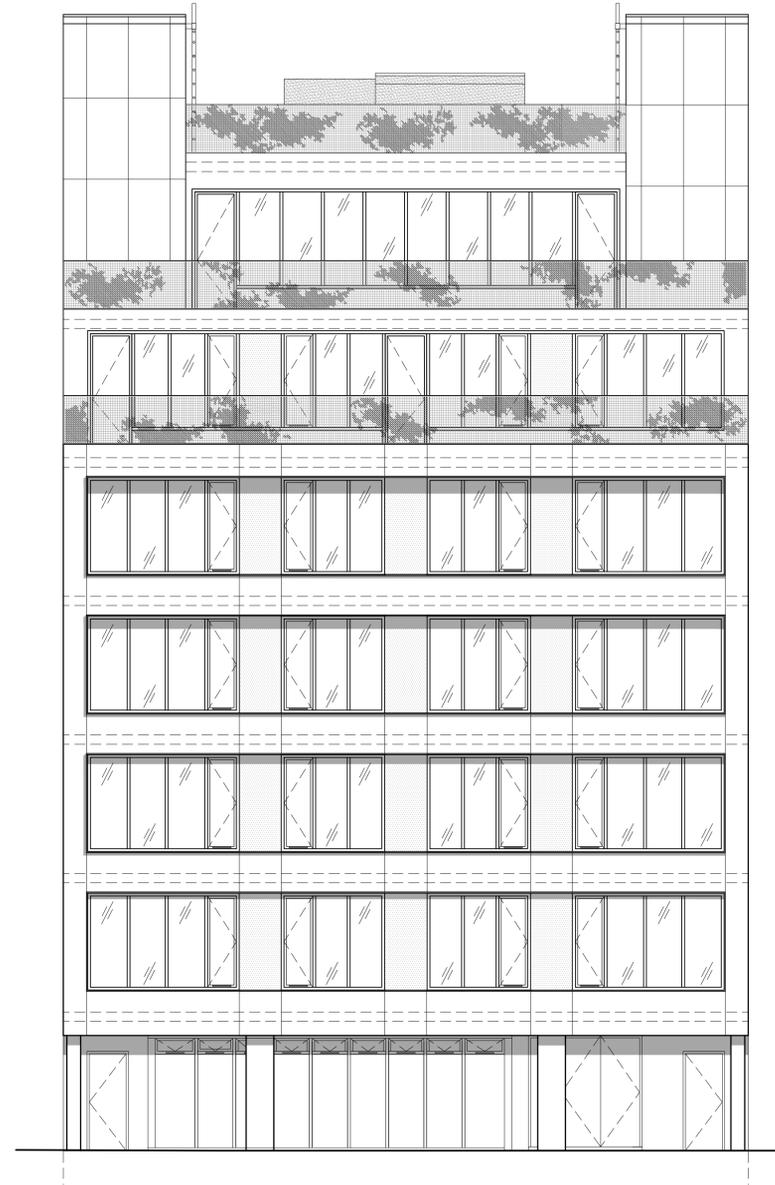
GACE CONSULTING ENGINEERS PC
105 MADISON AVE
NEW YORK, NY 10016
TEL. 212 545 7878

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
TEL. 516 522 6770

ENVIRONMENTAL CONSULTANT

ALPHA-HYDRO ENVIRONMENTAL
1503 WAVE AVENUE
MEDFORD, NY 11763
TEL. 631.448.1862



DRAWING LIST

GENERAL

- T-001.00 COVER SHEET, DRAWING LIST
- G-100.00 GENERAL NOTES
- G-110.00 BUILDING CODE ANALYSIS
- G-111.00 LIFE SAFETY PLANS I
- G-112.00 LIFE SAFETY PLANS II
- G-113.00 EXIT SUMMARY & OCCUPANCY CALCULATIONS
- G-120.00 ACCESSIBILITY NOTES I
- G-121.00 ACCESSIBILITY NOTES 2
- G-125.00 TYPICAL SIGNAGE NOTES & DETAILS

ZONING

- Z-001.00 ZONING ANALYSIS I
- Z-002.00 ZONING ANALYSIS II
- Z-003.00 ZONING ANALYSIS III

ENERGY

- EN-001.00 ENERGY CODE COMPLIANCE CERTIFICATES
- EN-002.00 TR8 SPECIAL INSPECTION CHECKLIST
- EN-100.00 ENERGY ANALYSIS I
- EN-101.00 ENERGY ANALYSIS II
- EN-102.00 WEIGHTED AVERAGE U-VALUES

REFERENCE

- R-101.00 SITE SURVEY

ARCHITECTURAL

- A-001.00 ABBREVIATIONS & SYMBOLS
- A-002.00 PARTITION TYPES
- A-100.00 CONSTRUCTION PLAN - CELLAR, FIRST FLOOR PLAN
- A-101.00 CONSTRUCTION PLAN - SECOND, THIRD FLOOR PLAN
- A-102.00 CONSTRUCTION PLAN - FOURTH, FIFTH FLOOR PLAN
- A-103.00 CONSTRUCTION PLAN - SIXTH, SEVENTH FLOOR PLAN
- A-104.00 CONSTRUCTION PLAN - ROOF & BULKHEAD PLAN

- A-150.00 REFLECTED CEILING PLAN - CELLAR
- A-151.00 REFLECTED CEILING PLAN - FIRST FLOOR
- A-152.00 REFLECTED CEILING PLAN - SECOND FLOOR
- A-153.00 REFLECTED CEILING PLAN - THIRD FLOOR
- A-154.00 REFLECTED CEILING PLAN - FOURTH FLOOR
- A-155.00 REFLECTED CEILING PLAN - FIFTH FLOOR
- A-156.00 REFLECTED CEILING PLAN - SIXTH FLOOR
- A-157.00 REFLECTED CEILING PLAN - SEVENTH FLOOR
- A-158.00 REFLECTED CEILING PLAN - ROOF

- A-201.00 EXTERIOR ELEVATIONS - NORTH & SOUTH
- A-202.00 EXTERIOR ELEVATION - WEST
- A-203.00 EXTERIOR ELEVATION - EAST

- A-210.00 WINDOW SCHEDULE & WINDOW TYPES

- A-250.00 BUILDING SECTION I & II
- A-251.00 BUILDING SECTION III

- A-601.00 DOOR TYPES & SCHEDULE
- A-602.00 STAIR DETAILS
- A-610.00 REFUSE & COMPACTOR RM PLANS & SECTIONS

STRUCTURAL

- FO-101.00 FOUNDATION/CELLAR PLAN
- S-001.00 GENERAL NOTES
- S-002.00 TYPICAL DETAILS 1
- S-003.00 TYPICAL DETAILS 2
- S-101.00 1ST FLOOR FRAMING PLAN
- S-102.00 2ND FLOOR FRAMING PLAN
- S-103.00 3RD THRU 5TH FLOOR FRAMING PLAN
- S-104.00 6TH FLOOR FRAMING PLAN
- S-105.00 ROOF AND BULKHEAD FLOOR FRAMING PLANS
- S-301.00 SCHEDULES
- S-401.00 SHEAR WALL DETAILS

MECHANICAL

- M-100.00 CELLAR FLOOR PLAN
- M-101.00 FIRST FLOOR PLAN
- M-102.00 SECOND FLOOR PLAN
- M-103.00 THIRD - FIFTH FLOOR PLAN
- M-104.00 SIXTH FLOOR PLAN
- M-105.00 ROOF & BULKHEAD PLAN

PLUMBING

- P-100.00 CELLAR FLOOR PLAN
- P-101.00 FIRST FLOOR PLAN
- P-102.00 SECOND FLOOR PLAN
- P-103.00 THIRD - FIFTH FLOOR PLAN
- P-104.00 SIXTH FLOOR PLAN
- P-105.00 ROOF & BULKHEAD PLAN

SPRINKLER

- SP-100.00 CELLAR FLOOR PLAN
- SP-101.00 FIRST FLOOR PLAN
- SP-102.00 SECOND FLOOR PLAN
- SP-103.00 THIRD - FIFTH FLOOR PLAN
- SP-104.00 SIXTH FLOOR PLAN
- SP-105.00 ROOF & BULKHEAD PLAN

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



308 MALCOLM X BLVD.
BROOKLYN, NY 11233

TEL. 718-544-3784
FAX 718-415-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street - New York, NY - 10024
Tel: (212) 595-6895 - Fax: (212) 781-8992



ARCHITECT ASSUMES NO
RESPONSIBILITY FOR ANY
WORK WHICH DEVIATES
FROM APPROVED PLANS.
THE CONTRACTOR MUST
OBTAIN WRITTEN APPROVAL
FOR ANY CHANGES FROM
THE ARCHITECT BEFORE
COMMENCING SUCH WORK.

STRUCTURAL ENGINEER

GACE consulting engineers pc

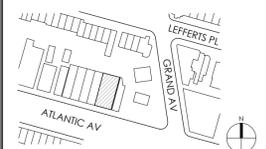
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

COVER PAGE AND
DRAWING LIST

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 01 OF 43

SHEET: T-100.00

SEAL & SIGNATURE OF ARCHITECT



GENERAL NOTES

1. PERMITS & COMPLIANCE: ALL WORK SHALL CONFORM TO & BE PERFORMED IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE BUILDING CODES OF THE CITY OF NEW YORK, & ALL OTHER REGULATIONS HAVING JURISDICTION. ALL REQUIRED PERMITS SHALL BE OBTAINED BY THE CONTRACTOR BEFORE COMMENCEMENT OF THE WORK. ALL ELECTRICAL, PLUMBING, & SPRINKLER WORK SHALL BE PERFORMED, RESPECTIVELY, BY LICENSED ELECTRICIANS, PLUMBERS, FIRE ALARM & FIRE SUPPRESSION PIPING CONTRACTORS.

2. SPECIAL INSPECTIONS: AFTER ISSUANCE OF WORK PERMIT, SPECIAL AND OTHER INSPECTIONS SHALL BE MADE IN ACCORDANCE WITH AN INSPECTION PROGRAM SET FORTH IN THE PERMIT APPLICATION. SPECIAL INSPECTION ITEMS REQUIRE 72 HOURS PRIOR WRITTEN NOTICE TO PERSONS RESPONSIBLE FOR INSPECTION. RECORDS OF INSPECTIONS SHALL BE KEPT BY INSPECTOR FOR AT LEAST 6 YRS. AND MADE AVAILABLE TO THE DEPT. UPON REQUEST. (SEC. 28-114 ADMIN. CODE)

3. THE CONTRACT DOCUMENTS: CONSIST OF THE OWNER-CONTRACTOR AGREEMENT, THE CONDITIONS OF THE CONTRACT, THE DRAWINGS, THE SPECIFICATIONS, & ALL ISSUED MODIFICATIONS. IN CASE OF DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL OBTAIN INSTRUCTIONS FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

4. PROTECTION OF SITE: CONTRACTOR SHALL PROTECT EXISTING & NEIGHBORING BUILDINGS AS REQUIRED DURING CONSTRUCTION AND DO ALL SHORING & BRACING AS REQUIRED FOR PROPER AND SAFE EXECUTION OF THE WORK. ANY DAMAGE TO THE BUILDING & ADJACENT PROPERTIES CAUSED DURING CONSTRUCTION SHALL BE REPAIRED TO MATCH EXISTING CONDITIONS.

5. CONDITIONS AFFECTING THE WORK: BEFORE PROCEEDING WITH THE WORK, THE CONTRACTOR & SUBCONTRACTORS SHALL THOROUGHLY EXAMINE CONDITIONS AT THE PROJECT SITE TO ASSURE THAT THE WORK CAN PROCEED ACCORDING TO THE CONTRACT DOCUMENTS. CONDITIONS FOUND WHICH WILL ADVERSELY AFFECT THE WORK SHALL BE REVIEWED WITH THE ARCHITECT BEFORE PROCEEDING WITH THE AFFECTED WORK.

6. NOTIFICATION OF ADJACENT PROPERTY OWNERS: TEN DAYS PRIOR NOTICE SHALL BE GIVEN TO THE OWNER OF EACH ADJOINING LOT AS PER SEC. 105.5.3, 2113.1.6.3 AND 3304.3.2 OF THE NYC BUILDING CODE AS WELL AS TITLE 1, CH. 28 OF THE ADMIN. CODE.

7. COMMENCEMENT OF OPERATIONS: AT LEAST 24 HOURS, BUT NO MORE THAN 48 HOURS WRITTEN NOTICE SHALL BE GIVEN TO THE COMMISSIONER OF BUILDINGS BEFORE COMMENCING OF FOUNDATION AND EARTHWORK (B.C. SEC. 105.5.1). AT LEAST 48 HOURS WRITTEN NOTICE SHALL BE GIVEN TO THE DEPT. PRIOR TO COMMENCING DEMOLITION WORK (B.C. 105.6).

8. ELEVATION DATUM: SITE ELEVATIONS SHOWN REFER TO DATUM INDICATED ON THE SURVEY; SEE DRAWINGS LIST FOR SURVEY REFERENCE.

9. LABOR LAWS: CONSTRUCTION SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, RULES AND REGULATIONS PERTAINING TO LABOR AND MATERIALS.
A) ALL WORKERS MUST COMPLY TO ALL SAFETY LAWS.

10. SURVEY AND BORINGS: SURVEY AND SUB-SURFACE TEST BORINGS ARE PROVIDED FOR INFORMATION ONLY. THE ARCHITECT SUBCONSULTANTS ARE NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF INFORMATION CONTAINED IN THE SURVEY OR TEST BORINGS PREPARED BY OTHERS.
A) AN ACCURATE AND COMPLETE FINAL SURVEY, MADE BY A LICENSED SURVEYOR SHALL BE SUBMITTED AFTER COMPLETION OF THE WORK SHOWING THE LOCATION OF NEW BUILDING ELEVATION OF FIRST FLOOR, FINISHED GRADES OF OPEN SPACES, ESTABLISHED CURB LEVEL, LOCATION AND BOUNDARIES OF LOT.

11. DIMENSIONS: ALL DIMENSIONS ARE DRAWN TO FACE OF FINISH WALL, UNLESS OTHERWISE NOTED IN THE DRAWINGS. WRITTEN DIMENSIONS SHALL GOVERN OVER SCALED DIMENSIONS. WHEN A DETAIL, DIMENSION, OR REFERENCE IS INDICATED AS "TYPICAL," IT APPLIES TO ALL SIMILAR SITUATIONS, WHETHER OR NOT INDICATED.

12. CORNER CLEARANCE: THE DISTANCE FROM ANY DOOR OPENING TO ADJACENT PARTITIONS SHALL NOT BE LESS THAN 2', UNLESS OTHERWISE NOTED IN THE DRAWINGS.

13. MEANS AND METHODS: THE ARCHITECT SHALL NOT HAVE CONTROL OR CHARGE & SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION, FABRICATION, PROCUREMENT, SHIPMENT, DELIVERY, OR INSTALLATION, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. FOR THE ACTS OR OMISSIONS OF THE CONTRACTORS, SUBCONTRACTORS, SUPPLIERS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN THE CONTRACT DOCUMENTS.

14. COORDINATION: BEFORE PROCEEDING WITH THE WORK, THE CONTRACTOR & SUBCONTRACTORS SHALL COORDINATE THE SEQUENCING & INSTALLATION OF THE WORK COVERED IN THE CONTRACT DOCUMENTS.

15. MATERIALS: MATERIALS, ASSEMBLIES, EQUIPMENT, METHODS OF CONSTRUCTION, & SERVICE EQUIPMENT SHALL MEET THE APPROVAL OF THE COMMISSIONER, IN ALL INSTANCES.
A) IT SHALL HAVE BEEN ACCEPTABLE PRIOR TO EFFECTIVE DATE OF THE CODE BY THE BOARD OR
B) SHALL HAVE BEEN TESTED ACCEPTED FOR USE UNDER THE PRESCRIBED CODE TEST METHODS BY THE COMMISSIONER OR
C) APPROVED BY THE BOARD OF STANDARDS AND APPEALS
D) ALL MATERIALS AND CONSTRUCTION TO BE INCORPORATED IN THE WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE A.S.T.M. SPECIFICATIONS APPLICABLE, AND TO CONFORM WITH THE STANDARDS AND RECOMMENDATIONS OF THE VARIOUS TRADE INSTITUTES (A.C.I., A.I.S.C., ETC.), WHERE APPLICABLE. ALL MATERIAL INCORPORATED INTO THE WORK SHALL BE NEW.

16. FACILITIES AND SERVICES: THE WORK & OPERATIONS OF DEMOLITION & CONSTRUCTION SHALL COMMENCE ONLY AFTER ALL REQUIRED TEMPORARY PROTECTION & SERVICES ARE IN PLACE. EXISTING FACILITIES & SERVICES SHALL BE DISCONNECTED AND/OR REMOVED FOR THE PURPOSES OF CONSTRUCTION OR DEMOLITION ONLY AFTER THEY ARE REPLACED BY TEMPORARY OR PERMANENT NEW FACILITIES & SERVICES.

17. POSTED OCCUPANCY AND USE: ALL BUILDING SHALL BE POSTED WITH A SIGN IN A FORM PRESCRIBED BY THE DEPARTMENT, PERMANENTLY AFFIXED, PLACED IN A CONSPICUOUS LOCATION IN PUBLIC HALL OR CORRIDOR, STAIRS LIVE LOADS IN THE BUILDING AND ALL PARTS THEREOF (C27-219).

18. EXITS: ALL EXITS SHALL BE KEPT READILY ACCESSIBLE AND UNOBSTRUCTED AT ALL TIMES.

19. SAFETY MEASURES: DURING CONSTRUCTION ALL APPLICABLE REGULATIONS SHALL BE STRICTLY FOLLOWED ACCORDING TO CHAPTER 33 OF THE NEW YORK CITY BUILDING CODE.

20. DOCUMENTS TO BE KEPT ON SITE: WHERE THIS CHAPTER REQUIRES CONSTRUCTION DOCUMENTS, DRAWINGS, INSPECTION REPORTS, LOGS, CHECKLISTS, SITE SAFETY PLANS, FIRE SAFETY AND EVACUATION PLANS, TENANT PROTECTION PLANS, OCCUPANT PROTECTION PLANS, OR MONITORING PLANS, COPIES OF SUCH SHALL BE MAINTAINED AT THE SITE FOR THE DURATION OF THE JOB AND MADE AVAILABLE TO THE COMMISSIONER UPON REQUEST.

21. REQUIRED SIGNS: SIGNS SHALL BE POSTED AT A CONSTRUCTION OR DEMOLITION SITE IN ACCORDANCE WITH SECTIONS 3301.9.1 THROUGH 3301.9.5.

22. 3301.9.1 FENCE PROJECT INFORMATION PANEL: WHERE A SITE IS ENCLOSED WITH A FENCE IN ACCORDANCE WITH SECTION 3307.7, A PROJECT INFORMATION PANEL MEETING THE REQUIREMENTS OF SECTIONS 3301.9.1.1 THROUGH 3301.9.1.6 SHALL BE POSTED. REQUIRED PROJECT INFORMATION PANELS SHALL BE IN PLACE THROUGHOUT THE DURATION THAT THE FENCE REMAINS AT THE SITE

23. SITE SAFETY MANAGERS, COORDINATORS AND SUPERINTENDENT OF CONSTRUCTION: A SITE SAFETY MANAGER OR SITE SAFETY COORDINATOR MUST BE DESIGNATED AND PRESENT AT THE CONSTRUCTION OR DEMOLITION OF A MAJOR BUILDING IN ACCORDANCE WITH SECTION 3310. A SUPERINTENDENT OF CONSTRUCTION IS REQUIRED FOR THE CONSTRUCTION OR DEMOLITION OF SUCH OTHER BUILDINGS AS IDENTIFIED PURSUANT TO RULES PROMULGATED BY THE COMMISSIONER

24. STORAGE OF MATERIALS AND EQUIPMENT DURING CONSTRUCTION OR DEMOLITION: MATERIAL AND EQUIPMENT STORED AT A SITE DURING CONSTRUCTION OR DEMOLITION OPERATIONS SHALL COMPLY WITH SECTIONS 3303.4.5.1 AND 3303.4.5.2

25. RODENT PROOFING: APPENDIX F OF THE NYC BUILDING CODE SHALL APPLY TO ALL RODENT PROOFING REQUIREMENTS FOR CONSTRUCTION.

26. RATED ASSEMBLIES: ALL MATERIALS OR ASSEMBLIES REQUIRED TO HAVE A FIRE RESISTANCE RATING SHALL COMPLY WITH THE APPROPRIATE NEW YORK CITY BUILDING CODE STANDARDS.

27. MASONRY UNITS: ALL MASONRY UNITS AND CONSTRUCTION ASSEMBLIES SHALL COMPLY WITH THE APPROPRIATE NEW YORK CITY BUILDING CODE STANDARDS.

28. FLAME-SPREAD & SMOKE DENSITY FOR NEW CONSTRUCTION:

- A) FLAME-SPREAD RATING TO COMPLY WITH 603 AND CH. 8 OF THE NEW YORK CITY BUILDING CODE.
B) SMOKE DEVELOPED INDEX SHALL COMPLY WITH CH. 8 OF THE NEW YORK CITY BUILDING CODE.
C) SMOKE DENSITY: NO MATERIAL SHALL BE USED FOR INTERIOR FINISH FOR EXITS OR CORRIDORS THAT HAS A SMOKE DENSITY RATING GREATER THAN 25, AS PER 603 AND 803.1.1 OF THE NEW YORK CITY BUILDING CODE.

29. FIRESTOPPING - GENERAL: CONCEALED SPACES WITH PARTITIONS, WALLS, FLOORS, ROOFS STAIRS, FURRING, PIPE SPACES, COLUMN ENCLOSURES, ETC. SHALL BE FIRESTOPPED (EXCEPT WHERE CONCEALED SPACE IS SPRINKLERED) WITH NON-COMBUSTIBLE MATERIAL THAT CAN BE SHAPED, FITTED, & PERMANENTLY SECURED IN POSITION AS PER 717 OF THE NEW YORK CITY BUILDING CODE, AND WHICH HAS BEEN TESTED IN ACCORDANCE WITH ASTM E 814 CRITERIA.

30. FIRESTOPPING - FURRING OF INTERIOR FINISHES: PER SEC. 803.4 OF THE NYC BUILDING CODE, ANY INTERIOR FINISH APPLIED TO A RATED ASSEMBLY SHALL BE DIRECTLY ATTACHED OR BY FURRING STRIPS NOT EXCEEDING 0.75 IN. APPLIED DIRECTLY AGAINST SUCH SURFACES. INTERVENING SPACES BETWEEN STRIPS SHALL BE FILLED WITH INORGANIC OR CLASS A MATERIAL OR BE FIREBLOCKED AT A MAX. OF 8 FT. IN ANY DIRECTION.

31. FIRESTOPPING - DUCTS, PIPES, & CONDUITS: DUCTS, PIPES, & CONDUITS PASSING THROUGH FIRE RATED CONSTRUCTION SHALL HAVE SURROUNDING SPACES NOT EXCEEDING 1/2" IN WIDTH FILLED WITH FIRESTOPPING MATERIAL APPROVED BY THE CODE & CLOSED OFF WITH CLOSE-FITTING METAL CLOSURES. REFER TO DEFINITION OF CONCEALED SPACES IN BC 702.1. DUCTWORK PENETRATIONS SHALL ALSO BE PROTECTED BY RATED SELF CLOSING DEVICES, PER 716 OF THE NEW YORK CITY BUILDING CODE.

32. ELEVATORS SHALL BE FILED AS SEPARATE NYC BLDG. DEPT. APPLICATION. ELEVATORS SHALL COMPLY WITH ALL APPLICABLE ACCESSIBILITY REGULATIONS AS WELL AS APPENDIX K OF THE NYC BUILDING CODE. ELEVATORS AND ACCESSORIES SHALL COMPLY WITH THE REQUIREMENTS FOR THE FIREMANS RECALL SYSTEM. SIGNAGE SHALL COMPLY WITH CH. 10 & CH. 11 OF THE NYC BUILDING CODE.

33. WASTE DISPOSAL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS & SHIPPING CARTONS FROM THE PREMISES, INCLUDING THOSE OF OTHER CONTRACTORS.

34. CLEANING: THE SITE IS TO BE KEPT BROOM SWEEP AT THE END OF EACH DAY. WHEN WORK IS COMPLETE IN A GIVEN AREA, CLEAN ALL SURFACES AS REQUIRED, GIVEN THE NATURE OF FINISH, TO BE FREE OF DUST, STAINS, FILMS, & OTHER FOREIGN SUBSTANCES. IN ADDITION, REMOVE ALL DEBRIS, PACKING MATERIAL, & CONTRACTOR'S EQUIPMENT.

35. NOISE CONTROL: THE WORK SHALL COMPLY WITH REQUIREMENTS FOR MC-926 AND INTERIOR ENVIRONMENT CHAPTER 12 AND ADDITIONALLY CHAPTER 30 OF NYC BUILDING

- A) AIR BORNE NOISE: WALLS, PARTITIONS, FLOOR-CEILING CONST. SEPARATING DWELLING UNITS - STC 50 IF LAB. TESTED BY ASTM E 90 OR NOT LESS THAN 45 IF FIELD TESTED WITH ASTM E 336. DWELLING UNIT ENTRANCE DOORS - STC 35.
B) STRUCTURE BORNE NOISE: FLOOR-CEILING CONST. SEPARATING DWELLING UNITS SHALL HAVE AN IMPACT INSULATION CLASS(IIC) RATING OF NOT LESS THAN 50 IF LAB. TESTED WITH ASTM E492 OR 45 IF FIELD TESTED WITH ASTM E 1007.
C) EQUIPMENT/MACHINE RM.: SHALL COMPLY WITH SEC. 1207.2.1 & TABLE 1207.2.1 OF NYC BUILDING CODE.

36. CHIMNEY: THE WORK SHALL COMPLY WITH NYC BLDG. CODE. ENCLOSURE OF INTERIOR METAL CHIMNEY SHALL BE 2 HR. RATED.

37. INSTALLATION: THE CONTRACTOR SHALL PROVIDE COMPLETE INSTALLATION IN CONFORMANCE WITH THE DESIGN INTENT OF THE DRAWINGS & SPECIFICATIONS, WHICH INCLUDES ALL REQUIRED FASTENERS, HARDWARE, & ACCESSORIES. THESE ITEMS SHALL BE PROVIDED EVEN IF THEY ARE NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS. ANY OF THE ABOVE ITEMS IN PLAIN VIEW SHALL BE APPROVED BY THE ARCHITECT BEFORE INSTALLATION.

38. SCHEDULED MATERIALS, FIXTURES, & EQUIPMENT: ALL MATERIALS, FIXTURES, & EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS, UNLESS OTHERWISE NOTED IN THE DRAWINGS & SPECIFICATIONS.

39. INTERCOM SYSTEM: DIRECTORY WITH BELLS AND INTERCOM SYSTEM AT GROUND FLOOR ENTRANCE SHALL HAVE CONNECTION TO SPEAKER IN EACH APARTMENT. SPEAKER IN EACH APARTMENT SHALL COMMUNICATE WITH SPEAKER AT ENTRANCE

40. STRUCTURAL:

- A) FOR NOTES REFERING TO LIVE AND DEAD LOADS, STRUCTURAL WORK AND FOUNDATIONS, REFER TO STRUCTURAL DRAWINGS.
B) STRUCTURAL PLANS WILL BE FILED SHOWING ALL FOOTINGS, FOUNDATIONS, WALLS, SLABS, REINFORCING, ETC.

41. FINISHES: INTERIOR FINISHES & MATERIALS FOR FLOORS, BASE, WALLS, & CEILING ARE INDICATED BY ROOM ON THE FINISH SCHEDULE. THE CONTRACTOR SHALL PROVIDE SCHEDULED FINISHES FOR EACH ROOM & SPACE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

42. DOORS, FRAMES & HARDWARE: DOORS, FRAMES, & HARDWARE ARE INDICATED BY DOOR TYPE ON THE DOOR SCHEDULE. THE CONTRACTOR SHALL PROVIDE SCHEDULED DOOR(S), FRAME(S), & HARDWARE FOR EACH DOOR OPENING ACCORDING TO THE CONTRACT DOCUMENTS.

43. MECHANICAL VENTILATION: MECHANICAL VENTILATION SHALL COMPLY WITH CHAPTER 12 OF THE NEW YORK CITY BUILDING CODE.

44. SIGNAGE: SIGNS SHALL BE POSTED AT ALL BUILDING, ROOM & DWELLING UNIT ENTRANCES AND ALL EXITS, STAIRS(1019), RAMPS TO COMPLY WITH CHAPTERS 10 & 11 OF THE NYC BLDG. CODE.

45. WORK BEYOND STREET LINE: NO WORK SHALL BE PERFORMED BEYOND THE STREET LINE PRIOR TO OBTAINING APPROVAL FROM THE DEPARTMENT OF HIGHWAYS. PERMITS FOR ALL WORK OUTSIDE THE STREET LINE SHALL BE OBTAINED BY THE CONTRACTOR. SIDEWALK & STREET CURBING SHALL BE REBUILT IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEPARTMENT OF HIGHWAYS.

46. ACCESSIBILITY/ADAPTABILITY: BUILDING SHALL BE HCPD, ACCESSIBLE AND/OR ADAPTABLE PER CH. 11(1101) OF THE N.Y.C BUILDING CODE, FAIR HOUSING.

47. PAVING PLANS SHALL BE FILED WITH THE DEPARTMENT OF TRANSPORTATION PURSUANT TO SEC. 19-113 & 19-115 OF THE ADMIN. CODE.

48. FIRE HYDRANT: BUILDING ENTRANCE IS WITHIN 250 FEET OF FIRE HYDRANT.

49. MODEL UNIT: AS SOON AS POSSIBLE, DURING CONSTRUCTION, CONTRACTOR TO BUILD A MODEL UNIT FOR REVIEW AND APPROVAL OF FINISHES, DETAILS, ETC. MODEL UNIT TO BE BUILT OUT WITH PLUMBING FIXTURES, CABINERY, FLOORING, PAINT, TILE, LIGHTING FIXTURES, ETC., PRIOR TO FINISHING OF OTHER UNITS. UNIT LOCATION TO BE SELECTED IN CONSULTATION WITH OWNER AND ARCHITECT. UPON APPROVAL BY OWNER AND ARCHITECT THE MODEL APARTMENT WILL ACT AS A STANDARD FOR FINISH OF ALL OTHER UNITS.

50. FIRESTOPPING: WHERE PIPES, WIRES, CONDUITS, DUCTS, ETC., PIERCE FIRE PROTECTION OF INDIVIDUALLY ENCASED STRUCTURAL MEMBERS, SUCH PENETRATION SHALL NOT EXCEED 2 PERCENT OF ANY ONE FACE OF SUCH PROTECTION AND SHALL BE CLOSED OFF WITH CLOSE FITTING METAL ESCUTCHEONS OR PLATES

51. FIRE RATING OF LINTELS: LINTELS SUPPORTING MASONRY WALL OVER 4 FEET IN WIDTH SHALL BE FIRE PROTECTED WITH MATERIALS HAVING THE REQUIRED FIRE RESISTANCE RATING OF THE WALL SUPPORTED

52. CEILINGS: CEILINGS THAT CONTRIBUTE TO THE REQUIRED FIRE RESISTANCE RATING OF A FLOOR OR ROOF ASSEMBLY SHALL BE CONTINUOUS BETWEEN FIRE DIVISIONS, FIRE SEPARATIONS OR VERTICAL PARTITIONS HAVING THE SAME FIRE RESISTANCE RATING AS THE CEILING. CONCEALED SPACE ABOVE SUCH CEILINGS, UNLESS SPRINKLERED, SHALL BE FIRESTOPPED INTO AREAS NOT EXCEEDING 3,000 SQ. FT. ACCESS TO SUCH SPACES MAY BE THROUGH ONE OR MORE OPENINGS NOT EXCEEDING 9 SQ. FT. AND PROTECTED BY SELF-CLOSING OPENING PROTECTIVES (C27-327).

MULTIPLE DWELLING LAW & HOUSING MAINTENANCE CODE

NEW YORK STATE MULTIPLE DWELLING LAW & NEW YORK CITY HOUSING MAINTENANCE CODE

3.11 MDL THE FOLLOWING ENUMERATED ARTICLES, SECTIONS AND SUBDIVISIONS OF SECTIONS SHALL NOT APPLY TO MULTIPLE DWELLING CONSTRUCTED UNDER THE "NEW" CODE: TWENTY-FIVE, TWENTY-SEVEN, TWENTY-EIGHT, THIRTY-FIVE-C, THIRTY-SIX AND THIRTY-NINE OF SECTION FOUR, SUBDIVISION THREE OF SECTION TWENTY-EIGHT, SECTIONS THIRTY-SIX, THIRTY-SEVEN, FIFTY, FIFTY-ONE, FIFTY-TWO, FIFTY-THREE, FIFTY-FIVE, SIXTY, SIXTY-ONE, SIXTY-SEVEN, SUBDIVISIONS ONE, TWO, FOUR AND FIVE OF SECTION SEVENTY-FIVE, ARTICLE FOUR, ARTICLE FIVE, ARTICLE FIVE-A, ARTICLE SIX AND ARTICLE SEVEN-B;

30 MDL LIGHTING AND VENTILATION: EVERY ROOM, INCL. KITCHEN AND BATH MUST HAVE AT LEAST 1 WINDOW.

30.7 MDL TOTAL AREA OF WINDOW = 10% OF ROOMS FLOOR AREA AND NOT LESS THAN 12 SQ. FT.

31.2 MDL A) AT LEAST ONE LIVING ROOM > 132 SF.
B) EVERY LIVING ROOM > 80 SF

D) EVERY LIVING ROOM > 8' IN SHORT DIM.

33.1 MDL IF >79 S.F. IT IS A KITCHEN. IF < 79 SF, KITCHENETTE.

33.3 MDL COMBUSTIBLE MATERIAL WITHIN 1 FT. OF COOKING APARATUS SHALL BE FIRE PROTECTED AS REQ'D. THERE SHALL BE AT LEAST 2 FT. CLEAR ABOVE COOKING SURFACE.

35 MDL ENTRANCE DOORS AND LIGHTS: AT LEAST 5 S.F. OF GLAZED SURFACE AT ENTRANCE DOOR. EXTERIOR LIGHTING OF ENTRANCE AREA WILL BE PROVIDED.

51 MDL A) PEEP HOLES REQUIRED AT EACH APARTMENT ENTRANCE DOOR. DOORS TO DWELLING UNITS SHALL BE EQUIPPED WITH HEAVY DUTY LOCK AND DEAD BOLT OPERABLE BY KEY FROM OUTSIDE AND THUMB TURN FROM INSIDE.

57 MDL MAILBOXES ARE PROVIDED IN BLDG. LOBBY.

62 MDL PARAPETS AND GUARDRAILS: GUARD RAILS SHALL BE 3'-6" OR MORE IN HEIGHT. NO ANTENNAE, ETC. SHALL BE ATTACHED TO FIRE ESCAPES, SOIL OR VENT LINES.

65 MDL BOILER ROOMS; 1 HOUR FIRE RESISTIVE ENCLOSURE REQUIRED.

76 MDL BATHROOMS IN DWELLING UNITS SHALL BE VENTILATED TO PROVIDE AT LEAST FOUR AIR CHANGES PER HOUR.

79 MDL HEAT SHALL BE PROVIDED BETWEEN OCTOBER 1 AND MAY 31 TO MAINTAIN MINIMUM TEMPERATURES:
A) 68 DEG. FARENHEIT BETWEEN 6 AM AND 10 PM, WHEN OUTSIDE TEMPERATURE IS BELOW 55 DEG. FARENHEIT
B) AT LEAST 55 DEG. FARENHEIT BETWEEN 10 PM AND 6 AM, WHEN OUTSIDE TEMPERATURE FALLS BELOW 40 DEG. FARENHEIT.

81 MDL OWNER WILL COMPLY WITH MAINTENANCE REQUIREMENTS.

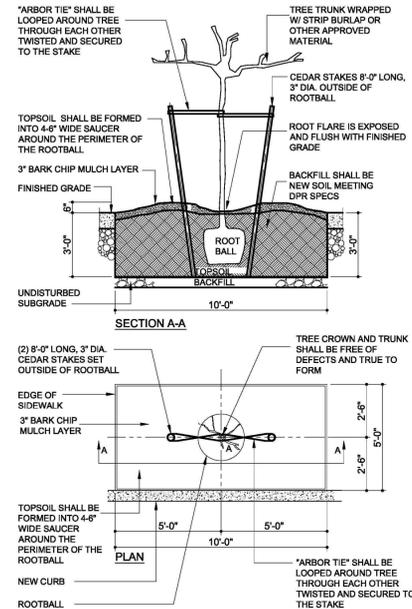
83 MDL OWNER WILL PROVIDE JANITORIAL SERVICES.

8C 1026 FLOOR SIGNS AND STREET NUMBERS WILL BE PROVIDED.
& 9 HMC

SMOKE/ CARBON MONOXIDE DETECTOR NOTES

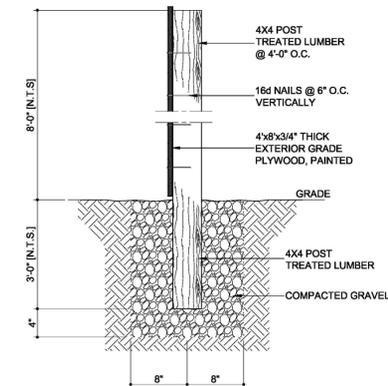
- CO/ SMOKE DETECTORS SHALL BE INSTALLED AS REQUIRED BY SECTION 907 AND 908.7.1.1 AND BY LOCAL LAW #7 OF 2004.
- UNITS SHALL BE EITHER IONIZATION CHAMBER OR PHOTOELECTRIC TYPE.
- UNITS TO BE HARD WIRED. ALL HARD-WIRED CO/ SMOKE DETECTORS WITHIN THE SAME DWELLING UNIT SHALL BE INTERCONNECTED.
- UNITS TO BE APPROVED BY BOARD OF STANDARDS AND APPEALS ACCEPTED TO RULES AND REGULATIONS PROMULGATED BY THE COMMISSIONER OR BE LISTED BY AN ACCEPTABLE TESTING LABORATORY SUCH AS: UNDERWRITERS' LAB, NORTHBROOK, ILL. MEA LAB NO. 1-69-L AND UL 2034 STANDARD FOR SINGLE AND MULTIPLE STATION CARBON MONOXIDE DETECTORS, OCTOBER 29, 1996 THROUGH JUNE, 2002. CANADIAN STANDARDS ASSOC. ONTARIO, CA. MEA LAB NO. 25-69-L. UNDERWRITERS' LAB OF CANADA, ONTARIO, CA. MEA LAB NO. 81-80-L.
- POWER SUPPLY TO BE DIRECT FROM BUILDING WITHOUT SWITCHES IN CIRCUIT SO THAT UNITS ARE IN CONTINUOUS OPERATION.
- UNITS SHALL BE INSTALLED IN AREAS DESIGNATED ON PLANS. THEY SHALL BE LOCATED IN EACH SLEEPING AREA ON OR NEAR THE CEILING AND WITHIN 15'-0" OF ROOMS USED FOR SLEEPING PURPOSES. WHERE THE DWELLING UNIT COMPRISES OF ONLY ONE ROOM, THE CO/SMOKE ALARM SHALL BE INSTALLED WITHIN SUCH ROOM. FOR DWELLING UNITS WITH MULTIPLE LEVELS, WHEN ANY LEVEL HAS ONLY ONE MEANS OF EGRESS, UNITS SHALL BE PROVIDED ON ALL LEVELS.
- CEILING MOUNT - CLOSEST EDGE OF UNIT SHALL BE A MINIMUM OF 4" FROM ANY WALLS.
- WALL MOUNT - CLOSEST EDGE SHALL BE A MINIMUM OF 4" AND A MAXIMUM OF 12" FROM THE CEILING.

TREE PLANTING DETAIL

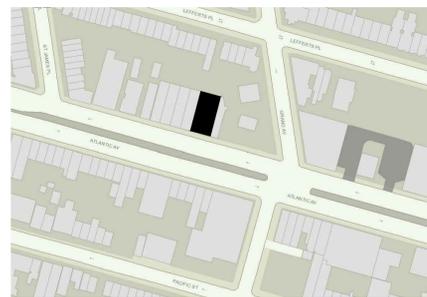


- ALL MATERIALS & CONST. METHODS USED ARE TO CONFORM TO SECTION OF 4.16 OF THE BUREAU OF HIGHWAY OPERATIONS SPECS. LATEST EDITION.
- PRIOR TO THE START OF WORK, THE CONST. SHALL OBTAIN THE NECESSARY PERMIT FROM THE DEPT. OF PARKS & RECREATION FOR THE REMOVAL & PLANTING OF TREES.
- TREE PITS SHOULD BE LOCATED TWO (2) FEET MIN. FROM GAS, OIL OR WATER BOXES.
- TREE STAKES ARE TO BE REMOVED BY THE TREE SUBCONT. NOT LESS THEN ONE YEAR AFTER PLANTING OF SAND TREES & PRIOR TO THE FINAL ACCEPTANCE OF THE WORK.
- USE OF SIDEWALK PAVEMENT MATERIALS OTHER THEN GRANITE BLOCK MUST BE SPECIFICALLY APP. IN WRITING, BY THE BUREAU OF HIGHWAY OPERATIONS.
- GRANITE BLOCK IN TREE PIT SHALL BE PAID FOR UNDER ITEM NO. 6.06.

CONSTRUCTION FENCE DETAIL



SITE MAP



PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



308 MALCOLM X BLVD
BROOKLYN, NY 11233

TEL: 718-544-3784
FAX: 718-412-1979

ARCHITECT OF RECORD

feingold & gregory · architects

118 west 83rd street · new york, n.y. · 10024
tel: (212) 595-8895 · fax: (212) 781-8992



STRUCTURAL ENGINEER

GACE consulting engineers pc

105 Madison Ave, New York, NY 10016
1 212-545-7878

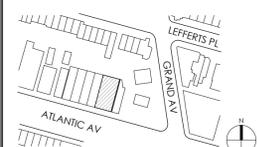
www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

461 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No:

1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

GENERAL NOTES & DETAILS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 02 OF 43

SHEET: **G-100.00**

SEAL & SIGNATURE OF ARCHITECT



2014 NEW YORK CITY BUILDING CODE ANALYSIS

BUILDING OCCUPANCY CLASSIFICATION: MIXED OCCUPANCY; MAIN OCCUPANCY RESIDENTIAL (R-2) (TABLE 302.1)
 CELLAR: OCC. GROUP = R-2, RESIDENTIAL; U, UTILITY; S, STORAGE
 1ST FLR: OCC. GROUP = R-2, RESIDENTIAL
 2ND-7TH FLR: OCC. GROUP = R-2, RESIDENTIAL

CONSTRUCTION CLASSIFICATION: (PER SECTION 602) TYPE 1B

TABULAR LIMITS: (PER TABLE 503)
 ALLOWABLE HEIGHT:
 R-2, SPRINKLERED UNLIMITED (UL)
 PROPOSED 7 STORY BLDG.

ALLOWABLE AREA:
 R-2, SPRINKLERED UNLIMITED (UL)
 PROPOSED BLDG. AREA

PROPERTY IS INSIDE THE FIRE DISTRICT
 (120' ABOVE LOWEST LEVEL OF FIRE DEPT ACCESS.)

BUILDING IS CLASS 'A' MULTIPLE DWELLING

FIRE RATING OF CONSTRUCTION ELEMENTS: TYPE 1B (PER TABLE 601,602)

EXTERIOR WALLS:	REQUIRED	PROVIDED
PRIMARY STRUCTURAL FRAME	2HR.	1HR.
BEARING WALLS EXTERIOR	2HR.	2HR.
BEARING WALLS INTERIOR	1HR.	N/A
NON-BEARING WALLS / PARTITIONS EXTERIOR		
FIRE SEPARATION DISTANCE <5'	1HR.	1 HR.
FIRE SEPARATION DISTANCE >= 5' <10'	1HR.	1 HR.
FIRE SEPARATION DISTANCE >=10' <30'	1HR.	1 HR.
FIRE SEPARATION DISTANCE >= 30'	0HR.	
NON-BEARING WALLS / PARTITIONS INTERIOR	0HR.	0HR.
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	2HR.	2HR.
ROOF CONSTRUCTION AND SECONDARY MEMBERS	1HR.	1HR.

MAX AREA OF EXTERIOR WALL OPENINGS: (PER TABLE 705.8)

CLASSIFICATION	FIRE RATING DISTANCE
PROTECTED	NOT REQUIRED DISTANCE GREATER THAN 30 FT.

FIRE WALL RESISTANCE RATINGS: (PER TABLE 706.4)

OCCUPANCY GROUP	FIRE INDEX
R-2	2

SEPARATION OF OCCUPANCIES: (PER TABLE 707.3.9)

OCCUPANCY GROUP	FIRE INDEX
R-2	2

MIXED OCCUPANCIES (PER TABLE 508.4, 509)

OCCUPANCIES	FIRE SEPARATION	FIRE RESISTANCE RATING REQ'D
R-2	R-2	1 HR. (BETWEEN APARTMENTS)
R-2	S-2	2 HR
MECH./ELEC.		1 HR, OR PROVIDE AUTOMATIC FIRE EXTINGUISHING SYSTEM
STORAGE RM.		1 HR, OR PROVIDE AUTOMATIC FIRE EXTINGUISHING SYSTEM
INCIDENTAL USE		
WASTE AND LAUNDRY CHUTE ACCESS RMS. OVER 100 SF		1 HR. OR AUTOMATIC FIRE EXTINGUISHING SYSTEM
FIRE PUMP RM - NON HIGH RISE		2 HR. OR 1 HR AND AUTOMATIC FIRE EXTINGUISHING SYSTEM

NOTE: INCIDENTAL USES SHALL NOT EXCEED 10% OF THE BUILDING IN WHICH THEY ARE LOCATED.

INTERIOR FINISHES: (PER SEC 803, 804, TABLE 803.1)

OCCUPANCIES	EXIT ENCLOSURES
R-2	B
U	NO RESTRICTIONS
S	B

NOTES:
 1. EXIT ENCLOSURES: CLASS C INTERIOR FINISH MATERIALS SHALL BE PERMITTED FOR WAINSCOTTING OR PANELING OF NOT MORE THAN 1,000 SQUARE FEET OF APPLIED SURFACE AREA IN THE GRADE LOBBY WHERE APPLIED DIRECTLY TO A NONCOMBUSTIBLE BASE OR OVER FURRING STRIPS APPLIED TO A NONCOMBUSTIBLE BASE AND FIREBLOCKED AS REQUIRED BY SECTION 803.3.1

2. INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS SHALL BE TESTED BY AN APPROVED AGENCY IN ACCORDANCE WITH NFPA 253 OR ASTM E 648 AND IDENTIFIED BY A HANG TAG OR OTHER SUITABLE METHOD.

3. CARPET AND CARPET CUSHION AS DEFINED IN SECTION 17-1401 OF THE ADMINISTRATIVE CODES SHALL COMPLY WITH THE LIMITS ON VOLATILE ORGANIC COMPOUND EMISSIONS SET FORTH IN CHAPTER 14 OF TITLE 17 OF SUCH COD.

FIRE BARRIERS: (SEC. 707)

- SHAFT ENCLOSURES 1 HR IF LESS THAN 3 STORIES; 2 HR IF 3 STORIES OR MORE
- EXIT ENCLOSURES 1 HR IF LESS THAN 4 STORIES; 2 HR IF 4 STORIES OR MORE
- EXIT PASSAGEWAY 1 HR BUT NOT LESS THAN REQUIRED FOR CONNECTING ENCLOSURE.
- HORIZONTAL EXIT 2 HRS.

406.2.2 CLEAR HEIGHT. THE CLEAR HEIGHT OF EACH FLOOR LEVEL IN VEHICLE AND PEDESTRIAN TRAFFIC AREAS SHALL NOT BE LESS THAN 7 FEET (2134 MM). VEHICLE AND PEDESTRIAN AREAS ACCOMODATING VAN-ACCESSIBLE PARKING REQUIRED BY SECTION 1106.5 SHALL CONFORM TO ICC A117.1.

406.2.3. GUARDS. GUARDS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 1013. GUARDS SERVING AS VEHICLE BARRIER SYSTEMS SHALL COMPLY WITH SECTION 406.2.4 AND 1013.

708.13 REFUSE AND LAUNDRY CHUTES, REFUSE AND LAUNDRY CHUTES, ACCESS AND TERMINATION ROOMS AND INCINERATOR ROOMS SHALL MEET THE REQUIREMENTS OF SECTIONS 708.13.1 THROUGH 708.13.6.
 EXCEPTION: CHUTES SERVING AND CONTAINED WITHIN A SINGLE DWELLING UNIT.

708.13.1 REFUSE AND LAUNDRY CHUTE ENCLOSURES. A SHAFT ENCLOSURE CONTAINING A REFUSE OR LAUNDRY CHUTE SHALL NOT BE USED FOR ANY OTHER PURPOSE AND SHALL HAVE A FIRE-RESISTANCE RATING OF 2 HOURS. OPENINGS INTO THE SHAFT, INCLUDING THOSE FROM ACCESS ROOMS AND TERMINATION ROOMS, SHALL BE PROTECTED IN ACCORDANCE WITH THIS SECTION AND SECTION 715. OPENINGS INTO CHUTES SHALL NOT BE LOCATED IN CORRIDORS. DOORS SHALL BE SELF-CLOSING.

708.13.2 MATERIALS. A SHAFT ENCLOSURE CONTAINING A REFUSE OR LAUNDRY CHUTE SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS.

708.13.3 REFUSE AND LAUNDRY CHUTE ACCESS ROOMS. ACCESS OPENINGS FOR REFUSE AND LAUNDRY CHUTES SHALL BE LOCATED IN DEDICATED ROOMS OR COMPARTMENTS ENCLOSED BY NOT LESS THAN 2-HOUR FIRE BARRIERS CONSTRUCTED IN ACCORDANCE WITH SECTION 707 OR HORIZONTAL ASSEMBLIES CONSTRUCTED IN ACCORDANCE WITH SECTION 712, OR BOTH. OPENINGS INTO THE ACCESS ROOMS SHALL BE PROTECTED BY OPENING PROTECTIVES HAVING A FIRE PROTECTION RATING OF NOT LESS THAN 1 1/2 HOUR. DOORS SHALL BE SELF-CLOSING EXCEPT THAT WHERE THE STORAGE OF REFUSE, INCLUDING RECYCLABLES, OR LAUNDRY IS NOT PERMITTED IN SUCH ACCESS ROOMS DOORS MAY BE AUTOMATIC CLOSING UPON THE DETECTION OF SMOKE IN ACCORDANCE WITH SECTION 715.4.8.3. EXCEPTION: ACCESS OPENINGS FOR REFUSE OR LAUNDRY CHUTES LOCATED WITHIN A DWELLING UNIT NEED NOT BE LOCATED WITHIN A SEPARATE ROOM OR COMPARTMENT.

708.13.4 TERMINATION ROOM. REFUSE AND LAUNDRY CHUTES SHALL DISCHARGE INTO AN ENCLOSED ROOM SEPARATED FROM THE REMAINDER OF THE BUILDING BY NOT LESS THAN 3-HOUR FIRE BARRIERS CONSTRUCTED IN ACCORDANCE WITH SECTION 707 OR HORIZONTAL ASSEMBLIES CONSTRUCTED IN ACCORDANCE WITH SECTION 712, OR BOTH. OPENINGS INTO THE TERMINATION ROOM SHALL BE PROTECTED BY OPENING PROTECTIVES HAVING A FIRE PROTECTION RATING OF NOT LESS THAN 1-1/2 HOURS. DOORS SHALL BE SELF-CLOSING.

FILINGS	APPLICATION NO.
NEW BUILDING APPLICATION	DOB # 320625221
ARCHITECTURAL	
STRUCTURAL	
MECHANICAL, PLUMBING	
MECHANICAL, PLUMBING	
SUPPORT OF EXCAVATION	
SEWER CONNECTION WORK FILING	
FOUNDATION	
CONSTRUCTION FENCE	
SEPARATE APPLICATIONS	
ALT 2 FIRE ALARM APPLICATION	DOB #
ALT 3 SPRINKLER/STANDPIPE APPLICATION	DOB #
ALT 3 BUILDERS PAVEMENT PLAN	DOB #
ELEVATOR FILINGS	DOB #
ELECTRICAL FILING	DOB #

SPECIAL INSPECTIONS & AND PROGRESS INSPECTIONS - TR1	
IDENTIFICATION OF REQUIREMENT	Code/Section
<input type="checkbox"/> SPECIAL INSPECTIONS	
<input type="checkbox"/> FLOOD ZONE COMPLIANCE	BC G105
<input type="checkbox"/> FIRE ALARM TEST	BC 907, BC 1704.13
<input type="checkbox"/> FIBROUS/UNFIBROUS EMI FASH MARKINGS	BC 1056.11
<input type="checkbox"/> EMERGENCY POWER SYSTEMS (GENERATORS)	BC 1704.13, BC 2702
<input type="checkbox"/> STRUCTURAL STEEL - WELDING	BC 1704.3.1
<input type="checkbox"/> STRUCTURAL STEEL - ERECTION & BOLTING	BC 1704.3.2, BC 1704.3.3
<input type="checkbox"/> STRUCTURAL COOLD - FERRITE STEEL	BC 1704.3.4
<input type="checkbox"/> CONCRETE - CAST-IN-PLACE	BC 1704.4
<input type="checkbox"/> CONCRETE - PRECAST	BC 1704.4
<input type="checkbox"/> CONCRETE - PRESSTRESSED	BC 1704.4
<input type="checkbox"/> MASONRY	BC 1704.5
<input type="checkbox"/> WOOD - OFF SITE FABRICATION OF STRUCTURAL ELEMENTS	BC 1704.4
<input type="checkbox"/> WOOD - INSTALLATION OF HIGH-LOAD BEAM BRACINGS	BC 1704.4.1
<input type="checkbox"/> WOOD - INSTALLATION OF METAL-PLATE-CONNECTED TRUSSES	BC 1704.4.3
<input type="checkbox"/> WOOD - INSTALLATION OF PREFABRICATED JOISTS	BC 1704.4.4
<input type="checkbox"/> SOILS - SITE PREPARATION	BC 1704.7.1
<input type="checkbox"/> SOILS - FILL PLACEMENT & REPLACE DENSITY	BC 1704.7.2, BC 1704.7.3
<input type="checkbox"/> SOILS - INVESTIGATIONS (BORINGS/TEST PITS)	104 BC 1704.7.4
<input type="checkbox"/> FILL FOUNDATIONS & DRILLED PIER INSTALLATION	105 BC 1704.7.5
<input type="checkbox"/> FILL FOUNDATIONS	BC 1704.8
<input type="checkbox"/> UNDERPINNING	BC 1704.9.1
<input type="checkbox"/> WALL PANELS, CURTAIN WALLS, AND VEINERS	BC 1704.10
<input type="checkbox"/> SPRAYED FIRE-RESISTANT MATERIALS	BC 1704.11
<input type="checkbox"/> EXTERIOR INSULATION FINISH SYSTEMS (EIFS)	BC 1704.12
<input type="checkbox"/> ALTERNATIVE MATERIALS - OTHER BUILDINGS BULLETIN #	BC 1704.13
<input type="checkbox"/> SMOKE CONTROL SYSTEMS	BC 1704.14
<input type="checkbox"/> MECHANICAL SYSTEMS	BC 1704.15
<input type="checkbox"/> FUEL-OIL STORAGE AND FUEL-OIL PIPING SYSTEMS	BC 1704.16
<input type="checkbox"/> HIGH-PRESSURE STEAM PIPING (WELDING)	BC 1704.17
<input type="checkbox"/> FUEL-GAS PIPING (WELDING)	BC 1704.18
<input type="checkbox"/> STRUCTURAL SAFETY - STRUCTURAL STABILITY	BC 1704.19
<input type="checkbox"/> MECHANICAL DEMOLITION	BC 1704.19, BC 3306.4
<input type="checkbox"/> EXCAVATION - SHEETING, SHORING AND BRACING	BC 1704.19, BC 3304.4.1
<input type="checkbox"/> SOIL PERCOLATION TEST - SEPTIC	BC 1704.20.1
<input type="checkbox"/> SITE TOWN DRAINAGE DISPOSAL AND DETENTION SYSTEM INSTALLATION	BC 1704.20
<input type="checkbox"/> SEPTIC SYSTEM INSTALLATION	BC 1704.20
<input type="checkbox"/> SPRINKLER SYSTEMS	BC 1704.21
<input type="checkbox"/> STANDPIPE SYSTEMS	BC 1704.22
<input type="checkbox"/> SEARING SYSTEMS	BC 1704.23
<input type="checkbox"/> CHIMNEYS	BC 1704.24
<input type="checkbox"/> FIRE RESISTANT PENETRATIONS AND JOINTS	BC 1704.27
<input type="checkbox"/> ALUMINUM WELDING	BC 1706.26
<input type="checkbox"/> SEISMIC ISOLATION SYSTEMS	BC 1707.8
<input type="checkbox"/> CONCRETE TEST CYLINDERS	102 BC 1705.4
<input type="checkbox"/> CONCRETE DESIGN MIX	103 BC 1705.5
<input type="checkbox"/> PRELIMINARY	28-1162.1, BC 109.2
<input type="checkbox"/> FOOTING AND FOUNDATION	BC 109.3.1
<input type="checkbox"/> LOWEST FLOOR ELEVATION (ATCH/FEMA FORM)	BC 109.3.2
<input type="checkbox"/> FRAME INSPECTION	BC 109.3.3
<input type="checkbox"/> ENERGY CODE COMPLIANCE INSPECTIONS	108 BC 109.3.3
<input type="checkbox"/> FIRE RESISTANCE RATED CONSTRUCTION	BC 109.3.4
<input type="checkbox"/> PUBLIC ASSEMBLY EMERGENCY LIGHTING	28-1162.2, BC 109.5
<input type="checkbox"/> FINAL	28-1162.2, BC 109.5 DIRECTIVE 14 OF 1975 AND 1 RCNY 101-101

ENERGY CODE PROGRESS INSPECTIONS - TR8	
IDENTIFICATION OF REQUIREMENT	Code/Section
<input type="checkbox"/> PROGRESS INSPECTIONS	
<input type="checkbox"/> PROTECTION OF FOUNDATION INSULATION	1A1, 8A.1
<input type="checkbox"/> INSULATION PLACEMENT AND R VALUES	1A2, 8A.2
<input type="checkbox"/> PENETRATION THERMAL VALUES AND RATINGS	1A2, 8A.3
<input type="checkbox"/> PENETRATION RATINGS FOR AIR LEAKAGE	1A6, 8A.4
<input type="checkbox"/> PENETRATION AREAS	1A5, 8A.5
<input type="checkbox"/> AIR SEALING AND INSULATION - VISUAL	1A6, 8A.6
<input type="checkbox"/> AIR SEALING AND INSULATION - TESTING	1A7
<input type="checkbox"/> PROTECTION FACTORS	8A.7
<input type="checkbox"/> LOADING DECK WEATHER SEALS	8A.8
<input type="checkbox"/> VESTIBULES	8A.9
<input type="checkbox"/> FINISHES	8B1, 8B1
<input type="checkbox"/> DAMPERS INTEGRAL TO BUILDING ENVELOPE	8B2, 8B2
<input type="checkbox"/> HVAC AND SERVICE WATER HEATING EQUIPMENT	8B3, 8B3
<input type="checkbox"/> HVAC AND SERVICE WATER HEATING SYSTEM CONTROLS	8B4, 8B4
<input type="checkbox"/> DUCT PENUM AND PIPING INSULATION AND SEALING	8B5, 8B5
<input type="checkbox"/> DUCT LEAKAGE TESTING	8B6, 8B6
<input type="checkbox"/> ELECTRICAL METERING	8C1, 8C1
<input type="checkbox"/> LIGHTING IN DWELLING UNITS	8C2, 8C2
<input type="checkbox"/> INTERIOR LIGHTING POWER	8C3
<input type="checkbox"/> EXTERIOR LIGHTING POWER	8C4
<input type="checkbox"/> LIGHTING CONTROLS	8C5
<input type="checkbox"/> LIGHTING CONTROLS	8C6
<input type="checkbox"/> EXIT SIGNS	8C7
<input type="checkbox"/> TANDEM WIRING	8C7
<input type="checkbox"/> ELECTRICAL MOTORS	8C8
<input type="checkbox"/> MAINTENANCE INFORMATION	8D1, 8D1
<input type="checkbox"/> PERMANENT CERTIFICATE	8D2

PROJECT:

925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



308 MALCOLM X BLVD.
 BROOKLYN, NY 11233
 TEL: 718.544.3764
 FAX: 718.415.1779

ARCHITECT OF RECORD

feingold & gregory · architects
 118 West 83rd Street · New York, N.Y. · 10024
 Tel: (212) 595-8895 · Fax: (212) 781-8922

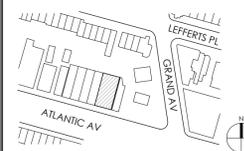
STRUCTURAL ENGINEER

GACE consulting engineers pc
 105 Madison Ave. New York, NY 10016
 P: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
 661 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

BUILDING CODE ANALYSIS

DATE: 12/31/2015

SCALE: AS NOTED

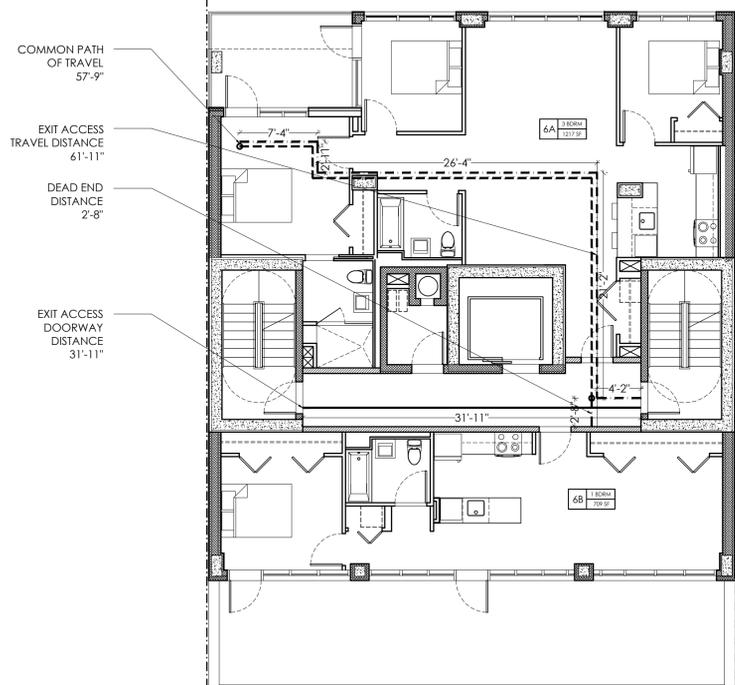
DRAWN BY: JD, MT

CHECKED BY: JD

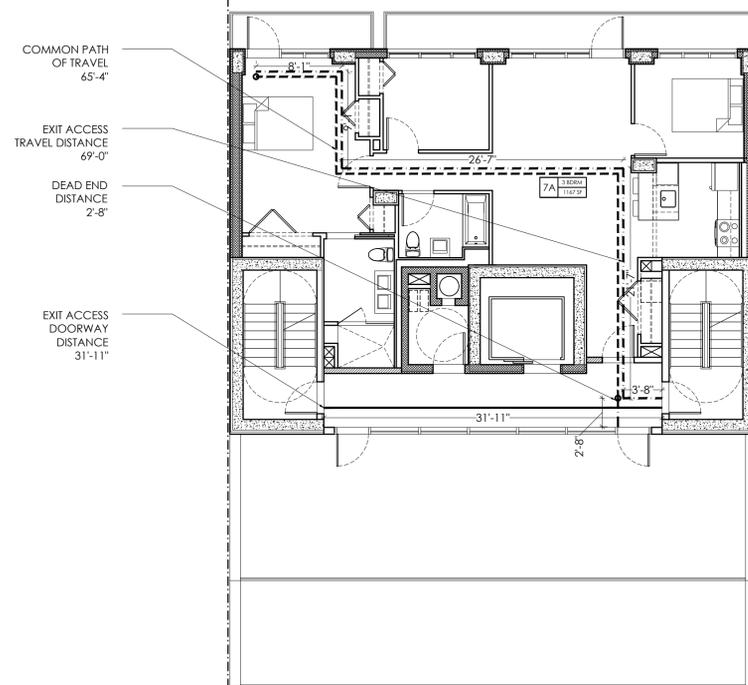
DRAWING NO: 03 OF 43

SHEET: **G-110.00**

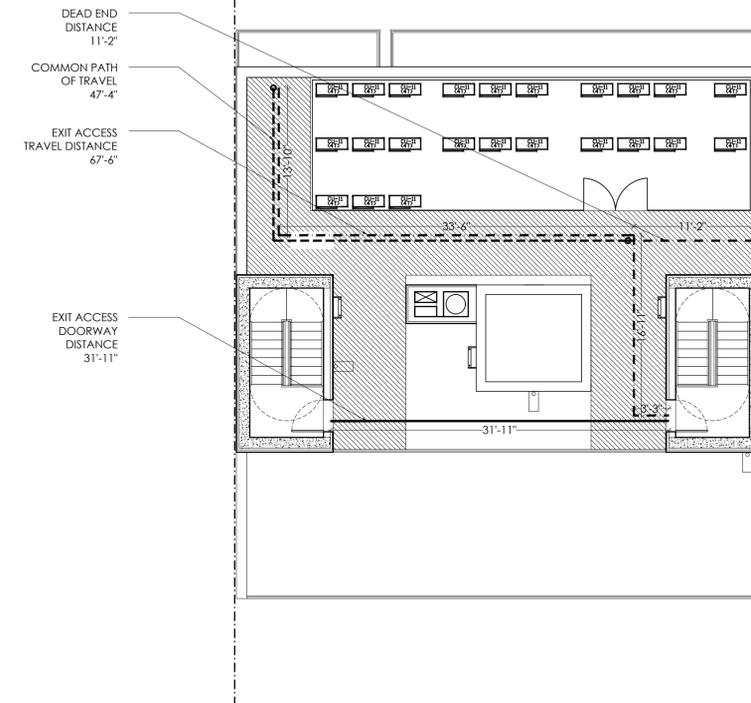




1 SIXTH FLOOR EGRESS PLAN
SCALE: 1/8" = 1'-0"



2 SEVENTH FLOOR EGRESS PLAN
SCALE: 1/8" = 1'-0"



3 ROOF EGRESS PLAN
SCALE: 1/8" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



308 MALCOLM X BLVD.
BROOKLYN, NY 11233

TEL: 718.544.3764
FAX: 718.415.1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street · New York, N.Y. · 10024

TEL: (212) 595-8886 · FAX: (212) 787-8992

www.feingoldandgregory.com

ARCHITECT ASSURES NO
RESPONSIBILITY FOR ANY
WORK WHICH DEVIATES
FROM APPROVED PLANS.
THE CONTRACTOR MUST
OBTAIN WRITTEN APPROVAL
FOR ANY CHANGES FROM
THE ARCHITECT BEFORE
COMMENCING SUCH WORK.



STRUCTURAL ENGINEER

GACE consulting engineers pc

105 Madison Ave. New York, NY 10016

T: 212-545-7878

www.gace.net

MECHANICAL ENGINEER

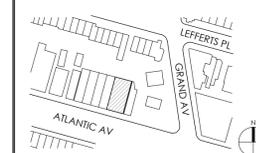
NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD

BETHPAGE, NY 11714

(516) 522.6770

SITE PLAN



PROJECT No: 1501

REV.	DESCRIPTION	DATE
1	DOB REVIEW	12/31/15
1	ISSUED FOR DOB FILING	08/06/15

DRAWING TITLE:

LIFE SAFETY PLANS II

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 05 OF 43

SHEET: **G-112.00**

SEAL & SIGNATURE



EXIT SUMMARY CHART

OCCUPANT LOAD CALCULATIONS - IN CONFORMANCE WITH 2014 BC CHAPTER 3 & CHAPTER 10

	OCCUPANT LOAD CALCULATIONS				EXIT CAPACITY						EXIT ACCESS OR EXIT ACCESS DOORWAYS (BC 1015.2)		R-2 STAIR DOORS (BC 1015.2.1 EXCEPTION 3)		MAX. TRAVEL DIST. (SPRINKLERED) (BC 1016.1)		CORRIDORS				COMMON PATH (BC 1014.3)		EXIT PASSAGEWAY (BC 1023.2)					
	USE GROUP	FLOOR AREA (SF)	FA PER OCC. (SF) (PER BC TABLE 1004.1)	OCCUPANT LOAD # PER.	STAIRWAYS (PER BC 1009.1) EXCEPTION 1.2	REQ'D		PROV'D		OTHER COMP. (STAIR DOORS MIN 36" PER BC 1008.1)	REQ'D		PROV'D		REQ'D	PROV'D	REQ'D	PROV'D	MIN. WIDTH (BC 1018.2 EXCEPTION 2)		MAX. DEAD END (BC 1018.4) EXCEPTION 4		REQ'D	PROV'D	REQ'D	PROV'D		
						0.3 IN./ OCC.					0.2 IN./ OCC.		REQ'D	PROV'D					INCHES	INCHES	REQ'D	PROV'D						
CELLAR																												
RESIDENT STORAGE	U	237		300	1																							
COMPACTOR ROOM	U	106		300	1																							
ELEVATOR CONTROL ROOM	U	78		300	1																							
WATER METER ROOM	U	232		300	1																							
ELECTRICAL ROOM	U	183		300	1																							
CELLAR TOTAL				5	5 OCC. X .3 IN. =	1.5		36		5 OCC. X .2 IN. =	1		36	N/A	1 EXIT	N/A	1 EXIT	200'	43'-10"	36	60	80'	0	125'	31'-11"	-	-	
FIRST FLOOR																												
RESIDENTS GYM	R-2	598		50	12																							
FIRST FLOOR TOTAL				12	12 OCC. X .3 IN. =	3.6		36		12 OCC. X .2 IN. =	2.4		36	N/A	1 EXIT	N/A	1 EXIT	200'	79'-9"	36	60	80'	3'-6"	125'	65'-7"	36	36	
SECOND FLOOR																												
UNIT 2A	R-2	664		200	4																							
UNIT 2B	R-2	668		200	4																							
UNIT 2C	R-2	605		200	4																							
UNIT 2D	R-2	605		200	4																							
SECOND FLOOR TOTAL				16	16 OCC. X .3 IN. =	4.8		36		16 OCC. X .2 IN. =	3.2		36					31'-11"	15 FT.	31'-11"	200'	48'-11"	36	60	80'	2'-8"	125'	43'-8"
THIRD FLOOR																												
UNIT 3A	R-2	664		200	4																							
UNIT 3B	R-2	668		200	4																							
UNIT 3C	R-2	605		200	4																							
UNIT 3D	R-2	605		200	4																							
THIRD FLOOR TOTAL				16	16 OCC. X .3 IN. =	4.8		36		16 OCC. X .2 IN. =	3.2		36					31'-11"	15 FT.	31'-11"	200'	48'-11"	36	60	80'	2'-8"	125'	43'-8"
FOURTH FLOOR																												
UNIT 4A	R-2	664		200	4																							
UNIT 4B	R-2	668		200	4																							
UNIT 4C	R-2	605		200	4																							
UNIT 4D	R-2	605		200	4																							
FOURTH FLOOR TOTAL				16	16 OCC. X .3 IN. =	4.8		36		16 OCC. X .2 IN. =	3.2		36					31'-11"	15 FT.	31'-11"	200'	48'-11"	36	60	80'	2'-8"	125'	43'-8"
FIFTH FLOOR																												
UNIT 5A	R-2	664		200	4																							
UNIT 5B	R-2	668		200	4																							
UNIT 5C	R-2	605		200	4																							
UNIT 5D	R-2	605		200	4																							
FIFTH FLOOR TOTAL				16	16 OCC. X .3 IN. =	4.8		36		16 OCC. X .2 IN. =	3.2		36					31'-11"	15 FT.	31'-11"	200'	48'-11"	36	60	80'	2'-8"	125'	43'-8"
SIXTH FLOOR																												
UNIT 6A	R-2	1203		200	7																							
UNIT 6B	R-2	709		200	4																							
SIXTH FLOOR TOTAL				11	11 OCC. X .3 IN. =	3.3		36		11 OCC. X .2 IN. =	2.2		36					31'-11"	15 FT.	31'-11"	200'	61'-11"	36	60	80'	2'-8"	125'	57'-9"
SEVENTH FLOOR																												
UNIT 7A	R-2	1167		200	6																							
SEVENTH FLOOR TOTAL				6	6 OCC. X .3 IN. =	1.8		36		6 OCC. X .2 IN. =	1.2		36					31'-11"	15 FT.	31'-11"	200'	69'-0"	36	60	80'	2'-8"	125'	65'-4"
ROOF																												
ROOF TOTAL				0		0		36		0		36						31'-11"	15 FT.	31'-11"	200'	67'-6"	-	-	-	-	125'	47'-4"
BUILDING TOTAL OCCUPANT LOAD				98	98 OCC. X .3 IN. =	29.4		36		98 OCC. X .2 IN. =	19.6		36															

NOTES:
1. S-2 EXTERIOR OPEN PARKING IS CALCULATED AT 200 GROSS FOR EGRESS PURPOSES ONLY. MAX TRAVEL DISTANCE IS 250 FT.

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-415-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8895 - Fax: (212) 787-8992



STRUCTURAL ENGINEER

GACE consulting engineers pc

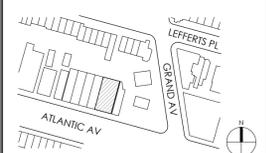
105 Madison Ave. New York, NY 10016
T: 212-545-7878
www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

EXIT SUMMARY &
OCCUPANCY
CALCULATIONS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 06 OF 43

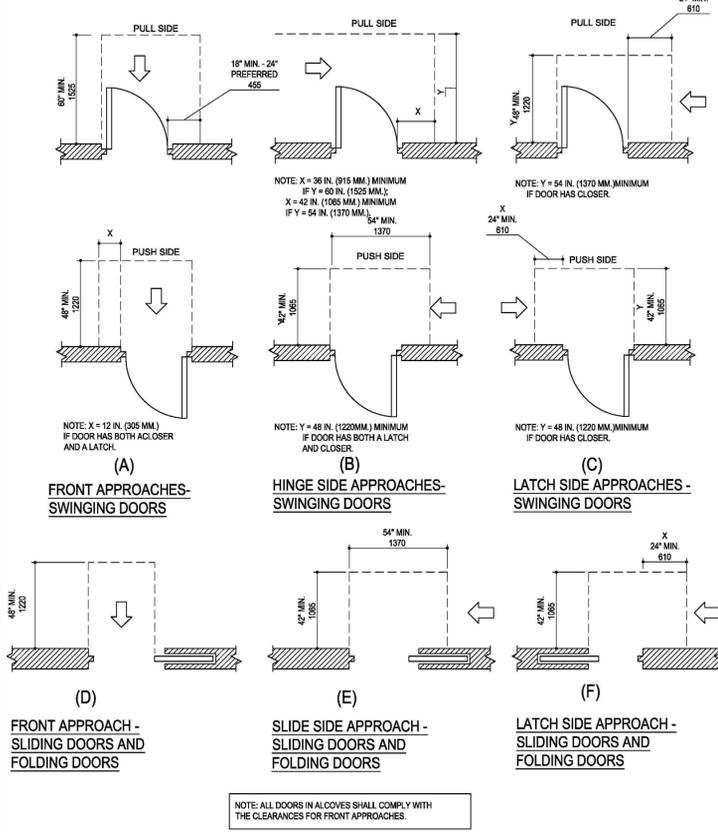
SHEET: **G-113.00**

SEAL & SIGNATURE

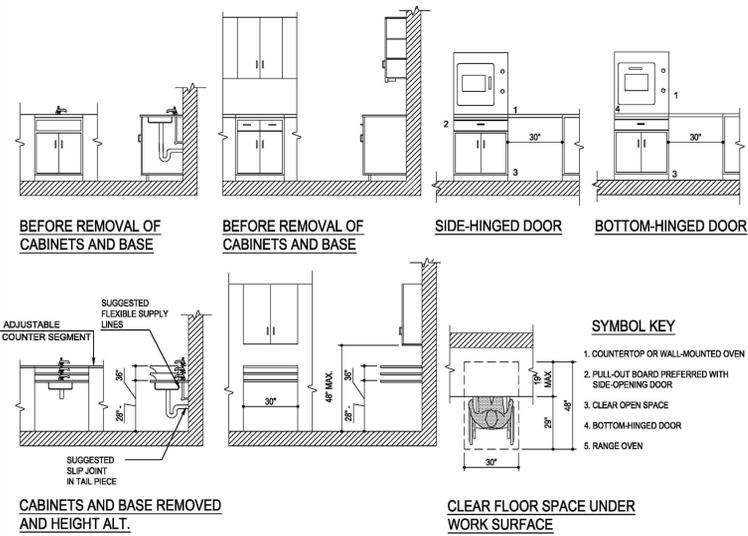


ADA DETAILS

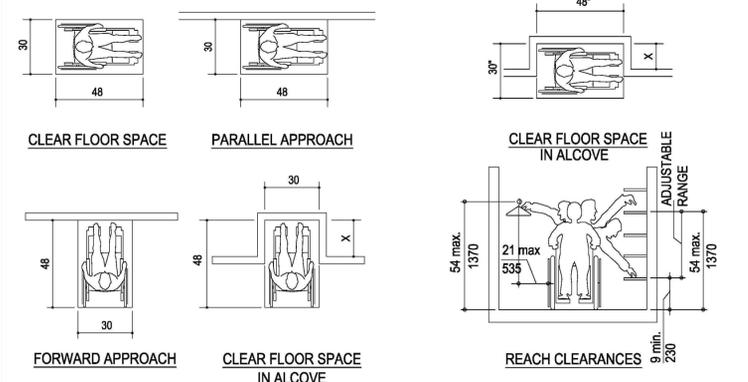
HANDICAP DETAILS



HANDICAP DETAILS FOR APARTMENTS (KITCHENS)



HANDICAP CLEARANCES



ACCESSIBILITY NOTES

BUILDING AND ITS SITE SHALL COMPLY WITH NYC BUILDING CODE 2014 CHAPTER 11, APPENDIX 'P', APPENDIX 'E', ANSII 117.1 2003 BY REFERENCE AND THE FAIR HOUSING ACT DESIGN MANUAL.

SECTION 308 REACH RANGES:
1. WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALL BE 48 INCHES MAXIMUM AND THE LOW FORWARD REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FLOOR.

2. WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE REACH SHALL BE 48 INCHES MAXIMUM WHERE THE REACH DEPTH IS 20 INCHES MAXIMUM. WHERE EACH DEPTH EXCEEDS 20 INCHES, THE HIGH FORWARD REACH SHALL BE 44 INCHES MAXIMUM AND THE REACH DEPTH SHALL BE 25 INCHES MAXIMUM.

3. WHERE A SIDE REACH IS UNOBSTRUCTED, HIGH SIDE REACH SHALL BE 48 INCHES MAXIMUM AND THE LOW SIDE REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FLOOR.

4. WHERE A HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34 INCHES MAXIMUM AND THE DEPTH OF THE OBSTRUCTION SHALL BE 24 INCHES MAXIMUM. THE HIGH SIDE REACH SHALL BE 48 INCHES MAXIMUM FOR A REACH DEPTH OF 10 INCHES.

SECTION 404.2.2 CLEAR WIDTH AT DOORS:
1. DOORWAYS SHALL HAVE A CLEAR OPENING WIDTH OF 32 INCHES MINIMUM. CLEAR OPENING WIDTH OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF DOOR AND STOP, WITH THE DOOR OPEN 90 DEGREES.

2. OPENINGS, DOORS AND DOORWAYS WITHOUT DOORS MORE THAN 24 INCHES IN DEPTH SHALL PROVIDE A CLEAR OPENING WIDTH OF 36 INCHES MINIMUM.

3. THERE SHALL BE NO PROJECTIONS INTO THE CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FLOOR. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES ABOVE THE FLOOR SHALL NOT EXCEED 4 INCHES.

SECTION 404.2.3 MANEUVERING CLEARANCES AT DOORS:
MINIMUM MANEUVERING CLEARANCES AT DOORS SHALL COMPLY WITH THE DIAGRAMS BELOW.

SECTION 407 ELEVATORS:
1. CALL BUTTONS AND KEYPADS AT ELEVATOR LANDINGS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN SECTION 308, MEASURED TO THE CENTERLINE OF THE HIGHEST OPERABLE PART.

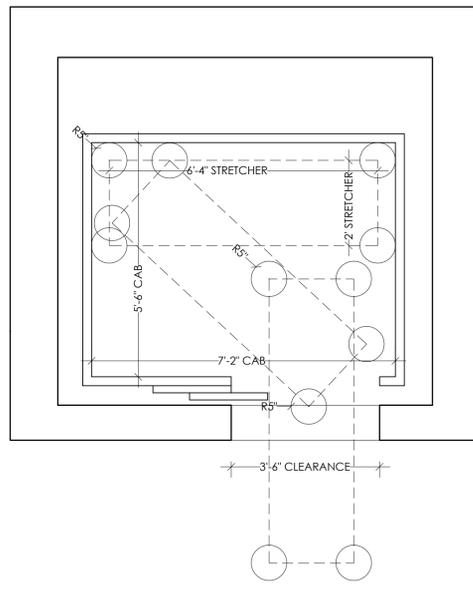
2. A CLEAR FLOOR SPACE COMPLYING WITH SECTION 305 SHALL BE PROVIDED AT CALL CONTROLS.

3. VISIBLE HALL SIGNAL FIXTURES SHALL BE CENTERED AT 72 INCHES MINIMUM ABOVE THE FLOOR.

4. INSIDE DIMENSIONS OF ELEVATOR CARS SHALL COMPLY WITH THE DIAGRAM BELOW.

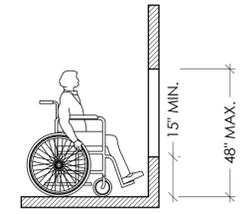
NYC BC 1107.3.1 MAILBOXES. EXCEPT AS OTHERWISE PROVIDED BY RULES OF THE DEPARTMENT FOR THE PURPOSES OF COMPLYING WITH RULES AND REGULATIONS ESTABLISHED BY THE UNITED STATES POSTAL SERVICE AND/OR THE UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, WHERE MAILBOXES ARE PROVIDED FOR EACH DWELLING UNIT OR SLEEPING UNIT IN AN INTERIOR LOCATION, 100 PERCENT OF SUCH MAILBOXES SHALL COMPLY WITH ICC A117.1, AND THE OPERABLE PARTS OF SUCH MAILBOXES SHALL BE NO HIGHER THAN 48 INCHES (1219 MM) ABOVE THE FINISHED FLOOR.

NOTES:
ELEVATOR CONSTRUCTION, DIMENSIONS AND CONTROL MECHANISM SHALL COMPLY WITH SECTION 407 OF THE ICC A117.1-2008 AND ASME A17.1.
ELEVATOR OPERATION SHALL BE AUTOMATIC.
IN ALL BUILDINGS 5 STORIES HIGH OR MORE, ELEVATOR CAB SIZE TO COMPLY WITH STRETCHER-SIZE OF 24\"/>

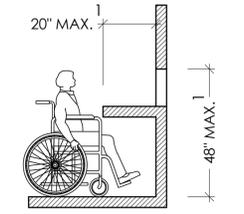


2 ELEVATOR CAB DIMENSIONS - STRETCHER SIZE
SCALE: 1/2\"/>

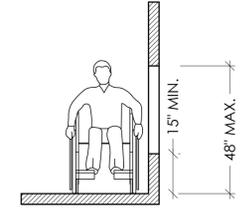
FOOTNOTES:
1 FOR OBSTRUCTIONS BETWEEN 20\"/>



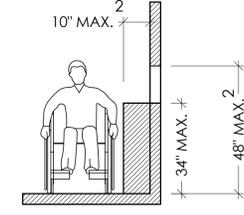
UNOBSTRUCTED FORWARD REACH



OBSTRUCTED HIGH FORWARD REACH



UNOBSTRUCTED SIDE REACH



OBSTRUCTED HIGH SIDE REACH

1 ACCESSIBILITY
SCALE: 1/4\"/>

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



308 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-415-3779

ARCHITECT OF RECORD

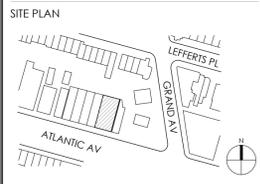
feingold & gregory architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 592-8895 - Fax: (212) 781-8922

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

ACCESSIBILITY NOTES I

DATE: 12/31/2015

SCALE: AS NOTED

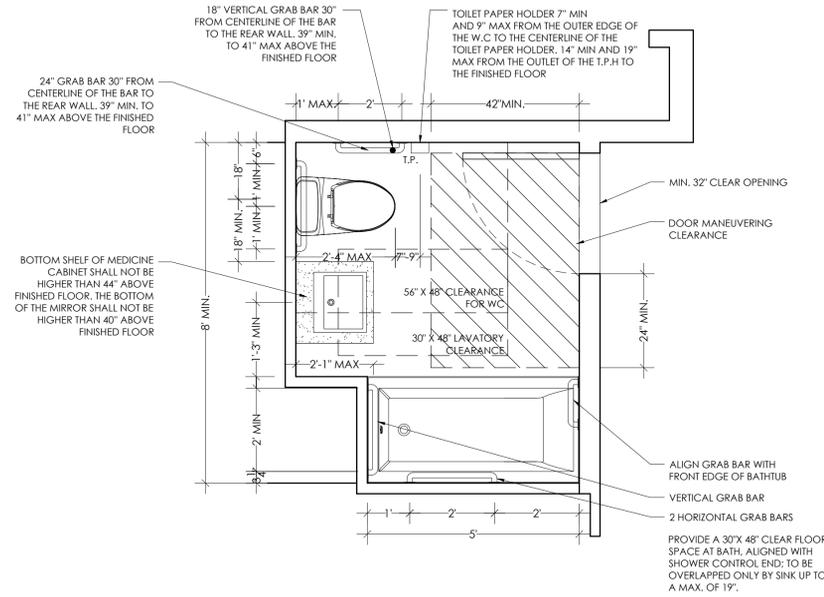
DRAWN BY: JD, MT

CHECKED BY: JD

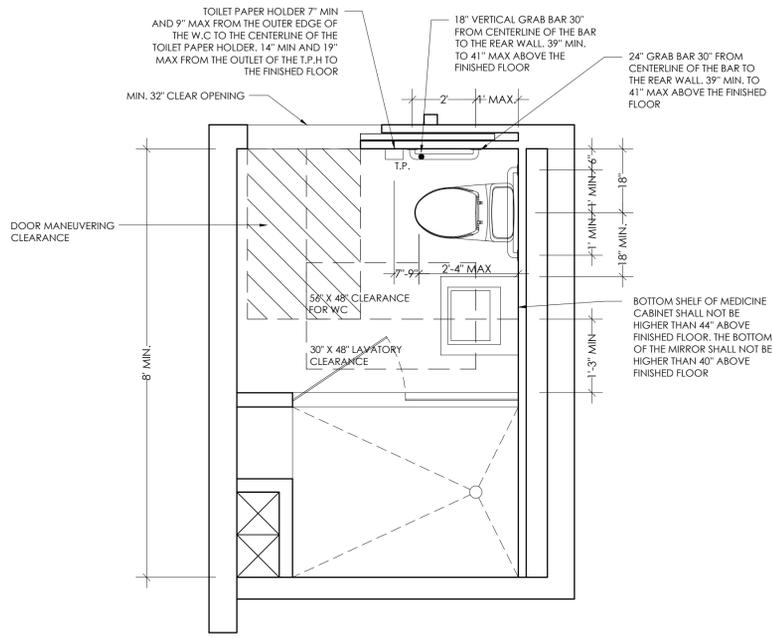
DRAWING NO: 07 OF 43

SHEET: **G-120.00**

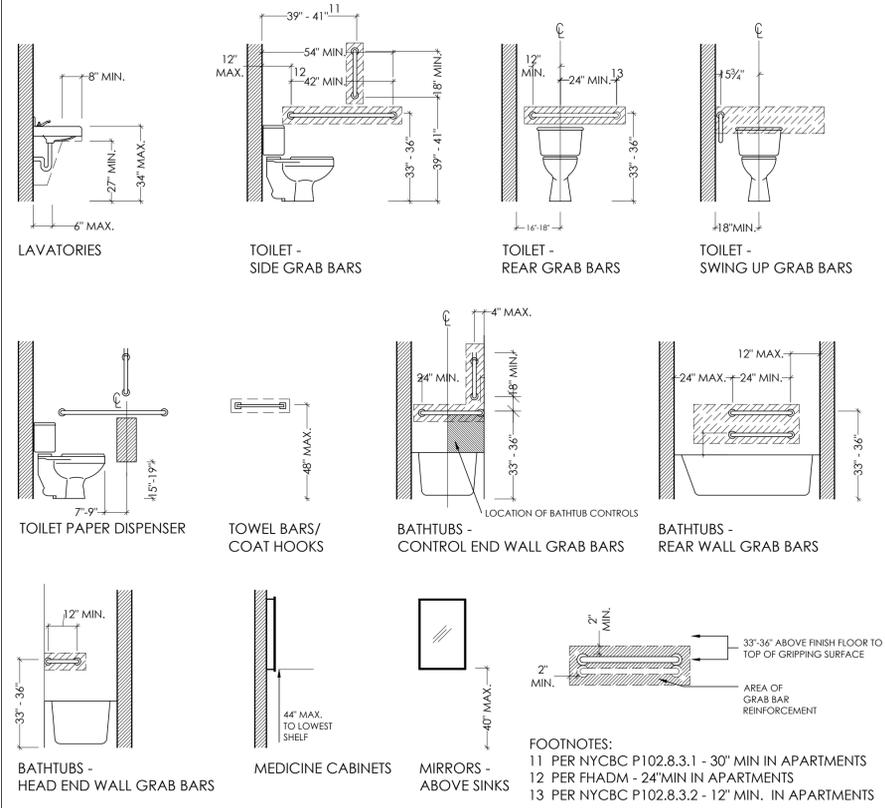




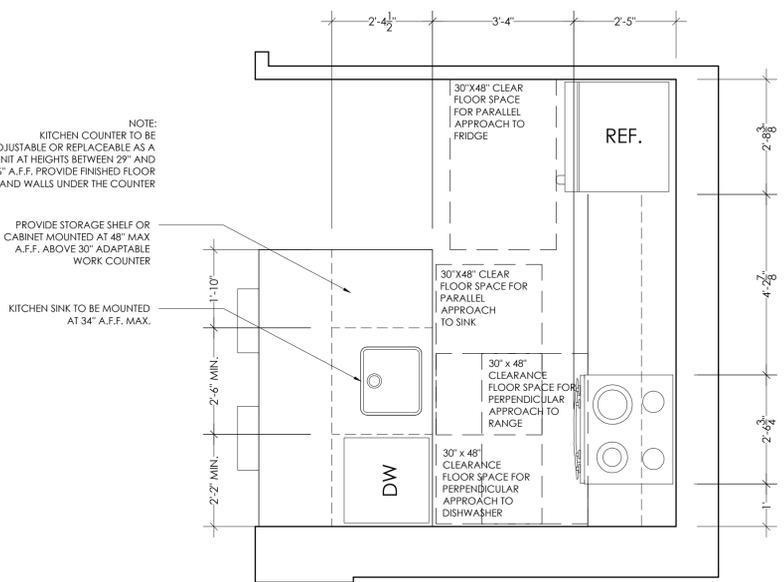
1 R2 OCCUPANCY APPENDIX P BATHROOM - TYPE 1
SCALE: 1/2" = 1'-0"



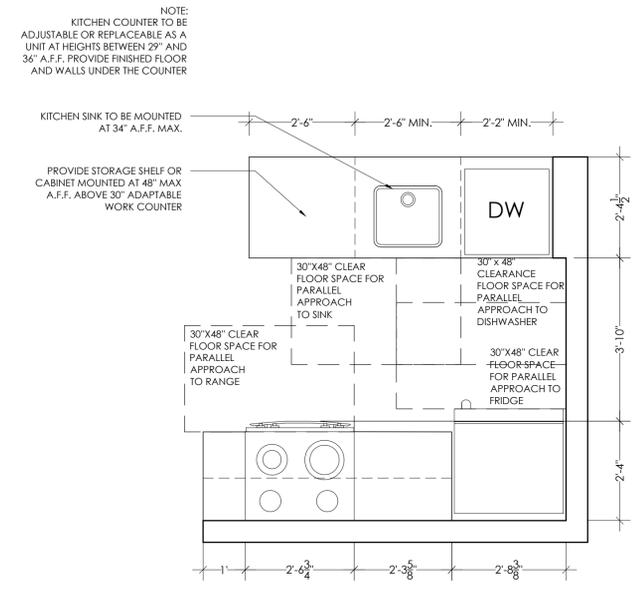
2 R2 OCCUPANCY APPENDIX P BATHROOM - TYPE 2
SCALE: 1/2" = 1'-0"



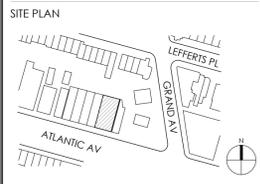
3 ACCESSIBLE MOUNTING HEIGHTS
SCALE: 1/8" = 1'-0"



4 R2 OCCUPANCY TYPE 1 KITCHEN
SCALE: 1/2" = 1'-0"



5 R2 OCCUPANCY TYPE 2 KITCHEN
SCALE: 1/2" = 1'-0"



PROJECT No: 1501

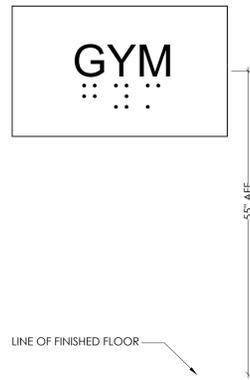
1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

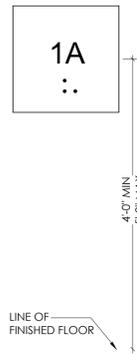
ACCESSIBILITY NOTES II

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: 08 OF 43
SHEET: **G-121.00**

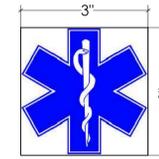




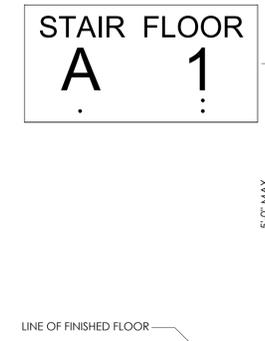
1 TYPICAL ROOM SIGN
NTS



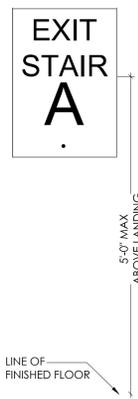
2 TYPICAL APARTMENT SIGN
NTS



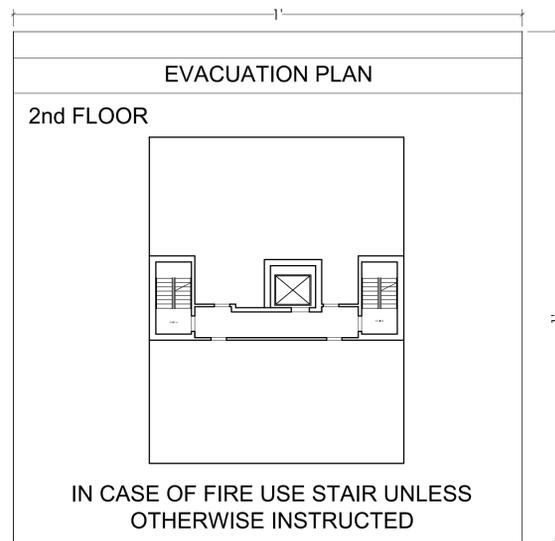
3 STAIR OF LIFE INDICATOR @ ELEVATOR JAMB
6" = 1'-0"



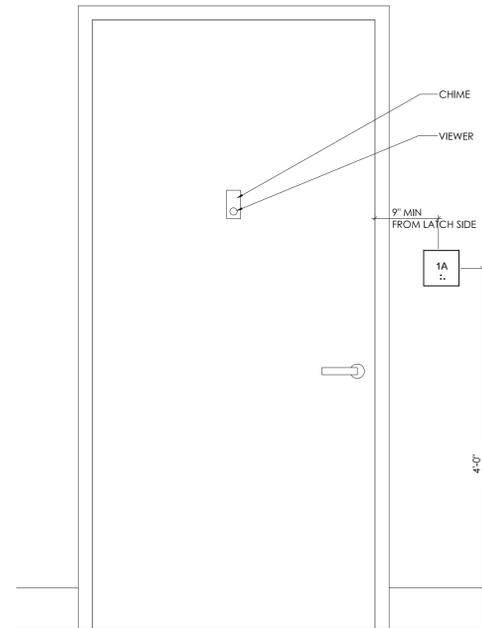
4 TYPICAL SIGN @ INTERIOR SIDE OF EGRESS STAIR
NTS



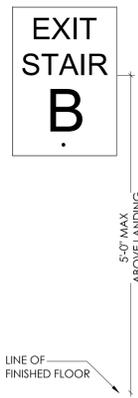
5 TYPICAL SIGN @ CORRIDOR SIDE OF STAIR A
NTS



7 TYPICAL EGRESS PLAN @ ELEVATOR
NTS



8 SIGNAGE LOCATION AT APT. DOOR
1 1/2" = 1'-0"



6 TYPICAL SIGN @ CORRIDOR SIDE OF STAIR B
NTS

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



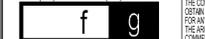
304 MALCOLM X BLVD
BROOKLYN, NY 11233

TEL: 718-544-3764
FAX: 718-415-1779

ARCHITECT OF RECORD

feingold & gregory architects

118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8885 - Fax: (212) 781-8992



ARCHITECT ASSUMES NO
RESPONSIBILITY FOR ANY
WORK WHICH DEVIATES
FROM APPROVED PLANS.
THE CONTRACTOR MUST
OBTAIN WRITTEN APPROVAL
FOR ANY CHANGES FROM
THE ARCHITECT BEFORE
COMMENCING SUCH WORK.

STRUCTURAL ENGINEER

GACE consulting engineers pc

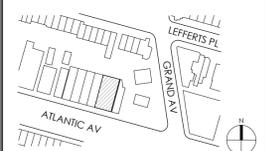
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1	DOB REVIEW	12/31/15
1	ISSUED FOR DOB FILING	08/06/15
	REV.	DATE

DRAWING TITLE:

TYPICAL SIGNAGE
DETAILS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 09 OF 43

SHEET:

G-125.00

SEAL & SIGNATURE ARCHITECT

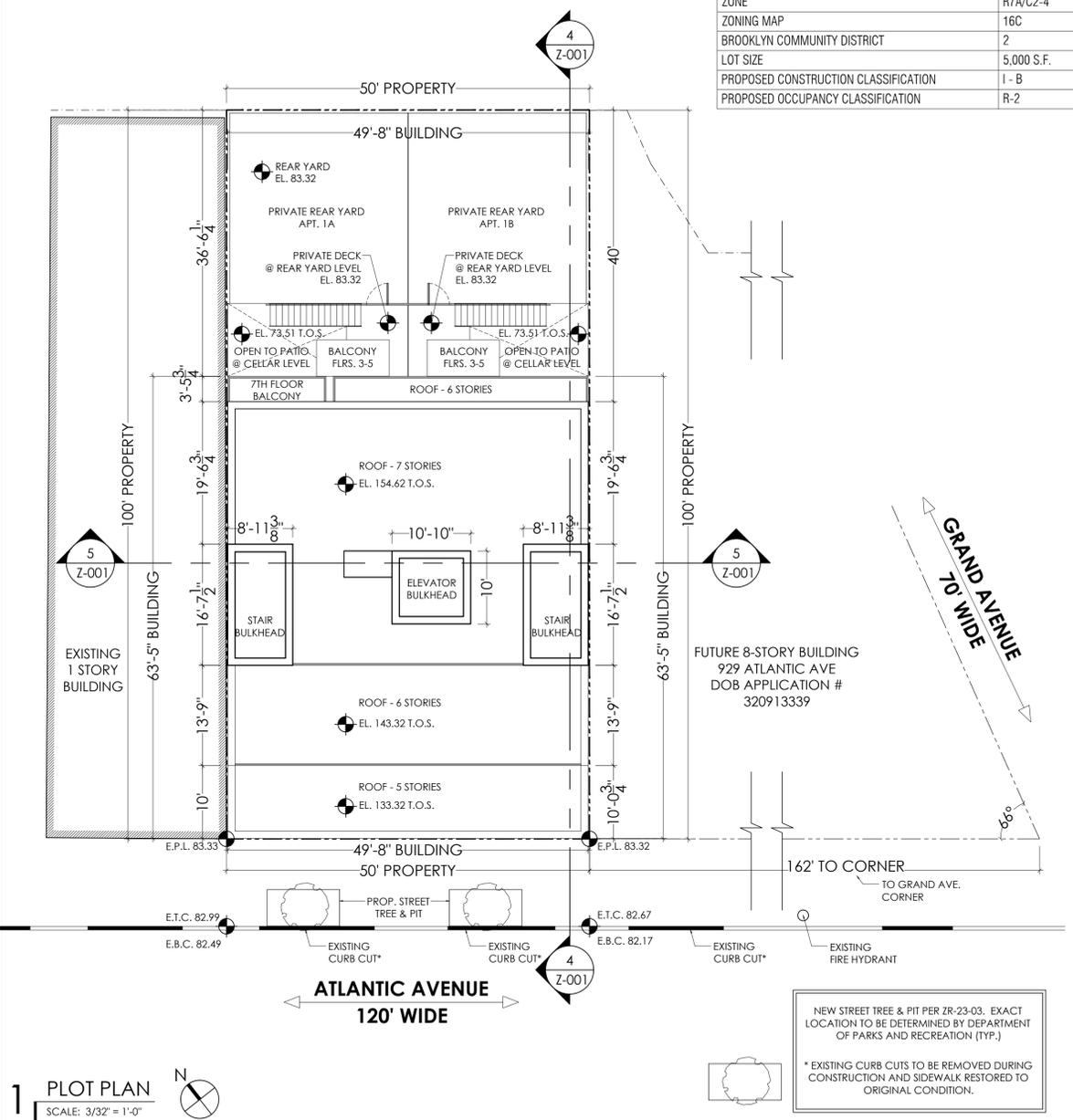


SITE & BUILDING INFORMATION	
ADDRESS	925 ATLANTIC AVE.
BLOCK	2018
LOT	57
ZONE	R7A/C2-4
ZONING MAP	16C
BROOKLYN COMMUNITY DISTRICT	2
LOT SIZE	5,000 S.F.
PROPOSED CONSTRUCTION CLASSIFICATION	I - B
PROPOSED OCCUPANCY CLASSIFICATION	R-2

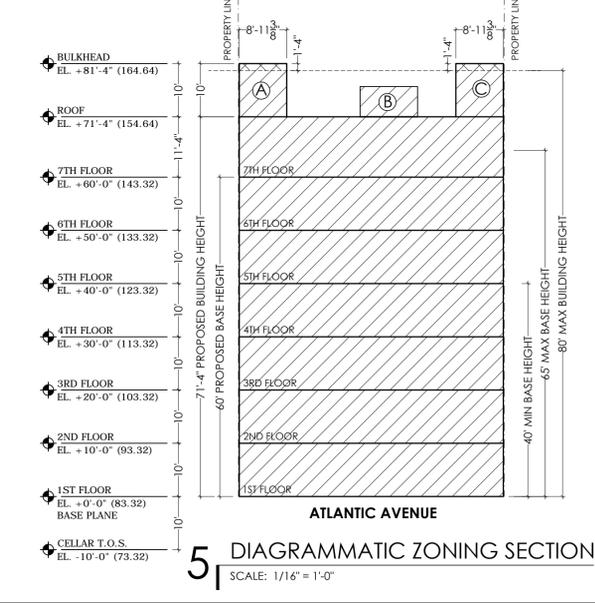
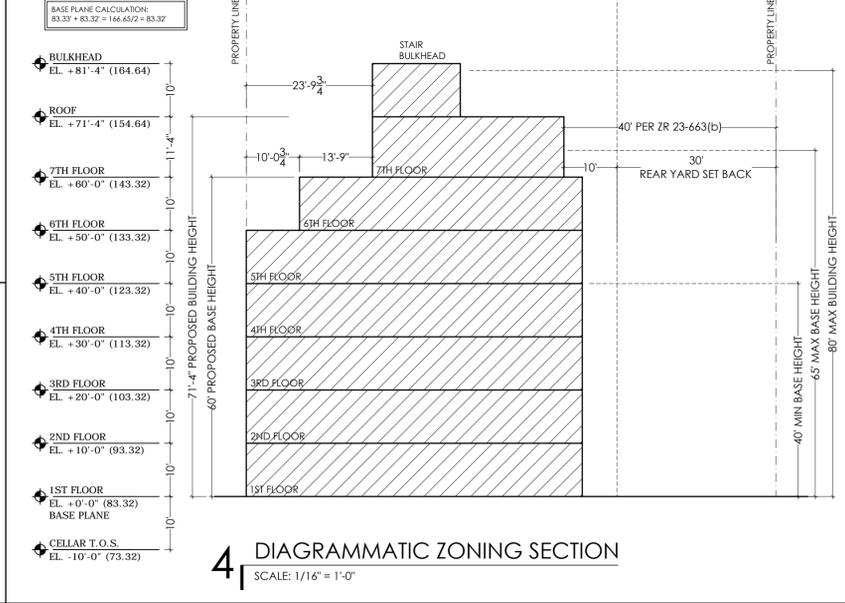
ZONING INFORMATION - R7A	ZR SECTION	PERMITTED/REQUIRED	PROPOSED	COMPLIES
USE GROUPS	22-00, 32-00	USE GROUP 2	USE GROUP 2	COMPLIES
BALCONIES	23-132	BALCONIES IN R7A; PROJECTING LESS THAN 7'	9 BALCONIES; PROJECTING 5' MAX. AGGREGATE WIDTH OF BALCONIES DOES NOT EXCEED MORE THAN 50% TOTAL WIDTH	COMPLIES
RESIDENTIAL FLOOR AREA RATIO	23-952	F.A.R. = 3.45		
INCLUSIONARY DESIGNATED HOUSING AREA		3.45 X 5,000 = 17,250 SF MAX. ALLOWABLE FLOOR AREA	17,142.6 SF < 17,250 SF	COMPLIES
MAXIMUM ALLOWABLE LOT COVERAGE	23-145	65% INTERIOR LOT; 5,000 SF X .65 = 3250 SF	3,250 SF; 65% = 65% (SEE LOT COVERAGE DIAGRAM, SHEET Z-001)	COMPLIES
DENSITY: MAX. ALLOWABLE # OF DWELLING UNITS	23-22	680 17,250/680 = 25 UNITS MAXIMUM	21 UNITS	COMPLIES
MINIMUM LOT AREA	23-32	1,700 SF	5,000 SF	COMPLIES
MINIMUM LOT WIDTH	23-32	18'	50'	COMPLIES
REQUIRED FRONT YARD	23-45	NO FRONT YARD REQUIRED	NO FRONT YARD PROVIDED	COMPLIES
REQUIRED SIDE YARD	23-46	NO SIDE YARD REQUIRED	NO SIDE YARD PROVIDED	COMPLIES
REQUIRED REAR YARD	23-53	30' REAR YARD REQUIRED	30' REAR YARD PROVIDED	COMPLIES
MAXIMUM ALLOWABLE BUILDING HEIGHT	23-633 (c)	80'	71'-4"	COMPLIES
MAXIMUM ALLOWABLE BASE HEIGHT	23-633 (c)	65'	60'-0"	COMPLIES
MINIMUM ALLOWABLE BASE HEIGHT	23-633 (c)	40'	60'-0"	COMPLIES
STREET WALL LOCATION	23-633(a)	LOCATED NO CLOSER TO THE STREET LINE THAN THE STREET WALL OF ADJACENT BLDG.	STREET WALL AT PROPERTY LINE. ADJ. WALL AT PROP. LINE (SEE PLOT PLAN Z-001)	COMPLIES
STREET WALL SETBACK ABOVE BASE HEIGHT	23-633 (b)	10' SETBACK REQUIRED MIN. (WIDE STREET)	10'-0" SETBACK PROVIDED	COMPLIES
REQUIRED REAR YARD SETBACK	23-663(b)	10' REAR YARD SETBACK REQUIRED	10' REAR YARD SETBACK PROVIDED	COMPLIES
REQUIRED VEHICULAR PARKING SPACES	25-261	50% OF DWELLING UNITS. WAIVED IF LESS THAN 15 SPACES. 21 X .50 = 10.5	11 < 15; PARKING WAIVED, 0 SPOTS PROVIDED	COMPLIES
REQUIRED BICYCLE PARKING SPACES	25-80	50% OF DWELLING UNITS MIN. 21 UNITS X .50 = 10 SPACES REQUIRED @ 15 SF/SPACE	10 SPACES PROVIDED IN CELLAR	COMPLIES
PLANTING AREAS	23-892(a)	PERMANENT PLANTING REQUIRED BETWEEN STREET LINE AND BUILDING STREET WALL	PLANTING PROVIDED (SEE FIRST FLOOR PLAN, A-101)	COMPLIES
STREET TREE PLANTING	26-41	1 TREE PLANTED EVERY 25' OF STREET FRONTAGE	2 TREES PROVIDED (SEE PLOT PLAN; Z-001)	COMPLIES

ZONING INFORMATION - C2-4 OVERLAY	ZR SECTION	PERMITTED/REQUIRED	PROPOSED	COMPLIES
QUALITY HOUSING PROGRAM	34-011 (a)	BUILDING SHALL COMPLY WITH ARTICLE II, CHAPTER 8 (QUALITY HOUSING PROGRAM)	BUILDING COMPLIES WITH QUALITY HOUSING	COMPLIES
BULK REGULATIONS	34-11	BUILDING SHALL COMPLY WITH THE BULK REGULATIONS OF ARTICLE II, CHAPTER 3	BUILDING COMPLIES WITH BULK REGULATIONS	COMPLIES
MAXIMUM FLOOR AREA RATIO	34-221	MAX. F.A.R. SHALL BE PURSUANT TO THE PROVISIONS OF ART. II, CHAPTER 3	MAX. FLOOR AREA IS PURSUANT TO THE PROVISIONS OF ART. II, CHAPTER 3	COMPLIES
REQUIRED FRONT YARD	34-231	NO FRONT YARD REQUIRED	NO FRONT YARD PROVIDED	COMPLIES
REQUIRED SIDE YARD	34-232	NO SIDE YARD REQUIRED	NO SIDE YARD PROVIDED	COMPLIES
MODIFICATION OF HEIGHT AND SETBACK REGULATIONS	34-24	BUILDING SHALL COMPLY WITH THE HEIGHT AND SETBACK REGULATIONS OF ARTICLE II, CHAPTER 3	BUILDING COMPLIES WITH HEIGHT AND SETBACK REGULATIONS	COMPLIES
REQUIRED VEHICULAR PARKING SPACES	36-361	30% OF DWELLING UNITS MIN.; WAIVED IF LESS THAN 15 SPACES (R7A)	7 SPACES REQ. < 15 = 0 PROVIDED	COMPLIES
REQUIRED BICYCLE PARKING SPACES	36-711	50% OF DWELLING UNITS MIN.: 19 UNITS X .50 = 10 SPACES REQUIRED	12 SPACES PROVIDED IN CELLAR @ 12 SF PER SPACE	COMPLIES

THE QUALITY HOUSING PROGRAM: ARTICLE II, CHAPTER 8	ZR SECTION	PERMITTED/REQUIRED	PROPOSED	COMPLIES
SIZE OF DWELLING UNIT	28-21	400 SF MIN.	MIN. UNIT SIZE = 605 SF > 400 SF	COMPLIES
WINDOWS	28-22	DOUBLE GLAZED WINDOWS	ALL WINDOWS TO BE DOUBLE GLAZED	COMPLIES
REFUSE STORAGE AND DISPOSAL	28-23	REFUSE STG. REQ. FOR 9 OR MORE D.U.: 2.9 CF X 21 UNITS = 60.9 CF REQ. REFUSE DISPOSAL RM NOT LESS THAN 12 SF PROVIDED ON EACH STORY	117 SF X 9'-4" = 91 CF PROPOSED TRASH COMPACTOR ROOM REFUSE DISPOSAL ROOM PROVIDED @ 57 SF/ FLOOR	COMPLIES
LAUNDRY FACILITIES	28-24	2 WASHER AND 1 DRYER UNIT FOR EVERY 40 DWELLING UNITS	TOTAL PROPOSED UNITS = 21 < 40 D.U. 1 WASHER AND 1 DRYER HOOKUP IN EVERY DWELLING UNIT PROVIDED NO FLOOR AREA DEDUCTION TAKEN	COMPLIES
REQUIRED RECREATION SPACE	28-31	R7A: 3.3% PROPOSED RESIDENTIAL F.A. = 17,142.6 SF 17,142.6 X 3.3% = 565.7 SF	TOTAL PROVIDED INTERIOR @ 1st FLOOR = 569 SF SEE FLOOR AREA DIAGRAM 1/Z-002	COMPLIES
STANDARDS FOR RECREATION SPACE	28-32	A.) ACCESSIBLE TO ALL RESIDENTS OF THE BUILDINGS. B.) MIN. DIM. 15', MIN. SIZE OUTDOOR 225 SF, INSIDE 300 SF. C.) OUTDOOR SPACE OPEN TO THE SKY.	A.) YES B.) YES C.) YES	COMPLIES
PLANTING AREA	28-33	AT LEAST 1 TREE PLANTED AT EVERY 25' STREET FRONTAGE TOTAL FRONTAGE = 50 LF / 25 FT = 2.0 TREES. 2 TREES REQUIRED.	2 TREES PROVIDED. (SEE PLOT PLAN; 1/Z-001)	COMPLIES
DENSITY BY CORRIDOR PER STORY	28-41	11 DWELLING UNITS MAXIMUM SHARE 1 CORRIDOR	4 D.U. PER FLOOR MAX < 11 D.U. SEE FLOOR AREA DIAGRAMS 1-6/Z-002	COMPLIES



PERMITTED OBSTRUCTIONS PER ZR23-62(G)		
BULKHEAD	DESCRIPTION	AREA
A	STAIR BULKHEAD	1'-4" X 8'-11 3/8" = 11.9 SF
B	ELEVATOR BULKHEAD	N/A ABOVE MAX BUILDING HEIGHT
C	STAIR BULKHEAD	1'-4" X 8'-11 3/8" = 11.9 SF
TOTAL		23.8 SF
ALLOWABLE		49'-8" X 8" = 397.3 SF
		23.8 SF < 397.3 SF = COMPLIES WITH ZR23-62(G)



PROJECT:
925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART
304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM

308 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718 544 3764
FAX: 718 412 3779

ARCHITECT OF RECORD

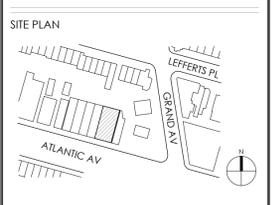
feingold & gregory · architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 555-8885 - fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
1-212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



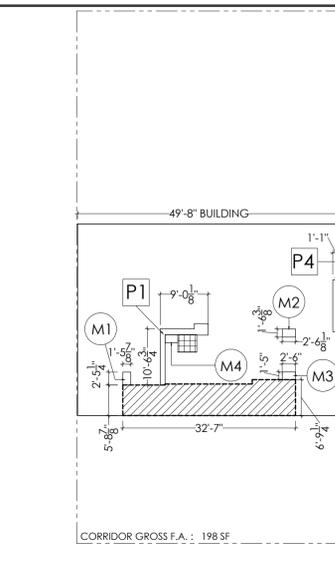
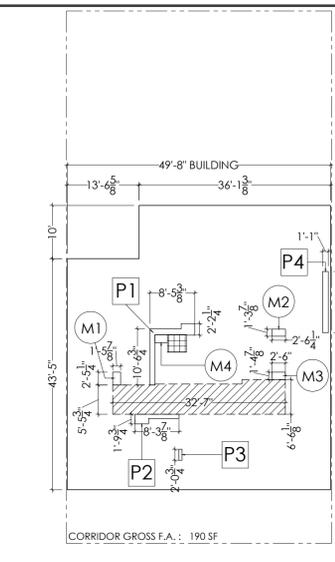
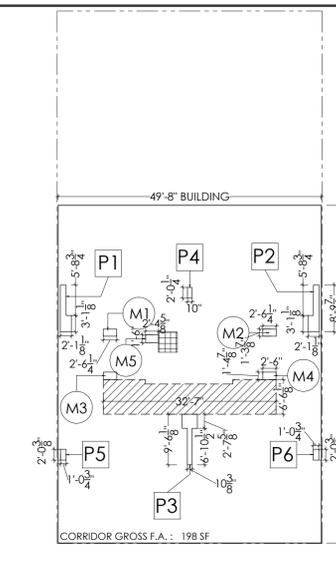
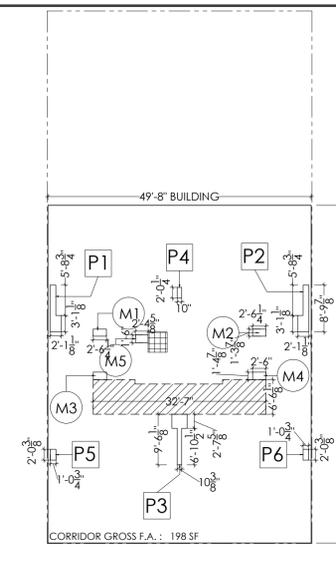
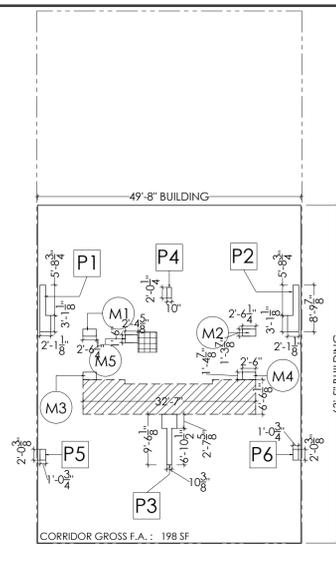
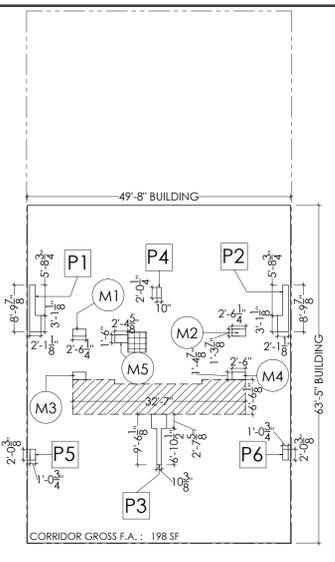
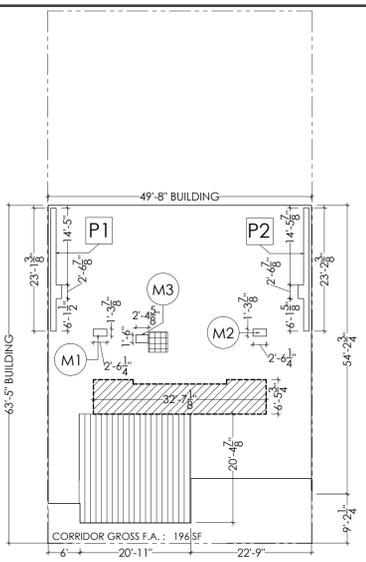
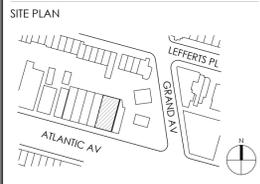
PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:
ZONING ANALYSIS;
PLOT PLAN; FEMA MAP,
ZONING MAP

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: 10 OF 43
SHEET: Z-001.00

SEAL & SIGNATURE OF ARCHITECT
ROBERT J. GREGORY
REGISTERED ARCHITECT
STATE OF NEW YORK
026711



1 1ST FLOOR PLAN
 SCALE: 1/16" = 1'-0"

2 2ND FLOOR PLAN
 SCALE: 1/16" = 1'-0"

3 3RD FLOOR PLAN
 SCALE: 1/16" = 1'-0"

4 4TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

5 5TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

6 6TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

7 7TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

1ST FLOOR DEDUCTION SUMMARY

ITEM	DESCRIPTION	AREA (SF)
M1	MECHANICAL VENT	3 SF
M2	MECHANICAL VENT	4 SF
M3	MECHANICAL VENT	4 SF
P1	PLUMBING CHASE	26 SF
P2	PLUMBING CHASE	26 SF
	Q.H. RECREATION SPACE 569 SF MAX.	569 SF
	Q.H. CORRIDOR DENSITY (50% OF 196 SF) PER ZR 28-41	98 SF
	Q.H. CORRIDOR LIGHT (50%) PER ZR 28-25	98 SF
	Q.H. REFUSE ROOM	12.0 SF
	EXTERIOR WALL THICKNESS (SEE PG Z-003 FOR SUPPORTING DIAGRAM)	81.12 SF
TOTAL DEDUCTIONS		921.12 SF

2ND FLOOR DEDUCTION SUMMARY

ITEM	DESCRIPTION	AREA (SF)
M1	MECHANICAL VENT	3 SF
M2	MECHANICAL VENT	3 SF
M3	MECHANICAL VENT	4 SF
M4	MECHANICAL VENT	4 SF
M5	MECHANICAL VENT	4 SF
P1	PLUMBING CHASE	13 SF
P2	PLUMBING CHASE	13 SF
P3	PLUMBING CHASE	14 SF
P4	PLUMBING CHASE	2 SF
P5	PLUMBING CHASE	2 SF
P6	PLUMBING CHASE	2 SF
	Q.H. CORRIDOR DENSITY (50% OF 198 SF) PER ZR 28-41	99 SF
	Q.H. CORRIDOR LIGHT (50%) PER ZR 28-25	0 SF
	Q.H. REFUSE ROOM	12.0 SF
	EXTERIOR WALL THICKNESS (SEE PG Z-003 FOR SUPPORTING DIAGRAM)	97.48 SF
TOTAL DEDUCTIONS		272.33 SF

3RD FLOOR DEDUCTION SUMMARY

ITEM	DESCRIPTION	AREA (SF)
M1	MECHANICAL VENT	3 SF
M2	MECHANICAL VENT	3 SF
M3	MECHANICAL VENT	4 SF
M4	MECHANICAL VENT	4 SF
M5	MECHANICAL VENT	4 SF
P1	PLUMBING CHASE	13 SF
P2	PLUMBING CHASE	13 SF
P3	PLUMBING CHASE	14 SF
P4	PLUMBING CHASE	2 SF
P5	PLUMBING CHASE	2 SF
P6	PLUMBING CHASE	2 SF
	Q.H. CORRIDOR DENSITY (50% OF 198 SF) PER ZR 28-41	99 SF
	Q.H. CORRIDOR LIGHT (50%) PER ZR 28-25	0 SF
	Q.H. REFUSE ROOM	12.0 SF
	EXTERIOR WALL THICKNESS (SEE PG Z-003 FOR SUPPORTING DIAGRAM)	97.48 SF
TOTAL DEDUCTIONS		272.33 SF

4TH FLOOR DEDUCTION SUMMARY

ITEM	DESCRIPTION	AREA (SF)
M1	MECHANICAL VENT	3 SF
M2	MECHANICAL VENT	3 SF
M3	MECHANICAL VENT	4 SF
M4	MECHANICAL VENT	4 SF
M5	MECHANICAL VENT	4 SF
P1	PLUMBING CHASE	13 SF
P2	PLUMBING CHASE	13 SF
P3	PLUMBING CHASE	14 SF
P4	PLUMBING CHASE	2 SF
P5	PLUMBING CHASE	2 SF
P6	PLUMBING CHASE	2 SF
	Q.H. CORRIDOR DENSITY (50% OF 198 SF) PER ZR 28-41	99 SF
	Q.H. CORRIDOR LIGHT (50%) PER ZR 28-25	0 SF
	Q.H. REFUSE ROOM	12.0 SF
	EXTERIOR WALL THICKNESS (SEE PG Z-003 FOR SUPPORTING DIAGRAM)	97.48 SF
TOTAL DEDUCTIONS		272.33 SF

5TH FLOOR DEDUCTION SUMMARY

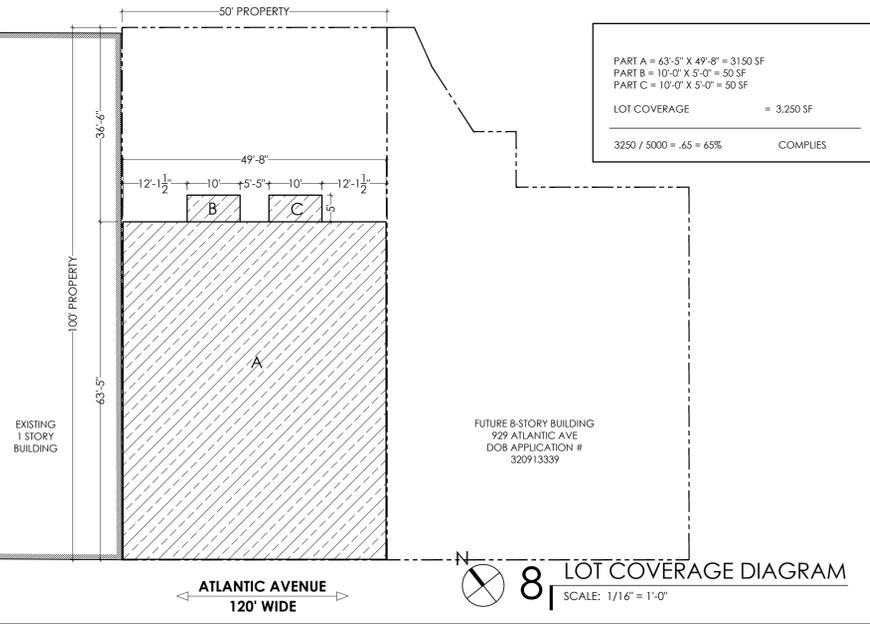
ITEM	DESCRIPTION	AREA (SF)
M1	MECHANICAL VENT	3 SF
M2	MECHANICAL VENT	3 SF
M3	MECHANICAL VENT	4 SF
M4	MECHANICAL VENT	4 SF
M5	MECHANICAL VENT	4 SF
P1	PLUMBING CHASE	13 SF
P2	PLUMBING CHASE	13 SF
P3	PLUMBING CHASE	14 SF
P4	PLUMBING CHASE	2 SF
P5	PLUMBING CHASE	2 SF
P6	PLUMBING CHASE	2 SF
	Q.H. CORRIDOR DENSITY (50% OF 198 SF) PER ZR 28-41	99 SF
	Q.H. CORRIDOR LIGHT (50%) PER ZR 28-25	0 SF
	Q.H. REFUSE ROOM	12.0 SF
	EXTERIOR WALL THICKNESS (SEE PG Z-003 FOR SUPPORTING DIAGRAM)	97.48 SF
TOTAL DEDUCTIONS		272.33 SF

6TH FLOOR DEDUCTION SUMMARY

ITEM	DESCRIPTION	AREA (SF)
M1	MECHANICAL VENT	4 SF
M2	MECHANICAL VENT	3 SF
M3	MECHANICAL VENT	4 SF
P1	PLUMBING CHASE	21 SF
P2	PLUMBING CHASE	9 SF
P3	PLUMBING CHASE	1 SF
P4	PLUMBING CHASE	20 SF
	Q.H. CORRIDOR DENSITY (50% OF 190 SF) PER ZR 28-41	95 SF
	Q.H. CORRIDOR LIGHT (50%) PER ZR 28-25	0 SF
	Q.H. REFUSE ROOM	12.0 SF
	EXTERIOR WALL THICKNESS (SEE PG Z-003 FOR SUPPORTING DIAGRAM)	85.91 SF
TOTAL DEDUCTIONS		254.91 SF

7TH FLOOR DEDUCTION SUMMARY

ITEM	DESCRIPTION	AREA (SF)
M1	MECHANICAL VENT	4 SF
M2	MECHANICAL VENT	4 SF
M3	MECHANICAL VENT	4 SF
M4	MECHANICAL VENT	4 SF
P1	PLUMBING CHASE	21 SF
P2	PLUMBING CHASE	11 SF
	Q.H. CORRIDOR DENSITY (50% OF 198 SF) PER ZR 28-41	99 SF
	Q.H. CORRIDOR LIGHT (50%) PER ZR 28-25	99 SF
	Q.H. REFUSE ROOM	12.0 SF
	EXTERIOR WALL THICKNESS (SEE PG Z-003 FOR SUPPORTING DIAGRAM)	70.43 SF
TOTAL DEDUCTIONS		328.43 SF



FLOOR DEDUCTIONS AND AREAS

FLOORS	GROSS FLOOR AREA	ZONING DEDUCTIONS							ZONING FLOOR AREA	F to F (in ft)	BUILDING HEIGHT (in ft)
		SHAFTS	CORRIDOR GROSS F.A.	CORRIDOR DENSITY	CORRIDOR LIGHT	WALLS-ENERGY	RECREATION SPACE	REFUSE COLLECTION			
CEL	3,692.00										
1	2,820.00	63.00	196.00	98.00	98.00	81.12	524.00	12.00	1,943.88	0	0
2	3,150.00	64.00	198.00	99.00	-	97.48	-	12.00	2,877.52	10	10
3	3,150.00	64.00	198.00	99.00	-	97.48	-	12.00	2,877.52	10	20
4	3,150.00	64.00	198.00	99.00	-	97.48	-	12.00	2,877.52	10	30
5	3,150.00	64.00	198.00	99.00	-	97.48	-	12.00	2,877.52	10	40
6	2,531.00	62.00	190.00	95.00	-	85.91	-	12.00	2,276.09	10	50
7	1,788.00	48.00	198.00	100.00	100.00	70.43	-	12.00	1,457.57	10.67	60.67
ROOF	485.00									10.67	71.34
TOTAL	23,916.00	429.00	689.00	198.00	627.38	524.00	84.00		17,187.62		

UNIT DISTRIBUTION CHART

	UNIT DISTRIBUTION			
	1BR	2 BR	3 BR	TOTAL
1	0	2	0	2
2	4	0	0	4
3	4	0	0	4
4	4	0	0	4
5	4	0	0	4
6	1	0	1	2
7	0	0	1	1
TOTAL	17	2	2	21

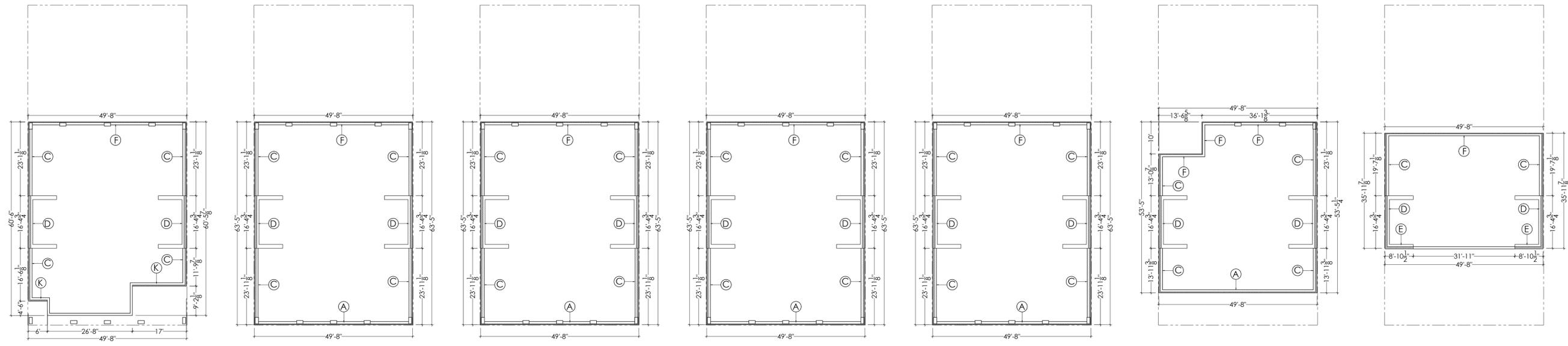
PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

DATE: 12/31/2015
 SCALE: AS NOTED
 DRAWN BY: JD, MT
 CHECKED BY: JD
 DRAWING NO: 11 OF 43
 SHEET: **Z-002.00**





← ATLANTIC AVENUE →
 ACTUAL WALL THICKNESS
 DEDUCTION AS PER ZR 12-10

← ATLANTIC AVENUE →
 ACTUAL WALL THICKNESS
 DEDUCTION AS PER ZR 12-10

← ATLANTIC AVENUE →
 ACTUAL WALL THICKNESS
 DEDUCTION AS PER ZR 12-10

← ATLANTIC AVENUE →
 ACTUAL WALL THICKNESS
 DEDUCTION AS PER ZR 12-10

← ATLANTIC AVENUE →
 ACTUAL WALL THICKNESS
 DEDUCTION AS PER ZR 12-10

← ATLANTIC AVENUE →
 ACTUAL WALL THICKNESS
 DEDUCTION AS PER ZR 12-10

← ATLANTIC AVENUE →
 ACTUAL WALL THICKNESS
 DEDUCTION AS PER ZR 12-10

1 | 1ST FLOOR PLAN
 SCALE: 1/16" = 1'-0"

2 | 2ND FLOOR PLAN
 SCALE: 1/16" = 1'-0"

3 | 3RD FLOOR PLAN
 SCALE: 1/16" = 1'-0"

4 | 4TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

5 | 5TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

6 | 6TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

7 | 7TH FLOOR PLAN
 SCALE: 1/16" = 1'-0"

WALLS LEGEND

(A)	NEW MET. STUD WALL TYPE	A	(C)	NEW CMU WALL TYPE	C	(D)	NEW CONCRETE WALL TYPE	D
	U FACTOR	0.026		U FACTOR	0.043		U FACTOR	0.068
	ACTUAL WALL THICKNESS	11.875"		ACTUAL WALL THICKNESS	13.875"		ACTUAL WALL THICKNESS	17.125"
ZR 12-10	ALLOWABLE DEDUCTION	3.875"	ZR 12-10	ALLOWABLE DEDUCTION	5.875"	ZR 12-10	ALLOWABLE DEDUCTION	9.125"
(E)	NEW CONCRETE WALL TYPE	E	(F)	NEW MET. STUD WALL TYPE	F	(K)	NEW MET. STUD WALL TYPE	K
	U FACTOR	0.068		U FACTOR	0.066		U FACTOR	.045
	ACTUAL WALL THICKNESS	16.50"		ACTUAL WALL THICKNESS	10.750"		ACTUAL WALL THICKNESS	12.375"
ZR 12-10	ALLOWABLE DEDUCTION	8.50"	ZR 12-10	ALLOWABLE DEDUCTION	2.750"	ZR 12-10	ALLOWABLE DEDUCTION	4.375"

NOTE: SEE SHEET EN-100 FOR ADDITIONAL WALL ASSEMBLY INFORMATION.

8 | WALL TYPE DIAGRAM
 NTS

PROJECT:

925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



308 MALCOLM X BLVD.
 BROOKLYN, NY 11233
 TEL: 718-544-3764
 FAX: 718-415-1799

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street · New York, N.Y. · 10024
 Tel: (212) 595-8886 · Fax: (212) 781-8922



ARCHITECT ASSUMES NO
 RESPONSIBILITY FOR ANY
 WORK WHICH DEVIATES
 FROM APPROVED PLANS.
 THE CONTRACTOR MUST
 OBTAIN NECESSARY APPROVAL
 FOR ANY CHANGES FROM
 THE ARCHITECT BEFORE
 COMMENCING SUCH WORK.

STRUCTURAL ENGINEER

GACE consulting engineers pc

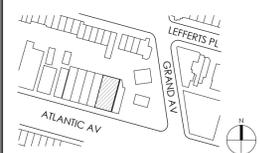
105 Madison Ave. New York, NY 10016
 T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

ZONING DIAGRAMS;
 DEDUCTION DIAGRAMS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 12 OF 43

SHEET: Z-003.00

SEAL & SIGNATURE ARCHITECT



COMcheck Software Version 4.0.0
Envelope Compliance Certificate

Project Information

Energy Code: 2014 New York Energy Conservation Construction Code
 Project Title: Kings County, New York
 Location: 4a
 Climate Zone: New Construction
 Project Type: 20%
 Vertical Glazing / Wall Area:

Construction Site: 925 Atlantic Avenue Brooklyn, NY 11238
 Owner/Agent: Elevation Holdings 308 Malcolm X Boulevard Brooklyn, NY 11233 718.544.3784
 Designer/Contractor: Feingold & Gregory Architects 118 West 83rd Street New York, NY 10024

Building Area	Floor Area
1-Multifamily - Residential	17250

Additional Efficiency Package

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _{min}
Roof Type 'A': Insulation Entirely Above Deck, [Bldg. Use 1 - Multifamily]	1798	---	30.0	0.032	0.048
Ext. Front Wall 1 - Type 'K': Other Steel Framed Wall, [Bldg. Use 1 - Multifamily] (b)	215	---	---	0.043	0.064
Egress Door - Type 'M': Insulated Metal, Swinging, [Bldg. Use 1 - Multifamily]	44	---	---	0.370	0.700
Entrance Door - Type 'J': Glass (> 50% glazing) Metal Frame, Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear, SHGC 0.70, [Bldg. Use 1 - Multifamily]	61	---	---	0.800	0.850
Ext. Front Wall 2 - Type 'A': Other Steel Framed Wall, [Bldg. Use 1 - Multifamily] (b)	2020	---	---	0.026	0.064
Window 1 - Front Wall 2: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	693	---	---	0.490	0.550
Window 2 - Front Wall 2: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	424	---	---	0.490	0.550
Ext. Front Wall 3 - Type 'A': Other Steel Framed Wall, [Bldg. Use 1 - Multifamily] (b)	530	---	---	0.026	0.064
Window 1 - Front Wall 3: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	71	---	---	0.490	0.550
Window 3 - Front Wall 3: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	45	---	---	0.490	0.550
Window 4 - Front Wall 3: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	88	---	---	0.490	0.550

Project Title: C:\Dropbox\1501 BK_925-927 Atlantic Ave\03 Construction Documents\ComCheck\925 Atlantic_ComCheck.cck
 Report date: 07/27/15
 Page 1 of 10

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _{min}
Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)				0.800	0.850
Terrace Door - Type 'D2': Glass (> 50% glazing) Metal Frame, Non-Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear, SHGC 0.70, [Bldg. Use 1 - Multifamily]	60	---	---	0.026	0.064
Ext. Front Wall 4 - Type 'A': Other Steel Framed Wall, [Bldg. Use 1 - Multifamily] (b)	471	---	---	0.026	0.064
Window 5 - Front Wall 4: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	175	---	---	0.490	0.550
Terrace Door - Type 'D2': Glass (> 50% glazing) Metal Frame, Non-Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear, SHGC 0.70, [Bldg. Use 1 - Multifamily]	60	---	---	0.800	0.850
Ext. Front Wall 5 - Type 'E': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	378	---	---	0.068	0.064
Basement Wall - Front: Solid Concrete 12" Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Multifamily]	506	---	19.0	0.048	0.090
Ext. Rear Wall 1 - Type 'F': Other Steel Framed Wall, [Bldg. Use 1 - Multifamily] (b)	3393	---	---	0.026	0.064
Window 6 - Rear Wall 1: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	108	---	---	0.499	0.550
Window 7 - Rear Wall 1: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	184	---	---	0.490	0.550
Window 8 - Rear Wall 1: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	540	---	---	0.490	0.550
Window 9 - Rear Wall 1: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	198	---	---	0.490	0.550
Window 10 - Rear Wall 1: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	198	---	---	0.490	0.550
Window 12 - Rear Wall 1: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	50	---	---	0.490	0.550
Door - Type 'D': Glass (> 50% glazing) Metal Frame, Non-Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear, SHGC 0.70, [Bldg. Use 1 - Multifamily]	286	---	---	0.800	0.850
Ext. Rear Wall 2 - Type 'F': Other Steel Framed Wall, [Bldg. Use 1 - Multifamily] (b)	145	---	---	0.026	0.064
Window 8 - Rear Wall 2: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	47	---	---	0.490	0.550
Door - Type 'D': Glass (> 50% glazing) Metal Frame, Non-Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear, SHGC 0.70, [Bldg. Use 1 - Multifamily]	30	---	---	0.800	0.850
Ext. Rear Wall 3 - Type 'F': Other Steel Framed Wall, [Bldg. Use 1 - Multifamily] (b)	739	---	---	0.026	0.064
Window 8 - Rear Wall 3: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	49	---	---	0.490	0.550
Window 11 - Rear Wall 3: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	30	---	---	0.490	0.550
Window 12 - Rear Wall 3: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	56	---	---	0.490	0.550

Project Title: C:\Dropbox\1501 BK_925-927 Atlantic Ave\03 Construction Documents\ComCheck\925 Atlantic_ComCheck.cck
 Report date: 07/27/15
 Page 2 of 10

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _{min}
Window 7 - Rear Wall 3: Metal Frame with Thermal Break-Operable, Perf. Specs.: Product ID NCTL-110-10282-2, SHGC 0.33, [Bldg. Use 1 - Multifamily] (c)	51	---	---	0.049	0.550
Terrace Door - Type 'D2': Glass (> 50% glazing) Metal Frame, Non-Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear, SHGC 0.70, [Bldg. Use 1 - Multifamily]	52	---	---	0.800	0.850
Ext. Side Wall 1 - Type 'C': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	2771	---	---	0.043	0.064
Ext. Side Wall 1 - Type 'D': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	1332	---	---	0.068	0.064
Ext. Side Wall 1 - Below Grade - Type 'G': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	398	---	---	0.048	0.064
Ext. Side Wall 1 - Below Grade - Type 'H': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	222	---	---	0.034	0.064
Ext. Side Wall 2 - Type 'C': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	2771	---	---	0.043	0.064
Ext. Side Wall 2 - Type 'D': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	1332	---	---	0.068	0.064
Ext. Side Wall 2 - Below Grade - Type 'G': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	398	---	---	0.048	0.064
Ext. Side Wall 2 - Below Grade - Type 'H': Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	222	---	---	0.034	0.064
Ext. Front Wall - Gym: Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	249	---	---	0.490	0.064
Ext. Side Wall 1 - Gym: Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	68	---	---	0.490	0.064
Ext. Side Wall 2 - Gym: Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Multifamily] (b)	76	---	---	0.490	0.064
Second Floor Slab - Floor Type 'B': Concrete Floor (over unconditioned space), [Bldg. Use 1 - Multifamily]	411	---	18.5	0.046	0.074

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
 (b) Other components require supporting documentation for proposed U-factors.
 (c) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Envelope PASSES: Design 3% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2014 New York Energy Conservation Construction Code requirements in COMcheck Version 4.0.0 and to comply with the mandatory requirements listed in the Inspection Checklist.

Name: Title Signature Date
 [Signature] [Signature] 7-31-15



Project Title: C:\Dropbox\1501 BK_925-927 Atlantic Ave\03 Construction Documents\ComCheck\925 Atlantic_ComCheck.cck
 Report date: 07/27/15
 Page 3 of 10

PROJECT:
 925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART
 304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



308 MALCOLM X BLVD, BROOKLYN, NY 11233
 TEL: 718-544-3784
 FAX: 718-412-1779

ARCHITECT OF RECORD

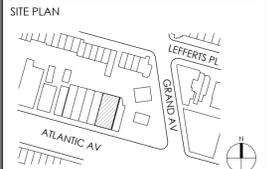
feingold & gregory · architects
 118 West 83rd Street - New York, N.Y. - 10024
 Tel: (212) 595-8895 - Fax: (212) 781-8922
 ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY WORK WHICH DEVIATES FROM APPROVED PLANS. THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FOR ANY CHANGES FROM THE ARCHITECT BEFORE COMMENCING SUCH WORK.

STRUCTURAL ENGINEER

GACE consulting engineers pc
 105 Madison Ave. New York, NY 10016
 T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
 661 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

ENERGY CODE COMPLIANCE

DATE: 12/31/2015
 SCALE: AS NOTED
 DRAWN BY: JD, MT
 CHECKED BY: JD
 DRAWING NO: 13 OF 43
 SHEET: EN-001.00



TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THIS BUILDING COMPLIES WITH 2014 NYCECC

COMMERCIAL BUILDINGS

2014 CODE PROGRESS INSPECTION		FREQUENCY (MINIMUM)	REFERENCE STANDARD (SEE ECC CHAPTER 6) OR OTHER CRITERIA	TABLE REFERENCE	2014 CODE SECTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. PROTECTION OF EXPOSED FOUNDATION INSULATION SHALL BE VISUALLY INSPECTED TO VERIFY PROPER PROTECTION WHERE APPLIED TO THE EXTERIOR OF BASEMENT OR CELLAR WALLS, CRAWL-SPACE WALLS AND/OR THE PERIMETER OF SLAB-ON-GRADE FLOORS.	AS REQUIRED DURING FOUNDATION WORK AND PRIOR TO BACKFILL	APPROVED CONSTRUCTION DOCUMENTS	IIA1 C303.2.1; ASHRAE 90.1-5.8.1.7
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. INSULATION PLACEMENT AND R-VALUES INSTALLED INSULATION FOR EACH COMPONENT OF THE CONDITIONED SPACE ENVELOPE AND AT JUNCTIONS BETWEEN COMPONENTS SHALL BE VISUALLY INSPECTED TO ENSURE THAT THE R-VALUES ARE MARKED, THAT SUCH R-VALUES CONFORM TO THE R-VALUES IDENTIFIED IN THE CONSTRUCTION DOCUMENTS AND THAT THE INSULATION IS PROPERLY INSTALLED. CERTIFICATIONS FOR UNMARKED INSULATION SHALL BE SIMILARLY VISUALLY INSPECTED.	AS REQUIRED TO VERIFY CONTINUOUS ENCLOSURE WHILE WALLS, CEILING AND FLOORS ARE OPEN	APPROVED CONSTRUCTION DOCUMENTS	IIA2 C303.1, C303.1.1, C303.1.2, C402.1, C402.2; ASHRAE 90.1-5.5, 5.6 OR 11; 5.8.1
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. FENESTRATION, THERMAL VALUES AND PRODUCT RATINGS U-FACTORS, SHGC AND VT VALUES OF INSTALLED FENESTRATION SHALL BE VISUALLY INSPECTED FOR CONFORMANCE WITH THE U-FACTORS, SHGC AND VT VALUES IDENTIFIED IN THE CONSTRUCTION DRAWINGS BY VERIFYING THE MANUFACTURER'S NFRC LABELS OR, WHERE NOT LABELED, USING THE RATINGS IN ECC TABLES C303.1.3(1), (2) AND (3).	AS REQUIRED DURING INSTALLATION	APPROVED CONSTRUCTION DOCUMENTS; NFRC 100, NFRC 200	IIA3 C303.1, C303.1.3, C402.3; ASHRAE 90.1 - 5.5; 5.6 OR 11; 5.8.2
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. FENESTRATION AND DOOR ASSEMBLY PRODUCT RATINGS FOR AIR LEAKAGE WINDOWS AND SLIDING OR SWINGING DOOR ASSEMBLIES, EXCEPT SITE-BUILT WINDOWS AND/OR DOORS, SHALL BE VISUALLY INSPECTED TO VERIFY THAT INSTALLED ASSEMBLIES ARE LISTED AND LABELED BY THE MANUFACTURER TO THE REFERENCED STANDARD. FOR CURTAIN WALL, STOREFRONT GLAZING, COMMERCIAL ENTRANCE DOORS AND REVOLVING DOORS, THE TESTING REPORTS SHALL BE REVIEWED TO VERIFY THAT THE INSTALLED ASSEMBLY COMPLIES WITH THE STANDARD CITED IN THE APPROVED PLANS.	AS REQUIRED DURING INSTALLATION; PRIOR TO FINAL CONSTRUCTION INSPECTION	NFRC 400, AAMA/WDMA/CSA 101/LS2/A440 ASTM E283; ANSI/DASMA 105	IIA4 C402.4.3; ASHRAE 90.1 - 5.4.3.2
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. FENESTRATION AREAS DIMENSIONS OF WINDOWS, DOORS AND SKYLIGHTS SHALL BE VERIFIED BY VISUAL INSPECTION.	PRIOR TO FINAL CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIA5 C402.3; ASHRAE 90.1 - 5.5.4.2, 5.6 OR 11
<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. AIR SEALING AND INSULATION - VISUAL INSPECTION OPENINGS AND PENETRATIONS IN THE BUILDING ENVELOPE, INCLUDING SITE-BUILT FENESTRATION AND DOORS, SHALL BE VISUALLY INSPECTED TO VERIFY THAT A CONTINUOUS AIR BARRIER AROUND THE ENVELOPE FORMS AN AIR-TIGHT ENCLOSURE. THE PROGRESS INSPECTOR SHALL VISUALLY INSPECT TO VERIFY THAT MATERIALS AND/OR ASSEMBLIES HAVE BEEN TESTED AND MEET THE REQUIREMENTS OF THE RESPECTIVE STANDARDS, OR THAT THE BUILDING IS TESTED AND MEETS THE REQUIREMENTS OF THE STANDARD, IN ACCORDANCE WITH THE STANDARD(S) CITED IN THE APPROVED PLANS.	AS REQUIRED DURING CONSTRUCTION	APPROVED CONSTRUCTION DOCUMENTS; ASTM E2178, ASTM E2357, ASTM E1677, ASTM E779, ASTM E283.	IIA6 C402.4; ASHRAE 90.1 - 5.4.3.1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. PROJECTION FACTORS WHERE THE ENERGY ANALYSIS UTILIZED A PROJECTION FACTOR > 0, THE PROJECTION DIMENSIONS OF OVERHANGS, EAVES OR PERMANENTLY ATTACHED SHADING DEVICES SHALL BE VERIFIED FOR CONFORMANCE WITH APPROVED PLANS BY VISUAL INSPECTION.	PRIOR TO FINAL CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS, INCLUDING ENERGY ANALYSIS	IIA7 C402.4.6; ASHRAE 90.1 - 5.5.4, 5.6 OR 11
<input type="checkbox"/>	<input checked="" type="checkbox"/>	8. LOADING DOCK WEATHERSEALS WEATHERSEALS AT LOADING DOCKS SHALL BE VISUALLY VERIFIED.	PRIOR TO FINAL CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIA8 502.4.5; ASHRAE 90.1 - 5.4.3.3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. BUILDING ENTRANCE VESTIBULES REQUIRED ENTRANCE VESTIBULES SHALL BE VISUALLY INSPECTED FOR PROPER OPERATION.	PRIOR TO FINAL CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIA9 C402.4.7; ASHRAE 90.1 - 5.4.3.4
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. FIREPLACES PROVISION OF COMBUSTION AIR AND TIGHT-FITTING FIREPLACE DOORS SHALL BE VERIFIED BY VISUAL INSPECTION.	PRIOR TO FINAL CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS; ANSI Z21.60 (see also MC 904), ANSI Z21.50	IIB1 C402.2.9; BC 2111; MC 7, 9; FGC 6
<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. OUTDOOR AIR INTAKES AND EXHAUST OPENINGS DAMPERS FOR STAIR AND ELEVATOR SHAFT VENTS AND OTHER OUTDOOR AIR INTAKES AND EXHAUST OPENINGS INTEGRAL TO THE BUILDING ENVELOPE SHALL BE VISUALLY INSPECTED TO VERIFY THAT SUCH DAMPERS, EXCEPT WHERE PERMITTED TO BE GRAVITY DAMPERS, COMPLY WITH APPROVED CONSTRUCTION DRAWINGS. MANUFACTURER'S LITERATURE SHALL BE REVIEWED TO VERIFY THAT THE PRODUCT HAS BEEN TESTED AND FOUND TO MEET THE STANDARD.	AS REQUIRED DURING INSTALLATION	APPROVED CONSTRUCTION DOCUMENTS; AMCA 500D	IIB2 C403.2.4.4; ASHRAE 90.1 - 6.4.3.4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. HVAC, SERVICE WATER HEATING AND POOL EQUIPMENT SIZING AND PERFORMANCE EQUIPMENT SIZING, EFFICIENCIES AND OTHER PERFORMANCE FACTORS OF ALL MAJOR EQUIPMENT UNITS, AS DETERMINED BY THE APPLICANT OF RECORD, AND NO LESS THAN 15% OF MINOR EQUIPMENT UNITS, SHALL BE VERIFIED BY VISUAL INSPECTION AND, WHERE NECESSARY, REVIEW OF MANUFACTURER'S DATA, POOL HEATERS AND COVERS SHALL BE VERIFIED BY VISUAL INSPECTION.	PRIOR TO FINAL PLUMBING AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIB3 C403.2, C404.2, C404.7, C406.2; ASHRAE 90.1 - 6.3, 6.4.1, 6.4.2, 6.8; 7.4, 7.8

<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. HVAC, SYSTEM CONTROLS AND ECONOMIZERS AND SERVICE HOT WATER SYSTEM CONTROLS NO LESS THAN 20% OF EACH TYPE OF REQUIRED CONTROLS AND ECONOMIZERS SHALL BE VERIFIED BY VISUAL INSPECTION AND TESTED FOR FUNCTIONALITY AND PROPER OPERATION. SUCH CONTROLS SHALL INCLUDE, BUT ARE NOT LIMITED TO: <ul style="list-style-type: none"> • THERMOSTATIC • SET POINT OVERLAP RESTRICTION • OFF-HOUR • SHUTOFF DAMPER • SNOW-MELT SYSTEM • DEMAND CONTROL SYSTEMS • OUTDOOR HEATING SYSTEMS • ZONES • ECONOMIZERS • AIR SYSTEMS • VARIABLE AIR VOLUME FAN • SINGLE ZONE COOLING SYSTEMS • HYDRONIC SYSTEMS • HEAT REJECTION EQUIPMENT FAN SPEED • COMPLEX MECHANICAL SYSTEMS SERVING MULTIPLE ZONES • VENTILATION • ENERGY RECOVERY SYSTEMS • HOT GAS BYPASS LIMITATION • TEMPERATURE • SERVICE WATER HEATING • HOT WATER SYSTEM • POOL HEATER AND TIME • SWITCHES • EXHAUST HOODS • RADIANT HEATING SYSTEMS • HVAC CONTROL IN GROUP R-1 SLEEPING ROOMS CONTROLS WITH SEASONALLY DEPENDENT FUNCTIONALITY: CONTROLS WHOSE COMPLETE OPERATION CANNOT BE DEMONSTRATED DUE TO PREVAILING WEATHER CONDITIONS TYPICAL OF THE SEASON DURING WHICH PROGRESS INSPECTIONS WILL BE PERFORMED SHALL BE PERMITTED TO BE SIGNED OFF FOR THE PURPOSE OF A TEMPORARY CERTIFICATE OF OCCUPANCY WITH ONLY A VISUAL INSPECTION, PROVIDED, HOWEVER, THAT THE PROGRESS INSPECTOR SHALL PERFORM A SUPPLEMENTAL INSPECTION WHERE THE CONTROLS ARE VISUALLY INSPECTED AND TESTED FOR FUNCTIONALITY AND PROPER OPERATION DURING THE NEXT IMMEDIATE SEASON THEREAFTER. THE OWNER SHALL PROVIDE FULL ACCESS TO THE PROGRESS INSPECTOR WITHIN TWO WEEKS OF THE PROGRESS INSPECTOR'S REQUEST FOR SUCH ACCESS TO PERFORM THE PROGRESS INSPECTION. FOR SUCH SUPPLEMENTAL INSPECTIONS, THE DEPARTMENT SHALL BE NOTIFIED BY THE APPROVED PROGRESS INSPECTION AGENCY OF ANY UNRESOLVED DEFICIENCIES IN THE INSTALLED WORK WITHIN 180 DAYS OF SUCH SUPPLEMENTAL INSPECTION.	AFTER INSTALLATION AND PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION, EXCEPT THAT FOR CONTROLS WITH SEASONALLY DEPENDENT FUNCTIONALITY, SUCH TESTING SHALL BE PERFORMED BEFORE SIGNOFF FOR ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY	APPROVED CONSTRUCTION DOCUMENTS, INCLUDING CONTROL SYSTEM NARRATIVES; ASHRAE GUIDELINE 1: THE HVAC COMMISSIONING PROCESS WHERE APPLICABLE	IIB4	C403.2.4, C403.2.5.1, C403.2.11, C403.3, C403.4, C404.3, C404.6, C404.7; ASHRAE 90.1 - 6.3, 6.4, 6.5, 7.4.4, 7.4.5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. DUCT, PLENUM AND PIPING INSULATION AND SEALING INSTALLED DUCT AND PIPING INSULATION SHALL BE VISUALLY INSPECTED TO VERIFY PROPER INSULATION PLACEMENT AND VALUES, JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS AND CONNECTIONS IN DUCTWORK SHALL BE VISUALLY INSPECTED FOR PROPER SEALING.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS; SMACNA DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE	IIB5	C403.2.7, C403.2.8, C404.5; ASHRAE 90.1 - 6.3, 6.4.4, 6.8.2, 6.8.3, 7.4.3; MC 603.9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. AIR LEAKAGE TESTING FOR HIGH-PRESSURE DUCT SYSTEMS FOR DUCT SYSTEMS DESIGNED TO OPERATE AT STATIC PRESSURES IN EXCESS OF 3 INCHES W.G. (746 PA), REPRESENTATIVE SECTIONS, AS DETERMINED BY THE PROGRESS INSPECTOR, TOTALING AT LEAST 25% OF THE DUCT AREA, PER ECC C403.2.7.1.3, SHALL BE TESTED TO VERIFY THAT ACTUAL AIR LEAKAGE IS BELOW ALLOWABLE AMOUNTS.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS; SMACNA DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE	IIB6	C403.2.7.1.3; ASHRAE 90.1 - 6.4.4.2.2
<input type="checkbox"/>	<input checked="" type="checkbox"/>	16. ELECTRICAL METERING THE PRESENCE AND OPERATION OF INDIVIDUAL METERS OR OTHER MEANS OF MONITORING INDIVIDUAL APARTMENTS SHALL BE VERIFIED BY VISUAL INSPECTION FOR ALL APARTMENTS AND WHERE REQUIRED IN A COVERED TENANT SPACE.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIC1	C405.7
<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. LIGHTING IN DWELLING UNITS LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE VISUALLY INSPECTED TO VERIFY COMPLIANCE WITH HIGH-EFFICACY REQUIREMENTS.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIC2	C405.1; ASHRAE 90.1 - 9.1.1
<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. INTERIOR LIGHTING POWER INSTALLED LIGHTING SHALL BE VERIFIED FOR COMPLIANCE WITH THE LIGHTING POWER ALLOWANCE BY VISUAL INSPECTION OF FIXTURES, LAMPS, BALLASTS AND TRANSFORMERS.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIC3	C405.5, C406.3; ASHRAE 90.1-9.1, 9.2, 9.5, 9.6; 1RCNY 101-07(c)(3)(V)(C)4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. EXTERIOR LIGHTING POWER INSTALLED LIGHTING SHALL BE VERIFIED FOR COMPLIANCE WITH SOURCE EFFICACY AND/OR THE LIGHTING POWER ALLOWANCE BY VISUAL INSPECTION OF FIXTURES, LAMPS, BALLASTS AND RELEVANT TRANSFORMERS.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIC4	C405.6; ASHRAE 90.1-9.4.3; 1RCNY 101-07(c)(3)(V)(C)4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. LIGHTING CONTROLS EACH TYPE OF REQUIRED LIGHTING CONTROLS, INCLUDING: <ul style="list-style-type: none"> • OCCUPANT SENSORS • MANUAL INTERIOR LIGHTING CONTROLS • LIGHT-REDUCTION CONTROLS • AUTOMATIC LIGHTING SHUT-OFF • DAYLIGHT ZONE CONTROLS • SLEEPING UNIT CONTROLS • EXTERIOR LIGHTING CONTROLS SHALL BE VERIFIED BY VISUAL INSPECTION AND TESTED FOR FUNCTIONALITY AND PROPER OPERATION.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS, INCLUDING CONTROL SYSTEM NARRATIVES	IIC5	C405.2; ASHRAE 90.1 - 9.4.1 (as modified by section ECC A102)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. EXIT SIGNS INSTALLED EXIT SIGNS SHALL BE VISUALLY INSPECTED TO VERIFY THAT THE LABEL INDICATES THAT THEY DO NOT EXCEED MAXIMUM PERMITTED WATTAGE.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIC6	C405.4; ASHRAE 90.1 - 9.4.2
<input type="checkbox"/>	<input type="checkbox"/>	22. TANDEN WIRING				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. ELECTRIC MOTORS (INCLUDING BUT NOT LIMITED TO FAN MOTORS) WHERE REQUIRED BY THE CONSTRUCTION DOCUMENTS FOR ENERGY CODE COMPLIANCE, MOTOR LISTINGS OR LABELS SHALL BE VISUALLY INSPECTED TO VERIFY THAT THEY COMPLY WITH THE RESPECTIVE ENERGY REQUIREMENTS IN THE CONSTRUCTION DOCUMENTS.	PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	IIC8	C403.2.10; ASHRAE 90.1 - 10.4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. MAINTENANCE INFORMATION MAINTENANCE MANUALS FOR MECHANICAL, SERVICE HOT WATER AND ELECTRICAL EQUIPMENT AND SYSTEMS REQUIRING PREVENTIVE MAINTENANCE SHALL BE REVIEWED FOR APPLICABILITY TO INSTALLED EQUIPMENT AND SYSTEMS BEFORE SUCH MANUALS ARE PROVIDED TO THE OWNER. LABELS REQUIRED FOR SUCH EQUIPMENT OR SYSTEMS SHALL BE INSPECTED FOR ACCURACY AND COMPLETENESS.	PRIOR TO SIGNOFF OR ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY	APPROVED CONSTRUCTION DOCUMENTS, INCLUDING ELECTRICAL DRAWINGS WHERE APPLICABLE; ASHRAE GUIDELINE 4: PREPARATION OF OPERATING AND MAINTENANCE DOCUMENTATION FOR BUILDING SYSTEMS	IID1	C303.3, C408.2.5.2; ASHRAE 90.1 - 4.2.2.3, 6.7.2.2, 8.7.2, 9.7.2.2

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THIS BUILDING COMPLIES WITH 2014 NYCECC

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3784 FAX: 718-413-7379

ARCHITECT OF RECORD

feingold & gregory · architects
118 West 83rd Street · New York, N.Y. · 10024
Tel: (212) 595-8895 · Fax: (212) 781-8992

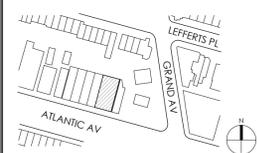
STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

TR8 SPECIAL INSPECTION CHECKLIST

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

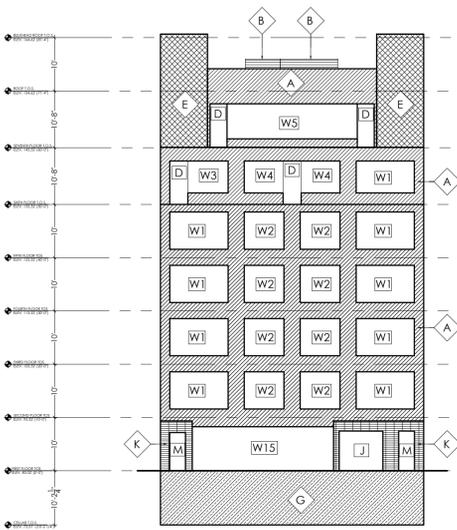
DRAWING NO: 15 OF 43

SHEET: EN-002.00

SEAL & SIGNATURE

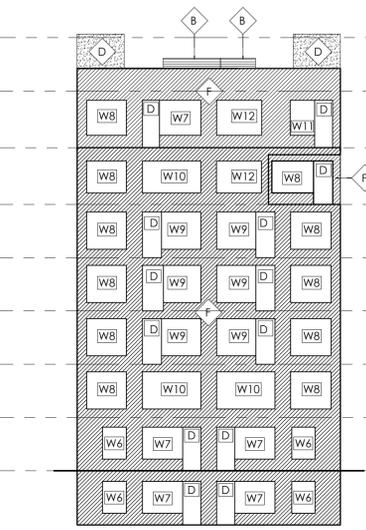


WALL & FENESTRATION CALCULATIONS



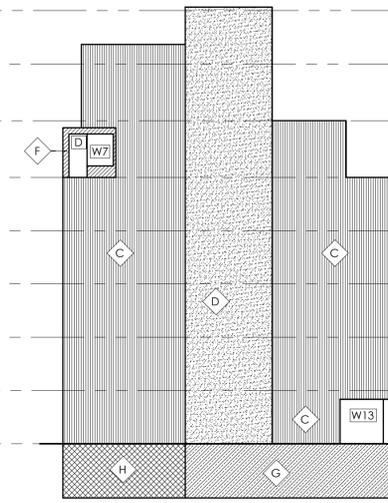
1 FRONT (SOUTH) WALL DIAGRAM
SCALE: 1/16" = 1' 0"

WALL TAG	WALL TYPE	AREA (SF)	
A	A	1505 SF (W _a)	
B	B	32 SF (W _b)	
E	E	352 SF (W _e)	
G	G	493 SF (W _g)	
K	K	110 SF (W _k)	
TOTAL AREA (W _A)		= 2492 SF	
WIN. TAG	# OF UNITS	AREA (SF)	TOTAL AREA (SF)
W1	9	77	693
W2	8	53	424
W3	1	45	45
W4	2	44	88
W5	1	162	162
W15	1	249	220
D	4	26	104
M	2	22	44
J	1	61	61
TOTAL FENESTRATION TYPE W (F _w)		= 1632 SF	
TOTAL FENESTRATION TYPE D (F _d)		= 209 SF	
TOTAL FENESTRATION AREA (F _A)		= 1841 SF	



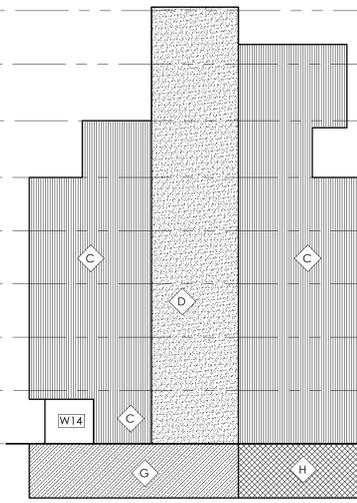
2 REAR (NORTH) WALL DIAGRAM
SCALE: 1/16" = 1' 0"

WALL TAG	WALL TYPE	AREA (SF)	
B	B	34 SF (W _b)	
D	D	89 SF (W _d)	
F	F	2273 SF (W _f)	
TOTAL AREA (W _A)		= 2396 SF	
WIN. TAG	# OF UNITS	AREA (SF)	TOTAL AREA (SF)
W6	4	27	108
W7	5	46	230
W8	11	53	583
W9	6	77	462
W10	3	52	156
W11	1	30	30
W12	2	56	112
D	13	26	338
TOTAL FENESTRATION TYPE W (F _w)		= 1681 SF	
TOTAL FENESTRATION TYPE D (F _d)		= 338 SF	
TOTAL FENESTRATION AREA (F _A)		= 2019 SF	



3 WEST WALL DIAGRAM
SCALE: 1/16" = 1' 0"

WALL TAG	WALL TYPE	AREA (SF)	
C	C	2823 SF (W _c)	
D	D	1332 SF (W _d)	
F	F	36 SF (W _f)	
G	G	398 SF (W _g)	
H	H	222 SF (W _h)	
TOTAL AREA (W _A)		= 4811 SF	
WIN. TAG	# OF UNITS	AREA (SF)	TOTAL AREA (SF)
W7	1	46	46
W13	1	68	68
D	1	26	26
TOTAL FENESTRATION TYPE W (F _w)		= 114 SF	
TOTAL FENESTRATION TYPE D (F _d)		= 26 SF	
TOTAL FENESTRATION AREA (F _A)		= 140 SF	



4 EAST WALL DIAGRAM
SCALE: 1/16" = 1' 0"

WALL TAG	WALL TYPE	AREA (SF)	
C	C	2823 SF (W _c)	
D	D	1332 SF (W _d)	
G	G	398 SF (W _g)	
H	H	222 SF (W _h)	
TOTAL AREA (W _A)		= 4775 SF	
WIN. TAG	# OF UNITS	AREA (SF)	TOTAL AREA (SF)
W14	1	76	76
TOTAL FENESTRATION TYPE W (F _w)		= 93 SF	

LOCATION	WALL TYPE A (SF)	WALL TYPE B (SF)	WALL TYPE C (SF)	WALL TYPE D (SF)	WALL TYPE E (SF)	WALL TYPE F (SF)	WALL TYPE G (SF)	WALL TYPE H (SF)	WALL TYPE K (SF)
	OPAQUE								
FRONT (NORTH) WALL	1505 SF	32 SF	0 SF	0 SF	352 SF	0 SF	493 SF	0 SF	110 SF
EAST WALL	0 SF	0 SF	2823 SF	1332 SF	0 SF	0 SF	398 SF	222 SF	0 SF
REAR (SOUTH) WALL	0 SF	34 SF	0 SF	89 SF	0 SF	2273 SF	0 SF	0 SF	0 SF
WEST WALL	0 SF	0 SF	2823 SF	1332 SF	0 SF	36 SF	398 SF	222 SF	0 SF
TOTAL OPAQUE WALL NET AREA (O_A)	1505 SF	66 SF	5646 SF	2753 SF	352 SF	2273 SF	1289 SF	444 SF	110 SF
TOTAL FENESTRATION AREA (F_A)	1841 SF	0 SF	144 SF	0 SF	0 SF	2019 SF	46 SF	0 SF	105 SF
TOTAL OPAQUE WALL GROSS AREA (O_A + F_A)	3346 SF	66 SF	5790 SF	2753 SF	352 SF	4328 SF	1289 SF	444 SF	215 SF

AREA CALCULATION SUMMARY - WALLS BELOW GRADE		
LOCATION	WALL TYPE G	NOTES
FRONT WALL	493	
EAST WALL	398	
WEST WALL	398	
LOCATION	WALL TYPE H	NOTES
EAST WALL	398	
WEST WALL	398	
LOCATION	WALL TYPE F	NOTES
REAR WALL	398	
TOTAL BELOW GRADE WALL GROSS AREA	2483	

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THIS BUILDING COMPLIES WITH 2014 NYCECC

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



308 MALCOLM X BLVD, BROOKLYN, NY 11233
TEL: 718 544 3764
FAX: 718 415 1979

ARCHITECT OF RECORD

feingold & gregory · architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8886 - Fax: (212) 787-8992

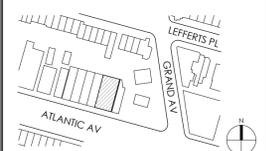
STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

ENERGY ANALYSIS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

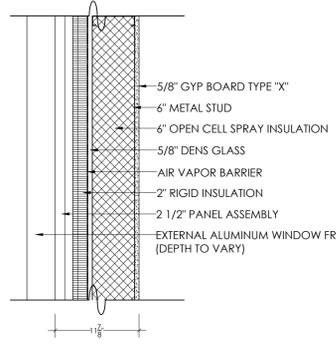
DRAWING NO: 16 OF 43

SHEET: **EN-100.00**



WALL TYPE A - 11-7/8" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
PANEL SYSTEM	X
2" POLYSTYRENE INSULATION	13.0 [6.5/IN.]
5/8" DENS GLASS SHEATHING	0.67
6" OPEN CELL SPRAY INSULATION	22.2 [3.7/IN.]
5/8" GYP BOARD	0.56
INSIDE AIR	0.68
TOTAL	37.28

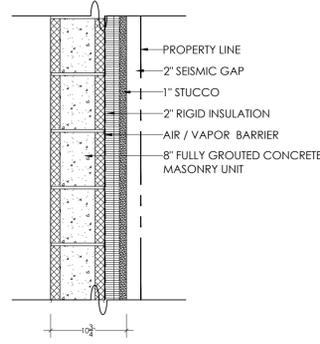
U FACTOR = **0.026**
 REQUIRED BY CODE = **0.044**
 = **PASSES**



1 SECTION DETAIL @WALL 'A'
 SCALE: 1" = 1'0"

WALL TYPE B - 10-3/4" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
1" STUCCO	0.08
2" POLYSTYRENE INSULATION	13.0 [6.5/IN.]
8" CONCRETE MASONRY UNIT	1.11
INSIDE AIR	0.68
TOTAL	15.04

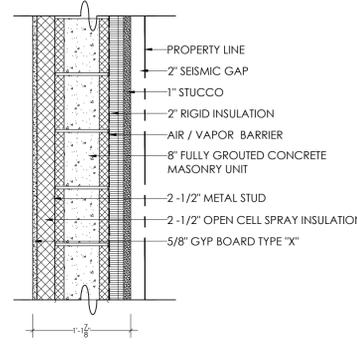
U FACTOR = **0.066**
 REQUIRED BY CODE = **0.09**
 = **PASSES**



2 SECTION DETAIL @WALL 'B'
 SCALE: 1" = 1'0"

WALL TYPE C - 13-7/8" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
1" STUCCO	0.08
2" POLYSTYRENE INSULATION	13.0 [6.5/IN.]
8" CONCRETE MASONRY UNIT	1.11
2.5" OPEN CELL SPRAY INSULATION	7.4 [3.7/IN.]
5/8" GYP BOARD	0.56
INSIDE AIR	0.68
TOTAL	23.0

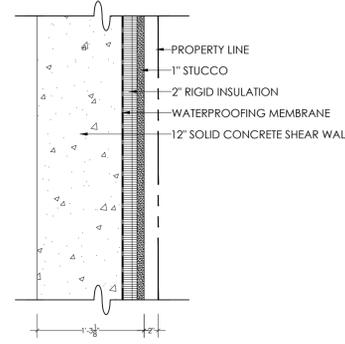
U FACTOR = **0.043**
 REQUIRED BY CODE = **0.09**
 = **PASSES**



3 SECTION DETAIL @WALL 'C'
 SCALE: 1" = 1'0"

WALL TYPE D - 17-1/8" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
1" STUCCO	0.08
2" POLYSTYRENE INSULATION	13.0 [6.5/IN.]
12" POURED CONCRETE WALL	0.84 [0.07/IN.]
INSIDE AIR	0.68
TOTAL	14.77

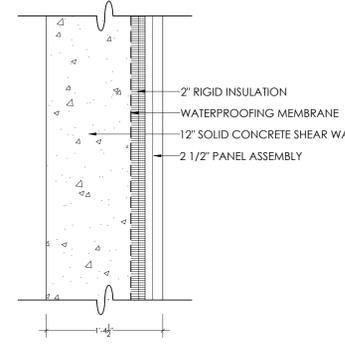
U FACTOR = **0.068**
 REQUIRED BY CODE = **0.09**
 = **PASSES**



4 SECTION DETAIL @WALL 'D'
 SCALE: 1" = 1'0"

WALL TYPE E - 16-1/2" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
1" STUCCO	X
2" POLYSTYRENE INSULATION	13.0 [6.5/IN.]
12" POURED CONCRETE WALL	0.84 [0.07/IN.]
INSIDE AIR	0.68
TOTAL	14.69

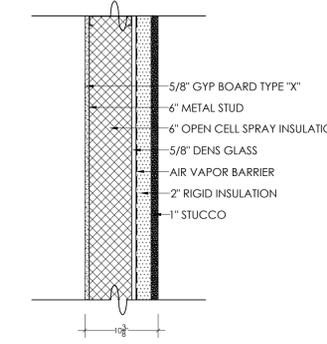
U FACTOR = **0.068**
 REQUIRED BY CODE = **0.09**
 = **PASSES**



5 SECTION DETAIL @WALL 'E'
 SCALE: 1" = 1'0"

WALL TYPE F - 10-3/8" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
1" STUCCO	0.08
2" POLYSTYRENE INSULATION	13.0 [6.5/IN.]
5/8" DENS GLASS SHEATHING	0.67
6" OPEN CELL SPRAY INSULATION	22.2 [3.7/IN.]
5/8" GYP BOARD	0.56
INSIDE AIR	0.68
TOTAL	37.36

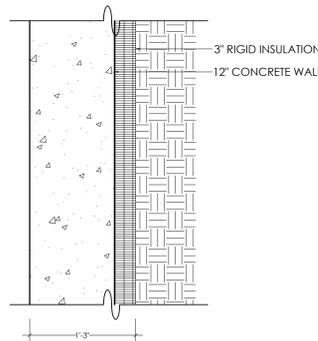
U FACTOR = **0.026**
 REQUIRED BY CODE = **0.044**
 = **PASSES**



6 SECTION DETAIL @WALL 'F'
 SCALE: 1" = 1'0"

WALL TYPE G - 14-1/8" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
3" POLYSTYRENE INSULATION	19.5 [6.5/IN.]
12" POURED CONCRETE WALL	0.84 [0.07/IN.]
INSIDE AIR	0.68
TOTAL	21.02

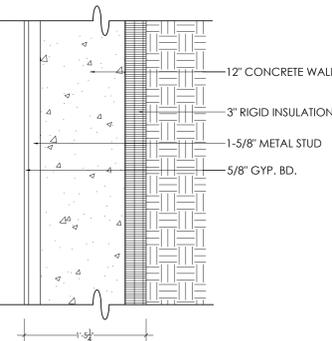
U FACTOR = **0.048**
 REQUIRED BY CODE = **0.064**
 = **PASSES**



7 SECTION DETAIL @WALL 'G'
 SCALE: 1" = 1'0"

WALL TYPE H - 17-1/4" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
3" POLYSTYRENE INSULATION	19.50
12" POURED CONCRETE WALL	0.84 [0.07/IN.]
2" OPEN CELL SPRAY INSULATION	7.40 [3.7/IN.]
5/8" GYP BOARD	0.56
INSIDE AIR	0.68
TOTAL	21.15

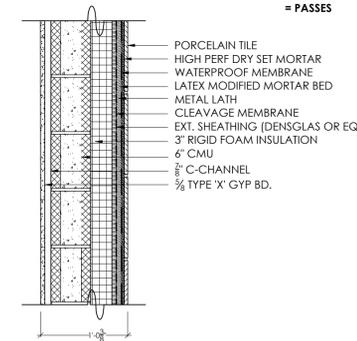
U FACTOR = **0.034**
 REQUIRED BY CODE = **0.09**
 = **PASSES**



8 SECTION DETAIL @WALL 'H'
 SCALE: 1" = 1'0"

WALL TYPE K - 12-3/8" THICK	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
PORCELAIN TILE	0.25
3/8" MORTAR	0.1
3/4" MORTAR BED	0.3
5/8" DENS GLASS SHEATHING	0.67
3" RIGID INSULATION	19.5 [6.5/IN.]
6" CONCRETE MASONRY UNIT	0.96
5/8" GYP BOARD	0.56
INSIDE AIR	0.68
TOTAL	23.19

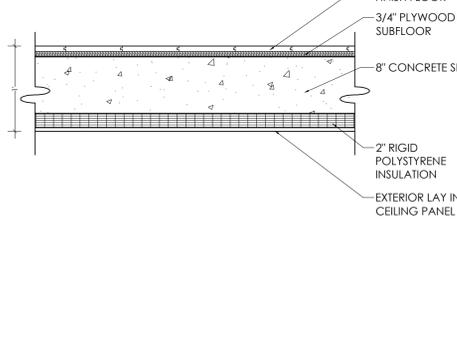
U FACTOR = **0.043**
 REQUIRED BY CODE = **0.064**
 = **PASSES**



9 SECTION DETAIL @WALL 'K'
 SCALE: 1" = 1'0"

RESIDENTIAL FLOOR OVER UNCONDITIONED SPACE	R-VALUE (F-H2-hr/BTU)
ELEMENT	
INSIDE AIR	0.68
3/4" HARDWOOD FINISH FLOOR	0.68
3/4" PLYWOOD SUBFLOOR	1.08
8" POURED CONCRETE WALL	0.56 [0.07/IN.]
2" POLYSTYRENE INSULATION	13.0 [6.5/IN.]
5/8" GYP BOARD	0.56
OUTSIDE AIR	0.17
TOTAL	17.63

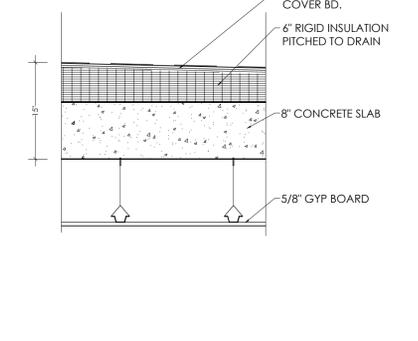
U FACTOR = **0.056**
 REQUIRED BY CODE = **0.74**
 = **PASSES**



10 SECTION DETAIL @FLOOR TYPE 'B'
 SCALE: 1" = 1'0"

ROOF ASSEMBLY	R-VALUE (F-H2-hr/BTU)
ELEMENT	
OUTSIDE AIR	0.17
6" POLYSTYRENE INSULATION	30 [5/IN.]
8" POURED CONCRETE SLAB	4.16 [0.52/IN.]
5/8" SUSPENDED GYP. CEILING	1.08
INSIDE AIR	0.68
TOTAL	36.09

U FACTOR = **0.027**
 REQUIRED BY CODE = **0.048**
 = **PASSES**



11 SECTION DETAIL @ROOF TYPE 'A'
 SCALE: 1" = 1'0"

PROJECT:

925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



308 MALCOLM X BLVD
 BROOKLYN, NY 11233
 TEL: 718.544.3764
 FAX: 718.415.1779

ARCHITECT OF RECORD

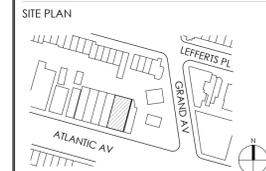
feingold & gregory · architects
 118 West 83rd Street · New York, NY · 10024
 Tel: (212) 595-8885 · Fax: (212) 781-8922

STRUCTURAL ENGINEER

GACE consulting engineers pc
 105 Madison Ave. New York, NY 10016
 T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
 661 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

ENERGY ANALYSIS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 17 OF 43

SHEET: **EN-101.00**



TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THIS BUILDING COMPLIES WITH 2014 NYCECC

FRONT WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE A - OPAQUE	1505		37.28	0.064	0.026	96.32	39.13
	TYPE B - OPAQUE	32		15.04	0.09	0.066	2.88	2.112
	TYPE E - OPAQUE	352		14.69	0.09	0.068	31.68	23.936
	TYPE G - OPAQUE	493		21.02	0.064	0.048	31.552	23.664
	TYPE K - OPAQUE	110		23.19	0.064	0.043	7.04	4.73
TOTAL		2492					169.472	93.572

WEST WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE C - OPAQUE	2823		23	0.09	0.043	254.07	121.389
	TYPE D - OPAQUE	1332		14.77	0.09	0.068	119.88	90.576
	TYPE G - OPAQUE	398		21.02	0.064	0.048	25.472	19.104
	TYPE H - OPAQUE	222		21.15	0.09	0.034	19.98	7.548
TOTAL		4775					419.402	238.617

REAR WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE B - OPAQUE	34		15.04	0.09	0.066	3.06	2.244
	TYPE D - OPAQUE	89		14.77	0.09	0.068	8.01	6.052
	TYPE F - OPAQUE	2273		37.36	0.064	0.026	145.472	59.098
TOTAL		2396					156.542	67.394

EAST WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE C - OPAQUE	2823		23	0.09	0.043	254.07	121.389
	TYPE D - OPAQUE	1332		14.77	0.09	0.068	119.88	90.576
	TYPE G - OPAQUE	398		21.02	0.064	0.048	25.472	19.104
	TYPE H - OPAQUE	222		21.15	0.09	0.034	19.98	7.548
TOTAL		4775					419.402	238.617

TOTAL

U FACTOR WEIGHTED AVERAGE OF OPAQUE ASSEMBLIES				
LOCATION	COMPONENT DESCRIPTION	AREA (SF)	UA (U * AREA)	
			CODE REQ.	PROPOSED
	Total Front Wall	2492	169.472	93.572
	Total East Wall	4775	419.402	238.617
	Total Rear Wall	2396	156.542	67.394
	Total West Wall	4775	419.402	238.617
TOTAL		14438	1164.818	638.2

AREA WEIGHTED AVERAGE U-VALUE (PROPOSED)
 (TOTAL UA) / (TOTAL OPAQUE AREA) = 349.5/994 = **0.044**

AREA WEIGHTED AVERAGE U-VALUE (REQ'D)
 (TOTAL UA) / (TOTAL OPAQUE AREA) = 815.01/994 = **0.081**

THE AREA WEIGHTED AVERAGE U-FACTOR OF ALL OPAQUE ABOVE-GRADE ASSEMBLIES SHALL BE NO GREATER THAN 80% OF THE AREA-WEIGHTED AVERAGE U-FACTOR DETERMINED BY USING THE PRESCRIBED REQUIREMENTS OF NYCECC;

$$\frac{\text{AREA-WEIGHTED AVERAGE U-VALUE (PROPOSED)}}{\text{AREA-WEIGHTED AVERAGE U-VALUE (REQ'D)}} \times 100 = \frac{0.044}{0.081} \times 100 = \mathbf{54.8\%} < 80\% \text{ COMPLIES}$$

FRONT WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES INCLUDING FENESTRATIONS								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE A - OPAQUE	1505		37.28	0.064	0.026	96.32	39.13
	TYPE B - OPAQUE	32		15.04	0.09	0.066	2.88	2.112
	TYPE E - OPAQUE	352		14.69	0.09	0.068	31.68	23.936
	TYPE G - OPAQUE	493		21.02	0.064	0.048	31.552	23.664
	TYPE K - OPAQUE	110		23.19	0.064	0.043	7.04	4.73
	WINDOWS	1632		2.04	0.45	0.49	734.4	799.68
	DOORS (NON ENTRANCE)	44		3.33	0.70	0.30	30.8	13.2
	DOORS (ENTRANCE)	61		2.70	0.77	0.37	46.97	22.57
TOTAL		4229					981.642	929.022

WEST WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES INCLUDING FENESTRATIONS								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE C - OPAQUE	2823		23	0.09	0.043	254.07	121.389
	TYPE D - OPAQUE	1332		14.77	0.09	0.068	119.88	90.576
	TYPE G - OPAQUE	398		21.02	0.064	0.048	25.472	19.104
	TYPE H - OPAQUE	222		21.15	0.09	0.034	19.98	7.548
TOTAL		4775					419.402	238.617

REAR WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES INCLUDING FENESTRATIONS								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE B - OPAQUE	34		15.04	0.09	0.066	3.06	2.244
	TYPE D - OPAQUE	89		14.77	0.09	0.068	8.01	6.052
	TYPE F - OPAQUE	2273		37.36	0.064	0.026	145.472	59.098
	WINDOWS	1681		2.04	0.45	0.49	756.45	823.69
	DOORS (NON-ENTRANCE)	338		3.33	0.70	0.30	236.6	101.4
TOTAL		4415					1149.592	992.484

EAST WALL

U FACTOR WEIGHTED AVERAGE OF OPAQUE WALL ASSEMBLIES INCLUDING FENESTRATIONS								
WALL LOCATION	COMPONENT DESCRIPTION	AREA (SF)	R-VALUE		U FACTOR		UA (U * AREA)	
			CODE REG. PROPOSED	CODE REG. PROPOSED	CODE REG. PROPOSED	PROPOSED	CODE REQ.	PROPOSED
	TYPE C - OPAQUE	2823		23	0.09	0.043	254.07	121.389
	TYPE D - OPAQUE	1332		14.77	0.09	0.068	119.88	90.576
	TYPE G - OPAQUE	398		21.02	0.064	0.048	25.472	19.104
	TYPE H - OPAQUE	222		21.15	0.09	0.034	19.98	7.548
TOTAL		4775					419.402	238.617

TOTAL

U FACTOR WEIGHTED AVERAGE OF OPAQUE ASSEMBLIES INCLUDING FENESTRATIONS				
LOCATION	COMPONENT DESCRIPTION	AREA (SF)	UA (U * AREA)	
			CODE REQ.	PROPOSED
	Total Front Wall	4229	981.642	929.022
	Total East Wall	4775	419.402	238.617
	Total Rear Wall	4415	1149.592	992.484
	Total West Wall	4775	419.402	238.617
TOTAL		18194	2970.038	2398.74

AREA WEIGHTED AVERAGE U-VALUE (PROPOSED)
 (TOTAL UA) / (TOTAL OPAQUE AREA) = 1237.812/11872 = **0.132**

AREA WEIGHTED AVERAGE U-VALUE (REQ'D)
 (TOTAL UA) / (TOTAL OPAQUE AREA) = 1754.808/11872 = **0.163**

THE AREA WEIGHTED AVERAGE U-FACTOR OF ALL OPAQUE ABOVE-GRADE ASSEMBLIES SHALL BE NO GREATER THAN 90% OF THE AREA-WEIGHTED AVERAGE U-FACTOR DETERMINED BY USING THE PRESCRIBED REQUIREMENTS OF NYCECC

$$\frac{\text{AREA-WEIGHTED AVERAGE U-VALUE (PROPOSED)}}{\text{AREA-WEIGHTED AVERAGE U-VALUE (REQ'D)}} \times 100 = \frac{0.132}{0.163} \times 100 = \mathbf{80.8\%} < 90\% \text{ COMPLIES}$$

PROJECT:

925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-412-1979

ARCHITECT OF RECORD

feingold & gregory · architects
 118 West 83rd Street - New York, N.Y. - 10024
 TEL: (212) 595-8895 - FAX: (212) 781-8922

ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY WORK WHICH DEVIATES FROM APPROVED PLANS. THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FOR ANY CHANGES FROM THE ARCHITECT BEFORE COMMENCING SUCH WORK.

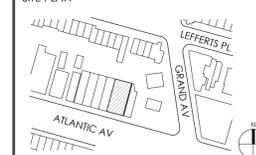
STRUCTURAL ENGINEER

GACE consulting engineers pc
 105 Madison Ave. New York, NY 10016
 T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
 661 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

WEIGHTED AVERAGE U-VALUES

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 17 OF 43

SHEET: **EN-102.00**

SEAL & SIGNATURE

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THIS BUILDING COMPLIES WITH 2014 NYCECC

ABBREVIATIONS

STANDARD ABBREVIATIONS :

AC.	AIR CONDITIONING	F.A.F.	FACTORY APPLIED FINISH	P.	PASS.ELEV.	PAINT
ACCES.	ACCESSIBLE	F.A.I.	FRESH AIR INTAKE	P.B.	PASSENGER ELEVATOR	PULLBOX
ACOUS.	ACOUSTICAL	F.B.	FLOOR DRAIN	P.C.C.	PRECAST CONCRETE	PRESSURE DROP
ACT.	ACOUSTICAL CEILING TILE	F.D.	FOUNDATION	P.D.	PER.	PERIMETER
AD.	ACCESS DOOR	FDN.	FIRE EXTINGUISHER	PERF.	PERFORATED	PAINTED GYPSUM BOARD
ADJ.	ADJACENT	F.E.	FIRE EXTINGUISHER CABINET	PH.	PHASE	PILASTER
A.F.F.	ABOVE FINISHED FLOOR	F.E.C.	FINISHED FLOOR	PL.	PLATE	PLASTIC LAMINATE
A.F.L.	ACCESS FLOORING	F.F.	FIRE HYDRANT	P.LAM.	PLASTER	PLUMBING PANEL
A.H.U.	AIR HANDLING UNIT	F.H.	FIRE HOSE & EXTINGUISHER CABINET	PL.	PLATE	PREFABRICATE
AGG.	AGGREGATE	F.H.E.C.	FIRE HOSE CABINET	P.LAM.	PLASTER	POUNDS PER SQUARE FOOT
AL.	ALTERNATE	F.H.C.	FINISH	PLAS.	PLASTER	POUNDS PER SQUARE INCH
AL. ALUM.	ALUMINUM	FIN.	FLOOR	PLB.	PLUMBING	PRESSURE TREATED
ANOD.	ANODIZED	FL.	FLASHING	P.N.	PANEL	POINT
APPD.	APPROVED	FLASH.	FLASHING	P.NL.	PREFAB.	POINT
APPX.	APPROXIMATE	FLUOR.	FLUORESCENT	PSF.	PSF.	POINTED PARTITION
ARCH.	ARCHITECTURAL	F.O.	FIBER OPTIC	PSI.	PSI.	POLYVINYL CHLORIDE
AR. D.	AREA DRAIN	F.O.B.	FACE OF BUILDING	P.T.	P.T.	PLYWOOD
ASPH.	ASPHALT	F.O.C.	FACE OF CONCRETE	PT.	PT.	
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS AUTOMATIC	F.P.	FIREPROOFING	PTD.	PTD.	
AUTO		F.P.S.C.	FIREPROOF-SELF-CLOSING	PIN.	PIN.	
		F.P.W.H.	FREEZE PROOF WALL HYDRANT	PVC.	PVC.	
BALC.	BALCONY	F.R.	FIRE RATING	PWD.	PWD.	
B/C	BOTTOM OF CURB	F.R.T.	FIRE RETARDANT TREATED			
B.CS.	BRICK COURSE	F.S.	FLOOR SINK			
BD.	BOARD	FT.	FOOT	Q.T.	Q.T.	QUARRY TILE
BET.	BETWEEN	FTG.	FOOTING	QTY.	QTY.	QUANTITY
BIT.	BITUMINOUS	FURR.	FURRING			
B.L.	BUILDING LINE	FUT.	FUTURE			
BLDG.	BUILDING			R.	R.	RISER
BLK.	BLOCK	G.	GAS	RAD.	RAD.	RADIUS
BLKG.	BLOCKING	GA.	GAUGE	R.B.	R.B.	RUBBER BASE
BM.	BEAM	GALV.	GALVANIZED	R.C.P.	R.C.P.	REINFORCED CONCRETE PIPE
BOT.	BOTTOM	G.B.	GRAB BAR	R.D.	R.D.	ROOF DRAIN
BRG.	BEARING	GBL.	GLAZED BLOCK	REF.	REF.	REFERENCE
BRK.	BRICK	G.C.	GLAZED BLOCK	REFG.	REFG.	REFRIGERATOR
BRKT.	BRACKET	G.C.C.	GENERAL CONTRACTOR	REFL.	REFL.	REFLECTED
B.S.	BRICK SHELF	GEN.	GENERAL	REG.	REG.	REGISTER
BSMT.	BASEMENT	G.I.	GALVANIZED IRON	REINF.	REINF.	REINFORCING
BTU	BRITISH THERMAL UNIT	GL.	GLASS	REQD.	REQD.	REQUIRED
BU.R.	BUILT-UP ROOF	G.W.B.	GYPSUM WALL BOARD	RESIL.	RESIL.	RESILIENT
		G.W.T.	GLAZED WALL TILE	RET.	RET.	RETURN
		GYP.	GYPSUM	REV.	REV.	REVISION
C.	CONDUIT	H.B.	HOSE BIB	R.H.	R.H.	RIGHT HAND
CAB.	CABINET	HC.	FOR HANDICAPPED USE	R.L.E.	R.L.E.	RELOCATED EXISTING
CAT.	CATALOG	HOL.C.	HOLLOW CORE	RM.	RM.	ROOM
C.B.	CATCH BASIN	HDR.	HEADER	RND.	RND.	ROUND
CBD.	CHALKBOARD	HIDW.	HARDWARE	R.O.	R.O.	ROUGH OPENING
C.D.	CEILING DIFFUSER	H.M.	HARDWOOD	RT.U.	RT.U.	ROOFTOP UNIT
CEM.	CEMENT	HOR.	HORIZONTAL			
CER.	CERAMIC	H.P.	HIGH POINT	S&R	S&R	SHELF AND ROD
C.G.	CORNER GUARD	H.R.	HANDRAIL	SAN.	SAN.	SANITARY
C.H.	CEILING HEIGHT	HR.	HOUR	S.C.	S.C.	SOLID CORE
C.I.	CAST IRON	H.T.	HEIGHT	SCHD.	SCHD.	SCHEDULE
C.J.	CONTROL JOINT	H.TG.	HEATING	SECT.	SECT.	SECTION
CK.BD.	CHALKBOARD	HTR.	HEATER	S.F.	S.F.	SQUARE FEET
CL.	CENTER LINE	H.V.A.C.	HEATING, VENTILATING, AIR CONDITIONING	S.G.	S.G.	SAFETY GLASS
CL.D.	CLOTHES DRYER			SHT.	SHT.	SHEET
CL.G.	CEILING			SIM.	SIM.	SIMILAR
C.L.L.	CONTRAT LIMIT LINE			S.O.G.	S.O.G.	SLAB ON GRADE
CLOS.	CLOSET			S.P.	S.P.	STARTING POINT
CLR.	CLEARANCE	I.D.	INSIDE DIAMETER	SPEC.	SPEC.	SPECIFICATION
CL.W.	CLOTHES WASHER	I.E.	THAT IS	SQ.	SQ.	SQUARE
CM.	CENTIMETER	IN.	INCH	S.S.	S.S.	STAINLESS STEEL
C.M.T.	CERAMIC MOSAIC TILE	INCL.	INCANDESCENT	ST.	ST.	STEEL
C.M.U.	CONCRETE MASONRY UNIT	INCL.	INCLUSIVE	S.T.C.	S.T.C.	SOUND TRANSMISSION
C.O.	CLEAN OUT	INSUL.	INSULATION	STD.	STD.	STANDARD
COL.	COLUMN	INT.	INTERIOR	STR.	STR.	STRUCTURAL
CONC.	CONCRETE	INT.	INTERMEDIATE	SUSP.	SUSP.	SUSPENDED
COND.	CONDENS(ATE,ER,ING,ATION)	INV.	INVERT	SYM.	SYM.	SYMMETRICAL
CONN.	CONNECTION			T/O	T/O	TOP OF
CONST.	CONSTRUCTION	J.B.	JUNCTION BOX	T.&B.	T.&B.	TOP AND BOTTOM
CONT.	CONTINUOUS	J.C.	JANITOR'S CLOSET	TB.	TB.	TACK BOARD
CONTR.	CONTRACTOR	JT.	JOINT	T.B.D.	T.B.D.	TO BE DETERMINED
CONV.	CONVECTOR	L.	LABORATORY	T.C.	T.C.	TERRA COTTA, TERNE COATED
COORD.	COORDINATE	LAM.	LAMINATED	T.C.	T.C.	TOP OF CURB
CORR.	CORRIDOR	LAV.	LAVATORY	T.D.	T.D.	TRENCH DRAIN
CRS.	COURSE	LBS.	POUNDS	TEL.	TEL.	TELEPHONE
CRT.	CARPET	L.C.C.	LEAD COATED COPPER	TEMP.	TEMP.	TEMPERED, TEMPERATURE
C.R.	Ceilings REGISTER	LI.	LEFT HAND	TER.	TER.	TERRAZZO
C.S.	CEMENT SEALER	LL.	LIVE LOAD	T.F.	T.F.	TOP OF FRAME
C.T.	CERAMIC TILE	LL.H.	LONG LEG HORIZONTAL	T.&G.	T.&G.	TONGUE AND GROOVE
CTSK.	COUNTERSUNK	LL.V.	LONG LEG VERTICAL	THD.	THD.	THREADED
CU.	CUBIC	L.M.F.	LIGHT GAUGE METAL FRAMING	THK.	THK.	THICKNESS
C.W.	COLD WATER	LONG.	LONGITUDINAL	THR.	THR.	THRESHOLD
C.W.R.	CHILLED WATER RETURN	L.P.	LOW POINT	THRU	THRU	THROUGH
		LT.WT.	LIGHT WEIGHT	T.O.	T.O.	TRIMMED OPENING
		M.	METER	TOIL.	TOIL.	TOILET
		MACH.	MACHINE	T.O.S.	T.O.S.	TOP OF SLAB
		MAINT.	MAINTENANCE	TR.	TR.	TREAD
		MAR.	MARBLE	T./S.	T./S.	TOP OF STEEL
		MAS.	MASONRY	TV.	TV.	TELEVISION
		MAT.	MATERIAL	T.W.	T.W.	TOP OF WALL
		MAX.	MAXIMUM	TYP.	TYP.	TYPICAL
		MECH.	MECHANICAL			
		MED.	MEDIUM	UC.	UC.	UNDERCUT
		MEMB.	MEMBRANE	UG.	UG.	UNDERGROUND
		MET.	METAL	U.H.	U.H.	UNIT HEATER
		MFR.	MANUFACTURER	U.L.	U.L.	UNDERWRITER'S LABEL
		M.H.	MANHOLE	UNFIN.	UNFIN.	UNFINISHED
		MICRO.	MICROWAVE OVEN	U.O.N.	U.O.N.	UNLESS OTHERWISE NOTED
		MIN.	MINIMUM	U.P.S.	U.P.S.	UNINTERRUPTABLE SUPPLY
		MISC.	MISCELLANEOUS	UTIL.	UTIL.	UTILITY
		MLD.	MOLDING			
		MM.	MILLIMETER	V.	V.	VINYL
		M.O.	MASONRY OPENING	VAR.	VAR.	VARIABLES
		MOD.	MODULAR	V.B.	V.B.	VINYL BASE
		MTD.	MOUNTED	V.C.T.	V.C.T.	VINYL COMPOSITION TILE
		MTG.	MOUNTING	VERT.	VERT.	VERTICAL
		MIL	MATERIAL	VEST.	VEST.	VESTIBULE
		N.I.C.	NOT IN CONTRACT	V.I.F.	V.I.F.	VERIFY IN FIELD
		NO.	NUMBER	V.P.	V.P.	VISION PANEL
		NOM.	NOMINAL	V.T.	V.T.	VAPOR TIGHT
		N.R.C.	NOISE REDUCTION COEFFICIENT	V.T.R.	V.T.R.	VENT THROUGH ROOF
		N.T.S.	NOT TO SCALE	V.W.C.	V.W.C.	VINYL WALL COVERING
		NFPA	NATIONAL FIRE PROTECTION AGENCY			
		OA.	OVERALL	W.	W.	WIDE, WIDTH
		O.C.	ON CENTER	W/	W/	WITH
		O.D.	OUTSIDE DIAMETER	W.C.	W.C.	WATER CLOSET
		O.H.	OPPOSITE HAND	WD.	WD.	WOOD
		OPNG.	OPPOSITE	W/O	W/O	WITHOUT
		OPP.	OPPOSITE	W.O.	W.O.	WINDOW OPENING
		OZ.	OUNCE	W.P.	W.P.	WATERPROOFING
				W.P.F.	W.P.F.	WORKING POINT
				W.SCT.	W.SCT.	WAINSCOT
				WT.	WT.	WEIGHT
				W.W.F.	W.W.F.	WELDED WIRE FABRIC

SYMBOL LEGEND

	NEW CONCRETE WALL
	NEW 3-HOUR RATED WALL
	NEW 2-HOUR RATED PARTITION
	NEW 1 HR. RATED PARTITION
	APARTMENT IDENTIFICATION TAG
	ROOM IDENTIFICATION TAG
	OCCUPANCY NUMBER
	OCCUPANCY GROUP
	AREA TAG
	DOOR TAG
	PARTITION TYPE
	WINDOW TAG
	WALL SECTION
	BUILDING SECTION
	EXTERIOR ELEVATION
	ELEVATION TAG
	PLAN DETAIL
	INTERIOR ELEVATION
	SMOKE AND CARBON MONOXIDE DETECTOR
	EXIT SIGN / EMERGENCY LIGHTING
	EXHAUST FAN

SYMBOLS USED AS ABBREVIATIONS :

@	ANGLE
∩	AT
	CENTERLINE
∅	CHANNEL
#	DIAMETER
⊥	NUMBER
°	PERPENDICULAR
±	DEGREES
	PLUS OR MINUS

ELEVATION TAG ABBREVIATIONS :

T.O.S	TOP OF SLAB
T.O.F	TOP OF FINISH
T.O.C	TOP OF CURB
B.O.C	BOTTOM OF CURB
P.T.C	PROPOSED TOP OF CURB
E.B.C	EXISTING BOTTOM OF CURB
P.B.C	PROPOSED BOTTOM OF CURB
E.P.L	PROPOSED PROPERTY LINE
	EXISTING PROPERTY LINE

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-415-1779

ARCHITECT OF RECORD

feingold & gregory · architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8895 - Fax: (212) 781-8892

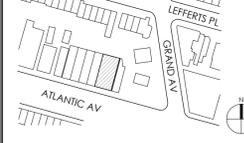
STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878
www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

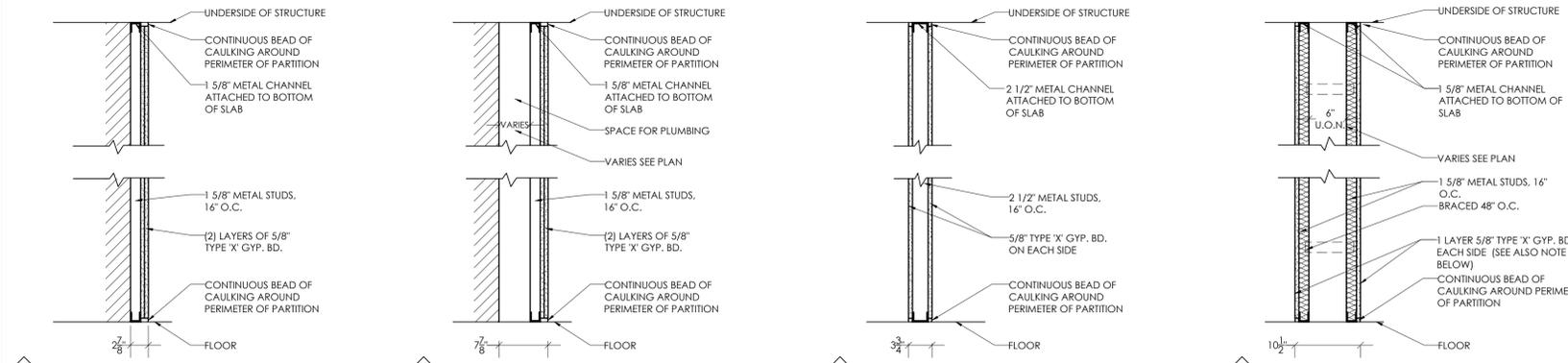
1	DOB REVIEW	12/31/15
1	ISSUED FOR DOB FILING	08/06/15
REV.		DATE

DRAWING TITLE:

SYMBOLS AND ABBREVIATIONS

DATE:	12/31/2015
SCALE:	AS NOTED
DRAWN BY:	JD, MT
CHECKED BY:	JD
DRAWING NO:	19 OF 43
SHEET:	A-001.00



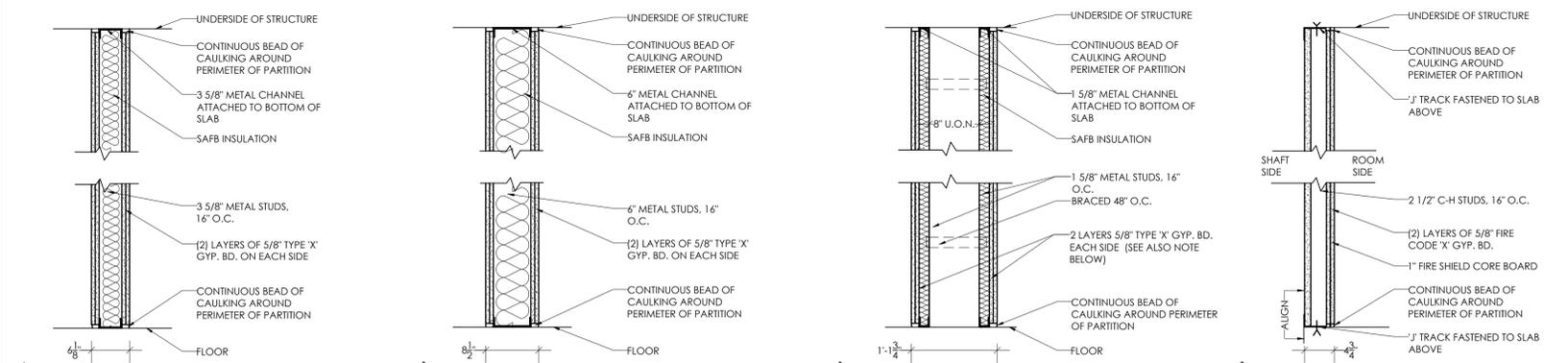


F3 FURRED WALL
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS

F6 FURRED PLUMBING WALL
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS

A2 NON RATED PARTITION WALL
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS

A5 NON RATED PLUMBING CHASE
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS

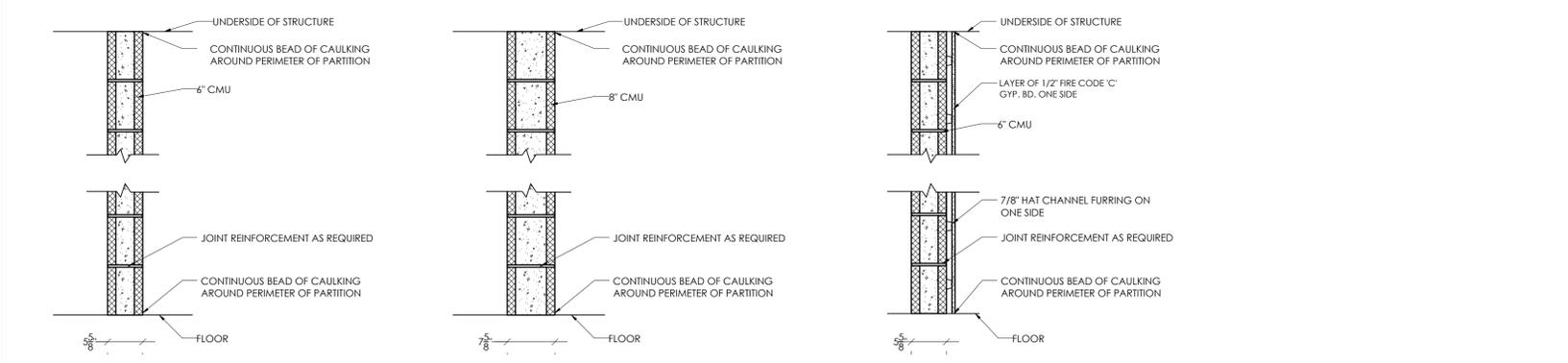


C2 2 HOUR RATED WALL - UL #U411, STC 55
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS

C3 2 HOUR RATED WALL
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS

C4 2 HOUR RATED PLUMBING CHASE - UL #U444, STC 59
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS

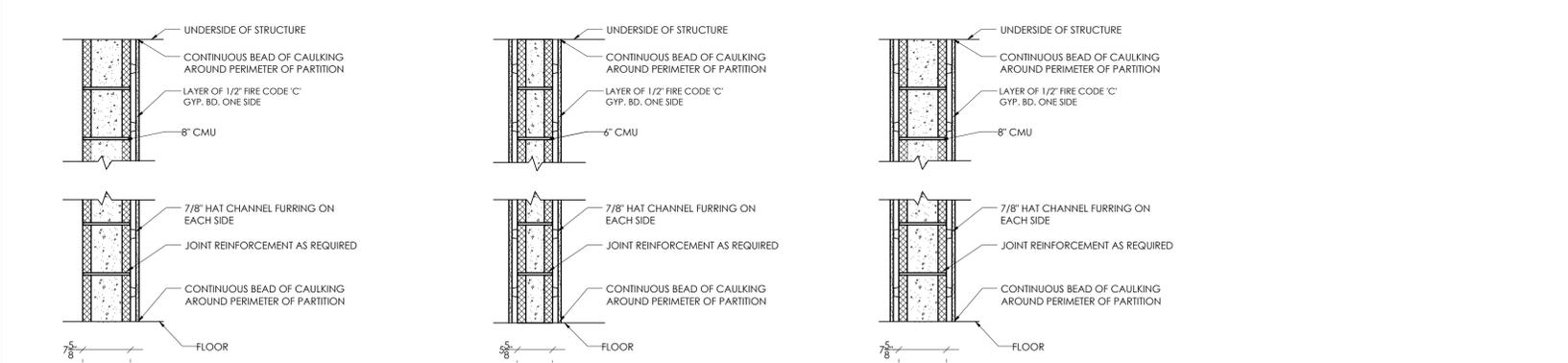
C6 2 HOUR RATED SHAFT WALL
 - USE MOLD & MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOM AND KITCHEN WALLS
 - USE 5/8" BACKER BOARD AT ALL TUB SURROUNDS



D1 2HR HOUR RATED 6" CMU PARTITION
 - 6" CONCRETE MASONRY UNIT

D2 2 HOUR RATED 8" CMU PARTITION - UL #U906
 - 8" CONCRETE MASONRY UNIT

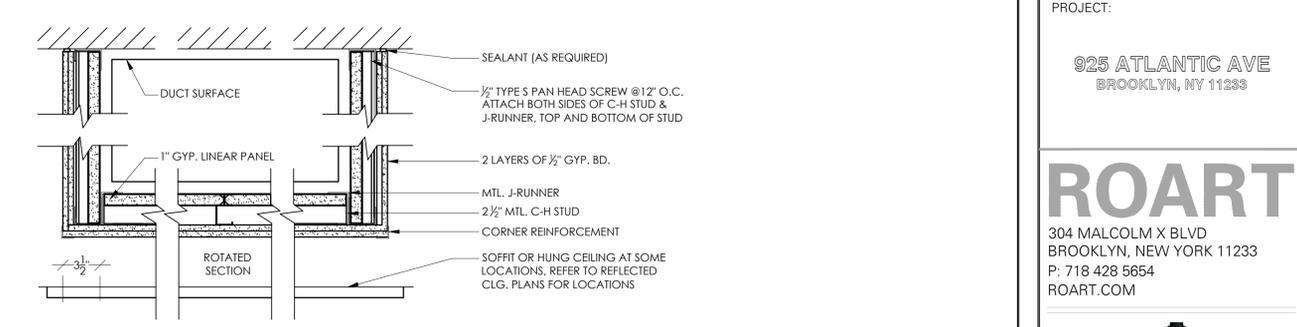
D3 2 HOUR RATED 6" CMU PARTITION, STC 50
 - 6" SOLID GROUTED CONCRETE MASONRY UNIT
 - 7/8" HAT CHANNEL FURRING ON EACH SIDE
 - 1 LAYER OF 1/2" FIRE CODE 'C' GYP. BD. ON EACH SIDE



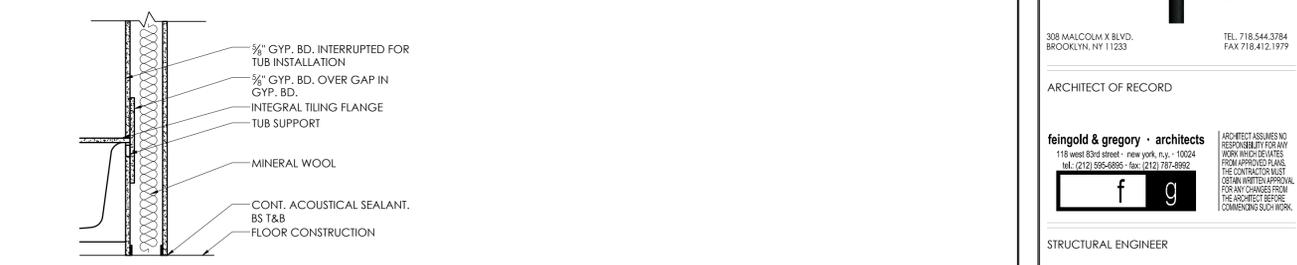
D4 3 HOUR RATED 8" CMU FURRED PARTITION
 - 8" CONCRETE MASONRY UNIT
 - 7/8" HAT CHANNEL FURRING ON EACH SIDE
 - 1 LAYER OF 1/2" FIRE CODE 'C' GYP. BD. ON EACH SIDE

D5 2 HOUR RATED 6" CMU FURRED PARTITION, STC 50, IIC = 59
 - 6" CONCRETE MASONRY UNIT
 - 7/8" HAT CHANNEL FURRING ON BOTH SIDE
 - 1 LAYER OF 1/2" FIRE CODE 'C' GYP. BD. ON EACH SIDE

D6 3 HOUR RATED 8" CMU FURRED PARTITION, STC 50, IIC = 59
 - 8" CONCRETE MASONRY UNIT
 - 7/8" HAT CHANNEL FURRING ON BOTH SIDE
 - 1 LAYER OF 1/2" FIRE CODE 'C' GYP. BD. ON EACH SIDE



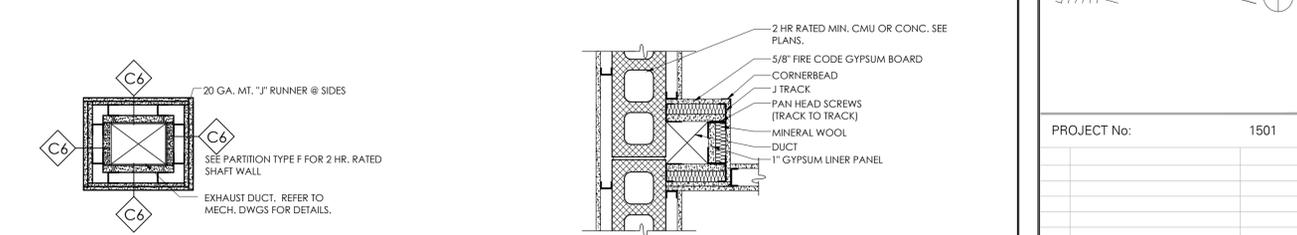
1 HORIZONTAL 2HR FIRE RATED DUCT ENCLOSURE
 SCALE: 1 1/2" = 1'-0"



2 TUB FIRESTOPPING @ 1HR RATED PARTITION
 SCALE: 1" = 1'-0"



3 TUB FIRESTOPPING @ 2HR RATED PARTITION
 SCALE: 1" = 1'-0"



4 VERTICAL ENCLOSURE (2 HR. RATED)
 SCALE: 1" = 1'-0"

5 VERTICAL ENCLOSURE (2 HR. RATED)
 SCALE: 1" = 1'-0"



6 CHASE WALL FIRESTOPPING & ACOUSTICS - PLANK STRUCTURE
 SCALE: 1" = 1'-0"

PROJECT:
 925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART
 304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



308 MALCOLM X BLVD.
 BROOKLYN, NY 11233
 TEL: 718-544-3764
 FAX: 718-412-1779

ARCHITECT OF RECORD

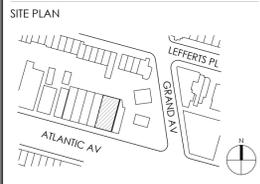
feingold & gregory architects
 118 west 83rd street - new york, n.y. - 10024
 TEL: (212) 592-8895 - fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc
 105 Madison Ave. New York, NY 10016
 T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
 441 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

PARTITION TYPES

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

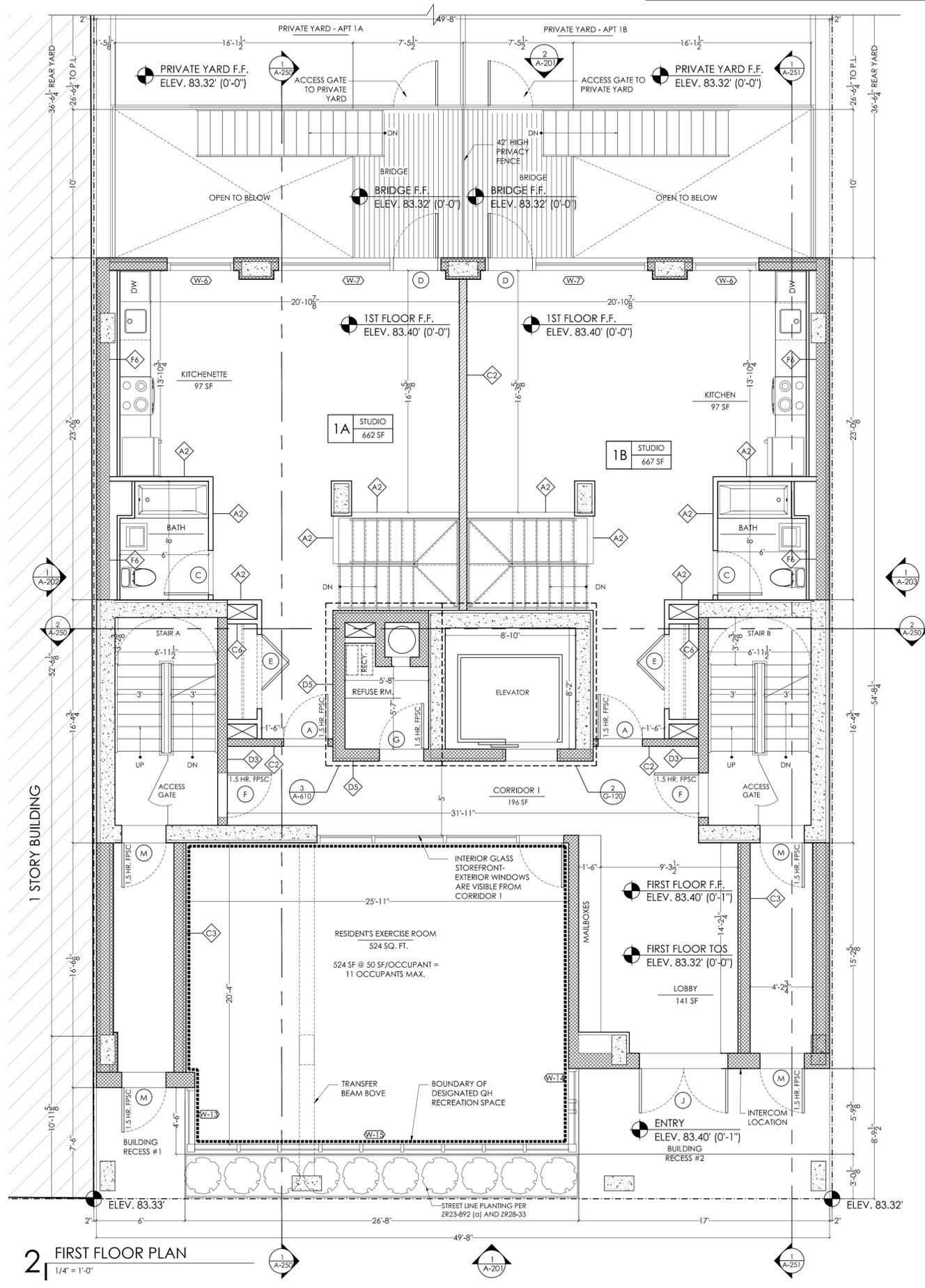
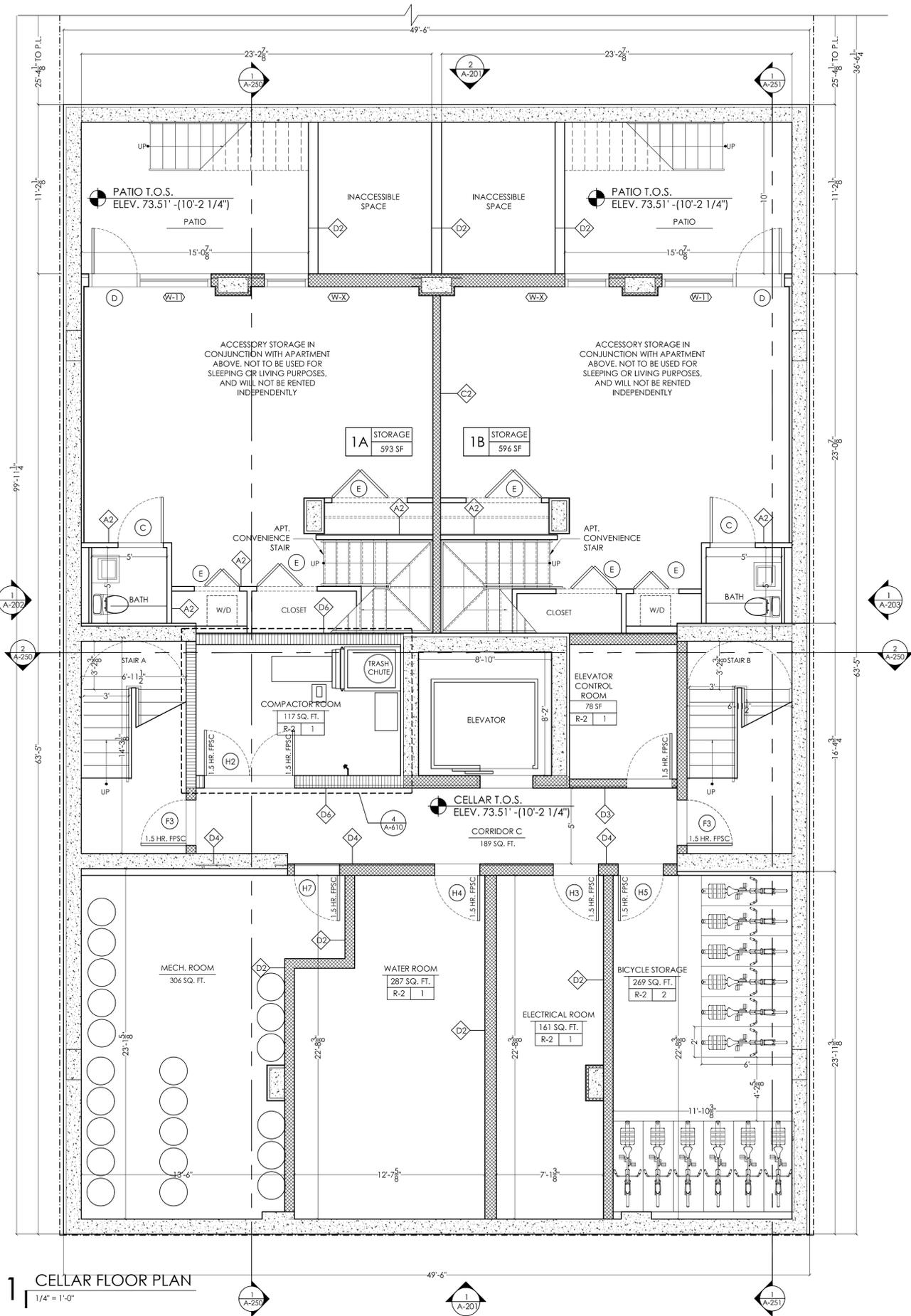
DRAWING NO: 20 OF 43

SHEET: **A-002.00**



ROOM NUMBER	AREA SF	LIGHT REQUIRED SF (10%)
1A-STUDIO	224.6 SF	22.5 SF
1B-STUDIO	115.9 SF	11.6 SF
CYM	548 SF	54.8 SF

NOTE:
AS PER BC 1008.4.4, BUILDINGS CONTAINING EIGHT OR MORE DWELLING UNITS SHALL BE PROVIDED WITH AN INTERCOMMUNICATION SYSTEM LOCATED AT THE DOOR GIVING ACCESS TO THE MAIN ENTRANCE LOBBY



PROJECT: 925 ATLANTIC AVE, BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD, BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM

304 MALCOLM X BLVD, BROOKLYN, NY 11233
TEL: 718 544 3764
FAX: 718 413 7979

ARCHITECT OF RECORD: feingold & gregory architects
118 West 83rd Street - New York, NY - 10024
Tel: (212) 595-8895 - Fax: (212) 787-8992

STRUCTURAL ENGINEER: GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER: NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD, BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN: [Diagram showing building location on Atlantic Av and Lefferts Pl]

PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

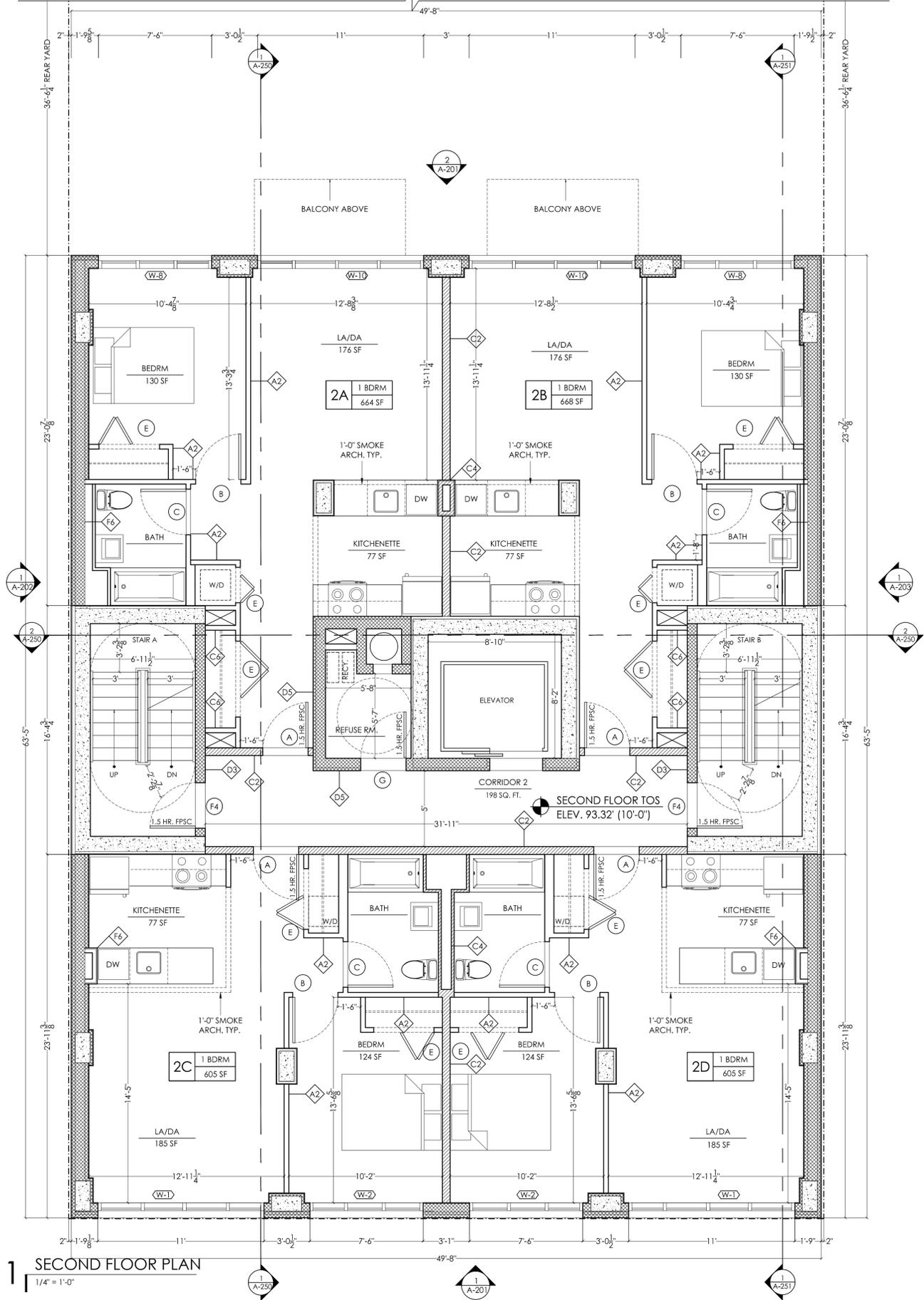
DRAWING TITLE: CELLAR AND GROUND FLOOR PLAN

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: 21 OF 43
SHEET: A-100.00

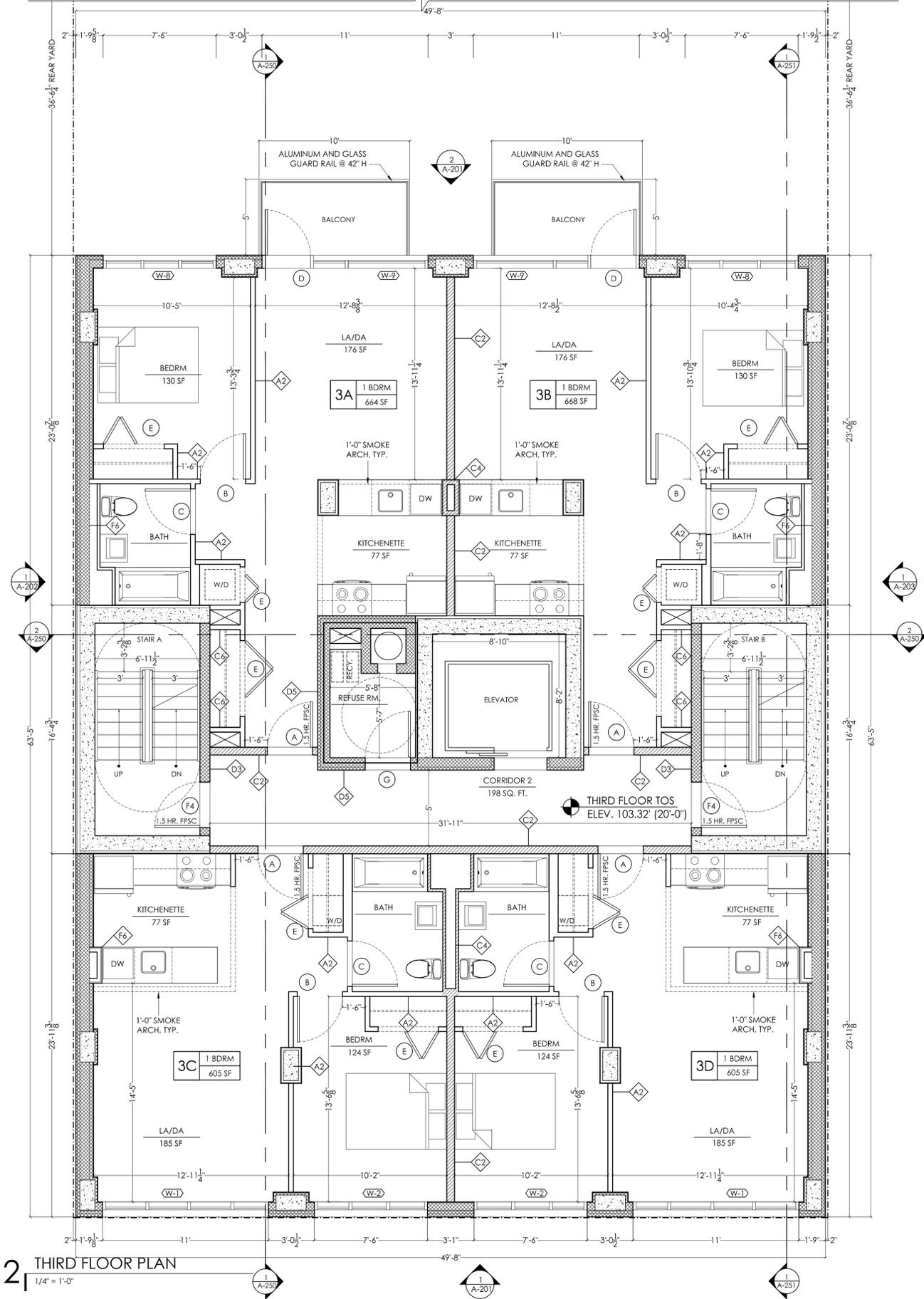
SEAL & SIGNATURE: [Professional Engineer Seal]

ROOM NUMBER	AREA SF	LIGHT REQUIRED SF (10%)	LIGHT PROVIDED SF	AIR REQUIRED SF (5%)	AIR PROVIDED SF
2A-LA/DA	182 SF	18.2 SF	52 SF	9.1 SF	14 SF
2A-BEDRM	130 SF	13.0 SF	30 SF	6.50 SF	14 SF
2B-LA/DA	182 SF	18.2 SF	52 SF	9.10 SF	14 SF
2B-BEDRM	130 SF	13.0 SF	30 SF	6.50 SF	14 SF
2C-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
2C-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF
2D-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
2D-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF

ROOM NUMBER	AREA SF	LIGHT REQUIRED SF (10%)	LIGHT PROVIDED SF	AIR REQUIRED SF (5%)	AIR PROVIDED SF
3A-LA/DA	182 SF	18.2 SF	44 SF	9.10 SF	14 SF
3A-BEDRM	130 SF	13.0 SF	41 SF	6.50 SF	14 SF
3B-LA/DA	182 SF	18.2 SF	44 SF	9.10 SF	14 SF
3B-BEDRM	130 SF	13.0 SF	41 SF	6.50 SF	14 SF
3C-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
3C-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF
3D-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
3D-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF



1 SECOND FLOOR PLAN
1/4" = 1'-0"



2 THIRD FLOOR PLAN
1/4" = 1'-0"

PROJECT:
925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-413-1779

ARCHITECT OF RECORD

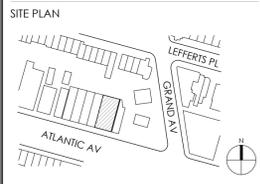
feingold & gregory · architects
118 West 83rd Street - New York, NY - 10024
Tel: (212) 595-8855 - Fax: (212) 781-8922

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
1-212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

SECOND AND THIRD FLOOR PLAN

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

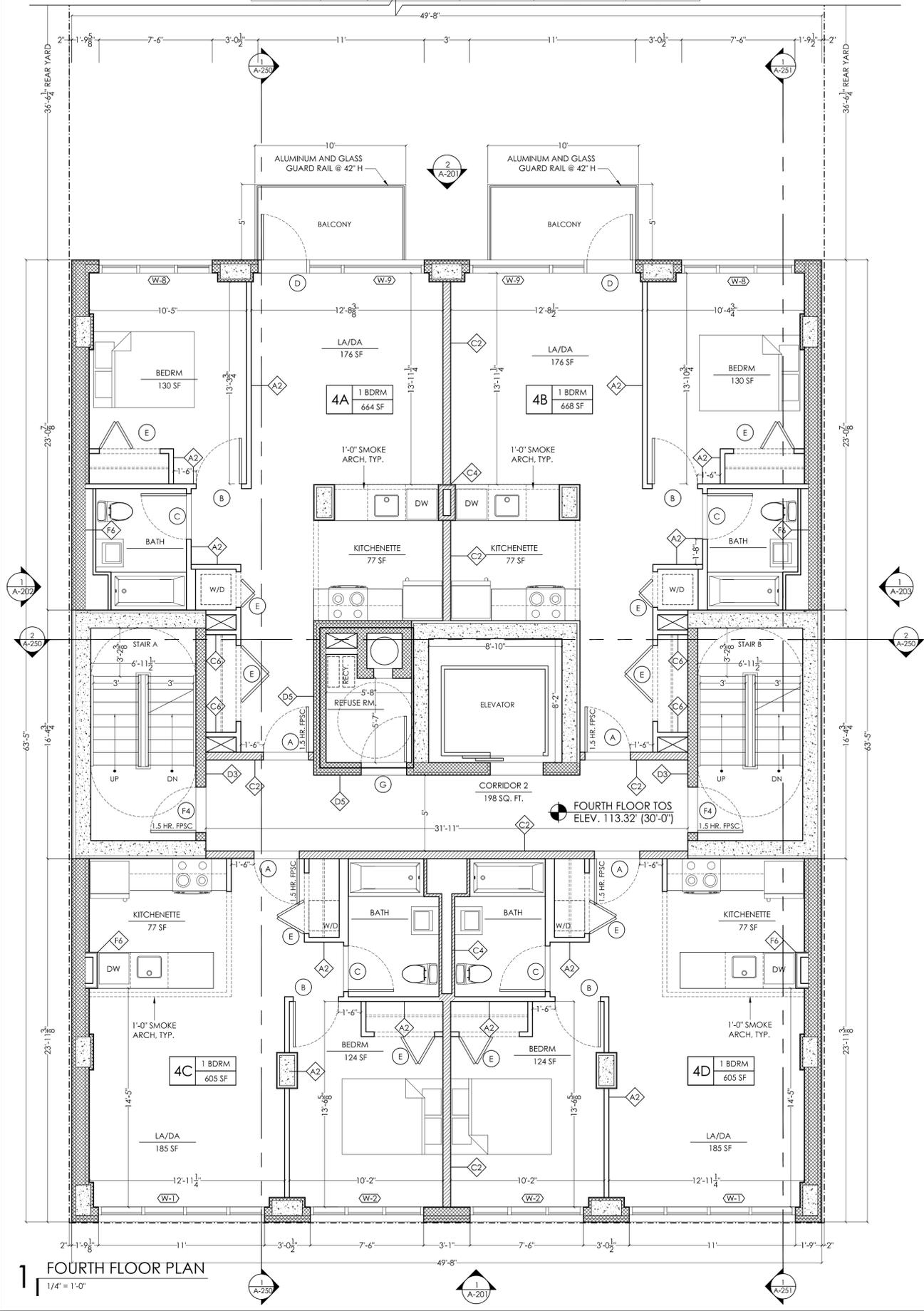
DRAWING NO: 22 OF 43

SHEET: **A-101.00**

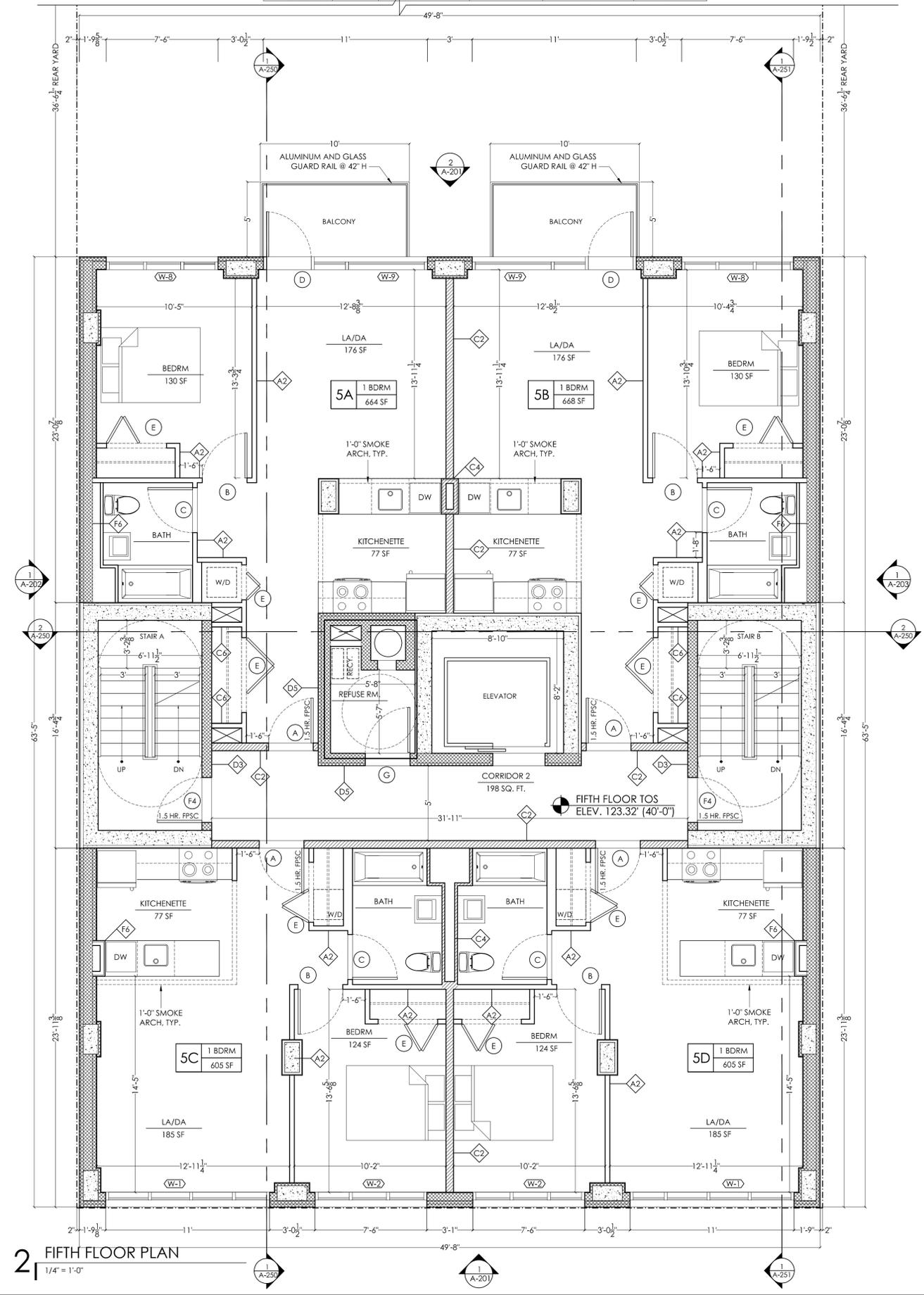
SEAL & SIGNATURE
FEINGOLD & GREGORY ARCHITECTS
REGISTERED ARCHITECT
STATE OF NEW YORK
026711

ROOM NUMBER	AREA SF	LIGHT REQUIRED SF (10%)	LIGHT PROVIDED SF	AIR REQUIRED SF (5%)	AIR PROVIDED SF
4A-LA/DA	182 SF	18.2 SF	44 SF	9.10 SF	14 SF
4A-BEDRM	130 SF	13.0 SF	41 SF	6.50 SF	14 SF
4B-LA/DA	182 SF	18.2 SF	44 SF	9.10 SF	14 SF
4B-BEDRM	130 SF	13.0 SF	41 SF	6.50 SF	14 SF
4C-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
4C-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF
4D-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
4D-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF

ROOM NUMBER	AREA SF	LIGHT REQUIRED SF (10%)	LIGHT PROVIDED SF	AIR REQUIRED SF (5%)	AIR PROVIDED SF
5A-LA/DA	182 SF	18.2 SF	44 SF	9.10 SF	14 SF
5A-BEDRM	130 SF	13.0 SF	41 SF	6.50 SF	14 SF
5B-LA/DA	182 SF	18.2 SF	44 SF	9.10 SF	14 SF
5B-BEDRM	130 SF	13.0 SF	41 SF	6.50 SF	14 SF
5C-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
5C-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF
5D-LA/DA	185 SF	18.5 SF	66 SF	9.25 SF	14 SF
5D-BEDRM	124 SF	12.4 SF	44 SF	6.20 SF	14 SF



1 FOURTH FLOOR PLAN
1/4" = 1'-0"



2 FIFTH FLOOR PLAN
1/4" = 1'-0"

PROJECT:
925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-413-1779

ARCHITECT OF RECORD

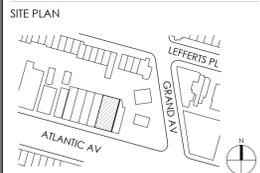
feingold & gregory · architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8885 - Fax: (212) 781-8922

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
1: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

FOURTH AND FIFTH FLOOR PLANS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

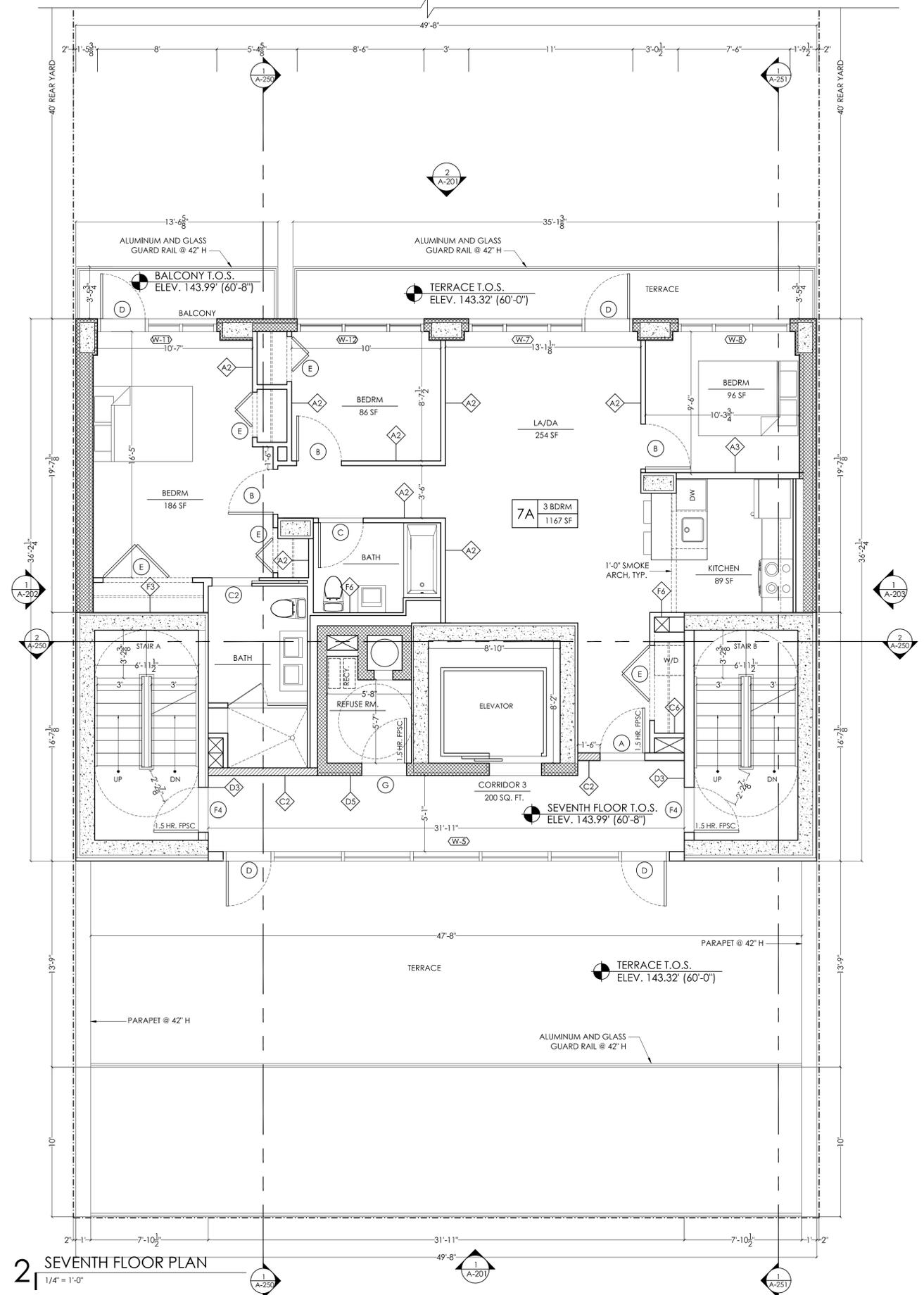
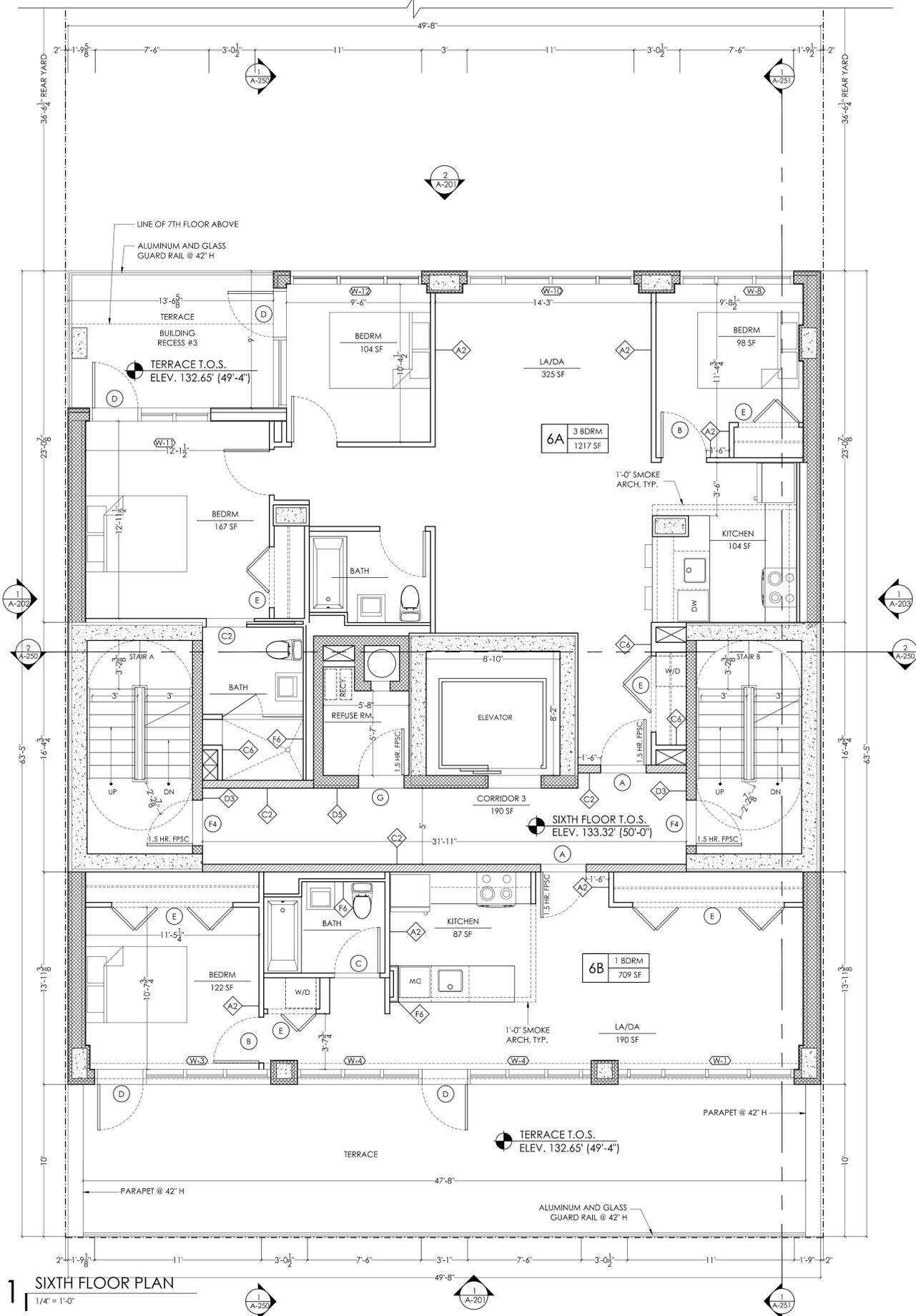
DRAWING NO: 23 OF 43

SHEET: **A-102.00**

SEAL & SIGNATURE
FEINGOLD & GREGORY ARCHITECTS
REGISTERED ARCHITECTS
STATE OF NEW YORK
026711

ROOM NUMBER	AREA SF	LIGHT REQUIRED SF (10%)	LIGHT PROVIDED SF	AIR REQUIRED SF (5%)	AIR PROVIDED SF
6A-LA/DA	325 SF	32.5 SF	66 SF	16.25 SF	28 SF
6A-BEDRM 1	145 SF	14.4 SF	44 SF	7.20 SF	14 SF
6A-BEDRM 2	104 SF	10.4 SF	50 SF	5.20 SF	14 SF
6A-BEDRM 3	98 SF	9.8 SF	44 SF	4.90 SF	14 SF
6B-LA/DA	190 SF	19.0 SF	88 SF	9.50 SF	28 SF
6B-BEDRM	122 SF	12.2 SF	46 SF	6.10 SF	14 SF

ROOM NUMBER	AREA SF	LIGHT REQUIRED SF (10%)	LIGHT PROVIDED SF	AIR REQUIRED SF (5%)	AIR PROVIDED SF
7A-LA/DA	258 SF	25.8 SF	47 SF	12.90 SF	14 SF
7A-BEDRM 1	186 SF	18.6 SF	28 SF	9.30 SF	14 SF
7A-BEDRM 2	86 SF	8.6 SF	50 SF	4.30 SF	14 SF
7A-BEDRM 3	95 SF	9.5 SF	44 SF	4.75 SF	14 SF



PROJECT:
925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART
304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



306 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-412-1779

ARCHITECT OF RECORD

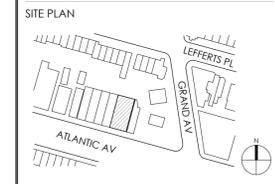
feingold & gregory architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8886 - Fax: (212) 781-8922

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
1: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

SIXTH AND SEVENTH FLOOR PLANS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

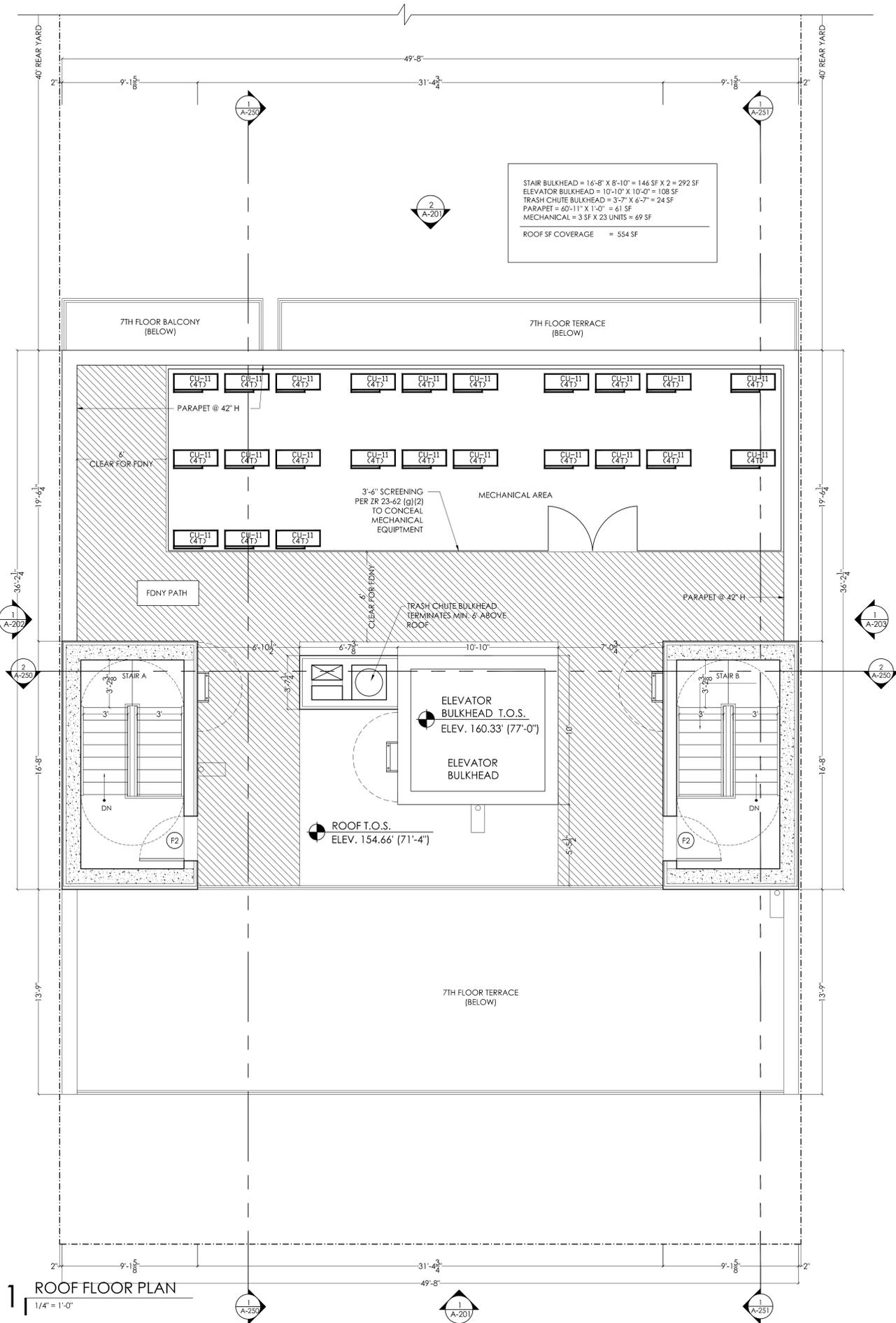
CHECKED BY: JD

DRAWING NO: 24 OF 43

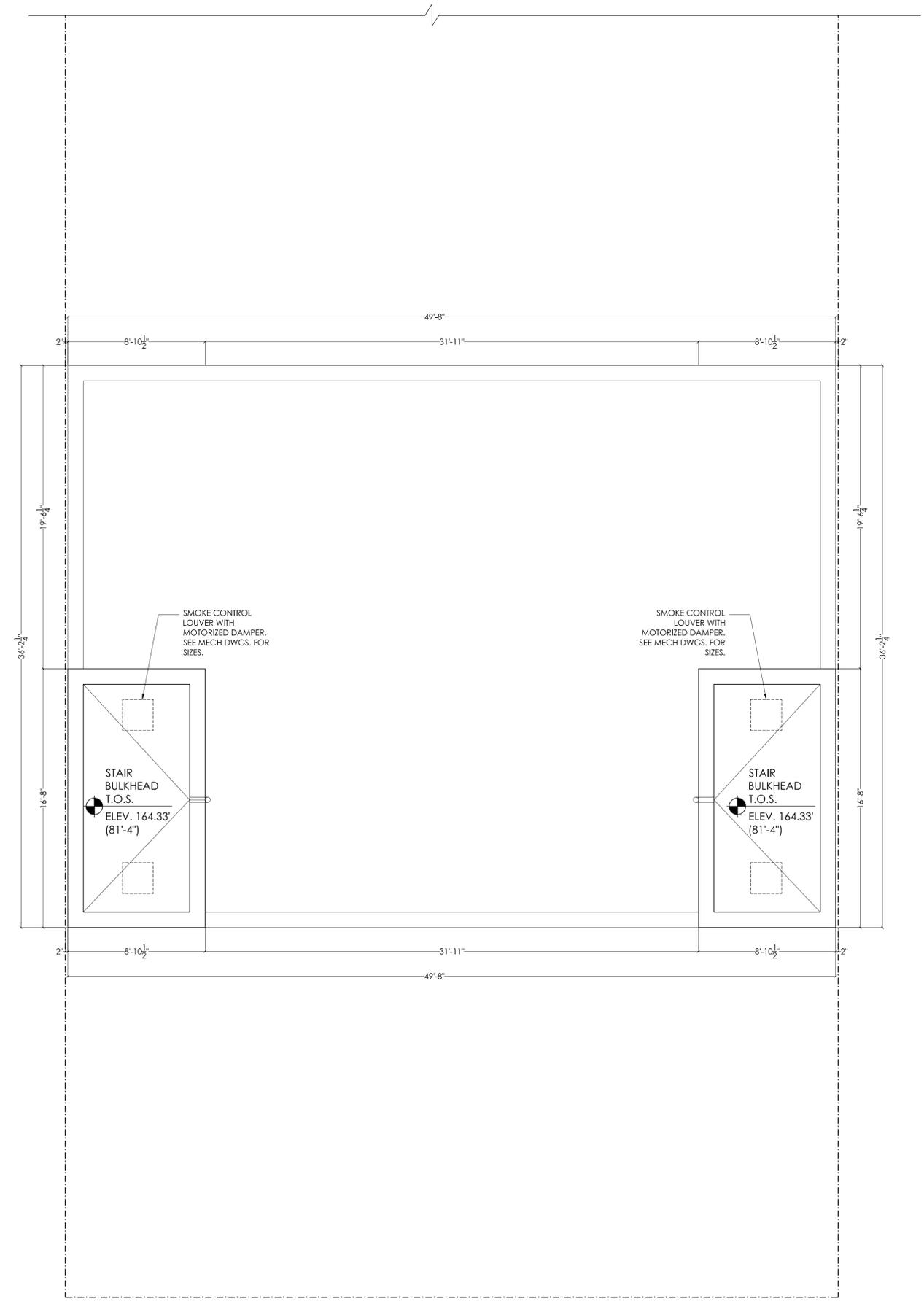
SHEET: **A-103.00**

SEAL & SIGNATURE OF ARCHITECT

REGISTERED ARCHITECT
PHIL GREGORY
NO. 026711
STATE OF NEW YORK



1 ROOF FLOOR PLAN
 1/4" = 1'-0"



2 BULKHEAD PLAN
 1/4" = 1'-0"

PROJECT:

925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



308 MALCOLM X BLVD.
 BROOKLYN, NY 11233
 TEL: 718-544-3764
 FAX: 718-413-1779

ARCHITECT OF RECORD

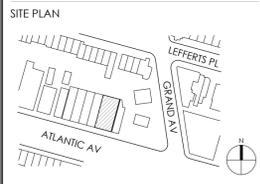
feingold & gregory · architects
 118 West 83rd Street · New York, N.Y. · 10024
 Tel: (212) 595-8895 · Fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc
 105 Madison Ave. New York, NY 10016
 T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
 661 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
 1 ISSUED FOR DOB FILING 08/06/15
 REV. DATE

DRAWING TITLE:

ROOF AND BULKHEAD
 FLOOR PLAN

DATE: 12/31/2015

SCALE: AS NOTED

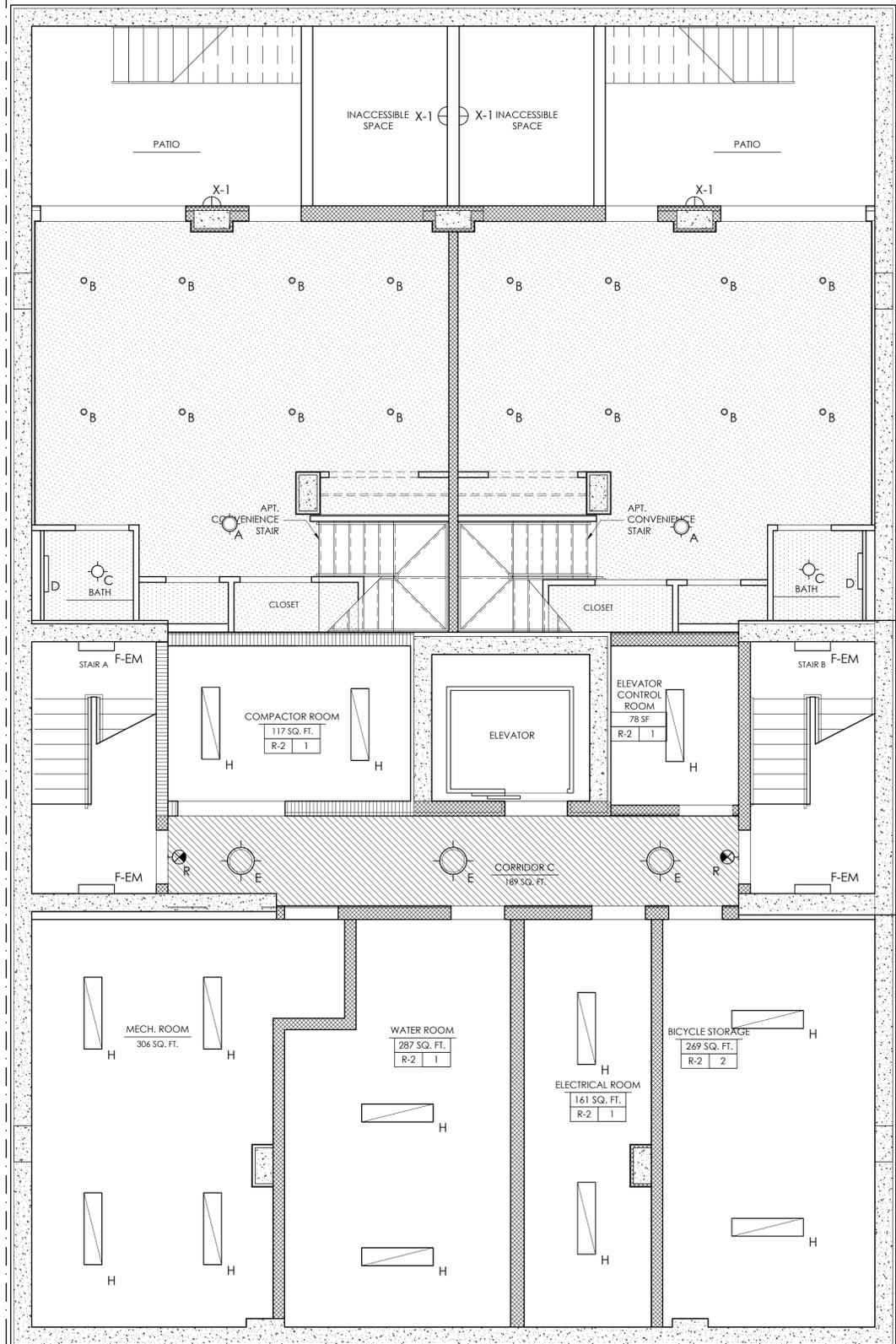
DRAWN BY: JD, MT

CHECKED BY: JD

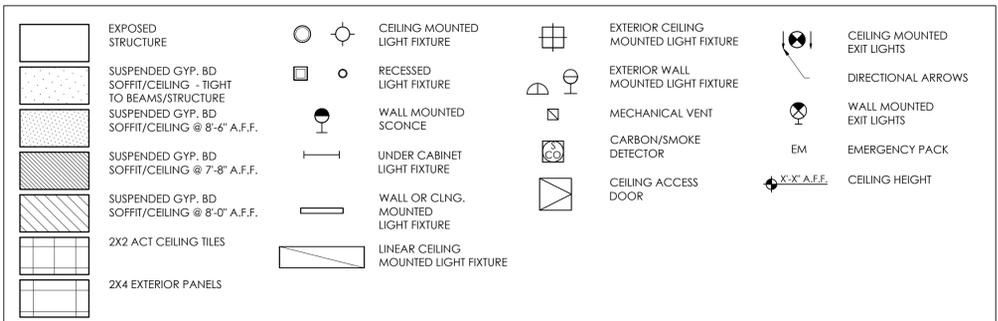
DRAWING NO: 25 OF 43

SHEET: **A-104.00**





REFLECTED CEILING PLAN SYMBOL KEY



NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.

INTERIOR LIGHTING FIXTURE SCHEDULE - CELLAR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	2	52 W	
○	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	16	1024 W	
⊙	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	2	26 W	
—	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	2	48 W	
⊙	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
—	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	4	256 W	MOTION SENSOR BILEVEL
—	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
—	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	14	896 W	
⊙	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
—	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	0	0 W	
⊙	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
⊙	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	0	0 W	
⊙	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	2	8 W	
TOTAL WATTAGE :								2410 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	4	72 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
⊙	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
⊙	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
⊙	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
⊙	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								72 W	

1 CELLAR FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-415-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street · New York, N.Y. · 10024
TEL: (212) 595-8895 · FAX: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc

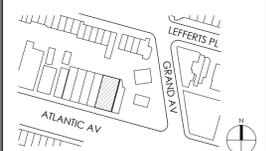
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING
PLAN - CELLAR

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

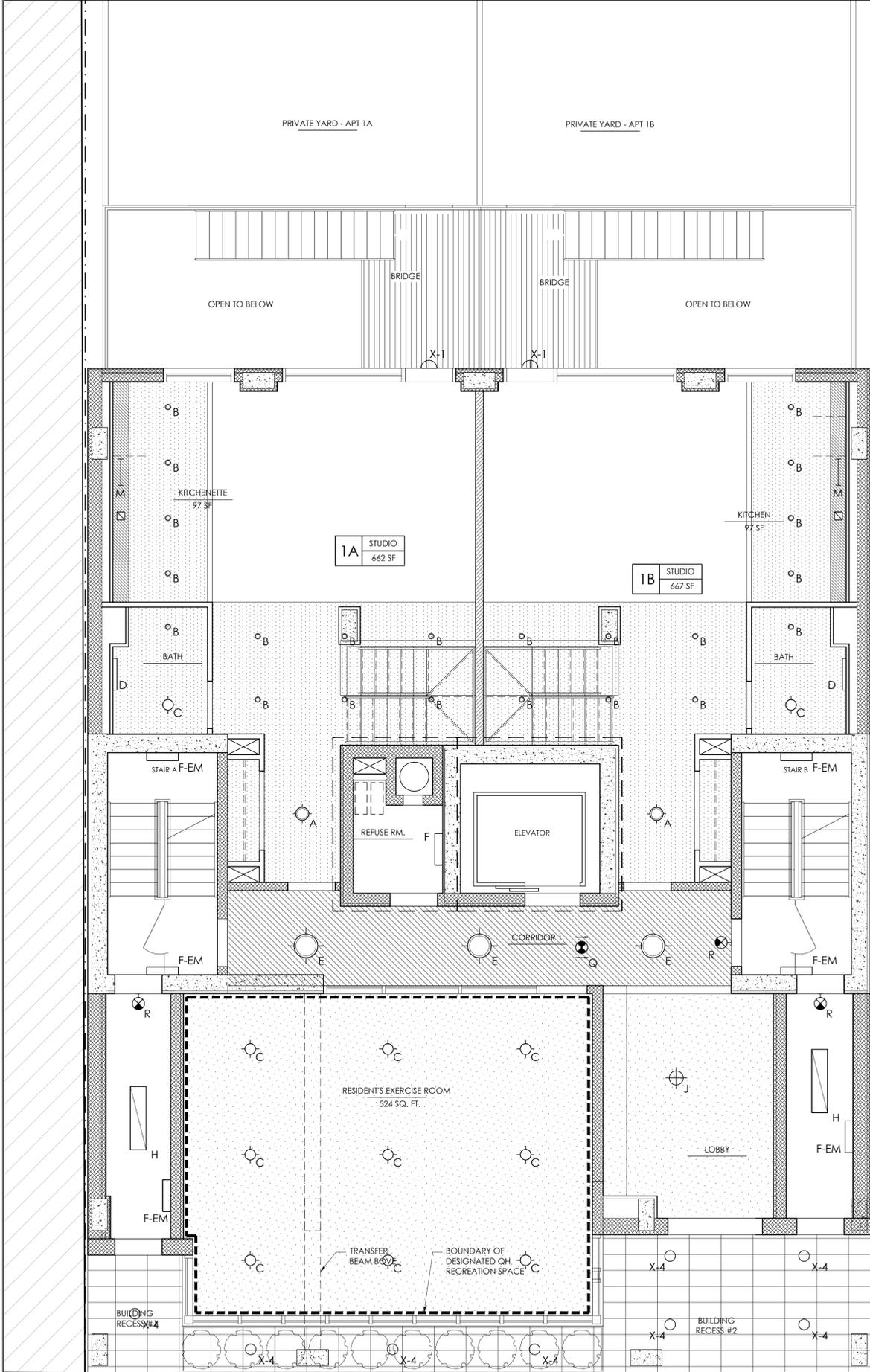
CHECKED BY: JD

DRAWING NO: 26 OF 43

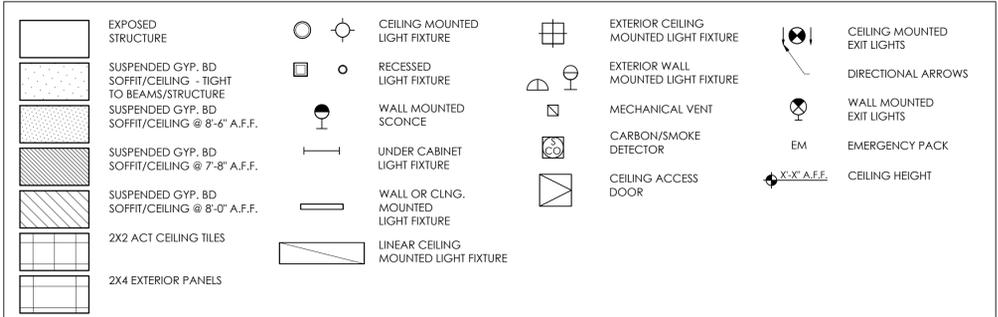
SHEET: **A-150.00**

SEAL & SIGNATURE





REFLECTED CEILING PLAN SYMBOL KEY



NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.

INTERIOR LIGHTING FIXTURE SCHEDULE - FIRST FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	2	52 W	
○	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	22	1408 W	
⊙	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	11	143 W	
—	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	2	48 W	
⊙	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
—	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	7	448 W	MOTION SENSOR BILEVEL
—	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
—	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	2	128 W	
⊙	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	1	64 W	
—	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	2	28 W	
⊙	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
⊙	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	1	4 W	
⊙	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	3	12 W	
TOTAL WATTAGE :								2431 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	2	36 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
⊙	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
⊙	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
⊙	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	8	320 W	TIMER ON/OFF
⊙	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								356 W	

1 FIRST FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718.544.3764 FAX: 718.412.1799

ARCHITECT OF RECORD

feingold & gregory · architects

118 west 83rd street · new york, n.y. · 10024
tel: (212) 595-8895 · fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc

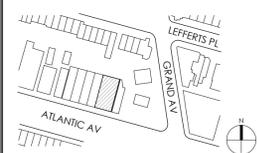
105 Madison Ave. New York, NY 10016
t: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING
PLAN - FIRST FLOOR

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

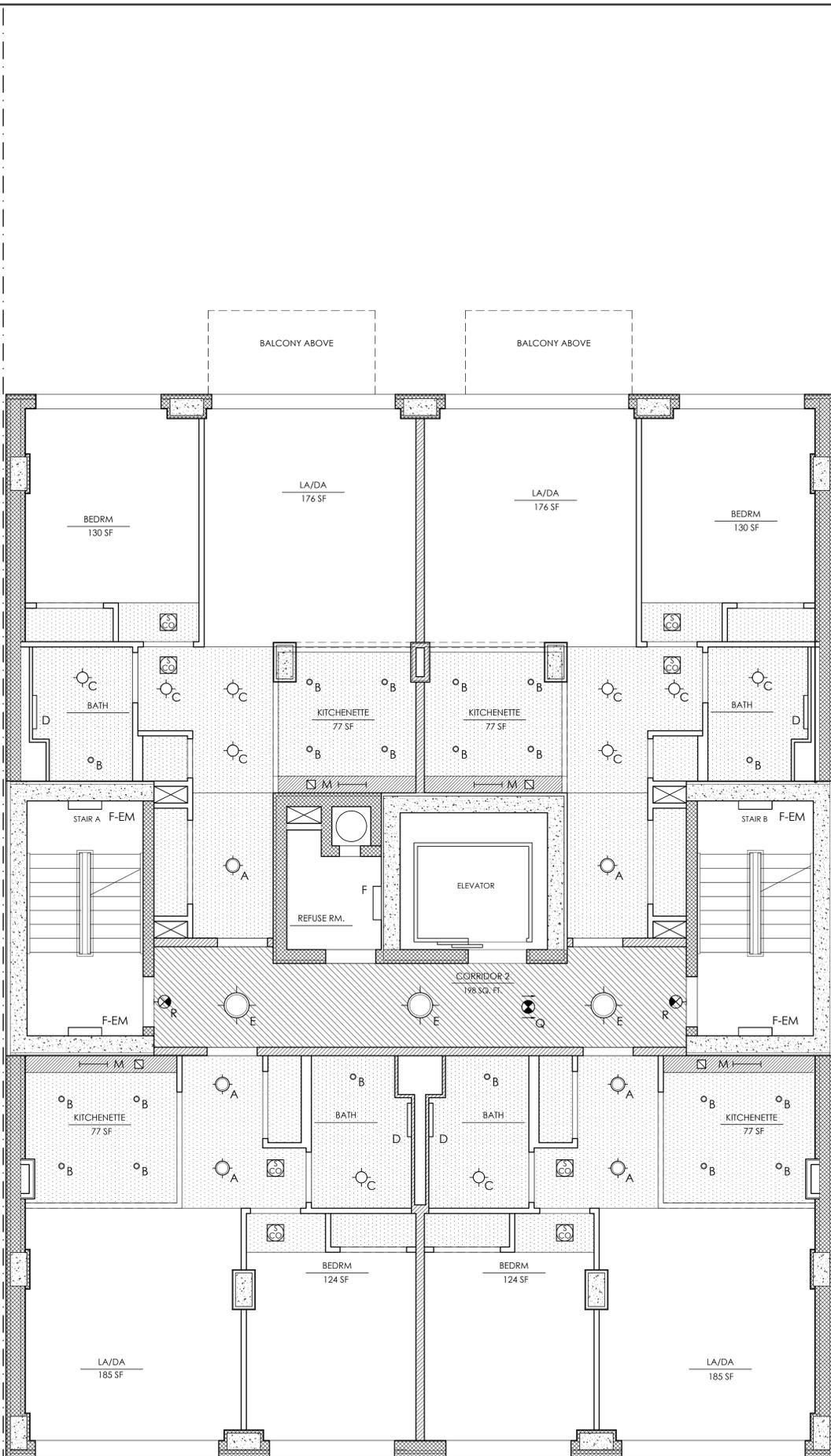
CHECKED BY: JD

DRAWING NO: 27 OF 43

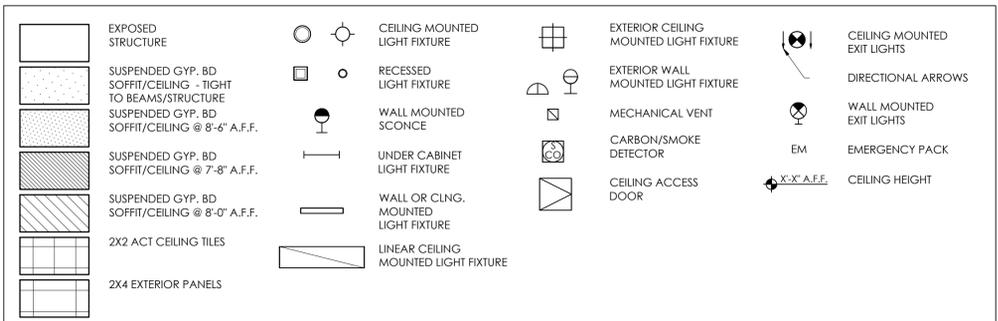
SHEET: **A-151.00**

SEAL & SIGNATURE ARCHITECT





REFLECTED CEILING PLAN SYMBOL KEY



NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.

INTERIOR LIGHTING FIXTURE SCHEDULE - SECOND FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	6	156 W	
○	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	20	1280 W	
⊙	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	10	130 W	
—	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	4	96 W	
⊙	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
—	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	5	320 W	MOTION SENSOR BILEVEL
—	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
—	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	0	0 W	
⊙	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
—	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	4	56 W	
⊙	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
⊙	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	1	4 W	
⊙	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	2	8 W	
TOTAL WATTAGE :								2146 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
⊙	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
⊙	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
⊙	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
⊙	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								0 W	

1 SECOND FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-415-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 west 83rd street · new york, n.y. · 10024
TEL: (212) 595-8895 · FAX: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc

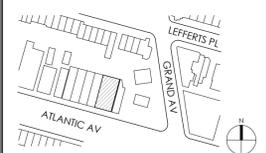
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING
PLAN - SECOND FLOOR

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 28 OF 43

SHEET: **A-152.00**

SEAL & SIGNATURE

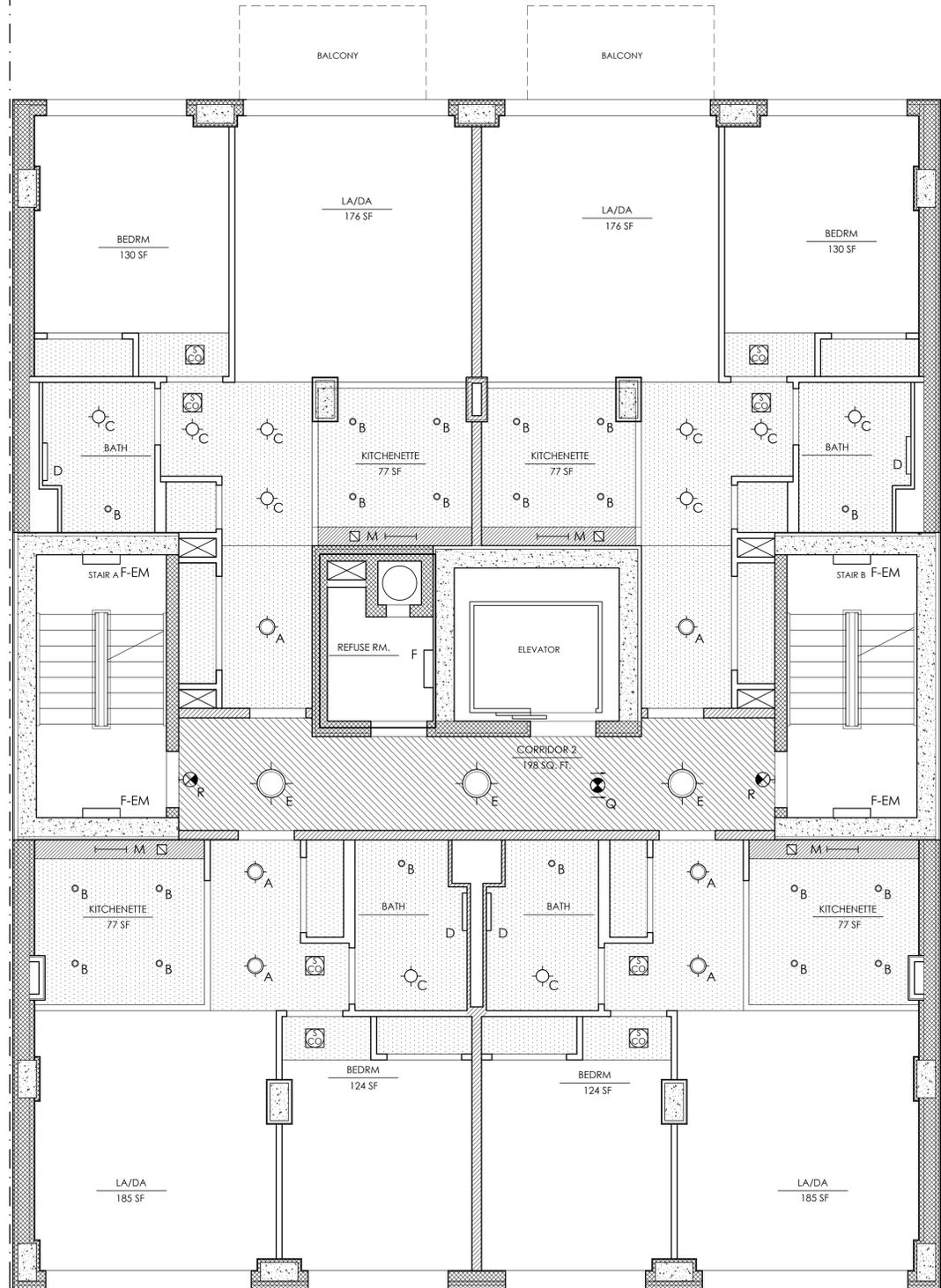


REFLECTED CEILING PLAN SYMBOL KEY

	EXPOSED STRUCTURE		CEILING MOUNTED LIGHT FIXTURE		EXTERIOR CEILING MOUNTED LIGHT FIXTURE		CEILING MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING - TIGHT TO BEAMS/STRUCTURE		RECESSED LIGHT FIXTURE		EXTERIOR WALL MOUNTED LIGHT FIXTURE		DIRECTIONAL ARROWS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-6" A.F.F.		WALL MOUNTED SCONCE		MECHANICAL VENT		WALL MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 7'-8" A.F.F.		UNDER CABINET LIGHT FIXTURE		CARBON/SMOKE DETECTOR		EM EMERGENCY PACK
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-0" A.F.F.		WALL OR CLNG. MOUNTED LIGHT FIXTURE		CEILING ACCESS DOOR		CEILING HEIGHT
	2X2 ACT CEILING TILES		LINEAR CEILING MOUNTED LIGHT FIXTURE				
	2X4 EXTERIOR PANELS						

NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.



INTERIOR LIGHTING FIXTURE SCHEDULE - FIFTH FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	6	156 W	
	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	20	1280 W	
	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	10	130 W	
	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	4	96 W	
	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	5	320 W	MOTION SENSOR BILEVEL
	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	0	0 W	
	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	4	56 W	
	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	1	4 W	
	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	2	8 W	
TOTAL WATTAGE :								2146 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								0 W	

1 THIRD FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

PROJECT:
925 ATLANTIC AVE
BROOKLYN, NY 11233

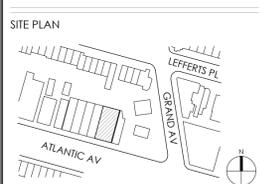
ROART
304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



ARCHITECT OF RECORD
feingold & gregory · architects
118 west 83rd street · new york, n.y. · 10024
tel: (212) 595-8886 · fax: (212) 781-8992

STRUCTURAL ENGINEER
GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
t: 212-545-7878 www.gace.net

MECHANICAL ENGINEER
NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

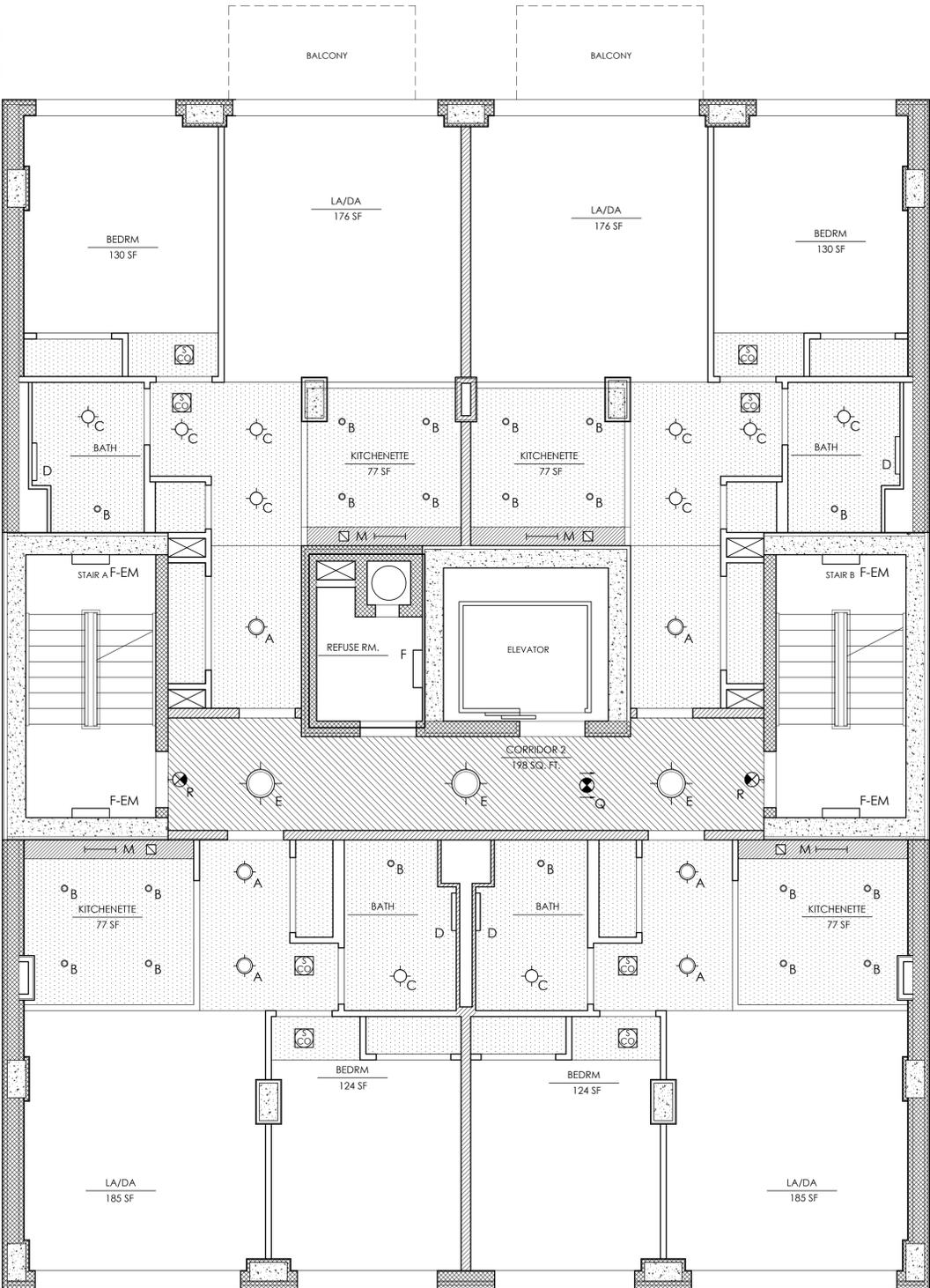
1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING PLAN - THIRD FLOOR

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: 29 OF 43
SHEET: **A-153.00**





1 FOURTH FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

REFLECTED CEILING PLAN SYMBOL KEY

	EXPOSED STRUCTURE		CEILING MOUNTED LIGHT FIXTURE		EXTERIOR CEILING MOUNTED LIGHT FIXTURE		CEILING MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING - TIGHT TO BEAMS/STRUCTURE		RECESSED LIGHT FIXTURE		EXTERIOR WALL MOUNTED LIGHT FIXTURE		DIRECTIONAL ARROWS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-6" A.F.F.		WALL MOUNTED SCONCE		MECHANICAL VENT		WALL MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 7'-8" A.F.F.		UNDER CABINET LIGHT FIXTURE		CARBON/SMOKE DETECTOR		EM EMERGENCY PACK
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-0" A.F.F.		WALL OR CLNG. MOUNTED LIGHT FIXTURE		CEILING ACCESS DOOR		CEILING HEIGHT
	2X2 ACT CEILING TILES		LINEAR CEILING MOUNTED LIGHT FIXTURE				
	2X4 EXTERIOR PANELS						

NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.

INTERIOR LIGHTING FIXTURE SCHEDULE - FIFTH FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	6	156 W	
	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	20	1280 W	
	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	10	130 W	
	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	4	96 W	
	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	5	320 W	MOTION SENSOR BILEVEL
	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	0	0 W	
	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	4	56 W	
	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	1	4 W	
	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	2	8 W	
TOTAL WATTAGE :								2146 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								0 W	

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-415-1779

ARCHITECT OF RECORD

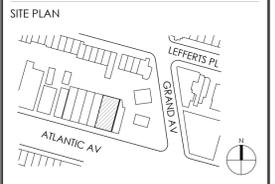
feingold & gregory · architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8886 - Fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING PLAN - FOURTH FLOOR

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 30 OF 43

SHEET: **A-154.00**

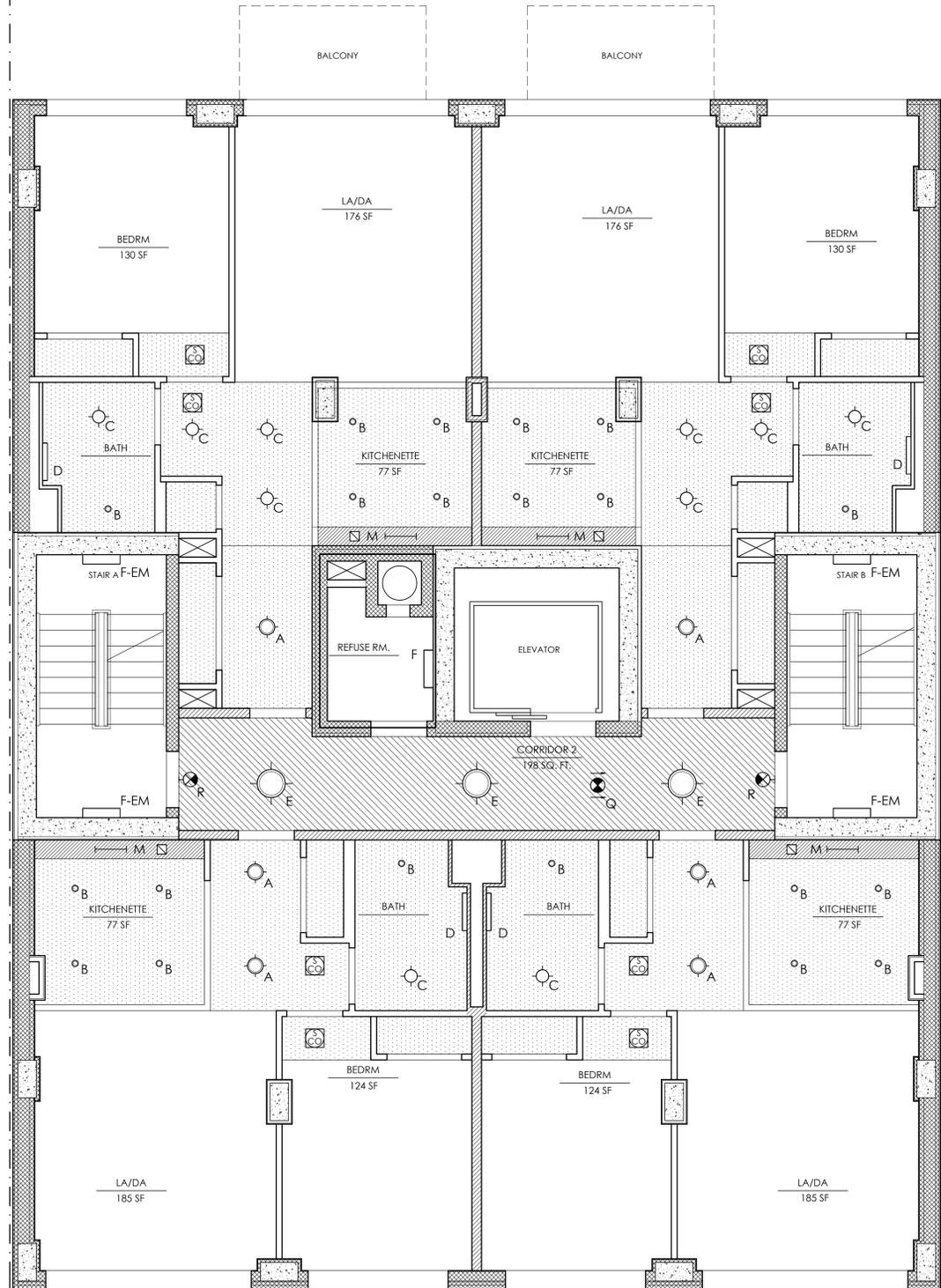
SEAL & SIGNATURE ARCHITECT
ROBERT J. GREGORY
REGISTERED ARCHITECT
STATE OF NEW YORK
026717

REFLECTED CEILING PLAN SYMBOL KEY

	EXPOSED STRUCTURE		CEILING MOUNTED LIGHT FIXTURE		EXTERIOR CEILING MOUNTED LIGHT FIXTURE		CEILING MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING - TIGHT TO BEAMS/STRUCTURE		RECESSED LIGHT FIXTURE		EXTERIOR WALL MOUNTED LIGHT FIXTURE		DIRECTIONAL ARROWS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-0" A.F.F.		WALL MOUNTED SCONCE		MECHANICAL VENT		WALL MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 7'-8" A.F.F.		UNDER CABINET LIGHT FIXTURE		CARBON/SMOKE DETECTOR		EM EMERGENCY PACK
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-0" A.F.F.		WALL OR CLNG. MOUNTED LIGHT FIXTURE		CEILING ACCESS DOOR		CEILING HEIGHT
	2X2 ACT CEILING TILES		LINEAR CEILING MOUNTED LIGHT FIXTURE				
	2X4 EXTERIOR PANELS						

NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.



INTERIOR LIGHTING FIXTURE SCHEDULE - FIFTH FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	6	156 W	
	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	20	1280 W	
	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	10	130 W	
	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	4	96 W	
	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	5	320 W	MOTION SENSOR BILEVEL
	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	0	0 W	
	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	4	56 W	
	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	1	4 W	
	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	2	8 W	
TOTAL WATTAGE :								2146 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								0 W	

1 FIFTH FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-415-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 west 83rd street · new york, n.y. · 10024
tel: (212) 595-8885 · fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc

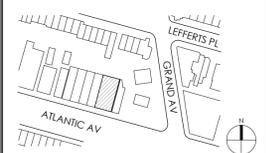
105 Madison Ave. New York, NY 10016
t: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING
PLAN - FIFTH FLOOR

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 31 OF 43

SHEET: A-155.00

SEAL & SIGNATURE



REFLECTED CEILING PLAN SYMBOL KEY

	EXPOSED STRUCTURE		CEILING MOUNTED LIGHT FIXTURE		EXTERIOR CEILING MOUNTED LIGHT FIXTURE		CEILING MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING - TIGHT TO BEAMS/STRUCTURE		RECESSED LIGHT FIXTURE		EXTERIOR WALL MOUNTED LIGHT FIXTURE		DIRECTIONAL ARROWS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-6" A.F.F.		WALL MOUNTED SCONCE		MECHANICAL VENT		WALL MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 7'-8" A.F.F.		UNDER CABINET LIGHT FIXTURE		CARBON/SMOKE DETECTOR		EM EMERGENCY PACK
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-0" A.F.F.		WALL OR CLNG. MOUNTED LIGHT FIXTURE		CEILING ACCESS DOOR		X'-X" A.F.F. CEILING HEIGHT
	2X2 ACT CEILING TILES		LINEAR CEILING MOUNTED LIGHT FIXTURE				
	2X4 EXTERIOR PANELS						

NOTES:

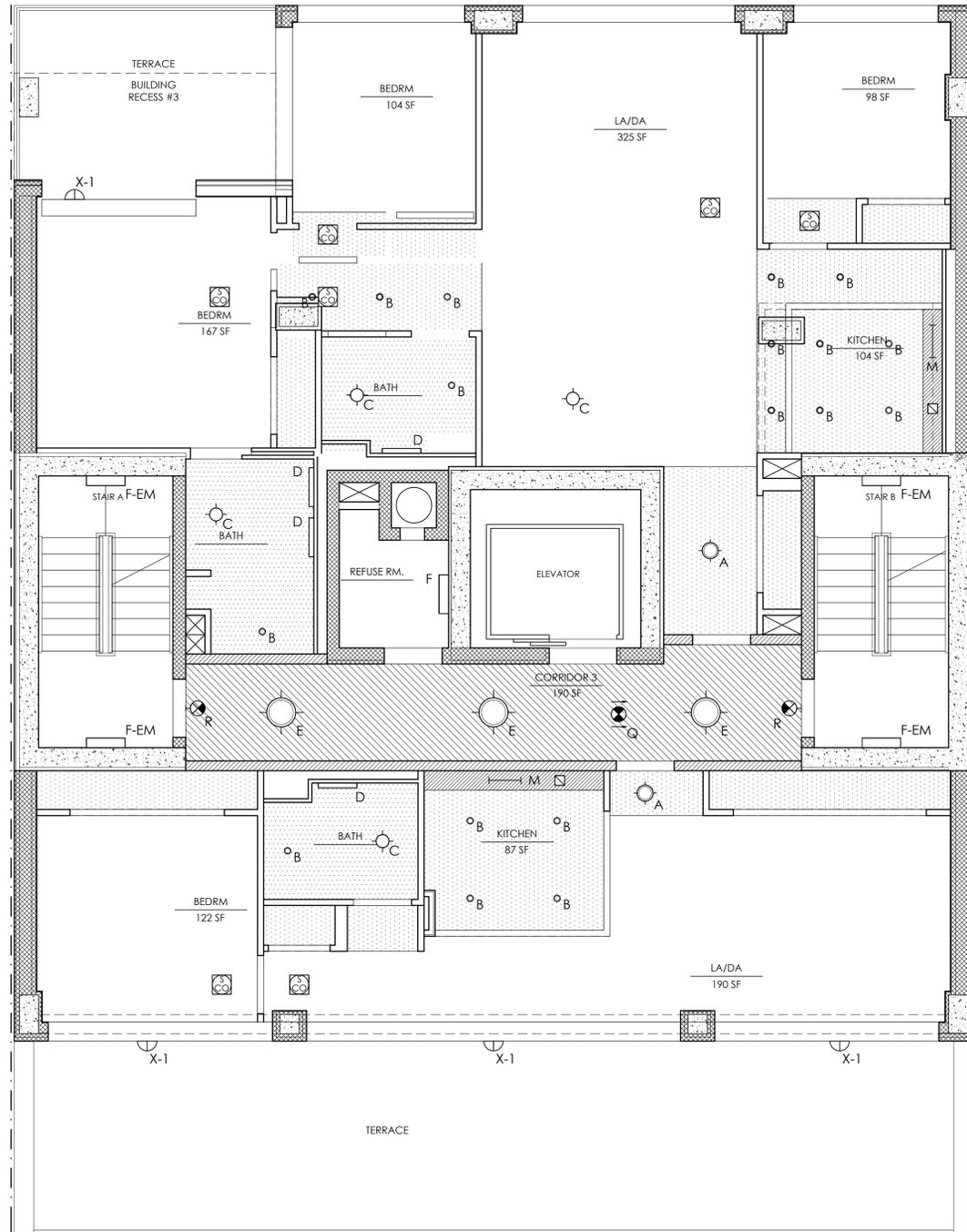
1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.

INTERIOR LIGHTING FIXTURE SCHEDULE - SIXTH FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	2	52 W	
	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	18	1152 W	
	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	4	52 W	
	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	4	96 W	
	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	5	320 W	MOTION SENSOR BILEVEL
	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	0	0 W	
	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	2	28 W	
	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	1	4 W	
	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	2	8 W	
TOTAL WATTAGE :								1808 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	4	72 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								72 W	



1 SIXTH FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1' 0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-412-1799

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street · New York, N.Y. · 10024
TEL: (212) 595-8895 · FAX: (212) 781-8992

ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY WORK WHICH DEVIATES FROM APPROVED PLANS. THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FOR ANY CHANGES FROM THE ARCHITECT BEFORE COMMENCING SUCH WORK.

STRUCTURAL ENGINEER

GACE consulting engineers pc

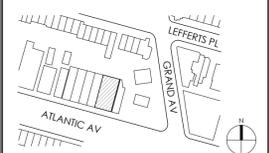
105 Madison Ave. New York, NY 10016
1-212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING
PLAN - SIXTH FLOOR

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

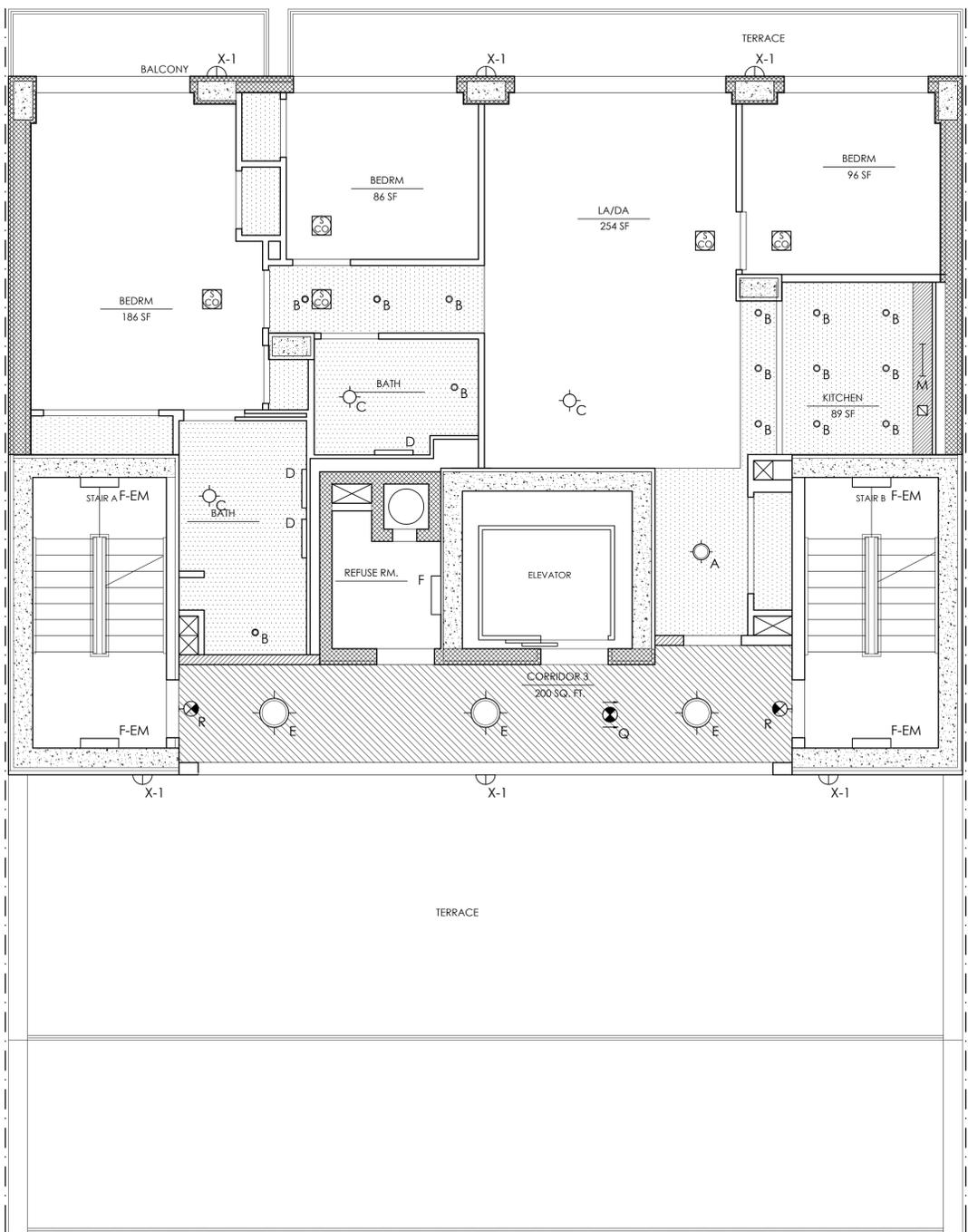
CHECKED BY: JD

DRAWING NO: 32 OF 43

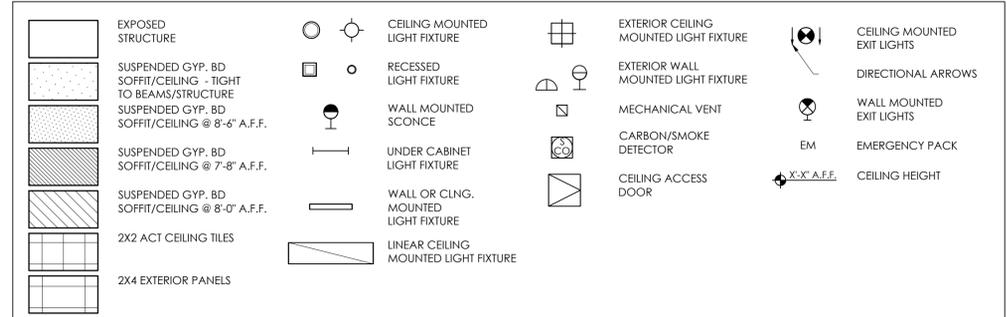
SHEET: A-156.00

SEAL & SIGNATURE





REFLECTED CEILING PLAN SYMBOL KEY



NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.

INTERIOR LIGHTING FIXTURE SCHEDULE - SEVENTH FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	1	26 W	
○	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	14	896 W	
⊙	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	3	39 W	
—	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	3	72 W	
⊙	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	3	96 W	MOTION SENSOR BILEVEL
—	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	5	320 W	MOTION SENSOR BILEVEL
—	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
—	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	0	0 W	
⊙	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
—	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	1	14 W	
⊙	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
⊙	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	1	4 W	
⊙	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	2	8 W	
TOTAL WATTAGE :								1476 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
⊙	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	6	108 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
⊙	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
⊙	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
⊙	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
⊙	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								108 W	

1 SEVENTH FLOOR REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART
304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



ARCHITECT OF RECORD

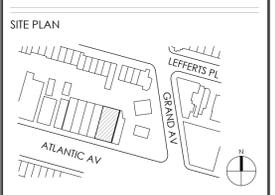
feingold & gregory · architects
118 West 83rd Street · New York, N.Y. · 10024
Tel: (212) 595-8895 · Fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

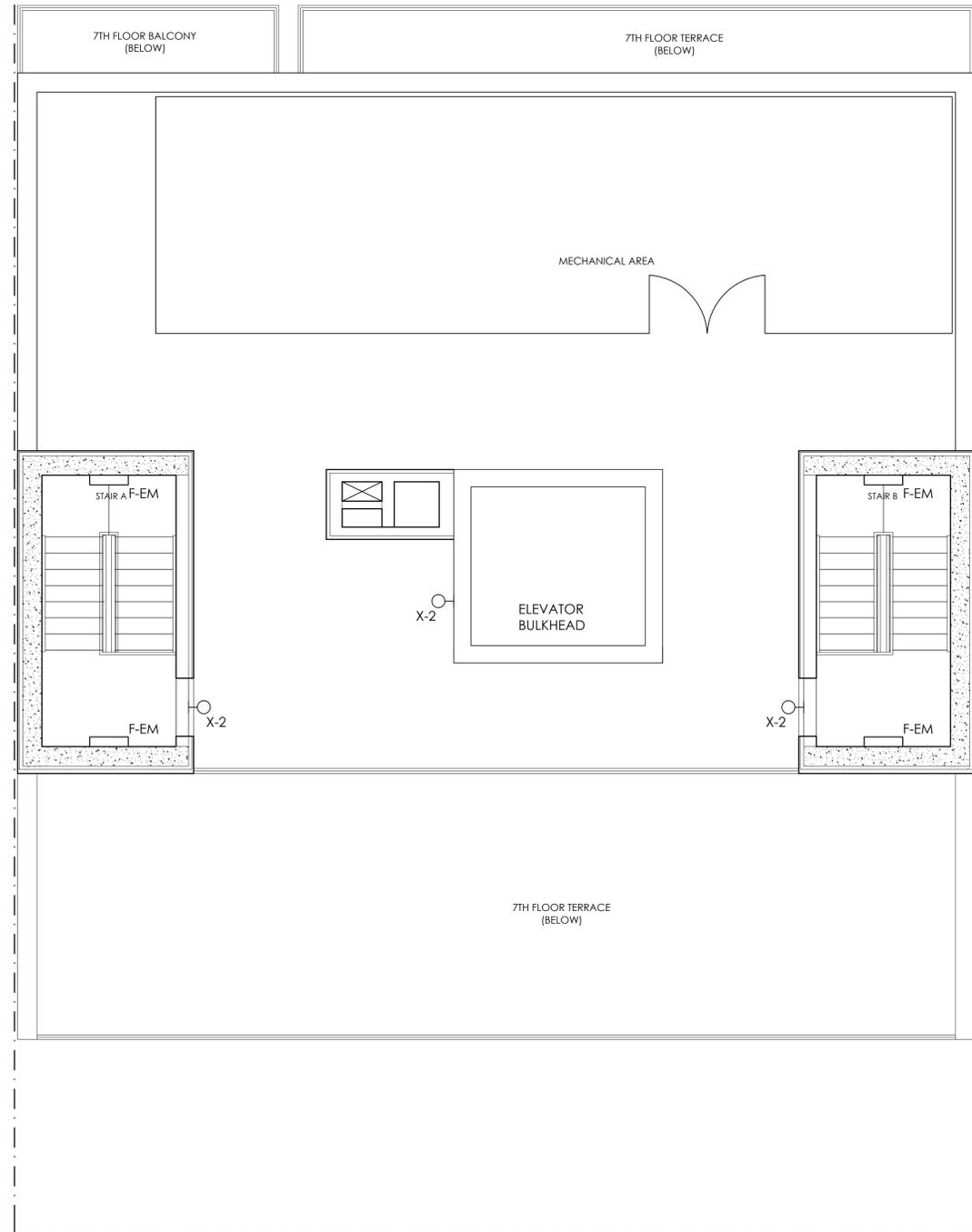
1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING
PLAN - SEVENTH FLOOR

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: 33 OF 43
SHEET: **A-157.00**





REFLECTED CEILING PLAN SYMBOL KEY

	EXPOSED STRUCTURE		CEILING MOUNTED LIGHT FIXTURE		EXTERIOR CEILING MOUNTED LIGHT FIXTURE		CEILING MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING - TIGHT TO BEAMS/STRUCTURE		RECESSED LIGHT FIXTURE		EXTERIOR WALL MOUNTED LIGHT FIXTURE		DIRECTIONAL ARROWS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-6" A.F.F.		WALL MOUNTED SCONCE		MECHANICAL VENT		WALL MOUNTED EXIT LIGHTS
	SUSPENDED GYP. BD SOFFIT/CEILING @ 7'-8" A.F.F.		UNDER CABINET LIGHT FIXTURE		CARBON/SMOKE DETECTOR		EM EMERGENCY PACK
	SUSPENDED GYP. BD SOFFIT/CEILING @ 8'-0" A.F.F.		WALL OR CLNG. MOUNTED LIGHT FIXTURE		CEILING ACCESS DOOR		X'-X" A.F.F. CEILING HEIGHT
	2X2 ACT CEILING TILES		LINEAR CEILING MOUNTED LIGHT FIXTURE				
	2X4 EXTERIOR PANELS						

NOTES:

1. ALL SWITCHES AND OUTLETS TO BE BY LEVITON DECORA SERIES, WHITE, U.O.N. EXCEPT IN MECHANICAL ROOMS AND RESTRICTED ACCESS AREAS, INCLUDING PARKING. SEE ELEC. DWGS. FOR WIRING AND FOR SMOKE TEST NOTES AT APARTMENTS.
2. REFER TO FIRE ALARM DWGS. FOR SMOKE TEST NOTE FOR FIRE ALARM SYSTEM.
3. ALL EXIT & EMERGENCY LIGHTING WILL BE PROVIDED WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY LIGHTING.
4. SEE FIRE PROTECTION DWGS. FOR SPRINKLER INFO.
5. SEE MECH DWGS. FOR EQUIPMENT INFO.
6. LIGHT FIXTURES TO BE CENTERED IN ROOM U.O.N.

INTERIOR LIGHTING FIXTURE SCHEDULE - ROOF FLOOR

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	A	CLNG. MTD. @ FOYER	TBD	2 x 13W CFL	120 V	26 W	0	0 W	
	B	CLNG. MTD. RECESSED	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
	C	CLNG. MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
	D	WALL MTD.	TBD	1 x F24 T5	120 V	24 W	0	0 W	
	E	CLNG. MTD.	TBD	1 x 32 FC12 T9	120 V	32 W	0	0 W	MOTION SENSOR BILEVEL
	F	WALL MTD. 4 FT.	TBD	2 x F32 T8	120 V	64 W	4	256 W	MOTION SENSOR BILEVEL
	G	WALL MTD. 2 FT.	TBD	2 x F32 T8	120 V	64 W	0	0 W	MOTION SENSOR / ON/OFF
	H	CLNG. MTD.	TBD	2 x F32 T8	120 V	64 W	0	0 W	
	J	DECORATIVE SURFACE MTD.	TBD	2 x 32W CFL	120 V	64 W	0	0 W	
	M	UNDER CABINET	TBD	1 x F14 T5	120 V	14 W	0	0 W	
	P	WALL MTD.	TBD	1 x 13W CFL	120 V	13 W	0	0 W	
	Q	CLNG. MTD. EXIT SIGN	TBD	LED	UNIV	4 W	0	0 W	
	R	WALL MTD. EXIT SIGN	TBD	LED	UNIV	4 W	0	0 W	
TOTAL WATTAGE :								256 W	

EXTERIOR LIGHTING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MODEL	LAMP TYPE & QTY	VOLTAGE	FIXTURE WATTAGE	FIXTURE QTY	TOTAL WATTAGE	NOTES
	X-1	WALL MTD.	TBD	1X LED MOD 18W	120 V	18 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF; SWITCHED AT PRIVATE TERRACES ONLY
	X-2	WALL MTD.	TBD	1X LED MOD 40W	120 V	40 W	3	120 W	VANDAL RESISTANT ; PHOTOCELL ON TIMER OFF
	X-3	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
	X-4	RECESSED CLNG. MTD.	TBD	1X LED MOD 40W	120 V	40 W	0	0 W	TIMER ON/OFF
	X-5	CLNG. MTD.	TBD	1X 50 W MH	120 V	50 W	0	0 W	VANDAL RESISTANT ; TIMER ON/OFF
TOTAL WATTAGE :								120 W	

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD, BROOKLYN, NY 11233 TEL: 718-544-3764 FAX: 718-412-1799

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street · New York, N.Y. · 10024
Tel: (212) 595-8895 · Fax: (212) 781-8992

ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY WORK WHICH DEVIATES FROM APPROVED PLANS. THE CONTRACTOR MUST OBTAIN NECESSARY APPROVAL FOR ANY CHANGES FROM THE ARCHITECT BEFORE COMMENCING SUCH WORK.

STRUCTURAL ENGINEER

GACE consulting engineers pc

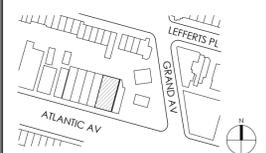
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFLECTED CEILING
PLAN - ROOF FLOOR

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

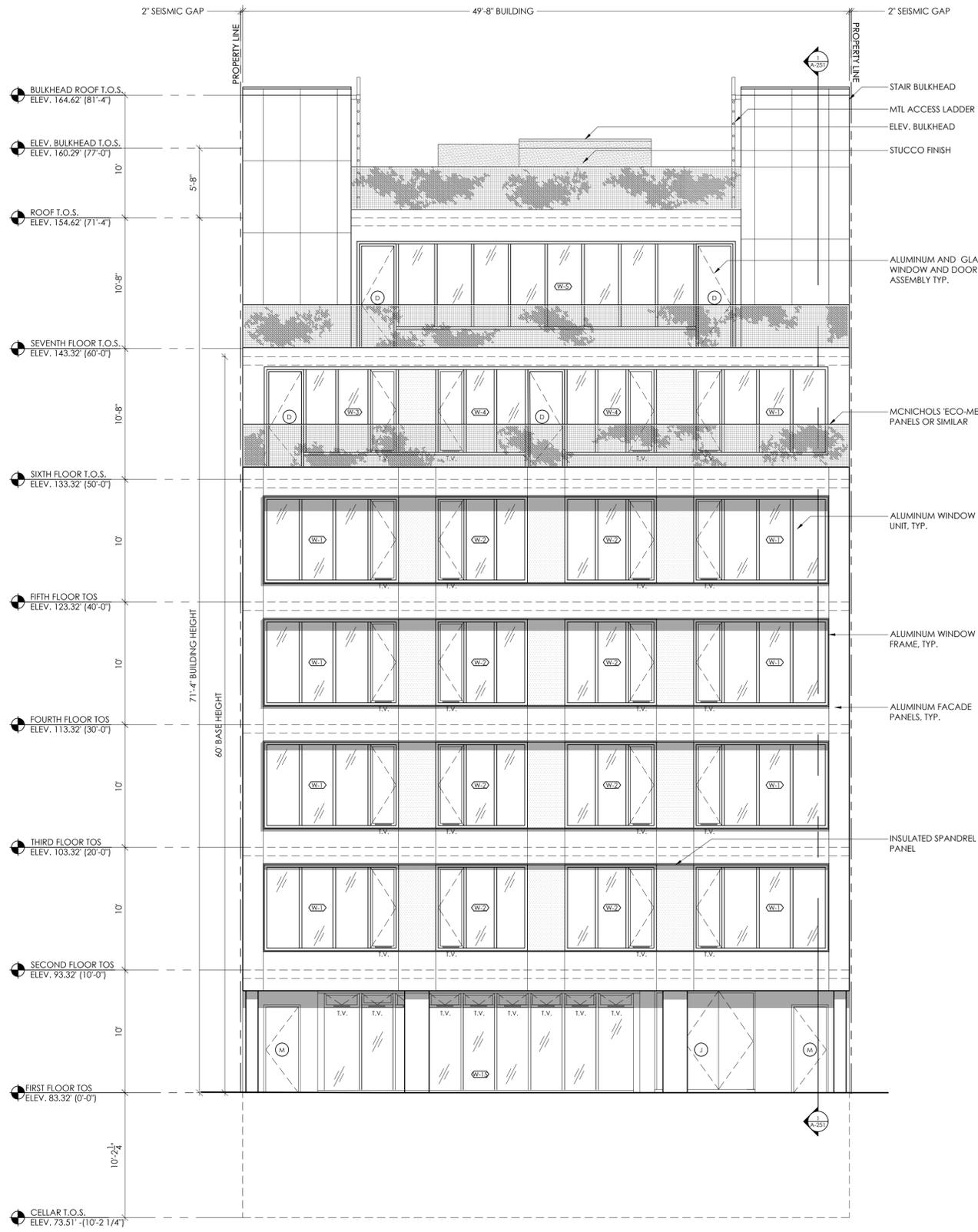
CHECKED BY: JD

DRAWING NO: 34 OF 43

SHEET: A-158.00

SEAL & SIGNATURE





1 BUILDING ELEVATION - SOUTH
3/16" = 1'-0"



2 BUILDING ELEVATION - NORTH
3/16" = 1'-0"

PROJECT:
925 ATLANTIC AVE
BROOKLYN, NY 11233

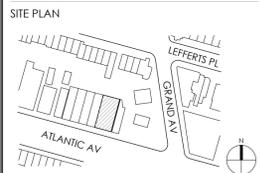
ROART
304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



ARCHITECT OF RECORD
feingold & gregory · architects
118 West 83rd Street · New York, N.Y. · 10024
Tel: (212) 595-8886 · Fax: (212) 787-8992

STRUCTURAL ENGINEER
GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER
NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



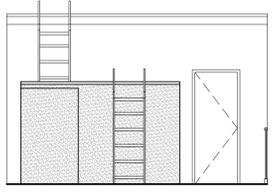
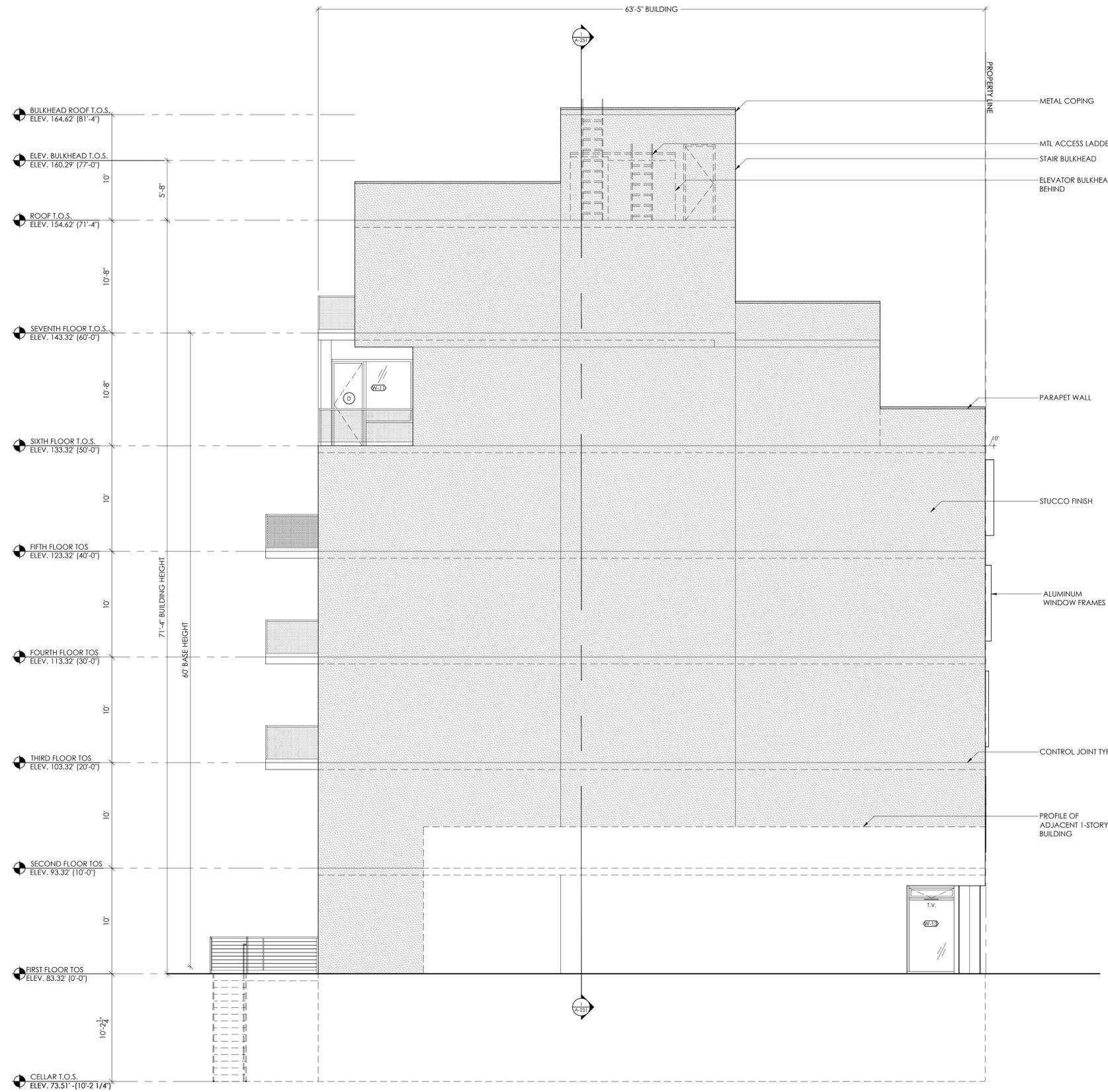
PROJECT No:	1501
1 DOB REVIEW	12/31/15
1 ISSUED FOR DOB FILING	08/06/15
REV.	DATE

DRAWING TITLE:
EXTERIOR ELEVATIONS

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: 35 OF 43
SHEET: **A-201.00**



PROPERTY LINE



PARTIAL BULKHEAD ELEVATION
3/16" = 1'-0"

1 BUILDING ELEVATION - WEST
3/16" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-412-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street · New York, NY · 10024
Tel: (212) 595-8886 · Fax: (212) 781-8992



ARCHITECT ASSUMES NO
RESPONSIBILITY FOR ANY
WORK WHICH DEVIATES
FROM APPROVED PLANS.
THE CONTRACTOR MUST
OBTAIN WRITTEN APPROVAL
FOR ANY CHANGES FROM
THE ARCHITECT BEFORE
COMMENCING SUCH WORK.

STRUCTURAL ENGINEER

GACE consulting engineers pc

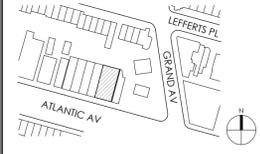
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1	DOB REVIEW	12/31/15
1	ISSUED FOR DOB FILING	08/06/15
	REV.	DATE

DRAWING TITLE:

EXTERIOR ELEVATION

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

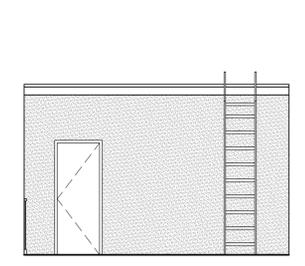
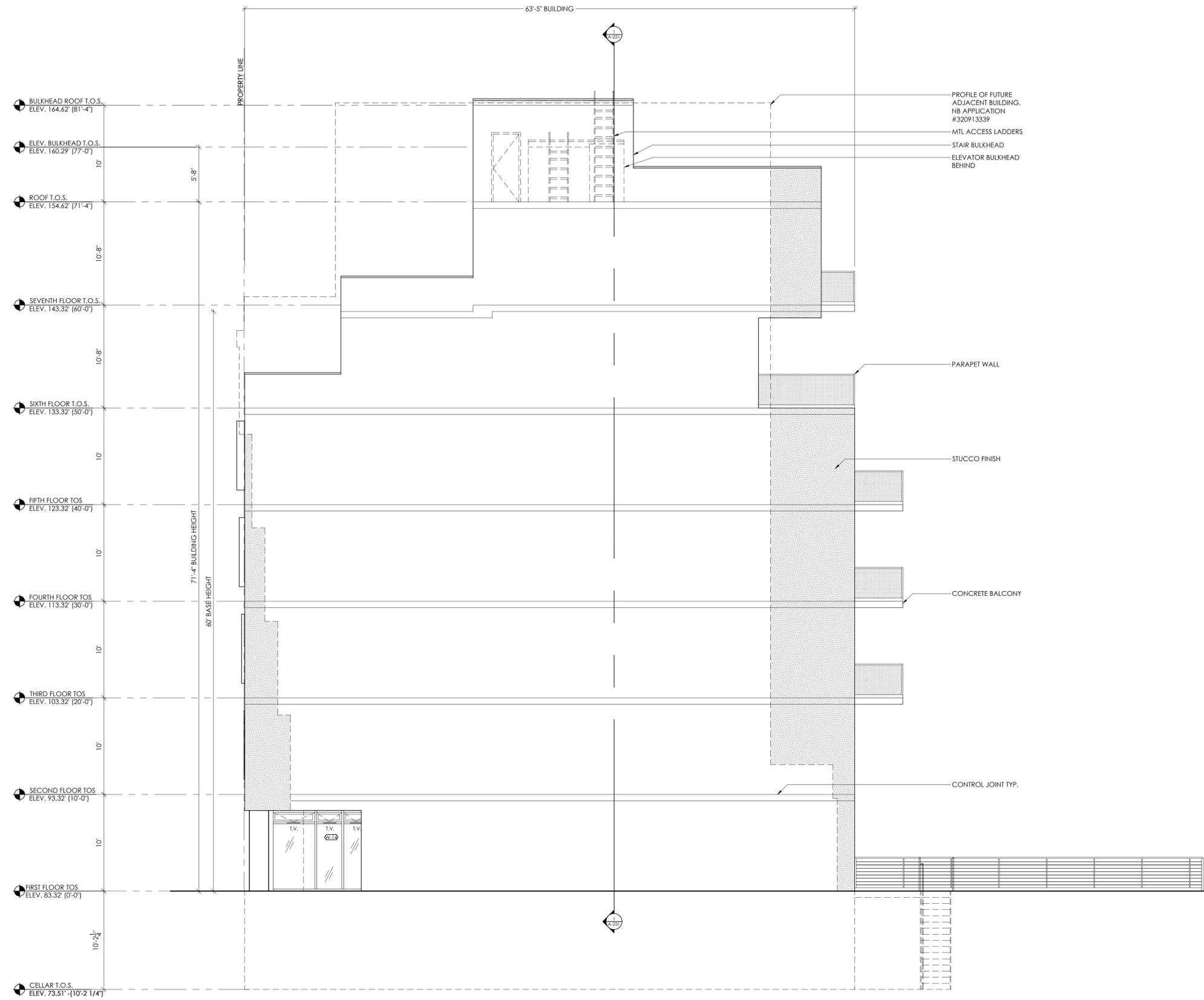
CHECKED BY: JD

DRAWING NO: 36 OF 43

SHEET: **A-202.00**

SEAL & SIGNATURE ARCHITECT





PROFILE OF FUTURE ADJACENT BUILDING, NB APPLICATION #320913339
 MTL ACCESS LADDERS
 STAIR BULKHEAD
 ELEVATOR BULKHEAD BEHIND

PARAPET WALL

STUCCO FINISH

CONCRETE BALCONY

CONTROL JOINT TYP.

1 BUILDING ELEVATION - EAST
 3/16" = 1'-0"

PROJECT:
925 ATLANTIC AVE
 BROOKLYN, NY 11233

ROART
 304 MALCOLM X BLVD
 BROOKLYN, NEW YORK 11233
 P: 718 428 5654
 ROART.COM



ARCHITECT OF RECORD

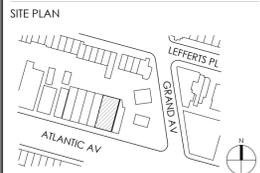
feingold & gregory · architects
 118 West 83rd Street · New York, NY · 10024
 Tel: (212) 595-8886 · Fax: (212) 781-8992

STRUCTURAL ENGINEER

GACE consulting engineers pc
 105 Madison Ave. New York, NY 10016
 T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
 661 PLAINVIEW ROAD
 BETHPAGE, NY 11714
 (516) 522.6770



PROJECT No: 1501

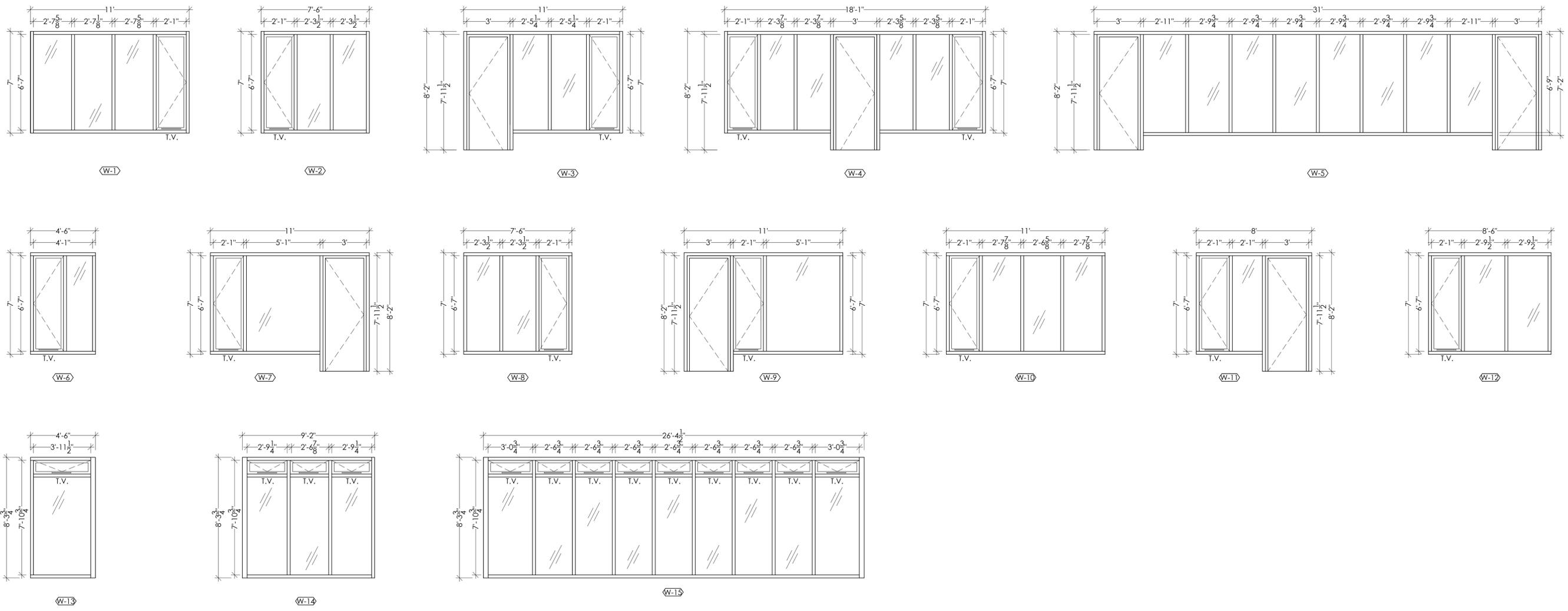
1	DOB REVIEW	12/31/15
1	ISSUED FOR DOB FILING	08/06/15
	REV.	DATE

DRAWING TITLE:

EXTERIOR ELEVATION

DATE: 12/31/2015
 SCALE: AS NOTED
 DRAWN BY: JD, MT
 CHECKED BY: JD
 DRAWING NO: 37 OF 43
 SHEET: **A-203.00**





WINDOW SCHEDULE - SOUTH ELEVATION

WINDOW NO.	QTY.	FRAME		GLAZING		DIMENSIONS		GLAZING		OITC RATING	MAX. U-FACTOR	MAX. SHGC	DESCRIPTION	ARCHITECTURAL TESTING DATA ID#	WINDOW MFG. AND MODEL #
		MATERIAL	FINISH	TYPE	TREATMENT	WIDTH	HEIGHT	TYPE	TREATMENT						
W-1	9	ALUMINUM	ANODIZED	1" IGU	LOW-E	11'-0"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-2	8	ALUMINUM	ANODIZED	1" IGU	LOW-E	7'-6"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-3	1	ALUMINUM	ANODIZED	1" IGU	LOW-E	11'-0"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-4	1	ALUMINUM	ANODIZED	1" IGU	LOW-E	18'-1"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-5	1	ALUMINUM	ANODIZED	1" IGU	LOW-E	31'-0"	7'-2"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	FIXED	D1170.01B	REYNAERS CS68
W-15	1	ALUMINUM	ANODIZED	1" IGU	LOW-E	26'-4 1/2"	8'-4 3/4"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68

NOTE: WINDOWS MARKED WITH A 'T.V.' WILL RECEIVE TITON SLOT VENTILATOR - TRIMVENT SM405 - AS AN ALTERNATE MEANS OF VENTILATION.

WINDOW SCHEDULE - NORTH ELEVATION

WINDOW NO.	QTY.	FRAME		GLAZING		DIMENSIONS		GLAZING		OITC RATING	MAX. U-FACTOR	MAX. SHGC	DESCRIPTION	ARCHITECTURAL TESTING DATA ID#	WINDOW MFG. AND MODEL #
		MATERIAL	FINISH	TYPE	TREATMENT	WIDTH	HEIGHT	TYPE	TREATMENT						
W-6	2	ALUMINUM	ANODIZED	1" IGU	LOW-E	4'-6"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-7	4	ALUMINUM	ANODIZED	1" IGU	LOW-E	11'-0"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-8	11	ALUMINUM	ANODIZED	1" IGU	LOW-E	7'-6"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-9	6	ALUMINUM	ANODIZED	1" IGU	LOW-E	11'-0"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-10	3	ALUMINUM	ANODIZED	1" IGU	LOW-E	11'-0"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-11	4	ALUMINUM	ANODIZED	1" IGU	LOW-E	8'-0"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68
W-12	2	ALUMINUM	ANODIZED	1" IGU	LOW-E	8'-6"	7'-0"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	CASEMENT + FIXED	D1170.01B	REYNAERS CS68

NOTE: WINDOWS MARKED WITH A 'T.V.' WILL RECEIVE TITON SLOT VENTILATOR - TRIMVENT SM405 - AS AN ALTERNATE MEANS OF VENTILATION.

WINDOW SCHEDULE - EAST ELEVATION

WINDOW NO.	QTY.	FRAME		GLAZING		DIMENSIONS		GLAZING		OITC RATING	MAX. U-FACTOR	MAX. SHGC	DESCRIPTION	ARCHITECTURAL TESTING DATA ID#	WINDOW MFG. AND MODEL #
		MATERIAL	FINISH	TYPE	TREATMENT	WIDTH	HEIGHT	TYPE	TREATMENT						
W-13	1	ALUMINUM	ANODIZED	1" IGU	LOW-E	4'-6"	8'-4 3/4"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	FIXED	D1170.01B	REYNAERS CS68

NOTE: WINDOWS MARKED WITH A 'T.V.' WILL RECEIVE TITON SLOT VENTILATOR - TRIMVENT SM405 - AS AN ALTERNATE MEANS OF VENTILATION.

WINDOW SCHEDULE - WEST ELEVATION

WINDOW NO.	QTY.	FRAME		GLAZING		DIMENSIONS		GLAZING		OITC RATING	MAX. U-FACTOR	MAX. SHGC	DESCRIPTION	ARCHITECTURAL TESTING DATA ID#	WINDOW MFG. AND MODEL #
		MATERIAL	FINISH	TYPE	TREATMENT	WIDTH	HEIGHT	TYPE	TREATMENT						
W-14	1	ALUMINUM	ANODIZED	1" IGU	LOW-E	9'-2"	8'-4 3/4"	1/2" IGU [3/8" - 1/2" A.S. - 1/2"]	LOW-E	31	0.49	0.33	FIXED	D1170.01B	REYNAERS CS68

NOTE: WINDOWS MARKED WITH A 'T.V.' WILL RECEIVE TITON SLOT VENTILATOR - TRIMVENT SM405 - AS AN ALTERNATE MEANS OF VENTILATION.

PROJECT:
925 ATLANTIC AVE
BROOKLYN, NY 11233

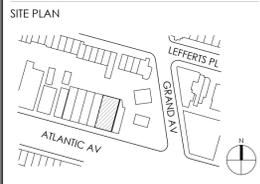
ROART
304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



ARCHITECT OF RECORD
feingold & gregory architects
118 West 83rd Street - New York, N.Y. - 10024
Tel: (212) 595-8895 - Fax: (212) 781-8992

STRUCTURAL ENGINEER
GACE consulting engineers pc
105 Madison Ave. New York, NY 10016
T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER
NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

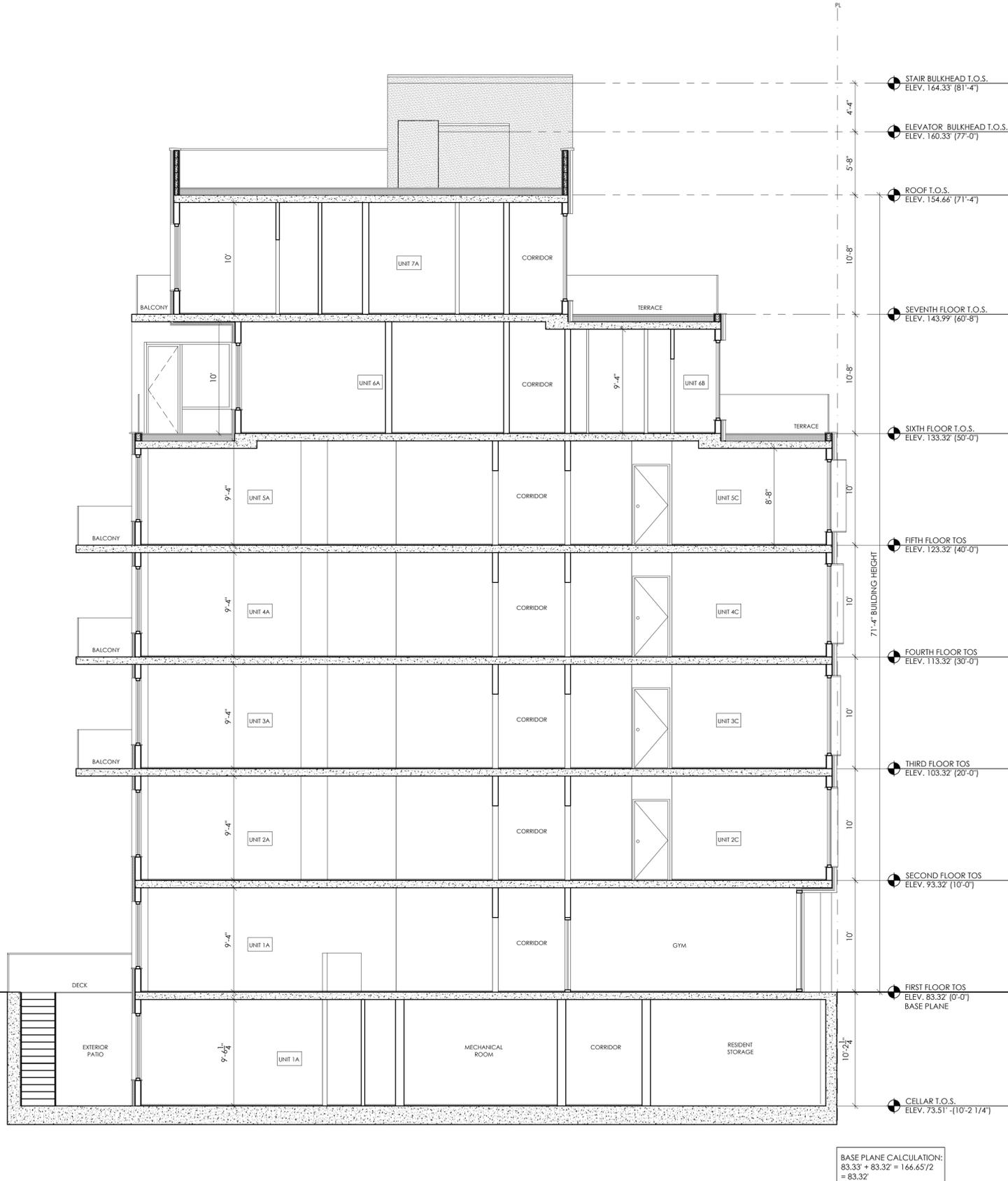
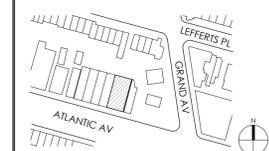
WINDOW SCHEDULES

DATE: 12/31/2015
SCALE: AS NOTED
DRAWN BY: JD, MT
CHECKED BY: JD
DRAWING NO: 38 OF 43
SHEET: **A-210.00**





ARCHITECT ASSUMES NO
RESPONSIBILITY FOR ANY
WORK WHICH DEVIATES
FROM APPROVED PLANS.
THE CONTRACTOR MUST
OBTAIN WRITTEN APPROVAL
FOR ANY CHANGES FROM
THE ARCHITECT BEFORE
COMMENCING SUCH WORK.



BASE PLANE CALCULATION:
83.33' + 83.32' = 166.65/2
= 83.32'

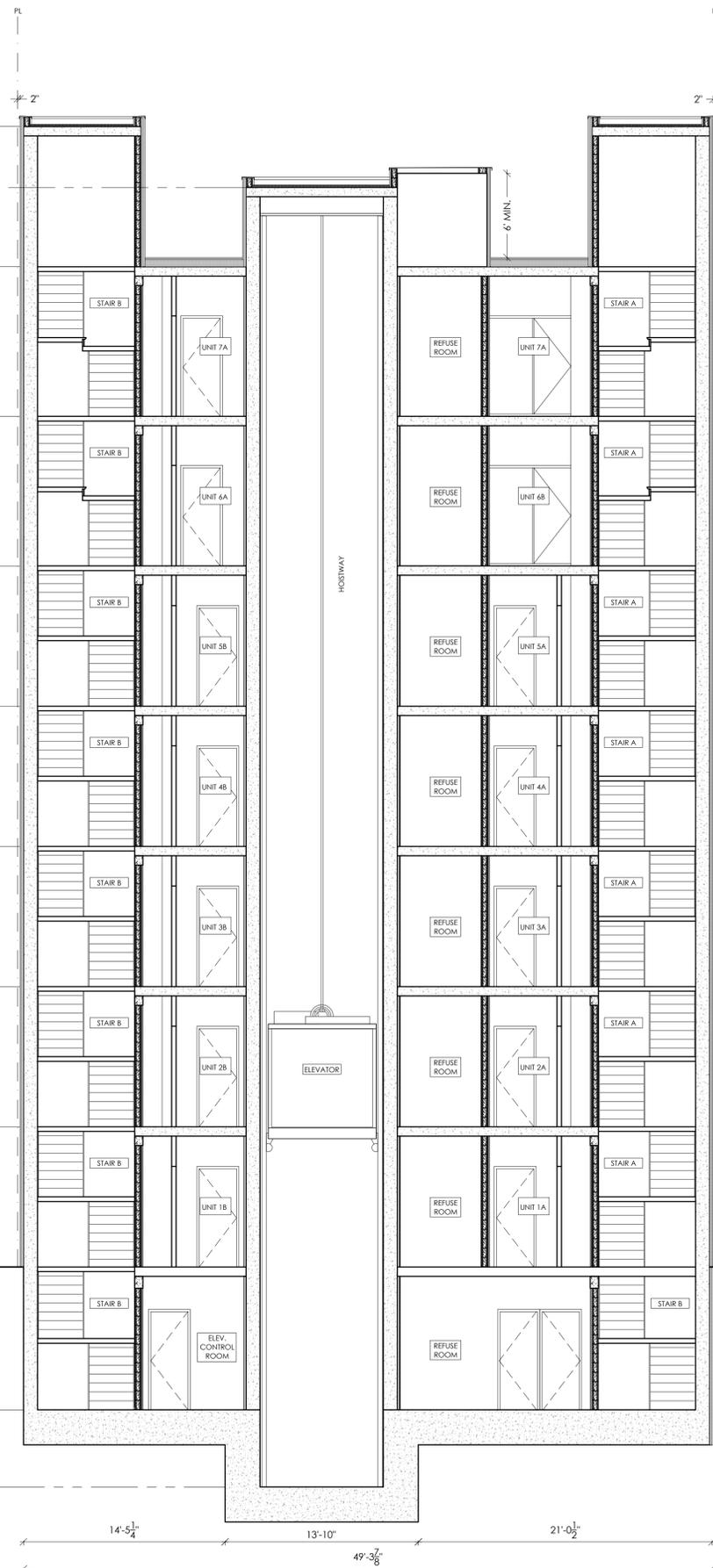
BASE PLANE CALCULATION:
83.33' + 83.32' = 166.65/2
= 83.32'

BASE PLANE CALCULATION:
83.33' + 83.32' = 166.65/2
= 83.32'

2 BUILDING SECTION
3/16" = 1'-0"

2 BUILDING SECTION
3/16" = 1'-0"

2 BUILDING SECTION
3/16" = 1'-0"



BASE PLANE CALCULATION:
83.33' + 83.32' = 166.65/2
= 83.32'

BASE PLANE CALCULATION:
83.33' + 83.32' = 166.65/2
= 83.32'

2 BUILDING SECTION
3/16" = 1'-0"

2 BUILDING SECTION
3/16" = 1'-0"

2 BUILDING SECTION
3/16" = 1'-0"

1 BUILDING SECTION
3/16" = 1'-0"

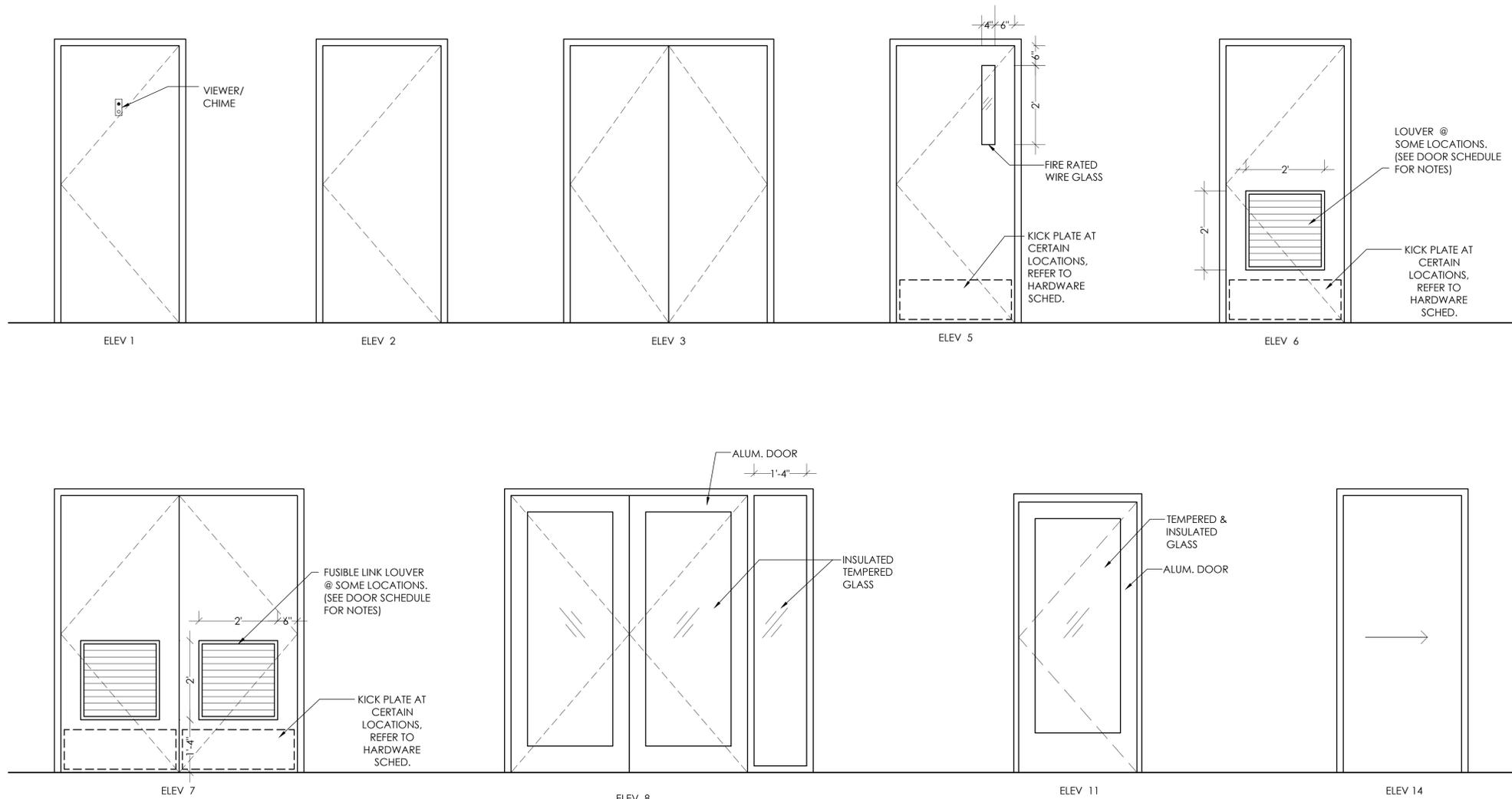
1 BUILDING SECTION
3/16" = 1'-0"

1 BUILDING SECTION
3/16" = 1'-0"

DOOR SCHEDULE

TYPE	FROM ROOM - TO ROOM	DOOR					FRAME MATERIAL	RATING	HARDWARE	THRESHOLD	DETAILS		NOTES
		ELEV	MATERIAL	WIDTH	HEIGHT	THK					HEAD/JAMB	SILL	
A	APT ENTRY	1	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, LEVER HANDLE, HEAVY DUTY LOCKSET, CARD READER
B	APT INTERIOR	2	WD	3'-0"	7'-0"	1-3/4"	KD						
C	APT BATH	2	WD	3'-0"	7'-0"	1-3/4"	KD						
C2	APT BATH-POCKET DOOR	14	WD	3'-0"	7'-0"	1-3/4"	KD						
D	APT TERRACE	11	ALUM/GL	3'-0"	7'-0"	1-3/4"	ALUM						
E	APT CLOSET-BIFOLD	3	WD	VA	7'-0"	1-3/4"	W						
F	LOBBY/CORRIDOR TO STAIR	5	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC
F2	STAIR BULKHEAD TO ROOF	5	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC
F3	CELLAR CORRIDOR TO STAIR "B"	5	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, INSULATED
F4	TYPICAL STAIR	5	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
G	REFUSE ROOM	6	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
H	RESIDENT STORAGE	6	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
H2	COMPACTOR ROOM	6	HM	4'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
H3	ELECTRICAL ROOM	6	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
H4	WATER ROOM	6	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
H5	BIKE ROOM	6	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE, CARD READER
H6	ELEVATOR CONTROL CLOSET-DBL	7	HM	(2) 1'-6"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
H7	MECHANICAL ROOM	6	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, KICK PLATE
J	RES. ENTRY FROM STREET	8	ALUM/GL	(2) 3'-0"	7'-0"	1-3/4"	W	1.5 HR					CARD READER
M	EGRESS STAIR TO STREET	5	HM	3'-0"	7'-0"	1-3/4"	W	1.5 HR					FPSC, CARD READER, INSULATED

DOOR TYPES



PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-412-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 west 83rd street · new york, n.y. · 10024

tel: (212) 595-8886 · fax: (212) 781-8992

ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY WORK WHICH DEVIATES FROM APPROVED PLANS. THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FOR ANY CHANGES FROM THE ARCHITECT BEFORE COMMENCING SUCH WORK.



STRUCTURAL ENGINEER

GACE consulting engineers pc

105 Madison Ave. New York, NY 10016

T: 212-545-7878 www.gace.net

MECHANICAL ENGINEER

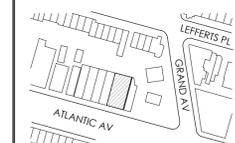
NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD

BETHPAGE, NY 11714

(516) 522.6770

SITE PLAN



PROJECT No: 1501

DOOR TYPES AND SCHEDULES 12/31/15
REV. DATE 08/06/15

DRAWING TITLE:

DATE: 12/31/2015

SCALE: AS NOTED

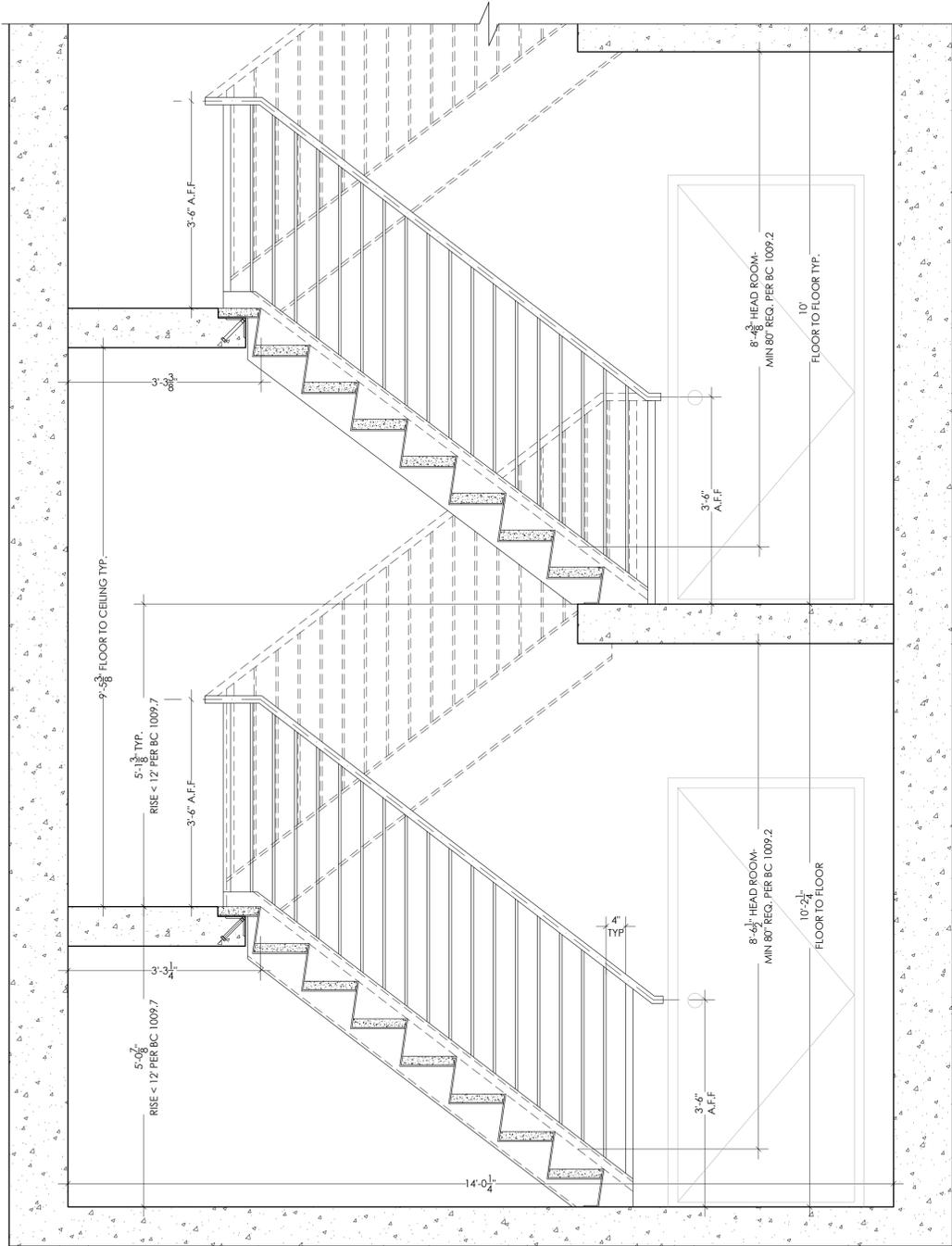
DRAWN BY: JD, MT

CHECKED BY: JD

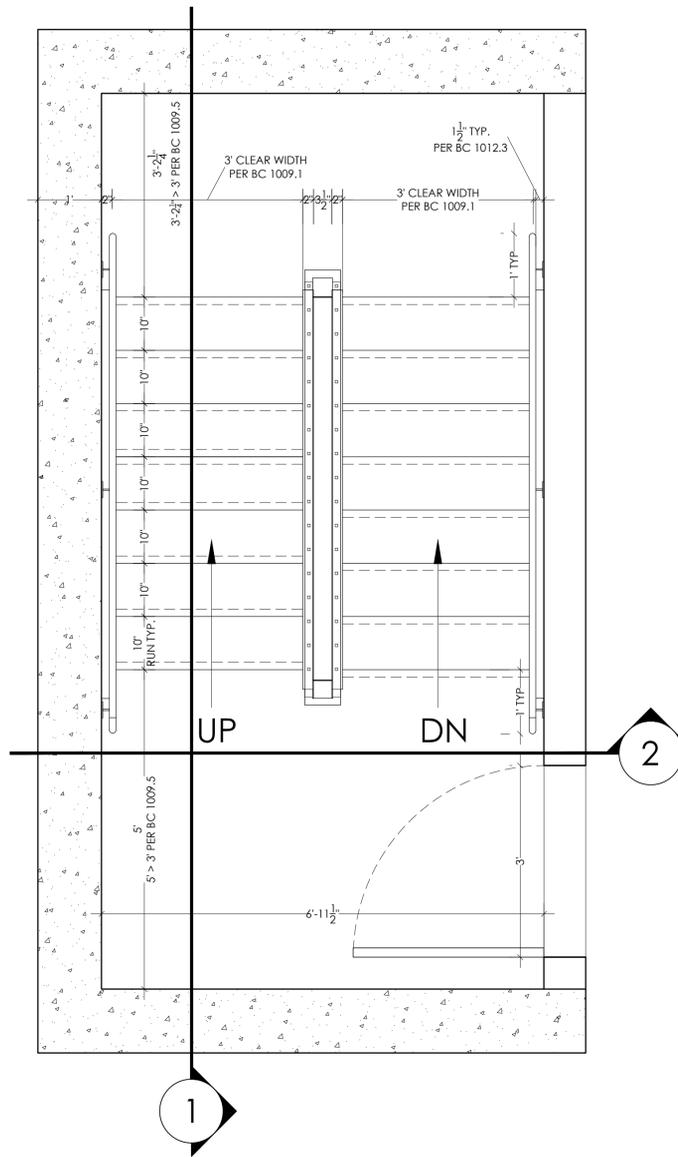
DRAWING NO: 41 OF 43

SHEET: A-601.00

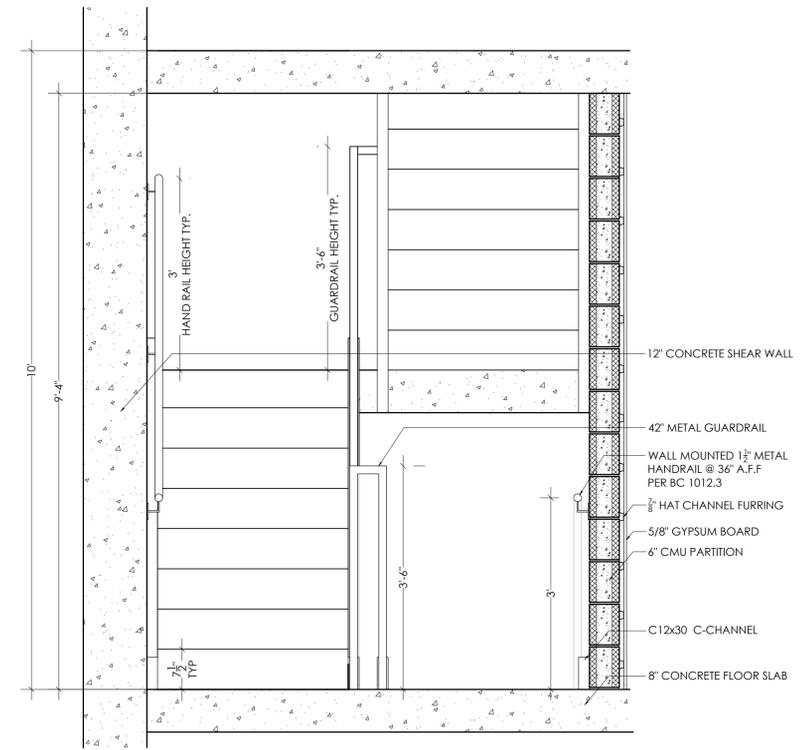




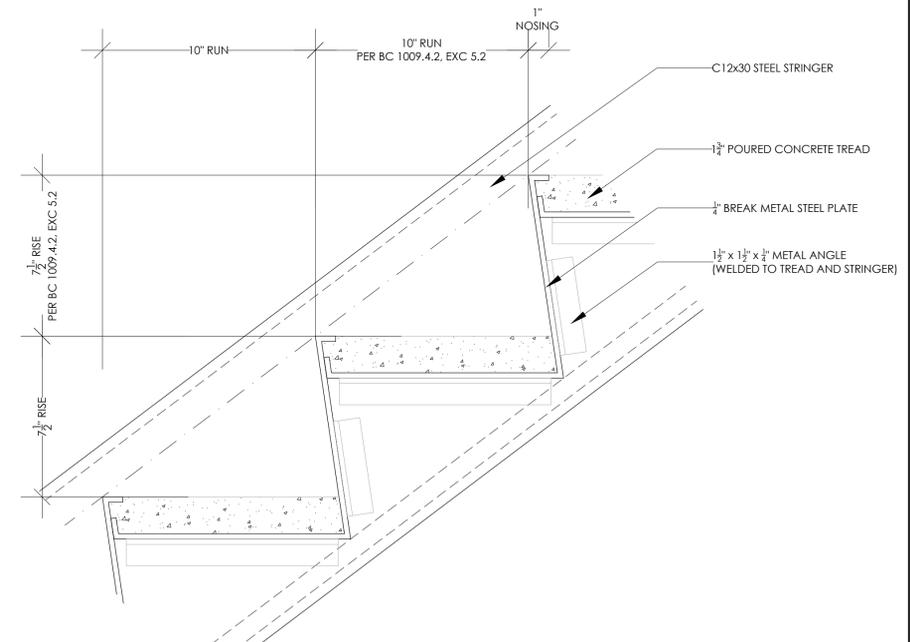
1 STAIR SECTION 1
SCALE: 3/4" = 1"



3 STAIR PLAN
SCALE: 3/4" = 1"



2 STAIR SECTION 2
SCALE: 3/4" = 1"



4 STEEL PAN TREAD DETAIL SECTION
SCALE: 3/4" = 1"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-412-1779

ARCHITECT OF RECORD

feingold & gregory · architects

118 West 83rd Street - New York, NY - 10024
Tel: (212) 595-8886 - Fax: (212) 781-8922



STRUCTURAL ENGINEER

GACE consulting engineers pc

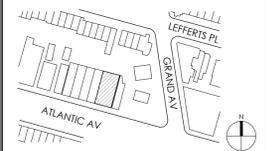
105 Madison Ave. New York, NY 10016
T: 212-545-7878
www.gace.net

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP

661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770

SITE PLAN



PROJECT No: 1501

1	DOB REVIEW	12/31/15
1	ISSUED FOR DOB FILING	08/06/15
	REV.	DATE

DRAWING TITLE:

**METAL PAN
STAIR DETAILS**

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JDM MT

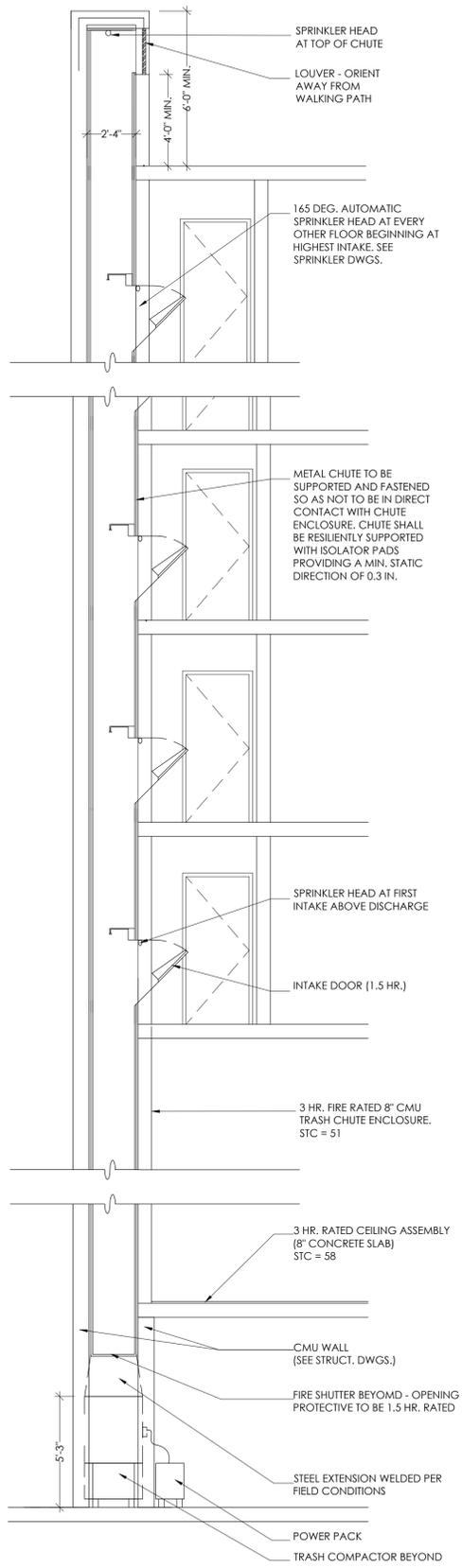
CHECKED BY: JD

DRAWING NO: 42 OF 43

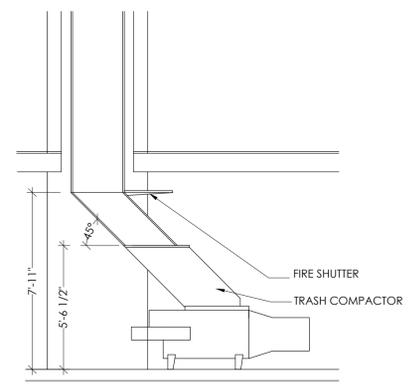
SHEET: **A-602.00**

SEAL & SIGNATURE

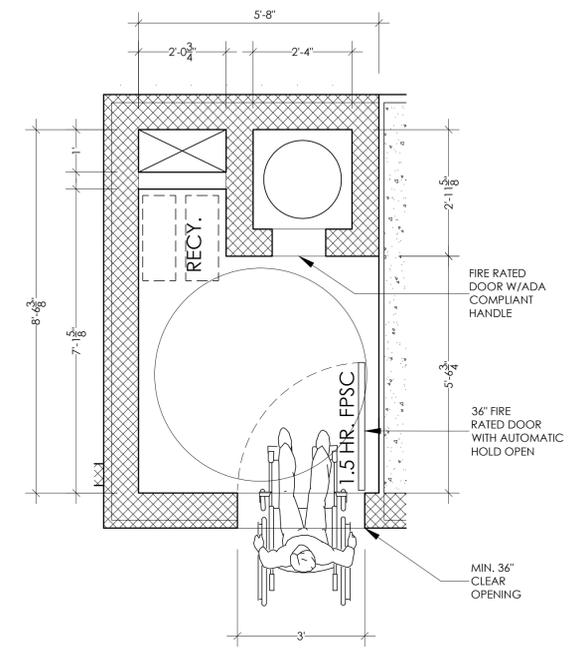




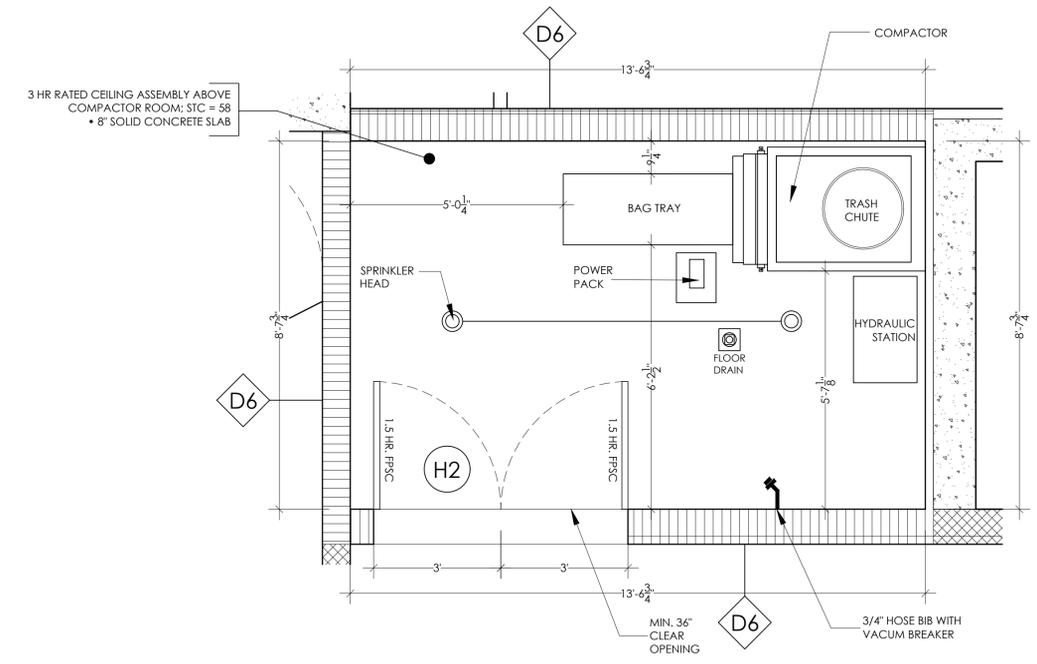
1 TRASH CHUTE SECTION
1/4" = 1'-0"



2 COMPACTOR ROOM SECTION
1/4" = 1'-0"



3 TYPICAL REFUSE ROOM PLAN
1/2" = 1'-0"



4 TRASH COMPACTOR ROOM PLAN
1/2" = 1'-0"

PROJECT:

925 ATLANTIC AVE
BROOKLYN, NY 11233

ROART

304 MALCOLM X BLVD
BROOKLYN, NEW YORK 11233
P: 718 428 5654
ROART.COM



304 MALCOLM X BLVD
BROOKLYN, NY 11233
TEL: 718-544-3764
FAX: 718-415-1779

ARCHITECT OF RECORD

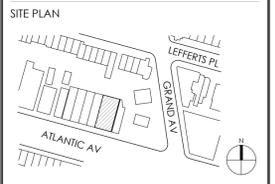
feingold & gregory · architects
118 WEST 83RD STREET · NEW YORK, N.Y. · 10024
TEL: (212) 595-8886 · FAX: (212) 787-8892

STRUCTURAL ENGINEER

GACE consulting engineers pc
105 MADISON AVE. NEW YORK, NY 10016
TEL: 212-545-7878
WWW.GACE.NET

MECHANICAL ENGINEER

NEVILLE ENGINEERING GROUP
661 PLAINVIEW ROAD
BETHPAGE, NY 11714
(516) 522.6770



PROJECT No: 1501

1 DOB REVIEW 12/31/15
1 ISSUED FOR DOB FILING 08/06/15
REV. DATE

DRAWING TITLE:

REFUSE RM AND
COMPACTOR RM
DETAILS

DATE: 12/31/2015

SCALE: AS NOTED

DRAWN BY: JD, MT

CHECKED BY: JD

DRAWING NO: 43 OF 43

SHEET: **A-610.00**



APPENDIX 2

CITIZEN PARTICIPATION PLAN

The NYC Office of Environmental Remediation and Elevation Holdings LLC have established this Citizen Participation Plan because the opportunity for citizen participation is an important component of the NYC Voluntary Cleanup Program. This Citizen Participation Plan describes how information about the project will be disseminated to the Community during the remedial process. As part of its obligations under the NYC VCP, Elevation Holdings LLC will maintain a repository for project documents and provide public notice at specified times throughout the remedial program. This Plan also takes into account potential environmental justice concerns in the community that surrounds the project Site. Under this Citizen Participation Plan, project documents and work plans are made available to the public in a timely manner. Public comment on work plans is strongly encouraged during public comment periods. Work plans are not approved by the NYC Office of Environmental Remediation (OER) until public comment periods have expired and all comments are formally reviewed. An explanation of cleanup plans in the form of a public meeting or informational session is available upon request to OER's project manager assigned to this Site, Zachariah Schreiber, who can be contacted about these issues or any others questions, comments or concerns that arise during the remedial process at (212) 788-8841.

Project Contact List: OER has established a Site Contact List for this project to provide public notices in the form of fact sheets to interested members of the Community.

Communications will include updates on important information relating to the progress of the cleanup program at the Site as well as to request public comments on the cleanup plan. The Project Contact List includes owners and occupants of adjacent buildings and homes, principal administrators of nearby schools, hospitals and day care centers, the public water supplier that serves the area, established document repositories, the representative Community Board, City Council members, other elected representatives and any local Brownfield Opportunity Area (BOA) grantee organizations. Any member of the public or organization will be added to the Site Contact List on request. A copy of the Site Contact List is maintained by OER's project

manager. If you would like to be added to the Project Contact List, contact NYC OER at (212) 788-8841 or by email at brownfields@cityhall.nyc.gov.

Repositories: A document repository is maintained online. Internet access to view OER's document repositories is available at public libraries. This document repository is intended to house, for community review, all principal documents generated during the cleanup program including Remedial Investigation plans and reports, Remedial Action work plans and reports, and all public notices and fact sheets produced during the lifetime of the remedial project. The library nearest the Site is:

Name of Public Library Nearest the Site: Clinton Hill Brooklyn Public Library

Repository Address: 380 Washington Avenue, Brooklyn NY 11238

Repository Telephone Number: 718 398 - 8713

Repository Hours of Operation: Mon - Tue: 10:00 AM - 6:00 PM; Wed: 1:00 PM - 8:00 PM;
Thu - Fri: 10:00 AM - 6:00 PM; Sat: 10:00 AM - 5:00 PM

Digital Documentation: NYC OER requires the use of digital documents in our repository as a means of minimizing paper use while also increasing convenience in access and ease of use.

Issues of Public Concern: There are no site-specific issues of public concern currently.

Public Notice and Public Comment: Public notice to all members of the Project Contact List is required at three major steps during the performance of the cleanup program (listed below) and at other points that may be required by OER. Notices will include Fact Sheets with descriptive project summaries, updates on recent and upcoming project activities, repository information, and important phone and email contact information. All notices will be reviewed and approved by OER prior to distribution and mailed by the Enrollee. Public comment is solicited in public notices for all work plans developed under the NYC Voluntary Cleanup Program. Final review of all work plans by OER will consider all public comments. Approval will not be granted until the public comment period has been completed.

Citizen Participation Milestones: Public notice and public comment activities occur at several steps during a typical NYC VCP project. These steps include:

- **Public Notice of the availability of the Remedial Investigation Report and Remedial Action Work Plan and a 30-day public comment period on the Remedial Action Work Plan:** Public notice in the form of a Fact Sheet is sent to all parties listed on the Site Contact List announcing the availability of the Remedial Investigation Report and Remedial Action Work Plan and the initiation of a 30-day public comment period on the Remedial Action Work Plan. The Fact Sheet summarizes the findings of the RIR and provides details of the RAWP. The public comment period will be extended an additional 15 days upon public request. A public meeting or informational session will be conducted by OER upon request.
- **Public Notice announcing the approval of the RAWP and the start of remediation:** Public notice in the form of a Fact Sheet is sent to all parties listed on the Site Contact List announcing the approval of the RAWP and the start of remediation.
- **Public Notice announcing the completion of remediation, designation of Institutional and Engineering Controls and issuance of the Notice of Completion:** Public notice in the form of a Fact Sheet is sent to all parties listed on the Site Contact List announcing the completion of remediation, providing a list of all Institutional and Engineering Controls implemented for to the Site and announcing the issuance of the Notice of Completion.

APPENDIX 3

SUSTAINABILITY STATEMENT

This Sustainability Statement documents sustainable activities and green remediation efforts planned under this remedial action.

Reuse of Clean, Recyclable Materials and Reduced Consumption of Non-

Renewable Resources: Reuse of clean, locally-derived recyclable materials reduces consumption of non-renewable virgin resources and can provide energy savings and greenhouse gas reduction.

This project intends to use recycled concrete aggregate wherever possible in grading and backfilling the Site. An estimate of the quantity (in tons) of clean, non-virgin materials (reported by type of material) reused under this plan will be quantified and reported in the RAR.

Reduced Energy Consumption and Promotion of Greater Energy Efficiency:

Reduced energy consumption lowers greenhouse gas emissions, improves local air quality, lessens in-city power generation requirements, can lower traffic congestion, and provides substantial cost savings.

Recycled concrete materials and other backfill materials will be locally sourced reducing the energy consumption associated with transporting these materials to the Site. Best efforts will be made to quantify energy efficiencies achieved during the remediation and will be reported in the Remedial Action Report (RAR). Where energy savings cannot be easily quantified, a gross indicator of the amount of energy saved or the means by which energy savings was achieved will be reported.

Conversion to Clean Fuels: Use of clean fuel improves NYC’s air quality by reducing harmful emissions. Natural gas will be utilized for fuel in the new building. An estimate of the volume of clean fuels used during remedial activities will be quantified and reported in the RAR.

Recontamination Control: Recontamination after cleanup and redevelopment is completed undermines the value of work performed, may result in a property that is less protective of public health or the environment, and may necessitate additional cleanup work later or impede future redevelopment. Recontamination can arise from future releases that occur within the property or by influx of contamination from off-Site.

Recontamination controls such as vapor barriers and sub-slab depressurization systems and controls employed on-Site to prevent the occurrence of new contamination (i.e., site covers) have been included in this report. An estimate of the area of the Site that utilizes recontamination controls under this plan will be reported in the RAR in square feet.

Stormwater Retention: Stormwater retention improves water quality by lowering the rate of combined stormwater and sewer discharges to NYC’s sewage treatment plants during periods of precipitation, and reduces the volume of untreated influent to local surface waters. An estimate of the enhanced stormwater retention capability of the redevelopment project will be included in the RAR.

Linkage with Green Building: Green buildings provide a multitude of benefits to the city across a broad range of areas, such as reduction of energy consumption, conservation of resources, and reduction in toxic materials use.

Paperless Voluntary Cleanup Program: Elevation Holdings LLC is participating in OER’s Paperless Voluntary Cleanup Program. Under this program, submission of electronic documents will replace submission of hard copies for the review of project documents, communications and milestone reports.

Low-Energy Project Management Program: Elevation Holdings LLC is participating in OER’s low-energy project management program. Under this program, whenever possible, meetings are held using remote communication technologies, such as videoconferencing and teleconferencing to reduce energy consumption and traffic congestion associated with personal transportation.

Trees and Plantings: Trees and other plantings provide habitat and add to NYC’s environmental quality in a wide variety of ways. Native plant species and native habitat provide optimal support to local fauna, promote local biodiversity, and require less maintenance. An estimate of the land area that will be vegetated, including the number of trees planted or preserved, will be reported in square feet in the RAR.

APPENDIX 4

SOIL/MATERIALS MANAGEMENT PLAN

1.1 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed under the supervision of a Qualified Environmental Professional and will be reported in the final remedial report. Soil screening will be performed during invasive work performed during the remedy and development phases prior to issuance of final signoff by OER.

1.2 Stockpile Methods

Excavated soil from suspected areas of contamination (e.g., hot spots, USTs, drains, etc.) will be stockpiled separately and will be segregated from clean soil and construction materials.

Stockpiles will be used only when necessary and will be removed as soon as practicable. While stockpiles are in place, they will be inspected daily, and before and after every storm event.

Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by OER. Excavated soils will be stockpiled on, at minimum, double layers of 8-mil minimum sheeting, will be kept covered at all times with appropriately anchored plastic tarps, and will be routinely inspected. Broken or ripped tarps will be promptly replaced.

All stockpile activities will be compliant with applicable laws and regulations. Soil stockpile areas will be appropriately graded to control run-off in accordance with applicable laws and regulations. Stockpiles of excavated soils and other materials shall be located at least of 50 feet from the property boundaries, where possible. Hay bales or equivalent will surround soil stockpiles except for areas where access by equipment is required. Silt fencing and hay bales will be used as needed near catch basins, surface waters and other discharge points.

1.3 Characterization of Excavated Materials

Soil/fill or other excavated media that is transported off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Soils proposed for reuse on-Site will be managed as defined in this plan.

1.4 Materials Excavation, Load-Out, and Departure

The PE/QEP overseeing the remedial action will:

- oversee remedial work and the excavation and load-out of excavated material;
- ensure that there is a party responsible for the safe execution of invasive and other work performed under this work plan;
- ensure that Site development activities and development-related grading cuts will not interfere with, or otherwise impair or compromise the remedial activities proposed in this RAWP;
- ensure that the presence of utilities and easements on the Site has been investigated and that any identified risks from work proposed under this plan are properly addressed by appropriate parties;
- ensure that all loaded outbound trucks are inspected and cleaned if necessary before leaving the Site;
- ensure that all egress points for truck and equipment transport from the Site will be kept clean of Site-derived materials during Site remediation.

Locations where vehicles exit the Site shall be inspected daily for evidence of soil tracking off premises. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

Open and uncontrolled mechanical processing of historical fill and contaminated soil on-Site will not be performed without prior OER approval.

1.5 Off-Site Materials Transport

Loaded vehicles leaving the Site will comply with all applicable materials transportation requirements (including appropriate covering, manifests, and placards) in accordance with applicable laws and regulations, including use of licensed haulers in accordance with 6 NYCRR Part 364. If loads contain wet material capable of causing leakage from trucks, truck liners will be used. Queuing of trucks will be performed on-Site, when possible in order to minimize off Site disturbance. Off-Site queuing will be minimized.

Outbound truck transport routes are described in the remedial report. This routing takes into account the following factors: (a) limiting transport through residential areas and past sensitive sites; (b) use of mapped truck routes; (c) minimizing off-Site 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. To the extent possible, all trucks loaded with Site materials will travel from the Site using these truck routes. Trucks will not stop or idle in the neighborhood after leaving the project Site.

1.6 Materials Disposal Off-Site

The following documentation will be established and reported by the PE/QEP for each disposal destination used in this project to document that the disposal of regulated material exported from the Site conforms with applicable laws and regulations: (1) a letter from the PE/QEP or Enrollee to each disposal facility describing the material to be disposed and requesting written acceptance of the material. This letter will state that material to be disposed is regulated material generated at an environmental remediation Site in New York City under a governmental remediation program. The letter will provide the project identity and the name and phone number of the PE/QEP or Enrollee. The letter will include as an attachment a summary of all chemical data for the material being transported; and (2) a letter from each disposal facility stating it is in receipt of the correspondence (1, above) and is approved to accept the material. These documents will be included in the final remedial report.

The Remedial Action Report will include an itemized account of the destination of all material removed from the Site during this remedial action. Documentation associated with disposal of all material will include records and approvals for receipt of the material. This information will be presented in the final remedial report.

All impacted soil/fill or other waste excavated and removed from the Site will be managed as regulated material and will be disposed in accordance with applicable laws and regulations. Historic fill and contaminated soils taken off-Site will be handled as solid waste and will not be disposed at a Part 360-16 Registration Facility (also known as a Soil Recycling Facility).

Waste characterization will be performed for off-Site disposal in a manner required by the receiving facility and in conformance with its applicable permits. Waste characterization

sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the final remedial report. A manifest system for off-Site transportation of exported materials will be employed. Manifest information will be reported in the final remedial report. Hazardous wastes derived from on-Site will be stored, transported, and disposed of in compliance with applicable laws and regulations.

If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e., clean soil removed for development purposes), including transport to a Part 360-16 Registration Facility, a formal request will be made for approval by OER with an associated plan compliant with 6NYCRR Part 360-16. This request and plan will include the location, volume and a description of the material to be recycled, including verification that the material is not impacted by site uses and that the material complies with receipt requirements for recycling under 6NYCRR Part 360. This material will be appropriately handled on-Site to prevent mixing with impacted material.

1.7 Materials Reuse On-Site

Soil and fill that is derived from the property that meets the Soil Cleanup Objectives (SCOs) established in this plan may be reused on-Site. The SCOs for on-Site reuse are listed in Section 4.2 of this cleanup plan. ‘Reuse on-Site’ means material that is excavated during the remedy or development, does not leave the property, and is relocated within the same property and on land with comparable levels of contaminants in soil/fill material, compliant with applicable laws and regulations, and addressed pursuant to the NYC VCP agreement subject to Engineering and Institutional Controls. The PE/QEP will ensure that reused materials are segregated from other materials to be exported from the Site and that procedures defined for material reuse in this remedial plan are followed. The expected location for placement of reused material is shown in Section 4.2.

Organic matter (wood, roots, stumps, etc.) or other waste derived from clearing and grubbing of the Site will not be buried on-Site. Soil or fill excavated from the site for grading or other purposes will not be reused within a cover soil layer or within landscaping berms.

1.8 Demarcation

After completion of hotspot removal and any other invasive remedial activities, and prior to backfilling, the top of the residual soil/fill will be defined by one of three methods: (1) placement

of a demarcation layer. The demarcation layer will consist of geosynthetic fencing or equivalent material to be placed on the surface of residual soil/fill to provide an observable reference layer. A description or map of the approximate depth of the demarcation layer will be provided in the SMP; or (2) a land survey of the top elevation of residual soil/fill before the placement of cover soils, pavement and associated sub-soils, or other materials or structures or, (3) all materials beneath the approved cover will be considered impacted and subject to site management after the remedy is complete. Demarcation may be established by one or any combination of these three methods. As appropriate, a map showing the method of demarcation for the Site and all associated documentation will be presented in the RAR.

This demarcation will constitute the top of the site management horizon. Materials within this horizon require adherence to special conditions during future invasive activities as defined in the Site Management Plan.

1.9 Import of Backfill Soil From Off-Site Sources

This Section presents the requirements for imported fill materials to be used below the cover layer and within the clean soil cover layer. All imported soils will meet OER-approved backfill and cover soil quality objectives for this Site. Imported soils will not exceed groundwater protection standards established in Part 375. Imported soils for Track 1 remedial action projects will not exceed Track 1 SCO's.

A process will be established to evaluate sources of backfill and cover soil to be imported to the Site, and will include an examination of source location, current and historical use(s), and any applicable documentation. Material from industrial sites, spill sites, environmental remediation sites or other potentially contaminated sites will not be imported to the Site.

The following potential sources may be used pending attainment of backfill and cover soil quality objectives:

- Clean soil from construction projects at non-industrial sites in compliance with applicable laws and regulations;
- Clean soil from roadway or other transportation-related projects in compliance with applicable laws and regulations;

- Clean recycled concrete aggregate (RCA) from facilities permitted or registered by the regulations of NYS DEC.
- All materials received for import to the Site will be approved by a PE/QEP and will be in compliance with provisions in this remedial plan. The final remedial report will report the source of the fill, evidence that an inspection was performed on the source, chemical sampling results, frequency of testing, and a Site map indicating the locations where backfill or soil cover was placed.
- All material will be subject to source screening and chemical testing.
- Inspection of imported fill material will include visual, olfactory and PID screening for evidence of contamination. Materials imported to the Site will be subject to inspection, as follows:
 - Trucks with imported fill material will be in compliance with applicable laws and regulations and will enter the Site at designated locations;
 - The PE/QEP is responsible to ensure that every truck load of imported material is inspected for evidence of contamination; and
 - Fill material will be free of solid waste including pavement materials, debris, stumps, roots, and other organic matter, as well as ashes, oil, perishables or foreign matter.

Composite samples of imported material will be taken at a minimum frequency of one sample for every 500 cubic yards of material. Once it is determined that the fill material meets imported backfill or cover soil chemical requirements and is non-hazardous, and lacks petroleum contamination, the material will be loaded onto trucks for delivery to the Site.

Recycled concrete aggregate (RCA) will be imported from facilities permitted or registered by NYSDEC. Facilities will be identified in the final remedial report. A PE/QEP is responsible to ensure that the facility is compliant with 6NYCRR Part 360 registration and permitting requirements for the period of acquisition of RCA. RCA imported from compliant facilities will not require additional testing, unless required by NYSDEC under its terms for operation of the facility. RCA imported to the Site must be derived from recognizable and uncontaminated concrete. RCA material is not acceptable for, and will not be used as cover material.

1.10 Fluids Management

All liquids to be removed from the Site, including dewatering fluids, will be handled, transported and disposed in accordance with applicable laws and regulations. Liquids discharged into the New York City sewer system will receive prior approval by New York City Department of Environmental Protection (NYC DEP). The NYC DEP regulates discharges to the New York City sewers under Title 15, Rules of the City of New York Chapter 19. Discharge to the New York City sewer system will require an authorization and sampling data demonstrating that the groundwater meets the City's discharge criteria. The dewatering fluid will be pretreated as necessary to meet the NYC DEP discharge criteria. If discharge to the City sewer system is not appropriate, the dewatering fluids will be managed by transportation and disposal at an off-Site treatment facility.

Discharge of water generated during remedial construction to surface waters (i.e. a stream or river) is prohibited without a SPDES permit issued by New York State Department of Environmental Conservation.

1.11 Stormwater Pollution Prevention

Applicable laws and regulations pertaining to stormwater pollution prevention will be addressed during the remedial program. Erosion and sediment control measures identified in this remedial plan (silt fences and barriers, and hay bale checks) will be installed around the entire perimeter of the remedial construction area and inspected once a week and after every storm event to ensure that they are operating appropriately. Discharge locations will be inspected to determine whether erosion control measures are effective in preventing significant impacts to receptors. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by OER. All necessary repairs shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. Undercutting or erosion of the silt fence toe anchor will be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

1.12 Contingency Plan for Unknown Contamination Sources

This contingency plan is developed for the remedial construction to address the discovery of unknown structures or contaminated media during excavation. Identification of unknown contamination source areas during invasive Site work will be promptly communicated to OER's Project Manager. Petroleum spills will be reported to the NYS DEC Spill Hotline. These findings will be included in the daily report. If previously unidentified contaminant sources are found during on-Site remedial excavation or development-related excavation, sampling will be performed on contaminated source material and surrounding soils and reported to OER. Chemical analytical testing will be performed for TAL metals, TCL volatiles and semi-volatiles, TCL pesticides and PCBs, as appropriate.

1.13 Odor, Dust, and Nuisance Control

Odor Control

All necessary means will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of foams to cover exposed odorous soils. If odors develop and cannot otherwise be controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, 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. OER will be notified of all odor complaint events. Implementation of all odor controls, including halt of work, will be the responsibility of the PE/QEP's certifying this remedial plan.

Dust Control

Dust management during invasive on-Site work will include, at a minimum:

- Use of a dedicated water spray methodology for roads, excavation areas and stockpiles.
- Use of properly anchored tarps to cover stockpiles.
- Exercise extra care during dry and high-wind periods.

- Use of gravel or recycled concrete aggregate on egress and other roadways to provide a clean and dust-free road surface.

This dust control plan is capable of controlling emissions of dust. If nuisance dust emissions are identified, work will be halted and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. OER will be notified of all dust complaint events. Implementation of all dust controls, including halt of work, will be the responsibility of the PE/QEP's responsible for certifying this remedial plan.

Other Nuisances

Noise control will be exercised during the remedial program. All remedial work will conform, at a minimum, to NYC noise control standards.

Rodent control will be provided during Site clearing and grubbing and during the remedial program, as necessary, to prevent nuisances.

APPENDIX 5
VAPOR BARRIER SPECIFICATIONS

VAPORBLOCK® PLUS™ VBP20

Under-Slab Vapor / Gas Barrier



Product Description

VaporBlock® Plus™ 20 is a seven-layer co-extruded barrier made from state-of-the-art polyethylene and EVOH resins to provide unmatched impact strength as well as superior resistance to gas and moisture transmission. VaporBlock® Plus™ 20 is a highly resilient underslab / vertical wall barrier designed to restrict naturally occurring gases such as radon and/or methane from migrating through the ground and concrete slab. VaporBlock® Plus™ 20 is more than 100 times less permeable than typical high-performance polyethylene vapor retarders against Methane, Radon and other harmful VOCs.

VaporBlock® Plus™ 20 is one of the most effective underslab gas barriers in the building industry today far exceeding ASTM E-1745 (Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs) Class A, B and C requirements. Available in a 20 (Class A) mil thicknesses designed to meet the most stringent requirements. VaporBlock® Plus™ 20 is produced within the strict guidelines of our ISO 9001:2008 Certified Management System.

Product Use

VaporBlock® Plus™ 20 resists gas and moisture migration into the building envelop when properly installed to provide protection from toxic/harmful chemicals. It can be installed as part of a passive or active control system extending across the entire building including floors, walls and crawl spaces. When installed as a passive system it is recommended to also include a ventilated system with sump(s) that could be converted to an active control system with properly designed ventilation fans.

VaporBlock® Plus™ 20 works to protect your flooring and other moisture-sensitive furnishings in the building's interior from moisture and water vapor migration, greatly reducing condensation, mold and degradation.

Size & Packaging

VaporBlock® Plus™ 20 is available in 10' x 150' rolls to maximize coverage. All rolls are folded on heavy-duty cores for ease in handling and installation. Other custom sizes with factory welded seams are available based on minimum volume requirements. Installation instructions and ASTM E-1745 classifications accompany each roll.



Under-Slab Vapor/Gas Retarder

Product

Part

VaporBlock Plus 20 VBP 20

APPLICATIONS

- Radon Barrier Under-Slab Vapor Retarder
- Methane Barrier Foundation Wall Vapor Retarder
- VOC Barrier



VAPORBLOCK® PLUS™ VBP20

Under-Slab Vapor / Gas Barrier

		VAPORBLOCK PLUS 20	
PROPERTIES	TEST METHOD	IMPERIAL	METRIC
APPEARANCE		White/Gold	
THICKNESS, NOMINAL		20 mil	0.51 mm
WEIGHT		102 lbs/MSF	498 g/m ²
CLASSIFICATION	ASTM E 1745	CLASS A, B & C	
TENSILE STRENGTH LBF/IN (N/CM) AVERAGE MD & TD (NEW MATERIAL)	ASTM E 154 Section 9 (D-882)	58 lbf	102 N
IMPACT RESISTANCE	ASTM D 1709	2600 g	
MAXIMUM USE TEMPERATURE		180° F	82° C
MINIMUM USE TEMPERATURE		-70° F	-57° C
PERMEANCE (NEW MATERIAL)	ASTM E 154 Section 7 ASTM E 96 Procedure B	0.0051 Perms grains/(ft ² ·hr·in·Hg)	0.0034 Perms g/(24hr·m ² ·mm Hg)
RADON DIFFUSION COEFFICIENT	K124/02/95	< 1.1 x 10 ⁻¹³ m ² /s	
METHANE PERMEANCE	ASTM D 1434	< 1.7 x 10 ⁻¹⁰ m ² /d·atm 0.32 GTR (Gas Transmission Rate) ml/m ² ·D·ATM	

VaporBlock® Plus™ Placement

All instructions on architectural or structural drawings should be reviewed and followed.

Detailed installation instructions accompany each roll of VaporBlock® Plus™ and can also be located on our website.

ASTM E-1643 also provides general installation information for vapor retarders.



VaporBlock® Plus™ is a seven-layer co-extruded barrier made using high quality virgin-grade polyethylene and EVOH resins to provide unmatched impact strength as well as superior resistance to gas and moisture transmission.

Note: To the best of our knowledge, unless otherwise stated, these are typical property values and are intended as guides only, not as specification limits. Chemical resistance as well as other performance criteria is not implied or given and actual testing must be performed for applicability in specific applications and/or conditions. RAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.



Engineered Films Division

P.O. Box 5107
Sioux Falls, SD 57117-5107
Ph: (605) 335-0174 • Fx: (605) 331-0333

Limited Warranty available at www.RavenEFD.com

Toll Free: 800-635-3456
Email: efdsales@ravenind.com
www.ravenefd.com

10/10 EFD 1125

APPENDIX 6
SITE SPECIFIC CONSTRUCTION HEALTH & SAFETY PLAN

Health and Safety Plan

925-927 Atlantic Avenue
Brooklyn, New York 11238
Block 2018; Lot 57

OER Project Number 16EH-N045K
E-Designation E-183
CEQR Number 07DCP066K

Prepared for:
Elevation Holdings LLC
308 Malcolm X Boulevard
Brooklyn, NY

Prepared by:
Alpha-Hydro Environmental
1503 Wave Avenue,
Medford, New York 11763

February 2016

Table of Contents

HEALTH & SAFETY PLAN	1
1.0 INTRODUCTION	1
1.2 HEALTH AND SAFETY STAFF.....	1
1.3 CHEMICAL & WASTE DESCRIPTION/CHARACTERIZATION	2
1.4 HAZARD ASSESSMENT	3
1.5 TRAINING	10
1.6 MEDICAL SURVEILLANCE.....	11
1.7 SITE CONTROL, PPE & COMMUNICATIONS	12
1.8 AIR MONITORING PLAN	14
1.9 SAFETY CONSIDERATIONS.....	17
1.10 DECONTAMINATION AND DISPOSAL PROCEDURES	18
1.11 EMERGENCY PLAN	20
1.12 LOGS, REPORTS AND RECORD KEEPING	22
1.13 SANITATION	23

ATTACHMENT

1. HOSPITAL DIRECTIONS

2. FACT SHEETS

HEALTH & SAFETY PLAN

1.0 Introduction

The HASP has been prepared in conformance with applicable regulations, safe work practices and the project's requirements. It addresses those activities associated with the installation, sampling of soil and groundwater probes and the infield characterization of soil samples. The Project Manager (PM), Site Safety Officer (SSO) and Alpha-Hydro Environmental field staff will implement the Plan during site work. Compliance with this HASP is required of all persons and third parties who perform fieldwork for this project. Assistance in implementing this HASP can be obtained from Alpha-Hydro's SSO. The content of this HASP may change or undergo revision based upon additional information that is made available to health and safety personnel, monitoring results or changes in the technical scope of work. Any changes proposed must be reviewed by the SSO.

SCOPE OF WORK

The Scope of Work activities will include the following:

- Performance of a geophysical survey
- Advancement of soil probes and installation of soil-gas points

EMERGENCY NUMBERS

	<u>Phone Number</u>
Brooklyn Hospital Center	(718) 250-8000
New York City EMS	911
NYPD	911
NYFD	911
National Response Center	800-424-8802
Poison Information Center	800-562-8816
Chemtree	800-424-9555

Project Management/Health and Safety Personnel

<u>Title</u>	<u>Contact</u>	<u>Cell Phone</u>
President-Technical Operations	David Oloke	(631) 448-1862
Site Safety Officer	Jason Falquecee	(631) 521-5284

Directions to Brooklyn Hospital Center (see attached map Attachment # 1

Upon leaving the Site, start out going west on Atlantic Avenue toward St. James Place. Turn right onto Clermont Avenue. Turn left onto Dekalb Avenue. Brooklyn Hospital Center is on the right.

1.2 Health and Safety Staff

This section briefly describes the personnel and their health and safety responsibilities:

SENIOR GEOLOGIST - David Oloke

- Has the overall responsibility for the health and safety of site personnel
- Ensures that adequate resources are provided to the field health and safety staff to carry out their responsibilities as outlined below
- Ensures that fieldwork is scheduled with adequate personnel and equipment resources to complete the job safely
- Ensures that adequate telephone communication between field crews and emergency response personnel is maintained
- Ensures that field site personnel are adequately trained and qualified to work at the Site

SITE SAFETY OFFICER – Jason Falqueece

- Directs and coordinates health and safety monitoring activities
- Ensures that field teams utilize proper personal protective equipment (PPE)
- Conducts initial onsite, specific training prior to personnel and/or subcontractors proceeding to work
- Conducts and documents periodic safety briefings; ensures that field team members comply with this HASP
- Completes and maintains Accident/Incident Report Forms
- Notifies Alpha-Hydro corporate administration of all accidents/incidents
- Determines upgrade or downgrade of PPE based on site conditions and/or downgrade of PPE based on site conditions and/or real-time monitoring results
- Ensures that monitoring instruments are calibrated daily or as determined by manufacturer suggested instructions
- Maintains health and safety field log books
- Develops and ensures implementation of the HASP
- Approves revised or new safety protocols for field operations
- Coordinates revisions of this HASP with field personnel and the SSO Division Contracting Officer
- Responsible for the development of new company safety protocols and procedures and resolution of any outstanding safety issues which may arise during the conduction of site work
- Reviews personnel and subcontractors current and up-to-date medical examination and acceptability of health and safety training

FIELD PERSONNEL AND SUBCONTRACTORS (IF ANY)

- Reports any unsafe or potentially hazardous conditions to the SSO.
- Maintains knowledge of the information, instructions and emergency response actions contained in this HASP
- Comply with rules, regulations and procedures as set forth in this HASP and any revisions that are instituted
- Prevents admittance to work sites by unauthorized personnel

1.3 Chemical & Waste Description/Characterization

The following list of chemicals is based on the materials either once stored onsite or believed to be formerly stored onsite:

- Unknown contaminant(s) including VOCs, SVOCs, Pesticides, PCBs and TAL metals (see attachment #2 – Fact Sheets).

The following information references are presented in order to identify the properties and hazards of the materials that may/will be encountered at the Site.

- Dangerous Properties of Industrial Materials - Sax
- Chemical Hazards of the Workplace - Proctor/Hughes
- Condensed Chemical Dictionary - Hawley
- Rapid Guide to Hazardous Chemical in the Workplace - Lewis 1990
- NIOSH Guide to Chemical Hazards - 1990
- ACGIH TLV Values and Biological Exposure Indices - 1991-1992

1.4 Hazard Assessment

The potential hazards associated with planned site activities include chemical, physical and biological hazards. This section discusses those hazards that are anticipated to be encountered during the activities listed in the scope of work.

The potential to encounter chemical hazards is dependent upon the work activity performed (invasive or non-invasive), the duration and location of the work activity. Such hazards could include inhalation or skin contact with chemicals that could cause: dermatitis, skin burn, being overcome by vapors or asphyxiation. In addition, the handling of contaminated materials and chemicals could result in fire and/or explosion.

The potential to encounter physical hazards during site work includes: heat stress, exposure to excessive noise, loss of limbs, being crushed, head injuries, cuts and bruises and other physical hazards due to motor vehicle operation, heavy equipment and power tools.

CHEMICAL HAZARDS

The potential for personnel and subcontractors to come in contact with chemical hazards may occur during the following tasks:

- Installation of soil/groundwater probes
- Removal of any dedicated, contaminated materials during sampling

Exposure Pathways

Exposure to these compounds during ongoing activities may occur through inhalation of contaminated dust particles, inhalation of volatile (VOC) and semi-volatile (SVOC) vapor fume compounds, by way of dermal absorption, and accidental ingestion of the contaminant by either direct or indirect cross contamination activities (eating, smoking, poor hygiene). Indirectly, inhalation of contaminated dust particles (metals, silica, VOCs, SVOCs) can occur during adverse weather conditions (high or changing wind directions) or during operations that may generate airborne dust such as excavation and sampling activities. Dust control measures such as applying water to roadways and work sites will be implemented, where visible dust is generated from non-contaminated and contaminated soils. Where dust control measures are not feasible or effective, respiratory protection will be used.

Additional Precautions

Dermal absorption or skin contact with chemical compounds is possible during invasive activities at the Site, including removal of product, excavation of tanks, and handling of contaminated soils. The use of PPE in accordance with Section 9.2 and strict adherence to proper decontamination procedures should significantly reduce the risk of skin contact.

The potential for accidental ingestion of potentially hazardous chemicals is expected to be remote, when good hygiene practices are used.

PHYSICAL HAZARDS

A variety of physical hazards may be present during Site activities. These hazards are similar to those associated with any construction type project. These physical hazards are due to motor vehicles and heavy equipment operation, the use of improper use of power and hand tools, misuse of pressurized cylinders, walking on objects, tripping over objects, working on surfaces which have the potential to promote falling, mishandling and improper storage of solid and hazardous materials, skin burns, crushing of fingers, toes, limbs, being hit on the head by falling objects or hitting one's head due to not seeing the object of concern, temporary loss of one's hearing and/or eyesight. These hazards are not unique and are generally familiar to most hazardous waste site workers at construction sites. Additional task specific safety requirements will be covered during safety briefings.

Noise

Noise is a potential hazard associated with operation of heavy equipment, power tools, pumps and generators. High noise operators will be evaluated at the discretion of the SSO. Employees with an 8-hour time weighted average exposure exceeding 85 decibels (db) will be included in the hearing conservation program in accordance with 29 CFR 1910.85.

It is mandated that employees working around heavy equipment or using power tools that dispense noise levels exceeding 95 db are to wear hearing protection that shall consist of earplugs and earphones. This is particularly relevant as the jet engines of modern airplanes can give sound level readings of greater than 110 db.

Heat/ Cold Stress

Extremes in temperature and the effects of hard work in impervious clothing can result in heat stress and/or hypothermia. The human body is designed to function at a certain internal temperature. When metabolism or external sources (fire, hot summer day, winter weather, etc.) cause the body temperature to rise or fall excessively, the body seeks to protect itself by triggering cooling/warming mechanisms. Profuse sweating is an example of a cooling mechanism, while uncontrollable shivering is an example of a warming mechanism. The SSO monitor the temperature to determine potential adverse affects the weather can cause on site personnel.

Protective clothing worn to guard against chemical contact effectively stops the evaporation of perspiration. Thus the use of protective clothing increases heat stress problems. Cold stress can easily occur in winter with sub-freezing ambient temperatures. Workers in protective garments may heat-up and sweat, only to rapidly cool once out of the tank and the PPE. The major disorders due to heat stress are heat cramps, heat exhaustion and heat stroke.

HEAT CRAMPS are painful spasms that occur in the skeletal muscles of workers who sweat profusely in the heat and drink large quantities of water, but fail to replace the body's lost salts or electrolytes. Drinking water while continuing to lose salt tends to dilute the body's extra cellular fluids. Soon water seeps by osmosis into active muscles and causes pain. Muscles fatigued from work as usually most susceptible to cramps.

HEAT EXHAUSTION is characterized by extreme weakness or fatigue, dizziness, nausea, and headache. In serious cases, a person may vomit or lose consciousness. The skin is clammy and moist, complexion pale or flushed, and body temperature normal or slightly higher than normal. Treatment is rest in a cool place and replacement of body water lost by perspiration. Mild cases may recover spontaneously with this treatment; severe cases may require care for several days. There are no permanent effects.

HEAT STROKE is a very serious condition caused by the breakdown of the body's heat regulating mechanisms. The skin is very dry and hot with red mottled or bluish appearance. Unconsciousness, mental confusion or convulsions may occur. Without quick and adequate treatment, the result can be death or permanent brain damage. Get medical assistance quickly! As first aid treatment, the person should be moved to a cool place. Soaking the person's clothes with water and fanning them should reduce body heat artificially, but not too rapidly.

Steps that can be taken to reduce heat stress are:

- Acclimatize the body. Allow a period of adjustment to make further heat exposure endurable
- Drink more liquids to replace body water lost during sweating
- Rest is necessary and should be conducted under the monitoring condition from the SSO and the effect personnel physiological state
- Wearing personal cooling devices. There are two basic designs; units with pockets for holding frozen packets and units that circulate a cooling fluid from a reservoir through tubes to different parts of the body. Both designs can be in the form of a vest, jacket or coverall. Some circulating units also have a copy for cooling the head.

Cold temperatures can cause problems. The severe effects are FROSTBITE and HYPOTHERMIA. FROSTBITE is the most common injury resulting from exposure to cold. The extremities of the body are often affected. The signs of frostbite are:

- The skin turns white or grayish-yellow
- Pain is sometimes felt early but subsides later; often there is no pain
- The affected part feels intensely cold and numb

Shivering, numbness, drowsiness, muscular weakness and a low internal body temperature characterize the condition known as HYPOTHERMIA. This can lead to unconsciousness and death. With both frostbite and hypothermia, the affected areas need to be warmed quickly. Immersing in warm, not hot, water best does this. In such cases medical assistance will be sought.

To prevent these effects from occurring, persons working in the cold should wear adequate clothing and reduce the time spent in the cold area. The field SSO, to determine appropriate time personnel may spend in adverse weather conditions, will monitor this.

Lockout/Tagout

PURPOSE -- This program establishes procedures for de-energizing, isolating and ensuring the energy isolation of equipment and machinery. The program will be used to ensure that equipment and machinery is de-energizing and isolated from unexpected energization by physically locking (Lockout) energy isolation devices or, in the absence of locking capabilities, tagout (Tagout) the device to warn against energization. These procedures will provide the means of achieving the purpose of this program, prevention of injury to Alpha-Hydro employees from the unexpected energization or start-up of equipment and machinery, or from the release of stored energy.

APPLICATION — This program applies to the control of energy during the servicing and/or maintenance of equipment and machinery. This program covers normal operations only if a guard or other safety device is removed or bypassed, or any part of the body is placed into an area of the equipment or machinery where work is performed on the material, or a danger zone exists during the operating cycle. Minor tool changes, adjustments, and other minor servicing activities which take place during normal production operations do not require isolation and lockout/tagout if they are routine and integral to the use of the equipment.

SCOPE -- This program will include all employees whose duties require them to service, install, repair, adjust, lubricate, inspect or perform work on powered equipment or machinery that may also have the potential for stored energy.

PROGRAM RESPONSIBILITIES - The SSO will have the overall responsibility of the program to ensure that; authorized and affected employees receive adequate training and information, the program is evaluated annually, and the lockout/tagout equipment is properly used and the procedures of this program are followed.

The program evaluation will be conducted to ensure that the procedures and requirements of the program are being followed and will be utilized to correct any deviations or inadequacies that may be discovered. The evaluation will consist of one or more inspections or audits of actual lockout/tagout procedures being used to isolate equipment. A review of the authorized and affected employee's responsibilities will be conducted at the time of the inspection /audit. Any authorized employee, except the one(s) utilizing the energy isolation procedure being inspected, may perform the inspection/audit.

A record will be maintained of program evaluation inspections and will include:

1. The identity of the equipment or machine on which energy control procedures were being utilized
2. The date(s) of the inspection(s)
3. The employee(s) included in the inspection(s)
4. The person performing the inspection

Authorized employees (persons who implement lockout/tagout procedures) will be responsible for following the procedures established by this program.

Affected employees are responsible for understanding the significance of a lockout/tagout device and the prohibition relating to attempts to restart or re-energize equipment or machinery that is locked out or tagged out.

TRAINING - Where applicable, Alpha-Hydro employees will be provided instruction in the purpose and functions of the energy control program to ensure that they understand the significance of locked or tagged out equipment and also have the knowledge and skill to correctly apply and remove energy controls. Training will include:

The recognition of applicable hazardous energy source(s), the type and magnitude of energy available, and the policies and procedures of the Alpha-Hydro energy control program.

1. Affected employees will be made aware of the purpose and use of energy control procedures and the prohibition relating to attempts to remove lockout or tagout devices
2. Instruction in the limitations of tagout as a sole means of energy control
 - a. Tags are warning devices and do not provide the physical restraint that a lock would
 - b. Tags may provide a false sense of security
 - c. Tags may become detached during use

Initial training will be provided during to energy control program implementation, when new employees are hired or when job responsibilities change to include utilization of energy control procedures.

Retraining will be conducted whenever there is a change in job assignments that require the employee to utilize energy control procedures, a change in equipment that presents a new *hazard*, a change in the energy control procedures or when the program evaluation identifies inadequacies in the energy control program procedures.

Records of employee training will be maintained and will include the employee's name and date(s) of training.

STANDARD OPERATING PROCEDURES - Where necessary, Alpha-Hydro will provide the necessary devices to effectively lockout or tagout energy isolating devices. Lockout/tagout devices will be the only devices used for controlling energy and shall not be used for other purposes. Any device used for lockout/tagout will be capable of withstanding the environment to which they are exposed for the maximum period they are to be exposed. The devices will be substantial enough to prevent removal without excessive force. Excessive force for a locking device would be bolt cutters or other metal cuttings tools. Tagout devices will be attached by a non-reusable method, attachable by hand, and very difficult to remove by hand. A nylon cable tie or equivalent will be used.

Lockout/tagout devices will indicate the identity of the employee who applied the device, and the tagout device will warn against the hazards if the equipment is energized.

Lockout is the preferred method of energy isolation. When physical lockout is not possible, the energy isolation will be tagged out of service with a warning tag attached at the power source. In the case of plug-in power source, the tag will be attached at the male plug. To ensure full employee protection using tagout instead of lockout, additional steps should be taken to guard

against accidental or inadvertent energization. These steps may include, where applicable: removal of effuses, blocking switches, removal of a valve handle.

STANDARD OPERATING PROCEDURES

I. APPLICATION OF CONTROLS

A. Preparing to Shut Down Equipment

1. Prior to equipment shutdown, the authorized employee(s) must have knowledge of:
 - a. The type(s) and magnitude of power
 - b. The hazards of the energy to be controlled
 - c. The method(s) to control the energy
 - d. The location and identity of all isolating devices that control or feed the equipment to be locked/tagged out
2. Notify all affected employees that the lockout/tagout system will be in effect
3. Assemble applicable lockout/tagout devices, i.e., padlocks, tags, multiple lock hasps,

B. Equipment Shutdown and Isolation

1. If equipment is in operation, shut it down by the normal stopping procedure (stop button, switch)
2. Operate disconnects, switches, valves, or other energy isolating devices so that the equipment is de-energizing and isolated from its energy source(s)
3. Verify that equipment is shut down by operating equipment from the normal operating location and any remote locations

C. Installation of Lockout/Tagout Device, Release of Stored Energy, and Verification

1. Attach individually assigned lock(s) or tag(s) to energy isolating device(s). Where it is not possible to lock a switch, valve or other isolating device, electrical fuses must be removed, blank flanges installed in piping, lines disconnected, or other suitable methods used to ensure that equipment is isolated from energy sources. A tag must be installed at the point of power interruption to warn against energizing.
 - a. Each lock or tag must positively identify the person who applied it and locks must be individually keyed
 - b. If more than one person is involved in the task, employees will place their own lock and tag. Multiple lock hasps are available for this
2. Release, restrain, or dissipate stored energy such as spring tension, elevated machine members, rotating flywheels, hydraulic pressure, pistons and air, gas, steam, water pressure, etc. by repositioning, blocking bleeding, or other suitable means
3. Prior to starting work on equipment and after ensuring that no personnel are exposed, the authorized employee will verify that isolation and de-energization have been accomplished by:
 - a. Attempting, through normal effort, to operate energy isolating devices such as switches, valves, or circuit breaker with locks or tags installed
 - b. Attempting to operate the equipment or machinery that is locked or tagged out. This includes all sources of energy, i.e. electrical, hydraulic, gravity, air, water, steam pressure, etc.
 - c. Verifying the presence and effectiveness of restraint (blocking) and energy dissipation or release (bleeding)
4. If there is a possibility of the re-accumulation of stored energy to a hazardous level, verification of isolation will be contained until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists

D. Group Lockout/Tagout

1. When more than one individual is involved in locking or tagging equipment out of operation, each individual will attach their individual lock or tag, or the equivalent, to the energy isolating device(s).
 - a. An equivalent lockout device may be in the form of a group lockout device such as a multiple lock hasp or lock box
 - b. Primary responsibility for a group of authorized employees working under a group lockout device will be vested in a designated authorized employee

- c. Group lockout methods will provide a level of protection equal to that afforded by a personal lockout/tagout device

II. RETURNING EQUIPMENT TO SERVICE

- A. Restore Equipment to Normal Operating Status
 1. Re-install all parts or subassemblies removed for servicing or maintenance
 2. Re-install all tools, rests, or other operating devices
 3. Re-install all guards and protective devices (i.e. limit switches)
 4. Remove all blocks, wedges, or other restraints from the operating area of the equipment (ways, slides, etc.)
 5. Remove all tools, equipment, and shop towels from the operating area of the equipment.
- B. Verify Equipment Ready for Operation
 1. Inspect area for non-essential items
 2. Ensure that all employees are safely positioned clear of the operating areas of the equipment. Post a watch if energy isolation devices are not in line of sight of the equipment.
- C. Notify Affected Employees of Impending Start-up
 1. The sudden noise of start-up may startle nearby employees
 2. Equipment may need to be tested to determine operational safety by a qualified operator.
- D. Remove Energy Isolation Devices - Only by authorized employee(s) who installed it/them.
 1. Remove line blanks, reconnect piping (if applicable), and remove warning tag
 2. Close bleeder valves, remove warning tag
 3. Replace fuse(s), close circuit breaker(s) and remove warning tag
 4. Remove lock and tag from control panel, valve, etc

Employee(s) who installed them may make an exception for removal of lockout/tagout devices. If it is necessary to operate a piece of equipment that is locked/tagged out, every effort must be made to locate the employee whose lock or tag is on the equipment. If he or she cannot be located and only after positive assurance is made that no one is working on the locked out equipment, the supervisor may personally remove the lock. The supervisor must assure that the equipment is once again locked out, or the employee notified that the equipment has been reenergized, before the employee resumes work. Employees will recheck locked out equipment if they have left the equipment (breaks, lunch, and end of shift) to make sure it is still de-energized and locked out.

III. TEMPORARY REMOVAL OF LOCKOUT/TAGOUT PROTECTION

- A. In situations when the equipment must be temporarily energized to test or position the equipment or its components, the following steps will be followed:
 1. Clear the equipment of tools and materials that are non-essential to the operation
 2. Ensure the equipment components are operationally intact
 3. Remove employees from the equipment area
 4. Remove the lockout/tagout devices by the employee who installed in/them
 5. Energize and proceed with testing or positioning
 6. De-energize all systems and re-install all energy control measures
 7. Verify re-installed energy control measures are effective

IV. SHIFT OR PERSONNEL CHANGES

- A. The following steps will be followed to ensure continuity of employee protection during personnel changes.

1. All personnel involved in the maintenance or servicing activity will be notified that a transfer of personal locks/tags is about to occur
2. Clear all personnel from hazardous area(s) of equipment
3. Under the supervision of the shift supervisor or group designee, the off-going employee will immediately install theirs.
 - a. If an entire group or more than one employee will be transferring work responsibility, locks/tags will be removed and replaced one at a time in order of installation
4. When the transfer of lockout/tagout devices is complete, the effectiveness of all energy isolation devices will be verified to the satisfaction of all personnel involved
5. Once the effectiveness of energy isolation protection is confirmed, the service/maintenance operation may continue

V. CONTRACTOR NOTIFICATION

- A. Whenever outside personnel may be engaged in activities covered by this program, they will inform the contractor of applicable lockout/tagout procedures used to protect Alpha-Hydro employees from the hazards of working near energized equipment.
 1. The contractor will be expected to ensure that his/her employees understand and comply with the restrictions and prohibitions of this program
 2. Alpha-Hydro requires, under these circumstances, the contractor to inform us of their lockout/tagout procedures so that Alpha-Hydro employees can comply with the restrictions and prohibitions of the contractor's program
 3. Alpha-Hydro also requires the contractor to notify the program administrator, the area supervisor, and affected Alpha-Hydro employees prior to de-energizing, isolating and locking out Alpha-Hydro equipment. Conversely, notification is also required when this equipment will be returned to service

DEFINITIONS

Affected employee - An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized employee (s) - A person or persons who locks or implements a tagout system procedure to perform servicing or maintenance on a machine or equipment. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing maintenance or service on a machine or equipment that must be locked or tagged out.

"Capable of being locked out" - An energy isolating device will be considered to be capable of being locked out either if it is designed with a hasp or other attachment or integral part to which, or through which, a lock can be affixed, or if it has a locking mechanism built into it. Other energy isolating devices will also be considered to be capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

Energized - Connected to an energy source or containing residual or stored energy.

Energy isolating device - A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: a manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently; a slide gate; a slip blind; a line valve; a block; and any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices.

Energy source - any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other type of energy.

Lockout - The placement of lockout device on an energy-isolating device, in accordance with an established procedure, is ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device - A device that utilizes positive means such as a lock, either key or combination type, to hold an energy isolating device in the safety position and prevent the energizing of a machine or equipment.

Normal production operations - The utilization of a machine or equipment to perform its intended production function.

Servicing and/or maintenance - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unarming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Setting up - Any work performed to prepare a machine or equipment to perform its normal production operation.

Stored energy - Energy that is available and may cause movement even after energy sources have been isolated. Stored energy may be in the form of compressed springs, elevated equipment components, hydraulic oil pressure, pressurized water, air, steam, or gas, or rotating flywheels, shafts or cams.

Tagout - The placement of a tagout device on an energy-isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device - A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

GENERAL MACHINERY AND EQUIPMENT LIST

EQUIPMENT/LOCATION	ENERGY SOURCES/LOCATION
A. Geoprobe Probing Machine	Diesel Engine
B. Ground-Penetrating Radar Machine	Internal Lithium battery.

1.5 Training

GENERAL HEALTH AND SAFETY TRAINING

In accordance with Alpha-Hydro corporate policy, and pursuant to 29 CFR 1910.120, hazardous waste site workers shall, at the time of job assignment, have received a minimum of 40 hours of initial health and safety training for hazardous waste site operations. As a minimum, the training shall have consisted of instruction in the topics outlined in the above reference. Personnel who have not met the requirements for initial training will not be allowed to work in any site activities in which they may be exposed to hazards (chemical or physical).

Completion of the Alpha-Hydro Health and Safety Training Course for Hazardous Waste Operations or an approved equivalent will fulfill the requirements of this section. In addition to the required initial training, each employee shall have received three (3) days of directly supervised on-the-job training. This training will address the duties the employees are expected to perform.

Alpha-Hydro SSO has the responsibility of ensuring that personnel assigned to this project comply with these requirements. Written certification of completion of the required training will be provided to the SSO.

MANAGER/SUPERVISOR TRAINING

In accordance with 29 CFR 1910.120, onsite management and supervisors who will be directly responsible for, or who supervise employees engaged in hazardous waste operation shall receive training as required in this HASP and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

ANNUAL 8-HOUR REFRESHER TRAINING

Annual 8-hour refresher training will be required of all hazardous waste site field personnel in order to maintain their qualification for fieldwork. The following topics will be reviewed: toxicology, respiratory protection, including air purifying devices and self-contained breathing apparatus (SCBA), medical surveillance, decontamination procedures and personnel protective clothing. In addition, topics deemed necessary by the SSO may be added to the above list.

SITE SPECIFIC TRAINING

Prior to commencement of field activities, all personnel assigned to the project will be provided training that will specifically address the activities, procedures, monitoring and equipment for the site operations. It will include Site and facility layout, hazards, and emergency services at the Site, and will highlight all provisions contained within this HASP. This training will also allow field workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

ONSITE SAFETY BRIEFINGS

Project personnel and visitors will be given periodic onsite health and safety briefings by the SSO, or their designee, to assist site personnel in safely conducting their work activities. The briefings will include information on new operations to be conducted, changes in work practices or changes in the Site's environmental conditions. The briefings will also provide a forum to facilitate conformance with safety requirements and to identify performance deficiencies related to safety during daily activities or as a result of safety audits.

ADDITIONAL TRAINING

Additional training may be required by the SSO for participation in certain field tasks during the course of the project. Such additional training could be in the safe operation of heavy or power tool equipment or hazard communication training.

SUBCONTRACTOR TRAINING

Subcontractor personnel who work onsite occasionally for a specific limited task and who are unlikely to be exposed over permissible exposure limits, may be exempted from the initial 40-hour training requirement. The SSO will determine if this exemption is allowed. In any case, the subcontractor personnel who are exposed to hazards are not exempted from the 40-hours training requirement nor medical surveillance requirements found in Section 8.1.

1.6 Medical Surveillance

GENERAL

All contractor and subcontractor personnel performing field work at the Site are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120 (f). A physician's medical release for work will be confirmed by the SSO before an employee can begin site activities. Such examinations shall include a statement as to the worker's present health status, the ability to work in a hazardous environment (including any required PPE which may be used during temperature extremes), and the worker's ability to wear respiratory protection.

A medical data sheet will be completed by all onsite personnel and kept at the Site. Where possible, this medical data sheet will accompany the personnel needing medical assistance or transport to hospital facilities.

MEDICAL SURVEILLANCE PROTOCOL

The medical surveillance protocol to be implemented is the occupational physicians' responsibility, but shall meet the requirements of CFR 1910.120 and ANSI Z88.2 (1980). The medical surveillance protocol shall, as a minimum, cover the following:

- a. Medical and Occupational History
- b. General physical examination (including evaluation of major organ system)
- c. Serum lead and ZPP
- d. Chest X-ray (performed no more frequently than every four years, except when otherwise indicated).
- e. Pulmonary Function Testing (FVC and FEV1.0).
- f. Ability to wear respirator
- g. Audiometric testing.

Additional clinical tests may be included at the discretion of the occupational physician.

1.7 Site Control, PPE & Communications

SITE CONTROL

A Support Zone (SZ) is an uncontaminated area that will be the field support area for most operations. The SZ provides for field team communications and staging for emergency response. Appropriate sanitary facilities and safety equipment will be located in this zone. Potentially contaminated personnel or materials are not allowed in this zone. The only exception will be appropriately packaged/decontaminated and labeled samples. A contamination reduction corridor will be established. This is the route of entry and egress to the Site, and it provides an area for decontamination of personnel and portable equipment as well.

The area where contamination exists is considered to be the Exclusion Zone (EZ). All areas where excavation and handling of contaminated materials take place are considered the EZ. This zone will be clearly delineated by cones, tape or other means. The SSO may establish more than one EZ where different levels of protection may be employed or where different hazards exist. Personnel are not allowed in the EZ without:

- A buddy
- Appropriate personal protective equipment
- Medical authorization
- Training certification

PERSONAL PROTECTIVE EQUIPMENT

GENERAL

The level of protection worn by field personnel will be enforced by the SSO. Levels of protection for general operations are provided below and are defined in this section. Levels of protection may be upgraded or downgraded at the discretion of the SSO. The decision shall be based on real-time air monitoring, site history data, and prior site experience. Any changes in the level of protection shall be recorded in the health and safety field logbook.

PERSONAL PROTECTIVE EQUIPMENT SPECIFICATIONS

For tasks requiring Level B PPE, the following equipment shall be used:

- Cotton or disposable coveralls
- Chemical protective suit (e.g. Saran-coated Tyvek®)
- Gloves, inner (latex)
- Gloves, outer (Nitrile®)
- Boots (PVC), steel toe/shank

- Boot Covers (as needed)
- Hard Hat
- Hearing protection (as needed)

For tasks requiring Level C PPE, the following equipment shall be used:

- Cotton or disposable coveralls
- Disposable outer coveralls (Poly-coated Tyvek)
- Gloves, inner (latex)
- Gloves, outer (Nitrile®)
- Boots (PVC), steel toe/shank
- Boot covers (as needed)
- Hard Hat
- Hearing protection (as needed)
- Splash suit and face shield for decontamination operations (as needed)

For tasks requiring Level D PPE, the following equipment shall be used:

- Cotton or disposable coveralls
- Gloves, inner (latex)
- Gloves, outer (Nitrile®)
- Boots (PVC) steel toe/shank
- Boot covers (as needed)
- Hard hat
- Hearing protection (as needed)
- Safety glasses

For tasks requiring respiratory protection, the following equipment shall be used:

Level D - No respiratory protective equipment necessary except for a dust mask. Level C - A full-face air-purifying respirator equipped with organic vapor/pesticide-HEPA cartridges. Level B - An air line respirator or a self-contained breathing apparatus (SCBA)

INITIAL LEVELS OF PROTECTION

Levels of protection for the activities may be upgraded or downgraded depending on direct-reading instruments or personnel monitoring. The following are the initial levels of protection that shall be used for each planned field activity.

LEVEL OF PERSONAL PROTECTIVE EQUIPMENT REQUIRED

Activity	Level of Protection Respiratory/PPE
Drilling/Coring	C/D
Sampling	C/D
Ground Penetrating Radar	C/D

COMMUNICATIONS

Communications is the ability to talk with others. While working in Level C/B Protection, personnel may find that communication become a more difficult task and process to accomplish. This is further complicated by distance and space. In order to address this problem, electronic instruments, mechanical devices or hand signals will be used as follows:

- Walkie-Talkies - Hand held radios would be utilized as much as possible by field teams for communication between downrange operations and the Command Post base station.
- Telephones - A mobile telephone will be located in the Command Post vehicle in the Support Zone for communication with emergency support services/facilities. If a telephone is demobilized, the nearest public phones will be identified.
- Air Horns - A member of the downrange field team will carry an air horn and another will be evident in the Support Zone to alert field personnel to an emergency situation.
- Hand Signals - Members of the field team long with use of the buddy system will employ this communication method. Signals become especially important when in the vicinity of heavy moving equipment and when using Level B respiratory equipment. The signals shall become familiar to the entire field team before site operations commence and they will be reinforced and reviewed during site-specific training.

HAND SIGNALS FOR ON-SITE COMMUNICATION

Signal	Meaning
Hand gripping throat	Out of air, can't breathe
Grip partners' wrist	Leave area immediately; no debate
Hands on top of head	Need assistance
Thumbs up	OK, I'm all right; I understand
Thumps down	No; Negative, unable to understand you. I'm not all right

1.8 Air Monitoring Plan

GENERAL

Continuous air monitoring in the EZ during invasive tasks will accompany site operations, as indicated in this HASP or as required by the SSO. Monitoring will be performed to verify the adequacy of respiratory protection, to aid in site layout and to document work exposure. All monitoring instruments shall be operated by qualified personnel only and will be calibrated daily prior to use, or more often as necessary.

REAL-TIME MONITORING

INSTRUMENTATION

At least one (1) of the following monitoring instruments will be available for use during field operations as necessary:

- Photoionization Detector (PID), Rae Instruments with 10.2 EV probe or equivalent
- Flame Ionization Detector (FID), Foxboro Model 128 or equivalent
- Combustible Gas Indicator (CGI)/Oxygen (O₂) Meter, MSA or equivalent.

A FID or PID shall be used to monitor the organic vapor concentrations in active work areas. Organic vapor concentrations shall be measured upwind of the work areas to determine background concentrations. The SSO will interpret monitoring results using professional judgment. The PPE utilized shall always be the most protective, thus the action level criteria are flexible guidelines.

A CGI/O₂ meter shall be used to monitor for combustible gases and oxygen content in the boreholes during drilling activities.

Calibration records shall be documented, and included in the health and safety logbook or instrument calibration logbook. All instruments shall be calibrated before and after each daily use in accordance with the manufacturers' procedures.

ACTION LEVELS

Action levels for upgrading of PPE in this HASP will apply to all site work during the duration of field activities at the Site. Action levels are for unknown contaminants using direct reading in the Breathing Zone (BZ) for organic vapors and dusts, and at the source for combustible gases.

MONITORING DURING FIELD ACTIVITIES

Alpha-Hydro shall perform real time air monitoring prior to the commencement of work to establish baseline conditions. Baseline conditions will be established at the approximate center of the Site and at the perimeter of the Site both upwind and downwind.

During all work activities real time monitoring will occur. As necessary, Alpha-Hydro shall have at each applicable workstation a PID, explosimeter and oxygen deficiency meter. The real time monitoring for remedial activities will be conducted approximating the Breathing Zone of the workers. The monitoring will be continuous during working operations.

The air monitoring instrument may indicate that personnel working in the exclusion zone increase their level of protection. All personnel will be trained in the action levels. When conditions warrant an increase in protection, all personnel will stop working and immediately leave the exclusion zone. They will then don the appropriate safety equipment necessary and return to their current workstation. All of this activity will be monitored by the SSO. The SSO will keep the Alpha-Hydro Project Manager aware of any extraordinary situations and conditions that may occur. Working conditions and monitoring levels will be noted in the Field Notebook along with the time, date and page number. Verbal reports will be given to the Project Manager when there is a change in the PPE level.

The previous day's results shall be reviewed each morning to determine what actions are necessary and the general conditions resulting from and around the Site.

The record keeping will include:

- Date & Time of Monitoring
- Air Monitoring Location
- Instrument, Model #, Serial #
- Calibration/Background Levels
- Results of Monitoring
- SSO Signature
- Comments

Excavation Operations - Monitoring will be performed continuously during all excavation and demolition operations. A PID and/or FID shall be utilized to monitor the breathing zone, the excavated area and any material taken from the excavation. A CGI/O₂ meter shall be used to monitor the excavation for the presence of combustible gases.

ACTION LEVELS OF AIRBORNE CONTAMINANTS

<u>Instrument</u>	<u>Action Level</u>	<u>Action to be Taken</u>
FID/PID	< 100 ppm, for a 15-minute average	Stop work & initiate vapor control
	> 100 ppm, for a 15-minute average	Stop work & initiate evacuation procedure
CGI	10%LEL	Stop work, initiate ventilating
	50% LEL	Stop work, initiate evacuation procedure and contact fire dept.

PERSONNEL MONITORING PROCEDURE

The Site SSO, concurrent with activities that may generate the contaminants in excess of OSHA PEL's, may perform assessment and evaluation of field personnel exposures to airborne contaminants.

Procedures to be followed include:

The SSO may select high-risk individuals who may be subject to contaminant exposure based on job assignment.

The Personal Sampling is being conducted to determine the proper levels of respiratory protection required, to document potential exposures to compounds, and to assure compliance with OSHA standards. Therefore, it is important that the data collected be from "worst case" locations and personnel.

For example: when work is being conducted to excavate at an underground tank location, those persons closest to the excavation and most intimately involved with the work should be sampled. If a backhoe operator solely conducted the excavation, then that employee should be monitored. However, if there are additional workers who must enter the excavation and work with the freshly excavated soil, these persons would be closer to the potential contaminants and they should be sampled.

To meet the intent of the sampling will require sampling at periods of the most disturbances. To be accurate in determining potential exposures, as many tasks/trades shall be sampled as possible during the course of this project. At completion of the project, a goal of 20% of all workers whom we perform their duties in or around the contaminated soil, tanks and excavations is sought. All sampling data must be provided in writing to the employees within three (3) days of receipt of results by Alpha-Hydro.

Air sampling pumps used to collect employee exposure samples shall be calibrated before and after use each day. Calibration shall be accomplished using a primary standard calibration system, e.g. the bubble tube method. Results of the calibrations shall be included in the health and safety field logbook and with the exposure report.

Chemical analysis of samples collected for assessment of employee exposures shall be performed in accordance with NIOSH or OSHA analytical methods only by laboratories accredited by the American Industrial Hygiene Association.

Results of the personal exposure assessment shall be provided to the individual, in writing within fifteen (15) working days after receipt of laboratory reports. Reports to field personnel shall provide calculated time-weighted average exposures and shall provide comparative information relative to established permissible exposure limits. The air sampling data sheet and laboratory report is considered a part of the employee exposure report. A copy of the employee personal exposure assessment report shall also be included in the project file and the employees' medical record for Alpha-Hydro employees. Reports for subcontractor employees will be sent directly to the subcontractors' employer.

AIR MONITORING REPORTS

Air Monitoring Reports will be completed by the SSO and/or authorized personnel and submitted to the Project Manager in the daily safety logs and will include the following:

- Date of monitoring
- Equipment utilized for air monitoring
- Real-time air monitoring results from each work location
- Calibration method of equipment and results

1.9 Safety Considerations

GENERAL

In addition to the specific requirements of this HASP, common sense should be used at all times. The general safety rules and practices below will be in effect at the Site at the discretion of the Project Manager, SSO or other authorized personnel.

- The Site will be suitably marked or barricaded as necessary to prevent unauthorized visitors but not hinder emergency services if needed.
- As needed, all open holes, trenches and obstacles will be properly barricaded in accordance with local site requirements. These requirements will be determined by proximity to traffic ways, both pedestrian and vehicular, and site of the hole, trench or obstacle. If holes are required to be left open during non-working hours, they will be adequately decked over or barricaded and sufficiently lighted.
- Before any digging or boring operations are conducted, underground utility locations will be identified. All boring, excavation and other site work will be planned and performed with consideration for underground lines. Any excavation work will be performed in accordance with Alpha-Hydro's Standard Operating Procedures for Excavations.
- Either workers or other people will enact dust-mitigating procedures when there exists the potential for the inhalation of dust particles.
- The act of smoking and ignition sources in the vicinity of potentially flammable or contaminated material is strictly prohibited.
- Drilling, boring, and use of cranes and drilling rigs, erection of towers, movement of vehicles and equipment and other activities will be planned and performed with consideration for the location, height, and relative position of aboveground utilities and fixtures, including signs; canopies; building and other structures and construction; and natural features such as trees, boulders, bodies of water, and terrain.
- When working in areas where flammable vapors may be present, particular care shall be exercised with tools and equipment that may be sources of ignition. All tools and equipment provided must be properly bonded and/or grounded. Metal buttons and zippers are prohibited on safety clothing for areas that may contain a flammable or explosive atmosphere.
- Approved and appropriate safety equipment (as specified in this HASP), such as eye protection, hard hats, foot protection, and respirators, must be worn in areas where required. In addition, eye protection must be worn when sampling soil or water that may be contaminated.
- Beards interfere with respirator fit and are not allowed within the site boundaries because all site personnel may be called upon to use respirator protection in some situations.
- No smoking, eating, chewing tobacco, gum chewing or drinking will be allowed in the contaminated areas.
- Contaminated tools and hands must be kept away from the face.
- Personnel must use personal hygiene safe guards (washing up) at the end of the shift or as soon as possible after leaving the Site.
- Each sample must be treated and handled as though it were contaminated.
- Persons with long hair and/or loose fitting clothing that could become entangled in power equipment must take adequate precautions.
- Horseplay is prohibited in the work area.
- Work while under the influence of intoxicants, narcotics or controlled substances is prohibited.

POSTED SIGNS

Posted danger signs will be used where an immediate hazard exists. Caution signs will be posted to warn against potential hazards and to caution against unsafe practices. Traffic control methods and barricades will be used as needed. Wooden stakes and flagging tape, or equally effective material will be used to demarcate all restricted areas.

Other postings may include the OSHA poster, emergency hospital route and telephone numbers of contact personnel.

INVASIVE OPERATIONS

The SSO will be present onsite during all invasive work (e.g. demolition, excavations). The SSO will ensure that appropriate monitoring; levels of protection and safety procedures are followed. No personnel will enter any excavations for any reasons. All personnel will stay at least 10 feet back from the edge of the excavation and out of the swing radius of the backhoe. No drums or other potential sources will be sampled or removed during this phase without further additions to the HASP.

The possibility of the presence of underground conduits or vessels containing materials under pressure will also be investigated prior to invasive operations. Properly sized containment systems will be utilized and consideration of the potential volume of liquid or waste released during operations will be discussed with members of the field team to minimize the potential for spills and provide a method for collection of waste materials. Emergency evacuation procedures and the location of safety equipment will be established prior to start up operations. The use of protective clothing, especially hard hats, boots, and gloves will be required during drilling and other heavy equipment work.

SOIL, GROUNDWATER AND LIQUID WASTE SAMPLING

Personnel must wear prescribed protective clothing and equipment including eye protection, chemical resistant gloves and splash aprons (where appropriate) when sampling solids and liquids. Sample bottles are to be bagged prior to sampling to ease decontamination. Personnel must be aware of the location of emergency equipment, including spill containment materials prior to sampling. Personnel are to practice contamination avoidance at all times, as well as to utilize the buddy system and maintain communications with the Command Post. In some situations, such as sampling groundwater wells, additional monitoring may be needed to confirm or establish the proper level of protection before the sampling team can proceed.

SAMPLE HANDLING

Personnel responsible for the handling of samples will wear the prescribed level of protection. Samples are to be identified as to their hazard and packaged as to prevent spillage or breakage. Any unusual sample conditions shall be noted. Laboratory personnel and all field personnel shall be advised of sample *hazard levels* and the potential contaminants present. This can be accomplished by a phone call to the lab coordinator and/or including a written statement with the samples reviewing lab safety procedures in handling in order to assure that the practices are appropriate for the suspected contaminants in the sample.

HEAVY EQUIPMENT DECONTAMINATION

Personnel steam cleaning heavy equipment shall use the prescribed level of protection and adhere to the buddy system. Initially this task usually employs level C. The heavy equipment decontamination shall be restricted to authorized personnel only. Special consideration will be given to wind speed and direction. Downwind areas are to be kept free of personnel to avoid unnecessary exposure to potential airborne contamination.

ADDITIONAL SAFETY CONSIDERATIONS

No other additional safety considerations at this time.

1.10 Decontamination and Disposal Procedures

CONTAMINATION PREVENTION

One of the most important aspects of decontamination is the prevention of contamination. Good contamination prevention should minimize worker exposure and help ensure valid sample results by precluding cross-contamination. Procedures for contamination avoidance include:

Personnel:

Do not walk through areas of obvious or known contamination
Do not directly handle or touch contaminated materials
Make sure that there are no cuts or tears on PPE.
Fasten all closures in suits; cover with tape if necessary
Particular care should be taken to prevent any skin injuries
Stay upwind of airborne contaminants
Do not carry cigarettes, cosmetics, gum, etc. into contaminated areas.

Sampling and Monitoring:

When required by the SSO, cover instruments with clear plastic, leaving openings for sampling ports. Bag sample containers prior to emplacement of sample material.

Heavy Equipment:

Care should be taken to limit the amount of contamination that comes in contact with heavy equipment (tires, contaminated augers). Dust control measures may be needed on roads inside the site boundaries.

PERSONNEL DECONTAMINATION

All personnel shall pass through an outlined decontamination procedure when exiting the hot zone at each location. A field wash for equipment and PPE shall be set up at each drilling location. The system will include a gross wash and rinse for all disposable clothing and boots worn in the EZ. Upon exiting the EZ, all personnel will wash their hands, arms, neck, and face before entering the Support Zone.

EQUIPMENT DECONTAMINATION

Equipment used at the Site that is potentially contaminated shall be decontaminated to prevent hazardous materials from leaving the Site. All heavy equipment will be decontaminated at the decontamination pad and inspected by the SSO and Project Manager before it leaves the Site. The decontamination area will provide for the containment of all wastewater from the decontamination process. Respirators, airline and any other personnel equipment that comes in contact with contaminated soils shall pass through a field wash.

DECONTAMINATION DURING MEDICAL EMERGENCIES

If emergency life-saving first aid and/or medical treatment are required, normal decontamination procedures may need to be abbreviated or omitted. The Site SSO or designee will accompany contaminated victims to the medical facility to advise on matters involving decontamination, when necessary. The outer garments can be removed if they do not cause delays, interfere with treatment or aggravate the problem. Respiratory equipment must always be removed. Protective clothing can be cut away. If the outer contaminated garments cannot be safely removed, a plastic barrier between the individual and clean surfaces should be used to help prevent contaminating the inside of ambulances and /or medical personnel. Outer garments are then removed at the medical facility.

No attempt will be made to wash or rinse the victim, unless it is known that the individual has been contaminated with an extremely toxic or corrosive material that could also cause severe injury or loss of life to emergency response personnel. For minor medical problems or injuries, the normal decontamination procedures will be followed. Note that heat stroke requires prompt treatment to prevent irreversible damage or death. Protective clothing must be promptly removed. Less serious forms of heat stress also require prompt attention and removal of protective clothing immediately. Unless the victim is obviously contaminated, decontamination should be omitted or minimized and treatment begun immediately.

DISPOSAL PROCEDURES

A segregating system of non-hazardous waste and hazardous waste will be developed by the SSO and PM. All discarded material, waste materials or other objects shall be handled in such a way as to preclude the potential for spreading contamination, creating sanitary hazards, or causing litter to be left on Site. All potentially contaminated materials, e.g. clothing, gloves, etc., will be bagged or drummed as necessary, labeled and segregated for disposal. All non-contaminated materials shall be collected and bagged for appropriate disposal as normal domestic waste.

1.11 Emergency Plan

The potential for the development of an emergency situation is low considering the low concentrations of hazardous substances at the work site. Nevertheless, an emergency situation could occur. All Alpha-Hydro and subcontractor field team members prior to the start of work will know the emergency plan outlined in this section. The emergency plan will be available for use at all times during site work.

Various individual site characteristics will determine preliminary actions taken to assure that this emergency plan is successfully implemented in the event of a site emergency. Careful consideration must be given to the proximity of neighborhood housing or places of employment, and to the relative possibility of site fire, explosion or release of vapors or gases that could affect the surrounding community.

The Project Manager shall make contact with local fire, police and other emergency units prior to beginning work on site. In these contacts, the Project Manager will inform the emergency units about the nature and duration of work expected at the Site and the type of contaminants and the possible health or safety effects of emergencies involving these contaminants. At this time, the Project Manager and the emergency response units shall make the necessary arrangements to be prepared for any emergencies that could occur.

The Project Manager shall implement the contingency plan whenever conditions at the Site warrant such action. The Project Manager will be responsible for coordination of the evacuation emergency treatment, and transportation of site personnel as necessary, and notification of emergency response units and the appropriate management staff.

The cases where the PM is not available, the SSO shall serve as the alternate emergency coordinator.

EVACUATION

In the event of an emergency situation, such as fire, explosion, or significant release of toxic gases, an air horn or other appropriate device will be sounded for approximately 10 second intervals indicating the initiation of evacuation procedures. All personnel will evacuate and assemble near the entrance to the site. The location shall be upwind of the Site where possible.

For efficient and safe site evacuation and assessment of the emergency situation, the Project Manager will have authority to initiate action if outside services are required. Under no circumstances will incoming personnel or visitors be allowed to proceed into the area once the emergency signal has been given. The SSO or designated SSO must ensure that access for emergency equipment is provided and that all combustion apparatuses have been shut down once the alarm has been sounded. Once the safety of all personnel is established, the Fire Department and other emergency response groups as necessary will be notified by telephone of the emergency.

POTENTIAL OR ACTUAL FIRE OR EXPLOSION

Immediately evacuate the Site (air horn will sound for 10-second intervals), notify the local fire and police departments, and other appropriate emergency response groups if an actual fire or explosion has taken place.

PERSONNEL INJURY

Emergency first aid shall be applied on site as deemed necessary. If necessary, the individual shall be decontaminated and transported to the nearest medical facility.

The ambulance/rescue squad shall be contacted for transport as necessary in an emergency. However, since some situations may require transport of an injured party by other means, the hospital route is identified below. A map to this facility provided with this HASP in Section 2.2.3.

ACCIDENT/INCIDENT REPORTING

As soon as first aid and/or emergency response needs have been met, the following parties are to be contacted by telephone:

1. Dorcas B. Oloke -- cell phone (631) 605-5855
2. The employer of any injured worker if not an Alpha-Hydro employee

Written confirmation of verbal reports is to be submitted within 24 hours. The report form entitled "Accident Data Report" is to be used for this purpose. All Alpha-Hydro representatives contacted by telephone are to receive a copy of this report. If the employee involved is not an Alpha-Hydro employee, his employer shall receive a copy of this report.

For reporting purposes, the term accident refers to fatalities, lost time injuries, spill or exposure to hazardous materials (toxic materials, explosive or flammable materials).

Any information released from the health care provider, which is not deemed confidential patient information, is to be attached to the appropriate form. Any medical information that is released by patient consent is to be filed in the individuals' medical records and treated as confidential.

OVERT PERSONNEL EXPOSURE

SKIN CONTACT:	Use copious amounts of soap and water. Wash/rinse affected area thoroughly, and then provide appropriate medical attention. Eyes should be rinsed for 15 minutes upon chemical contamination.
INHALATION:	Move personnel to fresh air and if necessary, decontaminate and transport to hospital.
INGESTION:	Decontamination and transport to emergency medical facility.
PUNCTURE WOUND OR LACERATION:	Decontaminate and transport to emergency medical facility.

ADVERSE WEATHER CONDITIONS

In the event of adverse weather conditions, the SSO or designee will determine if work can continue without sacrificing the health and safety of all field workers. Some of the items to be considered prior to determining if work should continue are:

- Potential for heat stress and heat-related injuries
- Potential for cold stress and cold-related injuries
- Treacherous weather-related conditions
- Limited visibility
- Potential for electrical storms

Site activities will be limited to daylight hours and acceptable weather conditions. Inclement working conditions include heavy rain, fog, high winds, and lightning. Observe daily weather reports and evacuate if necessary in case of inclement weather conditions.

EMERGENCY RESPONSE EQUIPMENT LIST

Some or all of the following will either be available onsite or be able to be brought to the Site within a 2-hour period:

- 55 Gallon Drums
- 85 Gallon Drums
- Absorbent Pads
- Absorbent Booms
- Speedy-Dry
- Plastic Sheeting
- Hay Bales
- Pneumatic Nibbler
- Back Hoe
- Pressure Washer
- Air Compressor
- Wilden Pumps

- Equipment Storage Trailer
- Submersible Pumps
- Miscellaneous Hand Tools
- Portable Lighting

LARGE EQUIPMENT

If necessary, Alpha-Hydro can have the following large equipment brought to the Site within 2-hours:

- Large Vacuum Truck
- Super Sucker
- Dump Trucks
- Drill Rig
- Utility Vehicle

1.12 Logs, Reports and Record Keeping

MEDICAL AND TRAINING RECORDS

The employer keeps medical and training records. All subcontractors must provide verification of training and medical qualifications to the SSO. The SSO will keep a log of personnel meeting appropriate training and medical qualifications for site work. The log will be kept in the project file. Medical records will be maintained in accordance with 29 CFR 1910.20.

ONSITE LOG

A log of personnel onsite each day will be kept by the SSO or designee. A copy of these logs will be sent to the Alpha-Hydro records coordinator for data entry. Originals will be kept in the project file.

EXPOSURE RECORDS

Any personal monitoring results, laboratory reports, calculations and air sampling data sheets are part of an employee exposure record. These records will be kept in accordance with 29 CFR 1910.20. For Alpha-Hydro employees, the originals will be sent to the Alpha-Hydro records coordinator. For subcontractor employees, the original will be sent to the subcontractor employer and a copy kept in the project file.

ACCIDENT/INCIDENT REPORTS

An accident/incident report must be completed for all accidents and incidents. The originals will be sent to the appropriate Alpha-Hydro records coordinator for maintenance by Alpha-Hydro. Copies will be distributed as stated. A copy of the forms will be kept in the project file.

OSHA FORM 200

An OSHA Form 200 (Log of Occupational Injuries and Illnesses) will be kept at the Site. All recordable injuries or illnesses will be recorded on this form. At the end of the project, the original will be sent to the Alpha-Hydro corporate records administrator for maintenance. Subcontractor employers must also meet the requirements of maintaining an OSHA 200 form. The Alpha-Hydro accident/incident report meets the requirements of the OSHA Form 101 (Supplemental Record) and must be maintained with the OSHA Form 200 for all recordable injuries or illnesses.

HEALTH AND SAFETY FIELD LOG BOOK

The SSO or designee will maintain the logbook in accordance with standard Alpha-Hydro procedures. Daily site conditions, activities, personnel, calibration records, monitoring results and significant events will be recorded. The original logbooks will become part of the exposure records file.

1.13 Sanitation

If sanitary sewers are not provided at the Site, provisions shall be made for access to sanitary systems by using nearby public facilities consistent with provisions of governing local ordinance codes. In the latter case, provisions are required for the removal of accumulated waste products within those units.

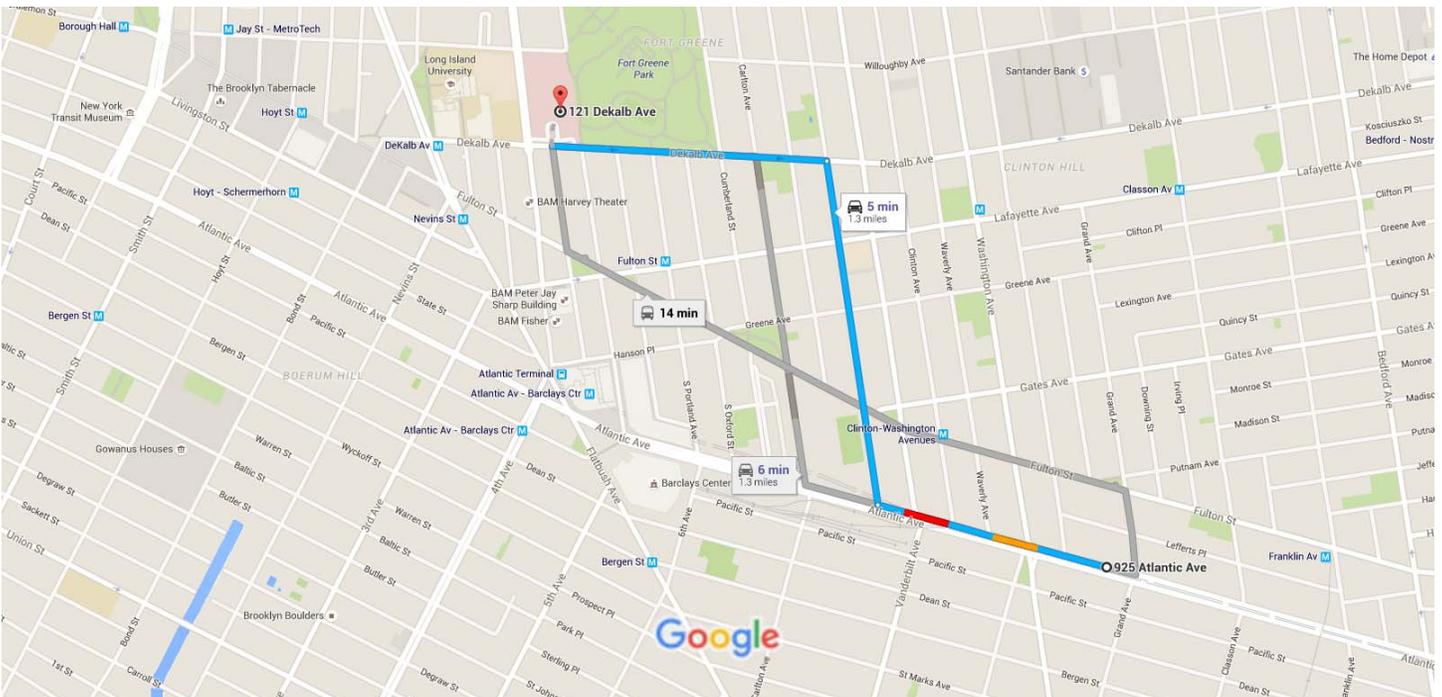
If a commercial/industrial laundry is used to clean or launder clothing that is potentially contaminated, they shall be informed of the potential harmful effects of exposure to hazardous substances related to the affected clothing.

Personnel and subcontractors sites shall follow decontamination procedures described in the HASP, or as directed by the SSO. This will generally include at a minimum site-specific training in shower usage and cleanup, personal hygiene requirements and the donning of protective equipment/clothing.

ATTACHMENT #1
HOSPITAL DIRECTIONS



925 Atlantic Ave, Brooklyn, NY 11238 to 121 Dekalb Avenue, Brooklyn, NY Drive 1.3 miles, 5 min



Map data ©2016 Google 500 ft

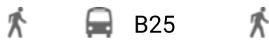
via Atlantic Ave, Clermont Ave and Dekalb Ave
5 min without traffic

5 min
1.3 miles

via Atlantic Ave and Carlton Ave
6 min without traffic

6 min
1.3 miles

11:31 PM—11:45 PM



14 min

Google Maps

ATTCHMENT # 2

FACT SHEETS

Volatile Organic Compounds (VOCs) in Commonly Used Products

People spend most of their time indoors – at home, school and work. This makes the quality of the indoor air you breathe important. This fact sheet focuses on certain kinds of chemicals called *volatile organic compounds* or VOCs that are found in many products that we commonly use. It is designed to help you think about what VOCs may be present in your indoor air and steps you can take to reduce them.

What are VOCs?

VOCs are chemicals that easily enter the air as gases from some solids or liquids. They are ingredients in many commonly used products and are in the air of just about every indoor setting. The table to the right shows some examples of products that contain VOCs.

How do VOCs get into indoor air?

Products containing VOCs can release these chemicals when they are used and when they are stored. Many times you'll notice an odor when using these products. Product labels often list VOC ingredients and recommend that they should be used in well ventilated areas. *Ventilation* means bringing in fresh, outdoor air to mix with indoor air.

When you use a product containing VOCs indoors, the levels of these chemicals in the air increase, then decrease over time after you stop using them. The amount of time the chemical stays in the air depends on how quickly fresh air enters the room and the amount of the chemical used. Levels of VOCs will decrease faster if you open windows or doors, or use exhaust fans.

Building materials and furnishings, such as new carpets or furniture, slowly release VOCs over time. It may be necessary to ventilate areas with new carpeting or furniture for longer time periods because VOC levels can build up again after the windows are closed. If possible, unroll new carpets or store furniture outside your home (in a shed or detached garage) to minimize odors before bringing them in the home. If that's not possible, open windows, close doors and try to stay out of rooms until odors are reduced.

If VOC containing products are used outdoors near your home, you may want to close windows and nearby vents to prevent chemicals from coming inside.

Products used at home or work can release VOCs into the air when used and stored.



Examples of Household Products	Possible VOC Ingredients
Fuel containers or devices using gasoline, kerosene, fuel oil and products with petroleum distillates: paint thinner, oil-based stains and paint, aerosol or liquid insect pest products, mineral spirits, furniture polishes	BTEX (benzene, toluene, ethylbenzene, xylene), hexane, cyclohexane, 1,2,4-trimethylbenzene
Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray	Acetone, ethyl alcohol, isopropyl alcohol, methacrylates (methyl or ethyl), ethyl acetate
Dry cleaned clothes, spot removers, fabric/leather cleaners	Tetrachloroethene (perchloroethene (PERC), trichloroethene (TCE))
Citrus (orange) oil or pine oil cleaners, solvents and some odor masking products	d-limonene (citrus odor), a-pinene (pine odor), isoprene
PVC cement and primer, various adhesives, contact cement, model cement	Tetrahydrofuran, cyclohexane, methyl ethyl ketone (MEK), toluene, acetone, hexane, 1,1,1-trichloroethane, methyl-iso-butyl ketone (MIBK)
Paint stripper, adhesive (glue) removers	Methylene chloride, toluene, older products may contain carbon tetrachloride
Degreasers, aerosol penetrating oils, brake cleaner, carburetor cleaner, commercial solvents, electronics cleaners, spray lubricants	Methylene chloride, PERC, TCE, toluene, xylenes, methyl ethyl ketone, 1,1,1-trichloroethane
Moth balls, moth flakes, deodorizers, air fresheners	1,4-dichlorobenzene, naphthalene
Refrigerant from air conditioners, freezers, refrigerators, dehumidifiers	Freons (trichlorofluoromethane, dichlorodifluoromethane)
Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides	Heptane, butane, pentane
Upholstered furniture, carpets, plywood, pressed wood products	Formaldehyde

VOCs can also get into indoor air from contaminated soils and groundwater under buildings. The chemicals enter buildings through cracks and openings in basements or slabs. When nearby soil or groundwater is contaminated, you might be asked for permission to investigate indoor air at your property. More information can be found at www.nyhealth.gov/environmental/indoors/vapor_intrusion/.

Should I be surprised if VOCs are in the air I breathe?

No. Because they are commonly used, some VOCs are almost always found in indoor air. The New York State Department of Health (DOH) and other agencies have studied typical levels of VOCs that may be present in indoor and outdoor air. Sometimes these levels are called "background levels".

The term "background levels" can be confusing because they can vary depending on where an air sample was collected and whether VOCs were used or stored. For example, a study of VOCs in urban areas might find higher levels than another study in rural areas. Some studies look at office environments, others examine residences. Please keep in mind study findings may or may not make sense for your setting.

More information about levels of VOCs collected by DOH is available in Appendix C of the guidance for evaluating vapor intrusion at www.nyhealth.gov/environmental/investigations/soil_gas/svi_guidance.

How can VOCs affect human health?

Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*. No matter how dangerous a substance or activity is, it cannot harm you without exposure.

Whether or not a person will have health effects after breathing in VOCs depends on:

1. The *toxicity* of the chemical (the amount of harm that can be caused by contact with the chemical).
2. How much of the chemical is in the air.
3. How long and how often the air is breathed.

Differences in age, health condition, gender and exposure to other chemicals also can affect whether or not a person will have health effects.

Short-term exposure to high levels of some VOCs can cause headaches, dizziness, light-headedness, drowsiness, nausea, and eye and respiratory irritation. These effects usually go away after the exposure stops. In laboratory animals, long-

term exposure to high levels of some VOCs has caused cancer and affected the liver, kidney and nervous system. In general, we recommend minimizing exposure to chemicals, if possible.

How can I reduce the levels of VOCs indoors?

- Find out if products used or stored in your home contain VOCs. Information about the chemicals in many household products are listed on the front of this fact sheet and a larger list is on the National Institute of Health's website at hpd.nlm.nih.gov/products.htm.
- If you must store products containing VOCs, do so in tightly sealed, original containers in a secure and well-ventilated area. If possible store products in places where people do not spend much time, such as a garage or outdoor shed. Better yet, buy these products in amounts that are used quickly.
- Dispose of unneeded products containing VOCs. Many of these products are considered *household hazardous wastes* and should be disposed of at special facilities or during special household hazardous waste collection programs in your area. Contact your town or visit the New York State Department of Environmental Conservation's website at www.dec.ny.gov/chemical/8485.html for more information about disposing of these products.
- Use products containing VOCs in well-ventilated areas or outdoors. Open windows and doors or use an exhaust fan to increase ventilation. Repeated or prolonged ventilation may be necessary for reducing levels from building materials (new carpeting or furniture) that release VOCs slowly over time.
- Carefully read labels and follow directions for use.

Where can I find out more?

- **New York State Department of Health** (800) 458-1158 www.nyhealth.gov/environmental/
- **Indoor Air Quality and Your Home** from the New York State Energy Research and Development Authority www.nyserda.org/publications/iaq.pdf
- **The Inside Story: A Guide to Indoor Air Quality** www.epa.gov/iaq/pubs/insidest.html
- **New York State Department of Environmental Conservation** website for information about household hazardous waste disposal www.dec.ny.gov/chemical/8485.html
- **National Institute of Health's** website for information about chemicals found in many household products. hpd.nlm.nih.gov/products.htm



December 2007



Mid-Atlantic Brownfields & Land Revitalization

You are here: [EPA Home](#) » [Mid-Atlantic Cleanup](#) » [Brownfields and Land Revitalization](#) » [Analytical Profiles](#)
» [Semi-Volatile Organic Compounds](#)

Semi-Volatile Organic Compounds

This Fact Sheet is presented by the U. S. Environmental Protection Agency, Region III (EPA) to assist in the selection of analytical parameters and the associated Quality Assurance and Quality Control (QA/QC) procedures to be utilized in Phase II Environmental Assessments under the U.S. Environmental Protection Agency (EPA) Brownfields initiative. This fact sheet is presented for informational purposes only, and should not be construed as a federal policy or directive. The Brownfields Coordinator for this region may be reached at 215-814-5000.

A semivolatile organic compound is an organic compound which has a boiling point higher than water and which may vaporize when exposed to temperatures above room temperature. Semivolatile organic compounds include phenols and polynuclear aromatic hydrocarbons (PAH).

LIST OF SEMIVOLATILE ORGANIC COMPOUNDS *

- Phenol
- Bis(2-chloroethyl)ether
- 2-Chlorophenol
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 1,2-Dichlorobenzene
- 2-Methylphenol
- Bis(2-chloroisopropyl)ether
- 4-Methylphenol
- n-Nitroso-di-n-propylamine
- Hexachloroethane
- Nitrobenzene
- Isophorone
- 2-Nitrophenol
- 2,4-Dimethylphenol
- Bis(2-chloroethoxy)methane
- 2,4-Dichlorophenol
- 1,2,4-Trichlorobenzene
- Naphthalene
- 4-Chloroaniline
- Hexachlorobutadiene
- 4-Chloro-3-methylphenol
- 2-Methylnaphthalene
- Hexachlorocyclopentadiene
- 2,4,6-Trichlorophenol
- 2,4,5-Trichlorophenol
- 2-Chloronaphthalene
- 2-Nitroaniline
- Dimethylphthalate
- Acenaphthylene
- 2,6-Dinitrotoluene
- 3-Nitroaniline
- Acenaphthene
- 2,4-Dinitrophenol
- 4-Nitrophenol
- 4-Bromophenyl-phenylether
- Hexachlorobenzene
- Pentachlorophenol
- Phenanthrene
- Anthracene
- Carbazole

- Di-n-butylphthalate
- Fluoranthene
- Pyrene
- Butylbenzylphthalate
- 3,3'-Dichlorobenzidine
- Benzo(a)anthracene
- Chrysene
- Bis(2-ethylhexyl)phthalate
- Di-n-octylphthalate
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Benzo(a)pyrene
- Indeno(1,2,3-cd)pyrene
- Dibenz(a,h)anthracene
- Benzo(g,h,i)perylene

* Please note: The list above corresponds to the EPA Contract Laboratory Program (CLP) semivolatile organic list, and is not a complete list of all toxic semivolatile organic compounds. If the site history suggests a semivolatile organic compound may be present which is not on this list, the compound should be included in the requested analysis.

ANALYSIS METHODS

Please note that the methods listed below are EPA approved and the most commonly used by EPA and their contractors. However, they are not the only methods for the analysis of semivolatile organic compounds. In addition, these are not drinking water test methods.

METHOD	APPLICABLE MATRICES
EPA 625 or 1625 (1)	Aqueous
EPA SW-846 3010 or 3020/8250 or 8270 (2)	Aqueous
EPA SW-846 3500 or 3550/8250 or 8270 (2)	Soil/Sediment & Waste
EPA CLP Statement of Work 3/90	Aqueous & Soil/Sediment
EPA SW-846 8100 or 8310 (2) 610 (1)	Water and Soil/Sediment for PAH
EPA SW-846 8040 (2) or 604 (1)	Water and Soil/Sediment for Phenols

1. U.S. Environmental Protection Agency (EPA). 1992. *Test Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater*. Washington, D.C. July.
2. EPA. 1986. *Test Methods for Evaluating Solid Waste*. SW-846. Washington, D.C. September.

COLLECTION MEDIA/VOLUME

Listed below are the EPA-recommended preservation and holding times as well as suggested glassware.

MATRIX	GLASSWARE	VOLUME	PRESERVATIVE	HOLDING TIME
Soil/Sediment	8-oz wide mouthed jar	1 8-oz jar	ice to 4° C	14 days
Aqueous	32-oz amber bottle	2 amber bottles	ice to 4° C	7 days
Waste	8-oz wide mouth jar	1 8-oz jar	none required (ice preferred)	none (try not to exceed 14 days)

MINIMUM LABORATORY QUALITY CONTROL MEASURES

The laboratory should have Standard Operating Procedures available for review for the semivolatile organic compound analyses and for all associated methods needed to complete the semivolatile analysis, such as total solids, instrument maintenance, sample handling, and sample documentation procedures. In addition, the laboratory should have a Laboratory Quality Assurance/Quality Control Statement available for review which includes all key personnel qualifications.

QC TYPE	FREQUENCY OF ANALYSIS	ACCEPTABLE LIMITS
Gas Chromatograph/Mass Spectrometer (GC/MS) Tuning	Once per day or more frequently if required by method	See method criteria for acceptable limits
Initial Calibration	Prior to analysis of samples (minimum three concentration levels for every compound and an instrument blank)	% Relative Standard Deviation of Response Factors of ≤ 30 (see method for any allowable variations), and a minimum Response Factor of ≥ 0.05 (see method for calculation)
Continuing Calibration	Once per day (mid-level standard containing all compounds) or more frequently if required by method	% Difference for Response Factor of ≤ 25 (see method for any allowable variations), and a minimum Response Factor of ≥ 0.05 (see method for calculation)
Method Blank	Once per extraction batch	See method for allowable limits
Internal Standards	Six per sample (see method for suggested internal standard compounds)	-50% to + 100% of Daily standard area and retention time shift (limits depend if packed or capillary column, see method)
Matrix Spike/Matrix Spike Duplicate	One set of MS/MSD per 20 samples or analysis set	See method for allowable limits
Surrogate Spikes	Added to each sample (see method for suggested surrogate compounds)	Report recovery

MINIMUM DATA PACKAGE REQUIREMENTS

- Sample results in a tabular form (if soil or sediment) reported on a dry weight basis.
- Report % moisture or % solids for all soil and sediment samples.
- Report sample volumes or weights, as well as any dilution factors, for each sample analysis.
- Return copy of the chain of custody form sent with the samples with laboratory receipt acknowledgment, and the internal or laboratory chain of custody forms.
- Method blank results.
- GC/MS tuning data summary.
- GC/MS initial and continuing calibration data summary forms.
- GC/MS internal standard data for samples and associated daily standard.
- Surrogate spike recoveries, either on a separate table or with the results, including laboratory QC limits.
- Matrix spike recovery tables, including laboratory recovery and relative percent difference QC limits.
- Date samples were analyzed, on a separate sheet, tune sheet, or results page.
- Optional: sample, standard and blank chromatograms, quantitation sheets, mass spectra, instrument run logs, and total solids logs.

Note: The optional QC must be maintained by laboratory for at least one year for possible future QC audits.



Pesticides: Topical & Chemical Fact Sheets

You are here: [EPA Home](#) » [Pesticides](#) » [Fact Sheets](#) » [Health and Safety](#) » [Assessing Health Risks from Pesticides](#)

Assessing Health Risks from Pesticides

Este Web page está disponible [en español](#)

Current as of: April 5, 2007
735-F-99-002

Questions on Pesticides?

- Contact the National Pesticide Information Center (NPIC) 1-800-858-7378

The Federal Government, in cooperation with the States, carefully regulates pesticides to ensure that they do not pose unreasonable risks to human health or the environment. As part of that effort, the Environmental Protection Agency (EPA) requires extensive test data from pesticide producers that demonstrate pesticide products can be used without posing harm to human health and the environment. EPA scientists and analysts carefully review these data to determine whether to register (license) a pesticide product or a use and whether specific restrictions are necessary. This fact sheet is a brief overview of EPA's process for assessing potential risks to human health when evaluating pesticide products.

Background

There are more than 1055 active ingredients registered as pesticides, which are formulated into thousands of pesticide products that are available in the marketplace.

EPA plays a critical role in evaluating these chemicals prior to registration, and in reevaluating older pesticides already on the market, to ensure that they can be used with a reasonable certainty of no harm. The process EPA uses for evaluating the health impacts of a pesticide is called risk assessment.

EPA uses the National Research Council's four-step process for human health risk assessment:

- Step One:** Hazard Identification
- Step Two:** Dose-Response Assessment
- Step Three:** Exposure Assessment
- Step Four:** Risk Characterization

Step One: Hazard Identification (Toxicology)

The first step in the risk assessment process is to identify potential health effects that may occur from different types of pesticide exposure. EPA considers the full spectrum of a pesticide's potential health effects.

Generally, for human health risk assessments, many toxicity studies are conducted on animals by pesticide companies in independent laboratories and evaluated for acceptability by EPA scientists. EPA evaluates pesticides for a wide range of adverse effects, from eye and skin irritation to cancer and birth defects in laboratory animals. EPA may also consult the public literature or other sources of supporting information on any aspect of the chemical.

Step Two: Dose-Response Assessment

Paracelsus, the Swiss physician and alchemist, the "father" of modern toxicology (1493-1541) said,

"The dose makes the poison."

In other words, **the amount of a substance a person is exposed to** is as important as **how toxic the chemical might be**. For example, small doses of aspirin can be beneficial to people, but at very high doses, this common medicine can be deadly. In some individuals, even at very low doses, aspirin may be deadly.

Dose-response assessment involves considering the dose levels at which adverse effects were observed in test animals, and using these dose levels to calculate an equal dose in humans.

Step Three: Exposure Assessment

People can be exposed to pesticides in three ways:

1. Inhaling pesticides (inhalation exposure),
2. Absorbing pesticides through the skin (dermal exposure), and
3. Getting pesticides in their mouth or digestive tract (oral exposure).

Depending on the situation, pesticides could enter the body by any one or all of these routes. Typical sources of pesticide exposure include:

- **Food**
Most of the foods we eat have been grown with the use of pesticides. Therefore, pesticide residues may be present inside or on the surfaces of these foods.
- **Home and Personal Use Pesticides**
You might use pesticides in and around your home to control insects, weeds, mold, mildew, bacteria, lawn and garden pests and to protect your pets from pests such as fleas. Pesticides may also be used as insect repellants which are directly applied to the skin or clothing.
- **Pesticides in Drinking Water**
Some pesticides that are applied to farmland or other land structures can make their way in small amounts to the ground water or surface water systems that feed drinking water supplies.
- **Worker Exposure to Pesticides**
Pesticide applicators, vegetable and fruit pickers and others who work around pesticides can be exposed due to the nature of their jobs. To address the unique risks workers face from occupational exposure, EPA evaluates occupational exposure through a separate program. All pesticides registered by EPA have been shown to be safe when used properly.

Step Four: Risk Characterization

Risk characterization is the final step in assessing human health risks from pesticides. It is the process of combining the hazard, dose-response and exposure assessments to describe the overall risk from a pesticide. It explains the assumptions used in assessing exposure as well as the uncertainties that are built into the dose-response assessment. The strength of the overall database is considered, and broad conclusions are made. EPA's role is to evaluate both toxicity and exposure and to determine the risk associated with use of the pesticide.

Simply put,

$$\text{RISK} = \text{TOXICITY} \times \text{EXPOSURE}.$$

This means that the risk to human health from pesticide exposure depends on both the toxicity of the pesticide and the likelihood of people coming into contact with it. At least *some* exposure and *some* toxicity are required to result in a risk. For example, if the pesticide is very poisonous, but no people are exposed, there is no risk. Likewise, if there is ample exposure but the chemical is non-

such as a respirator or chemical resistant gloves, or not allowing workers to enter treated crop fields until a specific period of time has passed.

If, after considering all appropriate risk reduction measures, the pesticide still does not meet EPA's safety standard, the Agency will not allow the proposed chemical or use. Regardless of the specific measures enforced, EPA's primary goal is to ensure that legal uses of the pesticide are protective of human health, especially the health of children, and the environment.

Human Health Risk Assessment and the Law

Federal law requires detailed evaluation of pesticides to protect human health and the environment. In 1996, Congress made significant changes to strengthen pesticide laws through the Food Quality Protection Act (FQPA). Many of these changes are key elements of the current risk assessment process. FQPA required that EPA consider:

- **A New Safety Standard:** FQPA strengthened the safety standard that pesticides must meet before being approved for use. EPA must ensure with a reasonable certainty that no harm will result from the legal uses of the pesticide.
- **Exposure from All Sources:** In evaluating a pesticide, EPA must estimate the combined risk from that pesticide from all non-occupational sources, such as:
 - Food Sources
 - Drinking Water Sources
 - Residential Sources
- **Cumulative Risk:** EPA is required to evaluate pesticides in light of similar toxic effects that different pesticides may share, or "a common mechanism of toxicity." Read about how EPA evaluates [cumulative risk](#) for pesticides.
- **Special Sensitivity of Children to Pesticides:** EPA must ascertain whether there is an increased susceptibility from exposure to the pesticide to infants and children. EPA must build an additional 10-fold safety factor into risk assessments to ensure the protection of infants and children, unless it is determined that a lesser margin of safety will be safe for infants and children.

For More Information

If you would like more information about EPA's pesticide programs, contact the Communication Service Branch at (703) 305-5017 or visit the [Pesticides Web site](#).

For more information on specific pesticides, or to inquire about the symptoms of pesticide poisoning, call the National Pesticide Information Center (NPIC), a toll-free hotline information at: 1-800-858-7378, or visit their [Web site](#) [\[EXIT Disclaimer\]](#).

Fact Sheet: Sources of Polychlorinated Biphenyls

Purpose

This fact sheet is intended to help Oregon Department of Environmental Quality (DEQ) project managers and City of Portland stormwater inspectors understand the types of industries, processes, and products that might be potential sources of polychlorinated biphenyls (PCBs). There are a variety of potential PCB sources in addition to more commonly recognized sources such as electrical transformer and capacitor oils and fluorescent light ballasts.

Background

PCBs are mixtures of synthetic organic chemicals that were commonly used for various applications from approximately 1929 until 1979 when the U.S. banned PCB manufacturing, processing, distribution, and use (EIP Associates, 1997). The U.S. was responsible for approximately half of the world's production of PCBs and imported approximately 50% of the remainder produced by other countries (minus exports) (EIP Associates, 1997; UNEP Chemicals, 1999). PCBs were produced and marketed in the U.S. under the trade names of Aroclor (produced by Monsanto Chemical Company) and Pyranol (produced by General Electric) (Nagpal, 1992). Because of health concerns, in 1971 Monsanto voluntarily restricted manufacturing of PCBs to use only in closed systems. Monsanto discontinued manufacture of PCBs in 1977, though PCBs continued to be imported into the U.S. until 1979 when the U.S. ban took effect (EIP Associates, 1997; ATSDR, 2000).

There are no natural sources of PCBs. Although their current commercial use is restricted in the U.S., they continue to be a common environmental contaminant because they are extremely stable.

Regulatory Framework

PCBs were regulated under a series of EPA actions culminating with a ban in 1979 on manufacturing, processing, distribution, and use of PCBs under the Toxic Substances Control Act (TSCA). Items such as transformers and hydraulic fluids were identified as high-risk sources and were targeted for accelerated phase-out. EPA anticipated that other lower-risk sources would eventually be removed from circulation as various products reached the end of their useful lives.

Certain current uses of PCBs are authorized under 40 CFR Part 761 and are summarized in Table 1:

- ❑ Manufactured or imported products must contain < 25 ppm PCBs;
- ❑ Manufactured or imported detergent bars must contain < 5 ppm PCBs;
- ❑ PCB concentrations must be less than 10 ppm at the point which PCBs are released to ambient air;
- ❑ "...PCBs added to water discharged from a manufacturing site must be less than 100 micrograms per resolvable gas chromatographic peak per liter of water discharged"; and
- ❑ Disposal of process wastes with PCB concentrations > 50 ppm must be conducted in accordance with 40 CFR Part 761 Subpart D.

Sources of PCBs

In the U.S., the most commonly used Aroclors were: 1221, 1232, 1242, 1248, 1254, and 1260 (DEQ, 1997). These and other Aroclors were used in a variety of materials to enhance insulative properties, improve physical and chemical resistance, and act as plasticizers, coolants, and lubricants. Additional information about specific Aroclors is included in Table A-1 (see Attachment 1).

Approximate usage of PCBs in the US is summarized as follows (EIP Associates, 1997):

Closed system and heat transfer fluids (transformers, capacitors, fluorescent light ballasts, etc.): 60%

Plasticizers: 25%

Hydraulic fluids and lubricants: 10%

Miscellaneous uses: 5%

As shown in Table 2, PCBs were commonly used in a number of electrical, heat transfer, and hydraulic applications as well as a range of other applications.

TABLE 2	
PCB Uses	
Primary Applications	
Dielectric fluids and transformers	Used as insulating material, coolant, and for fire-resistant properties. Potential sources would be facilities which used, stored, and serviced electrical equipment and which used significant amounts of electricity. These facilities could include, but are not limited to: Electrical transmission and distribution facilities; electrical equipment maintenance facilities and salvage yards; rail yards; and manufacturing facilities (sawmills, pulp and paper mills, chemical manufacturing, shipyards, primary and secondary metals smelting and refining, etc.)
Capacitors	Present in industrial facilities, industrial machinery both fixed and mobile, and consumer products. Includes larger power-factor correction capacitors associated with transformers, manufacturing facilities, and commercial buildings (usually near high power-usage equipment such as computer rooms and heating and cooling units); and smaller electric motor-start capacitors used in industrial

	equipment and appliances such as hair dryers, air conditioners, refrigerators, power tools, and submersible well pumps. Also includes capacitors used in appliances and electronics such as televisions and microwave ovens.
Fluorescent light ballasts	PCB-containing capacitors were used in fluorescent light ballasts. PCB-containing asphaltic resin (potting material) was also utilized as insulating material for some ballasts.
Electromagnets	Oil-cooled electromagnets are constructed with coils immersed in transformer oil to prevent over-heating and shorting. Used in cranes for picking up metal and for metal separation in recycling operations (metal scrap yards, tire shredding, concrete crushing, slag operations, etc.).
Miscellaneous electrical equipment	Switches, voltage regulators, circuit breakers, reclosers, rectifiers, and some oil-cooled electric motors.
Heat transfer systems	Where oil is circulated through a non-contact system as a heat transfer medium for heating, cooling, and maintaining uniform temperature throughout a system or manufacturing process. Wide variety of applications in manufacturing industries including high-tech, asphalt, pulp and paper, metal products such as steel tubing and die casting, adhesives, chemicals, food processing, paint & coatings, textiles, etc.
Hydraulic fluids	Any application of hydraulic oil such as industrial equipment and machinery, commercial equipment, automotive brake fluid, etc.
Plasticizers	Used in polyvinyl chloride plastic, neoprene, chlorinated rubbers, laminating adhesives, sealants and caulking, joint compounds (concrete), etc.
Lubricants	Cutting oils, compressors, electrical equipment, oil-impregnated gaskets and filters; also currently present in low concentrations in recycled oil. Also used in vacuum pumps at high tech and electronics manufacturing facilities, research labs, and wastewater treatment plants.
Other applications of PCBs	
Dust control (dedusting agents)	Present in dust control formulations, and used oil historically used for dust suppression.
Pesticides	As an extender to extend the life of pesticides.
Fire retardants	Coatings on ceiling tiles, and textiles including ironing boards and yarn.
Paints, coatings	As plasticizers in paint, corrosion resistant paints for various applications including military/navy ships, corrosion resistant epoxy resins on metal surfaces, film casting solutions for electrical coatings, varnish, lacquers, and waterproofing coatings for various applications.
Carbonless copy paper	Used as an ink pigment carrier (microencapsulation of dye); when the top sheet was pressed down, ink and PCB oil were transferred to the copy.
Printing inks	Ink for newsprint and as a dye carrier; also used as a solvent for deinking newsprint for recycling.
Investment casting waxes	Used as wax extenders.
Wood treatment	May be present as an impurity in pentachlorophenol (Warrington, 1996).
Sources: ATSDR (2000), DEQ (1997), EIP Associates (1997), UNEP Chemicals (1999)	

Due to the long service life of many PCB-containing items and the use of PCBs in some durable, relatively inert products, PCB-containing materials will continue to be disposed of and processed in waste and recycling operations. Waste products and recycling operations that may process significant quantities of PCB-containing materials are described in Table 3:

Material or Operation	Comments
Scrap metal recycling	Transformer shell salvaging; heat transfer and hydraulic equipment; and fluff (shredder waste from cars and appliances including upholstery, padding and insulation). Also present in non-ferrous metal salvaging as parts from PCB-containing electrical equipment, and oil & grease insulated electrical cable.
Auto salvage yards, auto crushing	Hydraulic fluid, brake fluid, recycled oil, capacitors, and oil-filled electrical equipment such as some ignition coils.
Repair activities	Shipyards (electrical equipment, hydraulic oil, paint, etc.), locomotive repair, heavy equipment repair facilities, auto repair, repair of manufacturing equipment, etc.
Used oil	May be present in used oil from various sources including auto salvage yards, automotive and heavy equipment repair shops, hydraulic equipment repair, industrial machinery repair, etc. Because some PCBs have been mixed with used oil, some recycled oils currently in circulation may contain PCBs at concentrations generally < 50 ppm. PCBs may also be present where used oil has been used for dust suppression/road oiling, weed control, and energy recovery.
Recycled paper	Paper may contain PCBs where carbonless copy paper has been used in recycling. However, PCB concentrations have decreased over time as the volume of unrecycled carbonless copy paper is reduced. Recycled paper containing PCBs has historically been used for food packaging (CWC, 1997). PCB concentrations in food packaging are restricted to 10 ppm unless an impermeable barrier is present between the packaging and food product (FDA, 2003).
Effluent	PCBs may be in wastewaters from manufacturing facilities and equipment such as chemical and pesticide facilities, pulp and paper mills, cooling waters from vacuum pumps and electric power generation facilities where leaks have occurred, and condensate from vacuum pumps and natural gas pipelines. Significant cleanup activities have been performed at natural gas pipeline compressor stations from discharges of condensate to ground and storm drainage systems (DOJ, 2002).
Asphalt roofing materials, tar paper, and roofing felt	Anticipated at generally very low concentrations where used oil containing PCBs has been used in asphalt mix.
Building demolition	Electrical equipment, joint caulking, oil & grease insulated cable, surface coatings as flame retardant and waterproofing.
Dredge spoils	From areas where contaminated sediments are present.
Landfills	Municipal and industrial solid waste; virtually all potential sources could be present, including waste materials and soils from remediation sites.
Wastewater treatment plant sludge	Derived from atmospheric deposition and stormwater, water supply systems, leaks and spills, leaching from coatings and plastics containing PCBs, PCBs in food and human waste.
Sources: EIP Associates (1997), EPA (2002), UNEP Chemicals (1999)	

Releases of PCBs

Prior to the regulation of PCBs under the Toxic Substances Control Act (TSCA) in 1976, PCBs were released (both accidentally and intentionally) into the atmosphere, water, and land through sewers, smokestacks, stormwater runoff, spills, and direct application to the environment (for example, to reduce dust emissions and to extend the life of some agricultural pesticide formulations) (Flynn, 1997). Large volumes of PCBs have been introduced to the environment through the burning of PCB-containing products, vaporization from PCB-containing coatings and materials, releases into sewers and streams, improper disposal of PCB-containing equipment in non-secure landfill sites and municipal disposal facilities, and by other routes (such as ocean dumping) (ATSDR, 2001).

Based on the current regulation of PCBs, the current primary “new” sources of PCB contamination are limited to outdated or illegal landfills and scrap yards and leaks or explosions of electrical equipment and other equipment (such as locomotive transformers) that may still contain PCBs (ATSDR, 2001). Other sources are facilities or sites that were previously contaminated with PCBs (for example, contaminated sediments). From contaminated sites, PCBs are emitted and re-deposited to the environment via volatilization from water and soil, wet and dry depositions, and re-volatilization (HSDB, 2003). These processes are discussed in further detail in Attachment 2.

HEAVY METAL ENVIRONMENTAL HEALTH FACT SHEET

H. Staninger© October 25, 2010

Heavy Metals are in your daily environment, you are constantly exposed to environmental stress factors that lead to the development of toxicity in your body. Of these, the major category of toxic substances are heavy metals. Heavy metals primarily consist of the following: lead, cadmium, zinc, copper, arsenic, and silver (from over exposure to colloidal silver and/or other colloidal mineral oral administration for long periods of time).

Overall the heavy metals tend to do the following:

- Decrease the function of the immune system.
- Increase allergic reactions, cancer (arsenic/skin) and systemic organ system disease states.
- Increase sensitivities to electromagnetic frequency.
- Alter genetic mutations of natural flora and the individual exposed.
- Increase acidity of the blood.
- Increase inflammation of arteries and tissues
- Increase hardening of artery walls.
- Increase progressive blockage of arteries.
- Increase risk of hair loss, nail changes and color teeth.

In general the impact of toxins on unhealthy and healthy functions in the body can have these types of results:

Unhealthy

- Toxins form internally, leaking through the unhealthy intestine and flow to the liver.
- Toxins are not completely detoxified in the unhealthy liver or kidney.
- Unchanged toxins leave the liver and are stored in tissues, such as fat, the brain and the nervous system or deep muscle tissue.

Healthy

- Few toxins are formed and most of them are excreted as parent compounds.
- The metabolites of the parent compounds (toxins) are transported to the liver in addition to the original compounds.
- Toxins are transformed into metabolites, degradation products and sub-metabolites.
- The intermediate substances are transformed into a more water soluble substance and released into the kidneys. Kidneys may accumulate the toxins, if not healthy.
- The water soluble substance is excreted via the urine, saliva and sweat. If re-absorbed through the intestinal colon, a minimum of 35 % of the toxin will be re-circulated in peripheral blood. This process will repeat itself, if no intestinal cleansing occurs.

Reference:

Eliopoulos, Charlotte. [Initiation to Holistic Health: A Guide to Living a Balanced Life](#). Chapter 12: *Environmental Effects on the Immune System*. Jones and Bartlett Publishers. Boston, MA. © 2004 pgs: 203-223.

HEAVY METAL ENVIRONMENTAL HEALTH FACT SHEET

H. Staninger© October 25, 2010

Heavy Metals are in your daily environment, you are constantly exposed to environmental stress factors that lead to the development of toxicity in your body. Of these, the major category of toxic substances are heavy metals. Heavy metals primarily consist of the following: lead, cadmium, zinc, copper, arsenic, and silver (from over exposure to colloidal silver and/or other colloidal mineral oral administration for long periods of time).

Overall the heavy metals tend to do the following:

- Decrease the function of the immune system.
- Increase allergic reactions, cancer (arsenic/skin) and systemic organ system disease states.
- Increase sensitivities to electromagnetic frequency.
- Alter genetic mutations of natural flora and the individual exposed.
- Increase acidity of the blood.
- Increase inflammation of arteries and tissues
- Increase hardening of artery walls.
- Increase progressive blockage of arteries.
- Increase risk of hair loss, nail changes and color teeth.

In general the impact of toxins on unhealthy and healthy functions in the body can have these types of results:

APPENDIX 7

WASTE CHARACTERIZATION LABORATORY RESULTS



Technical Report

prepared for:

Alpha-Hydro Environmental
1503 Wave Avenue
Medford NY, 11763
Attention: David Oloke

Report Date: 11/03/2015
Client Project ID: 925 Atlantic Ave Brooklyn, NY
York Project (SDG) No.: 15J1028

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Alpha-Hydro Environmental
1503 Wave Avenue
Medford NY, 11763
Attention: David Oloke

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on October 27, 2015 and listed below. The project was identified as your project: **925 Atlantic Ave Brooklyn, NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
15J1028-01	WC (Hydraulic lift area)	Soil	10/23/2015	10/27/2015

General Notes for York Project (SDG) No.: 15J1028

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 11/03/2015





Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Total Petroleum Hydrocarbons-GRO (C5-C10)

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Petroleum Hydrocarbons-GRO	ND		mg/kg dry	79.5	159	200	EPA 8015D Certifications: NELAC-NY10854,NJDEP	10/29/2015 11:20	10/30/2015 03:31	OW
Surrogate Recoveries		Result			Acceptance Range						
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	91.3 %			70-130						

Volatile Organics, 8260 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Volatile Organics, 8260 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
123-91-1	1,4-Dioxane	ND		ug/kg dry	5000	9900	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
78-93-3	2-Butanone	650		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
591-78-6	2-Hexanone	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
67-64-1	Acetone	1600		ug/kg dry	500	990	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
107-02-8	Acrolein	ND		ug/kg dry	500	990	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
107-13-1	Acrylonitrile	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
71-43-2	Benzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
74-97-5	Bromochloromethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-27-4	Bromodichloromethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-25-2	Bromoform	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
74-83-9	Bromomethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-15-0	Carbon disulfide	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
56-23-5	Carbon tetrachloride	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
108-90-7	Chlorobenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-00-3	Chloroethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
67-66-3	Chloroform	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
74-87-3	Chloromethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Volatile Organics, 8260 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
110-82-7	Cyclohexane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
124-48-1	Dibromochloromethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
74-95-3	Dibromomethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
100-41-4	Ethyl Benzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
98-82-8	Isopropylbenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
79-20-9	Methyl acetate	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	570		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
108-87-2	Methylcyclohexane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-09-2	Methylene chloride	ND		ug/kg dry	500	990	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
104-51-8	n-Butylbenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
103-65-1	n-Propylbenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
95-47-6	o-Xylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	11/02/2015 08:12	11/02/2015 14:57	BK
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	500	990	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	11/02/2015 08:12	11/02/2015 14:57	BK
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
135-98-8	sec-Butylbenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
100-42-5	Styrene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	500	990	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
98-06-6	tert-Butylbenzene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
127-18-4	Tetrachloroethylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
108-88-3	Toluene	15000		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Volatile Organics, 8260 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:12	11/02/2015 14:57	BK
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
79-01-6	Trichloroethylene	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
75-01-4	Vinyl Chloride	ND		ug/kg dry	250	500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
1330-20-7	Xylenes, Total	ND		ug/kg dry	750	1500	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 08:12	11/02/2015 14:57	BK
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %			77-125						
2037-26-5	Surrogate: Toluene-d8	97.7 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	99.7 %			76-130						

Volatile Organics, TCLP RCRA List

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5030B/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-35-4	1,1-Dichloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
78-93-3	2-Butanone	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
71-43-2	Benzene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
56-23-5	Carbon tetrachloride	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
108-90-7	Chlorobenzene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
67-66-3	Chloroform	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
127-18-4	Tetrachloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
79-01-6	Trichloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
75-01-4	Vinyl Chloride	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/02/2015 16:45	11/03/2015 07:53	BK
Surrogate Recoveries		Result			Acceptance Range						



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Volatile Organics, TCLP RCRA List

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5030B/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %			65-135						
460-00-4	Surrogate: p-Bromofluorobenzene	92.5 %			81-114						
2037-26-5	Surrogate: Toluene-d8	99.2 %			86-118						

Volatile Organics, Tentatively Identified Cmpds.

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Tentatively Identified Compounds	0.0		ug/kg dry			100	EPA 8260C	11/02/2015 08:12	11/02/2015 14:57	BK
								Certifications:			

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1'-Biphenyl	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854	10/30/2015 11:40	11/02/2015 21:44	KH
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854	10/30/2015 11:40	11/02/2015 21:44	KH
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854	10/30/2015 11:40	11/02/2015 21:44	KH
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
95-57-8	2-Chlorophenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
91-57-6	2-Methylnaphthalene	578		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
95-48-7	2-Methylphenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
88-74-4	2-Nitroaniline	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
88-75-5	2-Nitrophenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
91-94-1	3,3'-Dichlorobenzidine	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
99-09-2	3-Nitroaniline	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
106-47-8	4-Chloroaniline	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
100-01-6	4-Nitroaniline	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
100-02-7	4-Nitrophenol	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
83-32-9	Acenaphthene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
98-86-2	Acetophenone	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
62-53-3	Aniline	ND		ug/kg dry	184	367	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
120-12-7	Anthracene	147		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

<u>York Project (SDG) No.</u> 15J1028	<u>Client Project ID</u> 925 Atlantic Ave Brooklyn, NY	<u>Matrix</u> Soil	<u>Collection Date/Time</u> October 23, 2015 3:00 pm	<u>Date Received</u> 10/27/2015
--	---	-----------------------	---	------------------------------------

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1912-24-9	Atrazine	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
100-52-7	Benzaldehyde	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
92-87-5	Benzidine	ND		ug/kg dry	184	367	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854	10/30/2015 11:40	11/02/2015 21:44	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
65-85-0	Benzoic acid	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
100-51-6	Benzyl alcohol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
117-81-7	Bis(2-ethylhexyl)phthalate	194		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
105-60-2	Caprolactam	ND		ug/kg dry	91.7	183	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
86-74-8	Carbazole	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
218-01-9	Chrysene	138		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
132-64-9	Dibenzofuran	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
84-66-2	Diethyl phthalate	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
131-11-3	Dimethyl phthalate	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
206-44-0	Fluoranthene	125		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
86-73-7	Fluorene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
118-74-1	Hexachlorobenzene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
67-72-1	Hexachloroethane	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
78-59-1	Isophorone	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
91-20-3	Naphthalene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
98-95-3	Nitrobenzene	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 11:40	11/02/2015 21:44	KH
87-86-5	Pentachlorophenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
85-01-8	Phenanthrene	615		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
108-95-2	Phenol	ND		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH
129-00-0	Pyrene	1090		ug/kg dry	45.9	91.7	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/30/2015 11:40	11/02/2015 21:44	KH

Surrogate Recoveries

Result

Acceptance Range

367-12-4	Surrogate: 2-Fluorophenol	44.8 %	10-95
4165-62-2	Surrogate: Phenol-d5	40.2 %	10-107
4165-60-0	Surrogate: Nitrobenzene-d5	84.0 %	10-95
321-60-8	Surrogate: 2-Fluorobiphenyl	47.6 %	10-97
118-79-6	Surrogate: 2,4,6-Tribromophenol	55.3 %	10-103



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

<u>York Project (SDG) No.</u> 15J1028	<u>Client Project ID</u> 925 Atlantic Ave Brooklyn, NY	<u>Matrix</u> Soil	<u>Collection Date/Time</u> October 23, 2015 3:00 pm	<u>Date Received</u> 10/27/2015
--	---	-----------------------	---	------------------------------------

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1718-51-0	Surrogate: Terphenyl-d14	39.1 %			19-99						

Semi-Volatiles, TCLP RCRA Target List

Log-in Notes: HT-ENC

Sample Notes: EXT-EM

Sample Prepared by Method: EPA 3510C/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	6.45	10.0	1	EPA 8270D/1311 Certifications: NELAC-NY10854	11/02/2015 08:04	11/02/2015 19:40	SR
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	7.22	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	6.54	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
121-14-2	2,4-Dinitrotoluene	ND		ug/L	4.73	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
95-48-7	2-Methylphenol	ND		ug/L	1.71	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
65794-96-9	3- & 4-Methylphenols	ND		ug/L	7.43	20.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
1319-77-3	Cresols, total	ND		ug/L	7.40	30.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854	11/02/2015 08:04	11/02/2015 19:40	SR
118-74-1	Hexachlorobenzene	ND		ug/L	5.91	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	6.62	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
67-72-1	Hexachloroethane	ND		ug/L	7.26	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
98-95-3	Nitrobenzene	ND		ug/L	3.93	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
87-86-5	Pentachlorophenol	ND		ug/L	7.53	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR
110-86-1	Pyridine	ND		ug/L	6.37	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	11/02/2015 08:04	11/02/2015 19:40	SR

Surrogate Recoveries

Result

Acceptance Range

367-12-4	Surrogate: 2-Fluorophenol	45.3 %	10-65
4165-62-2	Surrogate: Phenol-d5	36.6 %	10-49
4165-60-0	Surrogate: Nitrobenzene-d5	72.6 %	10-96
321-60-8	Surrogate: 2-Fluorobiphenyl	64.6 %	10-93
118-79-6	Surrogate: 2,4,6-Tribromophenol	53.7 %	10-128
1718-51-0	Surrogate: Terphenyl-d14	68.3 %	10-100

Semi-Volatiles, Tentatively Identified Cmpds.

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
---------	-----------	--------	------	-------	---------------------	-----	----------	------------------	--------------------	--------------------	---------



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Semi-Volatiles, Tentatively Identified Cmpds.

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
NA	Unknown alkane#1	6890	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH
NA	Unknown alkane#2	7590	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH
NA	Unknown alkane#3	7620	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH
NA	Unknown alkane#4	5200	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH
NA	Unknown alkane#5	10900	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH
NA	Unknown alkane#6	9470	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH
NA	Unknown alkane#7	6150	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH
NA	Unknown alkane#8	5070	N	ug/kg dry			2	EPA 8270D Certifications:	10/30/2015 11:40	11/02/2015 21:44	KH

Pesticides, TCLP RCRA List

Log-in Notes: HT-ENC

Sample Notes: EXT-EM

Sample Prepared by Method: EPA 3510C/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-74-9	Chlordane, total	ND		ug/L	0.533	0.533	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 08:22	11/03/2015 15:45	AMC
72-20-8	Endrin	ND		ug/L	0.0533	0.0533	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 08:22	11/03/2015 15:45	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.0533	0.0533	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 08:22	11/03/2015 15:45	AMC
76-44-8	Heptachlor	ND		ug/L	0.0533	0.0533	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 08:22	11/03/2015 15:45	AMC
1024-57-3	Heptachlor epoxide	ND		ug/L	0.0533	0.0533	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 08:22	11/03/2015 15:45	AMC
72-43-5	Methoxychlor	ND		ug/L	0.0533	0.0533	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 08:22	11/03/2015 15:45	AMC
8001-35-2	Toxaphene	ND		ug/L	1.33	1.33	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 08:22	11/03/2015 15:45	AMC

Surrogate Recoveries

Surrogate	Result	Acceptance Range
877-09-8 Surrogate: Tetrachloro-m-xylene	65.8 %	30-120
2051-24-3 Surrogate: Decachlorobiphenyl	70.3 %	30-120

Polychlorinated Biphenyls (PCB)

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
---------	-----------	--------	------	-------	------------------------	-----	----------	------------------	-----------------------	-----------------------	---------



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Polychlorinated Biphenyls (PCB)

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/30/2015 11:37	11/02/2015 16:50	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/30/2015 11:37	11/02/2015 16:50	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/30/2015 11:37	11/02/2015 16:50	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/30/2015 11:37	11/02/2015 16:50	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/30/2015 11:37	11/02/2015 16:50	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/30/2015 11:37	11/02/2015 16:50	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/30/2015 11:37	11/02/2015 16:50	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0183	0.0183	1	EPA 8082A Certifications:	10/30/2015 11:37	11/02/2015 16:50	AMC
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	62.7 %			30-140						
2051-24-3	Surrogate: Decachlorobiphenyl	16.4 %	GC-Sur		30-140						

Herbicides, TCLP Target List

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3535A/1311

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
93-72-1	2,4,5-TP (Silvex)	ND		ug/L	5.00	5.00	1	EPA 8151A/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 07:09	10/30/2015 16:01	AMC
94-75-7	2,4-D	ND		ug/L	5.00	5.00	1	EPA 8151A/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/30/2015 07:09	10/30/2015 16:01	AMC
Surrogate Recoveries		Result			Acceptance Range						
19719-28-9	Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)	77.4 %			30-150						

Total Petro. Hydrocarbons-DRO (C10-C44)

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Total Petroleum Hydrocarbons-DRO	22000		mg/kg dry	18.7	55.0	5	EPA 8015D Certifications:	11/02/2015 05:02	11/02/2015 22:24	AMC
Surrogate Recoveries		Result			Acceptance Range						
638-68-6	Surrogate: Triacontane	%	S-02		30-150						



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Copper, TCLP by EPA 6010

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-50-8	Copper	0.0176		mg/L	0.00333	0.00333	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD

Metals, Target Analyte

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	Aluminum	6520	B	mg/kg dry	5.50	5.50	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-36-0	Antimony	ND		mg/kg dry	0.550	0.550	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-38-2	Arsenic	9.10		mg/kg dry	1.10	1.10	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-39-3	Barium	292		mg/kg dry	1.10	1.10	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-41-7	Beryllium	0.274		mg/kg dry	0.110	0.110	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-43-9	Cadmium	0.942		mg/kg dry	0.330	0.330	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-70-2	Calcium	12600		mg/kg dry	0.550	5.50	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-47-3	Chromium	15.0		mg/kg dry	0.550	0.550	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-48-4	Cobalt	6.13		mg/kg dry	0.550	0.550	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-50-8	Copper	46.6		mg/kg dry	0.550	0.550	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7439-89-6	Iron	17900		mg/kg dry	2.20	2.20	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7439-92-1	Lead	1550		mg/kg dry	0.330	0.330	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7439-95-4	Magnesium	2190		mg/kg dry	5.50	5.50	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7439-96-5	Manganese	272		mg/kg dry	0.550	0.550	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-02-0	Nickel	18.1		mg/kg dry	0.550	0.550	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-09-7	Potassium	661		mg/kg dry	5.50	5.50	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7782-49-2	Selenium	5.63		mg/kg dry	1.10	1.10	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-22-4	Silver	ND		mg/kg dry	0.550	0.550	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-23-5	Sodium	43.0		mg/kg dry	11.0	11.0	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Metals, Target Analyte

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-28-0	Thallium	ND		mg/kg dry	1.10	1.10	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-62-2	Vanadium	16.3		mg/kg dry	1.10	1.10	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD
7440-66-6	Zinc	355		mg/kg dry	1.10	1.10	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:29	10/29/2015 20:06	ALD

Metals, TCLP RCRA

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	0.013		mg/L	0.004	0.004	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD
7440-39-3	Barium	1.06		mg/L	0.011	0.011	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD
7439-92-1	Lead	0.408		mg/L	0.003	0.003	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD
7782-49-2	Selenium	0.018	B	mg/L	0.011	0.011	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP	10/29/2015 13:34	10/30/2015 07:57	ALD
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD

Nickel, TCLP by EPA 6010

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-02-0	Nickel	0.0305		mg/L	0.00556	0.00556	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD

Zinc, TCLP by EPA 6010

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-66-6	Zinc	2.01		mg/L	0.0111	0.0111	1	EPA 6010C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	10/29/2015 13:34	10/30/2015 07:57	ALD

Mercury by 7473

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.563		mg/kg dry	0.0330	0.0330	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	10/30/2015 06:32	10/30/2015 19:14	ALD



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

15J1028

925 Atlantic Ave Brooklyn, NY

Soil

October 23, 2015 3:00 pm

10/27/2015

Mercury TCLP by 7473

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0000390	0.000200	1	EPA 7473/1311	11/01/2015 18:33	11/02/2015 14:24	ALD
Certifications: CTDOH,NJDEP,PADEP,NELAC-NY10854											

Ignitability

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Ignitability	Non-Ignit.		-	1	1	1	EPA 1030P	10/28/2015 13:55	10/29/2015 11:37	AA
Certifications: CTDOH,PADEP											

Paint Filter Test

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Paint Filter Test	No Free Liquid		-	0	0	1	EPA 9095A	10/28/2015 13:58	10/28/2015 14:30	AA
Certifications:											

Total Solids

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	91.0		%	0.100	0.100	1	SM 2540G	10/27/2015 18:33	10/28/2015 11:48	KK
Certifications: CTDOH											

Chromium, Hexavalent

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.385	0.550	1	EPA 7196A	10/29/2015 07:46	10/29/2015 14:02	SC
Certifications: NJDEP,CTDOH,NELAC-NY10854											

Corrosivity

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	pH	8.07		HT-pH pH units		0.500	1	EPA 9045D	10/28/2015 12:02	10/28/2015 13:29	KK
Certifications: NELAC-NY10854,CTDOH,PADEP											

Reactivity-Cyanide

Log-in Notes: HT-ENC

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Reactivity - Cyanide	ND		mg/kg	0.250	0.250	1	EPA SW-846 Ch.7.3.3	11/03/2015 12:55	11/03/2015 13:58	AD
Certifications: CTDOH,PADEP											

Reactivity-Sulfide

Log-in Notes: HT-ENC

Sample Notes:



Sample Information

Client Sample ID: WC (Hydraulic lift area)

York Sample ID: 15J1028-01

<u>York Project (SDG) No.</u> 15J1028	<u>Client Project ID</u> 925 Atlantic Ave Brooklyn, NY	<u>Matrix</u> Soil	<u>Collection Date/Time</u> October 23, 2015 3:00 pm	<u>Date Received</u> 10/27/2015
--	---	-----------------------	---	------------------------------------

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Reactivity - Sulfide	24.0		mg/kg	15.0	15.0	1	EPA SW-846 Ch.7.3.4 Certifications: CTDOH,PADEP	11/03/2015 12:58	11/03/2015 14:07	AD

TCLP Extraction for METALS EPA 1311

Log-in Notes: HT-ENC

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA 1311 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/27/2015 18:43	10/28/2015 12:37	CLS

TCLP Extraction for SVOCs/PEST/HERB

Log-in Notes: HT-ENC

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for SVOA/PEST/HERBS

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA 1311 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/27/2015 18:50	10/28/2015 12:37	CLS

TCLP Extraction for VOA by EPA 1311 ZHE

Log-in Notes: HT-ENC

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ZHE for VOA

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		%	1.00	1.00	1	EPA 1311 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	10/27/2015 18:52	10/28/2015 12:36	CLS



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
15J1028-01	WC (Hydraulic lift area)	40mL Vial with Stir Bar-Cool 4° C
15J1028-01	WC (Hydraulic lift area)	40mL Pre-Tared Vial + 10mL MeOH; Cool to 4° C
15J1028-01	WC (Hydraulic lift area)	40mL 01_Clear Vial Cool to 4° C



Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
PF-01	No Free Liquid
N	The Tentatively Identified Compound reported indicates the presence of an possible analyte or class of analyte that has been 'tentatively identified' and the associated numerical value represents its estimated concentration.
M-SeTC	It is noted that a known interference with selenium at the analytical line for analysis by ICP is caused by carbon emission from the TCLP or high organics matrix. The data user may subtract the matrix blank value from the data if needed.
M-DB	Analyte in Method Blank >MDL. Sample conc. >10 X blank conc.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
IGN-01	Non-Ignit.
HT-pH	HOLDING TIME EXCEEDED. Samples for pH must be measured in the field or within 15 minutes of sample collection.
HT-ENC	NON-COMPLIANT-The holding time of 48 hours from sampling before transfer to freezing media was exceeded for VOA encore media. The sample was submitted to York after the 48 hour period.
GC-Surr	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the alternate surrogate.
EXT-Temp	Extraction temperature slightly exceeded acceptance range.
EXT-EM	The sample exhibited emulsion formation during the extraction process. This may affect surrogate recoveries.
EXT-COMP	Completed
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.



High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



YORK
ANALYTICAL LABORATORIES INC

YORK ANALYTICAL LABORATORIES
120 RESEARCH DR.
STRATFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

York Project No. 15 J1028

YOUR Information		Report To:	Invoice To:	YOUR Project ID	Turn-Around Time	Report Type
Company: <u>Alpha-Hydro Env</u>	Company: _____	Company: _____	Company: _____	<u>925 Atlantic Ave</u>	RUSH - Same Day <input type="checkbox"/>	Summary Report <input checked="" type="checkbox"/>
Address: <u>1503 Wave Ave</u>	Address: _____	Address: _____	Address: _____	<u>Brooklyn, NY</u>	RUSH - Next Day <input type="checkbox"/>	Summary w/ QA Summary _____
Phone No. <u>(630) 448-1802</u>	Phone No. _____	Phone No. _____	Phone No. _____	Purchase Order No.	RUSH - Two Day <input type="checkbox"/>	CT RCP Package _____
Contact Person: <u>David Olske</u>	Attention: _____	Attention: <u>Accts Payable</u>	Attention: _____	<u>Job # 15-10633</u>	RUSH - Three Day <input type="checkbox"/>	CTRCP DQA/DUE Pkg _____
E-Mail Address: _____	E-Mail Address: _____	E-Mail Address: _____	E-Mail Address: _____	Samples from: CT ___ NY <input checked="" type="checkbox"/> NJ ___	RUSH - Four Day <input type="checkbox"/>	NY ASP A Package _____
				Standard(5-7 Days) <input type="checkbox"/>	Electronic Data Deliverables (EDD)	

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

David Olske

Samples Collected/Authorized By (Signature)

David Olske

Name (printed)

Volatiles	Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists	Misc.
8260 full 624 STARS list BTEX MTBE TCL list TAGM list CT RCP list Arom. only Halog. only App.IX list 8021B list	TICs Site Spec. Nassau Co. Suffolk Co. Ketones Oxygenates TCLP list 524.2 502.2 NJDEP list NJDEP list SPL or TCLP	8270 or 625 STARS list BN Only Acids Only CT RCP App. IX Site Spec. SPL or TCLP TCLP Pest TCLP Herb Chlordane 608 Pest 608 PCB	RCRA8 PP13 list TAL CT15 list TACM list NJDEP list Total Dissolved SPL or TCLP Indiv. Metals LIST Below	TPH GRO TPH DRO CT ETPH NY 310-13 TPH 1664 Air TO14A Air TO15 Air STARS Air VPH Air TICs Methane Helium	Pri. Poll. TCL Organics TAL Met/CN Full TCLP Full App. IX Part 360-Routine Part 360-Baseline Part 360-Expanded Part 360-Expanded Full List NYCDEP Sewer NYSDEC Sewer TAGM	Corrosivity Reactivity Ignitability Flash Point Sieve Anal. Heterotrophs TOX BTU/lb. Aquatic Tox. TOC Asbestos Silica

Matrix Codes
S - soil
Other - specify (oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Sample Identification	Date/Time Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below	Container Description(s)
<u>WC (Hydraulic lift Area)</u>	<u>10/23/15</u>	<u>S</u>	<u>TPHC: GRO & DRO - Expanded to C44; Total Volatile organics (TCL+10 & NJDEP SCC List + NJDEP SRS LIST). Total Semivolatile Organics (TCL+20 & NJDEP SCC List + NJDEP SRS LIST) Total metals RCRA + Cu, Ni, Zn; TCLP metals RCRA + Cu, Ni, Zn, Ignitability, Corrosivity, Reactivity - Sulfide & Cyanide; PCBs, TCLP Organics (VOC, SVOC, Pesticides & Herbicides) Paint filter</u>	<u>(3) Enclaves, (1) 2oz (2) 4oz, (2) 8oz</u>

Comments <u>CEC + CEP Protocol</u>	Preservation Check those Applicable Special Instructions Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>	4°C _____ Frozen _____ HCl _____ MeOH _____ HNO ₃ _____ H ₂ SO ₄ _____ NaOH _____ ZnAc _____ Ascorbic Acid _____ Other _____	Temperature on Receipt <u>3.9 °C</u>
	Samples Relinquished By <u>David Olske</u>	Date/Time <u>10/27/15 10:57 AM</u>	Samples Received By <u>K. Bahr</u>
	Date/Time <u>10/27/15</u>	Date/Time <u>10/27/15 16:20</u>	Samples Received in LAB by <u>11:50 PM</u>

Page 21 of 21