

## INDEX

(BSA Cal No. 2016-4183-BZ)

1. BSA Submission Notice;
2. Transmittal Letter;
3. Revised Statement of Facts and Findings;
4. Revised MCRE Report (Exhibit 1);
5. Revised Freeman Report (Exhibit 2);
6. Revised Drawings prepared by SCLE Architects; and
7. Environmental Assessment Statement (EAS) Short Form



## BSA SUBMISSION NOTICE

Date: March 10, 2017

Examiner's Name: Gjira Pranga

BSA Calendar #: 2016-4183-BZ

Electronic Submission:  Email  CD

Subject Property/  
Address: 432 East 14th Street, New York, NY

Applicant Name Strock & Strock & Lavan by Ross F. Moskowitz

Submitted by (Full Name): Patricia Shew

A) The material I am submitting is for a case currently **IN HEARING**, scheduled for March 28, 2017.  
The reason I am submitting this material:

- Response to issues/questions raised by the Board at prior hearing  
 Response to request made by Examiner  
 Other: \_\_\_\_\_

Brief Description of submitted material: Revised Statement of Facts and Findings; Revised MCRE Report (Exhibit 1);  
Revised Freeman Report (Exhibit 2); Revised Drawings, dated 3/7/17; and Revised EAS Short Form

List of items that are being voided/superseded: Statement of Facts and Findings, MCRE Report, Freeman Report, drawings,  
EAS Short Form

B) The material I am submitting is for a **PENDING** case. The reason I am submitting this material:

- Response to BSA Notice of Comments  
 Response to request made by Examiner  
 Dismissal Warning Letter

Brief Description of submitted material: \_\_\_\_\_

List of items that are being voided/superseded: \_\_\_\_\_

### MASTER CASE FILE INSTRUCTIONS

- Bind one set of new materials in the master case file
- Keep master case file in reverse chronological order (all new materials on top)
- Be sure to VOID any superseded materials (no stapling!)
- Handwritten revisions to any material are unacceptable

# STROOCK

By Hand

March 10, 2017

Ross F. Moskowitz  
Direct Dial: 212-806-5550  
Fax: 212-806-6006  
rmoskowitz@stroock.com

City of New York  
Board of Standards and Appeals  
250 Broadway, 29th Floor  
New York, NY 10007  
Attn: Margery Perlmutter, Chairperson

Re: East 14th Street Owner LLC  
432 East 14th Street, New York, NY  
Block 441 Lots 23 & 32  
BSA Calendar No. 2016-4183-BZ (the "Application")

Dear Chairperson Perlmutter:

On behalf of East 14th Street Owner LLC, we respectfully submit the following documents in connection with the Application. Enclosed please find one (1) CD Rom, one (1) original and two (2) copies of the following documents:

1. The revised Statement of Facts and Findings;
2. The revised MCRE Report (Exhibit 1);
3. The revised Freeman Report (Exhibit 2);
4. The revised Drawings prepared by SLCE Architects; and
5. The revised New York City Environmental Quality Review, Environmental Assessment Statement (EAS) Short Form, prepared by AKRF, Inc.

Please do not hesitate to contact us should you have any questions regarding the Application.

NY 703079v1

Board of Standards and Appeals  
March 10, 2017  
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Thank you for your cooperation and assistance.

Sincerely yours,

  
Ross F. Moskowitz

Enclosures

cc: East 14th Street Owner LLC  
Ms. Gigi Li, Chair, Manhattan Community Board 3 (by overnight delivery)  
Ms. Susan Stetzer, District Manager, Manhattan Community Board 3 (by overnight delivery)  
Honorable Rosie Mendez, City Council Member (by overnight delivery)  
Honorable Gail Brewer, Manhattan Borough President (by overnight delivery)  
Martin Rebbholz, Borough Commissioner, Manhattan Department of Buildings (by overnight delivery)  
Mr. Carl Weisbrod, Director, Department of City Planning, Manhattan Office (by overnight delivery)  
Mr. Christopher Holmes, Department of City Planning, Manhattan Office  
J.S. Freeman Associates, Inc.  
SLCE Architects, LLP Fernando Alvarez, AIA Associate

# STROOCK

March 10, 2017

## STATEMENT OF THE APPLICANT (THIRD REVISED)

Re: BSA Cal. No. 2016-4183-BZ  
432-438 East 14th Street  
435-445 East 13th Street  
219 Avenue A  
Borough of Manhattan  
Block 441, Lots 23 and 32  
(the "Site")

This application (the "Application") is filed pursuant to Section 72-21 of the Zoning Resolution of the City of New York (the "Zoning Resolution" or "ZR") and Section 666 of the New York City Charter. The Application seeks a bulk variance to modify the floor area regulations of Zoning Resolution Section 23-153 and the height and setback regulations of Zoning Resolution Section 35-65, in connection with the construction of a mixed residential and commercial building (the "Proposed Development") at the Subject Site, which is located within a C1-6A zoning district.

As described below, the Site is burdened by a combination of unique conditions that result in practical difficulties in complying with the applicable zoning regulations. Unusually elevated groundwater levels and exceedingly soft and unstable soil (owing to the presence of an underground stream) result in extraordinary construction costs, which make a complying development infeasible. The Proposed Development, on the other hand, would generate sufficient income to offset the cost of development and provide a reasonable return on investment. In addition, Proposed Development is contextual with the surrounding neighborhood, and it will enliven a historically under-utilized stretch of East 14th Street. It will also provide 26 units of affordable housing.

This third revised statement is submitted in response to comments and questions raised by the Board during the January 24, 2017 hearing. The Application has been modified to reflect: (1) a reduction in the premium construction costs for development of the Site; (2) a reduction in the Proposed Development's floor area and height; and (3) accordingly, a reduction in the degree of variance requested. In addition, responses to the testimony and written statements made in opposition to the application (the "Opposition") are included. Work is ongoing at the Site under permits for an as-of-

right development. As of March 8, 2017, the following work has been completed at the Site: (1) support of excavation is complete; (2) excavation and soil disposal is complete; (3) the dewatering system has been installed and is operational; (4) the gravel substrate is in place, the rat slab has been completed for the northern portion of the Site, and waterproofing installation is underway; (5) foundation mat slab has been installed on the southern portion of the Site; (6) vibration monitoring and surveying of adjacent properties is ongoing; (7) the Site is securely fenced and security is in place during non-working hours; (8) temporary electric panels have been installed but are not energized; (9) foundation wall rebar has been installed on the southern portion of the Site; (10) rebar installation for the mat slab is underway on the northern portion of the Site; (11) underground plumbing has been installed; (12) underground electrical conduit and lighting protection has been installed; and (13) initial foundation wall concrete pour is underway.<sup>1</sup>

#### L. The Site

The Site, which is a single zoning lot comprised of Tax Lots 23 and 32, is an irregular lot located in the mid-block portion of the block bounded by Avenue A, East 13th Street, First Avenue, and East 14th Street, within a C1-6A zoning district. The Site is located within Community District 3; it is not within an Inclusionary Housing designated area. The Site has 129.92 feet of frontage along East 13th Street, 102.87 feet of frontage along East 14th Street, 28.08 feet of frontage along Avenue A, and approximately 25,950 sq. ft. of lot area. Lot 32 (219 Avenue A), is an air rights parcel (the "Air Rights Parcel"). The Air Rights Parcel contributes 2,411 sq. ft. of lot area to the zoning lot and is occupied by a five-story mixed residential and commercial building, with approximately 7,092 sq. ft. of floor area (2.94 FAR<sup>2</sup>) (5,674 sq. ft. of residential floor area (2.35 FAR) and 1,418 sq. ft. of commercial floor area (0.59 FAR) and 11 dwelling units. Accordingly, it will contribute approximately 3,970 sq. ft. of floor area to the Proposed Development.

Lot 23 is the portion of the Site to be developed (the "Development Site"). The Development Site was historically occupied by a two-story commercial building, which was constructed in 1953 to be a branch of the United States Postal Service. The building, which had approximately 40,000 sq. ft. of floor area (1.54 FAR), remained a post office until its closure in 2014. Permits for the demolition of the building were

<sup>1</sup> All work has been performed in accordance with the requirements of the Department of Environmental Protection, as described in a January 20, 2017 letter from AKRF, Inc. to the Board.

<sup>2</sup> Floor area ratio, which per the ZR definition, is calculated for the entire zoning lot. The figures provided for the Air Rights Parcel are calculated as though the Air Rights Parcel were a single zoning lot.

issued on August 24, 2015. Subsequently, the building was demolished and the demolition application was signed off by the Department of Buildings ("DOB") on May 23, 2016.

Prior to 1953, a portion of the Development Site was under the Board's jurisdiction. On June 14, 1949, under BSA Cal. No. 166-49-BZ, the Board granted a use variance to allow the Site to be used as a parking lot for motor vehicles contrary to the use regulations of the 1916 Zoning Resolution.<sup>3</sup> The use variance expired on June 14, 1951.

As described in the revised report prepared by Mueser Rutledge Consulting Engineers (the "MRCE Report" a copy of which is submitted herewith, as Exhibit 1), a historic streambed covers approximately 20 percent of the Site. The streambed was backfilled with fill material when the current street grid and grades were established; however, the stream itself still exists, but is buried and not visible from the ground surface. As a result, (i) groundwater levels are elevated and (ii) the soil has significantly less bearing capacity than would be expected in this area of Manhattan.

According to the MRCE Report, ground surface elevations range at the Site between Elev. +18 to +21, and the proposed top of cellar slab is at Elev. +4.7. Groundwater levels were recorded between Elev. +7.5 and +8 in observation wells installed at the Site. These water levels are higher than normally encountered in this part of Manhattan. Based on MRCE's compilation of data, groundwater in the vicinity could be expected at about Elev. +5, (NGVD 1929 Datum), or Elev. +3.9 (NAVD88 Datum) at the Site. Thus, the groundwater at the Site is about 3.5 to 4 feet higher than normal.

The underground stream also impacts the bearing capacity and overall quality of soil at the Site. According to MRCE, the Site's soil is mostly fine to medium sand with some silty fine sand. These soil types are very sensitive to disturbance and have low-to-moderate bearing capacities. In addition, the depth of the organic stream deposits make removal and replacement with structural fill impractical. The substandard nature of the soil results in extraordinary premium construction costs, as detailed below in Section VIII(b).

## II. The Neighborhood

The Site is located at the intersection of the East Village, Alphabet City and Stuyvesant Town, within Community Board 3. The neighborhood north of East 13th Street is

<sup>3</sup> The resolution for BSA Cal. No. 166-49-BZ was previously submitted to the Board.

generally zoned C1-6A or C1-7A, except Stuyvesant Town, which lies mostly within an R7-2 (C1-5) district. South of East 13th Street, nearly all areas are contextually zoned, with R8B districts in the mid-blocks, and R7A districts with commercial overlays (C1-5 or C2-5) and Inclusionary Housing designated areas along the avenues.

The surrounding area contains a variety of land uses, including residential, commercial, institutional, and parkland, including Tompkins Square Park, Joseph C. Sauer Park, Stuyvesant Square, and Lower East Side Playground. Typically, commercial uses are limited to ground floor retail and service establishments, with residential use above.

There is no dominant built form in the surrounding area. Indeed, the area is characterized by its architectural diversity. The 13-story tower-in-the-park multiple dwellings of Stuyvesant Town dominate East 14th Street and northward. Five- and six-story Old Law and New Law tenements, pre-2008 condominiums, and turn-of-the-century apartment houses are found in the neighborhood, along with a wide variety of community facilities, ranging in size, vintage, and type, from the three-story Clergy Houses of the Church of Immaculate Conception (completed in 1896; designated as a New York City Landmark on June 7, 1966), to the recently-renovated, 10-story New York Eye and Ear Infirmary located on the southeast corner of East 14th Street and Second Avenue to the five-story, approximately 180,688 sq.-ft. Public School 60<sup>4</sup>, which was completed in 1925 and occupies fully half of the mid-block portion (0.83 acres) of the block bounded by Avenue A, East 11th Street, East 12th Street, and First Avenue.

With the exception of Stuyvesant Town and a few institutional buildings, the street walls of the neighborhood are continuous and built to the street lines. Buildings generally rise to their full height without setback. Rear yards, where they exist at all, tend to be non-complying.

The Site abuts mixed residential and commercial uses on all sides, except the northernmost 50 feet of its eastern lot line, where it abuts a one-story commercial building. The abutting buildings range in height from approximately 12 feet to approximately 78 feet.<sup>5</sup>

The area is well-served by public bus, with multiple routes along East 14th Street, First

<sup>4</sup> The PS 60 building is currently occupied by "Girls Preparatory Charter School" and "East Side Community High School."

<sup>5</sup> The building abutting the Site to the southwest (421 East 13th Street) is a market-rate condominium building with approximately 96 dwelling units and ground floor retail. Construction of the building was commenced in 2006 and was completed in 2012.

Avenue, and Avenue A. The First Avenue station for the L train is located on the northeast corner of the intersection of First Avenue and East 14th Street, approximately one block from the 14th Street frontage of the Site.

### III. Applicable Zoning Regulations

The Site is located within C1-6A zoning district. Permissible uses in a C1-6A district are those in Use Groups 1 through 6. Per ZR Section 23-153<sup>6</sup>, the maximum permitted FAR in C1-6A districts is 4.0 FAR for residential use and, per ZR Section 33-121, 2.0 FAR for commercial use. The total permitted residential floor area for the Site, at 4.0 FAR, is 103,800 sq. ft. and the total permitted commercial floor area for the Site, at 2.0 FAR, is 51,900 sq. ft. The total permitted FAR for a mixed residential and commercial building at the Site is 4.0.

Zoning Resolution Section 35-65 provides that, in a C1-6A district, a minimum base height between 40 feet and 65 feet is required, with a setback of at least ten feet along a wide street and 15 feet along a narrow street, and maximum building height of 80 feet.

In C1-6A districts, mixed residential and commercial buildings are required to be developed in accordance with the Quality Housing Program regulations set forth in ZR Section 23-00 *et seq.*

### IV. The Complying Development

Submitted herewith are plans by SLCE Architects ("SLCE") for a Complying Development (the "Complying Development").<sup>7</sup> The Complying Development would not be feasible, as described below in Section VIII(b).

The Complying Development would be a single mixed residential and commercial building rising eight stories and 80 feet along East 13th Street and seven stories and 75 feet along East 14th Street. The East 13th Street frontage would have a 15-foot setback at a street wall height of 60'-8" and the East 14th Street frontage would have a 10-foot setback at street wall height of 65'-0". The Complying Development would contain

<sup>6</sup> Per ZR Section 35-23(b), the residential bulk regulations applicable in for the residential portion of a building at the Site are those applicable within an R7A zoning district.

<sup>7</sup> On June 22, 2015, DOB issued a partial permit for the Complying Development under New Building Application No. 121192342 and certain aspects of the authorized work have been performed as discussed hereinabove. The Complying Development plans are identical to the DOB-approved plans, except insofar as the DOB-approved plans include additional details and work types that are not germane to this Application.

96,344 sq. ft. of floor area (87,813 sq. ft. of residential floor area and 8,531 sq. ft. of commercial floor area).<sup>5</sup> The East 13th Street portion of the building would be entirely residential. Along East 14th Street, the majority of the cellar and ground floor would be commercial, with residential use in a small portion of the cellar (mechanical space), ground floor (lobby) and on floors 2 through 8. The Complying Development would yield 113 dwelling units (23 affordable units and 90 market-rate units).

As set forth in the revised Economic Analysis Report prepared by JS Freeman & Associates, (the "Freeman Report") and submitted herewith as Exhibit 2, the Complying Development would not be a financially feasible project due to the extraordinary premium construction costs associated with constructing the proposed foundation at the Site. Per the Freeman Report, the Complying Development has a total cost of \$107,086,000 (including \$6,921,000 in premium construction costs owing to the Site's unique physical conditions) and a total value (including the value of the 421-a Tax Abatement Program) of \$101,215,000. Thus, the Complying Development costs approximately \$5,871,000 more to construct than it will be worth upon completion.

The Applicant also studied the feasibility of a complying affordable housing development *without* a full-height cellar commercial space (the "Shallow Cellar Development"). The Freeman Report concluded that although premium construction costs were reduced in the Shallow Cellar Development, commercial rents were also reduced to a degree that a reasonable return could not be achieved.

#### V. The Proposed Development

Submitted herewith are plans by SLCE for the revised Proposed Development. Note that, in response to the Board's comments and the concerns of the Opposition, the Proposed Development has been modified. The proposed building height has been reduced by three stories and 29'-7", and the proposed floor area has been reduced by 17,419 sq. ft.

The Proposed Development is similar to the Complying Development, in that it would be a single mixed residential and commercial building with frontages on East 14th Street and East 13th Street; however, it would rise nine stories along East 14th Street

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<sup>5</sup> It is important to note, as illustrated in the Complying Development plans, that if the Site were not encumbered with substandard soil, the Air Rights Parcel's approximately 3,970 sq. ft. of excess residential floor area would fit within a complying building envelope at the Development Site. Thus, including the Air Rights Parcel in the zoning lot is irrelevant to the findings that the Board must make in order to grant the requested relief. The Complying Development would, including the Air Rights Parcel, have an FAR of 3.96, just under the maximum permitted FAR of 4.0.

and eight stories along East 13th Street. The Proposed Development would have 106,839 sq. ft. of floor area (4.11 FAR<sup>9</sup>) (98,308 sq. ft. of residential floor area and 8,531 sq. ft. of commercial floor area), ground floor retail, 130 dwelling units, and a height of 94'-5", without setback, along East 14th Street. The East 13th Street frontage would comply with the height and setback requirements of the C1-6A district, which is an R7A equivalent – a base height of 60'-8" with a 15-foot setback, and a total building height of 80'-0".

The Proposed Development maintains a deep cellar, which, as discussed, is essential for providing marketable retail space. The Proposed Development provides an additional 17 dwelling units, which translates to three additional units of affordable housing, for a total of 26 units of affordable housing at the Site. The apartment sizes and finishes (countertops, floors, fixtures, etc.) in all market-rate and affordable apartments in both the Complying Development and the Proposed Development will be the same.

In order to construct the Proposed Development, the Applicant requires waivers of the applicable floor area and height and setback regulations. The Board has traditionally required some nexus between the uniqueness of a site, the practical difficulties imposed by such uniqueness, and the zoning relief requested. Here, there is a strong nexus between the floor area waiver, the Site's uniquely substandard soil, and the attendant premium subgrade construction costs. The additional floor area is necessary to offset the premium cost.

As for the height and setback waiver, it is necessary for the efficient utilization of the additional floor area. Rising shear instead of setting back will control construction costs by allowing for standard vertical circulation, corridors, chases, and risers. It will also yield larger floorplates, which results in larger, more livable apartments. The differences in construction costs and values of the several development scenarios is discussed below and in the Freeman Report. In short, the Proposed Development costs \$112,696,000 to construct and has a value of \$111,458,000. As such, the Proposed Development is within one percent of covering the construction costs created in part by the Site's unique physical conditions, making it a feasible project for the Applicant.

The Proposed Development reflects the contrasting streetscapes of East 13th Street and East 14th Street. East 13th Street is a narrow tree-lined street, with five-, six-, and eight-story multiple dwellings and low-rise community facilities. The East 13th Street

<sup>9</sup> As noted above, the zoning lot includes Lot 32, which contributes approximately 5,672 sq. ft. of residential floor area and 1,418 sq. ft. of commercial floor area, resulting in total of 113,929 sq. ft. of floor area (4.39 FAR) (103,980 sq. ft. of residential floor area and 9,949 sq. ft. of commercial floor area) for the zoning lot.

frontage of the Proposed Development, with its street wall profile and complying setback, is in keeping with this context. East 14th Street, on the other hand, is a wide street—wider even than most avenues below 14th Street—and its streetscape is dominated on the north side by the 13-story towers of Stuyvesant Town and on the south side by an array of building sizes and forms, including Old Law Tenements, a late-1800s house of worship, and a series of one-story, 1950s-style commercial buildings.

The understated architectural features of the Proposed Development—the traditional masonry, rectilinear fenestration, and modern black and charcoal tones—were designed to reflect the rich and varied architectural profile of the neighborhood.

#### VI. The Typical Site Development

To further illustrate the hardship imposed by the premium construction costs described above, the Applicant examined the costs associated with constructing the Complying Development on a site not encumbered by the Site's substandard soil and elevated groundwater (the "Typical Site Development"). As described in the Freeman Report, the Typical Site Development achieves a reasonable return, because a marketable cellar can be constructed without premium costs. Per Section 4.50 of the Freeman Report, the difference between the construction cost and the value of the Typical Site Development would be (\$205,000), making the Typical Site Development feasible.

#### VII. Department of Buildings Objections and the Requested Variances

By final determination dated April 29, 2016, DOB issued the following objections to New Building Application No. 121192342:

*Proposed floor area exceeds the maximum permitted as per ZR 23-153.*

This objection arises and variance from the floor area regulations is requested because, per ZR Section 23-153, the maximum permitted floor area for this Site is 103,800 sq. ft. (4.0 FAR) and 113,929 sq. ft. of floor area (4.39 FAR) is proposed (including the existing residential building on the Air Rights Parcel).

*Proposed street wall along East 14th Street does not comply with the required setback above the minimum base height as per ZR 35-65.*

This objection arises and variance from the height and setback regulations is requested because, per ZR Section 35-65, a minimum base height between 40 feet and 65 feet is

required, with a setback of at least ten feet along a wide street is required and no setback along the East 14th Street (wide street) frontage is proposed.

*Proposed building height exceeds the maximum permitted as per ZR 35-65.*

This objection arises and variance from the building height regulations is requested because, per ZR Section 35-65, a maximum height of 80'-0" is permitted and a building height of 94'-5" is proposed.

#### VIII. The Required Findings

This Application satisfies the five findings required under ZR Section 72-21(a)-(e).

- a. **UNIQUENESS.** Per ZR Section 72-21(a), the Board shall find that there are unique physical conditions or exceptional topographical conditions peculiar to and inherent in the zoning lot which create practical difficulties and unnecessary hardship in complying with the applicable provisions of the Zoning Resolution which are not due to circumstances created generally by the strict application of the provisions of the Zoning Resolution in the neighborhood or district in which the zoning lot is located.

The Site is uniquely encumbered by physical conditions that create practical difficulties and unnecessary hardship in complying with the applicable bulk regulations. The Site has exceptionally high groundwater levels and unusually weak soil. These conditions combine to make necessary subgrade construction extraordinarily costly. To the extent that nearby sites may face similar subgrade challenges, the vast majority of those sites were developed 70 to 100 years ago with buildings that could not be built today.

The Site's uniqueness and its attendant costs are discussed in detailed below, as well as relevant Board precedent (namely, (i) cases in which premium construction costs owing to substandard soil conditions were the primary basis for the (a) finding and (ii) a case in which construction was well underway during the variance application process). To further establish the uniqueness of the Site's challenges, the zoning lot directly west of the Site (the "Adjacent Condominium Building"), which was redeveloped approximately ten years ago, is also discussed.

#### (1) ELEVATED GROUNDWATER

Ground surface elevations range at the Site between Elev. +18 to +21, and the proposed

top of cellar slab is at Elev. +4.7. Groundwater levels were recorded between Elev. +7.5 and +8 in observation wells installed at the Site. These water levels are higher than normally encountered in this part of Manhattan. Based on MRCE's compilation of data, groundwater in the vicinity could be expected at about Elev. +5, (NGVD 1929 Datum), or Elev. +3.9 (NAVD88 Datum) at the Site.

Thus, the actual groundwater was about 3.5 to 4 feet higher than could be expected which is unusual for this site given its proximity to the shore. The higher-than-anticipated groundwater levels at the Site are due to its location atop an old streambed. Due to the elevated groundwater, around-the-clock dewatering will be required during all phases of work on the foundations. Further, the dewatering system must consist of closely-spaced well points around the perimeter of the Site and possible pre-treatment of groundwater prior to discharge. There are significant risks associated with extensive dewatering, including settlement of adjacent structures due to movement of granular material from below foundations and increased vertical pressure on compressible soils. In addition, due to the presence of contamination in the groundwater particulate filtration of the groundwater will be required, at additional cost.

The cellar slab design must also be altered due to the elevated groundwater. Specifically, the cellar slab must be designed to resist the uplift forces imposed by the elevated groundwater. MRCE concluded that a thick mat slab with permanent tie-downs is required at the Site, rather than a slab-on-grade, which is typical for this type of construction at site without elevated groundwater.

At hearing, the Board questioned whether the entire Site was encumbered by elevated groundwater levels and directed the Applicant to confine its assertion of uniqueness to the northern half of the Site.

## (2) UNSTABLE SOIL

The soil conditions at the Site consist of fine to medium sand to a silty, fine sand. These soils are very sensitive to disturbance, therefore excavating and creating cellar space is extremely challenging. Additionally, dewatering these soils will be difficult and creating a cut-off wall would be required to limit the settlement of adjacent structures. Due to the sensitive nature of the soils, driven piles cannot be utilized, as the installation of these piles would tend to cause densification of the sand and settlement of adjacent structures. Thus, drilled piles will be required.

Finally, the Site's unique physical conditions—elevated groundwater and unstable soil—in combination with the need to protect adjacent structures (such need being a

typical condition in the City) creates additional practical difficulties and unnecessary hardship. MRCE concluded that an unusually-robust foundation and support of excavation system (a secant pile wall) must be utilized rather than a conventional—and less expensive—pit underpinning and soldier pile-and-lagging system.

At hearing, the Board questioned whether the entire Site was encumbered by uniquely unstable soils and directed the Applicant to confine its assertion of uniqueness to the northern half of the Site.

### (3) PREMIUM CONSTRUCTION COSTS

The Applicant's structural engineer, WSP | Parsons Brinckerhoff ("WSP") and independent cost estimator Noble Construction Group, LLC ("Noble") reviewed the design with SLCE and MRCE and have attributed \$6,921,000 in direct premium construction costs owing to the substandard soil at the Site.<sup>10</sup> However, as discussed below in Section VII(b), only the costs associated with the northern half of the Site (\$4,568,872) are relied upon in this Application, due to the Board's conclusion that southern half of the Site appears, in terms of soil and groundwater, to be typical of the surrounding area.

### (4) RELEVANT BOARD PRECEDENT

The Board has recognized substandard soil conditions as a unique physical condition causing practical difficulties and unnecessary hardship in at least eight variances in the past seven years, in every borough. On June 17, 2014, under BSA Cal. No. 347-12-BZ (42-31 Union Street, Queens), the Board granted a use variance to allow the construction of a hotel based in part on the site's "substandard soil conditions, resulting in premium construction costs." On May 14, 2014, under BSA Cal. No. 299-12-BZ (40-56 Tenth Avenue, Manhattan), the Board granted certain bulk variances based in part on the site's "poor soil conditions that require additional excavation, foundation, and underpinning measures." On March 11, 2014, under BSA Cal. No. 192-13-BZ (354-361 Leroy Street, Manhattan), the Board cited "poor subsurface conditions including deep bedrock, soft soils, and shallow ground water" as physical conditions contributing to the uniqueness of a site entitled which it found to be entitled to a use variance for a mixed residential and commercial building. On May 7, 2013, under BSA Cal. No. 42-10-BZ (2170 Mill Avenue, Brooklyn), the Board granted use and bulk variances to allow the construction of a multiple dwelling based in part on the site's "poor soil quality and high water table." On February 14, 2012, under BSA Cal.

<sup>10</sup> The Noble Report is contained within the Freeman Report, beginning at page 48.

No. 73-11-BZ (70 Tennyson Drive, Staten Island), the Board granted use, height, and parking waivers to allow the construction of three multiple dwellings. Among the unique physical conditions noted was the presence of "poor subsurface soil conditions."

On August 23, 2011, under BSA Cal. No. 169-09-BZ (186 St. George's Crescent, Bronx), the Board granted certain bulk variance, including floor area, based in part on the "presence of sandy soils throughout the lot" which "would not support the weight of either the as-of-right or proposed buildings." On February 9, 2010, under BSA Cal. No. 195-07-BZ (8-12 Bond Street, Manhattan), the Board granted a use variance to allow retail uses below the level of the second story based in part on the site's "poor soil conditions which require additional excavation, foundation, and underpinning measures." On November 24, 2009, under BSA Cal. No. 314-08-BZ (437-447 West 13th Street, Manhattan), the Board granted use and bulk variances to allow the construction of a commercial based on a number of unique physical conditions, including "poor soil conditions which require additional excavation, foundation, and underpinning measures." Thus, it is well established that substandard soil conditions and the premium construction costs resulting therefrom can be cited to satisfy ZR Section 22-21(a).<sup>11</sup>

At hearing, the Board and the Opposition questioned whether the Site should be eligible for a variance given that construction has already commenced, the concern being that commencement of construction undermines the assertion that development is infeasible. There is recent precedent for the Board granting a variance notwithstanding that construction has commenced on a site. BSA Cal. No. 347-12-BZ—mentioned above because the (a) finding was satisfied in part by substandard soil conditions—involved a use variance and a special permit under ZR Section 23-66 to allow the construction of a transient hotel with 180 rooms (Use Group 5) within an R7-1 (C1-2) zoning district, within the flight obstruction area of LaGuardia Airport. The use variance was required because Use Group 5 is not permitted as-of-right within an R7-1 (C1-2) district and the special permit was required because the proposed height of the building (243'-0") exceeded the maximum permitted height within the flight obstruction area (155'-0") by 93'-0".

According to BIS, an application for an 18-story mixed residential and community facility building was filed on January 15, 2009, foundation permits were first obtained on July 26, 2011, and the first new building permit was obtained on August 30, 2013. The variance application was filed on December 26, 2012, heard by the Board on March 25, 2014 and May 13, 2014, and granted by the Board on June 17, 2014. The

<sup>11</sup> Copies of the cited variances were previously submitted to the Board.

post-approval amendment for the building authorized by the Board was approved on January 26, 2015 – three and a half years after the first foundation permit was obtained.<sup>12</sup>

Importantly, in BSA Cal. No. 347-12-BZ, the Board was well aware that as-of-right construction was proceeding, as it noted in its resolution that “the applicant represents that, at present, the site is a construction site for an as-of-right residential development.” In its discussion of the (a) finding, the Board noted that “the applicant clarified that . . . a deep excavation was not anticipated by the borings, but became necessary after excavation began.” The Board’s decision in BSA Cal. No. 347-12-BZ is therefore directly relevant to the Board’s review of this Application. Despite work progressing far beyond the stage of construction at the Site in this Application<sup>13</sup>, the Board made the necessary findings and granted the use variance and the special permit.

#### (5) THE ADJACENT CONDOMINIUM BUILDING

The Adjacent Condominium Building, known as 420 East 14th Street (Block 441, Lot 17 (Condominium Lots 1201-1297)), was developed with an as-of-right mixed residential and commercial building that constructed between 2005 and 2007.<sup>14</sup> As set forth in the MRCE Report, the Adjacent Condominium Building was constructed *without* the robust foundation system required at the Site. The Adjacent Condominium Building’s foundation wall—which is below the water table and abut the Site from East 13th Street to East 14th Street—could also be acting as a dam, causing unusually high water levels at the Site. Accordingly, the drawings for the Adjacent Condominium Building further support the assertion that the Site is uniquely disadvantaged relative to other sites within the neighborhood.<sup>15</sup>

**b. REASONABLE RETURN. Per ZR Section 72-21(b), the Board shall find that because of such physical condition there is no reasonable possibility that the development of the zoning lot in strict conformity**

<sup>12</sup> Based on ECB Violation No. 35017011Y, as of May 14, 2013, at least three stories of the building had been constructed.

<sup>13</sup> The status of construction is provided at the top of page 2 hereinabove.

<sup>14</sup> Excavation permits were issued in December 2005, foundation permits were issued in January 2006, a new building permit was issued in June 2006, and the first temporary certificate of occupancy was issued in December 2007. A permanent certificate of occupancy was issued for the building in August 2012. Copies of the DOB-approved foundation drawings, as well as BIS printouts evidencing the referenced timeframes, and the permanent certificate of occupancy were previously submitted to the Board.

<sup>15</sup> Although irrelevant for the uniqueness discussion, it should also be noted that development cost structures (acquisition, financing, and construction costs) have changed significantly since the Adjacent Condominium Building was financed, built, and sold.

**with the provisions of the Zoning Resolution will bring a reasonable return, and the grant of a variance is therefore necessary to enable the owner to realize a reasonable return.**

As set forth above, the Site is encumbered by unique physical conditions that result in a total direct construction cost premium of \$6,921,999. As directed by the Board, however, the portion of these costs relating to the southern half of the Site have been excluded (due to southern portion's soil and groundwater being, according to the Board, typical of the surrounding area), resulting in a premium construction cost of \$4,568,872. As such, there is no reasonable possibility that the development of the Site in strict conformity with the provisions of the Zoning Resolution will bring a reasonable return.

The Freeman Report includes a thorough analysis of the financial returns likely to be produced in the various scenarios using the capitalization of income method. The Freeman Report concludes that the Complying Development would be significantly more costly to build than it would be worth upon completion. The Proposed Development, on the other hand, would be roughly equal in terms of cost and value.

The Complying Development has a cost of \$107,086,000 and a value of \$101,215,000.<sup>16</sup> The Proposed Development costs \$112,696,000 to construct and has a value of \$111,458,000. The difference in the scenarios is that the Proposed Development comes significantly closer to offsetting the direct premium costs of constructing the foundation.<sup>17</sup> Thus, only the Proposed Development is a financially feasible project.

- c. NEIGHBORHOOD CHARACTER.** Per ZR Section 72-21(c), the Board shall find that the variance, if granted, would not alter the essential character of the neighborhood or district in which the zoning lot is located, would not impair the appropriate use and development of adjacent property, and would not be detrimental to the public welfare.

The Site is located at the intersection of the East Village, Alphabet City and Stuyvesant Town, within Community Board 3.<sup>18</sup> The area surrounding the Site is characterized by

<sup>16</sup> Note the increase of the value of the Complying Development since the prior Freeman Report, which increase is due to an increase in the value of the commercial portion of the building.

<sup>17</sup> The applicant represents that actual foundation costs—which are not typically considered by the Board—are \$11,837,917.00.

<sup>18</sup> Photos of the Site were previously submitted to the Board.

its use and bulk diversity.<sup>19</sup> Buildings range in height from one-story to thirteen. Housing forms include Stuyvesant Town, tenement buildings, rowhouses, and modern apartment buildings. Ground floor commercial use is widespread and varies from discount stores to high-end dining. To the extent that there is a trend, it is increasing heights around corners and north of East 14th Street, and more traditional, lower-rise neighborhoods south of East 13th Street.

The residential and commercial uses in the Proposed Development are permitted as-of-right in the subject C1-6A district and they are entirely consistent with the character of the surrounding neighborhood.

The bulk of the Proposed Development is also in keeping with the essential character of the area. The low-rise character of East 13th Street is maintained (the East 13th Street complies with the height and setback regulations), and the additional height and mass are confined to the East 14th Street frontage, where they will be contextual with the towers of Stuyvesant Town. As depicted in the streetscapes submitted herewith, the East 14th Street frontage has been reduced from an original height of 124'-0" (which was more than 10'-0" shorter than the typical height of a Stuyvesant Town building) to a proposed height of 94'-5". In this way, the East 14th Street frontage, and indeed, the Site as a whole, will provide a gradual step-down from the Stuyvesant Town site to the five- and six-story tenements that characterize East 13th Street and the areas to the south of the Site.

The proposed floor area and height are also consistent with the regulations of the nearby C1-7A and R7A (Inclusionary Housing) zoning districts. The western 100 feet of the subject block lies within a C1-7A district, which is mapped along First Avenue, from East 13th Street to East 15th Street. A C1-7A district is an R8A equivalent under the Zoning Resolution. An R8A district allows a maximum residential FAR of 6.02 and a maximum building height of 120'-0". Thus, a significantly taller building with significantly more floor area than the Proposed Development could be constructed on the same block as the Site.

In addition, R7A-Inclusionary Housing designated areas are mapped along First Avenue and Avenue A, beginning on the south side of East 13th Street i.e., *literally* across the street from the Site. Developments complying with the Inclusionary Housing requirements of Zoning Resolution Section 23-90 would be permitted to have a maximum FAR of 4.6. Thus, the FAR of the Proposed Development (4.39 FAR, including the Air Rights Parcel building) is 0.21 FAR less than would be permitted as-

<sup>19</sup> The Existing Land Use Map in the EAS (Figure 2, page 8) is illustrative.

of-right within 100 feet of the Site.<sup>20</sup> The heights of the neighboring buildings along the south side of East 14th Street are illustrated in the streetscapes provided by SLCE.

Further, from an planning and urban design perspective, the Site's East 14th Street frontage makes it more similar to sites within these nearby bulkier districts than to a typical site within a C1-6A district. On the rare occasion a C1-6A district can be found, it is usually found in the mid-block, along a narrow street. But East 14th Street functions as an east-west avenue; at its widest point it is wider than Second Avenue, First Avenue, Avenue A, and Avenue B. Accordingly, the Site's zoning designation is somewhat incongruous with its location along a particularly wide street. As such, more height than is permitted as-of-right under the C1-6A regulations is appropriate along East 14th Street. The design team was mindful of this, and it confined the additional height and floor area of the Proposed Development to the East 14th Street frontage.

As discussed in the Environmental Assessment Statement (the "EAS") prepared by AKRF, Inc. and submitted herewith, the shadows cast by the original, 12-story Proposed Development would not significantly impact any parks, public open spaces or historical or architectural resources with sunlight-dependent features. Indeed, according to the EAS, the original Proposed Development would have created, at most, 31 minutes of new shadow one sunlight-sensitive architectural resource, the Clergy Houses of the Church of Immaculate Conception (the "Church"); the revised Proposed Development will create even less. AKRF's detailed analysis and figures indicate that a portion of the eastern façade and arcade of the Church's interior court would be affected by shadows cast by the original Proposed Development on the mornings of March 21st and September 21st; however, owing to the short duration and small extent of the shadows, AKRF concluded that the public's enjoyment of the Church's sunlight-sensitive architectural features would not be substantially reduced.

The Proposed Development would result in no significant adverse impacts on infrastructure, solid waste management, energy, noise or air quality, and it would have no direct effect on land use, socioeconomic conditions, visual resources, community facilities, traffic or parking.

The Church is the nearest historic structure and it is more than 200 feet west of the eastern lot line of the Site. As such, there are no historic districts or individually-designated landmarks that are anticipated to be affected by the Proposed Development.

Finally, the design of the Proposed Development seeks to complement the rich

<sup>20</sup> The R7A district has a maximum building height of 80'-0".

architectural history of the area. The masonry style is a nod to the tenement era, while the fenestration, balconies, and brick color suggest a muted version of the area's development post-2000. Even Stuyvesant Town's signature rise-without-setback is reflected in the Proposed Development's, where, along East 14th Street, such feature helps to soften the diverse massing along the wide thoroughfare.

In summary, the Proposed Development has been carefully redesigned to be harmonious with and sensitive to the essential use and bulk character of the surrounding neighborhood. It will neither impair the appropriate use and development of adjacent property, nor be detrimental to the public welfare. It will also create 26 units of affordable housing.

- d. SELF-CREATED HARDSHIP.** Per ZR Section 72-21(d), the Board shall find that the practical difficulties and unnecessary hardship have not been created by the owner or a predecessor in title.

The practical difficulties and unnecessary hardship associated with development of the Site as-of-right result from (i) especially high groundwater levels and (ii) unusually weak soil, conditions which were not created by the owner or a predecessor in title. Strictly applying the Zoning Resolution to the Site in light of these conditions would create an unnecessary hardship for the Applicant.

- e. MINIMUM VARIANCE.** Per ZR Section 72-21(e), the Board shall find that, within the intent and purposes of the Zoning Resolution, the variance, if granted, is the minimum variance necessary to afford relief.

By analyzing the costs associated with a complying building at the Site as well as a typical site, the Freeman Report demonstrates that only the Proposed Development will achieve a return that may be considered reasonable under the circumstances. Accordingly, the requested waivers are the minimum necessary to afford relief.

#### IX. Response to the Opposition

In sum and substance, the Opposition's written and oral testimony before the Board reflects the following concerns regarding the Application: (1) the subgrade conditions cited for the ZR Section 72-21(a) finding are not unique; (2) the Applicant should have known about the conditions and any alleged hardship is self-created; (3) the owner of the Site has held it for decades and therefore has already achieved a reasonable return on its initial investment; (4) the Site has obtained financing related to the affordable

housing through the New York State Housing Finance Agency; therefore, developing the Site has been determined to be feasible; (5) certain nearby buildings, including the Church, 235-237 First Avenue, and 321-325 East 13th Street were constructed and 500 East 14th Street is being constructed with usable cellars and without a variance; (6) construction is already underway at the Site; thus, development must be feasible; (7) the height of the Proposed Development is not consistent with neighborhood character; (8) the Freeman Report uses (i) inappropriate comparables for acquisition costs and anticipated rental rates, and (ii) overestimates the capitalization rate for financing development of the Site; and (9) granting a variance in this case would set a precedent for granting other variances in the future.

Our response to the Opposition's concerns are as follows.

(1) As thoroughly detailed at hearing by MRCE and as set forth in the MRCE Report submitted herewith, the Site's subgrade conditions are unique comparison to sites within 400 feet of the Site.

(2) Whether an applicant knows or should have known of physical conditions at a site is irrelevant to whether such conditions are considered "unique" per ZR Section 72-21(a). Likewise, foreknowledge of conditions is irrelevant to whether such condition is considered "self-created," per ZR Section 72-21(d). To illustrate, if a developer purchases a site that slopes much more dramatically than nearby sites, there is no question as to whether the site slopes – it is obvious to the naked eye upon purchase. Yet, historically, the Board has granted variances based on uniquely sloping sites.<sup>21</sup>

(3) The Board acknowledged at hearing and the Board's precedent makes it clear that actual acquisition costs are not considered in a variance application.

(4) The Site has indeed been the recipient of certain financing commitments by the New York State Housing Finance Agency (a mortgage of up to \$62,700,000); however, these funds are drawn upon as construction proceeds and only a small portion has been drawn to date. If the Applicant does not proceed with vertical construction—which as noted at hearing is a distinct possibility—the sponsors of the financing would be required to repay any amounts drawn to date.

(5) The Opposition submitted photographs depicting what it alleged to be evidence that the Church was constructed with a deep cellar. MRCE has reviewed the photographs

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<sup>21</sup> See, e.g., BSA Cal. No. 259-12-BZ (5241 Independence Avenue, Bronx; adopted October 29, 2013) ("extreme slope" of lot found to be a unique physical condition).

and visited the Church and determined that, in fact, its cellar is much shallower than the cellar of the Proposed Development. Per the MRCE Report, the Church is located within the existing streambed limits and the relative shallowness of the Church's cellar is consistent with the shallow cellars constructed in the immediate vicinity of the Church.

The Opposition also submitted an excerpt from what appears to be the new building application filed in approximately 1949 for 235-237 First Avenue (a site located more than 400 feet from the Site); the application indicates that a cellar ranging in height from 10'-0" to 14'-0" is proposed. Assuming that the as-built depth of the cellar is consistent with the excerpt, it is impossible to determine what the subgrade soil conditions were at the time and how such conditions were dealt with by the developer. Further, as the building was developed prior to the adoption of the modern Zoning Resolution in 1961, it is unclear whether the site would have been eligible for a variance.

Lastly, the Opposition submitted the certificate of occupancy for the building located at 321-325 East 13th Street, as evidence that development including a deep cellar is possible within the area, and also made reference to a nearby development at 500 East 14th Street, which is being constructed as-of-right. As to 321-325 East 13th Street, that site is more than 500 feet from the Site, making it outside the historic study area for variance applications. As to 500 East 14th Street, as noted in the MRCE report, that site is outside the influence of the streambed, and therefore not expected to have similar soil or groundwater conditions as the Site. As such, neither site is relevant to the Board's consideration of the Application.

(6) The insignificance of the fact that construction has already been commenced at the Site is discussed hereinabove in Section VII(a)(4). Consistent with Board precedent, the Board's review of the Application can proceed notwithstanding that construction has commenced.

(7) The building height of the Proposed Development along East 14th Street has been reduced by three stories and 29'-7". As such, the Proposed Development is more consistent with the heights of buildings along the south side of East 14th Street.

(8) The Freeman Report provides itemized responses to the Opposition's concerns.

(9) As for the precedential value of the Application, we submit that the Application, as revised, satisfies each and every finding required under ZR Section 72-21 has been established. We also note that the Board is guided by precedent only to the extent that

the facts and circumstances are similar.

X. Conclusion

For the foregoing reasons, we request that the Board grant this Application.

Respectfully Submitted,

Stroock & Stroock & Lavan LLP

By:   
\_\_\_\_\_  
Ross F. Moskowitz



# Mueser Rutledge Consulting Engineers

14 Penn Plaza · 225 West 34<sup>th</sup> Street · New York, NY 10122

Tel: (917) 339-9300 · Fax: (917) 339-9400

[www.mrce.com](http://www.mrce.com)

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Roderic A. Ellman, Jr.  
Francis J. Arland  
David R. Good  
Walter E. Kaeck  
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Robert K. Radske  
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Sissy Nikolaou  
Frederick C. Rhyner  
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Srinivas Yenamandra  
Farid F. Vastani  
Jesse L. Richins  
**Associates**

!  
Joseph N. Courtade  
**Director of Finance  
and Administration**

Martha J. Huguet  
**Director of Marketing**

March 10, 2017

East 14<sup>th</sup> Street Owner LLC  
c/o 432 East 14<sup>th</sup> Street UDP LLC  
1776 Broadway, Suite 606  
New York, NY 10019

Attention: Darryl Herring

Re: 432 East 14<sup>th</sup> Street  
New York, NY  
MRCE File No. 12429

Greetings:

In accordance with your request, we summarize herein site specific conditions that present challenges to construct below grade retail space at 432 East 14<sup>th</sup> Street.

## Exhibits

The following exhibits are included:

- Figure 1: Project Location on Viele Map
- Figure 1a: Limits of streambed superimposed on Study Area
- Figure 2: NYC Groundwater Level Contours: Manhattan
- Figure 3: Limits of Study Area
- Figure 4: Limits of Study Area Magnified
- Table 1: Summary of Structures within 400 ft. Radius of 432 E 14<sup>th</sup> Street.
- Figure 5: 1886 Robinson's Atlas
- Figure 6: 1916 Atlas of Borough of Manhattan
- Figure 7: 1934 Manhattan Landbook
- Figure 8: 1955 Manhattan Landbook
- Figure 9: 1985-1986 Manhattan Landbook
- Figure 10: 2002-2003 Manhattan Landbook

Appendix A: MRCE Boring Location Plan and Boring Logs  
Appendix B: Groundwater Elevations

## **Project and Site Description**

The project will be a new development at the space of the former Post Office building at 432 East 14<sup>th</sup> Street, Manhattan, NY (Block 441, Lot 23). The proposed development will have twelve stories and one cellar level with an approximate footprint of 23,340 sq. ft. The top of the proposed cellar slab is planned to be at Elev. +4.7, (NAVD88 Datum) which is about 14 feet below existing sidewalk grades.

According to the 1865 Viele Map, the site is at the southern edge of a streambed and marsh that existed prior to development. This condition is shown on Figure Nos. 1 and 1a. The streambed and marsh were filled over time and the site is currently occupied by the existing Post Office building which is a one to two stories pile supported structure with no cellar. The site is bordered on the east and west property lines by seven other structures. The New York City Transit (NYCT) L-line subway tunnel runs below 14<sup>th</sup> street and is in close proximity to the East 14<sup>th</sup> Street property line.

## **General Subsurface conditions**

The site is generally covered by manmade fill that overlies soft organic clays and peat to the north of the site and natural silty sands with silt layers intermixed. The soft organic clays and peat are remnants of the streambed that was filled in prior to development and are not suitable for foundation support. Foundations for the new development need to be founded in the natural sands and silt layers that underlie the fill and organic clay. Groundwater levels were measured at the site between Elev. +7.5 to 8 (NAVD88 Datum), which is about 3.5 feet above the top of slab of the proposed development.

## **Hardships due to site conditions**

The site conditions described above make constructing a cellar level that will be used for retail very challenging and risky. In order for the cellar to be used for retail, it needs higher ceiling to floor height when compared to mechanical rooms or storage rooms. This added depth significantly complicates the construction of the structure. Summarized below is a description of how the unique subsurface conditions impact the construction of the proposed development.

### Presence of Old Streambed:

The site is on the southern boundary of an old streambed. Our investigation identified areas of deeper fill, and soft organic soils in the northern portion of site that corroborates the data provided on the Viele Map. These soils are not suitable for the support of the proposed structure, therefore deep foundations or over-excavation will be required for building support. The bottom of the soft organics extended as deep as Elev. -5 in our investigation. Boring logs included in Appendix A of this letter depict the subsurface conditions encountered at the north end of the site.

The depth of the organic stream deposits make removal and replacement with structural fill impractical. Extensive dewatering would be needed which would likely damage adjacent property. In addition, support of adjacent structures would be complex. Therefore presence of the old streambed requires additional foundations consisting of deep foundations, and requires a cut-off wall along the property lines adjacent to existing structures to minimize the extent of influence of

the dewatering which will be needed. This is a local condition that impacts this site as opposed to the general subsurface conditions in the immediate vicinity of the site. Sites that do not have this condition would not require deep foundations or a cut-off wall.

#### Elevated Groundwater Levels:

Ground surface elevations range at the site between Elev. +18 to +21, and the proposed top of basement slab is at Elev. +4.7. Groundwater levels were recorded between Elev. +7.5 and +8 in observation wells installed at the site. These water levels are higher than normally encountered in this part of Manhattan. The attached Figure No. 2 depicts contours of groundwater that were prepared by MRCE in Manhattan for a previous project. Superimposed on this plan is the 432 East 14<sup>th</sup> site. Based on this compilation of data, groundwater could be expected at about Elev. +5, (NGVD 1929 Datum), or Elev. +3.9 (NAVD88 Datum) at the site. The actual groundwater was about 3.5 to 4 feet higher than could be expected which is unusual for this site given its proximity to the shore.

We have also researched a previous MRCE project, just to the east of the current site, located on the north east corner of Avenue D and 13<sup>th</sup> Street. This site is located outside the limits of the streambed and piezometers indicated a water level of +3 (NAVD88 Datum). This data corroborates the contour drawings groundwater elevations and supports the fact that groundwater levels encountered within the streambed are higher than those outside of it.

A likely explanation for the higher groundwater levels is that the site is located at the southern edge of an old streambed. This stream bed acts as a conduit for subsurface water to accumulate. In addition, the natural soils at the site consist of low permeability fine grained soils, which contributes the higher groundwater levels. This elevated groundwater level may not be present at other sites in the vicinity that do not have the impact of the streambed.

In addition, the relatively new construction to the west of the site, includes a foundation wall that is below the water table and extends from 14<sup>th</sup> Street to 13<sup>th</sup> Street. This wall could act as a dam causing higher water levels at the site.

This elevated groundwater will require around the clock dewatering during the construction of the foundations. The subgrade excavation in order to accomplish a top of slab at Elev. +4.7, would be around Elev. +1, which is about 6 to 7 feet below the groundwater level at the site. The dewatering system required would be closely spaced well points around the perimeter of the site.

This type of dewatering system at the site poses a substantial cost to the project associated with the installation of the system, 24/7 operation of the pumps during construction, possible pre-treatment of groundwater prior to discharge and regulatory discharge fees.

The risk associated with this dewatering work includes settlement of adjacent structure due to movement of granular material from below foundations, and/or increase vertical pressure on compressible soils, particularly to the north west of the site. In addition, if the dewatering system malfunctions, there could a sudden increase in water levels within the site that could cause instability.

The cellar slab must also be designed to resist the uplift forces associated with the elevated groundwater table. Based on the observed levels, the slab would have to be designed as a mat slab and may require permanent tie-downs. In contrast, a site without elevated groundwater levels would have a slab-on-grade in lieu of a thick mat foundation and would not require tie-downs.

### General Soil Conditions

The soil conditions at the site below the fill and organic soil consist of fine to medium sand to a silty fine sand. These soils are very sensitive to disturbance, therefore excavating and creating basement space is very challenging at the site. Dewatering these soils will be difficult and creating a cut-off wall would be required to limit the settlement of adjacent structures. Due to the sensitive nature of the soils, driven piles are not recommended, as the installation of these piles will cause densification of the sand and settlement of adjacent structures. Boring logs are included in Appendix A of this letter.

### Adjacent Structures

The site is surrounded by adjacent structures. The foundation types and depth of these structures vary, with some shallow and some deeper. These structures will likely be impacted by dewatering and the installation of the sheeting and bracing. Due to the high groundwater table, and relatively poor soil conditions, a secant pile wall is required in order to construct the basement to achieve retail space. The secant pile wall is a robust specialty foundation element that adds significant cost and schedule impacts to the project. It is used primarily on difficult sites, such as this, where conventional pit underpinning and soldier pile and lagging sheeting cannot be used. The combination of the high groundwater, poor soils in the northern portion of the site, and the variability of the adjacent structures dictate the more robust secant pile wall to provide support for the adjacent structures during construction.

### **Neighborhood Survey**

We performed a desk study and visited some adjacent buildings within a radius of 400 feet to determine their approximate construction dates, categorization and number of basement levels. The investigation was performed by researching NYC Landbooks from our files, using OasisNYC.net, as well as visiting the surrounding buildings. The results of the investigation are as follows:

#### 1. Approximate Construction Dates:

Based on the Certificates of Occupancy reviewed from Oasis.Net, the majority of the structures were constructed before the 1930's with only a few constructed in the past 15 years. A summary of the dates are included in Table No. 1. Where Certificates of Occupancy dates are not available, a visual comparison of the images on the Oasis map with the Atlases and Landbooks indicate that many of the buildings predate 1901. Figures 5 through 10 illustrate the development of the area depicted on Atlases and Landbooks from 1886 through 2003. These Landbooks also indicate that the structures around the site are generally older building that were constructed before code changes were made such as seismic design that is in the current code. Therefore construction of similar structures would require more robust foundations today to meet current code requirements.

## 2. Building Categorization:

The majority of the surrounding buildings are 3-6 story residential buildings which generally only contain one cellar level. Some structures like the one currently on the site does not have a cellar level. Lot 47 and 7502 of Block 440 are the only found exceptions, where there is a basement as well as a cellar. Site locations and labels can be found on Figures 3 and 4.

- a. Lot 47 contains a front and rear 4 story residential building. The front building contains both a cellar and basement. The cellar is used for storage and a boiler room while the basement is unoccupied.
- b. Lot 7502 also contains a 4 story residential building with both a cellar and basement. The cellar is used for storage, boiler, utility, and compactor rooms. The basement contains 8 half duplex apartments.

The structures are outside the limits of the stream deposits.

## 3. Cellar Use & Depth:

According to Certificates of Occupancy, the majority of the cellars in the surrounding buildings are used for storage and boiler rooms. From our experience in Manhattan for these types of structures and usages, the cellar depths are typically on the order of 6 to 8 feet deep. This was verified by our field measurement at Lot 33 where, a depth of 8 feet was measured from grade to top of slab. Excavations for such typical basement depths would generally be above the groundwater table and would not require significant groundwater control during construction.

We visited Immaculate Conception Church located to the west of the site, which contained a partial basement level. This Church is located within the existing stream bed limits and is indicative of the shallow basements that were constructed in the area.

## 4. Other Building within Streambed

Based on our study there are other structures within the study area that are constructed within the streambed. The majority of these structures, as noted earlier in this report, were constructed before the 1930's and do not contain significant basement depths. In addition, they are relatively lightly loaded and were not designed to meet current more stringent building and seismic codes.

5. We were able to obtain drawings for 421 East 13<sup>th</sup> Street, which is immediately west of the site. This structure extends from 14<sup>th</sup> St property line to the 13<sup>th</sup> St property line. The portion that extends to the 14<sup>th</sup> St property line is only 25 feet wide, while the portion that extends to south is about 140 feet wide. The drawings indicate that the narrow portion of the building is partly supported on low capacity micro-piles, while the balance of the building is supported on a mat foundation. The micro-piles were likely required due to the presence of the subway structure below 14<sup>th</sup> Street and the stream bed which extends into the adjacent site to the north. The drawings did not indicate secant piles around the

perimeter, rather it they showed conventional underpinning. It appears that the cellar level may be a foot or two higher than currently planned for this site. It does not appear that the adjacent project required the same robust foundation system consisting of secant pile walls around the perimeter of the site. The drawings do not indicated the dewatering system required to allow excavation of the site.

6. We reviewed documents on NYCDOB website for the development at 500 E 14<sup>th</sup> Street,(Extell site) that is to the east of the site, along 14<sup>th</sup> Street. This site appears to be outside the limits of the streambed. Although we were not able to obtain foundation drawings, our review of the available documents, indicate that this building is supported on shallow foundations and deep foundations adjacent to the NYCT subway tunnel. This site did not have the extensive marsh deposits or high water table exhibited at the current site.

### Closing

The site provides numerous challenges to create a relatively deep cellar space suitable for retail. The high groundwater table, soft organic deposits, sensitive soils and adjacent structures present significant risk and make constructing a deep basement significantly more expensive than for a conventional site with relatively deep groundwater and generally expected soil conditions.

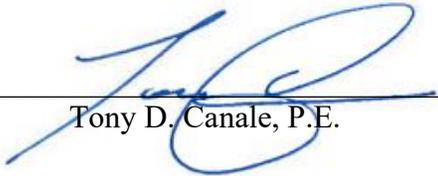
Our review of structures within a 400 foot radius of the site indicate that the vast majority have very limited basement space, were generally constructed pre-1930 and do not have the same usage as the current plans. Many of the buildings were constructed before stricter codes were established such as the current NYC seismic code.

We would be pleased to answer any questions you may have regarding this report.

Very truly yours,

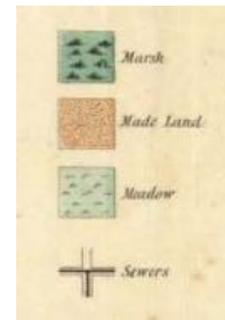
**MUESER RUTLEDGE CONSULTING ENGINEERS**

By: \_\_\_\_\_

  
Tony D. Canale, P.E.



**Legend:**



**Source:**

Sanitary & Topographical Atlas of the City of New York, by Ergert L. Viele, dated 1865  
[www.DavidRumsey.com](http://www.DavidRumsey.com)

**Note:**

Approximate location of building is outlined in red and corresponds to Base plan from Manhattan Landbook of the City of New York. Sanborn, 2002-2003, Edition 23

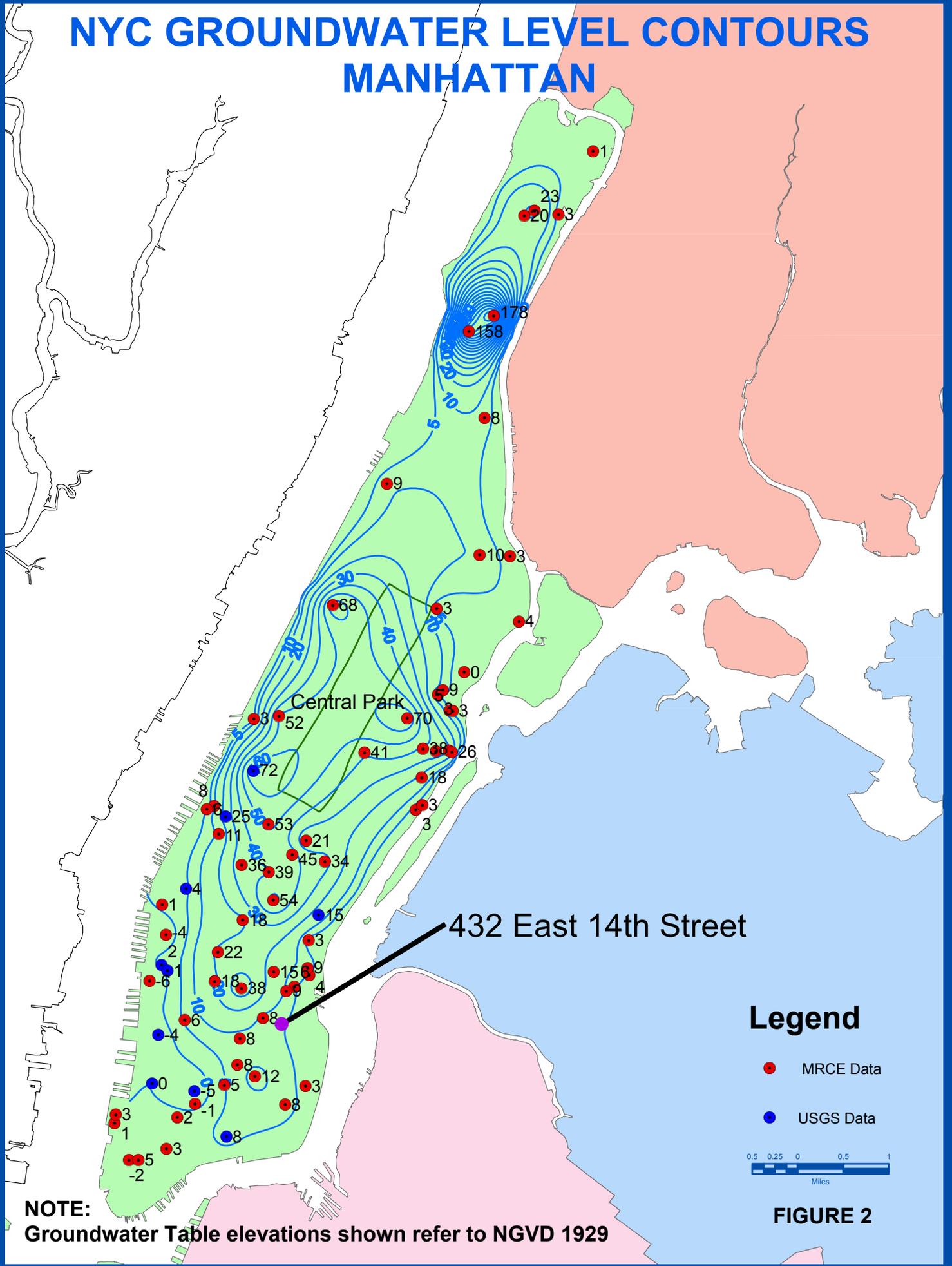
432 E 14 <sup>TH</sup> STREET			
NEW YORK		NEW YORK	
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>			
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122			
SCALE	MADE BY: GDF	DATE: 05-18-2015	FILE No.
-NTS-	CH'KD BY: SN	DATE: 05-18-2015	12429
PROJECT LOCATION ON VIELE MAP			FIGURE No. 1



Approx. location of streambed from Viele map

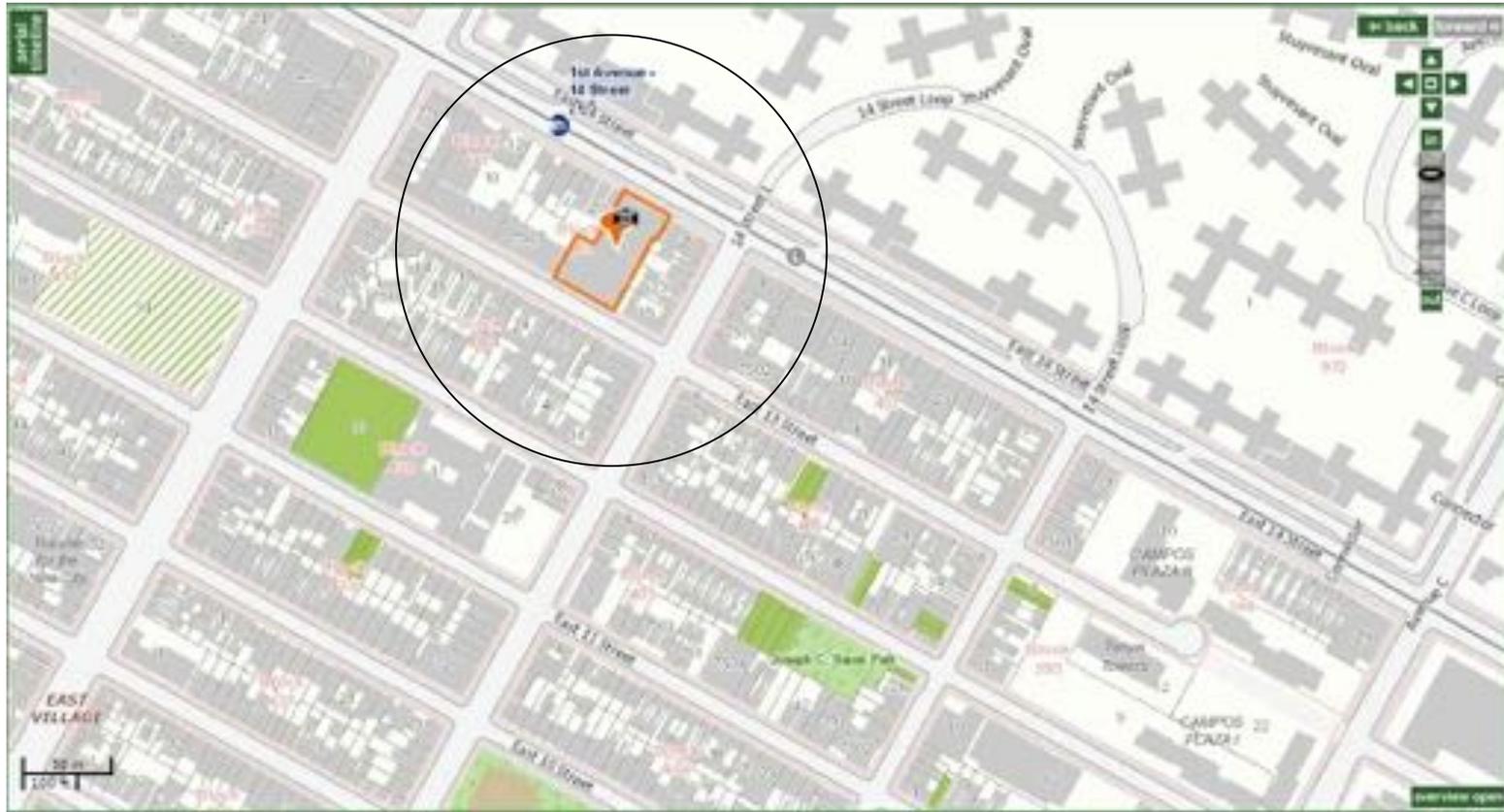
432 E 14 <sup>TH</sup> STREET		NEW YORK
NEW YORK		NEW YORK
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>		
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122		
SCALE	MADE BY: SAP	DATE: 08-23-2016
-NTS-	CH'KD BY:	DATE:
LIMITS OF STREAMBED SUPERIMPOSED ON STUDY AREA		FILE No. 12429
		FIGURE No. 1a

# NYC GROUNDWATER LEVEL CONTOURS MANHATTAN



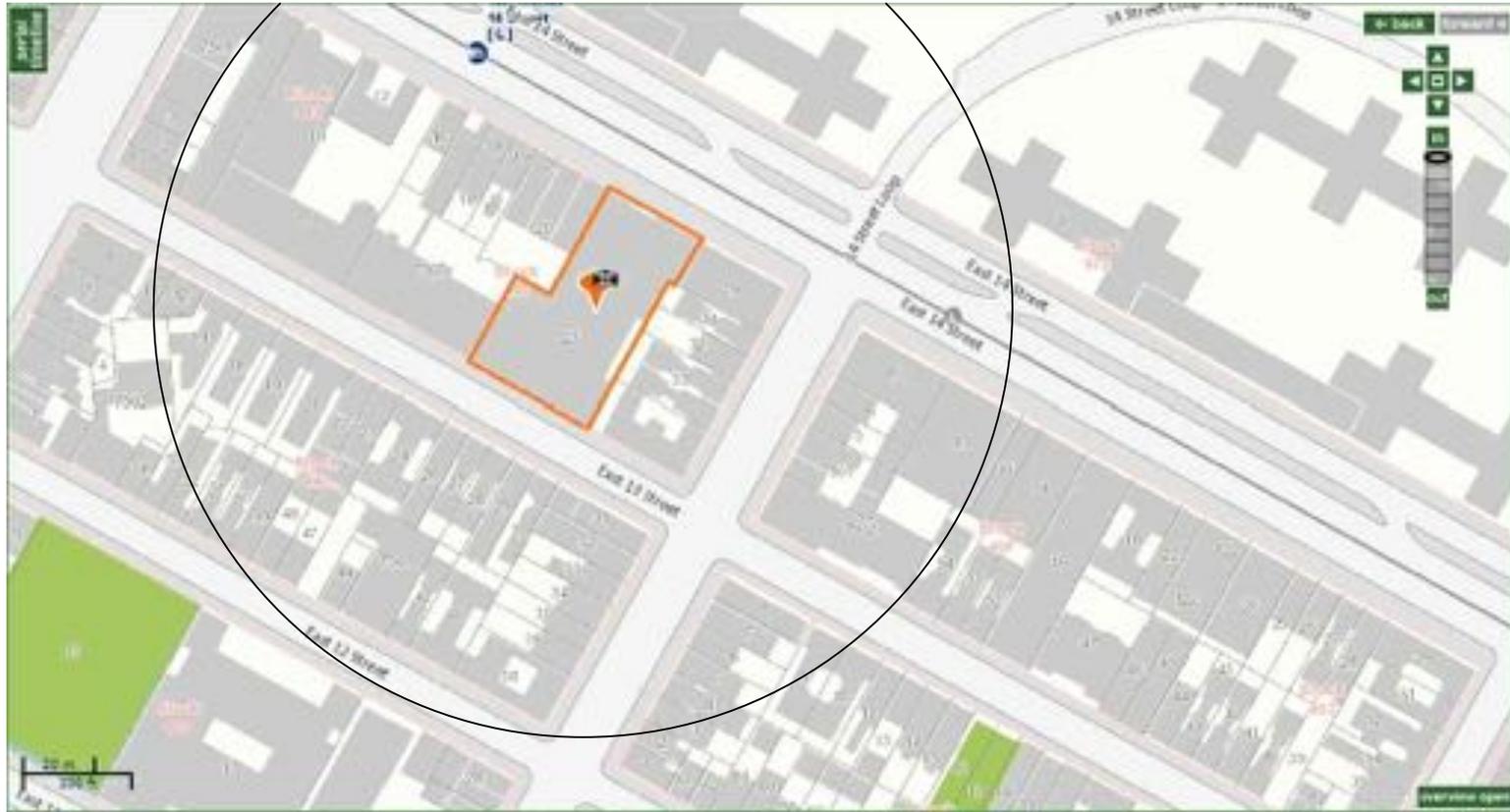
**NOTE:**  
Groundwater Table elevations shown refer to NGVD 1929

**FIGURE 2**



01/22/2015 - 01:43:27 PM  
 14 Penn Plaza - 225 W. 34th Street, NY, NY 10122  
 12429

REV.	DATE	BY	DESCRIPTION
			432 EAST 14TH STREET
			NEW YORK NEW YORK
			URBAN DEVELOPMENT PARTNERS
			NEW YORK NEW YORK
			NUMERUNNIGH CONSULTING ENGINEERS
			14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122
SCALE	MADE BY	DATE	FILE NUMBER
NIS	SYND WY	01-22-2015	12429
LIMITS OF STUDY AREA			FIG 3



Project: 1000 New York  
 Date: 07-22-2015 - 01:44:43 PM  
 Location: 432 East 14th Street, New York, NY 10013  
 Scale: 1:1000  
 Author: [Name]

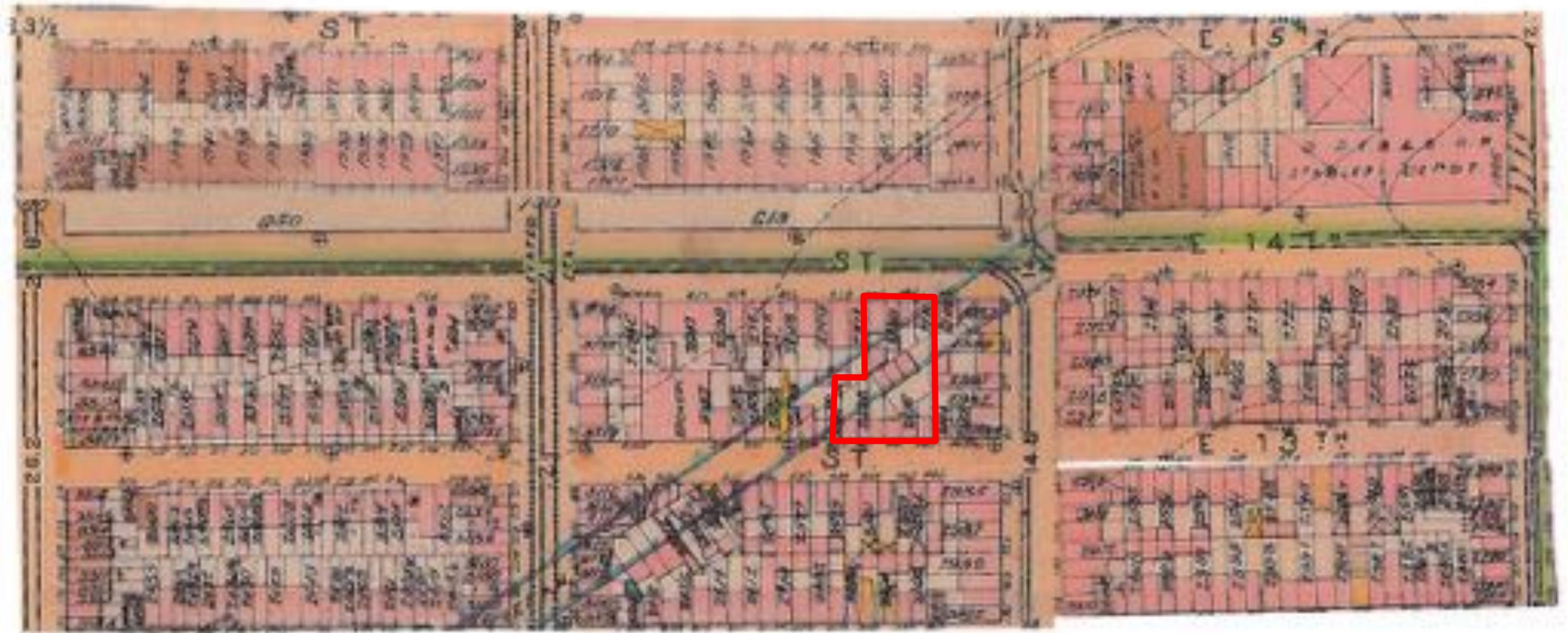
REV.	DATE	BY	DESCRIPTION
			432 EAST 14TH STREET
			NEW YORK NEW YORK
			URBAN DEVELOPMENT PARTNERS
			NEW YORK NEW YORK
<b>NUBBEN RYAN CONSULTING ENGINEERS</b> 14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	DATE	FILE NUMBER
NIS	RYAN	07-22-2015	12429
LIMITS OF STUDY AREA: MAGNIFIED			FIG 4

MUESER RUTLEDGE CONSULTING ENGINEERS

Table No. 1 - Summary of Structures Within 400 feet of Radius of 432 East 14th Street

Block	Lot #	Description	C.O. Date	# of cellars indicated on C.O.	Cellar/ basement use indicated on C.O	Block	Lot #	Description	C.O. Date	# of cellars indicated on C.O.	Cellar/ basement use
441	29	1 story commercial building	1951	1 cellar	storage	440	44	4 story public building	N/A	N/A	---
	31	6 story residential building	N/A	N/A	---		47	Rear: 4 story residential	N/A	1 cellar	storage
	32	5 story residential building	1963	1 cellar	boiler room and storage		47	Front: 4 story residential	1947	1 cellar & 1 basement	boiler room and storage/ unoccupied
	33	5 story residential building	N/A	1 cellar	boiler room and storage		48	Rear: 4 story residential	N/A	1 cellar	boiler room and storage
	35	6 story residential building	N/A	N/A	---		48	Front: 4 story residential	1983	1 cellar	boiler room and storage
	7503	8 story residential building	2008	1 cellar	boiler and utility room		49	6 story commercial building	2002	1 cellar	storage and utilities room
	10	4 story public building	1946	1 cellar	play room, storage, laundry, utility room		50	6 story residential building	1993	no cellar	---
	12	4 story church	N/A	N/A	---		51	6 story residential building	1986	1 basement	2 class "A" apartments, laundry and meter room
	16	5 story residential building	N/A	N/A	---		52	6 story residential building	N/A	N/A	---
	18	5 story residential building	N/A	1 cellar	2 apartments, boiler room, storage		53	6 story residential building	N/A	N/A	---
	19	5 story residential building	1939	1 cellar	boiler room and storage		7502	4 story residential building	2002	1 cellar & 1 basement	storage, utility room/ 8 half duplex apartments
20	5 story residential building	1956	1 cellar	storage	407	7502	4 story residential building	1999	1 cellar	storage, crawl space	
440	11	3 story residential building	N/A	N/A		---	7501	Rear: 3 story residential	1986	1 cellar	laundry, storage
	12	2 story residential building	1940	1 cellar		boiler room and storage	7501	Front: 4 story residential	1986	1 cellar	boiler room and entrance foyer
	14	6 story residential building	N/A	1 cellar		boiler, sotrage, and meter rooms	5	4 story residential building	N/A	N/A	---
	18	6 story residential building	2007	N/A		---	6	5 story residential building	1983	1 cellar	boiler room, storage, rec room
	19	6 story residential building	1967	1 cellar		boiler room and storage	8	1 story commercial building	1951	1 cellar	storage
	21	6 story residential building	1961	1 cellar	boiler room and storage	10	2 story commercial building	N/A	1 cellar	stock room	
	22	4 story residential building	N/A	N/A	---	406	3	5 story residential building	1940	1 cellar	boiler room and storage
	23	4 story residential building	1962	1 cellar	boiler room and storage		4	5 story residential building	1968	1 cellar	boiler room and storage
	24	6 story residential building	2004	1 cellar	boiler room and storage		5	4 story residential building	1992	1 cellar	bakery
	26	2 story residential building	1965	N/A	---		6	4 story residential building	1964	1 cellar	heating plant and storage
	27	5 story residential building	1941	1 cellar	storage		7	5 story residential building	1971	1 cellar	storage
28	5 story residential building	N/A	N/A	---	8		5 story residential building	1946	1 cellar	boiler room and storage	
29	2 story commercial building	1931	1 cellar	electrical equipment, repair shop	9	6 story residential building	N/A	N/A	---		
30	6 story residential building	N/A	N/A	---	972	1	13 story residential building	?	1 cellar	two apartments and storage	
31	4 story residential building	1951	1 cellar	boiler room and storage							
32	4 story residential building	N/A	N/A	---							
33	6 story residential building	2014	1 cellar	accessory to comercial space above, utility room							
34	5 story residential building	1961	1 cellar	boiler room and storage							
35	4 story residential building	N/A	N/A	---							
36	4 story residential building	1957	1 cellar	storage							
38	6 story residential building	N/A	N/A	---							
40	6 story residential building	N/A	N/A	---							
42	5 story residential building	N/A	N/A	---							
7503	5 story residential building	1921	1 cellar	boiler room and storage							

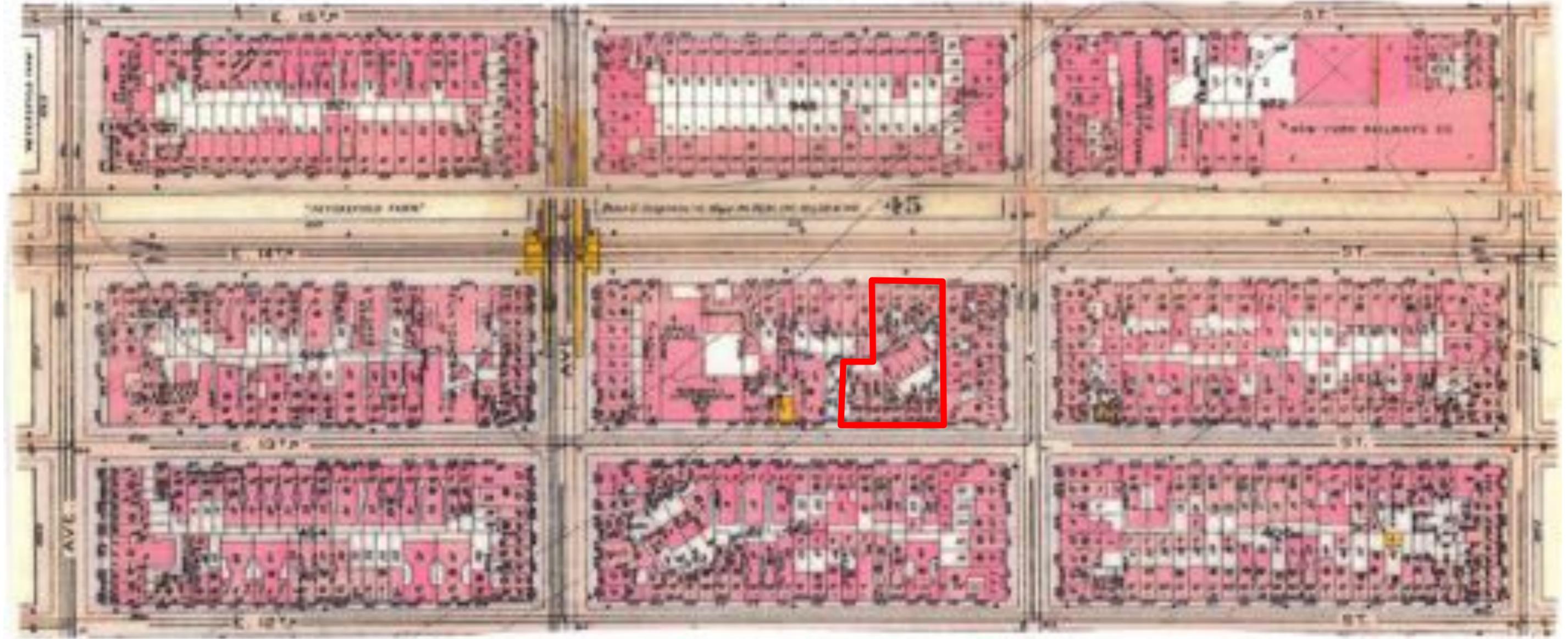
Note: Information obtained from NYC DOB database  
N/A - Not Available



Source: 1886, Robinson's Atlas of the City of New York

 : Outline of proposed structure

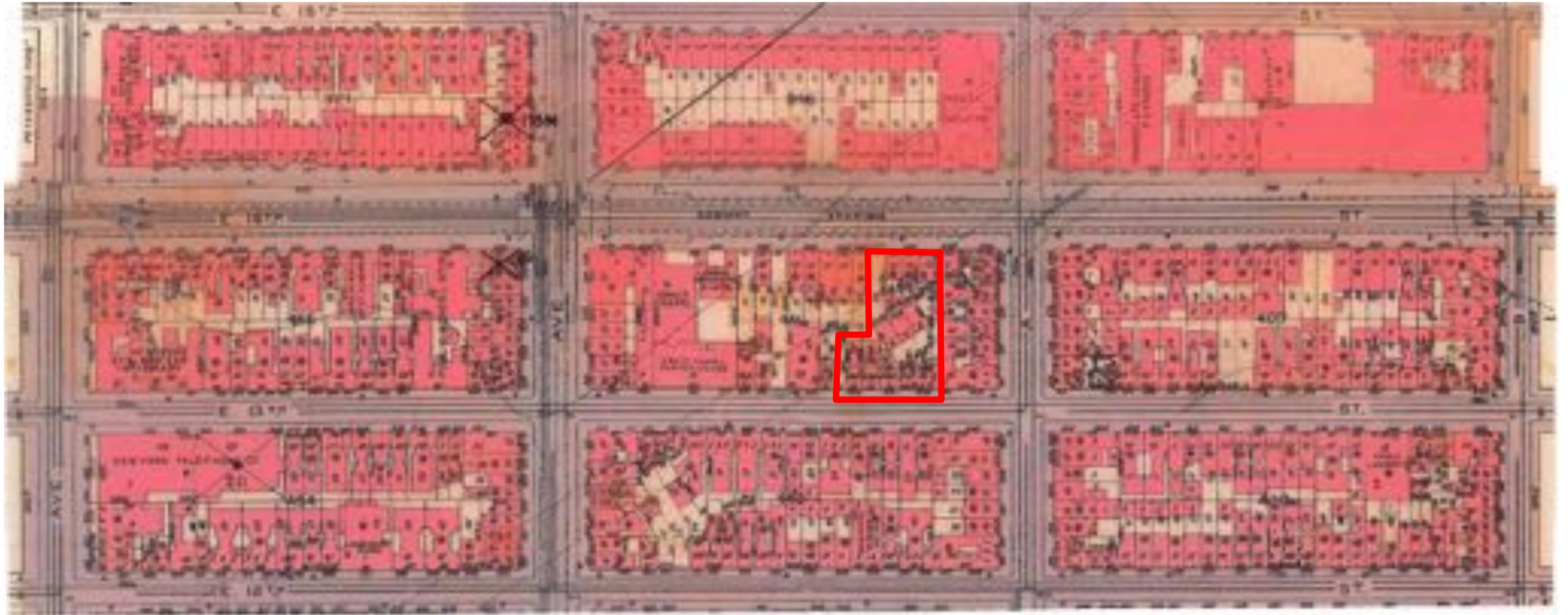
432 E 14 <sup>TH</sup> STREET			
NEW YORK		NEW YORK	
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>			
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122			
SCALE	MADE BY: JJA	DATE: 01-19-2016	FILE No.
-NTS-	CH'KD BY: TDC	DATE: 01-19-2016	12429
1886 ROBINSON'S ATLAS			Figure 5



Source: 1916, Atlas of the Borough of Manhattan, City of New York

— : Outline of proposed structure

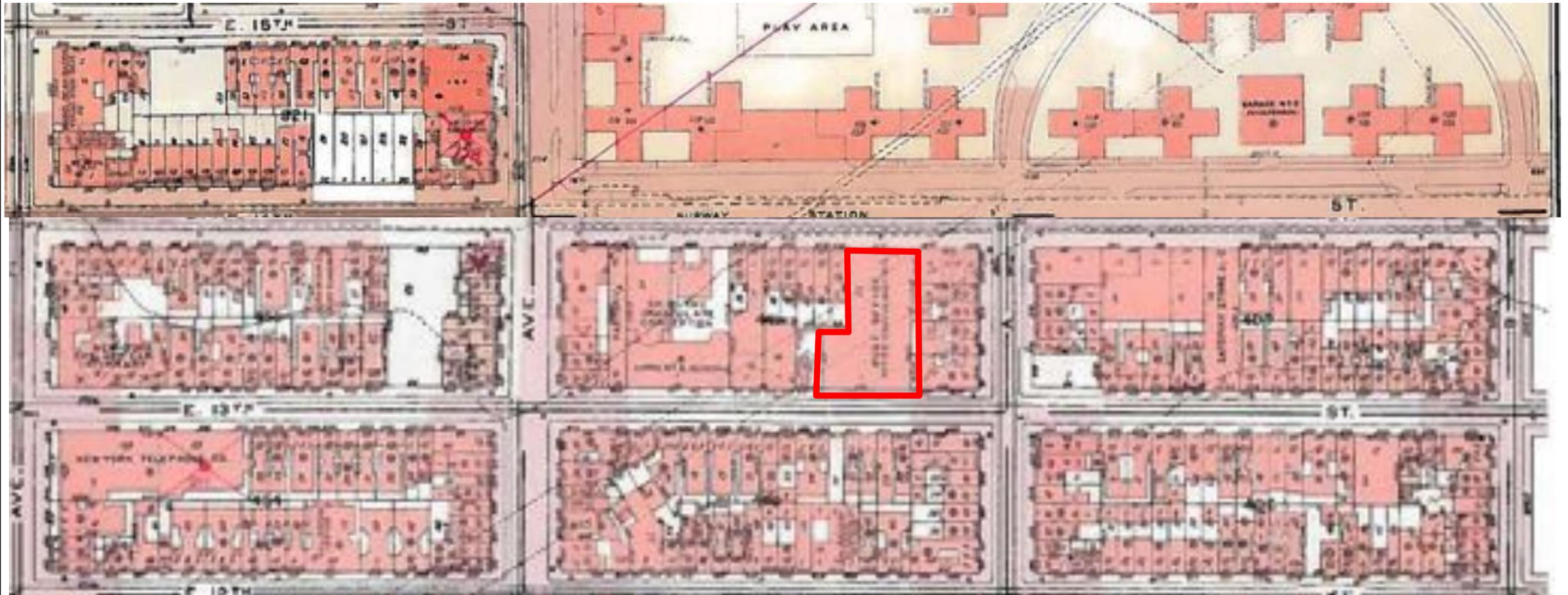
NEW YORK		432 E 14 <sup>TH</sup> STREET		NEW YORK	
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>					
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122					
SCALE	MADE BY: JJA	DATE: 01-19-2016	FILE No.		
-NTS-	CH'KD BY: TDC	DATE: 01-19-2016	12429		
1916 ATLAS OF THE BOROUGH OF MANHATTAN				Figure 6	



Source: 1934, Manhattan Land Book of the City of New York

 : Outline of proposed structure

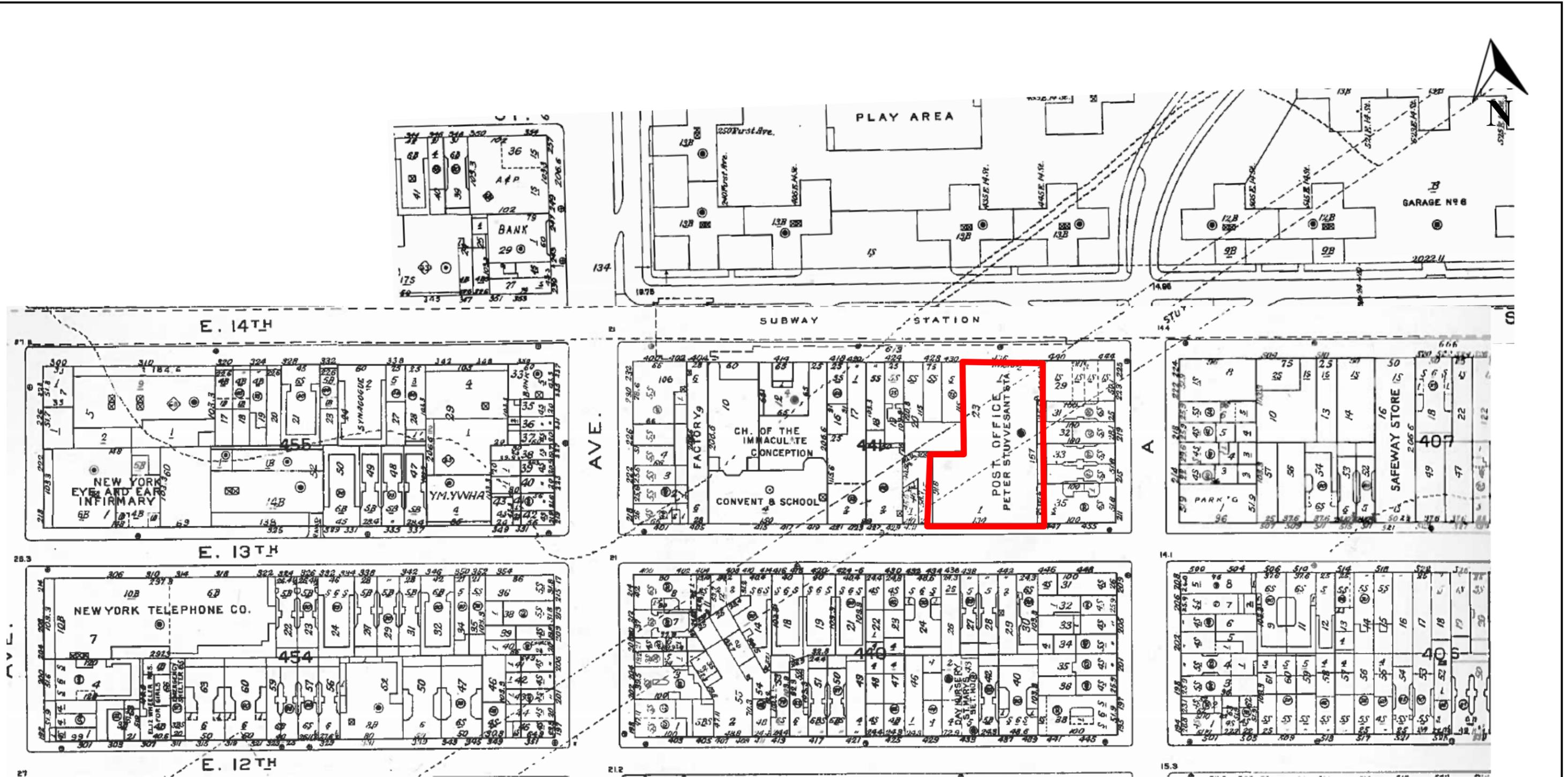
432 E 14 <sup>TH</sup> STREET			
NEW YORK		NEW YORK	
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>			
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122			
SCALE	MADE BY: JJA	DATE: 01-19-2016	FILE No.
-NTS-	CH'KD BY: TDC	DATE: 01-19-2016	12429
1934 MANHATTAN LANDBOOK			Figure 7



Source: 1955, Manhattan Land Book of the City of New York

 : Outline of proposed structure

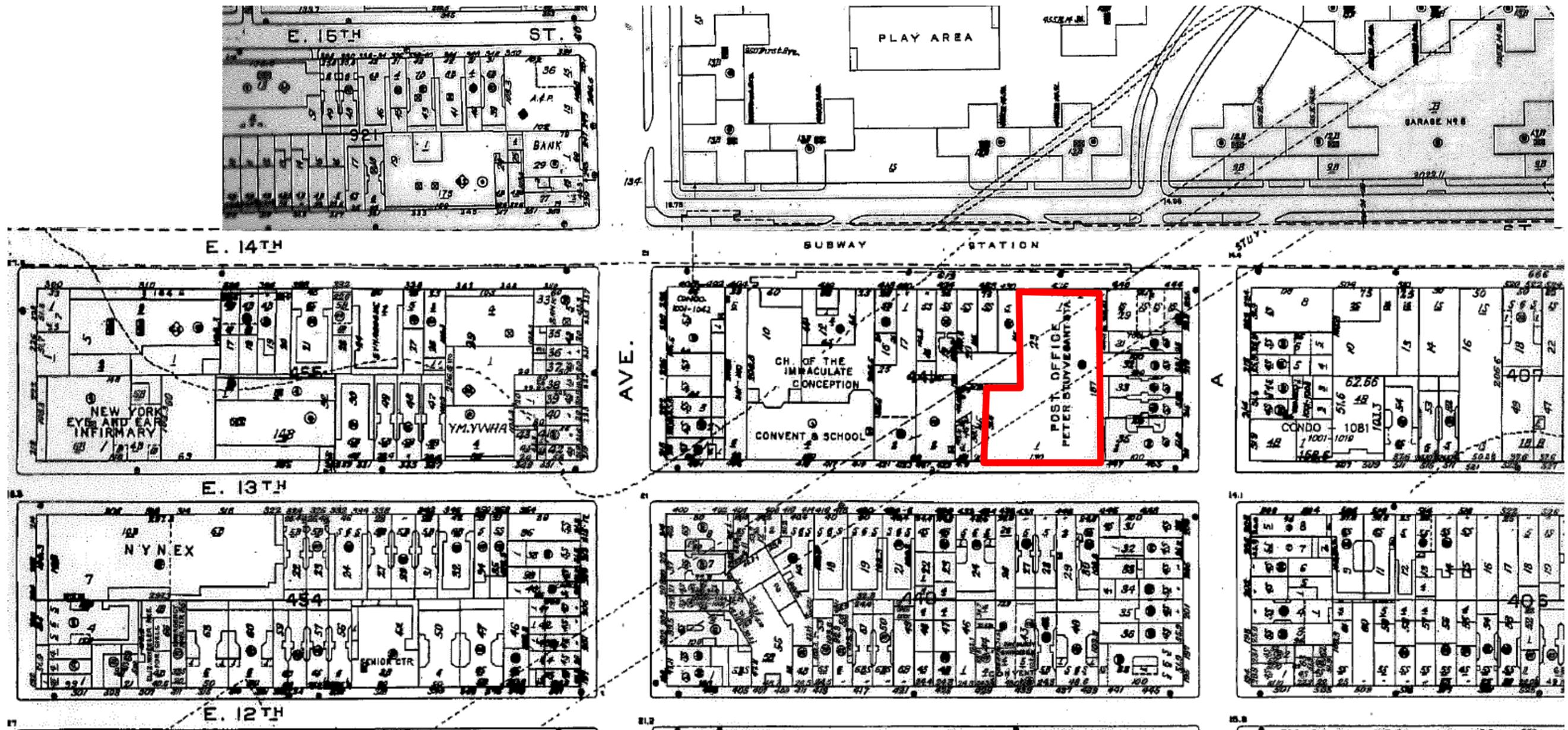
432 E 14 <sup>TH</sup> STREET			
NEW YORK		NEW YORK	
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>			
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122			
SCALE	MADE BY: JJA	DATE: 01-19-2016	FILE No.
-NTS-	CH'KD BY: TDC	DATE: 01-19-2016	12429
1955 MANHATTAN LANDBOOK			Figure 8



Source: 1985 - 1986, Manhattan Land Book of the City of New York

— : Outline of proposed structure

432 E 14 <sup>TH</sup> STREET	
NEW YORK	NEW YORK
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>	
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122	
SCALE	MADE BY: JJA DATE: 01-19-2016 FILE No.
-NTS-	CH'KD BY: TDC DATE: 01-19-2016 12429
1985 - 1986 MANHATTAN LANDBOOK	
Figure 9	



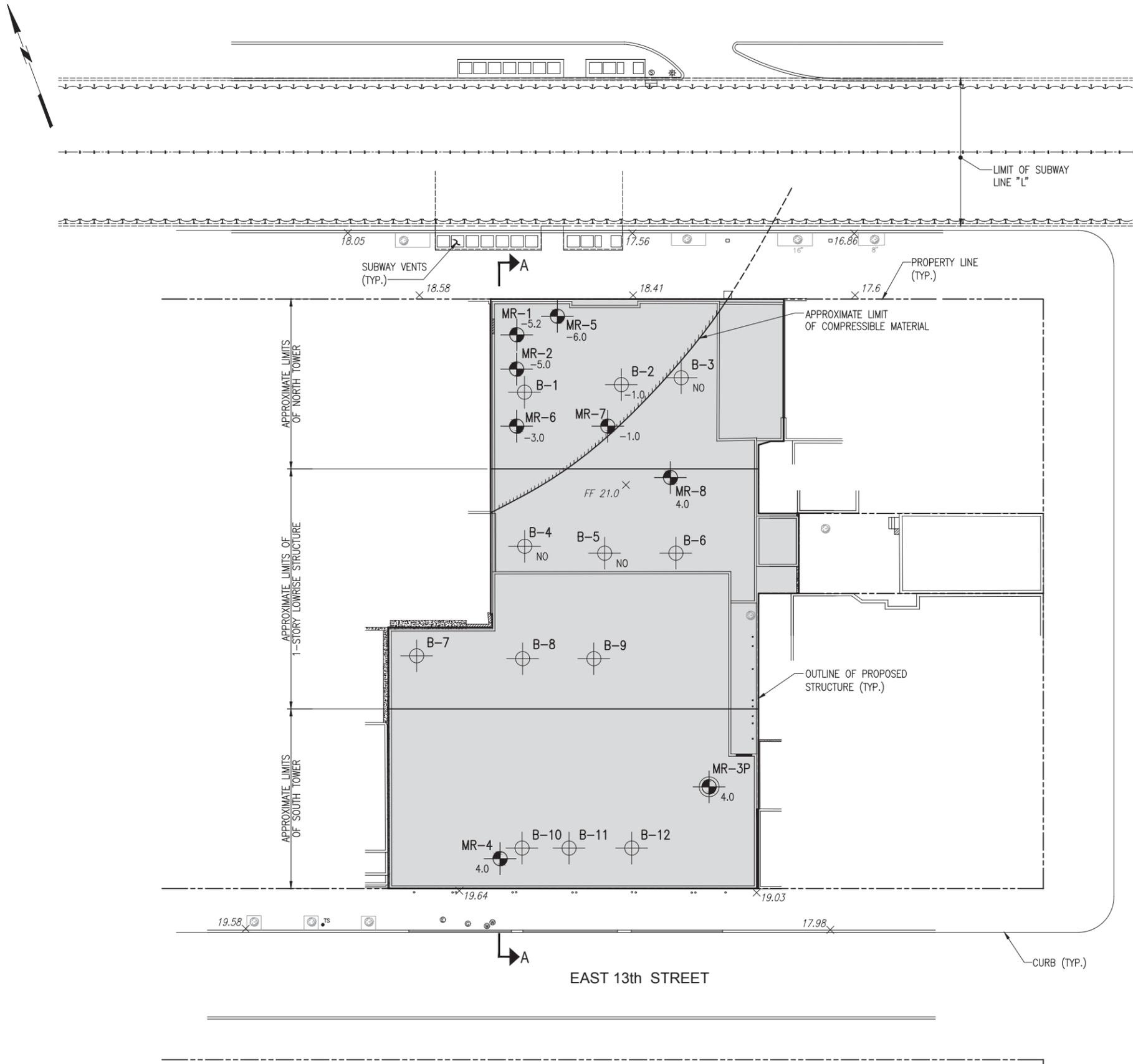
Source: 2002 – 2003, Manhattan Land Book of the City of New York

— : Outline of proposed structure

432 E 14 <sup>TH</sup> STREET			
NEW YORK		NEW YORK	
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>			
14 PENN PLAZA – 225 W 34 <sup>TH</sup> STREET, NEW YORK NY 10122			
SCALE	MADE BY: JJA	DATE: 01-19-2016	FILE No.
-NTS-	CH'KD BY: TDC	DATE: 01-19-2016	12429
2002 – 2003 MANHATTAN LANDBOOK			Figure 10

**Appendix A**  
**MRCE Boring Location Plan**  
**And**  
**Boring Logs**

EAST 14th STREET



**NOTES:**

1. BASE PLAN AND SURVEYED ELEVATIONS ARE BASED ON THE ARCHITECTURAL SURVEY DATED OF 06/25/14 BY JOSEPH NICOLETTI ASSOCIATES, REF. NO. M441-001, PROVIDED BY URBAN DEVELOPMENT PARTNERS.
2. ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. 2015 MRCE BORINGS WERE PERFORMED UNDER CONTINUOUS INSPECTION OF MRCE'S RESIDENT ENGINEER.
4. LOCATION OF 2015 MRCE BORINGS WERE MEASURED WITH TAPE WITH RESPECT TO IDENTIFIED BUILDING ELEMENTS BY MRCE'S RESIDENT ENGINEER. LOCATION OF PREVIOUS BORINGS WERE ADJUSTED BASED ON TAPE MEASUREMENTS OF MRCE'S RESIDENT ENGINEER.
5. SEE DWG. GS-R FOR THE UNIFIED CLASSIFICATION SYSTEM (UCS).
6. GEOLOGIC SECTION A-A SEE DWG. GS-1.

**LEGEND:**

- B-2 - PREVIOUS BORINGS
- MR-1 - 2015 MRCE BORINGS
- 5.2 - PROPOSED SUBGRADE ELEVATION
- MR-3P - PROPOSED MRCE PIEZOMETER
- 4.0 - PROPOSED SUBGRADE ELEVATION

**P L A N**



REV.	DATE	BY	DESCRIPTION
432 E 14th STREET			
NEW YORK		NEW YORK	
URBAN DEVELOPMENT PARTNERS			
NEW YORK		NEW YORK	
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>			
14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY: E.C.	DATE: 05-22-2015	FILE NUMBER
GRAPHIC	CHK'D BY: G.D.F.	DATE: 05-22-2015	12429
BORING LOCATION PLAN			B-1

Printed by: Tendai Chiriga  
 Printed on: Friday, May 22, 2015 - 04:25:53 PM  
 Last saved by: tchiriga on Friday, May 22, 2015 - 4:21:40 PM  
 C:\DWG\124\12429\B-1.dwg

# MUESER RUTLEDGE CONSULTING ENGINEERS

## BORING LOG

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-1  
 SHEET 1 OF 4  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS		
	NO.	DEPTH	BLOWS/6"							
11:00 04-24-15 Friday Cloudy 36°F	1D	0.7	4-3	Top 2.5": Gray fine to coarse sand, some gravel, trace silt (Fill) (SP-SM) Bot 3.5": Tan brown fine to coarse sand, some gravel, trace silt (Fill) (SP-SM)	**	0.3	0	**Concrete slab from 0' to 0.3'. 1D: REC=6"		
		2.7	3-5		VOID	0.7				
							0			
							2.5		10	
									45	
									65	
							5			
									20	
									20	
							7.5		30	
					F		30			
							30			
							10			
	3D	10.0	5-7	Tan to brown fine to coarse sand & brick, some silt, trace cinders, gravel (Fill) (SM)			10		Losing water at 11'.	
		12.0	10-6					10		
								12.5		10
										30
										30
							15		4D Mid: Petroleum odor.	
	4D	13.0	13-7	Top 6": Brown fine to medium sand, some silt, trace gravel, concrete (Fill) (SM) Mid 6": Brown to black wood, some fine to coarse sand, silt (Fill) (SM) Bot 6": Brown silty fine to medium sand, some brick, trace gravel (Fill) (SM) Brown silty fine to medium sand (SM)				23		
	15.0	10-10					8			
							17.5	6		
								23		
					S		38	Drilled ahead of casing 3" to 20'.		
6D	19.0	8-6	Brown fine to coarse sand, some gravel, silt (SM)				20			
	21.0	2-6								
					22.5		7D Bot: WC=110, pp=1.25			
7D	22.0	6-2	Top 12": Dark gray to red brown fine to medium sand, some gravel, silt (SM) Bot 12": Stiff dark gray organic silty clay, some peat (OH&Pt)		23					
	24.0	2-1								
					O		25	8D Top: WC=170, pp=1.25		
8D	25.0	3-4	Top 16": Do 7D, Bottom (OH&Pt) Bot 4": Dk gray fine to medium sand, sm silt (SM)							
	27.0	11-10					26.2			



# MUESER RUTLEDGE CONSULTING ENGINEERS

## BORING LOG

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-1  
 SHEET 3 OF 4  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
Cont'd 04-27-15 Monday Cloudy 50°F								
	15D	53.0 55.0	4-6 8-8	Soft red brown silt, some micaceous fine sand (ML)		52.5		pp<0.25
						55		
	16D	56.0 58.0	4-5 7-9	Do 15D (ML)				pp<0.25
						57.5		
	17D	59.0 61.0	10-11 12-17	Medium red brown silt, some micaceous fine sand (ML)	M	60		pp=0.5
	18D	62.0 64.0	12-14 15-16	Red brown silty fine sand, some layers of silt, some fine sand, trace brown silty clay seams (SM&ML)		62.5		pp=0.5
15:00								
07:30 04-28-15 Tuesday Cloudy 55°F								
	19D	66.0 68.0	9-12 13-23	Red brown fine sandy silt (ML)		65		
	20D	68.0 70.0	34-29 100/4"	Top 7": Red brown fine to medium sand, trace silt, coarse sand (SP-SM) Bot 8": Do 19D (ML)		67.5		
09:30						70		End of Boring at 70'.
								WC=Water Content in percent of dry weight.
						72.5		pp=Pocket Penetrometer Unconfined Compressive Strength in tsf.
						75		

## MUESER RUTLEDGE CONSULTING ENGINEERS

	BORING NO. <u>MR-1</u>
	SHEET <u>4</u> OF <u>4</u>
PROJECT <u>432 EAST 14TH STREET</u>	FILE NO. <u>12429</u>
LOCATION <u>NEW YORK, NEW YORK</u>	SURFACE ELEV. <u>+21</u>
BORING LOCATION <u>SEE BORING LOCATION PLAN</u>	DATUM <u>NAVD 88</u>

### BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

	TYPE OF FEED	CASING USED	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
TYPE OF BORING RIG	DURING CORING				
TRUCK	MECHANICAL	DIA., IN. <u>3</u>	DEPTH, FT. FROM	<u>0</u>	TO <u>20</u>
SKID	HYDRAULIC	DIA., IN. _____	DEPTH, FT. FROM	_____	TO _____
BARGE	OTHER	ELECTRIC	DIA., IN. _____	DEPTH, FT. FROM	_____ TO _____
OTHER	<u>SOIL MECHANIC</u>				

TYPE AND SIZE OF:	DRILLING MUD USED	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
D-SAMPLER <u>2" O. D. SPLIT SPOON</u>	DIAMETER OF ROTARY BIT, IN.	<u>2-15/16</u>		
U-SAMPLER _____	TYPE OF DRILLING MUD	<u>QUIK MUD D-50</u>		
S-SAMPLER _____				
CORE BARREL <u>NX DOUBLE TUBE</u>	AUGER USED	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
CORE BIT <u>NX DIAMOND</u>	TYPE AND DIAMETER, IN.	_____		
DRILL RODS <u>NX</u>				
	CASING HAMMER, LBS.	_____	AVERAGE FALL, IN.	_____
	*SAMPLER HAMMER, LBS.	<u>140</u>	AVERAGE FALL, IN.	<u>30</u>
	*USED DONUT HAMMER (NO SAFETY).			

### WATER LEVEL OBSERVATIONS IN BOREHOLE

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE.

PIEZOMETER INSTALLED  YES  NO SKETCH SHOWN ON \_\_\_\_\_

STANDPIPE:	TYPE _____	ID, IN. _____	LENGTH, FT. _____	TOP ELEV. _____
INTAKE ELEMENT:	TYPE _____	OD, IN. _____	LENGTH, FT. _____	TIP ELEV. _____
FILTER:	MATERIAL _____	OD, IN. _____	LENGTH, FT. _____	BOT. ELEV. _____

### PAY QUANTITIES

3.5" DIA. DRY SAMPLE BORING	LIN. FT. <u>70</u>	NO. OF 3" SHELBY TUBE SAMPLES _____
3.5" DIA. U-SAMPLE BORING	LIN. FT. _____	NO. OF 3" UNDISTURBED SAMPLES _____
CORE DRILLING IN ROCK	LIN. FT. _____	OTHER: _____

BORING CONTRACTOR WARREN GEORGE, INC.

DRILLER DEON DEWAR HELPERS FRANKLIN MUNOZ

REMARKS BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

RESIDENT ENGINEER GUILLERMO DIAZ-FANAS DATE 4/24/2015 - 04/28/2015

CLASSIFICATION CHECK: CHERYL J. MOSS TYPING CHECK: CHERYL J. MOSS





**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING NO.** MR-2  
**SHEET** 3 **OF** 3  
**FILE NO.** 12429  
**SURFACE ELEV.** +21  
**DATUM** NAVD 88

**PROJECT** 432 EAST 14TH STREET  
**LOCATION** NEW YORK, NEW YORK  
**BORING LOCATION** SEE BORING LOCATION PLAN

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

TYPE OF BORING RIG \_\_\_\_\_ TYPE OF FEED \_\_\_\_\_ CASING USED  YES  NO  
 TRUCK \_\_\_\_\_ DURING CORING \_\_\_\_\_ MECHANICAL \_\_\_\_\_ DIA., IN. 3 DEPTH, FT. FROM 0 TO 20  
 SKID \_\_\_\_\_ HYDRAULIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 BARGE \_\_\_\_\_ OTHER \_\_\_\_\_ ELECTRIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 OTHER SOIL MECHANIC

TYPE AND SIZE OF: \_\_\_\_\_ DRILLING MUD USED  YES  NO  
 D-SAMPLER 2" O. D. SPLIT SPOON DIAMETER OF ROTARY BIT, IN. 2-15/16  
 U-SAMPLER \_\_\_\_\_ TYPE OF DRILLING MUD QUIK MUD D-50  
 S-SAMPLER \_\_\_\_\_  
 CORE BARREL NX DOUBLE TUBE AUGER USED  YES  NO  
 CORE BIT NX DIAMOND TYPE AND DIAMETER, IN. \_\_\_\_\_  
 DRILL RODS NX  
 CASING HAMMER, LBS. \_\_\_\_\_ AVERAGE FALL, IN. \_\_\_\_\_  
 \*SAMPLER HAMMER, LBS. 140 AVERAGE FALL, IN. 30  
 \*USED DONUT HAMMER (SAFETY).

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE.

**PIEZOMETER INSTALLED**  YES  NO **SKETCH SHOWN ON** \_\_\_\_\_

STANDPIPE: TYPE \_\_\_\_\_ ID, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TOP ELEV. \_\_\_\_\_  
 INTAKE ELEMENT: TYPE \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TIP ELEV. \_\_\_\_\_  
 FILTER: MATERIAL \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ BOT. ELEV. \_\_\_\_\_

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING LIN. FT. 34 NO. OF 3" SHELBY TUBE SAMPLES \_\_\_\_\_  
 3.5" DIA. U-SAMPLE BORING LIN. FT. \_\_\_\_\_ NO. OF 3" UNDISTURBED SAMPLES \_\_\_\_\_  
 CORE DRILLING IN ROCK LIN. FT. \_\_\_\_\_ OTHER: \_\_\_\_\_

**BORING CONTRACTOR** WARREN GEORGE, INC.  
**DRILLER** DEON DEWAR **HELPERS** FRANKLIN MUNOZ

**REMARKS** BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

**RESIDENT ENGINEER** GUILLERMO DIAZ-FANAS **DATE** 4/28/2015 - 4/29/2015

**CLASSIFICATION CHECK:** CHERYL J. MOSS **TYPING CHECK:** CHERYL J. MOSS

# MUESER RUTLEDGE CONSULTING ENGINEERS

## BORING LOG

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-3P  
 SHEET 1 OF 3  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	CASING		REMARKS	
	NO.	DEPTH	BLOWS/6"			DEPTH	BLOWS		
09:00									
04-21-15	1D	1.5	WH/12"	Brown fine to coarse sand, some gravel, trace silt, brick (Fill) (SP-SM)	**	0.5	0	**Concrete slab from 0' to 0.5. 1' Thick void on top of fill.	
Tuesday		3.5	3-4		VOID	1.5	0		
Cloudy								1D: REC=1"	
55°F									
	2D	5.0	3-5	Top 3": Brown fine to coarse sand, some silt, trace glass, brick, cinders (Fill) (SM) Bot 5": Brown gravel & wood, some silt, trace brick (Fill) (SM)	F		5	Drilled ahead of casing 3" to 25'.  Sample wet between 13' to 14'	
		7.0	7-11				19		
						36			
						14			
						32			
	3D	10.0	6-18	Top 4": Brown gravelly fine to coarse sand, some brick, silt, trace gravel, glass (Fill) (SM) Bot 5": Brn f-m sand, sm silt, brick (Fill) (SM)			10		
		12.0	34-13				15		
				Brown to red brown gravelly f-c sand, trace silt (Fill) (SP-SM)					
	4D	13.0	4-3				11		
		15.0	4-5			20			
				Red brown fine to medium sand, some silt, trace mica (SM)		14			
	5D	16.0	6-7			13			
		18.0	8-10		14				
				Brown fine to medium sand, trace silt, mica (SP)		18			
	6D	19.0	5-7			20			
		21.0	5-6		25				
				Do 6D, trace coarse sand (SP-SM)		43			
	7D	22.0	7-6			37			
		24.0	5-8		38				
				Brown fine to medium sand, trace silt (SP-SM)		39			
	8D	25.0	5-4			25			
15:15		27.0	4-6		46		Losing water while drilling. Tip of spoon smelled of petroleum.		
07:45									
04-22-15	9D	28.0	5-7	Brown fine to medium sand, some silt, trace silty clay seams, mica (SM)	S				
Wednesday		30.0	9-11				30		
Cloudy				Brown silty fine sand, trace silty clay seams, mica (SM)					
53°F	10D	31.0	5-8						
		33.0	8-9						
				Brown fine to medium sand, trace silt, mica (SP-SM)					
	11D	34.0	7-10				35		
		36.0	9-11						
				Do 11D (SP-SM)					
	12D	37.0	8-7						
		39.0	9-9						
				Red brown fine to medium sand, trace silt, silt seams, mica (SP-SM)		40			
	13D	40.0	5-4						
		42.0	4-5						
				Red brown fine to medium sand, some silt, trace silt seams, mica (SM)					
	14D	43.0	7-9			45			
		45.0	7-5						
				Red brown fine sand, some silt, trace silt seams, light brown silty clay seams, mica (SM)					
	15D	46.0	3-5						
		48.0	7-7						
				Do 15D (SM)					
	16D	49.0	3-6			50			
		51.0	8-10						



**MUESER RUTLEDGE CONSULTING ENGINEERS**

<b>PROJECT</b>	432 EAST 14TH STREET	<b>BORING NO.</b>	MR-3P
<b>LOCATION</b>	NEW YORK, NEW YORK	<b>SHEET</b>	3 OF 3
<b>BORING LOCATION</b>	SEE BORING LOCATION PLAN	<b>FILE NO.</b>	12429
		<b>SURFACE ELEV.</b>	+21
		<b>DATUM</b>	NAVD 88

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

<b>TYPE OF BORING RIG</b>	<b>TYPE OF FEED</b>	<b>CASING USED</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
TRUCK	DURING CORING	DIA., IN.	3	DEPTH, FT. FROM
SKID	MECHANICAL	DIA., IN.		0 TO 25
BARGE	HYDRAULIC	DIA., IN.		DEPTH, FT. FROM
OTHER	OTHER	ELECTRIC		TO
	SOIL MECHANIC			DEPTH, FT. FROM

<b>TYPE AND SIZE OF:</b>	<b>DRILLING MUD USED</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
D-SAMPLER	2" O. D. SPLIT SPOON	DIAMETER OF ROTARY BIT, IN.	2-15/16
U-SAMPLER		TYPE OF DRILLING MUD	QUIK MUD D-50
S-SAMPLER			
CORE BARREL	NX DOUBLE TUBE	<b>AUGER USED</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
CORE BIT	NX DIAMOND	TYPE AND DIAMETER, IN.	
DRILL RODS	NX		
		CASING HAMMER, LBS.	AVERAGE FALL, IN.
		*SAMPLER HAMMER, LBS.	140 AVERAGE FALL, IN.
			30
		*USED DONUT HAMMER.	

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE.

**PIEZOMETER INSTALLED**  YES  NO **SKETCH SHOWN ON** SEE SHEET NO. 3

<b>STANDPIPE:</b>	TYPE	PVC PIPE	ID, IN.	1-1/4	LENGTH, FT.	20	TOP ELEV.	20.83
<b>INTAKE ELEMENT:</b>	TYPE	SAND #020	OD, IN.	3	LENGTH, FT.	12	TIP ELEV.	-9
<b>FILTER:</b>	MATERIAL	SLOTTED PVC	OD, IN.	1-1/4	LENGTH, FT.	10	BOT. ELEV.	-9

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING	LIN. FT.	70	NO. OF 3" SHELBY TUBE SAMPLES	_____
3.5" DIA. U-SAMPLE BORING	LIN. FT.	_____	NO. OF 3" UNDISTURBED SAMPLES	_____
CORE DRILLING IN ROCK	LIN. FT.	_____	OTHER:	_____

**BORING CONTRACTOR** WARREN GEORGE, INC.  
**DRILLER** DEON DEWAR HELPERS ALEX FELICIANO/FRANKLIN MUNOZ

**REMARKS** PIEZOMETER INSTALLED.

**RESIDENT ENGINEER** GUILLERMO DIAZ-FANAS **DATE** 4/21/2015 - 4/23/2015

**CLASSIFICATION CHECK:** CHERYL J. MOSS **TYPING CHECK:** CHERYL J. MOSS

# MUESER RUTLEDGE CONSULTING ENGINEERS

## BORING LOG

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-4  
 SHEET 1 OF 3  
 FILE NO. 12429  
 SURFACE ELEV. +19.25  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	CASING		REMARKS	
	NO.	DEPTH	BLOWS/6"			DEPTH	BLOWS		
11:00 04-16-15 Thursday	1D	0.5	4-24	Top 4": Dark gray fine to coarse sand, some gravel, silt, trace brick (Fill) (SM) Mid 7": Orange brick, some fine to coarse sand, silt (Fill) (SM) Bot 9": Tan brn f-c sand, sm brick, silt (Fill) (SM) Tan fine to coarse sand, some gravel, silt, trace brick (Fill) (SM)	<b>F</b>	<b>0.5</b>	21	**Concrete slab from 0' to 0.5'. Drilled ahead of casing 3" to 20'. Brick, gravel (Fill) (SM) REC=4"  Wet sample at 9.5'  3" Boulder encountered.	
		2.5	18-9				35		
							30		
							19		
							<b>5</b>		
							46		
		2D	5.0			9-6			13
			7.0			4-4			19
									17
									24
15:00	3NR	10.0	74-100/3"	No recovery		<b>10</b>	30		
		10.75				<b>12</b>	106		
09:00 04-17-15 Friday	4D	12.0	2-2	Red brown medium to fine sand, trace tile, silt, gravel (SP) Red brown silty fine to medium sand, trace gravel, mica (SM) Red brown fine to medium sand, trace silt, gravel, mica (SP-SM) Do 6D (SP-SM) Do 6D (SP-SM) Red brown fine to medium sand, trace silt, mica (SP-SM) Do 9D (SP-SM) Red brown fine sand, some silt, trace silty clay seams, mica (SM) Do 11D (SM) Do 11D (SM) Do 11D (SM) Brown silty fine sand, trace silty clay seams, mica (SM) Do 15D (SM)	<b>S</b>		6	REC=5"  Petroleum Odor when drilling.	
		14.0	2-2				12		
	5D	15.0	2-3				<b>15</b>		
		17.0	5-8				20		
							18		
							17		
	6D	18.0	5-6				18		
		20.0	7-12				<b>20</b>		
		7D	21.0			4-4			
			23.0			5-5			
		8D	24.0			7-7			<b>25</b>
			26.0			8-9			
		9D	27.0			6-6			
			29.0			7-12			<b>30</b>
	10D	30.0	6-6						
		32.0	6-7						
	11D	33.0	6-4						
		35.0	10-10		<b>35</b>				
15:00	12D	36.0	7-6						
07:00 04-20-15 Monday		38.0	6-8						
	13D	39.0	8-7		<b>40</b>				
		41.0	5-7						
	14D	42.0	10-9						
		44.0	11-10						
		15D	45.0	9-7					
			47.0	9-10					
	16D	48.0	5-4						
		50.0	8-10		<b>50</b>				

**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING LOG**

**BORING NO.** MR-4

**SHEET 2 OF** 3

**FILE NO.** 12429

**SURFACE ELEV.** +19.25

**RES. ENGR.** GUILLERMO DIAZ-FANAS

**PROJECT:** 432 EAST 14TH STREET  
**LOCATION:** NEW YORK, NEW YORK

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
Cont'd								
04-20-15	17D	51.0	12-11	Brown fine sandy silt (ML)	S			
Monday		53.0	12-16					
	18D	54.0	10-10	Brown silt, trace fine sand (ML)		55		
		56.0	13-15					
	19D	57.0	6-8	Brown fine sandy silt, trace silty clay seams (ML)		58.5		
		59.0	13-21			60		
	20D	60.0	9-12	Interlayered brown fine to medium sand, some silt, fine sandy silt, silt, trace silty clay (SM&ML)				
		62.0	16-19					
	21D	63.0	7-8	Brown silty fine sand varved with some clayey silt (SM&ML)				
		65.0	13-15			65		
	22D	68.0	10-12	Brown fine to medium sand, some silt (SM)				
14:30		70.0	13-16		70		End of Boring at 70'.	
						75		
						80		
						85		
						90		
						95		
						100		

**MUESER RUTLEDGE CONSULTING ENGINEERS**

<b>PROJECT</b>	<u>432 EAST 14TH STREET</u>	<b>BORING NO.</b>	<u>MR-4</u>
<b>LOCATION</b>	<u>NEW YORK, NEW YORK</u>	<b>SHEET</b>	<u>3 OF 3</u>
<b>BORING LOCATION</b>	<u>SEE BORING LOCATION PLAN</u>	<b>FILE NO.</b>	<u>12429</u>
		<b>SURFACE ELEV.</b>	<u>+19.25</u>
		<b>DATUM</b>	<u>NAVD 88</u>

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

	<b>TYPE OF FEED</b>						
<b>TYPE OF BORING RIG</b>	<b>DURING CORING</b>	<b>CASING USED</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO			
TRUCK	MECHANICAL	DIA., IN. <u>3</u>	DEPTH, FT. FROM <u>0</u>	TO <u>20</u>			
SKID	HYDRAULIC	DIA., IN. _____	DEPTH, FT. FROM _____	TO _____			
BARGE	OTHER	ELECTRIC	DIA., IN. _____	DEPTH, FT. FROM _____	TO _____		
OTHER	<u>SOIL MECHANIC</u>						

<b>TYPE AND SIZE OF:</b>		<b>DRILLING MUD USED</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
D-SAMPLER	<u>2" O. D. SPLIT SPOON</u>	DIAMETER OF ROTARY BIT, IN.	<u>2-15/16</u>	
U-SAMPLER	_____	TYPE OF DRILLING MUD	<u>EZ MUD (QUIK MUD D-50)</u>	
S-SAMPLER	_____			
CORE BARREL	<u>NX DOUBLE TUBE</u>	<b>AUGER USED</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
CORE BIT	<u>NX DIAMOND</u>	TYPE AND DIAMETER, IN.	_____	
DRILL RODS	<u>NX</u>			
		CASING HAMMER, LBS.	_____	AVERAGE FALL, IN. _____
		*SAMPLER HAMMER, LBS.	<u>140</u>	AVERAGE FALL, IN. <u>30</u>
		*USED DONUT HAMMER.		

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE.

**PIEZOMETER INSTALLED**     YES     NO    **SKETCH SHOWN ON** \_\_\_\_\_

<b>STANDPIPE:</b>	TYPE _____	ID, IN. _____	LENGTH, FT. _____	TOP ELEV. _____
<b>INTAKE ELEMENT:</b>	TYPE _____	OD, IN. _____	LENGTH, FT. _____	TIP ELEV. _____
<b>FILTER:</b>	MATERIAL _____	OD, IN. _____	LENGTH, FT. _____	BOT. ELEV. _____

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING	LIN. FT. <u>70</u>	NO. OF 3" SHELBY TUBE SAMPLES	_____
3.5" DIA. U-SAMPLE BORING	LIN. FT. _____	NO. OF 3" UNDISTURBED SAMPLES	_____
CORE DRILLING IN ROCK	LIN. FT. _____	OTHER:	_____

**BORING CONTRACTOR** WARREN GEORGE, INC.

**DRILLER** DEON DEWAR    **HELPERS** FRANKLIN MUNOZ

**REMARKS** BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

**RESIDENT ENGINEER** GUILLERMO DIAZ-FANAS    **DATE** 4/16/2015 - 4/20/2015

**CLASSIFICATION CHECK:** CHERYL J. MOSS    **TYPING CHECK:** CHERYL J. MOSS

# MUESER RUTLEDGE CONSULTING ENGINEERS

## BORING LOG

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-5  
 SHEET 1 OF 3  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
09:30 04-29-15 Wednesday Sunny 64°F					** VOID	0.5 0.7	9	**Concrete slab from 0' to 0.5'. Drilled without Sampling from 0.5' to 12'
					F	2.5	25	
							25	
							65	
						5		
						6.0	275	Boulder encountered at 6'.
							DRILLED AHEAD 3"	Hard hammering, helper pulled rope to facilitate casing penetration. Rig chatter at 8', 10' & 12'.
					BLDR	7.5		
						10		
					F			
	1D	12.0	50/2"	Brown fine to coarse sandy gravel, trace silt (Fill) (GP-GM)	BLDR	12.5		REC=1.5" Boulder, cobbles & wood found in drilling.
		14.0						
	2D	14.0	7-7	Top 6": Brown fine to coarse sand & wood, some brick, trace silt (Fill) (SP)	F	15		
		16.0	4-7	Bot 7": Brown fine to medium sand, some silt, trace gravel, brick (Fill) (SM)				
15:00						16		
07:30 04-30-15 Thursday Cloudy 60°F	3D	16.0	9-8	Brown fine to coarse sand, some gravel, silt, trace cinders (SM)				
		18.0	7-6			17.5		
	4D	18.0	9-6	Brown fine to coarse sand, some gravel, clay (SC)				
		20.0	9-12					
	5D	20.0	14-12	Top 6": Brown fine to coarse sand, some gravel, trace silt (SP-SM)	S		20	
		22.0	15-14	Bot 5": Gray brown fine to medium sand, trace organic silty clay, coarse sand (SP-SC)				
	6D	22.0	10-7	Brown to red brown fine to medium sand, some silt, trace coarse sand, gravel (SM)			22.5	
		24.0	6-5					
	7D	24.0	3-5	Top 1": Soft gray brn org si cl, tr pt, f-m sa (OH)			24	
		26.0	4-8	Mid 11": Stiff dk brn org clay, tr pt, f gvl, sa (OH)	O		25	7D Mid: WC=101, pp=1.0
				Bot 9": Stiff black organic silty clay, some peat (OH&Pt)				7D Bot: WC=121, pp=1.5



**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING NO.** MR-5  
**SHEET** 3 **OF** 3  
**FILE NO.** 12429  
**SURFACE ELEV.** +21  
**DATUM** NAVD 88

**PROJECT** 432 EAST 14TH STREET  
**LOCATION** NEW YORK, NEW YORK  
**BORING LOCATION** SEE BORING LOCATION PLAN

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

TYPE OF BORING RIG \_\_\_\_\_ TYPE OF FEED \_\_\_\_\_ CASING USED  YES  NO  
 TRUCK \_\_\_\_\_ DURING CORING \_\_\_\_\_ MECHANICAL \_\_\_\_\_ DIA., IN. 3 DEPTH, FT. FROM 0 TO 15  
 SKID \_\_\_\_\_ HYDRAULIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 BARGE \_\_\_\_\_ OTHER \_\_\_\_\_ ELECTRIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 OTHER SOIL MECHANIC

TYPE AND SIZE OF: \_\_\_\_\_ DRILLING MUD USED  YES  NO  
 D-SAMPLER 2" O. D. SPLIT SPOON DIAMETER OF ROTARY BIT, IN. 2-15/16  
 U-SAMPLER \_\_\_\_\_ TYPE OF DRILLING MUD QUIK MUD D-50  
 S-SAMPLER \_\_\_\_\_  
 CORE BARREL NX DOUBLE TUBE AUGER USED  YES  NO  
 CORE BIT NX DIAMOND TYPE AND DIAMETER, IN. \_\_\_\_\_  
 DRILL RODS NX  
 CASING HAMMER, LBS. \_\_\_\_\_ AVERAGE FALL, IN. \_\_\_\_\_  
 \*SAMPLER HAMMER, LBS. 140 AVERAGE FALL, IN. 30  
 \*USED DONUT HAMMER (NO SAFETY).

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE.

**PIEZOMETER INSTALLED**  YES  NO **SKETCH SHOWN ON** \_\_\_\_\_

STANDPIPE: TYPE \_\_\_\_\_ ID, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TOP ELEV. \_\_\_\_\_  
 INTAKE ELEMENT: TYPE \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TIP ELEV. \_\_\_\_\_  
 FILTER: MATERIAL \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ BOT. ELEV. \_\_\_\_\_

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING LIN. FT. 26 NO. OF 3" SHELBY TUBE SAMPLES \_\_\_\_\_  
 3.5" DIA. U-SAMPLE BORING LIN. FT. \_\_\_\_\_ NO. OF 3" UNDISTURBED SAMPLES \_\_\_\_\_  
 CORE DRILLING IN ROCK LIN. FT. \_\_\_\_\_ OTHER: BOULDERS & COBBLES 8

**BORING CONTRACTOR** WARREN GEORGE, INC.  
**DRILLER** DEON DEWAR **HELPERS** FRANKLIN MUNOZ

**REMARKS** BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

**RESIDENT ENGINEER** GUILLERMO DIAZ-FANAS **DATE** 4/29/2015 - 4/30/2015

**CLASSIFICATION CHECK:** CHERYL J. MOSS **TYPING CHECK:** CHERYL J. MOSS



**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING LOG**

**BORING NO.** MR-6

**SHEET 2 OF** 3

**FILE NO.** 12429

**SURFACE ELEV.** +21

**RES. ENGR.** GUILLERMO DIAZ-FANAS

**PROJECT:** 432 EAST 14TH STREET  
**LOCATION:** NEW YORK, NEW YORK

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	CASING DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
Cont'd								
05-01-15								
Friday	8D	26.0	20-10	Red brown fine to medium sand, trace silt, coarse sand (SP-SM)	S			
Sunny		28.0	15-24					
60°F							27.5	
	9D	28.0	13-15	Brown to gray fine to medium sand, trace silt, silty fine sand seams (SP-SM)				
		30.0	15-14					
							30	
	10D	31.0	12-17	Top 11": Gray brown fine to medium sand, trace silt, coarse sand (SP-SM) Bot 10.5": Brown fine to medium sand, trace silt, coarse sand (SP-SM)				
		33.0	16-20					
						32.5		
	11D	34.0	6-5	Top 1.5": Red brown fine to coarse sand, trace silt (SP-SM) Bot 12.5": Red brown fine to medium sand, some silt, trace mica (SM)	M			
		36.0	6-6					
14:00						35		
						36	End of Boring at 36'.	
						37.5	WC=Water Content in percent of dry weight.	
						40	pp=Pocket Penetrometer Unconfined Compressive Strength in tsf.	
						42.5		
						45		
						47.5		
						50		

**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING NO.** MR-6  
**SHEET** 3 **OF** 3  
**FILE NO.** 12429  
**SURFACE ELEV.** +21  
**DATUM** NAVD 88

**PROJECT** 432 EAST 14TH STREET  
**LOCATION** NEW YORK, NEW YORK  
**BORING LOCATION** SEE BORING LOCATION PLAN

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

TYPE OF BORING RIG \_\_\_\_\_ TYPE OF FEED \_\_\_\_\_ CASING USED  YES  NO  
 TRUCK \_\_\_\_\_ DURING CORING \_\_\_\_\_ MECHANICAL \_\_\_\_\_ DIA., IN. 3 DEPTH, FT. FROM 0 TO 15  
 SKID \_\_\_\_\_ HYDRAULIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 BARGE \_\_\_\_\_ OTHER \_\_\_\_\_ ELECTRIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 OTHER SOIL MECHANIC

TYPE AND SIZE OF: \_\_\_\_\_ DRILLING MUD USED  YES  NO  
 D-SAMPLER 2" O. D. SPLIT SPOON DIAMETER OF ROTARY BIT, IN. 2-15/16  
 U-SAMPLER \_\_\_\_\_ TYPE OF DRILLING MUD QUIK MUD D-50  
 S-SAMPLER \_\_\_\_\_  
 CORE BARREL NX DOUBLE TUBE AUGER USED  YES  NO  
 CORE BIT NX DIAMOND TYPE AND DIAMETER, IN. \_\_\_\_\_  
 DRILL RODS NX  
 CASING HAMMER, LBS. \_\_\_\_\_ AVERAGE FALL, IN. \_\_\_\_\_  
 \*SAMPLER HAMMER, LBS. 140 AVERAGE FALL, IN. 30  
 \*USED DONUT HAMMER (NO SAFETY).

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE.

**PIEZOMETER INSTALLED**  YES  NO **SKETCH SHOWN ON** \_\_\_\_\_

STANDPIPE: TYPE \_\_\_\_\_ ID, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TOP ELEV. \_\_\_\_\_  
 INTAKE ELEMENT: TYPE \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TIP ELEV. \_\_\_\_\_  
 FILTER: MATERIAL \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ BOT. ELEV. \_\_\_\_\_

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING LIN. FT. 30 NO. OF 3" SHELBY TUBE SAMPLES \_\_\_\_\_  
 3.5" DIA. U-SAMPLE BORING LIN. FT. \_\_\_\_\_ NO. OF 3" UNDISTURBED SAMPLES \_\_\_\_\_  
 CORE DRILLING IN ROCK LIN. FT. \_\_\_\_\_ OTHER: CORED DRILLED 6

**BORING CONTRACTOR** WARREN GEORGE, INC.  
**DRILLER** DEON DEWAR **HELPERS** FRANKLIN MUNOZ

**REMARKS** BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

**RESIDENT ENGINEER** GUILLERMO DIAZ-FANAS **DATE** 4/30/2015 - 5/1/2015

**CLASSIFICATION CHECK:** CHERYL J. MOSS **TYPING CHECK:** CHERYL J. MOSS



# MUESER RUTLEDGE CONSULTING ENGINEERS

## BORING LOG

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-7  
 SHEET 2 OF 3  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
Cont'd 05-04-15 Monday Sunny 70°F				Red brown fine to medium sand, some silt, trace mica (SM)	S			End of Boring at 30'.  pp=Pocket Penetrometer Unconfined Compressive Strength in tsf.
	8D	28.0	7-6			27.5		
		30.0	7-6					
13:00						30		
						32.5		
						35		
				37.5				
				40				
				42.5				
				45				
				47.5				
				50				

**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING NO.** MR-7  
**SHEET** 3 **OF** 3  
**FILE NO.** 12429  
**SURFACE ELEV.** +21  
**DATUM** NAVD 88

**PROJECT** 432 EAST 14TH STREET  
**LOCATION** NEW YORK, NEW YORK  
**BORING LOCATION** SEE BORING LOCATION PLAN

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

	<b>TYPE OF FEED</b>					
<b>TYPE OF BORING RIG</b>	<b>DURING CORING</b>	<b>CASING USED</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		
TRUCK	MECHANICAL	DIA., IN. <u>3</u>	DEPTH, FT. FROM <u>0</u>	TO <u>15</u>		
SKID	HYDRAULIC	DIA., IN. _____	DEPTH, FT. FROM _____	TO _____		
BARGE	OTHER	ELECTRIC	DIA., IN. _____	DEPTH, FT. FROM _____	TO _____	
OTHER	<u>SOIL MECHANIC</u>					

<b>TYPE AND SIZE OF:</b>		<b>DRILLING MUD USED</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
D-SAMPLER	<u>2" O. D. SPLIT SPOON</u>	DIAMETER OF ROTARY BIT, IN.	<u>2-15/16</u>	
U-SAMPLER	_____	TYPE OF DRILLING MUD	<u>QUIK-MUD D-50</u>	
S-SAMPLER	_____			
CORE BARREL	<u>NX DOUBLE TUBE</u>	<b>AUGER USED</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
CORE BIT	<u>NX DIAMOND</u>	TYPE AND DIAMETER, IN.	_____	
DRILL RODS	<u>NX</u>			
		CASING HAMMER, LBS.	AVERAGE FALL, IN. _____	
		SAMPLER HAMMER, LBS. <u>140</u>	AVERAGE FALL, IN. <u>30</u>	

\*USED DONUT HAMMER (SAFETY).

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE

**PIEZOMETER INSTALLED**  YES  NO **SKETCH SHOWN ON** \_\_\_\_\_

<b>STANDPIPE:</b>	TYPE _____	ID, IN. _____	LENGTH, FT. _____	TOP ELEV. _____
<b>INTAKE ELEMENT:</b>	TYPE _____	OD, IN. _____	LENGTH, FT. _____	TIP ELEV. _____
<b>FILTER:</b>	MATERIAL _____	OD, IN. _____	LENGTH, FT. _____	BOT. ELEV. _____

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING	LIN. FT. <u>30</u>	NO. OF 3" SHELBY TUBE SAMPLES _____
3.5" DIA. U-SAMPLE BORING	LIN. FT. _____	NO. OF 3" UNDISTURBED SAMPLES _____
CORE DRILLING IN ROCK	LIN. FT. _____	OTHER: _____

**BORING CONTRACTOR** WARREN GEORGE, INC.  
**DRILLER** DEON DEWAR **HELPERS** FRANKLIN MUNOZ

**REMARKS** BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

**RESIDENT ENGINEER** GUILLERMO DIAZ-FANAS **DATE** 05-04-15

**CLASSIFICATION CHECK:** CHERYL J. MOSS **TYPING CHECK:** CHERYL J. MOSS

# MUESER RUTLEDGE CONSULTING ENGINEERS

## BORING LOG

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-8  
 SHEET 1 OF 3  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
13:00 05-04-15 Monday Sunny 70°F					**	0.33	5	**Concrete slab from 0' to 0.33'.
							10	Drilled without Sampling from 0.33' to 12'
						2.5	15	
							16	
							15	
						5	30	
					F		40	
						7.5	33	
							23	
							36	Drilled ahead of casing 3" to 10'.
15:00						10		
07:30 05-05-15 Tuesday Cloudy 75°F								
	1D	12.0	15-6	Top 4": Grn brn f-m sand, sm brick, silt (Fill) (SM)		12.5		
		14.0	5-5	Mid 4": Red brown to brown fine to coarse sand, trace silt, gravel (SP-SM)		13		
				Bot 8": Brn to gray brn f-m sand, sm si, tr gvl, c sa (SM)				
	2D	14.0	7-9	Top 6": Gray brown fine to medium sand, some silt, trace shells, peat (SM)		15		
		16.0	6-5	Bot 6": Brown to gray brown fine to medium sand, some silt (SM)				
				Top 2": Gray brown fine to medium sand, trace fine gravel, silt (SP-SM)				
	3D	16.0	5-5	Bot 12": Brown fine to medium sand, trace silt (SP-SM)		17.5		
		18.0	7-14	Do 3D Bottom (SP-SM)				
	4D	18.0	11-13		S			
		20.0	13-13			20		
	5D	20.0	7-8	Top 11": Do 3D Bottom, trace gravel, coarse sand (SP-SM)				
		22.0	5-5	Bot 1": Red brown silty fine sand, trace mica (SM)				
	6D	22.0	8-10	Top 14": Brown fine to medium sand, trace silt, mica (SP-SM)		22.5		
		24.0	10-13	Bot 10": Red brown fine to medium sand, some silt, trace coarse sand, clay seams (SM)				
				Red brown silty fine sand, some clayey silt seams (SM&ML)				
	7D	24.0	8-4			25		
		26.0	3-6					



**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING NO.** MR-8  
**SHEET** 3 **OF** 3  
**FILE NO.** 12429  
**SURFACE ELEV.** +21  
**DATUM** NAVD 88

**PROJECT** 432 EAST 14TH STREET  
**LOCATION** NEW YORK, NEW YORK  
**BORING LOCATION** \_\_\_\_\_

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

TYPE OF BORING RIG \_\_\_\_\_ TYPE OF FEED \_\_\_\_\_ CASING USED  YES  NO  
 TRUCK \_\_\_\_\_ DURING CORING \_\_\_\_\_ MECHANICAL \_\_\_\_\_ DIA., IN. 3 DEPTH, FT. FROM 0 TO 10  
 SKID \_\_\_\_\_ HYDRAULIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 BARGE \_\_\_\_\_ OTHER \_\_\_\_\_ ELECTRIC \_\_\_\_\_ DIA., IN. \_\_\_\_\_ DEPTH, FT. FROM \_\_\_\_\_ TO \_\_\_\_\_  
 OTHER SOIL MECHANIC

TYPE AND SIZE OF: \_\_\_\_\_ DRILLING MUD USED  YES  NO  
 D-SAMPLER 2" O. D. SPLIT SPOON DIAMETER OF ROTARY BIT, IN. 2-15/16  
 U-SAMPLER \_\_\_\_\_ TYPE OF DRILLING MUD QUIK-MUD D-50  
 S-SAMPLER \_\_\_\_\_  
 CORE BARREL NX DOUBLE TUBE AUGER USED  YES  NO  
 CORE BIT NX DIAMOND TYPE AND DIAMETER, IN. \_\_\_\_\_  
 DRILL RODS NX  
 CASING HAMMER, LBS. \_\_\_\_\_ AVERAGE FALL, IN. \_\_\_\_\_  
 SAMPLER HAMMER, LBS. 140 AVERAGE FALL, IN. 30  
 \*USED DONUT HAMMER (NO SAFETY).

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE

**PIEZOMETER INSTALLED**  YES  NO **SKETCH SHOWN ON** \_\_\_\_\_

STANDPIPE: TYPE \_\_\_\_\_ ID, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TOP ELEV. \_\_\_\_\_  
 INTAKE ELEMENT: TYPE \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ TIP ELEV. \_\_\_\_\_  
 FILTER: MATERIAL \_\_\_\_\_ OD, IN. \_\_\_\_\_ LENGTH, FT. \_\_\_\_\_ BOT. ELEV. \_\_\_\_\_

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING LIN. FT. \_\_\_\_\_ NO. OF 3" SHELBY TUBE SAMPLES \_\_\_\_\_  
 3.5" DIA. U-SAMPLE BORING LIN. FT. \_\_\_\_\_ NO. OF 3" UNDISTURBED SAMPLES \_\_\_\_\_  
 CORE DRILLING IN ROCK LIN. FT. \_\_\_\_\_ OTHER: \_\_\_\_\_

**BORING CONTRACTOR** WARREN GEORGE, INC.  
**DRILLER** DEON DEWAR **HELPERS** FRANKLIN MUNOZ

**REMARKS** BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

**RESIDENT ENGINEER** GUILLERMO DIAZ-FANAS **DATE** 5/4/2015 - 5/5/2015

**CLASSIFICATION CHECK:** CHERYL J. MOSS **TYPING CHECK:** CHERYL J. MOSS

**MUESER RUTLEDGE CONSULTING ENGINEERS**

**BORING LOG**

PROJECT: 432 EAST 14TH STREET  
 LOCATION: NEW YORK, NEW YORK

BORING NO. MR-9  
 SHEET 1 OF 2  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 RES. ENGR. GUILLERMO DIAZ-FANAS

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
12:00					**	<b>0.375</b>	DRILLED	**Concrete slab from
05-05-15					***	<b>0.42</b>	AHEAD	0' to 0.375'.
Tuesday							3"	***Asphalt from 0.375'
Sunny								to 0.42'.
79°F						<b>2.5</b>		Drilled without
								Sampling from
								0' to 12'
						<b>5</b>		
					F	<b>7.5</b>		
						<b>10</b>	↓	
						<b>12.5</b>		
	1D	12.0	8-1	Top 12": Brown fine to coarse sand, some silt,		<b>13</b>		
		14.0	1-2	brick, trace fine gravel (Fill) (SM)				
				Bot 12": Yellow brown silty fine to coarse sand,	S	<b>14</b>		End of Boring at 14'.
				trace gravel (SM)				
						<b>15</b>		
						<b>17.5</b>		
						<b>20</b>		
						<b>22.5</b>		
						<b>25</b>		

## MUESER RUTLEDGE CONSULTING ENGINEERS

BORING NO. MR-9  
 SHEET 2 OF 2  
 FILE NO. 12429  
 SURFACE ELEV. +21  
 DATUM NAVD 88

PROJECT 432 EAST 14TH STREET  
 LOCATION NEW YORK, NEW YORK  
 BORING LOCATION SEE BORING LOCATION PLAN

**BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE**

TYPE OF BORING RIG	TYPE OF FEED	CASING USED	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
TRUCK	DURING CORING	DIA., IN. <u>3</u>	DEPTH, FT. FROM	<u>0</u>	TO <u>10</u>
SKID	MECHANICAL	DIA., IN. _____	DEPTH, FT. FROM	_____	TO _____
BARGE	HYDRAULIC	DIA., IN. _____	DEPTH, FT. FROM	_____	TO _____
OTHER	OTHER	ELECTRIC	DEPTH, FT. FROM	_____	TO _____
	SOIL MECHANIC				

TYPE AND SIZE OF:	DRILLING MUD USED	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
D-SAMPLER <u>2" O. D. SPLIT SPOON</u>	DIAMETER OF ROTARY BIT, IN.	<u>2-15/16</u>		
U-SAMPLER _____	TYPE OF DRILLING MUD	<u>QUIK MUD D-50</u>		
S-SAMPLER _____	AUGER USED	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
CORE BARREL <u>NX DOUBLE TUBE</u>	TYPE AND DIAMETER, IN.	_____		
CORE BIT <u>NX DIAMOND</u>				
DRILL RODS <u>NX</u>				
	CASING HAMMER, LBS.	_____	AVERAGE FALL, IN.	_____
	*SAMPLER HAMMER, LBS.	<u>140</u>	AVERAGE FALL, IN.	<u>30</u>
	*USED DONUT HAMMER (NO SAFETY).			

**WATER LEVEL OBSERVATIONS IN BOREHOLE**

DATE	TIME	DEPTH OF HOLE	DEPTH OF CASING	DEPTH TO WATER	CONDITIONS OF OBSERVATION
					NO WATER LEVEL OBSERVATIONS MADE.

PIEZOMETER INSTALLED  YES  NO SKETCH SHOWN ON \_\_\_\_\_

STANDPIPE:	TYPE _____	ID, IN. _____	LENGTH, FT. _____	TOP ELEV. _____
INTAKE ELEMENT:	TYPE _____	OD, IN. _____	LENGTH, FT. _____	TIP ELEV. _____
FILTER:	MATERIAL _____	OD, IN. _____	LENGTH, FT. _____	BOT. ELEV. _____

**PAY QUANTITIES**

3.5" DIA. DRY SAMPLE BORING	LIN. FT. <u>14</u>	NO. OF 3" SHELBY TUBE SAMPLES _____
3.5" DIA. U-SAMPLE BORING	LIN. FT. _____	NO. OF 3" UNDISTURBED SAMPLES _____
CORE DRILLING IN ROCK	LIN. FT. _____	OTHER: _____

BORING CONTRACTOR WARREN GEORGE, INC.  
 DRILLER DEON DEWAR HELPERS FRANKLIN MUNOZ

REMARKS BOREHOLE BACKFILLED & SEALED UPON COMPLETION.

RESIDENT ENGINEER GUILLERMO DIAZ-FANAS DATE 05-05-15

CLASSIFICATION CHECK: CHERYL J. MOSS TYPING CHECK: CHERYL J. MOSS

MRCE Readings								
M. Well	Date	Elev.	M. Well	Date	Elev.	M. Well	Date	Elev.
NW	4/17/15	7.9	NE	4/17/15	7.5	MR-3P	4/28/15	7.6
	4/22/15	8.1		4/22/15	7.7		4/29/15	7.6
	4/29/15	8.0		4/29/15	7.6		4/30/15	7.6
	4/30/15	7.9		4/30/15	7.6		5/1/15	7.6
	5/1/15	7.9		5/1/15	7.6		5/4/15	7.6
	5/4/15	7.9		5/4/15	7.6		5/5/15	7.5
	5/5/15	7.9		5/5/15	7.5			

Table I. Groundwater readings in monitoring wells NW, NE, and MR-3P

**Appendix B**  
**Groundwater Elevations**

# MUESER RUTLEDGE CONSULTING ENGINEERS

File 10297D

FOR LTCP - Groundwater Study

Made By CL Date 9/20/06

Chkd By \_\_\_\_\_ Date \_\_\_\_\_

SUBJECT: <u>New York City Groundwater Contours</u>						
<u>BOROUGH</u>	<u>NORTHING</u> (State Plane NAD 27, NY East)	<u>EASTING</u>	<u>GW_ELEV</u> (NAVD 1929)	<u>DATE</u>	<u>DATA SOURCE</u>	<u>NOTES</u>
Manhattan	268872	589853	-6	Apr-04	MRCE 10174	
Manhattan	262525	592453	-5	Feb 05 - Jan 06	USGS Well NY244.1	
Manhattan	271550	590813	-4	Apr-04	MRCE 10173	
Manhattan	265766	590362	-4	Feb 05 - Jan 06	USGS Well NY248.1	
Manhattan	258548	588674	-2	Nov-06	MRCE 10369	
Manhattan	261768	592489	-1	Sep-05	MRCE 10459	
Manhattan	286722	608062	0	Oct-87	MRCE 4027	
Manhattan	262972	590010	0	Oct 04 - Nov 04	USGS Well NY237.1	
Manhattan	273282	590582	1	Jul-00	MRCE 9387	
Manhattan	316805	615514	1	Dec-54	MRCE BB332	
Manhattan	269472	590894	1	Oct 04 - Nov 04	USGS Well NY236.1	
Manhattan	260673	587840	1	Feb-01	MRCE 9522	
Manhattan	269815	590554	2	Feb 05 - Jan 06	USGS Well NY249.1	
Manhattan	261005	591457	2	Feb-01	MRCE 9492	
Manhattan	271234	599065	3	Jun-05	MRCE 10408	
Manhattan	278777	605257	3	Mar-05	MRCE 10330	
Manhattan	259192	590838	3	Jan-04	MRCE 10127	
Manhattan	293431	610715	3	Nov-03	MRCE 9993	
Manhattan	290397	606460	3	May-02	MRCE 9567	
Manhattan	261168	587906	3	Oct-00	MRCE 9414	
Manhattan	285414	606540	3	Mar-82	MRCE 5518	
Manhattan	284493	607394	3	Mar-89	MRCE 7462	
Manhattan	262807	598877	3	Apr-43	MRCE 901	
Manhattan	284038	595886	3	Mar-00	MRCE 9309	
Manhattan	313162	613516	3	Apr-67	MRCE bb392	
Manhattan	269209	599111	4	Mar-01	MRCE 9554	
Manhattan	289656	611229	4	Apr-05	MRCE 10365	
Manhattan	274202	591970	4	April 05 - June 05	USGS Well NY239.1	
Manhattan	258541	589211	5	Feb-04	MRCE 9862	
Manhattan	284504	607218	5	Sep-01	MRCE 9641	
Manhattan	262872	594182	5	Jul-00	MRCE 9390	
Manhattan	278798	593174	5	Oct-03	MRCE 10051	
Manhattan	268563	598236	6	Feb-01	MRCE 9483	
Manhattan	266639	591899	6	Jul-03	MRCE 10029	
Manhattan	259891	594303	8	Feb 05 - Jan 06	USGS Well NY238.1	
Manhattan	278984	593582	8	Feb-06	MRCE 10551	
Manhattan	265556	595078	8	Jun-04	MRCE 10195	
Manhattan	301422	609242	8	Nov-63	MRCE 2684	
Manhattan	264034	594939	8	Dec-04	MRCE 10328	
Manhattan	261736	597705	8	Sep-59	MRCE 2711	
Manhattan	266729	596417	8	Jan-57	MRCE 1843	
Manhattan	297620	603593	9	Mar-02	MRCE 9693	
Manhattan	269639	599000	9	Mar-01	MRCE 9448	
Manhattan	285697	606827	9	Apr-98	MRCE 8726	
Manhattan	293485	608957	9	Nov-03	MRCE 10064	
Manhattan	297244	607707	9	Feb-00	MRCE 9296	
Manhattan	268301	597771	9	Jun-53	MRCE BB00	
Manhattan	277381	593860	11	Apr-00	MRCE 9335	
Manhattan	263366	595950	12	Feb-05	MRCE 10335	
Manhattan	269408	597034	15	Sep-05	MRCE 10411	
Manhattan	272694	599634	15	Feb 05 - Jan 06	USGS Well NY242.1	

# MUESER RUTLEDGE CONSULTING ENGINEERS

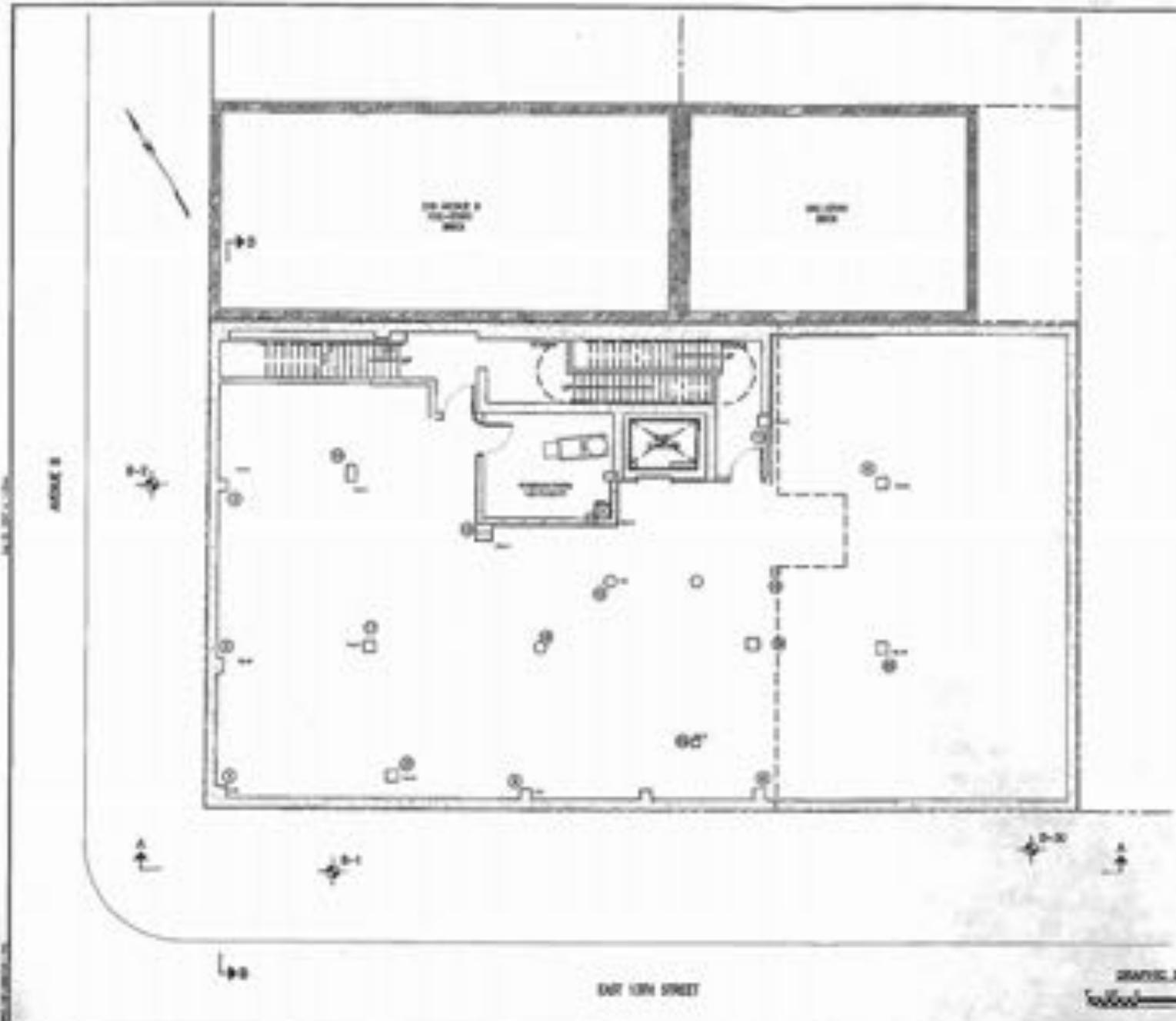
FOR LTCP - Groundwater Study

File 10297D

Made By CL Date 9/20/06

Chkd By \_\_\_\_\_ Date \_\_\_\_\_

SUBJECT: New York City Groundwater Contours						
<u>BOROUGH</u>	<u>NORTHING</u> (State Plane NAD 27, NY East)	<u>EASTING</u>	<u>GW_ELEV</u> (NAVD 1929)	<u>DATE</u>	<u>DATA SOURCE</u>	<u>NOTES</u>
Manhattan	268866	593627	18	Jul-04	MRCE 10245	
Manhattan	280641	605599	18	Oct-99	MRCE 9220	
Manhattan	272414	595237	18	Sep-05	MRCE 10521	
Manhattan	313095	611532	20	Jun-04	MRCE 10224	
Manhattan	276999	598916	21	Oct-93	MRCE 8043	
Manhattan	270552	593808	22	Jul-04	MRCE 10246	
Manhattan	313389	612128	23	May-00	MRCE 9355	
Manhattan	278380	594247	25	April 04 - Nov 04	USGS Well NY246.1	
Manhattan	282108	607339	26	Feb-06	MRCE10579	
Manhattan	282200	607175	32	Feb-06	MRCE10579	
Manhattan	275792	600006	34	Nov-97	MRCE 8750	
Manhattan	275589	595182	36	Dec-02	MRCE 9463A	
Manhattan	268468	595171	38	Nov-05	MRCE 10293	
Manhattan	282151	606416	38	Mar-03	MRCE 9939	
Manhattan	282306	605676	38	Jul-97	MRCE BB801	
Manhattan	275175	596750	39	Jun-03	MRCE 9992	
Manhattan	282078	602293	41	Jul-95	MRCE 10329	
Manhattan	276174	598119	45	Jul-04	MRCE 10247	
Manhattan	284189	597348	52	Jul-98	MRCE 9286	
Manhattan	277941	596732	53	Feb-01	MRCE 9459	
Manhattan	273540	597018	54	Dec-04	MRCE 10317	
Manhattan	290595	600462	68	Jun-04	MRCE 10234	
Manhattan	284069	604765	70	Jun-04	MRCE 10235	
Manhattan	281038	595852	72	Oct 04 - Nov 04	USGS Well NY243.1	
Manhattan	305649	609258	141	Jun-06	MRCE 10673	
Manhattan	306407	608334	158	Jun-04	MRCE 10170	
Manhattan	307319	609775	178	Dec-96	MRCE 8883	



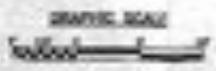
**GENERAL NOTES**

1. SEE PLAN FOR SYMBOLS AND NOTES, SPECIFIC NOTES AND PLAN, OF THE OWNER'S ARCHITECT, P.L.L., DATED FEBRUARY 2, 2007.
2. ALL EXISTING STRUCTURE MATERIALS PROVIDED BY ARCHITECTURE FIRM, WITH A 1/2" MIN. THICK REINFORCED CONCRETE SLAB ON GRADE, WITH AN 8" MIN. THICK POLYURETHANE INSULATION UNDER SLAB, WITH AN 8" MIN. THICK POLYURETHANE INSULATION UNDER SLAB.
3. ROOMS NO. 2-1 AND 2-2 WITH ROOF OF THE EXISTING BUILDING SHALL BE MAINTAINED AS IS.
4. ROOMS NO. 2-3 AND 2-4 WITH ROOF OF THE EXISTING BUILDING SHALL BE MAINTAINED AS IS, UNDER THE SUPERVISION OF ARCHITECTURE FIRM'S ARCHITECT.
5. LOCATIONS OF ROOMS NO. 2-1 AND 2-2 WITH EXISTING ROOF SHALL BE MAINTAINED AS IS, UNDER THE SUPERVISION OF ARCHITECTURE FIRM'S ARCHITECT. ROOMS NO. 2-3 AND 2-4 WITH EXISTING ROOF SHALL BE MAINTAINED AS IS, UNDER THE SUPERVISION OF ARCHITECTURE FIRM'S ARCHITECT. ROOMS NO. 2-5 AND 2-6 WITH EXISTING ROOF SHALL BE MAINTAINED AS IS, UNDER THE SUPERVISION OF ARCHITECTURE FIRM'S ARCHITECT.
6. THE EXISTING STRUCTURE SHALL BE MAINTAINED AS IS.

**LEGEND**

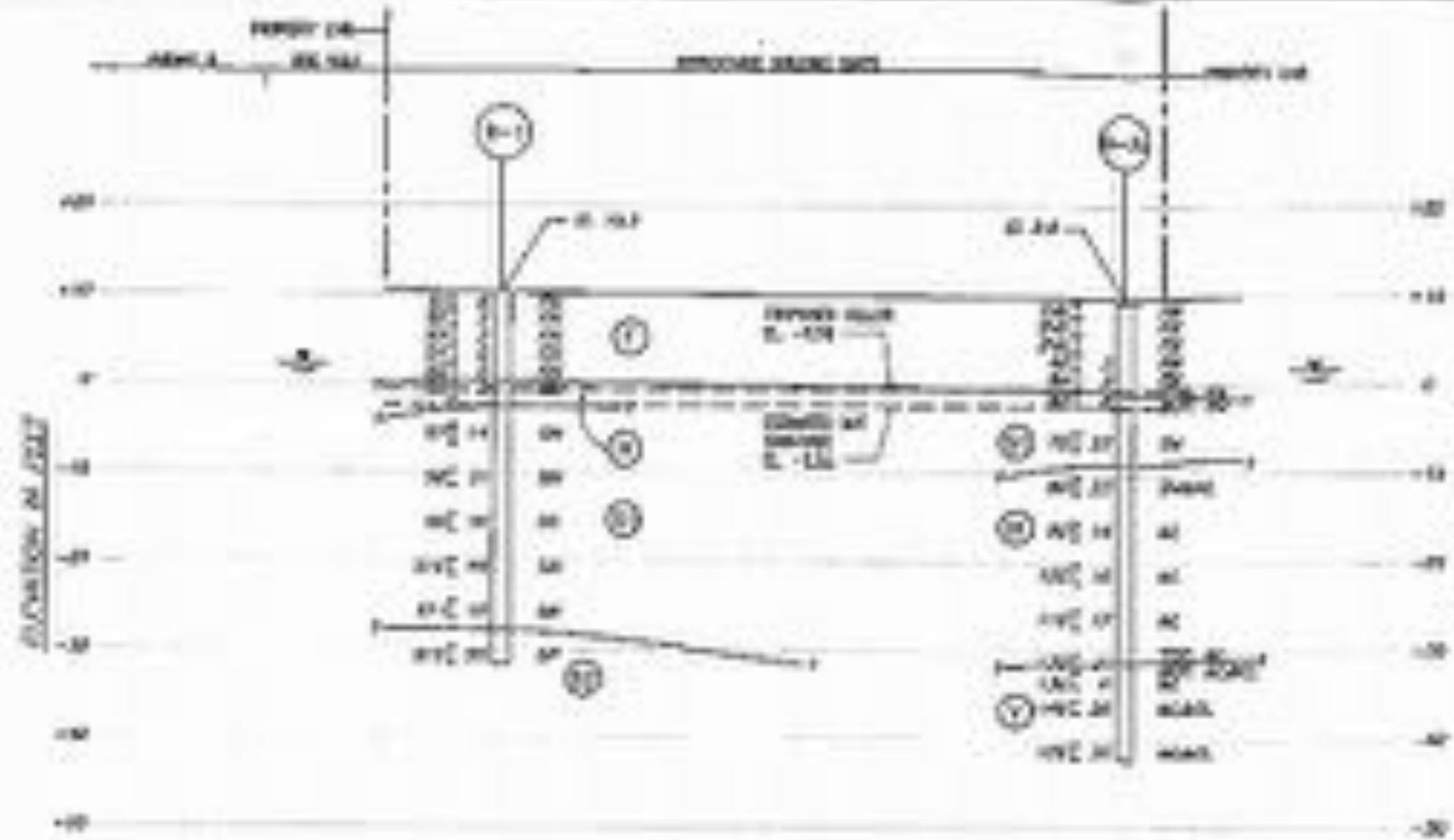
- - ROOM NUMBER
- - EXISTING WALLS

215 AVENUE B	
NO. 100	NO. 100
215-217 AVENUE B ASSOCIATES, LLC	
NO. 100	NO. 100
MUSSEN OUTDOOR CONTRACTING ENGINEERS	
14 POND ROAD - 220 W. 34th STREET, NY, NY 10018	
DATE	NO. 100
NO. 100	NO. 100
SOUND LOCATION PLAN	
B-1	



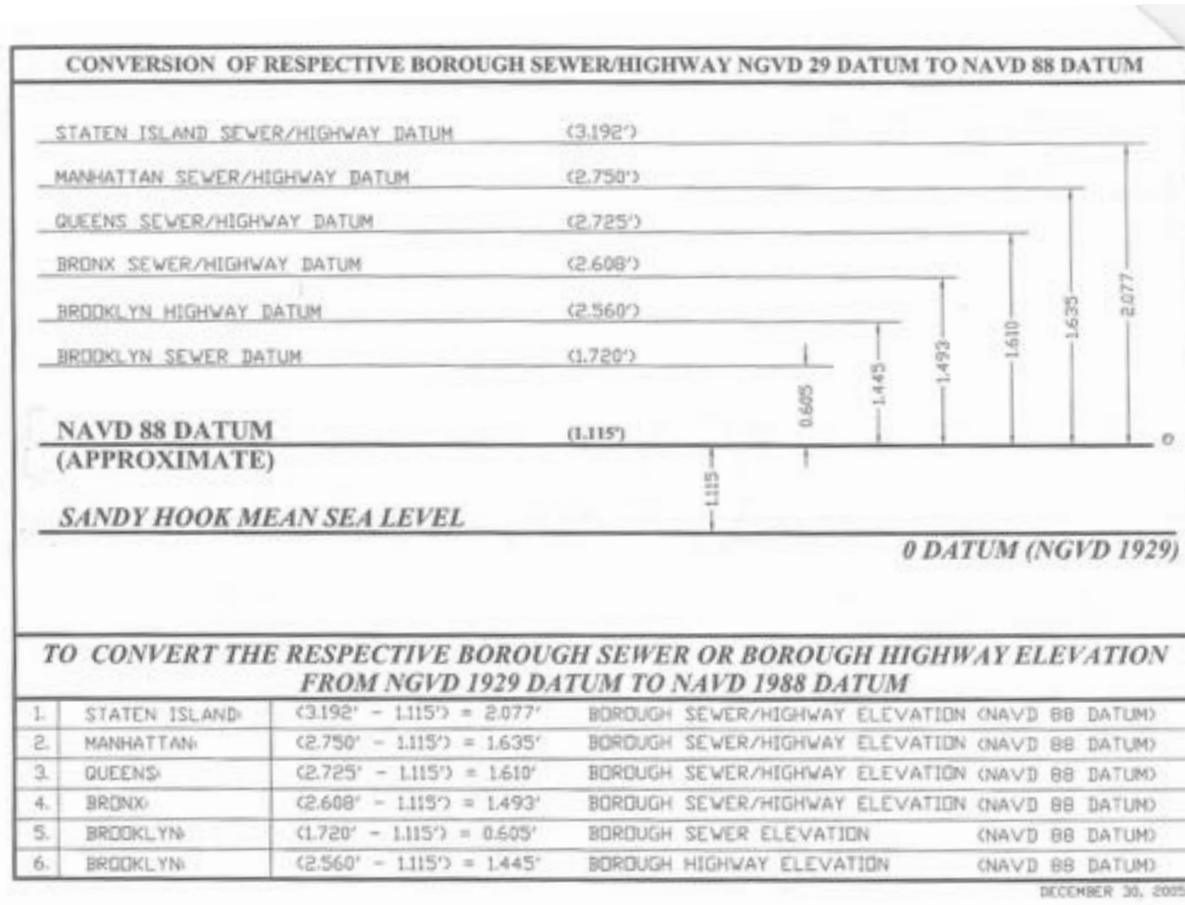
EAST 10th STREET

AVENUE B



GEOLOGIC SECTION A-A

# Elevated Groundwater Summary



## Groundwater Elevation Summary

Site	+7.7 to +8 NAVD Datum
Contour Plan	+3.9 NAVD Datum
Site at Ave D and 13 <sup>th</sup> St.	+3 NAVD Datum

real estate consulting services

**j.s.freeman associates, inc.**

132 Nassau Street | Suite 1220

New York City, NY 10038

**212. 871. 0878**

www.jsfreemanassociates.com

## MEMORANDUM

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**Date** : March 10, 2017

**To** : Ross Moskowitz  
John B. Egnatios-Beene  
Strook & Strook & Lavan LLC

**From** : Jack Freeman

**Re** : Response to Hearing  
432 East 14<sup>th</sup> Street  
New York, NY  
BSA Cal. No. 2016-4183-BZ

Attached please find a letter in response to the BSA hearing of January 24, 2017.

March 10, 2017

Hon. Margery Perlmutter, Chairperson  
New York City Board of Standards and Appeals  
250 Broadway, 29<sup>th</sup> Floor  
New York, New York 10007

Re : 432 East 14<sup>th</sup> Street  
New York, NY  
2016-4183-BZ

Dear Chairperson Perlmutter:

At the Public Hearing of January 24, 2017 for the above referenced Zoning Variance Application, the Board of Standards and Appeals (BSA) requested additional information, which is provided as follows:

*The BSA commented that the blended land values were too high noting that, in addition, several site value comps were too old. They felt that the comps should be adjusted for zoning variations and that larger lots should include downward adjustments:*

We reviewed and replaced the two 2013 comps with more recent sales (see Schedule D). Revised sales, adjusted for comparability, range from \$ 369 - \$695 with an average of \$519. On the basis of this review we have retained the previous \$475, which, although below the average, is still within the range.

Regarding the BSA comment that larger lots should include downward adjustments, we note that larger lots can provide for greater development utility and typical appraisal methodology would provide for some downward adjustment for comparability with smaller lots. However, there are no larger lots identified in the analysis.

Similarly, smaller lot \$/sf pricing is often higher. This is a result of the greater demand at the price point for smaller lots. Smaller lot pricing therefore, may be adjusted downward.

*The BSA commented that the development rights are usually valued at 50% of site value:*

Whereas that has occasionally used as a “rule of thumb”, the value of actual development sales in today’s market are often equal to and can exceed equivalent land values. Additional Development rights typically increase the amount of the most valuable upper floors in a development and, therefore, can command premium acquisition prices.

The BSA requested that the residential apartment comps should include a chart reflecting an average of similar rentals in the stacking plan. Apartment comps should adjust better for height, outdoor spaces, floor, location in building, etc. Any outdoor spaces should be mentioned in narratives:

Residential comps were reviewed and Schedules and Apartment Stacking Plans amended to reflect the BSA Comments. Attached is Schedule F Residential Rents and Schedules F1 Modified As of Right and F2 Revised Proposed Stacking Plans.

Schedule F provides comparable averages for each unit type, considering units on different floors and compares the comparable average with the stacking plan average.

The As of Right Development alternative has 8 terraces which have been considered in rent estimates. The Revised Proposed Development has 6 terraces which have been considered in rent estimates.

BSA requested that methodology for valuing the cellar retail should be articulated:

Generally, for cellar retail storage space we use somewhat less than 50% of the ground floor retail rent. Although it has no direct street frontage, the cellar space in the development alternatives has full ceiling height and can be used as selling space. Therefore, a ratio of 50% is a more appropriate rent for cellar retail rent with a full-height commercial space.

BSA requested that the Cap Rate calculations be explained:

Determination of an appropriate Cap Rate takes into consideration of are type of use, location and relative risk to capital sources. We begin by reviewing Cap Rates for various property types compiled by RealtyRates, a credible investment research source. RealtyRates uses survey data and an accepted Cap Rate methodology, referred to as the “Band of Investment” technique.

Realty Rates provides a range of Minimum - Maximum - Average Cap Rates for each property type. The range of Cap Rates can be assumed to reflect investment rates based on perceived risks or other qualitative consideration. Generally, as yet to be built speculative residential buildings represent a higher risk, and would have a higher Cap Rate than occupied buildings with known and predictable tenancies and income streams.

For the residential use of the type and in the Manhattan market of the subject developments we assumed a Cap Rate of 5.5% which is within the minimum Cap Rate range identified by RealtyRates. The retail use, where the specific tenancy is speculative and not yet known, represents a somewhat higher risk to potential investor than Manhattan residential real estate. For the analysis, we assumed a slightly higher Cap Rate of 6.0%. This is well below RealtyRates average of 8.31%,

but, considering the higher potential risk of speculative retail we considered a Cap Rate 6.0% to be appropriate.

*The BSA Requested a Revised Proposed Development.*

The Revised Proposed Development alternative would consist of a nine story on the 14<sup>th</sup> Street portion of the site, instead of the previous twelve story building in that location. The Floor area of the revised Proposed alternative is 106,839 sf. The Gross Floor Area is 147,049, not including the cellar. The Revised Proposed Development would contain 130 apartments instead of 155 in the previously proposed. In addition, the amount and configuration of the retail space has also changed. The Revised Proposed contains 22,701sf of total retail area with 8,531sf at street level and 14,170sf at the cellar level. The previous proposed provided 16,568 sf of total retail area with 8,531sf at street level and 8,037sf at the cellar level.

This development program would require a variance from the Board of Standards and Appeals and is referred to as the "Revised Proposed Development".

To allow for an appropriate comparison, the As of Right Development alternative has also been modified to provide the same retail area as the Revised Proposed - 22,701sf of total retail area with 8,531sf at street level and 14,170sf at the cellar level.

A review of retail rents in the vicinity of the project was undertaken. A revised Schedule E: Comparable Retail Rents is attached. As shown in Schedule E, Revised Retail Rents, adjusted for comparability, range from \$125/sf - \$182/sf with an average of \$150. Based on this review we have retained the previous \$150/sf, which is the average.

**Economic Analysis**

The attached Schedule A and Schedule B analyze the feasibility of the Revised Proposed Development alternative and the modified As of Right alternative.

The architectural firm, SLCE Architects has provided plans for each development alternative and construction cost estimates have been provided by Noble Construction Group, LLC. The construction cost estimates are attached as Exhibit "A" to this Report.

The estimated hard construction cost for the modified As of Right Development is \$45,650,598. The estimated hard construction cost for the Revised Proposed Development is \$49,862,001.

**Modified As of Right Residential Development**

Using the capitalization of income method, as shown in the attached Schedule A, the capitalized value determined by the analysis for the modified As of Right Development is \$93,960,000. In addition, the 421a Tax Abatement Program

generates additional Value of \$7,834,000. Total Value is estimated to be \$101,194,000.

As shown in the attached Schedule A, the total development cost, including estimated property value, hard construction costs and soft costs, for the modified As of Right Residential Development is estimated to be \$107,069,000.

As shown in the attached Schedule A, the difference between the total value of \$101,194,000 and the development cost of \$107,069,000 is (\$5,875,000).

The modified As of Right Development contains significantly less value than the total development cost and would not be considered feasible.

#### Revised Proposed Development

Using the capitalization of income method, as shown in the attached Schedule A, the capitalized value determined by the analysis for the Revised Proposed Development is \$101,944,000. In addition, the 421a Tax Abatement Program generates additional Value of \$9,514,000. Total Value is estimated to be \$111,458,000.

As shown in the attached Schedule A, the total development cost, including estimated property value, hard construction costs and soft costs, for the Revised Proposed Development is estimated to be \$112,696,000.

As shown in the attached Schedule A, the difference between the total value of \$111,458,000 and the development cost of \$112,696,000 is (\$1,238,000).

The Revised Proposed Development contains slightly less value than the total development cost. However, for a project of this size, in the absence of other more viable development alternatives, this would be considered minimally feasible.

Please feel free to call me if you have any further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Freeman", with a long horizontal flourish extending to the right.

Jack Freeman

**SCHEDULE A: DEVELOPMENT ANALYSIS**

		MODIFIED AS OF RIGHT DEVELOPMENT	REVISED PROPOSED DEVELOPMENT
<b>BUILDING AREA (SQ.FT.)</b>			
RENTABLE RESIDENTIAL AREA		74,582	84,345
RETAIL - GROUND FLOOR		8,531	8,531
RETAIL - CELLAR		14,170	14,170
TOTAL AREA		112,026	124,168
<b>CAPITAL INVESTMENT SUMMARY</b>			
LAND PURCHASE COST		\$46,611,000	\$46,611,000
HOLDING & PREP. COSTS		\$0	\$0
BASE CONSTRUCTION COSTS		\$45,651,000	\$49,862,000
SOFT CONSTRUCTION COSTS		\$14,807,000	\$16,223,000
		\$107,069,000	\$112,696,000
<b>PROJECT VALUE</b>			
RESIDENTIAL INCOME		\$5,990,000	\$6,803,000
RETAIL INCOME		\$2,342,000	\$2,342,000
GROSS INCOME		\$8,332,000	\$9,145,000
(less)VACANCY (@ 2/5/10%)		(\$237,000)	(\$253,000)
EFFECTIVE INCOME		\$8,095,000	\$8,892,000
(less)M&O EXPENSES		(\$1,380,000)	(\$1,531,000)
(less)WATER & SEWER		(\$57,000)	(\$65,000)
(less)R.E. TAXES		(\$1,362,000)	(\$1,525,000)
NET OPERATING INCOME		\$5,296,000	\$5,771,000
CAPITALIZED VALUE OF NOI @	5.50%/6.00%	\$93,360,000	\$101,944,000
<b>FEASIBILITY ANALYSIS</b>			
PROJECT VALUE @ CAP RATE =	5.50%/6.00%	\$93,360,000	\$101,944,000
VALUE OF 421a TAX BENEFITS		\$7,834,000	\$9,514,000
PROJECT DEVELOPMENT COST		\$107,069,000	\$112,696,000
PROJECT VALUE (less) PROJECT DEVELOPMENT COST		(\$5,875,000)	(\$1,238,000)

NOTE : ALL \$ FIGURES ROUNDED TO NEAREST THOUSAND

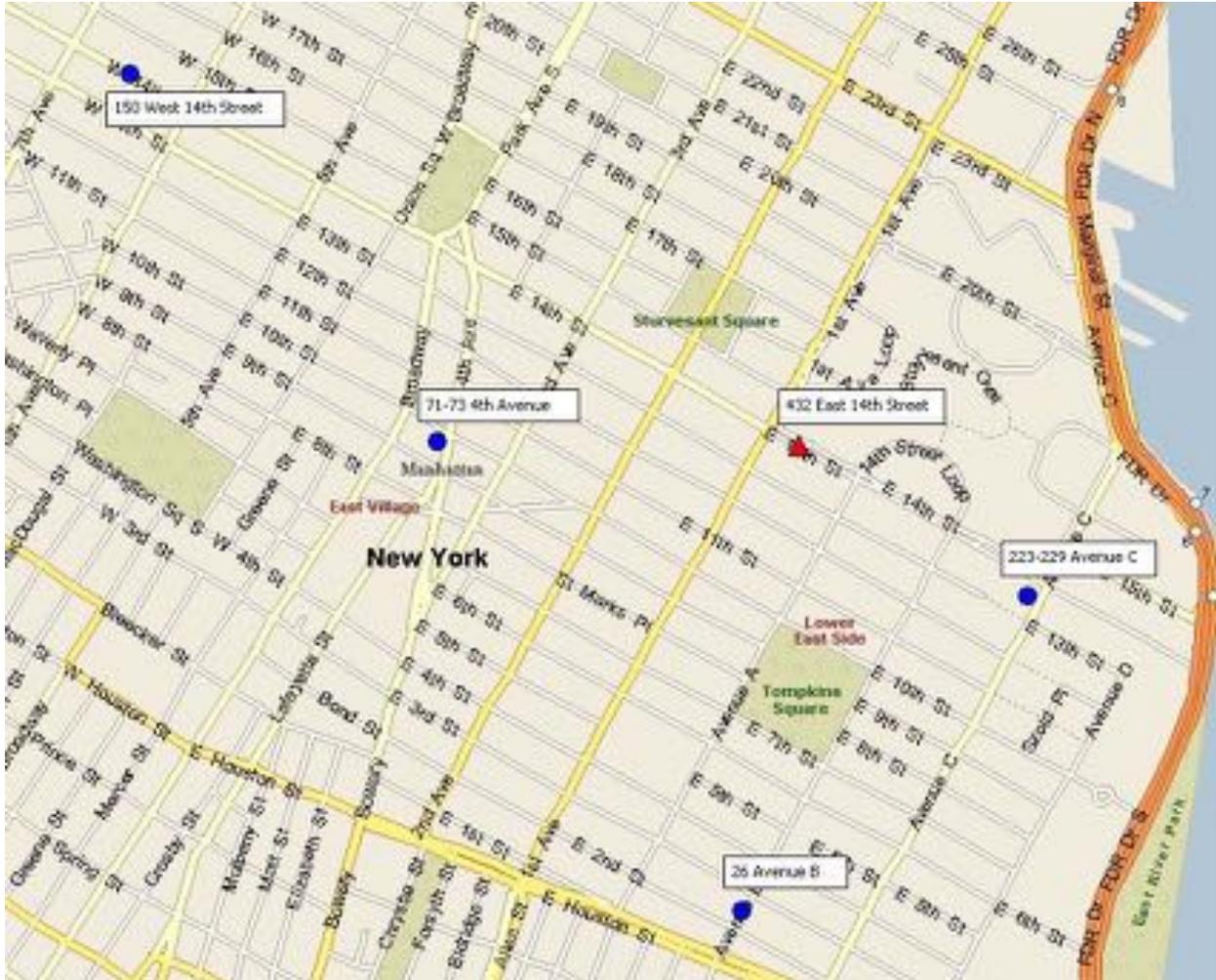
**SCHEDULE B : DEVELOPMENT COSTS**

		MODIFIED AS OF RIGHT DEVELOPMENT	REVISED PROPOSED DEVELOPMENT
<b>DEVELOPMENT COST SUMMARY</b>			
LAND PURCHASE COST		\$46,611,000	\$46,611,000
BASE CONSTRUCTION COSTS		\$45,651,000	\$49,862,000
EST.SOFT COSTS		\$14,807,000	\$16,223,000
<b>EST. TOTAL DEV.COSTS</b>		<b>\$107,069,000</b>	<b>\$112,696,000</b>
<b>ACQUISITION COSTS :</b>			
Land Purchase Price		\$46,611,000	\$46,611,000
<b>TOTAL LAND VALUE</b>		<b>\$46,611,000</b>	<b>\$46,611,000</b>
<b>HOLDING &amp; PREP. COSTS:</b>		<b>\$0</b>	<b>\$0</b>
<b>BASE CONSTRUCTION COSTS :</b>		<b>\$45,651,000</b>	<b>\$49,862,000</b>
<b>EST.CONST.LOAN AMOUNT :</b>		<b>\$45,344,000</b>	<b>\$49,564,000</b>
<b>EST.CONST.PERIOD(MOS) :</b>		<b>22</b>	<b>24</b>
<b>EST. SOFT COSTS :</b>			
Builder's Fee/Developer's Profit	1.50%	\$1,606,000	\$1,690,000
Archit.& Engin. Fees		\$2,739,000	\$2,992,000
Bank Inspect.Engin.		\$7,000	\$7,000
Construction Management	2.50%	\$1,141,000	\$1,247,000
Inspections, Borings & Surveys			
Laboratory Fees	LS	\$5,000	\$5,000
Soil Investigation	LS	\$10,000	\$10,000
Preliminary Surveys	LS	\$5,000	\$5,000
Ongoing Surveys	LS	\$10,000	\$10,000
Environmental Surveys/Reports	LS	\$2,000	\$2,000
Controlled Inspection Fees	LS	\$75,000	\$75,000
Legal Fees			
Dev.Legal Fees		\$15,000	\$40,000
Con.Lender Legal		\$68,000	\$74,000
End Loan Legal		\$42,000	\$46,000
Permits & Approvals			
D.O.B. Fees	25.53%	\$29,000	\$31,000
Other		\$10,000	\$10,000
Accounting Fees		\$5,000	\$5,000
Appraisal Fees		\$8,000	\$8,000
421-a Tax Exemption Fee	0.40%	\$428,000	\$451,000
Marketing/Pre-Opening Expenses			
Rental Commissions	25.00%	\$586,000	\$586,000
Financing and Other Charges			
Con.Loan Int. @ Loan Rate =	5.00%	\$2,078,000	\$2,478,000
Rent-up Loan Int. @ Loan Rate =	5.00%	\$1,271,000	\$1,385,000
Con.Lender Fees	1.00%	\$453,000	\$496,000
End Loan Fee	1.00%	\$847,000	\$923,000
Construction Real Estate Tax		\$667,000	\$728,000
Rent-up Real Estate Tax		\$182,000	\$182,000
Title Insurance	0.33%	\$353,000	\$372,000
Mtge.Rec.Tax	2.75%	\$1,247,000	\$1,363,000
Construction Insurance	1.00%	\$913,000	\$997,000
Water and Sewer		\$5,000	\$5,000
Other		\$0	\$0
<b>TOTAL EST.SOFT COSTS</b>		<b>\$14,807,000</b>	<b>\$16,223,000</b>

NOTE : ALL \$ FIGURES ROUNDED TO NEAREST THOUSAND



Schedule D: Comparable Vacant Land Sales



Schedule D: Comparable Vacant Land Sales

1. 223 Avenue C

This is a 10,098 corner lot located in a R7-2, C1-5, C2-5 zoning district in the East Village / Alphabet City neighborhood of Manhattan. The lot is situated at the south west corner of Avenue C and 14<sup>th</sup> Street, and is approximately 2 blocks away from the subject property. A vacant one-story building is assumed to be demolished. A +5% adjustment was made for the inferior location compared with the subject property. No adjustments were made for time, size, zoning or other factors.



Schedule D: Comparable Vacant Land Sales

2. 71-73 4<sup>th</sup> Avenue

This is a 4,362 sq. ft. corner lot located in a C6-2A zoning district. Located on the Lower East Side neighborhood of Manhattan, the lot is located at the corner of East 10<sup>th</sup> Street, and is approximately one half miles away from the subject property. A vacant existing one-story building is assumed to be demolished. A +5% adjustment was made for time and a -10% adjustment was made for the superior location. No adjustments were made for size, zoning or other factors.



Schedule D: Comparable Vacant Land Sales

3. 150 West 14<sup>th</sup> Street

This is a 2,575 sq.ft. vacant lot located in a C6-2A zoning district. Located in the Greenwich Village neighborhood of Manhattan, the lot is located between 6<sup>th</sup> and 7<sup>th</sup> Avenues, and is approximately 1 mile away from the subject property. A +5% adjustment was made for time. A -15% adjustment was made for the superior location and a -5% adjustment was made for its small size. No adjustments were made for zoning or other factors.



Schedule D: Comparable Vacant Land Sales

4. 26 Avenue B

This is a 1,934 sq. ft. vacant lot located in a C1-5/R7A zoning district. Located in the East Village neighborhood of Manhattan, the lot is located between East 2<sup>nd</sup> and East 3<sup>rd</sup> Streets, and is approximately 0.7 of a mile away from the subject property. A +5% adjustment was made for time. A +5% adjustment was made for its inferior location and a -5% adjustment was made for its small size. No adjustments were made for time, zoning or other factors.



J.S. Freeman Associates

Date : Response to Hearing - 2/23/2017

Property : 425 East 14th Street

Block : 441 Lot 23

Total Land Area : 25,539 sq.ft.

Zone : C1-6A

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Schedule E: Comparable Retail Rents

	<u>LOCATION</u>	<u>DATE</u>	<u>ANNUAL RENT</u>	<u>AREA</u>	<u>RENT/SQ.FT.</u>	<u>TIME</u>	<u>LOCATION</u>	<u>SIZE</u>	<u>ZONING</u>	<u>OTHER</u>	<u>COMPOS FACTOR</u>	<u>ADJUSTED RENT/S.F.</u>
1	500 East 14th Street New York, NY	Asking	\$3,627,252	14,509	\$250.00	0.95	1.00	0.85	1.00	0.90	0.73	\$182
2	181 Avenue A New York, NY	Asking	\$1,669,668	9,541	\$175.00	0.95	1.05	1.00	1.00	0.95	0.95	\$166
3	20 Avenue A New York, NY	Asking	\$599,364	4,312	\$139.00	0.95	1.05	0.95	1.00	0.95	0.90	\$125
4	210 East 14th Street New York, NY	Asking	\$555,000	3,000	\$185.00	0.95	0.90	0.90	1.00	1.00	0.77	\$142
5	212 East 14th Street New York, NY	Asking	\$525,000	3,000	\$175.00	0.95	0.90	0.90	1.00	1.00	0.77	\$135
											Average	\$150
Subject Property					\$150.00	1.00	1.00	1.00	1.00	1.00	1.00	\$150
435 East 13th Street New York, NY												

Schedule E: Comparable Retail Rents



Schedule E: Comparable Retail Rents

1. 500 East 14<sup>th</sup> Street

This is a 14,509 sq. ft. ground floor retail space in a larger retail development just coming onto the market in the East Village / Alphabet City neighborhood of Manhattan. This will be a part of a brand new mixed-use development project consisting of 2 buildings, 7-stories and 150 rental units to be completed early in 2017. There is a total of 56,610 sq. ft. of retail space in the development, with a Target store reported to be part of the project. Located between Avenue A and Avenue B, this retail space is situated at the south east corner of East 14<sup>th</sup> and Avenue A approximately one block from the subject property. This is a very large space is and is likely to be subdivided. An additional 1,588 sq. ft. of cellar space is included in the asking price. A -5% time adjustment was made for the asking price, a -15% adjustment was made for the larger size compared to the street retail space of the subject property, and a -10% other adjustment was made for the inclusion of the additional basement space and value added for the proximity to the Target store. No adjustment was made for location or zoning.



Schedule E: Comparable Retail Rents

2. 181 Avenue A

This is a 9,541 sq.ft. retail space for rent in the East Village neighborhood of Manhattan. Located at the northwest corner of Avenue A and East 11<sup>th</sup> Street, the retail store for rent is approximately two blocks away from the subject property. A -5% time adjustment was made for the asking price, a +5% location adjustment was made the inferior location on East 11<sup>th</sup> Street and a -5% other adjustment was made for the corner lot. No adjustments were made for size or zoning.



Schedule E: Comparable Retail Rents

3. 20 Avenue A

This is a 4,312 sq.ft. retail space for rent in the East village neighborhood of Manhattan. Located at the southeast corner of East 2<sup>nd</sup> Street and Avenue A, the retail store for rent is approximately twelve blocks away from the subject property. A -5% time adjustment was made for asking price, a +5% location adjustment was made the inferior location and a -5% adjustment was made for the small size. An additional -5% other adjustment was made for the corner location. No adjustments were made for time or zoning.



Schedule E: Comparable Retail Rents

4. 210 East 14<sup>th</sup> Street

This is a 3,000 sq.ft. retail space for rent in the East village neighborhood of Manhattan. Located between Second and Third Avenues, the retail store for rent is approximately two blocks away from the subject property and immediately adjacent to a subway entry. A -5% time adjustment was made for the asking price, a -10% location adjustment was made the superior location and a -10% size adjustment was made for the smaller size of the space. No adjustments were made for zoning or other factors.



Schedule E: Comparable Retail Rents

5. 212 East 14<sup>th</sup> Street

This is a 3,000 sq.ft. retail space for rent in the East village neighborhood of Manhattan. Located between Second and Third Avenues, the retail store for rent is approximately two blocks away from the subject property. This retail space is in a new building and immediately adjacent to a subway entrance. A -5% time adjustment was made for asking price, a -10% location adjustment was made the superior location and a -10% size adjustment was made for the small size of the space. No adjustments were made for time, zoning or other factors.



J.S. Freeman Associates

Date : Response to Hearing - 2/23/2017  
 Property : 425 East 14th Street  
 Block : 441 Lot 23  
 Total Land Area : 25,539 sq.ft.  
 Zone : C1-6A  
 Page 20

Schedule F: Comparable Residential Rents

RENTAL LOCATION	DATE	ANNUAL RENT	MONTHLY RENT	UNIT TYPE	TIME	PROPERTY LOCATION	SIZE	APT LOCATION	OTHER	COMPOS FACTOR	ADJUSTED MONTHLY RENT	STACKING PLAN AVG
1. 11 East 1st Street #411 New York, NY	Asking	\$45,420	\$3,785	Studio	0.95	1.00	1.00	1.00	1.10	1.05	\$3,955	
2. 138 East 12th Street #8K New York, NY	3/25/2016	\$46,740	\$3,895	Studio	1.00	1.00	1.00	1.00	1.00	1.00	\$3,895	
3. 21 East 1st Street #802 New York, NY	12/15/2016	\$43,200	\$3,600	Studio	1.00	1.00	1.00	1.00	1.00	1.00	\$3,600	
4. 310 East 2nd Street #10E New York, NY	10/10/2016	\$35,940	\$2,995	Studio	1.00	1.10	1.05	1.00	1.00	1.16	\$3,459	
Studio Average											\$3,727	\$3,750
5. 22 East 1st Street #215 New York, NY	3/3/2016	\$60,360	\$5,030	1 Bd/1 Ba	1.00	1.00	1.00	1.00	1.00	1.00	\$5,030	
6. 138 East 12th Street #5H New York, NY	Asking	\$64,740	\$5,395	1 Bd/1 Ba	0.95	1.00	1.00	1.00	1.00	0.95	\$5,125	1
7. 11 East 1st Street #001-813 New York, NY	Asking	\$64,440	\$5,370	1 Bd/1 Ba	0.95	1.00	1.00	1.00	1.00	0.95	\$5,102	
8. 21 East 1st Street #902 New York, NY	3/3/2016	\$59,940	\$4,995	1 Bd/1 Ba	1.05	1.05	1.00	1.00	0.95	1.05	\$5,232	
One Bedroom Average											\$5,232	\$5,250
9. 138 East 12th Street #2C New York, NY	Asking	\$88,200	\$7,350	2 Bd/2 Ba	0.95	1.00	1.00	1.00	1.00	0.95	\$6,983	1
10. 11 East 1st Street #002-408 New York, NY	Asking	\$93,120	\$7,760	2 Bd/2Ba	0.95	1.00	1.00	1.00	1.00	0.95	\$7,372	
11. 211 East 13th Street #5C New York, NY	Asking	\$86,400	\$7,200	2 Bd/2 Ba	0.95	0.90	1.00	1.00	1.00	0.86	\$6,156	
12. 229 Chrystie Street #1001 New York, NY	Asking	\$73,500	\$6,125	2 Bd/2 Ba	0.95	1.25	1.00	1.00	1.00	1.19	\$7,273	
Two Bedroom Average											\$6,946	\$7,025
Subject Property 435 East 13th Street New York, NY					1.00	1.00	1.00	1.00	1.00	1.00	(See Schedule F1 and F2)	

**Schedule F1: As of Right and Typical Development**

<i>Floor</i>	<i>Unit</i>	<i>Size</i>	<i>Type</i>	<i>Terrace</i>	<i>Monthly Price</i>	<i>Annual Price</i>	<i>AHU</i>
ONE (13th Street)	A	849	2bd		\$ 6,925	\$ 83,100	
	B	486	0bd		\$ 907	\$ 10,884	*
	C	496	0bd		\$ 3,650	\$ 43,800	
	D	469	0bd		\$ 907	\$ 10,884	*
TWO SOUTH (13th Street)	A	953	2bd		\$ 6,950	\$ 83,400	
	B	660	1bd		\$ 5,175	\$ 62,100	
	C	661	1bd		\$ 5,175	\$ 62,100	
	D	667	1bd		\$ 5,175	\$ 62,100	
	E	650	1bd		\$ 972	\$ 11,664	*
	F	447	0bd		\$ 3,675	\$ 44,100	
	G	471	0bd		\$ 3,675	\$ 44,100	
	H	993	2bd		\$ 6,950	\$ 83,400	
	I	660	1bd		\$ 5,175	\$ 62,100	
	J	549	1bd		\$ 5,150	\$ 61,800	
TWO NORTH (14th Street)	A	634	1bd	146	\$ 5,394	\$ 64,728	
	B	634	1bd	270	\$ 5,580	\$ 66,960	
	C	634	1bd	270	\$ 5,580	\$ 66,960	
	D	615	1bd		\$ 5,175	\$ 62,100	
	E	443	0bd		\$ 907	\$ 10,884	*
	F	600	1bd		\$ 972	\$ 11,664	*
	G	629	1bd		\$ 5,175	\$ 62,100	*
	H	531	1bd		\$ 972	\$ 11,664	*
THREE SOUTH (13th Street)	A	953	2BD		\$ 1,165	\$ 13,980	*
	B	660	1BD		\$ 5,200	\$ 62,400	
	C	661	1BD		\$ 5,200	\$ 62,400	
	D	667	1BD		\$ 5,200	\$ 62,400	
	E	650	1BD		\$ 972	\$ 11,664	*
	F	447	0BD		\$ 3,700	\$ 44,400	
	G	471	0BD		\$ 3,700	\$ 44,400	
	H	993	2BD		\$ 1,165	\$ 13,980	*
	I	660	1BD		\$ 5,200	\$ 62,400	
	J	560	1BD		\$ 5,175	\$ 62,100	
THREE NORTH (14th Street)	A	478	0BD		\$ 3,700	\$ 44,400	
	B	491	0BD		\$ 907	\$ 10,884	*
	C	628	1BD		\$ 5,200	\$ 62,400	
	D	912	2BD		\$ 6,975	\$ 83,700	
	E	443	0BD		\$ 907	\$ 10,884	*
	F	600	1BD		\$ 972	\$ 11,664	*
	G	629	1BD		\$ 5,200	\$ 62,400	
	H	531	1BD		\$ 5,175	\$ 62,100	
FOUR SOUTH (13th Street)	A	953	2BD		\$1,165	\$ 13,980	*
	B	660	1BD		\$5,225	\$ 62,700	
	C	661	1BD		\$5,225	\$ 62,700	
	D	667	1BD		\$5,225	\$ 62,700	
	E	650	1BD		\$972	\$ 11,664	*
	F	447	0BD		\$3,725	\$ 44,700	
	G	471	0BD		\$3,725	\$ 44,700	
	H	993	2BD		\$1,165	\$ 13,980	*
	I	660	1BD		\$5,225	\$ 62,700	
	J	549	1BD		\$5,200	\$ 62,400	
FOUR NORTH (14th Street)	A	478	0BD		\$3,725	\$ 44,700	
	B	491	0BD		\$907	\$ 10,884	*
	C	628	1BD		\$5,225	\$ 62,700	
	D	912	2BD		\$7,000	\$ 84,000	
	E	443	0BD		\$3,725	\$ 44,700	
	F	600	1BD		\$972	\$ 11,664	*
	G	629	1BD		\$5,225	\$ 62,700	
	H	531	1BD		\$5,200	\$ 62,400	
FIVE SOUTH (13th Street)	A	953	2BD		\$7,025	\$ 84,300	
	B	660	1BD		\$5,250	\$ 63,000	
	C	661	1BD		\$5,275	\$ 63,300	
	D	667	1BD		\$5,300	\$ 63,600	
	E	650	1BD		\$972	\$ 11,664	*
	F	447	0BD		\$3,750	\$ 45,000	
	G	471	0BD		\$3,775	\$ 45,300	
	H	993	2BD		\$1,165	\$ 13,980	*
	I	660	1BD		\$5,250	\$ 63,000	
	J	549	1BD		\$5,225	\$ 62,700	

FIVE NORTH (14th Street)	A	478	0BD		\$3,750	\$ 45,000
	B	491	0BD		\$3,750	\$ 45,000
	C	628	1BD		\$5,250	\$ 63,000
	D	912	2BD		\$7,025	\$ 84,300
	E	443	0BD		\$3,750	\$ 45,000
	F	600	1BD		\$972	\$ 11,664
	G	629	1BD		\$5,250	\$ 63,000
	H	531	1BD		\$972	\$ 11,664

SIX SOUTH (13th Street)	A	953	2BD		\$7,050	\$ 84,600
	B	660	1BD		\$5,275	\$ 63,300
	C	661	1BD		\$5,275	\$ 63,300
	D	667	1BD		\$5,275	\$ 63,300
	E	650	1BD		\$5,275	\$ 63,300
	F	447	0BD		\$3,775	\$ 45,300
	G	471	0BD		\$3,775	\$ 45,300
	H	993	2BD		\$7,050	\$ 84,600
	I	660	1BD		\$5,275	\$ 63,300
	J	549	1BD		\$5,250	\$ 63,000

SIX NORTH (14th Street)	A	478	0BD		\$3,775	\$ 45,300
	B	491	0BD		\$3,775	\$ 45,300
	C	628	1BD		\$5,275	\$ 63,300
	D	912	2BD		\$7,050	\$ 84,600
	E	443	0BD		\$3,775	\$ 45,300
	F	600	1BD		\$972	\$ 11,664
	G	629	1BD		\$5,275	\$ 63,300
	H	531	1BD		\$972	\$ 11,664

SEVEN SOUTH (13th Street)	A	650	1BD	617	\$ 6,226	\$ 74,706
	B	1002	2BD	356	\$ 7,609	\$ 91,308
	C	960	2BD		\$7,075	\$ 84,900
	D	1140	2BD	319	\$ 7,579	\$ 90,942
	E	675	1BD		\$5,300	\$ 63,600
	F	966	2BD		\$7,075	\$ 84,900

SEVEN NORTH (14th Street)	A	491	0BD		\$3,800	\$ 45,600
	B	475	0BD		\$3,800	\$ 45,600
	C	640	1BD		\$5,300	\$ 63,600
	D	906	2BD		\$7,075	\$ 84,900
	E	586	1BD		\$5,300	\$ 63,600
	F	585	1BD	190	\$5,585	\$ 67,020
	G	597	1BD	325	\$5,788	\$ 69,450

EIGHT SOUTH (13th Street)	A	650	1BD		\$5,325	\$ 63,900
	B	1002	2BD		\$7,100	\$ 85,200
	C	960	2BD		\$7,100	\$ 85,200
	D	1140	2BD		\$7,125	\$ 85,500
	E	675	1BD		\$5,325	\$ 63,900
	F	966	2BD		\$7,100	\$ 85,200

**Total            113    74,500                            499,196    5,990,346**

**Schedule F2: Proposed Development Apartment Pricing**

<i>Floor</i>	<i>Unit</i>	<i>Size</i>	<i>Type</i>	<i>Terrace</i>	<i>Monthly Price</i>	<i>Annual Price</i>	<i>AHU</i>
ONE (13th Street)	A	849	2bd		\$6,925	\$ 83,100.00	
	B	486	0bd		\$907	\$ 10,884.00	*
	C	496	0bd		\$3,650	\$ 43,800.00	
	D	469	0bd		\$907	\$ 10,884.00	*
TWO SOUTH (13th Street)	A	953	2bd		\$6,950	\$ 83,400.00	
	B	660	1bd		\$5,175	\$ 62,100.00	
	C	661	1bd		\$5,175	\$ 62,100.00	
	D	667	1bd		\$5,175	\$ 62,100.00	
	E	650	1bd		\$972	\$ 11,664.00	*
	F	447	0bd		\$3,675	\$ 44,100.00	
	G	471	0bd		\$3,675	\$ 44,100.00	
	H	993	2bd		\$6,950	\$ 83,400.00	
	I	660	1bd		\$5,175	\$ 62,100.00	
	J	549	1bd		\$5,150	\$ 61,800.00	
TWO NORTH (14th Street)	A	634	1bd	146	\$5,394	\$ 64,728.00	
	B	634	1bd	270	\$5,580	\$ 66,960.00	
	C	634	1bd	270	\$5,580	\$ 66,960.00	
	D	615	1bd		\$5,175	\$ 62,100.00	
	E	443	0bd		\$907	\$ 10,884.00	*
	F	600	1bd		\$972	\$ 11,664.00	*
	G	629	1bd		\$5,175	\$ 62,100.00	*
	H	531	1bd		\$972	\$ 11,664.00	*
THREE SOUTH (13th Street)	A	953	2BD		\$1,165	\$ 13,980.00	*
	B	660	1BD		\$5,200	\$ 62,400.00	
	C	661	1BD		\$5,200	\$ 62,400.00	
	D	667	1BD		\$5,200	\$ 62,400.00	
	E	650	1BD		\$972	\$ 11,664.00	*
	F	447	0BD		\$3,700	\$ 44,400.00	
	G	471	0BD		\$3,700	\$ 44,400.00	
	H	993	2BD		\$1,165	\$ 13,980.00	*
	I	660	1BD		\$5,200	\$ 62,400.00	
	J	549	1BD		\$5,175	\$ 62,100.00	
THREE NORTH (14th Street)	A	478	0BD		\$3,700	\$ 44,400.00	
	B	491	0BD		\$907	\$ 10,884.00	*
	C	628	1BD		\$5,200	\$ 62,400.00	
	D	912	2BD		\$6,975	\$ 83,700.00	
	E	443	0BD		\$907	\$ 10,884.00	*
	F	600	1BD		\$972	\$ 11,664.00	*
	G	629	1BD		\$5,200	\$ 62,400.00	
	H	531	1BD		\$5,175	\$ 62,100.00	
FOUR SOUTH (13th Street)	A	953	2BD		\$1,165	\$ 13,980.00	*
	B	660	1BD		\$5,225	\$ 62,700.00	
	C	661	1BD		\$5,225	\$ 62,700.00	
	D	667	1BD		\$5,225	\$ 62,700.00	
	E	650	1BD		\$972	\$ 11,664.00	*
	F	447	0BD		\$3,725	\$ 44,700.00	
	G	471	0BD		\$3,725	\$ 44,700.00	
	H	993	2BD		\$1,165	\$ 13,980.00	*
	I	660	1BD		\$5,225	\$ 62,700.00	
	J	549	1BD		\$5,200	\$ 62,400.00	
FOUR NORTH (14th Street)	A	478	0BD		\$3,725	\$ 44,700.00	
	B	491	0BD		\$907	\$ 10,884.00	*
	C	628	1BD		\$5,225	\$ 62,700.00	
	D	912	2BD		\$7,000	\$ 84,000.00	
	E	443	0BD		\$3,725	\$ 44,700.00	
	F	600	1BD		\$972	\$ 11,664.00	*
	G	629	1BD		\$5,225	\$ 62,700.00	
	H	531	1BD		\$5,200	\$ 62,400.00	
FIVE SOUTH (13th Street)	A	953	2BD		\$7,025	\$ 84,300.00	
	B	660	1BD		\$5,250	\$ 63,000.00	
	C	661	1BD		\$5,250	\$ 63,000.00	
	D	667	1BD		\$5,250	\$ 63,000.00	
	E	650	1BD		\$972	\$ 11,664.00	*
	F	447	0BD		\$3,750	\$ 45,000.00	
	G	471	0BD		\$3,750	\$ 45,000.00	
	H	993	2BD		\$1,165	\$ 13,980.00	*
	I	660	1BD		\$5,250	\$ 63,000.00	
	J	549	1BD		\$5,225	\$ 62,700.00	

**Schedule F2: Proposed Development Apartment Pricing**

<i>Floor</i>	<i>Unit</i>	<i>Size</i>	<i>Type</i>	<i>Terrace</i>	<i>Monthly Price</i>	<i>Annual Price</i>	<i>AHU</i>
FIVE NORTH (14th Street)	A	478	0BD		\$3,750	\$ 45,000.00	
	B	491	0BD		\$3,750	\$ 45,000.00	
	C	628	1BD		\$5,250	\$ 63,000.00	
	D	912	2BD		\$7,025	\$ 84,300.00	
	E	443	0BD		\$3,750	\$ 45,000.00	
	F	600	1BD		\$972	\$ 11,664.00	*
	G	629	1BD		\$5,250	\$ 63,000.00	
	H	531	1BD		\$972	\$ 11,664.00	*
SIX SOUTH (13th Street)	A	953	2BD		\$7,050	\$ 84,600.00	
	B	660	1BD		\$5,275	\$ 63,300.00	
	C	661	1BD		\$5,275	\$ 63,300.00	
	D	667	1BD		\$5,275	\$ 63,300.00	
	E	650	1BD		\$5,275	\$ 63,300.00	
	F	447	0BD		\$3,775	\$ 45,300.00	
	G	471	0BD		\$3,775	\$ 45,300.00	
	H	993	2BD		\$7,050	\$ 84,600.00	
	I	660	1BD		\$5,275	\$ 63,300.00	
	J	549	1BD		\$5,250	\$ 63,000.00	
SIX NORTH (14th Street)	A	478	0BD		\$3,775	\$ 45,300.00	
	B	491	0BD		\$3,775	\$ 45,300.00	
	C	628	1BD		\$5,275	\$ 63,300.00	
	D	912	2BD		\$7,050	\$ 84,600.00	
	E	443	0BD		\$3,775	\$ 45,300.00	
	F	600	1BD		\$972	\$ 11,664.00	*
	G	629	1BD		\$5,275	\$ 63,300.00	
	H	531	1BD		\$972	\$ 11,664.00	*
SEVEN SOUTH (13th Street)	A	650	1BD	617	\$6,226	\$ 74,706.00	
	B	1002	2BD	356	\$5,834	\$ 70,008.00	
	C	960	2BD		\$7,075	\$ 84,900.00	
	D	1140	2BD	319	\$5,779	\$ 69,342.00	
	E	675	1BD		\$5,300	\$ 63,600.00	
	F	966	2BD		\$7,075	\$ 84,900.00	
SEVEN NORTH (14th Street)	A	478	0BD		\$3,800	\$ 45,600.00	
	B	491	0BD		\$3,800	\$ 45,600.00	
	C	628	1BD		\$5,300	\$ 63,600.00	
	D	912	2BD		\$7,075	\$ 84,900.00	
	E	443	0BD		\$5,300	\$ 63,600.00	
	F	600	1BD		\$972	\$ 11,664.00	*
	G	629	1BD		\$5,300	\$ 63,600.00	
	H	531	1BD		\$972	\$ 11,664.00	*
EIGHT SOUTH (13th Street)	A	650	1BD		\$5,325	\$ 63,900.00	
	B	1002	2BD		\$7,100	\$ 85,200.00	
	C	960	2BD		\$7,100	\$ 85,200.00	
	D	1140	2BD		\$7,100	\$ 85,200.00	
	E	675	1BD		\$5,325	\$ 63,900.00	
	F	966	2BD		\$7,100	\$ 85,200.00	
EIGHT NORTH (14th Street)	A	478	0BD		\$3,825	\$ 45,900.00	
	B	491	0BD		\$3,825	\$ 45,900.00	
	C	628	1BD		\$5,325	\$ 63,900.00	
	D	912	2BD		\$7,100	\$ 85,200.00	
	E	443	0BD		\$3,825	\$ 45,900.00	
	F	600	1BD		\$5,325	\$ 63,900.00	
	G	629	1BD		\$5,325	\$ 63,900.00	
	H	531	1BD		\$972	\$ 11,664.00	*
NINE NORTH (14th Street)	A	478	0BD		\$3,850	\$ 46,200.00	
	B	491	0BD		\$3,850	\$ 46,200.00	
	C	628	1BD		\$5,350	\$ 64,200.00	
	D	912	2BD		\$7,125	\$ 85,500.00	
	E	443	0BD		\$3,850	\$ 46,200.00	
	F	600	1BD		\$5,350	\$ 64,200.00	
	G	629	1BD		\$5,350	\$ 64,200.00	
	H	531	1BD		\$5,325	\$ 63,900.00	

130 84,345

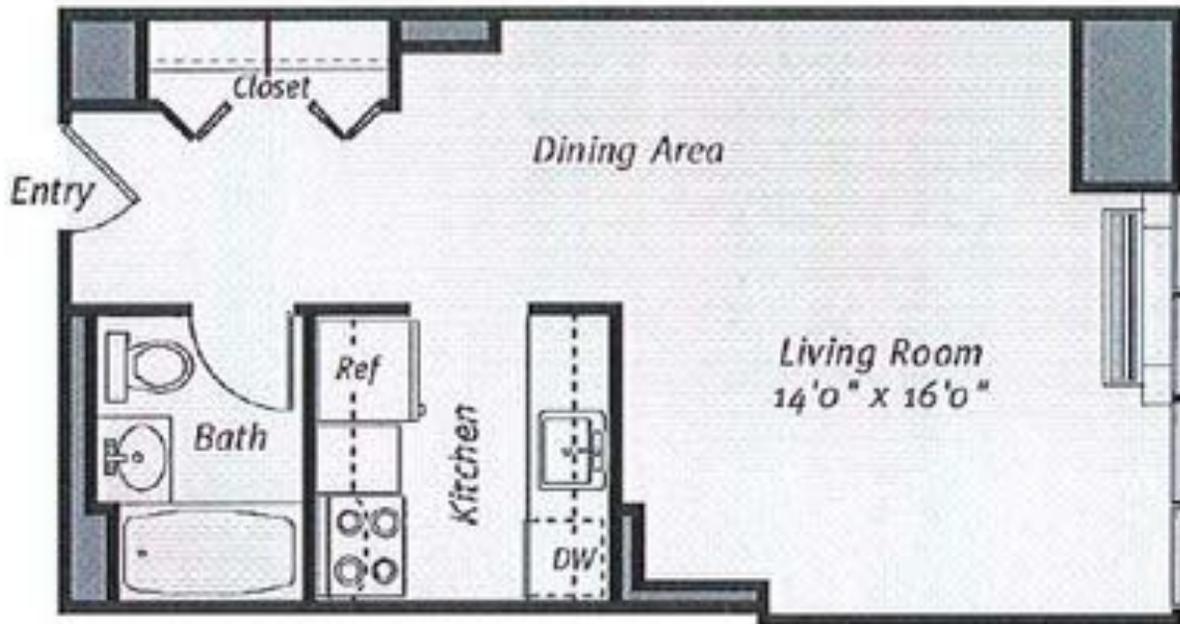
566,939 6,803,268



Schedule F: Comparable Apartment Rents

1. 11 East 1<sup>st</sup> Street #411

This is a studio apartment for rent in the Avalon Bowery Place apartment building. The building has 206 units, 9 stories and was built in 2005. The building features a doorman, elevator and a gym. Located between Bowery and 2<sup>nd</sup> Avenue, it is approximately 0.8 of a mile away from the subject property. A -5% time adjustment was made for asking price, and a -10% adjustment because it is a slightly older building. No adjustments were made for location, size, apartment location or other factors.



Schedule F: Comparable Apartment Rents

2. 138 East 12<sup>th</sup> Street #8K

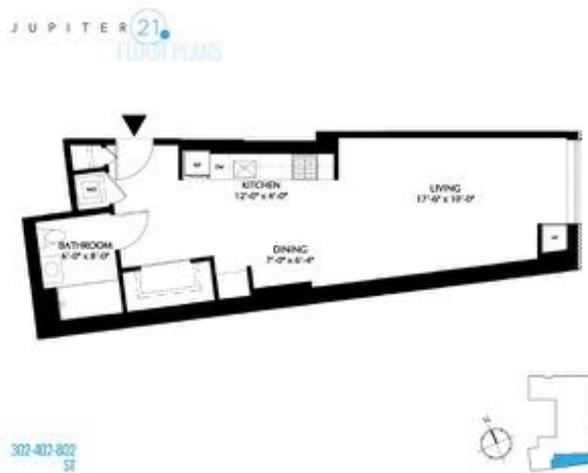
This is a studio apartment for rent in the Nathaniel apartment building. The building has 85 units, 9 stories and was built in 2014. The building features a doorman, elevator, gym and roof deck with pool. Located between Third and Fourth Avenues, it is approximately four blocks away from the subject property. No adjustments were made for time, location, size, zoning or other factors.



Schedule F: Comparable Apartment Rents

3. 21 East 1<sup>st</sup> Street #802

This is a studio apartment for rent in the Jupiter 21 building. The building has 65 units, 12 stories and was built in 2012. The building features a two communal rooftop terraces and private courtyard. Located between Bowery and Second Avenue, it is approximately one mile away from the subject property. No adjustments were made for time, size, apartment location or other factors.

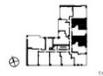


Schedule F: Comparable Apartment Rents

4. 310 East 2<sup>nd</sup> Street #10E

This is a studio apartment for rent in the Adele. The building has 136 units, 12 stories and was built in 2012. The building features doorman and concierge, a furnished and landscaped rooftop terrace, and a 2<sup>nd</sup> floor patio with BBQ. Located between Avenue C and Avenue D just north of Houston street, it is approximately 12 blocks away from the subject property. A -5% adjustment was made for time, a +10% location adjustment was made for the inferior location compared to the subject property, and a +5% size adjustments for the additional alcove in this unit. No adjustments were made for apartment location or other factors.

310 East 2nd Street  
RESIDENCE E FLOORS 3-7  
RESIDENCE G FLOORS 3-7



Schedule F: Comparable Apartment Rents

5. 22 East 1<sup>st</sup> Street #215

This is a one bedroom/one bathroom apartment for rent in the Avalon Bowery Place 2 apartment building. The building has 54 units, 6 stories and was built in 2003. The building features a doorman, elevator and a gym. Located between Bowery and 2<sup>nd</sup> Avenue, it is approximately 0.8 of a mile away from the subject property. No adjustments were made for time, location, size, zoning or other factors.



Schedule F: Comparable Apartment Rents

6. 138 East 12<sup>th</sup> Street #5H

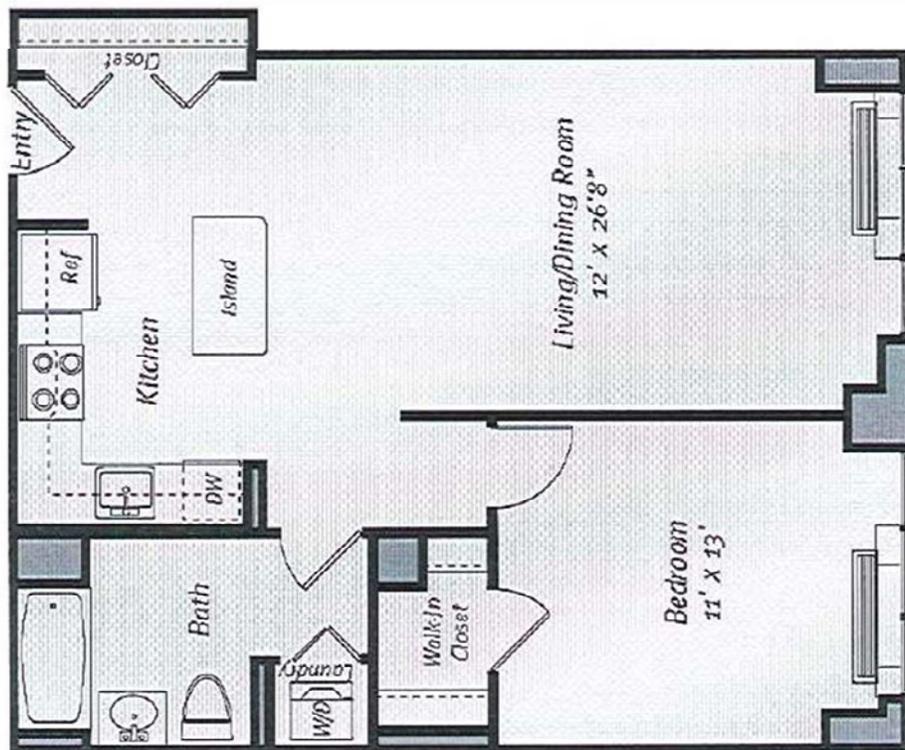
This is a one bedroom/one bathroom apartment for rent in the Nathaniel apartment building. The building has 85 units, 9 stories and was built in 2014. The building features a doorman, elevator, gym and roof deck with pool. Located between Third and Fourth Avenues, it is approximately four blocks away from the subject property. A -5% time adjustment was made for asking price. No adjustments were made for location, size, apartment location or other factors.



Schedule F: Comparable Apartment Rents

7. 11 East 1<sup>st</sup> Street #001-813

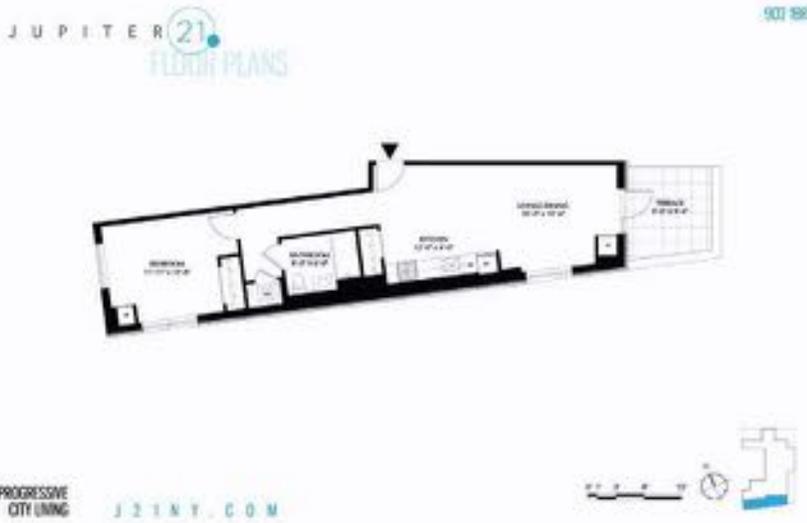
This is a one bedroom/one bathroom apartment for rent in the Avalon Bowery Place apartment building. The building has 206 units, 9 stories and was built in 2005. The building features a doorman, elevator and a gym. Located between Bowery and 2<sup>nd</sup> Avenue, it is approximately 0.8 of a mile away from the subject property. A +5% adjustment was made for time. No adjustments were made for building location, size, apartment location or other factors.



Schedule F: Comparable Apartment Rents

8. 21 East 1<sup>st</sup> Street #902

This is a one bedroom, one bathroom apartment for rent in the Jupiter 21 building. The building has 65 units, 12 stories and was built in 2012. The building features a two communal rooftop terraces and private courtyard. Located between Bowery and Second Avenue, it is approximately one mile away from the subject property. A +5% adjustment was made for time, a +5% location adjustment was made for the inferior location, and a -5% other adjustment was made for the additional outdoor derrace space. No adjustments were made for size or apartment location.



Schedule F: Comparable Apartment Rents

9. 138 East 12<sup>th</sup> Street #2C

This is a two bedroom/two bathroom apartment for rent in the Nathaniel apartment building. The building has 85 units, 9 stories and was built in 2014. The building features a doorman, elevator, gym and roof deck with pool. Located between Third and Fourth Avenues, it is approximately four blocks away from the subject property. A -5% time adjustment was made for asking price. No adjustments were made for location, size, zoning or other factors.



Schedule F: Comparable Apartment Rents

10. 11 East 1<sup>st</sup> Street #002-408

This is a two bedroom/two bathroom apartment for rent in the Avalon Bowery Place apartment building. The building has 206 units, 9 stories and was built in 2005. The building features a doorman, elevator and a gym. Located between Bowery and 2<sup>nd</sup> Avenue, it is approximately 0.8 of a mile away from the subject property. A -5% time adjustment was made for asking price. No adjustments were made for location, size, apartment location or other factors.



Schedule F: Comparable Apartment Rents

11. 211 East 13<sup>th</sup> Street #5C

This is a two bedroom/two bathroom apartment for rent in the Jefferson apartment building. The building has 83 units, 8 stories and was built in 2013. The building features a doorman, elevator, gym and roof deck with pool. Located between Third and Fourth Avenues, it is approximately three blocks away from the subject property. A -5% time adjustment was made for asking price, and a -10% adjustment was made for its superior location closer to Union Square. No adjustments were made for size, apartment location or other factors.



Schedule F: Comparable Apartment Rents

12. 229 Chrystie Street #1001

This is a two bedroom/two bathroom apartment for rent in the The Chrystie apartment building. The building has 361 units, 14 stories and was built in 2003. The building features a doorman, elevator, live-in super, roof deck and a gym. Located between Stanton Street and East Houston, it is approximately one mile away from the subject property. A -5% time adjustment was made for asking price and a +25% location adjustment was made for the inferior location compared to the subject property. No adjustments were made for size, apartment location or other factors.

**THE CHRYSTIE** Residences 1001-PH01  
Two Bedrooms / Two Bathrooms



EXHIBIT A: CONSTRUCTION COST ESTIMATES

432 East 14th-Trade Budget

Updated: 3/9/2017

Issued: 3/9/17-ALL

Section	Trade	As-of-Right Development		Proposed Development	
		Estimate (3-9-2017)		Estimate (3-9-2017)	
	Site Survey	-	-	10,924	-
	Site Security	-	-	125,000	-
	Test Borings	-	-	-	-
	Abatement	-	-	-	-
	Demolition	-	-	-	-
	Site Preparation	61,610	-	61,610	-
-	SOE and Earthwork	<b>6,105,052</b>	-	<b>6,105,052</b>	-
	General Excavation	-	559,136	-	559,136
	Over-excavation of Organic Material	-	36,685	-	36,685
	General Backfill	-	12,500	-	12,500
	Backfill of over-excavation of Organics	-	66,700	-	66,700
	Soldier Piles and Lagging (Typical SOE)	-	-	-	-
	Cutoff SOE Wall	-	5,430,031	-	5,430,031
-	Dewatering	<b>555,500</b>	-	<b>555,500</b>	-
	Allowance for surface run-off only	-	-	-	-
	Mobilization, Installation, Demobilization of Well Point System	-	160,900	-	160,900
	Wellpoint Installation with Geotechnical Rig	-	76,800	-	76,800
	Dewatering System Rental	-	52,800	-	52,800
	Service Technician	-	47,500	-	47,500
	Generator Rental	-	57,000	-	57,000
	Standby Generator	-	21,000	-	21,000
	Relocation of Header Pipe and Pumps	-	53,000	-	53,000
	Grouting	-	18,500	-	18,500
	Fuel	-	68,000	-	68,000
-	Soil Disposal	<b>968,990</b>	-	<b>968,990</b>	-
	Removal of Clean Fill	-	-	-	-
	Disposal Facility A	-	294,294	-	294,294
	Disposal Facility B	-	642,096	-	642,096
	Hazardous Waste	-	32,600	-	32,600
	Concrete	-	-	-	-
	Site Improvements	973,108	-	973,108	-
	Utilities	185,000	-	185,000	-
-	Concrete Foundations	<b>3,191,493</b>	-	<b>3,191,493</b>	-
	Excavation at Elevator Pits	-	60,000	-	60,000
	Crushed Stone	-	38,925	-	38,925
	Matt Slab	-	2,595,000	-	2,595,000
	Foundation Walls	-	333,926	-	333,926
	Elevator Pits and Walls	-	73,642	-	73,642
	Concrete Pad for Hoist	-	20,000	-	20,000
	Mechanical Pads	-	15,000	-	15,000
	Slab at House Traps	-	5,000	-	5,000
	Detention Tank	-	50,000	-	50,000
	Concrete Superstructure	6,821,060	-	7,256,557	-
	Masonry	2,337,813	-	2,119,855	-
	Miscellaneous Metal	691,798	-	524,558	-
	Decorative Railings	297,350	-	290,000	-
	Millwork	167,893	-	183,398	-
	Waterproofing	289,825	-	471,400	-
	Roofing & Pavers	652,621	-	652,621	-
	Caulking & Sealant	276,599	-	281,579	-
	Hollow Metal, Hardware & Wood Doors	456,061	-	491,558	-
	Overhead Doors	-	-	-	-
	Canopy	110,000	-	110,000	-
	Storefronts, Windows & Metal Panels	2,393,760	-	3,645,301	-
	Glass & Glazing	26,700	-	180,238	-
	Special Finishes	579,200	-	255,411	-
	Gypsum Drywall	2,429,437	-	2,647,860	-
	Ceramic Tile	801,506	-	875,526	-
	Wood Flooring	469,544	-	555,649	-
	Resilient Flooring	10,000	-	10,000	-
	Carpeting	36,458	-	39,825	-
	Painting	407,000	-	458,788	-
	Wall Covering	-	-	-	-
	Graphics	20,000	-	21,847	-
	Bath & Toilet Accessories	217,559	-	218,470	-
	Compactor	30,000	-	30,000	-
	Rubbish Chute	37,500	-	40,963	-
	Appliances	535,800	-	625,000	-
	Kitchen Cabinets	460,650	-	565,000	-
	Window Treatments	-	-	-	-
	Elevators	1,425,000	-	1,455,000	-
	Hoist & Bridge	514,500	-	514,500	-
	Plumbing and Fixtures	2,547,611	-	3,270,000	-
	Fire Protection	669,732	-	813,802	-
	HVAC	1,820,000	-	2,277,553	-
	Electrical Systems	3,090,380	-	3,541,066	-
	<b>Sub-Total Trade Costs</b>	<b>\$ 42,664,110</b>		<b>\$ 46,600,001</b>	
	General Conditions, Insurance and Fee	2,986,488	-	3,262,000	-
	<b>Sub-Total GC's, Fees ...</b>	<b>\$ 2,986,488</b>		<b>\$ 3,262,000</b>	
	<b>Hard Cost Grand Total</b>	<b>\$ 45,650,598</b>		<b>\$ 49,862,001</b>	







**435 EAST 13TH STREET**

APR 2014

**435 East 13th Street**

APR 2014  
 APR 2014  
 APR 2014

**435 East 13th Street**

APR 2014  
 APR 2014  
 APR 2014

**435 East 13th Street**

APR 2014  
 APR 2014  
 APR 2014



**435 East 13th Street**

APR 2014

**435 East 13th Street**

APR 2014

APR 2014



- Site & Parcel Boundary
- Sub-Parcel Boundary (Street)
- Sub-Parcel Boundary (Other)
- Street Footprint (Street)
- Common Use
- General Zoning
- Transportation
- Public Facilities (Park/Open Space)
- Open Space & Recreation
- Paving
- Water Line

### 435 EAST 13TH STREET

DATE: 10/10/11

PROJECT  
 435 East 13th Street  
 435 East 13th Street  
 435 East 13th Street  
 435 East 13th Street

OWNER  
 435 East 13th Street  
 435 East 13th Street  
 435 East 13th Street  
 435 East 13th Street

ARCHITECT  
 NLR Architects  
 435 East 13th Street  
 435 East 13th Street  
 435 East 13th Street



PROJECT  
 435 EAST 13TH STREET

OWNER  
 LAND INC

435-13

# 435 EAST 13TH STREET

NEW YORK, NY

**Owner**  
R&B 100 Street Group LLC  
200 West Street, 10th Floor  
New York, NY 10038  
212.200.1000

**Architect**  
R&B 100 Group  
200 West Street, 10th Floor  
New York, NY 10038  
212.200.1000

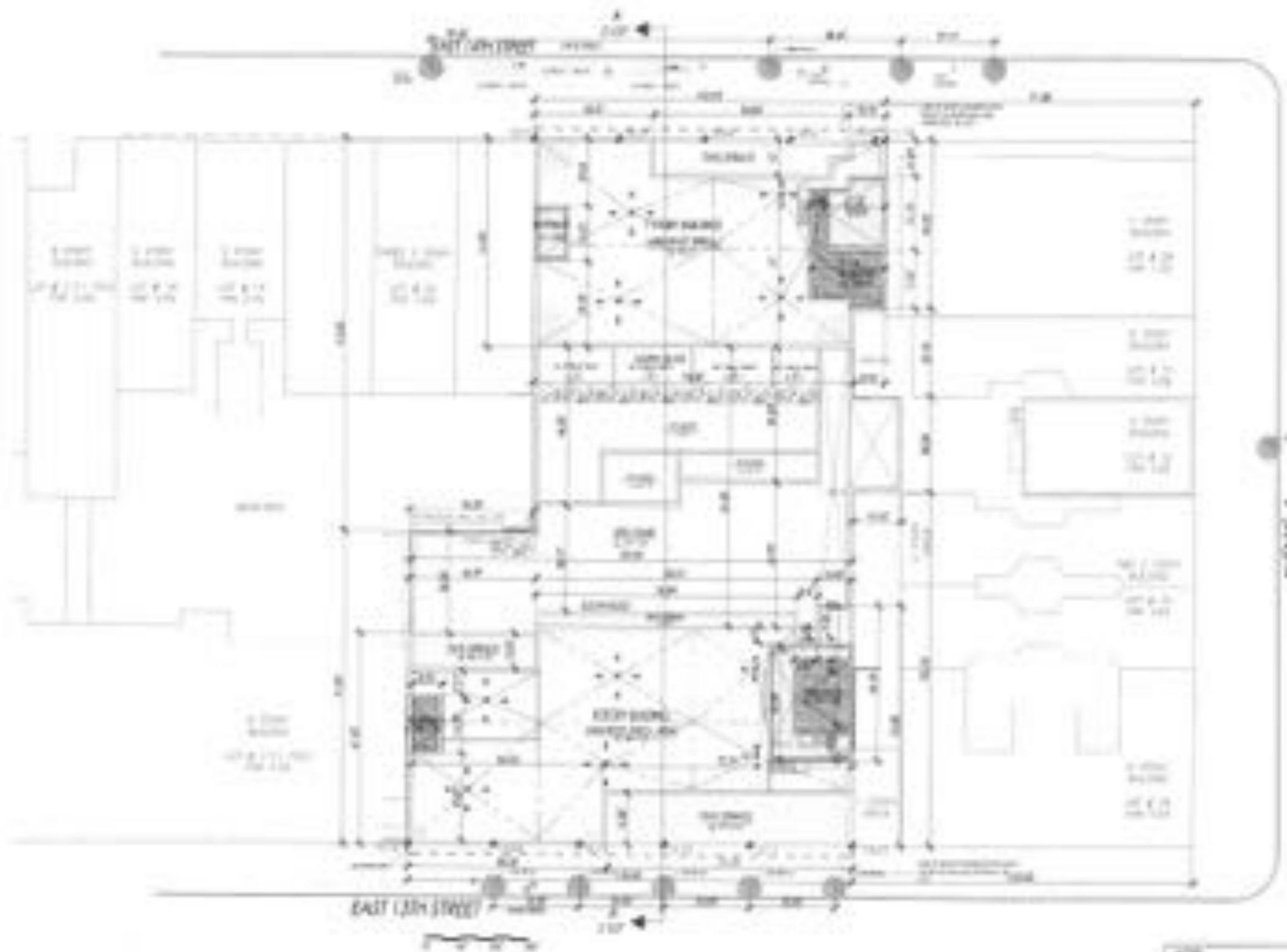
**Engineer**  
M&T Architects  
110 West Street  
New York, NY 10038  
212.200.1000



**Project**  
435 EAST 13TH STREET

**Drawing No.**  
COVERING BR PLAN

Professional Engineer  
Name: [Redacted]  
No. [Redacted]  
Exp. [Redacted]  
Date: 04/13/09



NOT TO SCALE  
INTERPOLATED AND DERIVED FROM  
FIELD SURVEY AND RECORDS



## 435 EAST 13TH STREET

NEW YORK, NY

435 East 13th Street Owner LLC  
 435 East 13th Street  
 New York, NY 10003

## ZONING FLOOR AREA CALCULATIONS

## Floor Area Schedule

C1-6A

Floor	Use	Gross FA (SF)	Mech Deduct (SF)	Open to below (SF)	Quality Housing (SF)	Zoning FA (SF)
CELLAR	ACC. RESERVOIR	22,881.30	0.00		0.00	
1ST FLOOR	COMMERCIAL	8,521.00				8,521.00
	RESIDENTIAL	9,483.87	271.28		2,988.45	7,164.22
	TOTAL	18,004.87				15,004.22
2ND FLOOR	RESIDENTIAL	14,271.30	285.08		3,443.23	12,562.79
3RD FLOOR	RESIDENTIAL	14,271.30	285.08		3,443.23	12,562.79
4TH FLOOR	RESIDENTIAL	14,271.30	285.08		3,443.23	12,562.79
5TH FLOOR	RESIDENTIAL	14,271.30	285.08		3,443.23	12,562.79
6TH FLOOR	RESIDENTIAL	14,271.30	285.08		3,443.23	12,562.79
7TH FLOOR	RESIDENTIAL	12,884.24	187.88		3,207.25	11,248.83
8TH FLOOR	RESIDENTIAL	6,717.28	24.88		783.30	5,579.93
MAIN ROOF SOUTH BUILDING	MECHANICAL	2,240.08	1,824.08		0.00	416.00
ROOF (BLKHOSEW)	MECHANICAL	790.08	790.08		0.00	0.00
TOTAL	COMMERCIAL					8,521.00
TOTAL	RESIDENTIAL					87,873.22
BUILDING TOTAL		124,881.27	4,211.79	0.00	9,200.58	98,544.22

TOTAL NEW BUILDING SQUARES (INCLUDING CELLAR)

114,800



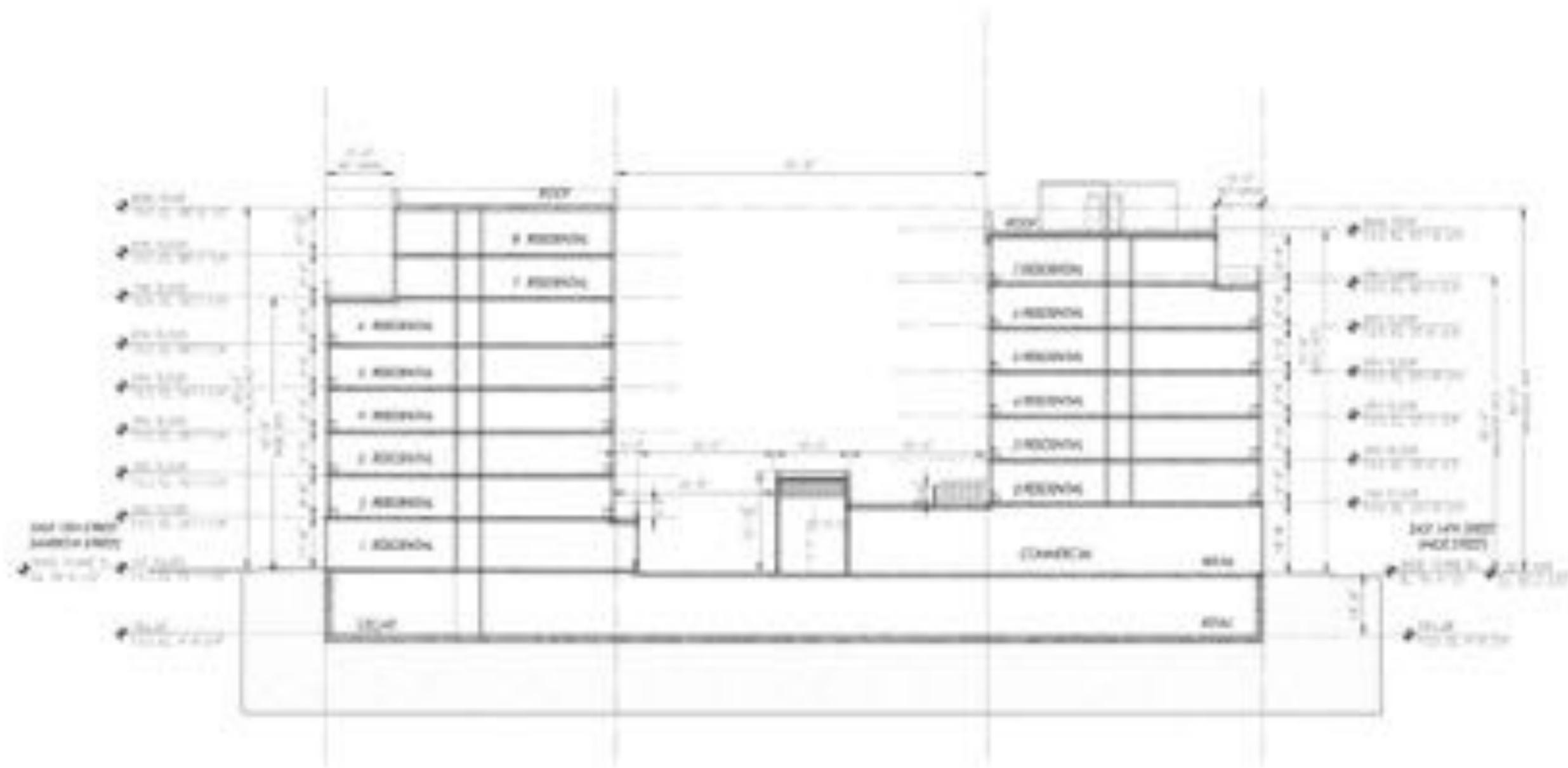
435 East 13th Street  
 New York, NY 10003



**435 EAST 13TH STREET**

NEW YORK, NY

435 East 13th Street Owner LLC  
 435 East 13th Street  
 New York, NY 10003



NORTH BACKING  
 CONFERENCE ROOM (AS OF RIGHT)  
 CONSTRUCTION

ACB  
 ARCHITECTURAL CONSULTANTS  
 435 EAST 13TH STREET  
 NEW YORK, NY 10003





**435 EAST 15TH STREET**  
NEW YORK, NY

OWNER  
**East 15th Street Group LLC**  
 100 W 11th St  
 New York, NY 10013

DESIGNER  
**MMR Group**  
 100 W 11th St  
 New York, NY 10013

ARCHITECT  
**SLCE Architects**  
 100 W 11th St  
 New York, NY 10013

NO. OF FLOORS	10
NO. OF UNITS	100
NO. OF GARAGES	10
NO. OF OFFICES	10
NO. OF STORES	10



**435 EAST 15TH STREET**

PROJECT NO.  
**100 W 11th St**  
 100 W 11th St  
 NEW YORK, NY 10013

APPROVED BY



DATE



**435 EAST 13TH STREET**

NEW YORK, NY

**OWNER**  
East 14th Street Owner LLC

100 East 14th Street  
New York, NY 10003

**ARCHITECT**  
Skidmore, OWINGS & Merrill LLP

100 East 14th Street  
New York, NY 10003

**ENGINEER**  
MCT Architects

100 East 14th Street  
New York, NY 10003

NO.	DESCRIPTION	DATE
1	PRELIMINARY	10/15/13
2	REVISED	11/15/13
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312	REVISED	09/15/39
313		



1. ELEVATION OF THE PROPOSED BUILDING

### 435 EAST 13TH STREET

NEAR 1 CORN, WI

PROJECT  
435 East 13th Street - 4th Floor - 2017

ARCHITECT  
SILVERSTEIN ARCHITECTS  
1000 N. MILWAUKEE  
MILWAUKEE, WI 53233

OWNER  
MILWAUKEE COUNTY  
OFFICE OF COMMUNITY DEVELOPMENT  
1000 N. MILWAUKEE  
MILWAUKEE, WI 53233

DATE  
01/11/17

#### SILVERSTEIN ARCHITECTS

1000 N. MILWAUKEE  
MILWAUKEE, WI 53233  
TEL: 414.224.1100

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	01/11/17
2	ISSUED FOR PERMIT	01/11/17



### 435 EAST 13TH STREET

NEAR 1 CORN, WI

PROJECT  
435 East 13th Street - 4th Floor - 2017

	DATE 01/11/17
	PROJECT 435 EAST 13TH STREET NEAR 1 CORN, WI

**435 EAST 13TH STREET**  
NEW YORK, NY

OWNER  
**East 13th Street Owners LLC**  
200 Broadway, Suite 1000  
New York, NY 10038  
Tel: 212-512-1234

DESIGNER  
**SLCE Architects**  
111 West 19th Street  
New York, NY 10011  
Tel: 212-512-1234

ARCHITECT  
**SLCE Architects**  
111 West 19th Street  
New York, NY 10011  
Tel: 212-512-1234

DATE	10/15/2014
SCALE	1/8" = 1'-0"
PROJECT NO.	14-001
DATE PLOTTED	10/15/2014



**435 EAST 13TH STREET**

OWNER  
**East 13th Street Owners LLC**  
200 Broadway, Suite 1000  
New York, NY 10038  
Tel: 212-512-1234

APPROVED FOR THE CITY OF NEW YORK



DATE: 10/15/2014  
SCALE: 1/8" = 1'-0"  
PROJECT NO.: 14-001  
DATE PLOTTED: 10/15/2014





## 435 EAST 13TH STREET

NEW FLOOR PLAN

### 435 EAST 13TH STREET (Continued)

2000 S. 13th Street, Suite 100  
 Phoenix, AZ 85004  
 Tel: 602.955.1234

### OWNER

435 East 13th Street  
 2000 S. 13th Street, Suite 100  
 Phoenix, AZ 85004

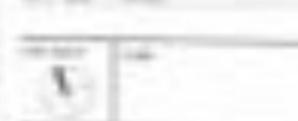
2000 S. 13th Street, Suite 100  
 Phoenix, AZ 85004  
 Tel: 602.955.1234

### ARCHITECT

SLATE Architects  
 1000 N. 1st Street, Suite 100  
 Phoenix, AZ 85004  
 Tel: 602.955.1234

1000 N. 1st Street, Suite 100  
 Phoenix, AZ 85004  
 Tel: 602.955.1234

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	10/15/2024
2	REVISIONS	
3	REVISIONS	
4	REVISIONS	
5	REVISIONS	



### PROJECT

435 EAST 13TH STREET

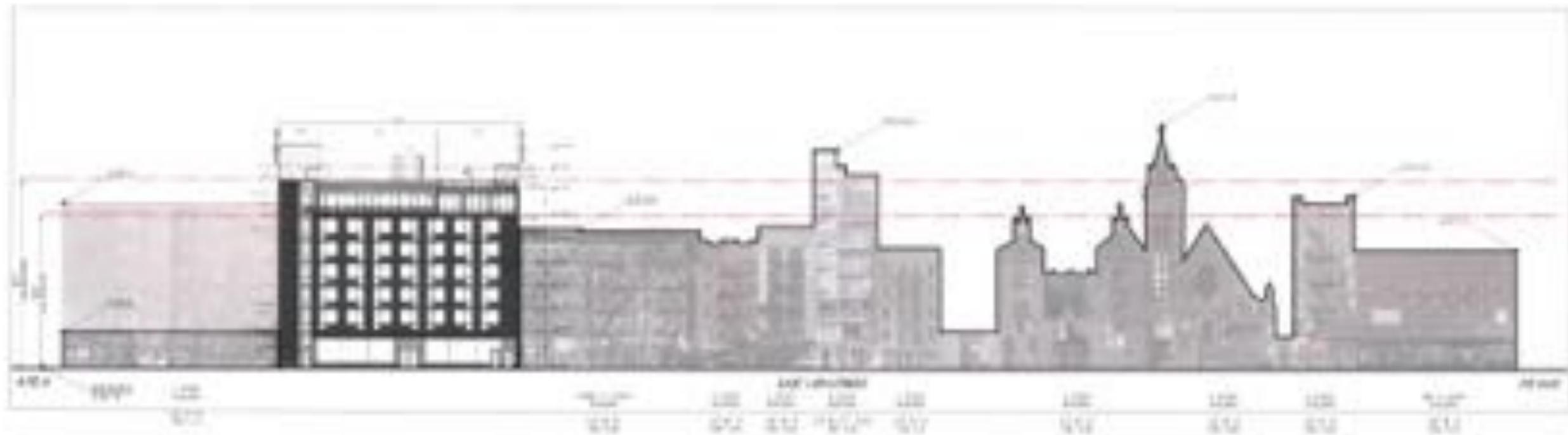
OWNER: 435 EAST 13TH STREET  
 2000 S. 13th Street, Suite 100  
 Phoenix, AZ 85004  
 Tel: 602.955.1234



435 EAST 13TH STREET

NEW YORK, NY

DATE: 1/20/2010  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT: [Name]  
 CLIENT: [Name]  
 ARCHITECT: [Name]



PROJECT: 435 EAST 13TH STREET  
 DRAWING NO: [Number]  
 ARCHITECT: [Name]  
 COMPANY: [Name]

[Seal/Logo]

DATE: 1/20/2010  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT: [Name]

**435 EAST 13TH STREET**

NEW YORK, NY

DATE:

**East 14th Street Owners LLC**1400 Broadway  
New York, NY 10019  
Tel: 212-312-1234

DESIGN:

**Skidmore, OWINGS & Merrill**300 Park Avenue  
New York, NY 10022  
Tel: 212-312-1234

ARCHITECT:

**M.C.E. Architects**1000 Broadway  
New York, NY 10019  
Tel: 212-312-1234

435 EAST 13TH STREET

NEW YORK, NY

DATE:

435

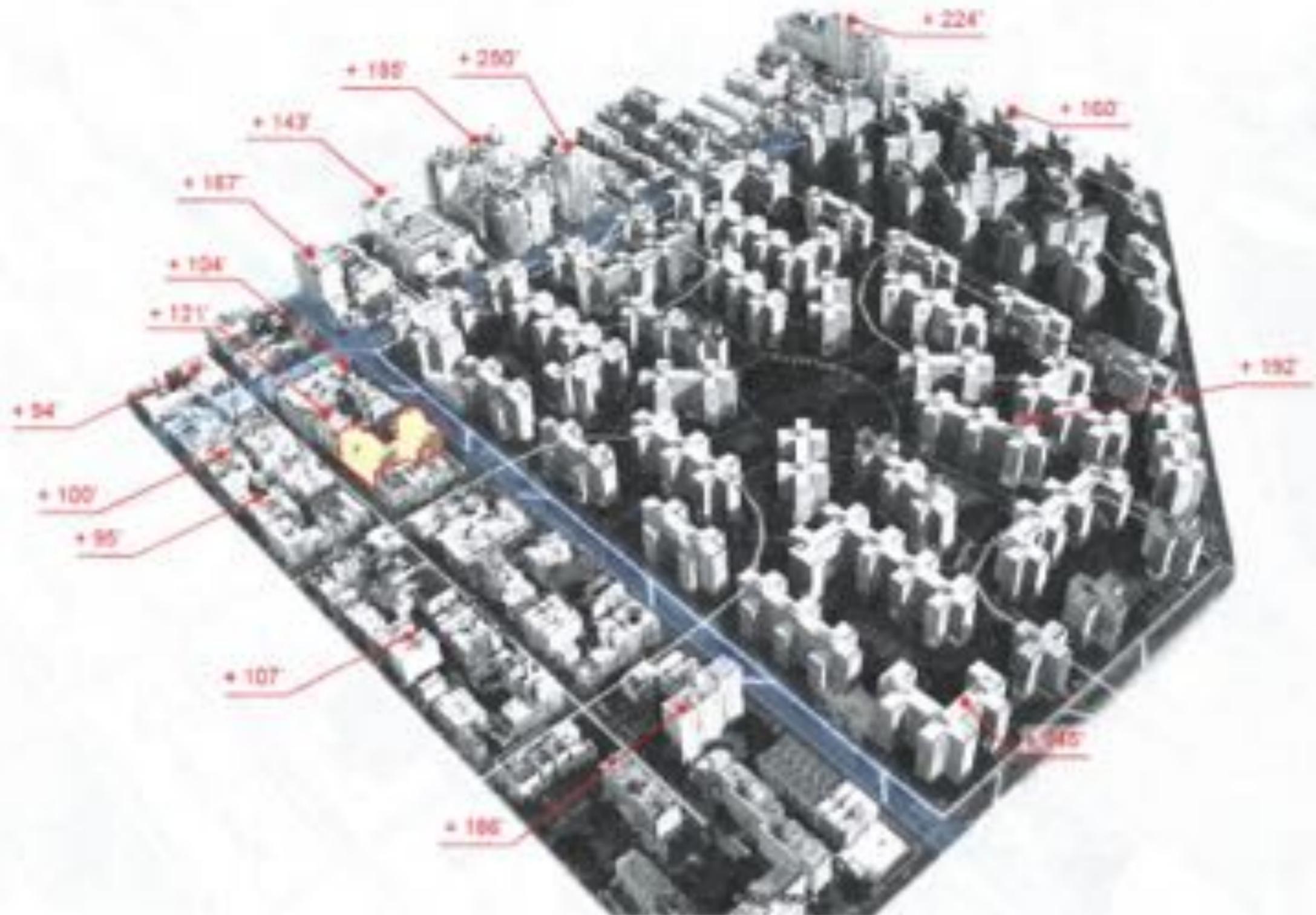
NO.	DESCRIPTION	DATE
1	PRELIMINARY	10/15/12
2	REVISED	11/01/12
3	REVISED	11/15/12
4	REVISED	12/01/12



435 EAST 13TH STREET  
NEW YORK, NY

OWNER: EAST 14TH STREET OWNERS LLC  
ARCHITECT: M.C.E. ARCHITECTS

DATE: 12/01/12  
SCALE: AS SHOWN



**435 EAST 13TH STREET**

NEW YORK, NY

**Client:** L&L Steel Group LLC  
 100 West 12th Street  
 New York, NY 10013

**Architect:** HOK  
 100 West 12th Street  
 New York, NY 10013

**Engineer:** S&T Architects  
 100 West 12th Street  
 New York, NY 10013

DATE	DESCRIPTION

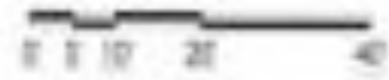
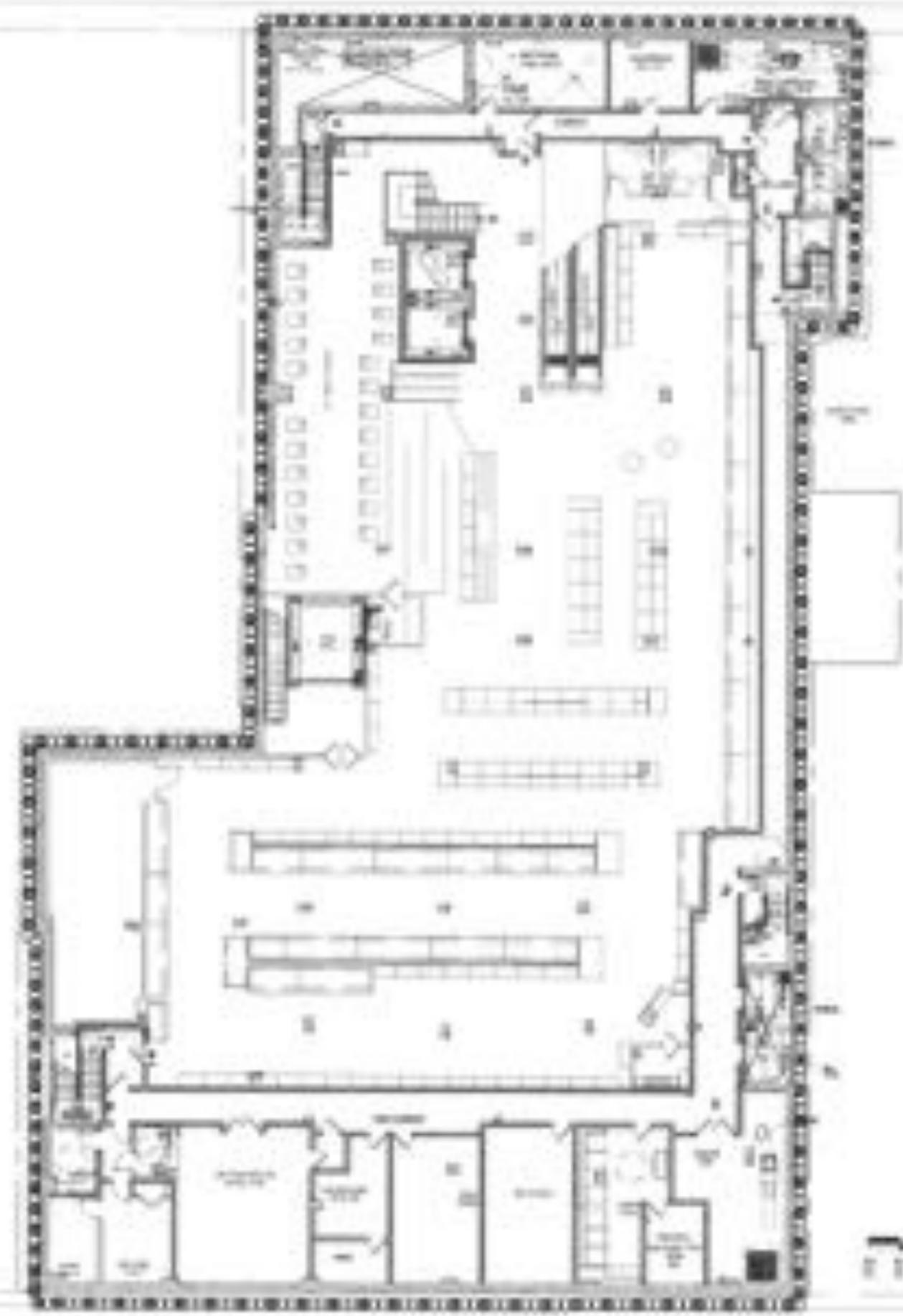


**TITLE:**  
 435 EAST 13TH STREET

**DRAWN BY:**  
 J. S. [Name]  
**CHECKED BY:**  
 J. S. [Name]

**SCALE:**  
 1" = 100'

**DATE:**  
 12/15/2010



**435 EAST 13TH STREET**

NEW YORK, NY

DATE: 10/14/2010  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT: [Name]  
 CLIENT: [Name]

NO.	DESCRIPTION
1	[Description]
2	[Description]
3	[Description]

SCALE: 1/8" = 1'-0"

DATE: 10/14/2010

ARCHITECT: [Name]  
 LICENSE NO.: [Number]  
 STATE OF NEW YORK

EAST 14TH STREET

435 EAST 13TH STREET

PLAT NO. 101

25' 10' 15' 20' 25' 30' 35' 40' 45' 50' 55' 60' 65' 70' 75' 80' 85' 90' 95' 100'



NOTE:  
 NUMBER ABOVE OF APARTMENTS ARE ALL  
 SETTING BY AS APPROVED BY DEB

AVENUE A

TO:  
 East 14th Street Owner LLC  
 1000 14th Street  
 Denver, CO 80202  
 (303) 733-1111

FROM:  
 MCT Architects  
 1000 14th Street  
 Denver, CO 80202  
 (303) 733-1111

DATE	DESCRIPTION

SCALE:  
 AS SHOWN

435 EAST 13TH STREET

OWNER:  
 MCT ARCHITECTS

DATE: 10/15/10  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT NO: 101



COURTYARD NOT TO SCALE FOR CLARITY

NEW  
 EITHER LAYOUT OF APARTMENTS AND ALL  
 THE SHALL BE AS APPROVED BY THE



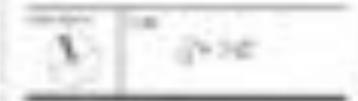
**435 EAST 13TH STREET**

NEW YORK, NY

OWNER  
**First City Bank Group LLC**  
 100 WALL STREET  
 NEW YORK, NY 10038

ARCHITECT  
**WEEKS MARINOTTI**  
 110 WEST 23RD STREET  
 NEW YORK, NY 10011

ENGINEER  
**MCT Architects**  
 110 WEST 23RD STREET  
 NEW YORK, NY 10011



PROJECT  
 435 EAST 13TH STREET

DESCRIPTION  
 SECOND FLOOR  
 CONFORMING LAYOUT

APPROVED

NO. 4123



NORTHING

(COPYING NOT ALLOWED FOR CLARITY)



NORTHING

NOTE:  
 NUMBERED ROOMS ARE SHOWN IN ALL  
 REDS SHALL BE SHOWN IN PINK



**435 EAST 13TH STREET**  
 NEW YORK, NY

OWNER:  
 East 13th Street Owners LLC  
 100 West Street, 10th Floor  
 New York, NY 10038

DESIGNER:  
 HOK  
 100 West Street, 10th Floor  
 New York, NY 10038

PROJECT:  
 435 EAST 13TH STREET  
 FIRST FLOOR  
 CONFIRMING LAYOUT

NO.	DATE	DESCRIPTION



PROJECT:  
 435 EAST 13TH STREET

DESIGNER:  
 HOK  
 100 WEST STREET  
 CONFIRMING LAYOUT

SCALE: 1/8" = 1'-0"

DATE: 12/31/2024  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT NO.: 435-13-01

**435 EAST 13TH STREET**  
NEW YORK, NY

NO. 1  
East 14th Street Overpass

NO. 2  
NO. 101-102  
NO. 103-104

NO. 3  
NO. 105-106  
NO. 107-108  
NO. 109-110

NO. 4  
NO. 111-112  
NO. 113-114  
NO. 115-116

NO. 5  
NO. 117-118  
NO. 119-120

NO. 6  
NO. 121-122  
NO. 123-124



**435 EAST 13TH STREET**

NO. 1  
NO. 2  
NO. 3  
NO. 4  
NO. 5  
NO. 6



NO. 101-102



NO. 103-104

NO. 105-106  
NO. 107-108  
NO. 109-110

NO. 111-112  
NO. 113-114  
NO. 115-116

NO. 117-118  
NO. 119-120

**435 EAST 13TH STREET**

1000 13TH ST, WY

OWNER

East 13th Street Owners LLC

1000 13TH ST  
WY 82002  
307.233.1234

AGENT

Mark Williams  
State Licensed Realtor

307.233.1234  
307.233.1234

AGENT

SUET Architects

1000 13TH ST  
WY 82002  
307.233.1234

NO.	DATE	DESCRIPTION	AMOUNT
1			
2			
3			
4			
5			

DATE	
BY	

PROJECT

435 EAST 13TH STREET

OWNER'S NAME

MARK WILLIAMS  
COMMERCIAL REALTOR

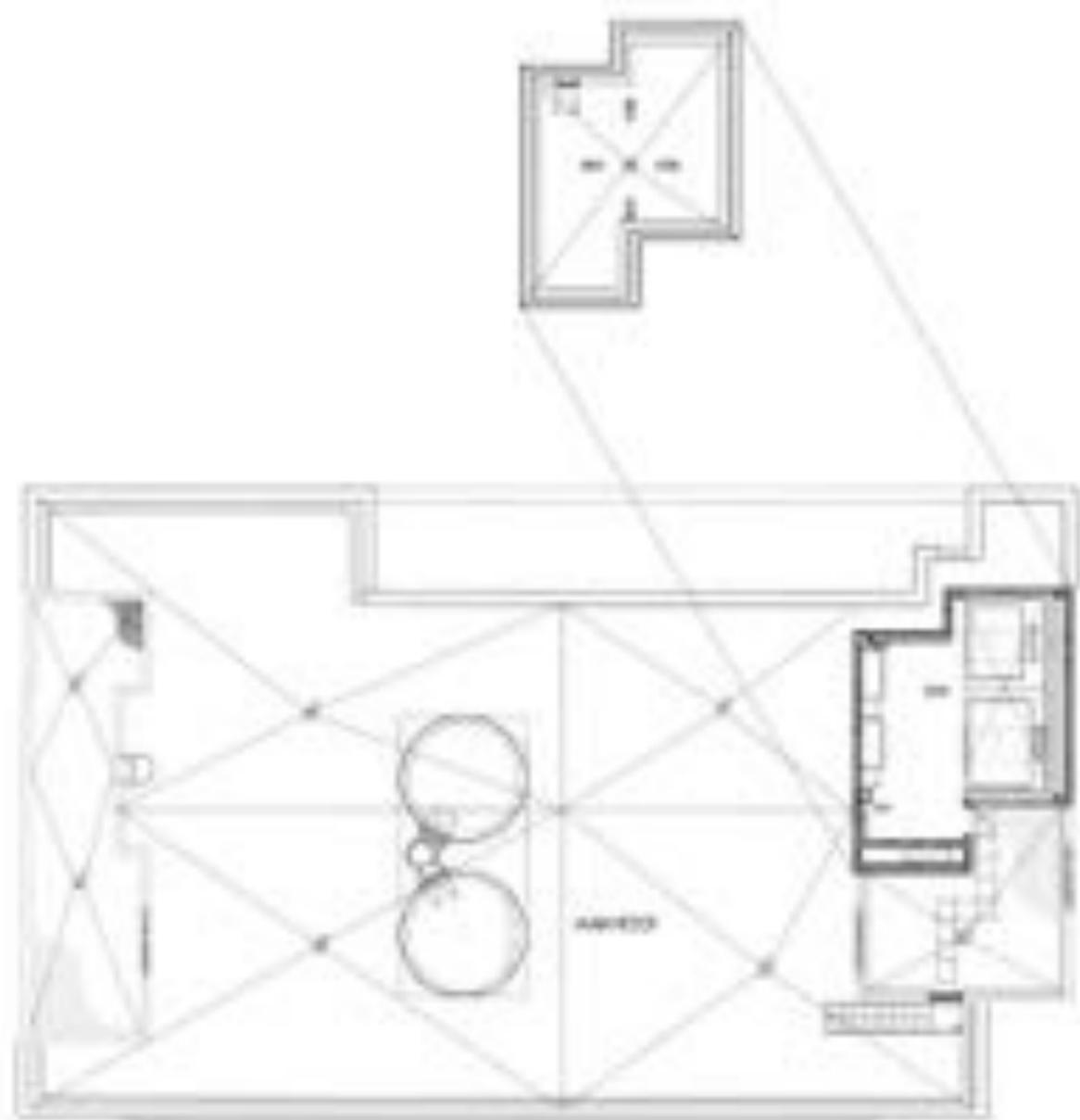
PREPARED BY



DATE: 10/10/2014  
SCALE: AS SHOWN  
SHEET NO: 1 OF 1  
435 E 13TH  
WY 82002



UNITS PER BLOCK



**435 EAST 13TH STREET**

NEW YORK, NY

**Client**  
 East 13th Street Owners LLC  
 25 Broadway, Suite 200  
 New York, NY 10004  
 Tel: 212-368-1234

**Architect**  
 MCAH & Group  
 110 Broadway, Suite 200  
 New York, NY 10004  
 Tel: 212-368-1234

**Project Name**  
 435 East 13th Street  
 Truss Structure  
 2010

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	10/10/10
2	REVISION	11/05/10
3	REVISION	11/15/10
4	REVISION	12/01/10

**Scale**  
 1" = 10'

**Project**  
 435 EAST 13TH STREET

**Contract No.**  
 MCAH-2010-001-001  
 CONTRACT NO. 01-80-01-1001

	<b>Professional Engineer</b>
	NAME: JOHN DOE
	NO. 12345
	EXPIRES: 12/31/11
<b>ACR A-11</b>	
DATE: 10/10/10	

435 EAST 13TH STREET  
NEW YORK, NY

East 14th Street Owner LLC  
240 Broadway, 14th Floor  
NEW YORK, NY 10038

Architect  
Kohn Pedersen Fox Associates  
100 Park Avenue  
NEW YORK, NY 10022

Engineer  
SCE Architects  
100 Park Avenue  
NEW YORK, NY 10022

NO.	DESCRIPTION
1	FOUNDATION
2	GROUND FLOOR
3	FIRST FLOOR
4	SECOND FLOOR
5	THIRD FLOOR
6	FOURTH FLOOR
7	FIFTH FLOOR
8	SIXTH FLOOR
9	SEVENTH FLOOR
10	EIGHTH FLOOR
11	NINTH FLOOR
12	TENTH FLOOR
13	ROOF



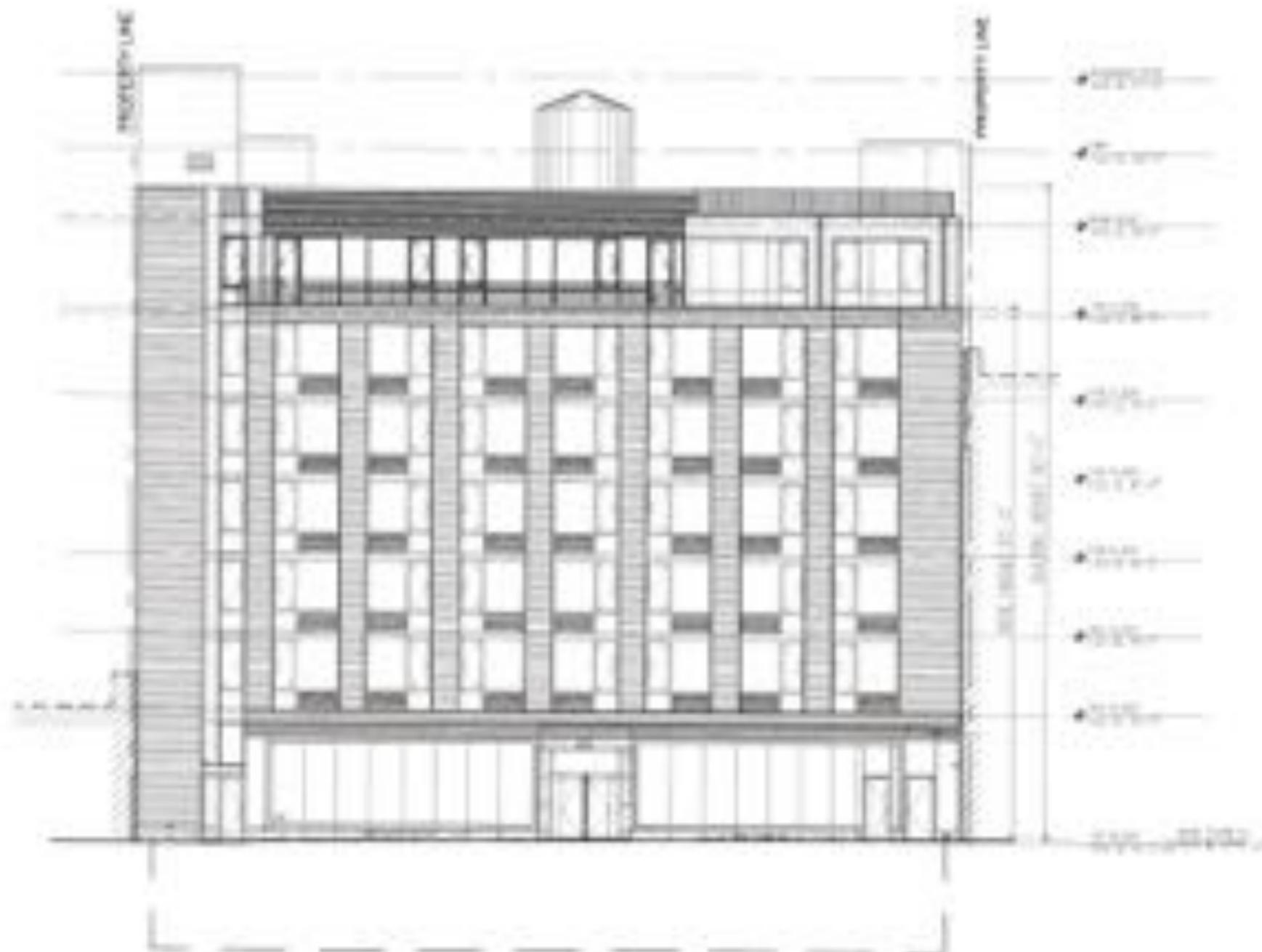
SCALE  
AS SHOWN ON DRAWING

CONCRETE  
REINFORCED CONCRETE

APPROVED FOR CONSTRUCTION



DATE: 10/15/14  
BY: [Signature]  
TITLE: [Title]  
FIRM: [Firm Name]



NORTH SIDE

**435 EAST 13TH STREET**  
NEW YORK, NY

DATE  
435 East 13th Street (New York) LLC  
100 Broadway, 10th Floor  
New York, NY 10038

OWNER  
Mark W. Green  
Green Development Partners  
100 Broadway, 10th Floor  
New York, NY 10038

ARCHITECT  
**SACI Architects**  
100 Broadway, 10th Floor  
New York, NY 10038

NO.	DESCRIPTION
1	SECTION
2	FOUNDATION
3	GROUND FLOOR
4	FIRST FLOOR
5	SECOND FLOOR
6	THIRD FLOOR
7	FOURTH FLOOR
8	FIFTH FLOOR
9	SIXTH FLOOR
10	SEVENTH FLOOR
11	EIGHTH FLOOR
12	NINTH FLOOR
13	TENTH FLOOR
14	ROOF

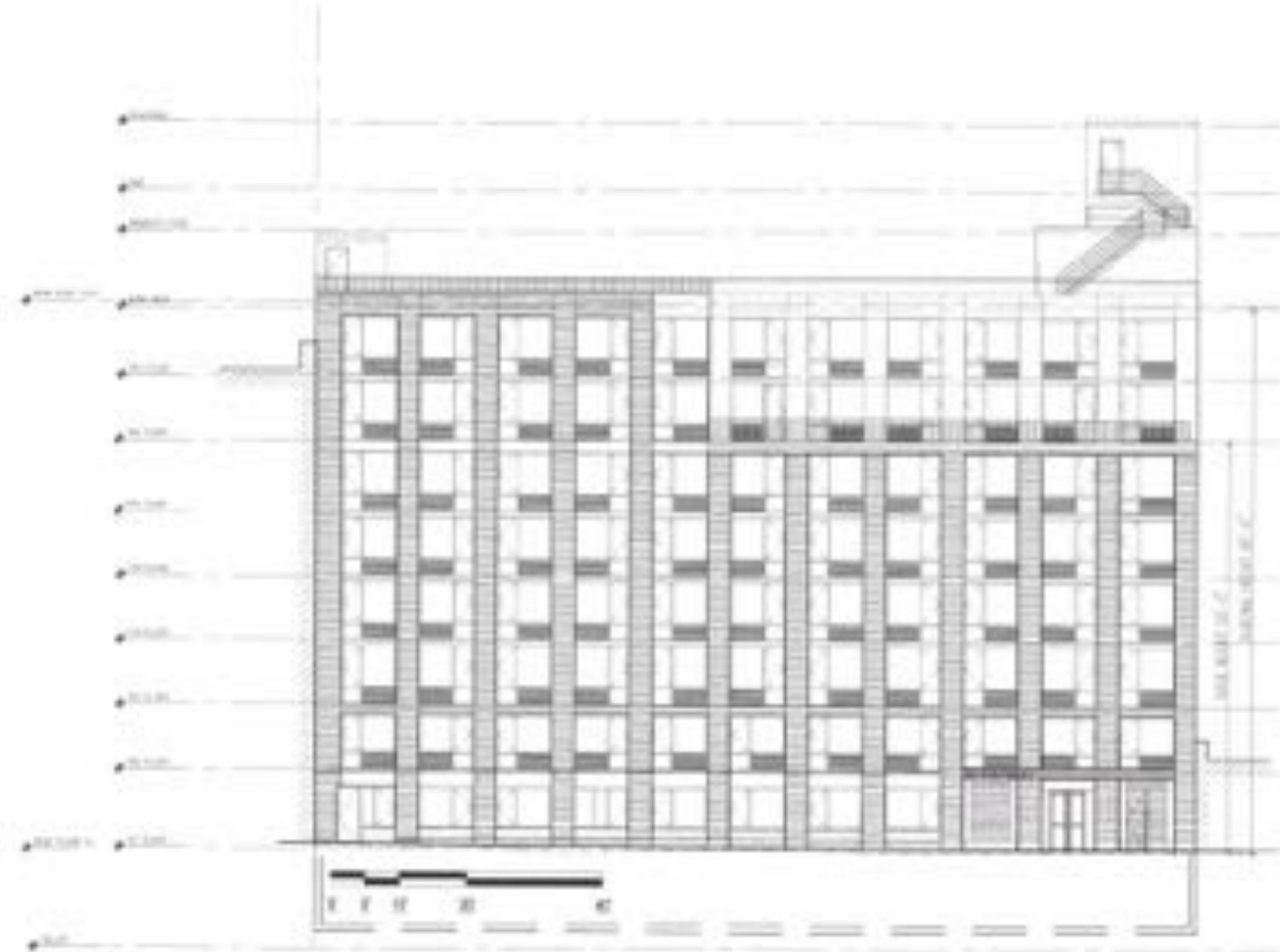
PROJECT  
**435 EAST 13TH STREET**

DRAWING NO.  
**VIEW ELEVATION 1 (2nd FLOOR)  
CONCRETE CONCRETE**

BY EXAMINER



DATE  
NOV 14 2013  
PROJECT NO.  
435 E 13 ST  
DRAWN BY





**435 EAST 13TH STREET**  
NEW YORK, NY

App: 14th Street Owners LLC  
 20101200000000  
 20101200000000  
 20101200000000

Owner:  
 STATE OF NEW YORK  
 STATE UNIVERSITY OF PLATEAU COUNTY  
 12000000000000  
 20101200000000  
 20101200000000

App: N.Y.C. Ambassadors  
 20101200000000  
 20101200000000  
 20101200000000




435 EAST 13TH STREET

ZONING MAP

NYC  
 20101200000000  
 20101200000000  
 20101200000000  
 20101200000000





**435 EAST 13TH STREET**  
NEW YORK, NY

**Owner**  
East 13th Street Group LLC  
100 W. 11th Street  
New York, NY 10011

**Broker**  
M&T Group  
100 W. 11th Street  
New York, NY 10011

**Agent**  
M&T Advisors  
100 W. 11th Street  
New York, NY 10011

APN	2172 001 0000
Block	2172
Lot	1



**NEED**  
435 EAST 13TH STREET

FORMAL P.L.C.  
P.L.C.


 OFFICE OF THE  
 COMPTROLLER OF THE CITY OF NEW YORK  
 100 W. 11th Street  
 New York, NY 10011  
 (212) 312-1000  
 www.comptroller.nyc.gov



- One & Two Family Residential
- Multi-Family Residential (Medium)
- Multi-Family Residential (High)
- Multi-Family Residential (Low)
- Multi-Family Residential (Medium)
- Commercial (Low)
- Commercial (Medium)
- Commercial (High)
- Community Facility
- Public Facility and Institution
- Open Space & Recreation
- Parking
- Waterway

**435 EAST 13TH STREET**

1000 PLUM, WA

**OWNER**  
 East Lake Motor Carves LLC  
 1000 PLUM, WA  
 98101-3100  
 206-465-1234

**DESIGNER**  
 NICE Architects  
 1000 PLUM, WA  
 98101-3100  
 206-465-1234

**PROJECT**  
 NICE Architects  
 1000 PLUM, WA  
 98101-3100  
 206-465-1234

DATE	10/15/2014
SCALE	AS SHOWN
PROJECT NO.	1000 PLUM



**PROJECT**  
 435 EAST 13TH STREET

**OWNER**  
 East Lake Motor

**APPROVED**



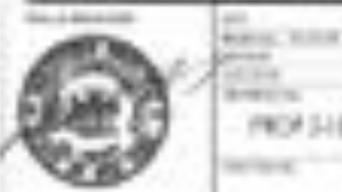
DATE: 10/15/2014  
 TIME: 10:00 AM  
 PROJECT: 1000 PLUM  
 SHEET: 1000

**435 EAST 13TH STREET**  
NEW YORK, NY

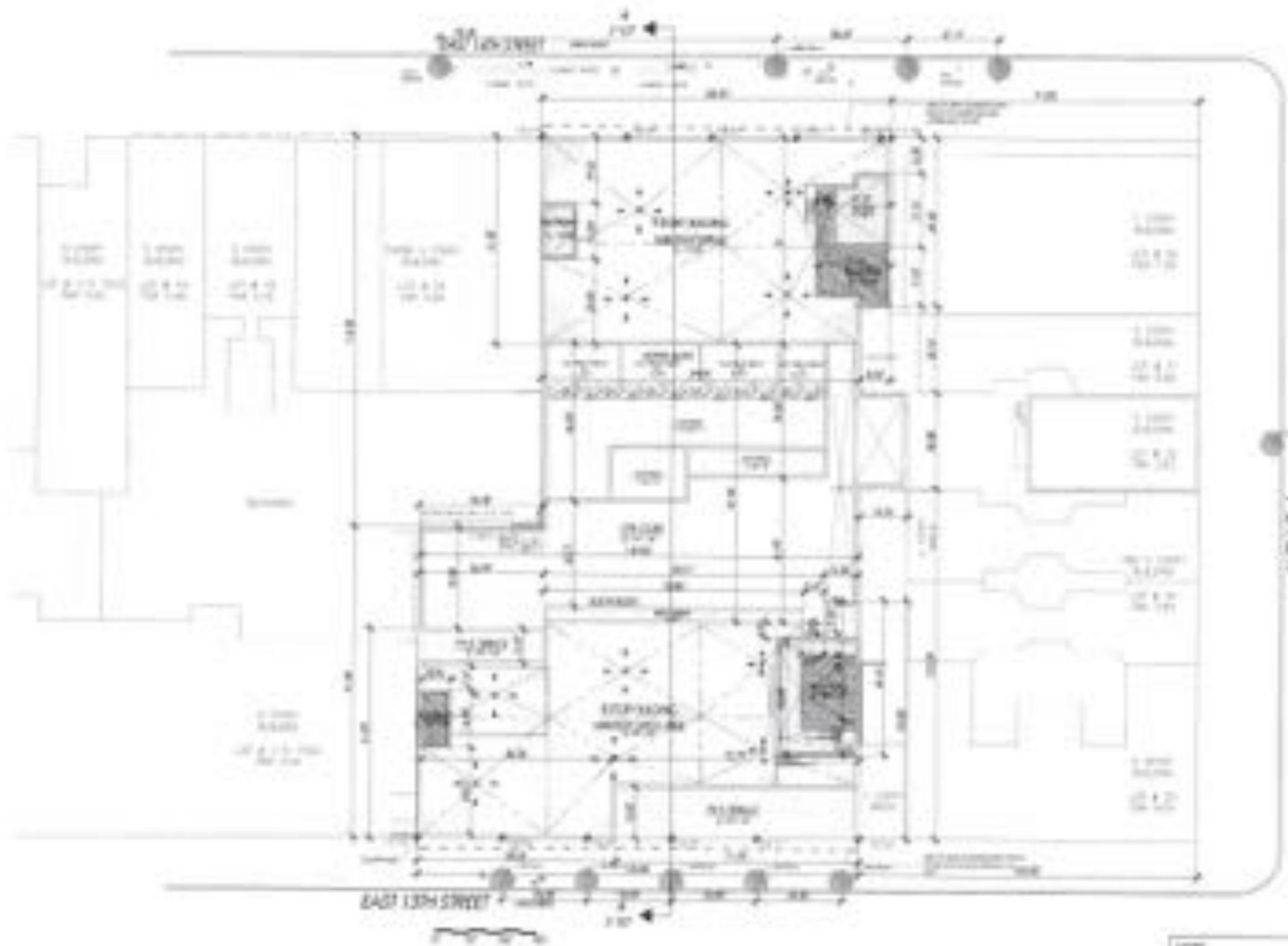
DATE: 01/14/2014  
PROJECT: 435 EAST 13TH STREET  
DRAWN BY: [Name]  
CHECKED BY: [Name]  
SCALE: 1/8" = 1'-0"



PROJECT: 435 EAST 13TH STREET  
DATE: 01/14/2014  
SCALE: 1/8" = 1'-0"



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DESIGNATED AS A HISTORIC LANDMARK





## ZONING FLOOR AREA CALCULATIONS

### Floor Area Schedule

C1-6A

Floor	Use	Gross FA (SF)	Mech. Defect. (SF)	Open to below (SF)	Quality Housing (SF)	Zoning FA (SF)
CELLAR	ACC. RESERVOIR	12,961.00	0.00		0.00	
1ST FLOOR	COMMERCIAL	8,521.00				8,521.00
	RESIDENTIAL	9,548.00	271.00		2,341.00	6,896.10
	TOTAL	18,069.00				15,417.10
2ND FLOOR	RESIDENTIAL	14,271.00	261.00		1,443.21	12,962.79
3RD FLOOR	RESIDENTIAL	14,271.00	261.00		1,443.21	12,962.79
4TH FLOOR	RESIDENTIAL	14,271.00	261.00		1,443.21	12,962.79
5TH FLOOR	RESIDENTIAL	14,271.00	261.00		1,443.21	12,962.79
6TH FLOOR	RESIDENTIAL	14,271.00	261.00		1,443.21	12,962.79
7TH FLOOR	RESIDENTIAL	12,948.00	241.00		1,418.29	11,187.29
8TH FLOOR	RESIDENTIAL	12,948.00	241.00		1,418.29	11,187.29
9TH FLOOR	RESIDENTIAL	6,902.00	148.00		661.82	5,291.18
MAIN ROOF SOUTH BUILDING	MECHANICAL	2,243.00	1,534.00		0.00	699.00
ROOF BALCONIES	MECHANICAL	700.00	700.00		0.00	0.00
TOTAL	COMMERCIAL					8,521.00
TOTAL	RESIDENTIAL					98,014.10
<b>BUILDING TOTAL</b>		<b>+ 147,348.00</b>	<b>4,364.70</b>	<b>0.00</b>	<b>13,096.74</b>	<b>101,545.30</b>

TOTAL NEW BUILDING GROSS (INCLUDING CELLAR)

+ 147,348

NOTE: \* PURSUANT TO ISA VARIANCE

435 EAST 15TH STREET  
NEW YORK, NY

435 East 15th Street (North Side)

Project No. 15-00000  
Date: 01/15/2015

Client: N.Y.C. Dept. of Buildings

Project: 15-00000  
Date: 01/15/2015

Client: N.Y.C. Dept. of Buildings

Project: 15-00000



Professional Engineer  
State of New York  
No. 15-00000  
Date: 01/15/2015

435 EAST 13TH STREET

MILWAUKEE, WI

DATE:

East 13th Street Owner LLC

1300 East 13th Street  
Milwaukee, WI 53212  
Tel: 414.224.1111

DRAWN:

John E. St. Onge  
Senior Consultant/Architect1300 East 13th Street  
Milwaukee, WI 53212  
Tel: 414.224.1111

SCALE:

SCALE: As Shown

DATE:

11/11/11

11/11/11

11/11/11

Dwelling Unit Distribution and Quality Housing Reduction Schedule										
FLOOR	No. of D.U.'s						REFUSE ROOM SF.	RECREATION SF. Sec 28-31	CORRIDOR SF DEDUCTIBLE Sec. 28-41	TOTAL SF DEDUCTIBLE
	SOUTH BUILDING			NORTH BUILDING						
	AU	HW	TOTAL	AU	HW	TOTAL	SOUTH/NORTH	SOUTH/NORTH	Zone	
CELLAR	-	-	-	-	-	-	-	-	-	
1	2	1	4	-	-	-	12	2,084.45	381.24	1,903.21
2	1	9	10	3	5	8	36	-	1,415.75	1,403.75
3	3	7	10	3	5	8	36	-	1,415.75	1,403.75
4	3	7	10	3	5	8	36	-	1,415.75	1,403.75
5	2	6	10	3	4	7	36	-	1,415.75	1,403.75
6	1	9	10	2	4	6	36	-	1,415.75	1,403.75
7	-	9	9	1	5	6	36	-	1,394.09	1,418.09
8	-	4	4	1	7	8	36	-	1,394.09	1,418.09
9	-	-	-	-	8	8	12	-	602.82	602.82
MECH/ROOF	-	-	-	-	-	-	-	-	-	-
DMR/ROOF	-	-	-	-	-	-	-	-	-	-
ROOF	-	-	-	-	-	-	-	-	-	-
TOTALS	12	34	66	15	47	64	140	2,948.44	10,214.39	13,162.83

DATE: 11/11/11  
DRAWN: John E. St. Onge  
SCALE: As Shown

DATE: 11/11/11  
SCALE: As Shown

PROJECT:

435 EAST 13TH STREET

DRAWING NO.:

DWELLING UNIT COUNT

APPROVED:



DATE: 11/11/11  
SCALE: As Shown  
PROJECT: 435 EAST 13TH STREET  
DRAWING NO.:





**435 EAST 13TH STREET**

NEW YORK, NY

OWNER

East 13th Street Council LLC

1300 Broadway, 13th Floor  
 New York, NY 10018  
 Tel: 212-312-1313  
 Fax: 212-312-1314

ARCHITECT

Shoemaker Architects

1300 Broadway, 13th Floor  
 New York, NY 10018  
 Tel: 212-312-1313  
 Fax: 212-312-1314

GENERAL CONTRACTOR

SLCT Architects

1300 Broadway, 13th Floor  
 New York, NY 10018  
 Tel: 212-312-1313  
 Fax: 212-312-1314

NO.	DESCRIPTION	DATE

--	--

**435 EAST 13TH STREET**

UNIFORM  
 RECORD BOOK

REPLACED





**435 EAST 13TH STREET**

NEW YORK, NY

OWNER

East 13th Street Owner LLC

100 West 13th Street  
New York, NY 10011

DESIGNER

SL&B Architects

100 West 13th Street  
New York, NY 10011

ARCHITECT

SL&B Architects

100 West 13th Street  
New York, NY 10011

DATE	NO.



PROJECT  
**435 EAST 13TH STREET**

GENERAL NOTE  
**SEE NEW DEVELOPMENT**

	DATE	NO.



EXISTING BUILDING AND SURROUNDING AREAS

**435 EAST 13TH STREET**

1000 13TH ST, WDC

OWNER  
 East 14th Street Owners LLC  
 1000 13TH ST, WDC  
 20000  
 202-555-1234

DESIGNER  
 NLR Architects  
 1000 13TH ST, WDC  
 20000  
 202-555-1234

ARCHITECT  
 NLR Architects  
 1000 13TH ST, WDC  
 20000  
 202-555-1234

NO. OF FLOORS	5
NO. OF UNITS	20
NO. OF PARKING SPACES	0
NO. OF BICYCLE SPACES	0



PROJECT  
 435 EAST 13TH STREET

DESIGNED BY  
 NLR ARCHITECTS

DATE: 10/15/2024  
 SCALE: 1/8" = 1'-0"  
 SHEET: 101-101-01  
 PROJECT: 435 EAST 13TH STREET

**435 EAST 13TH STREET**

NEW YORK, NY

DATE:

**East 13th Street Office (2)**

Architectural Firm:  
 435 East 13th Street  
 New York, NY 10003

OWNER:

**NYC 32 Group**  
 100 West Broadway, 10th Floor  
 New York, NY 10006  
 Tel: 212-312-3100

ARCHITECT:

**N.Y.C. Architects**  
 100 West Broadway, 10th Floor  
 New York, NY 10006  
 Tel: 212-312-3100



NO.	DESCRIPTION	DATE
1	Issue for Construction	10/1/04
2	Issue for Construction	10/1/04
3	Issue for Construction	10/1/04



PROJECT:

**435 EAST 13TH STREET**

DRAWING NO.:

**13TH-04A**

SCALE:

1" = 10'-0"	1" = 10'-0"
1" = 10'-0"	1" = 10'-0"
1" = 10'-0"	1" = 10'-0"
1" = 10'-0"	1" = 10'-0"
1" = 10'-0"	1" = 10'-0"



DATE: 10/1/04  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 PROJECT NO.: 13TH-04A  
 SHEET NO.:

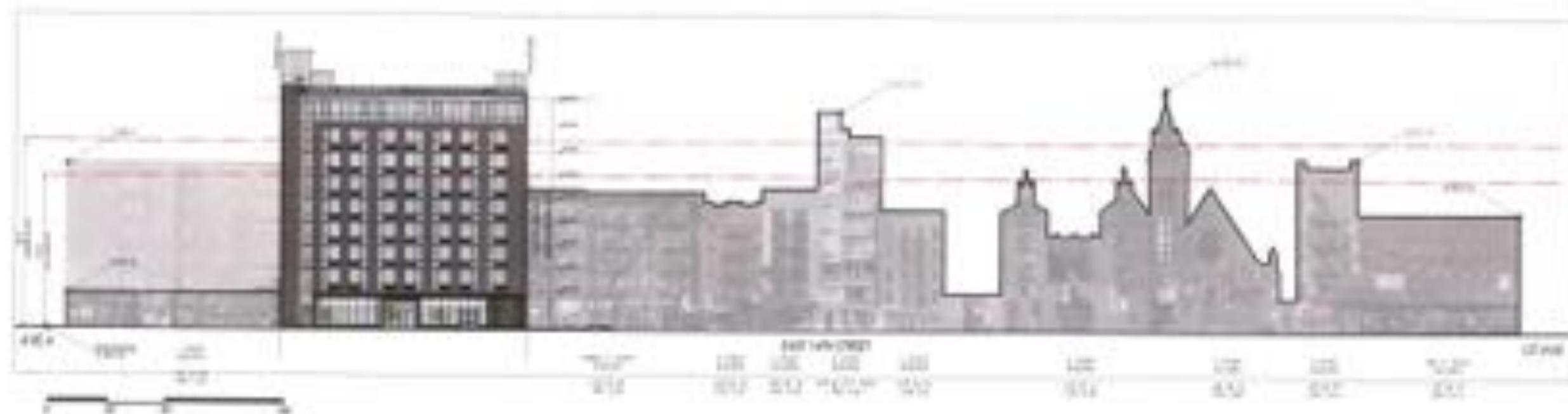


**435 EAST 130th STREET**  
NEW YORK, NY

**OWNER**  
435 East 130th Street LLC  
130th Street LLC  
130th Street LLC

**DESIGNER**  
STUDY 81 GROUP  
130th Street LLC  
130th Street LLC

**ARCHITECT**  
M.C.T. Architects  
130th Street LLC  
130th Street LLC



SECTION  
ELEVATION

**PROJECT**  
435 EAST 130th STREET

**ARCHITECT**  
M.C.T. Architects  
130th Street LLC  
130th Street LLC



**DATE**  
1/15/14

**SCALE**  
1/8" = 1'-0"

**435 EAST 13TH STREET**

NEW YORK, NY

**Client:**  
East 14th Street Owners LLC

100 East 14th Street  
New York, NY 10003

**Project:**  
New York City  
Urban Development Program

100 East 14th Street  
New York, NY 10003

**Architect:**  
SCE Architects

100 East 14th Street  
New York, NY 10003



201-461-1200

www.scearchitects.com

4/14

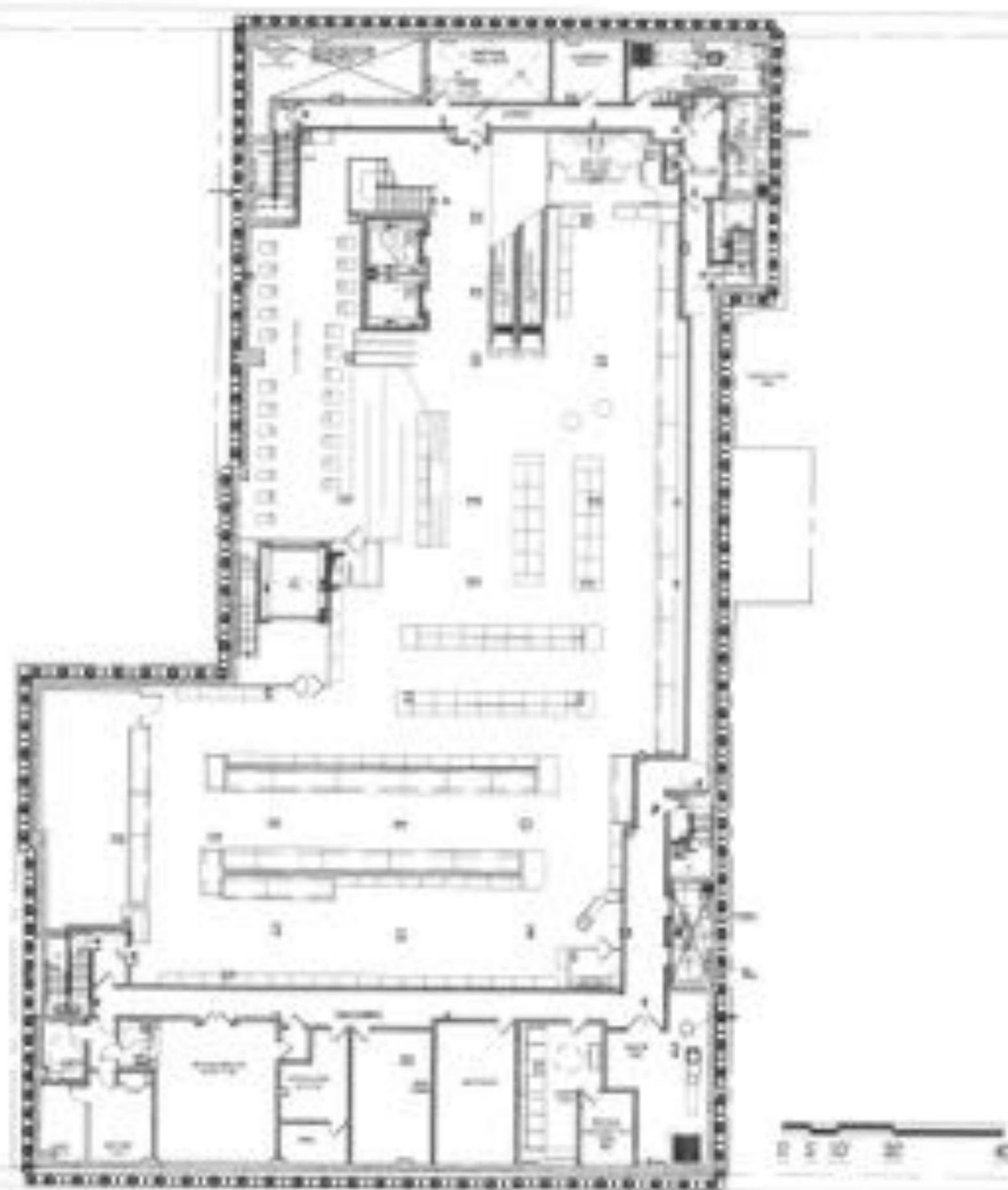
**Project:**  
435 EAST 13TH STREET

**Project No.:**  
URBTRON  
RFP08-0008



**Project Name:**  
435 EAST 13TH STREET  
**Project No.:**  
RFP 4-08





**435 EAST 13TH STREET**  
NEW YORK, NY

**NO. 1**  
**East 14th Street (Overhead)**  
 Administration and  
 Warehouse  
 1911-1912  
 1913-1914

**NO. 2**  
**West 14th Street**  
 1911-1912  
 1913-1914

**NO. 3**  
**NEW YORK**  
 1911-1912  
 1913-1914

NO. 1	1911-1912
NO. 2	1913-1914
NO. 3	1911-1912
NO. 4	1913-1914

**NO. 4**  
**435 EAST 13TH STREET**  
 1911-1912  
 1913-1914

NO. 5  
 1911-1912  
 1913-1914

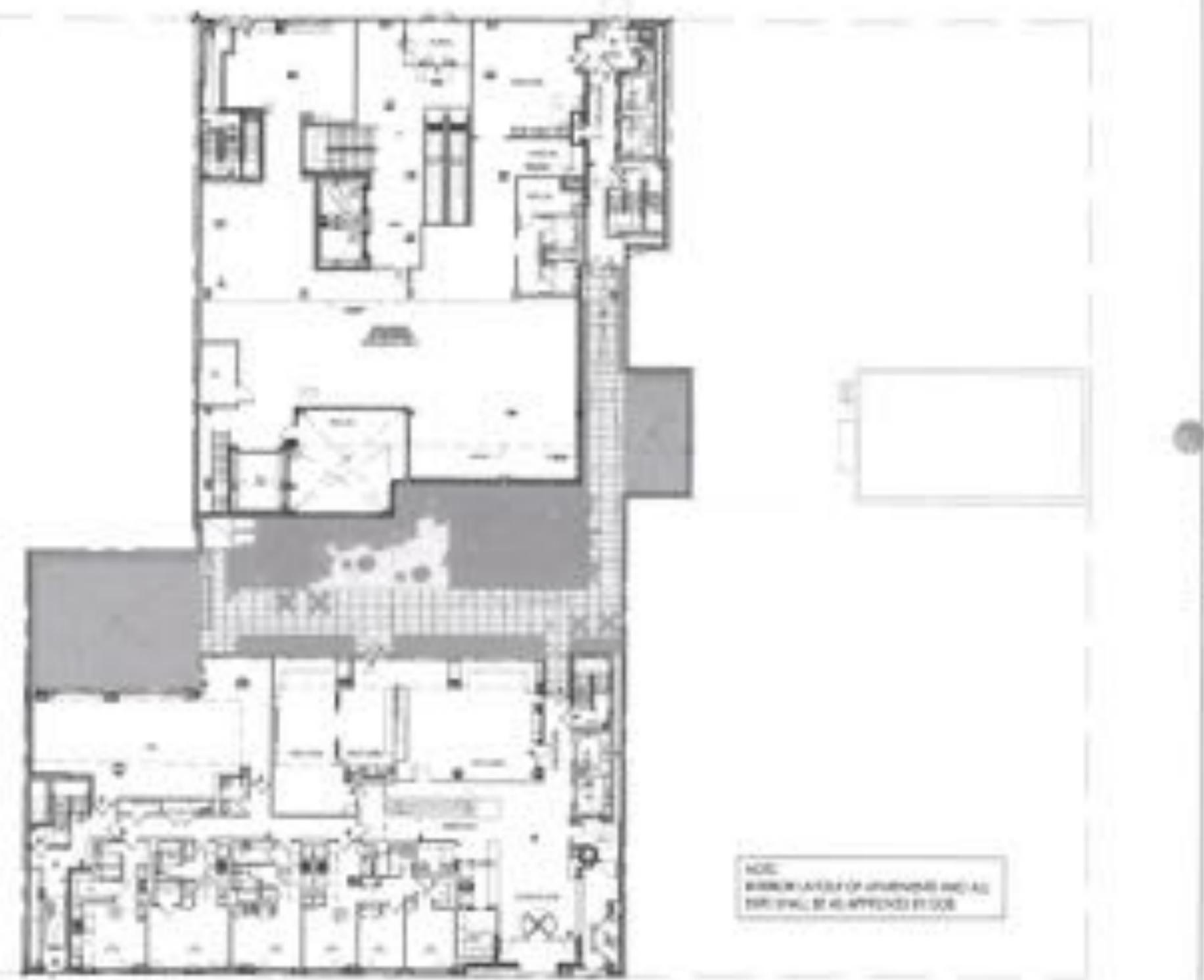
NO. 6  
 1911-1912  
 1913-1914

EAST 14TH STREET

435 EAST 13TH STREET

NEW YORK, NY

SCALE: 1/8" = 1'-0" (SEE NOTE)



NOTE:  
SHADED AREAS OF JOINTS AND ALL  
WALLS TO BE APPROPRIATE

NO. 100  
 EAST 14TH STREET OVERHEAD  
 MECHANICAL ROOM  
 100 SQ. FT.  
 10/15/10

NO. 101  
 MECHANICAL ROOM  
 100 SQ. FT.  
 10/15/10

NO. 102  
 MECHANICAL ROOM  
 100 SQ. FT.  
 10/15/10

NO.	DESCRIPTION	AREA	DATE
100	EAST 14TH STREET OVERHEAD MECHANICAL ROOM	100 SQ. FT.	10/15/10
101	MECHANICAL ROOM	100 SQ. FT.	10/15/10
102	MECHANICAL ROOM	100 SQ. FT.	10/15/10

NO. 103  
 435 EAST 13TH STREET  
 100 SQ. FT.  
 10/15/10


 PREPARED BY  
 DATE



NORTH ARROW



LEGEND NOT SHOWN FOR CLARITY

NORTH ARROW

NOT TO SCALE  
 DIMENSIONS OF MEASUREMENTS  
 SHALL BE AS SHOWN ON DRAWING



**435 EAST 13TH STREET**  
 NEW YORK, NY

DATE: 01/14/2014  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]

PROJECT: 435 EAST 13TH STREET  
 CLIENT: [Name]

SCALE: 1/8" = 1'-0"

NO.	DESCRIPTION
1	REVISION
2	REVISION

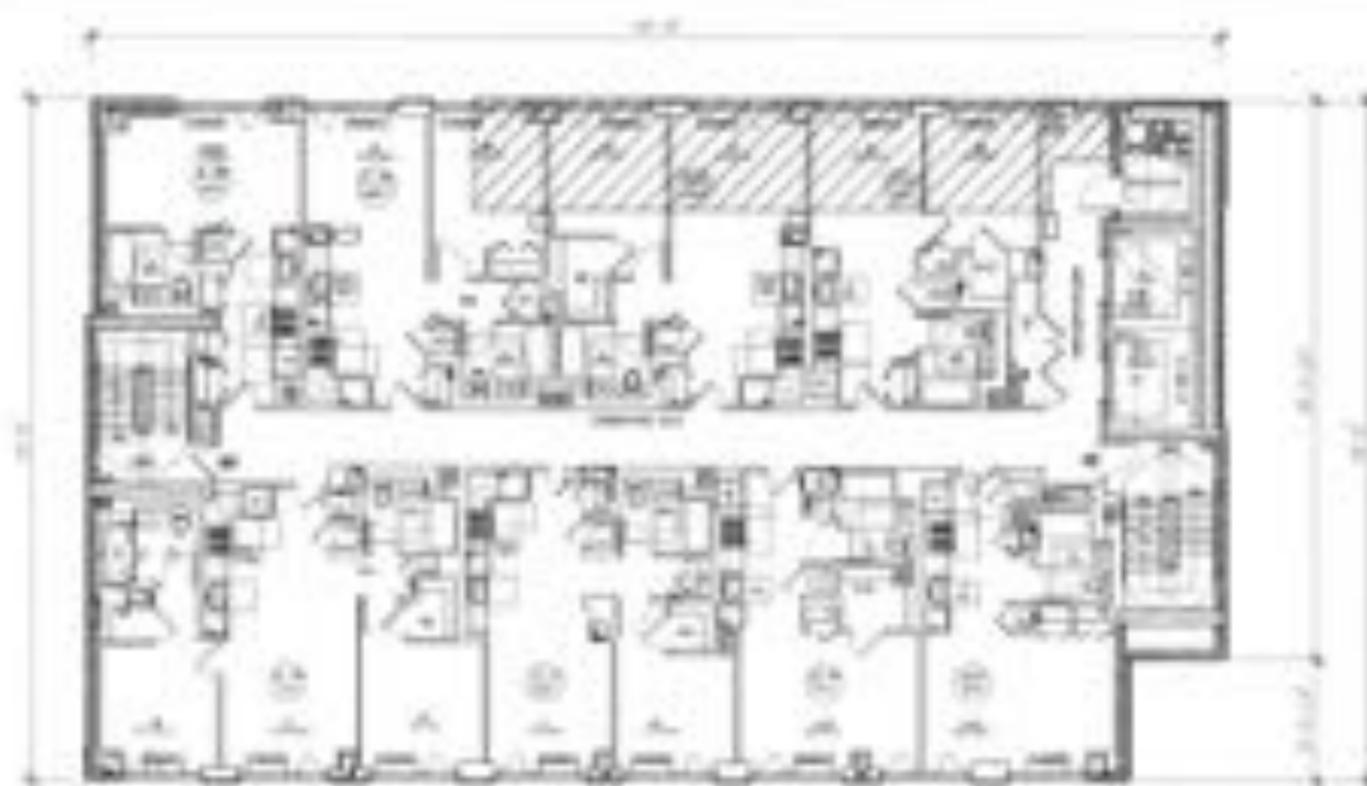
DATE: 01/14/2014

PROJECT: 435 EAST 13TH STREET

CLIENT: [Name]







2ND FLOOR TYPICAL FLOOR

NON-COMPLYING PORCH SUBJECT TO SEA PARADE



3RD FLOOR TYPICAL FLOOR

NON-COMPLYING PORCH SUBJECT TO SEA PARADE

SEE EXHIBIT A FOR FLOOR PLAN OF 1ST FLOOR AT APPROXIMATE SCALE

NON-COMPLYING PORCH SUBJECT TO SEA PARADE



**435 EAST 15TH STREET**

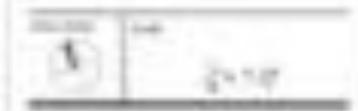
NEW YORK, NY

OWNER:  
East 15th Street Owners LLC  
100 West Street, 10th Floor  
New York, NY 10038

ARCHITECT:  
MCA Architecture  
100 West Street, 10th Floor  
New York, NY 10038

DATE:  
M.C.T. Architects  
100 West Street, 10th Floor  
New York, NY 10038

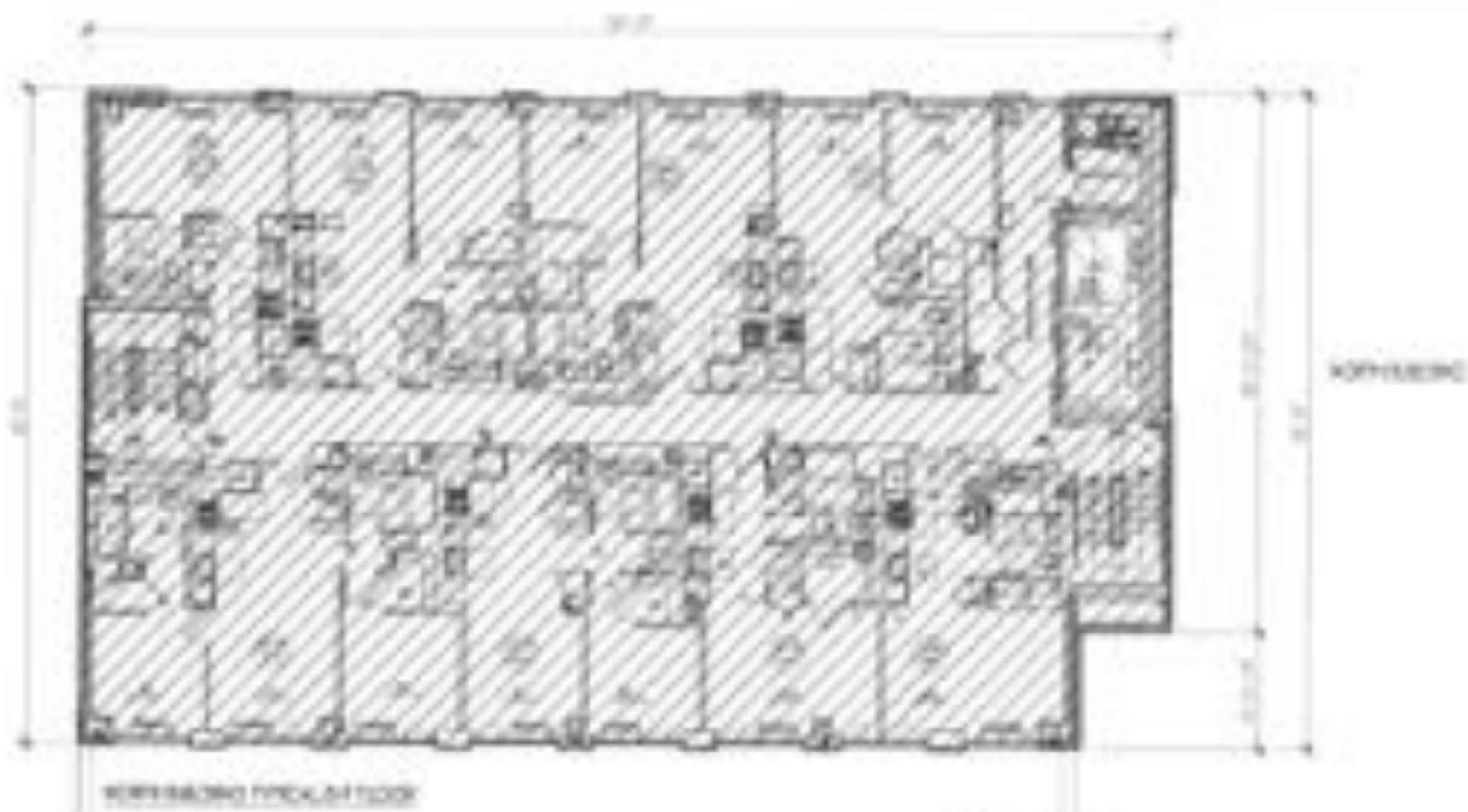
NO.	DESCRIPTION
1	PROPOSED LAYOUT



PROJECT:  
435 EAST 15TH STREET

REVISION NO.  
THIRD FLOOR, NORTH SIDE  
PROPOSED LAYOUT

DATE: 08/11/2011  
SCALE: AS SHOWN  
PROJECT: 435 EAST 15TH STREET  
PROJ. NO.: 1108

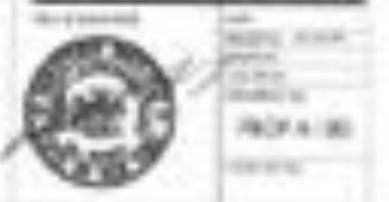


**435 EAST 15TH STREET**  
NEW YORK, NY

DATE: 08/14/2013  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT: [Name]  
 SHEET: [Name]

NO.	DESCRIPTION
1	ICE STORAGE
2	NON-COMPING FLOOR

PROJECT: 435 EAST 15TH STREET  
 DRAWING: THIS PLAN  
 NON-COMPING FLOOR



435 EAST 13TH STREET  
NEW YORK, NY

**East 13th Street Overlook**

APPLICABLE SECTION  
27-09 (2009)

**Owner**  
East 13th Street  
Urban Development Partners  
1300 Broadway  
New York, NY 10018

**Architect**  
MCT Architects

1300 Broadway  
New York, NY 10018

NO.	DATE	DESCRIPTION
1	01/15/10	ISSUED FOR PERMIT
2	02/10/10	REVISED PER PERMITTING AGENCY COMMENTS
3	03/10/10	REVISED PER PERMITTING AGENCY COMMENTS



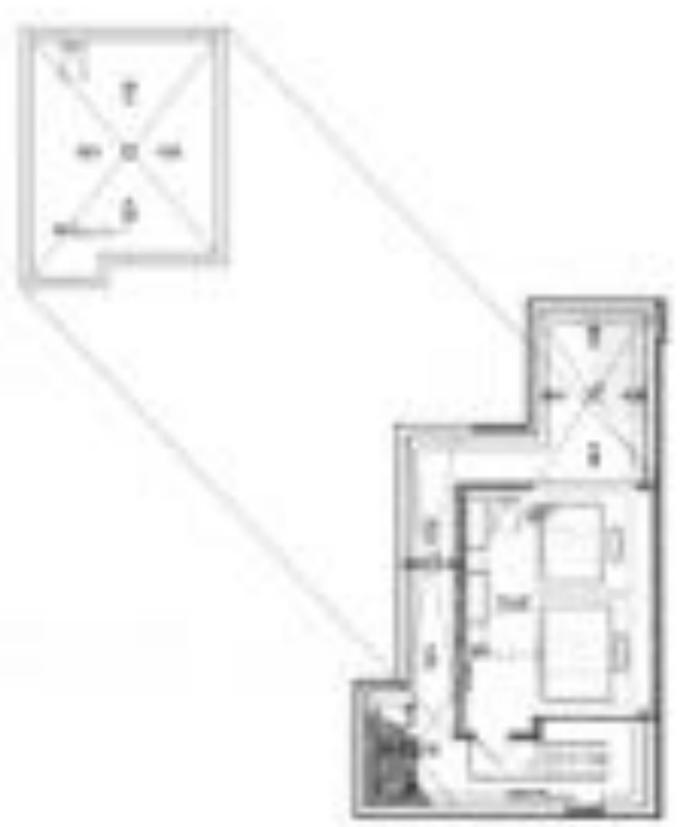
**WEST**  
435 EAST 13TH STREET

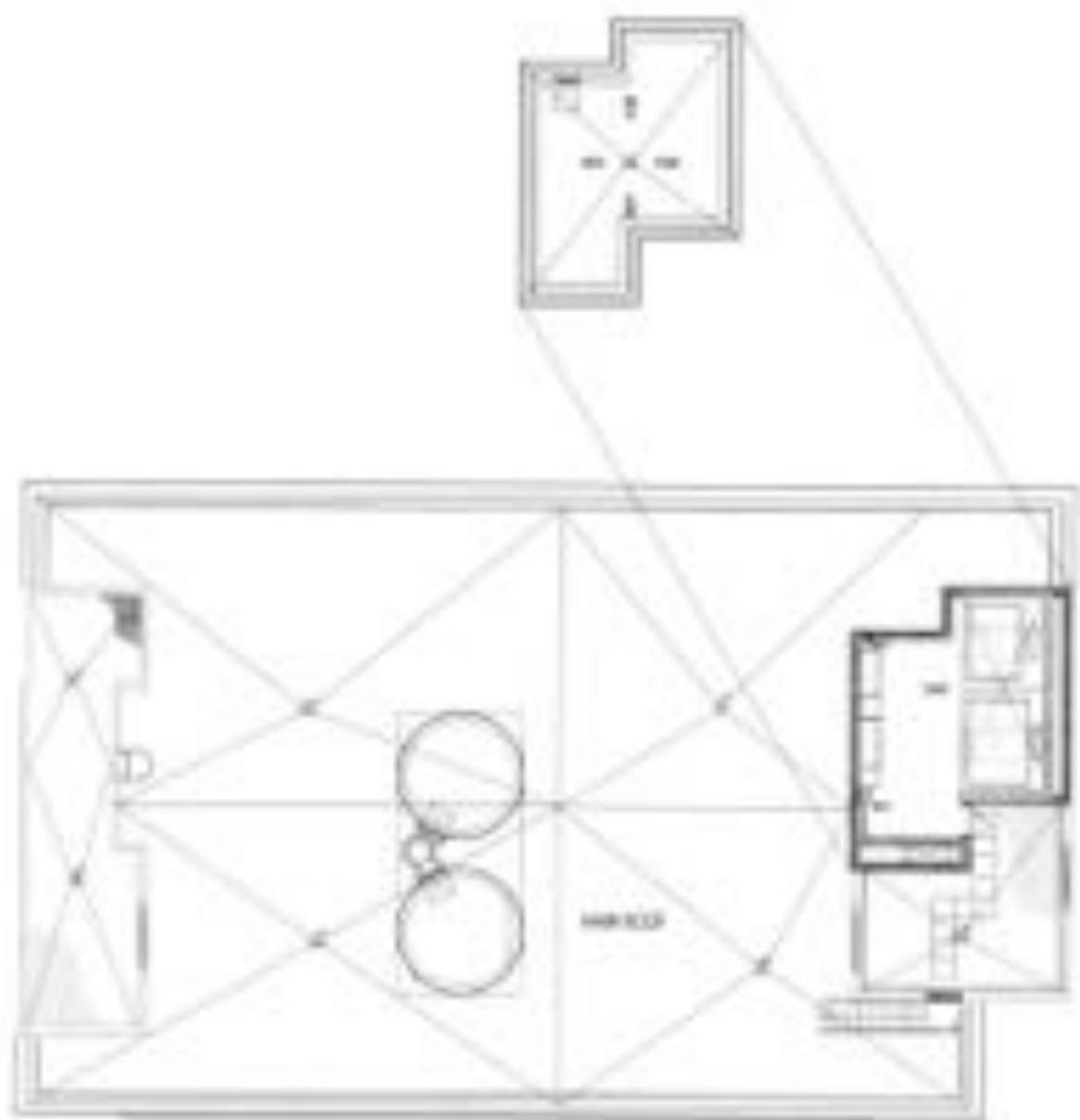
**SOUTH**  
NEW YORK UNIVERSITY  
PERFORMANCE

	DATE: 01/15/10
	SCALE: AS SHOWN
	PROJECT: 435 EAST 13TH STREET
	FILE NO: 10-00000



SECTION





**435 EAST 13TH STREET**

NEW YORK, NY

**Client:**  
 East 14th Street Garage LLC  
 400 Broadway, 10th Floor  
 New York, NY 10038  
 Tel: 212 512 1234

**Architect:**  
 N.Y.C. Architects  
 123 Broadway, 5th Floor  
 New York, NY 10038  
 Tel: 212 512 5678

**Scale:**  
 1/8" = 1'-0"

DATE	NO.
10/15/2023	01
10/15/2023	02
10/15/2023	03
10/15/2023	04

**Scale:** 1/8" = 1'-0"

**435 EAST 13TH STREET**

**ARCHITECT:**  
 N.Y.C. ARCHITECTS  
 123 BROADWAY, 5TH FLOOR  
 NEW YORK, NY 10038

	DATE
	NO.
	10/15/2023
	01

435 EAST 13TH STREET

NEW YORK, NY

DATE: 01/15/2014

PROJECT: East 13th Street Garage LLC

ARCHITECT: [Faint text]

DATE: 01/15/2014

PROJECT: East 13th Street

ARCHITECT: [Faint text]

DATE: 01/15/2014

PROJECT: 435 East 13th Street

ARCHITECT: [Faint text]

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	01/15/2014
2	ISSUED FOR PERMIT	01/15/2014
3	ISSUED FOR PERMIT	01/15/2014
4	ISSUED FOR PERMIT	01/15/2014
5	ISSUED FOR PERMIT	01/15/2014
6	ISSUED FOR PERMIT	01/15/2014
7	ISSUED FOR PERMIT	01/15/2014
8	ISSUED FOR PERMIT	01/15/2014
9	ISSUED FOR PERMIT	01/15/2014
10	ISSUED FOR PERMIT	01/15/2014



PROJECT:

435 EAST 13TH STREET

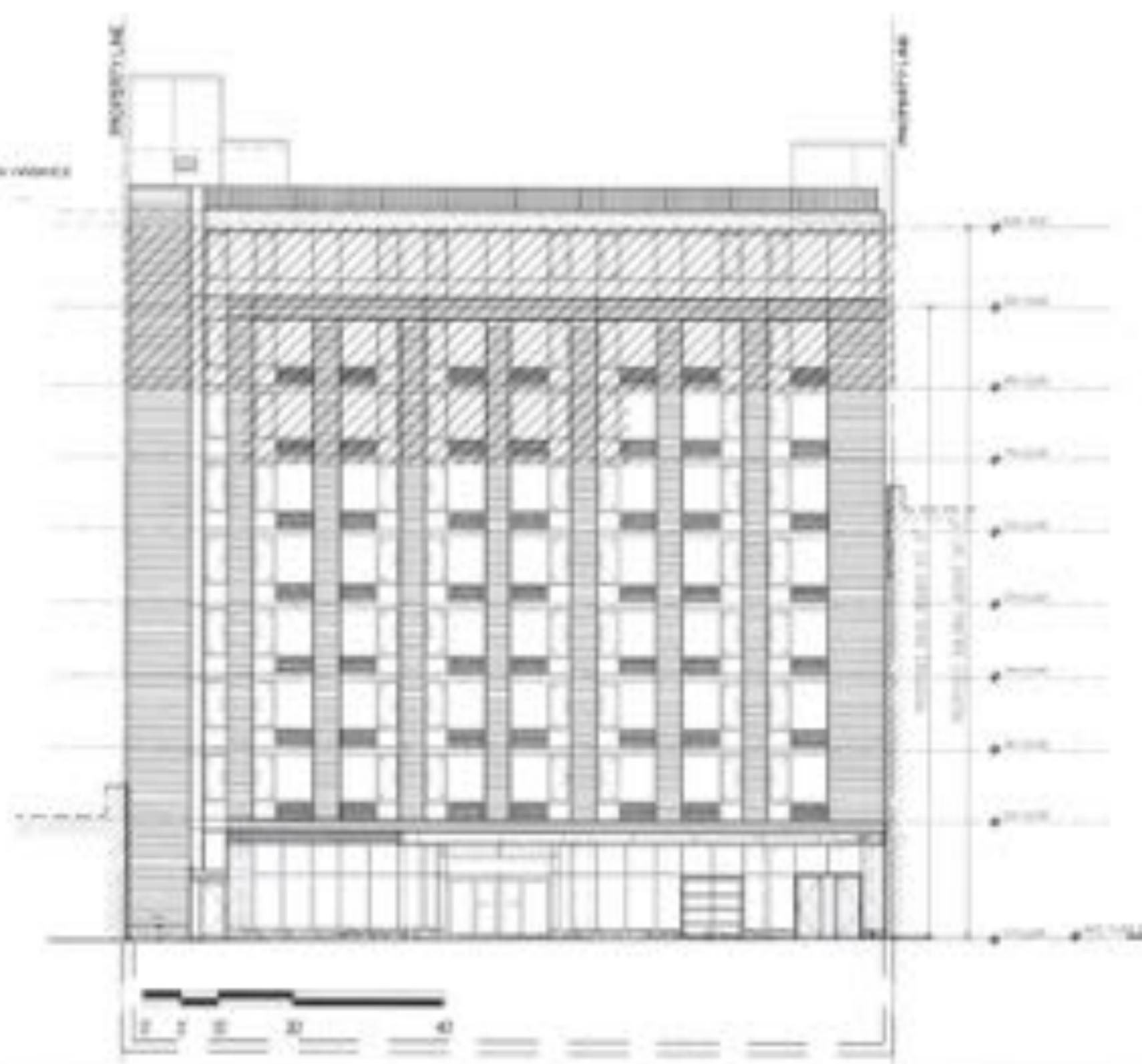
DATE: 01/15/2014

PROJECT: 435 EAST 13TH STREET

DATE: 01/15/2014

DATE: 01/15/2014  
PROJECT: 435 EAST 13TH STREET

NEW CONSTRUCTION SUBJECT TO PERMITS



**435 EAST 13TH STREET**  
NEW YORK, NY

100  
East 14th Street Owner LLC  
2100 13th Street  
New York, NY 10003

100  
NYCE City Records  
1000 1st Ave  
New York, NY 10002



PROJECT  
**435 EAST 13TH STREET**

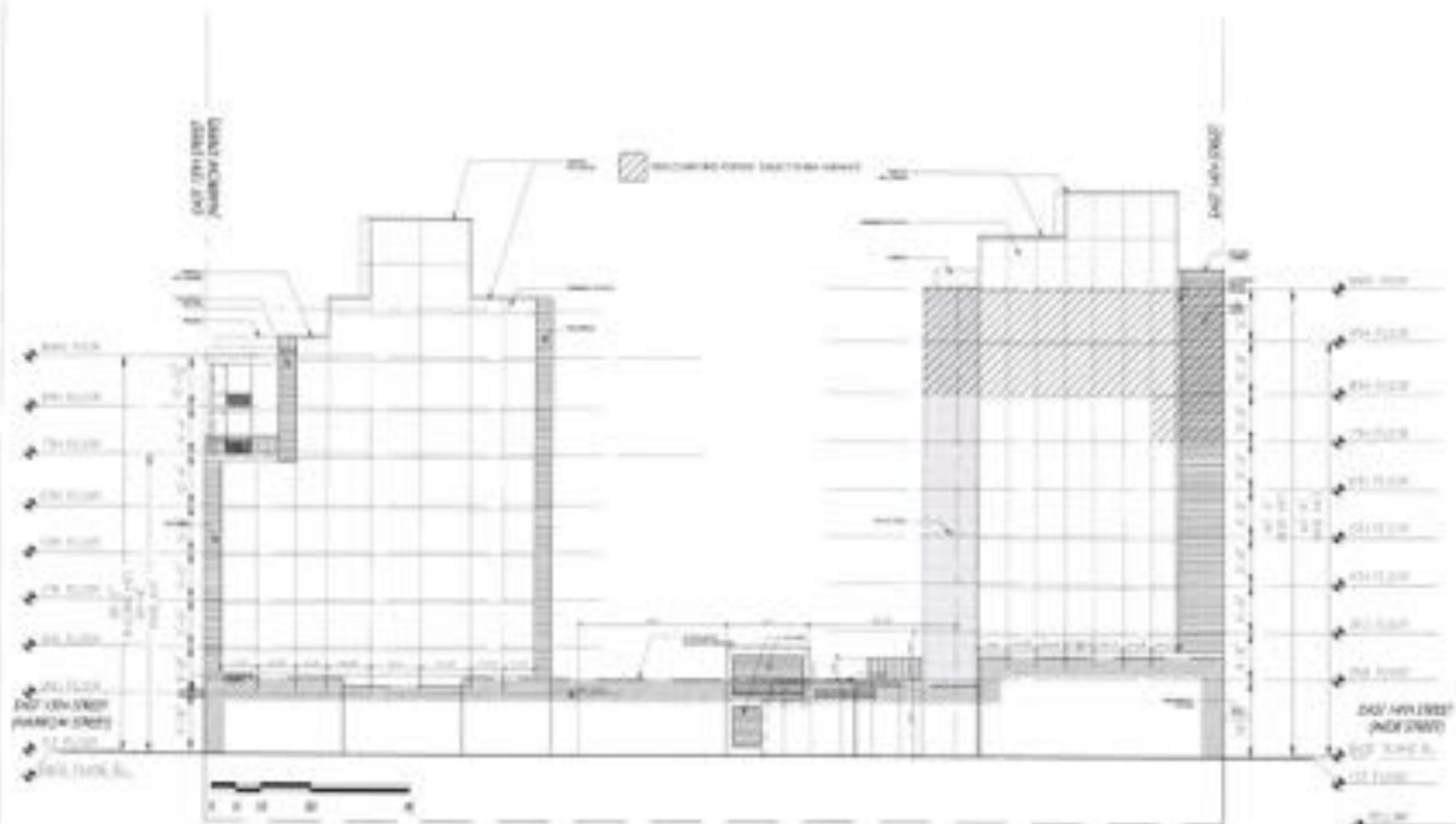
ISSUANCE  
EAST 13TH STREET  
PROPOSED COMPLEX

100  
NYCE City Records  
1000 1st Ave  
New York, NY 10002



**435 EAST 13TH STREET**  
NEW YORK, NY

DATE: 01/15/2014  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT NO: [Number]  
 SHEET NO: [Number]



PROJECT  
**435 EAST 13TH STREET**

OWNER  
 [Name]  
 [Address]

ARCHITECT  
 [Name]  
 LICENSE NO. [Number]

DATE: 01/15/2014  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT NO: [Number]



## City Environmental Quality Review

## ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) SHORT FORM

FOR UNLISTED ACTIONS ONLY • Please fill out and submit to the appropriate agency ([see instructions](#))

## Part I: GENERAL INFORMATION

1. Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?  YES  NO

If "yes," STOP and complete the [FULL EAS FORM](#).

2. Project Name 432 East 14th Street

## 3. Reference Numbers

CEQR REFERENCE NUMBER (to be assigned by lead agency)  
16BSA117M

BSA REFERENCE NUMBER (if applicable)  
2016-4183-BZ

ULURP REFERENCE NUMBER (if applicable)

OTHER REFERENCE NUMBER(S) (if applicable)  
(e.g., legislative intro, CAPA)

## 4a. Lead Agency Information

NAME OF LEAD AGENCY

New York City Board of Standards and Appeals (BSA)

NAME OF LEAD AGENCY CONTACT PERSON

Rory Levy

ADDRESS 250 Broadway, 29th Floor

## 4b. Applicant Information

NAME OF APPLICANT

432 East 14th Street UDP LLC

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON

Darryl Herring

ADDRESS 1776 Broadway, Suite 606

CITY New York

STATE NY

ZIP 10007

CITY New York

STATE NY

ZIP 10019

TELEPHONE (212) 788 8749

EMAIL rlevy@bsa.nyc.gov

TELEPHONE (212) 767  
0960

EMAIL  
dherring@urbandp.com

## 5. Project Description

The proposed project involves the development of a mixed-use residential and commercial building at 432 East 14th Street (Block 441, Lot 23) in Manhattan, Community District 3. The proposed project would contain approximately 149,009 gross square feet of residential use (155 units) and approximately 17,168 gross square feet of retail space on portions of the ground floor and cellar level. The project would utilize approximately 3,970 square feet of air rights from Block 441, Lot 32, which is currently and would continue to be occupied by an 5-story, 7,092 gsf residential building. The applicant is seeking a variance from the New York City Board of Standards and Appeals pursuant to Section 72-21 of the New York City Zoning Resolution (ZR) to waive applicable floor area, height, and setback regulations. Refer to page 1a, "Project Description," for more information.

## Project Location

BOROUGH Manhattan

COMMUNITY DISTRICT(S) 3

STREET ADDRESS 432 E. 14th Street/435 E. 13th Street

TAX BLOCK(S) AND LOT(S) Block 441/Lots 23 and 32

ZIP CODE 10009

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Mid-block site with frontage along E. 13th and E. 14th Streets, between Avenue A and First Avenue

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C1-6A

ZONING SECTIONAL MAP NUMBER 12c

## 6. Required Actions or Approvals (check all that apply)

City Planning Commission:  YES  NO  UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

CITY MAP AMENDMENT

ZONING CERTIFICATION

CONCESSION

ZONING MAP AMENDMENT

ZONING AUTHORIZATION

UDAAP

ZONING TEXT AMENDMENT

ACQUISITION—REAL PROPERTY

REVOCABLE CONSENT

SITE SELECTION—PUBLIC FACILITY

DISPOSITION—REAL PROPERTY

FRANCHISE

HOUSING PLAN & PROJECT

OTHER, explain:

SPECIAL PERMIT (if appropriate, specify type:  modification;  renewal;  other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

Board of Standards and Appeals:  YES  NO

VARIANCE (use)

VARIANCE (bulk)

## 5A. PROJECT DESCRIPTION

The proposed project involves the development of a mixed-use residential and commercial building at 432 East 14th Street/435 East 13th Street (Block 441, Lot 23) in the East Village neighborhood of Manhattan, Community District 3 (the “project site”). The project would utilize approximately 3,970 square feet of air rights from Block 441, Lot 32, which is currently and would continue to be occupied by a 5-story, 7,092 gsf residential building. The proposed project would contain approximately 149,009 gsf of residential use (155 units, including 31 affordable units) and approximately 17,168 gross square feet of retail space on portions of the ground floor and cellar level. The applicant is seeking a bulk variance from the NYC Board of Standards and Appeals (the “BSA”) pursuant to Section 72-21 of the New York City Zoning Resolution (ZR) to waive applicable floor area, height, and setback regulations (the “proposed action”).

The project site is located midblock between East 13th and East 14th streets, between First Avenue and Avenue A. The site is largely vacant and was previously occupied with a one-story former post office building. The building is currently being demolished. With the requested variance, the applicant would construct a mixed-use residential building with frontage along East 13th and East 14th streets. The East 13th Street portion of the building would be eight stories in height, and the East 14th Street portion of the building would be 12 stories in height. The two residential components of the building would be connected at the cellar level. Approximately 17,168 gsf of retail space would occupy the ground floor along East 14th Street as well as part of the cellar level. A common courtyard would occupy the rear of each building. The project site is within a C6-1A zoning district.

To facilitate the proposed project, the applicant is seeking a bulk variance pursuant to Zoning Resolution (ZR) Section 72-21 to waive the floor area requirements of ZR Section 23-145 and the height and setback requirements of ZR Section 35-24. The project site’s C1-6A zoning district (R7A equivalent) has an FAR of 4.0, a maximum street wall height of 65’ and maximum building height of 80’. The proposed project would be developed to an FAR of 5.06, and the East 14th Street portion of the building would rise to a height of 124’ with no setback. The applicant is seeking the requested variance due to high groundwater and poor soil conditions at the site, which require atypical and costlier construction methods. The requested variance is a discretionary approval subject to City Environmental Quality Review (CEQR). The proposed project has a build year of 2018. Absent the proposed action, no development is anticipated to occur on the project site.

### SCREENING ANALYSES

All analyses were performed in accordance with the 2014 *City Environmental Quality Review (CEQR) Technical Manual*.

#### *LAND USE, ZONING, AND PUBLIC POLICY*

See Attachment A.

#### *SOCIOECONOMIC CONDITIONS*

The proposed project would result in 155 dwelling units and approximately 17,168 gsf of retail space, which falls below the *CEQR Technical Manual* thresholds for a preliminary assessment of indirect displacement (200 dwelling units and 200,000 sf of commercial space, respectively). The project site is currently vacant, and the air rights parcel is occupied by a residential building. As the project site is vacant, the proposed project would not directly displace any residents or employees. In addition, the proposed project would not adversely affect a specific industry. Therefore, the proposed project would not result in significant adverse impacts associated with socioeconomic conditions and no further assessment is warranted.

#### *COMMUNITY FACILITIES*

The proposed project would not result in the displacement or physical alteration to any public or publicly-funded community facilities such as schools, libraries, hospitals, child care facilities, fire houses or police precinct houses; therefore, no direct effects to community facilities would occur with the proposed action. According to the *CEQR Technical Manual*, the minimum number of dwelling units to trigger an assessment of indirect effects related to public schools in Manhattan is 310 units for elementary/intermediate schools and 2,492 units for high schools. The *CEQR*

*Technical Manual* threshold for an assessment of publicly-funded day care is 170 units of housing affordable to households at or below 80 percent Area Median Income. The proposed project would result in 155 dwelling units, including 31 affordable units, which falls below CEQR thresholds for assessments of indirect effects associated with public schools and publicly-funded child care. The proposed project would not result in 901 or more dwelling units, which is the number of units which triggers a detailed analysis of libraries in Manhattan. Lastly, the proposed action would not introduce a sizeable new neighborhood; therefore, an assessment of police and fire protection services and emergency health care facilities is not warranted. No significant adverse impacts associated with community facilities would occur.

#### *OPEN SPACE*

See Attachment B.

#### *SHADOWS*

See Attachment C.

#### *HISTORIC AND CULTURAL RESOURCES*

See Attachment D.

#### *URBAN DESIGN AND VISUAL RESOURCES*

See Attachment E.

#### *NATURAL RESOURCES*

The former post office had a building footprint which covered most of the project site except for a paved parking area that covers approximately 1,060 sf of the site. The project site is devoid of natural resources as defined in the CEQR Technical Manual. There are no water or wetland resources; nor are any upland resources which would be affected by the proposed project. According to the Plan of the City of New York (surveyed by Bernard Ratzer in 1766-1767) and the 1865 Viele Map, the project site is at the southern end of streambed and marsh that existed prior to development. The streambed and marsh was filled over time to facilitate construction above. The site is generally covered by manmade fill that overlies soft organic clays to the north of the site, and natural silty sands with silt layers intermixed. The soft organic clays are remnants of the streambed that was filled in prior to development. Groundwater levels at the site were measured at elevation. +7.5 to 8 (NAVD88 Datum) (Mueser Rutledge Consulting Engineers letter dated 2/2/2016). Groundwater in Manhattan is not used as a source of drinking water, and groundwater is not proposed for use (potable or otherwise) by the proposed project. The presence of the remnants of the former streambed (the soft organic clays and the high groundwater level) on site would require additional, deep foundations and the construction of a cut-off wall along the property lines adjacent to existing structures to minimize the extent of influence of the dewatering which would be needed for construction of the proposed project. Dewatering during construction would be conducted in accordance with DEP regulations governing the discharge of surface waters to the City's combined sewer system. Therefore, the proposed project would not result in significant adverse impacts related to natural resources and no further assessment is warranted.

#### *HAZARDOUS MATERIALS*

See Attachment F.

#### *WATER AND SEWER INFRASTRUCTURE*

The proposed project would not result in an exceptionally large demand for water (e.g., those that are projected to use more than one million gallons per day such as power plants, very large cooling systems, or large developments); nor would it be located in an area that experiences low water pressure (e.g. areas at the end of the water supply distribution system such as the Rockaway Peninsula and Coney Island). Therefore, the proposed project would not result in significant adverse impacts to water infrastructure and further assessment is not warranted. The project site is located in a combined sewer area and the development expected as a result of the proposed action would fall below 1,000 residential units or 250,000 sq. ft. of commercial, public facility, and institution and/or community facility space, which is the CEQR threshold for analysis for a projects in Manhattan; therefore, significant adverse impacts

associated with the city's wastewater and stormwater conveyance and treatment infrastructure would not occur, and further assessment is not warranted.

#### *SOLID WASTE AND SANITATION SERVICES*

A solid waste assessment determines whether a project has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or otherwise be inconsistent with the New York City Solid Waste Management Plan or with state policy related to the City's integrated solid waste management system. The city's solid waste system includes waste minimization at the point of generation, collection, treatment, recycling, composting, transfer, processing, energy recovery, and disposal. The New York City Department of Sanitation collects solid waste generated by residences and community facilities. Commercial and industrial establishments in the city contract with private carters for collection and processing and/or disposal of various kinds of solid waste. According to the *CEQR Technical Manual*, projects which have the potential to generate 100,000 pounds (or 50 tons) per week or more may require further analysis. As indicated in Part II: Technical Analysis, item 11 of the CEQR Short Form, the proposed project's projected operational solid waste generation is estimated to be approximately 8,488 pounds per week. Therefore, the proposed project is not expected to result in significant adverse impact to solid waste and sanitation services, and further assessment is not warranted.

#### *ENERGY*

According to the *CEQR Technical Manual*, significant adverse energy impacts are not anticipated for the great majority of projects analyzed under CEQR. The incremental demand caused by most projects results in incremental supply, and consequently, an individual project's energy consumption often would not create a significant impact on energy supply. Consequently, a detailed assessment of energy impacts would be limited to projects that may significantly affect the transmission or generation of energy. However, it is recommended that the projected amount of energy consumption during long-term operation be disclosed in the environmental assessment. As indicated in Part II: Technical Analysis, item 12 of the CEQR Short Form, the proposed project's energy use is estimated to be 166,627,802 annual BTUs.

#### *TRANSPORTATION*

See Attachment G.

#### *AIR QUALITY*

See Attachment H.

#### *NOISE*

See Attachment I.

#### *NEIGHBORHOOD CHARACTER*

Under CEQR, a neighborhood character assessment considers how elements of the environment combine to create the context and feeling of a neighborhood and how a project may affect that context and feeling. In order to determine a project's effects on neighborhood character, the elements that contribute to a neighborhood's context and feeling are considered together. These elements include: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise. According to the *CEQR Technical Manual*, an assessment of neighborhood character is generally needed when a proposed project has the potential to result in significant adverse impacts in any of the technical areas presented above or when a project may have moderate effects on several of the elements that define a neighborhood's character. As indicated throughout this EAS, the proposed project would not result in significant adverse impacts in any of the elements that define neighborhood character; therefore, the proposed project would not result in significant adverse impacts on neighborhood character.

#### *CONSTRUCTION*

The construction activities associated with the development of the proposed project would be expected to result in conditions typical of construction sites in Manhattan. Construction of the proposed project would occur over a period of approximately 22 months. During this time, construction activities for the proposed project would normally take

place Monday through Friday, although the delivery or installation of certain critical equipment could occur on weekend days. The permitted hours of construction are regulated by the New York City Department of Buildings (DOB) and apply to all areas of the City. In accordance with those regulations, work would begin at 7:00 AM on weekdays, although some workers would arrive and begin to prepare work areas between 6:00 AM and 7:00 AM. Weekend work may also be required. Appropriate permits from the Department of Buildings (DOB) would be obtained for any necessary work outside of normal construction hours (i.e., weekend work), and no work outside of normal construction hours could be performed until such permits are obtained. A Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) for the project have been approved by DEP and will be implemented during subsurface disturbance (see Attachment F, “Hazardous Materials”).

Maintenance and Protection of Traffic (MPT) plans would be developed for any temporary curb-lane and sidewalk closures. Approval of these plans and implementation of the closures would be coordinated with the New York City Department of Transportation (DOT)’s Office of Construction Mitigation and Coordination (OCMC). In addition, all DOB safety requirements would be followed and construction of the proposed project would be conducted with care so as to minimize the disruption to the community.

Potential impacts on community noise levels during construction could result from the operation of construction equipment and from construction and delivery vehicles traveling to and from the project site. As discussed above, construction of the proposed project would be typical of construction in Manhattan and would occur over a period of approximately 22 months, which is considered short-term according to the *CEQR Technical Manual*. The construction of the proposed project would comply with applicable control measures for construction noise. Construction noise is regulated by the New York City Noise Control Code and by the Environmental Protection Agency noise emission standards for construction equipment. These federal and local requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards. Except under exceptional circumstances, construction activities must be limited to weekdays between the hours of 7:00 AM and 6:00 PM. Construction material must also be handled and transported in such a manner as to not create unnecessary noise. Therefore, based on the limited duration and typical intensity of construction activities associated with the proposed project and adherence to the *New York City Noise Control Code* to minimize noise disruption, no significant adverse noise impacts are expected to occur as a result of the construction.

As discussed above, construction of the proposed project would be typical of construction in Manhattan and would occur over a period of approximately 22 months, which is considered short-term according to the *CEQR Technical Manual*. Furthermore, the most intense construction activities in terms of air pollutant emissions—demolition, excavation, and foundation work, during which a number of large non-road diesel engines would be employed—would last for only a portion of this duration. During construction of the proposed project, all necessary measures would be implemented to ensure adherence to the New York City Air Pollution Control Code to minimize construction-related dust emissions. Therefore, based on the limited duration and typical intensity of construction activities associated with the proposed project and the adherence to the New York City Air Pollution Control to minimize dust emissions, no significant adverse noise impacts are expected to occur as a result of the construction.

Therefore, the development of the proposed project would not have significant adverse construction impacts.

SPECIAL PERMIT (if appropriate, specify type:  modification;  renewal;  other); EXPIRATION DATE:  
 SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Variance pursuant to ZR Section 72-21, to waive the floor area requirements of ZR Section 23-145 and height and setback requirements of ZR Section 35-24

**Department of Environmental Protection:**  YES  NO If "yes," specify:

**Other City Approvals Subject to CEQR** (check all that apply)

<input type="checkbox"/> LEGISLATION	<input type="checkbox"/> FUNDING OF CONSTRUCTION, specify:
<input type="checkbox"/> RULEMAKING	<input type="checkbox"/> POLICY OR PLAN, specify:
<input type="checkbox"/> CONSTRUCTION OF PUBLIC FACILITIES	<input type="checkbox"/> FUNDING OF PROGRAMS, specify:
<input type="checkbox"/> 384(b)(4) APPROVAL	<input type="checkbox"/> PERMITS, specify:
<input type="checkbox"/> OTHER, explain:	

**Other City Approvals Not Subject to CEQR** (check all that apply)

<input type="checkbox"/> PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)	<input type="checkbox"/> LANDMARKS PRESERVATION COMMISSION APPROVAL
	<input type="checkbox"/> OTHER, explain:

**State or Federal Actions/Approvals/Funding:**  YES  NO If "yes," specify: NYS Housing Finance Agency's 80/20 Housing Program

**7. Site Description:** The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.

**Graphics:** The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.

<input checked="" type="checkbox"/> SITE LOCATION MAP	<input checked="" type="checkbox"/> ZONING MAP	<input checked="" type="checkbox"/> SANBORN OR OTHER LAND USE MAP
<input checked="" type="checkbox"/> TAX MAP	<input type="checkbox"/> FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)	
<input checked="" type="checkbox"/> PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP		

**Physical Setting** (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 23,540 sf Waterbody area (sq. ft) and type:  
 Roads, buildings, and other paved surfaces (sq. ft.): 23,540 sf Other, describe (sq. ft.):

**8. Physical Dimensions and Scale of Project** (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 166,177 gsf

NUMBER OF BUILDINGS: 1 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 166,177 gsf

HEIGHT OF EACH BUILDING (ft.): 124' along E. 14th St. and 80' along E. 13th St. NUMBER OF STORIES OF EACH BUILDING: 12 stories along E. 14th St. and 8 stories along E. 13th St.

Does the proposed project involve changes in zoning on one or more sites?  YES  NO

If "yes," specify: The total square feet owned or controlled by the applicant:  
 The total square feet not owned or controlled by the applicant:

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading?  YES  NO

If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):

AREA OF TEMPORARY DISTURBANCE: TBD sq. ft. (width x length) VOLUME OF DISTURBANCE: 432,000 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: TBD sq. ft. (width x length)

**Description of Proposed Uses** (please complete the following information as appropriate)

	<b>Residential</b>	<b>Commercial</b>	<b>Community Facility</b>	<b>Industrial/Manufacturing</b>
<b>Size</b> (in gross sq. ft.)	149,009 gsf	17,168 gsf	NA	NA
<b>Type</b> (e.g., retail, office, school)	155 units	retail	NA	NA

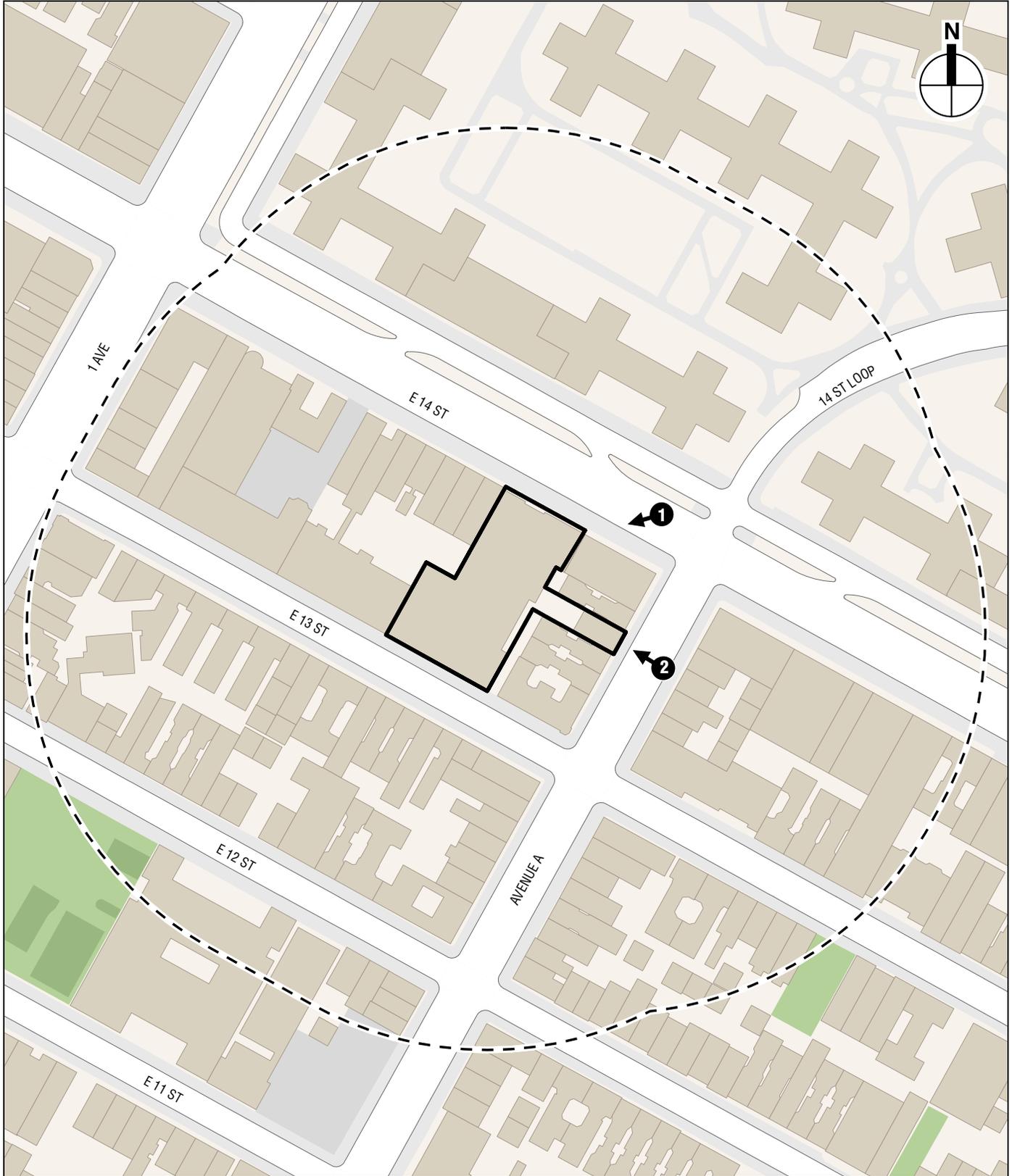
Does the proposed project increase the population of residents and/or on-site workers?  YES  NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 389 NUMBER OF ADDITIONAL WORKERS: 58

Provide a brief explanation of how these numbers were determined: Sources: U. S. Census Bureau, 2010-2014 American Community Survey, average household size for census tract X; three employees per 1,000 sf of retail space and one employee per 25 dwelling units (East New York Rezoning DEIS)

Does the proposed project create new open space? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		If "yes," specify size of project-created open space: _____ sq. ft.	
Has a No-Action scenario been defined for this project that differs from the existing condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		If "yes," see <a href="#">Chapter 2</a> , "Establishing the Analysis Framework" and describe briefly:	
<b>9. Analysis Year</b> <a href="#">CEQR Technical Manual Chapter 2</a>			
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2018			
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 22 months			
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		IF MULTIPLE PHASES, HOW MANY?	
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:			
<b>10. Predominant Land Use in the Vicinity of the Project</b> (check all that apply)			
<input checked="" type="checkbox"/> RESIDENTIAL	<input type="checkbox"/> MANUFACTURING	<input checked="" type="checkbox"/> COMMERCIAL	<input type="checkbox"/> PARK/FOREST/OPEN SPACE <input checked="" type="checkbox"/> OTHER, specify: vacant

3/1/2016



 Project Site

 Study Area (400-Foot Boundary)

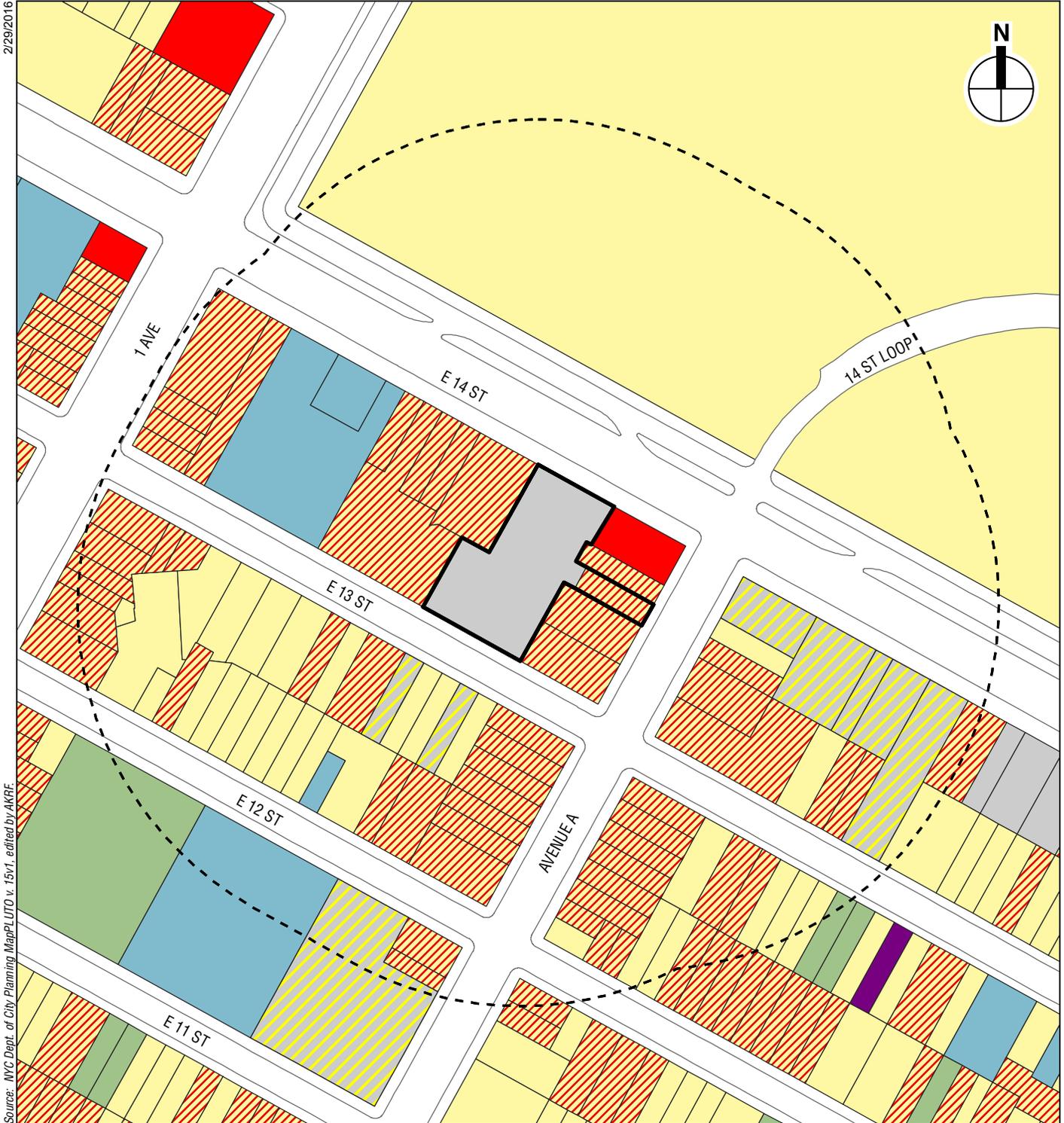
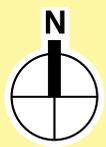
 Photograph View Direction and Reference Number

0 200 FEET  


**432 EAST 14TH STREET**

Project Location Map  
**Figure 1**

2/29/2016

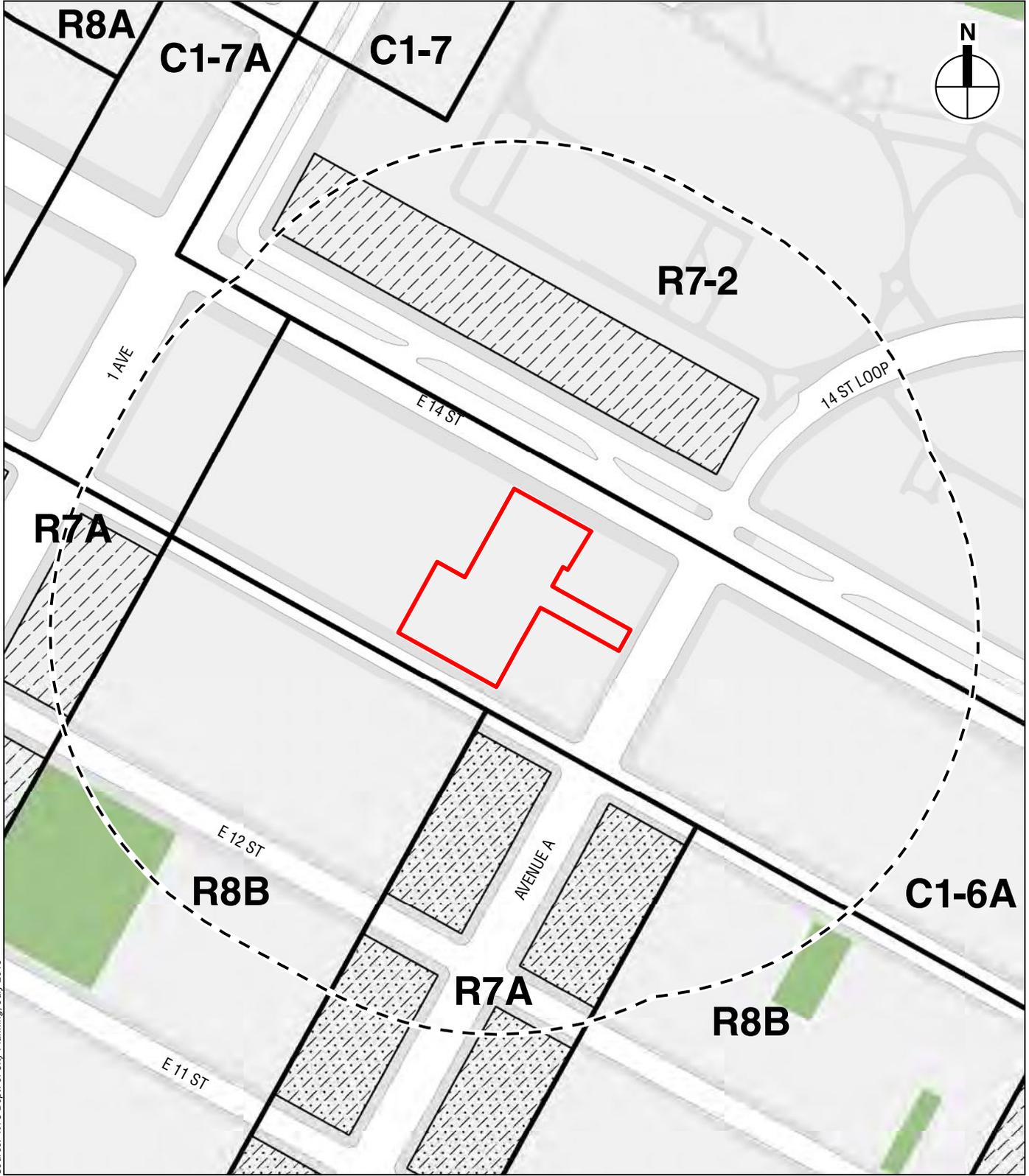


Source: NYC Dept. of City Planning MapPLUTO v. 15v1, edited by AKRF.

-  Project Site
-  Study Area (400-foot boundary)
-  Commercial and Office Buildings
-  Industrial and Manufacturing
-  Open Space and Outdoor Recreation
-  Public Facilities and Institutions
-  Residential
-  Residential with Commercial Below
-  Vacant Land
-  Under Construction

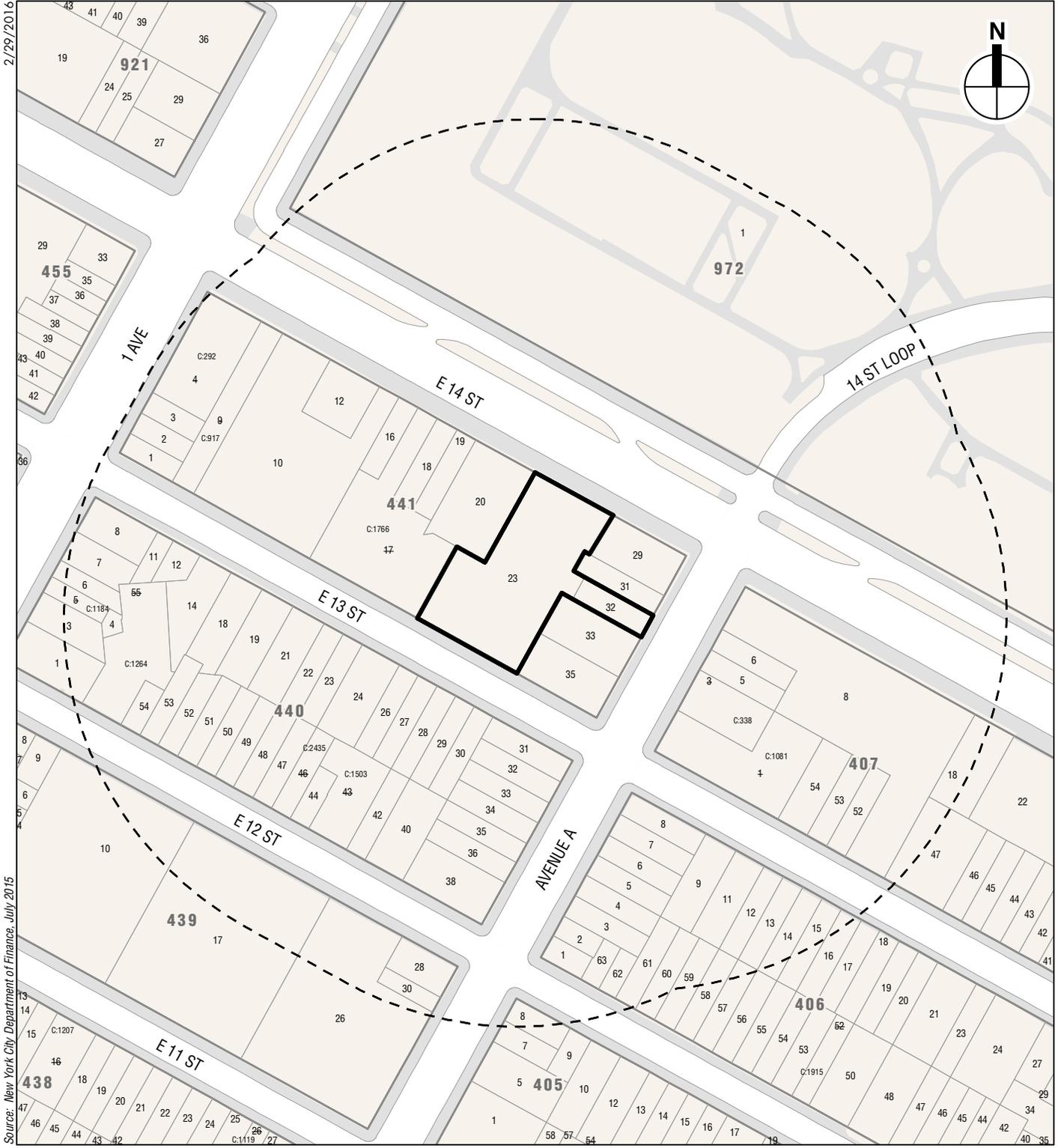


5/2/2016



Source: NYC Dept. of City Planning, July 2015





2/29/2016



Source: New York City Department of Finance, July, 2015

-  Project Site
-  Study Area (400-foot boundary)
-  Tax Block Boundary
-  Tax Lot Boundary

- 33 Tax Lot Number
- 33 Condo Tax Lot Number
- C: 40 Condo Flag/Condo Number
-  Easement
-  Possession Hooks

0 200 FEET

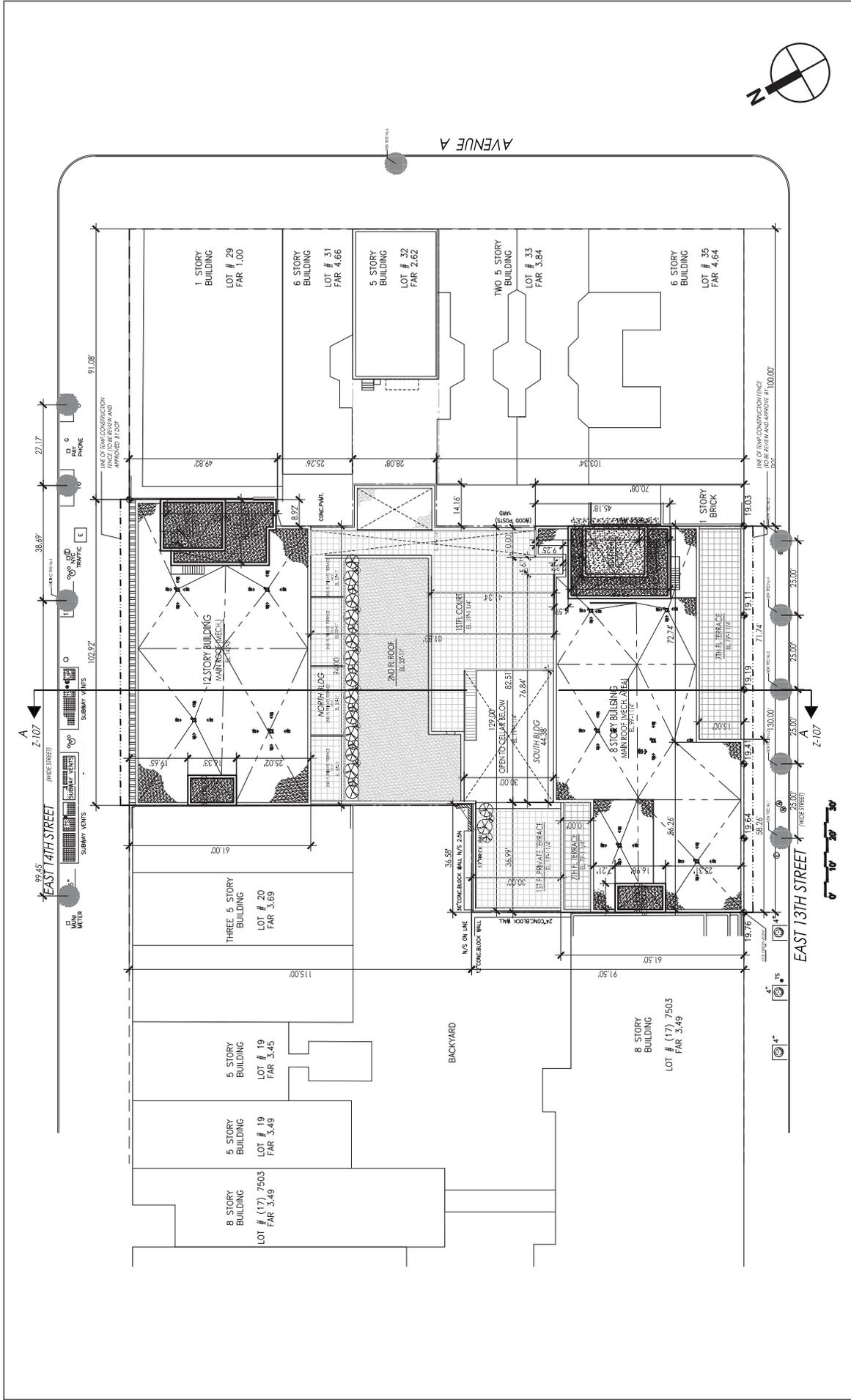




Project site, view from East 14th Street 1



Air rights parcel, view from Avenue A 2



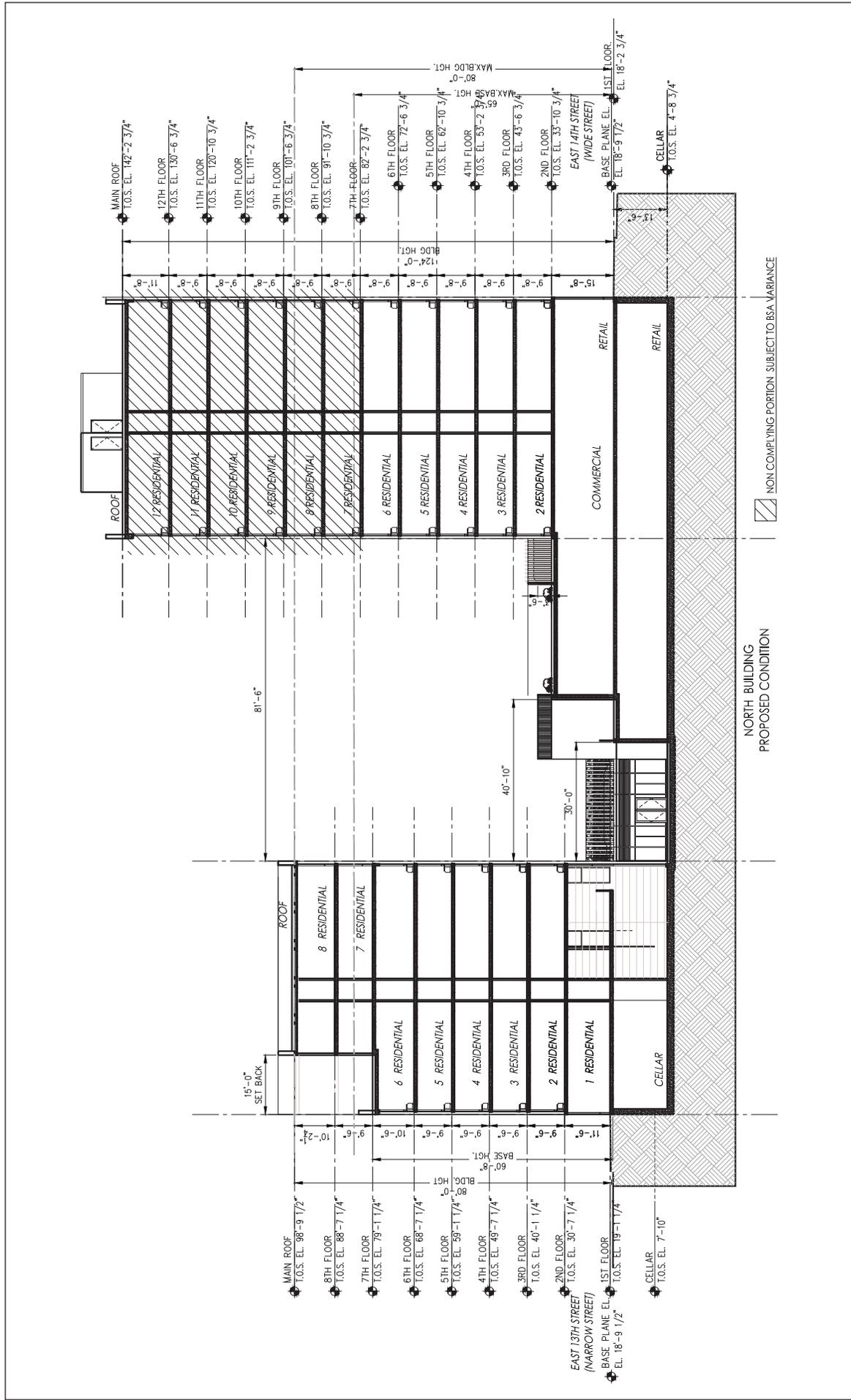
Proposed Site Plan  
Figure 6



Illustrative Rendering  
East 14th Street Façade of Proposed Building  
**Figure 7**



Illustrative Elevation, East 13th Street  
**Figure 8**



Section of Proposed Building  
Figure 9

**Part II: TECHNICAL ANALYSIS**

**INSTRUCTIONS:** For each of the analysis categories listed in this section, assess the proposed project’s impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the “no” box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the “yes” box.
- For each “yes” response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a “yes” answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Short EAS Form. For example, if a question is answered “no,” an agency may request a short explanation for this response.

	YES	NO
<b>1. LAND USE, ZONING, AND PUBLIC POLICY:</b> <a href="#">CEQR Technical Manual Chapter 4</a>		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Is there the potential to affect an applicable public policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) If “yes,” to (a), (b), and/or (c), complete a preliminary assessment and attach. See Attachment A.		
(e) Is the project a large, publicly sponsored project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If “yes,” complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City’s <a href="#">Waterfront Revitalization Program boundaries</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If “yes,” complete the <a href="#">Consistency Assessment Form</a> .		
<b>2. SOCIOECONOMIC CONDITIONS:</b> <a href="#">CEQR Technical Manual Chapter 5</a>		
(a) Would the proposed project:		
o Generate a net increase of 200 or more residential units?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Generate a net increase of 200,000 or more square feet of commercial space?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Directly displace more than 500 residents?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Directly displace more than 100 employees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Affect conditions in a specific industry?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>3. COMMUNITY FACILITIES:</b> <a href="#">CEQR Technical Manual Chapter 6</a>		
(a) Direct Effects		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Indirect Effects		
o <b>Child Care Centers:</b> Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o <b>Libraries:</b> Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o <b>Public Schools:</b> Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o <b>Health Care Facilities and Fire/Police Protection:</b> Would the project result in the introduction of a sizeable new neighborhood?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>4. OPEN SPACE:</b> <a href="#">CEQR Technical Manual Chapter 7</a>		
(a) Would the proposed project change or eliminate existing open space?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Is the project located within an under-served area in the <a href="#">Bronx</a> , <a href="#">Brooklyn</a> , <a href="#">Manhattan</a> , <a href="#">Queens</a> , or <a href="#">Staten Island</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If “yes,” would the proposed project generate more than 50 additional residents or 125 additional employees?	<input type="checkbox"/>	<input type="checkbox"/>
(c) Is the project located within a well-served area in the <a href="#">Bronx</a> , <a href="#">Brooklyn</a> , <a href="#">Manhattan</a> , <a href="#">Queens</a> , or <a href="#">Staten Island</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If “yes,” would the proposed project generate more than 350 additional residents or 750 additional employees?	<input type="checkbox"/>	<input type="checkbox"/>
(d) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	YES	NO
<b>5. SHADOWS:</b> <a href="#">CEQR Technical Manual Chapter 8</a>		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6. HISTORIC AND CULTURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 9</a>		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the <a href="#">GIS System for Archaeology and National Register</a> to confirm)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources.		
<b>7. URBAN DESIGN AND VISUAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 10</a>		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>8. NATURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 11</a>		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of <a href="#">Chapter 11</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the <a href="#">Jamaica Bay Watershed</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," complete the <a href="#">Jamaica Bay Watershed Form</a> , and submit according to its <a href="#">instructions</a> .		
<b>9. HAZARDOUS MATERIALS:</b> <a href="#">CEQR Technical Manual Chapter 12</a>		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in <a href="#">Appendix 1</a> (including nonconforming uses)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (e.g., gas stations, oil storage facilities, heating oil storage)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Has a Phase I Environmental Site Assessment been performed for the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Attachment F	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>10. WATER AND SEWER INFRASTRUCTURE:</b> <a href="#">CEQR Technical Manual Chapter 13</a>		
(a) Would the project result in water demand of more than one million gallons per day?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If the proposed project located in a <a href="#">separately sewered area</a> , would it result in the same or greater development than the amounts listed in Table 13-1 in <a href="#">Chapter 13</a> ?	<input type="checkbox"/>	<input type="checkbox"/>
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) If the project is located within the <a href="#">Jamaica Bay Watershed</a> or in certain <a href="#">specific drainage areas</a> , including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	<input type="checkbox"/>	<input type="checkbox"/>

	YES	NO
(f) Would the proposed project be located in an area that is partially sewerred or currently unsewerred?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>11. SOLID WASTE AND SANITATION SERVICES:</b> <a href="#">CEQR Technical Manual Chapter 14</a>		
(a) Using Table 14-1 in <a href="#">Chapter 14</a> , the project's projected operational solid waste generation is estimated to be (pounds per week): 8,488		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>12. ENERGY:</b> <a href="#">CEQR Technical Manual Chapter 15</a>		
(a) Using energy modeling or Table 15-1 in <a href="#">Chapter 15</a> , the project's projected energy use is estimated to be (annual BTUs): 166,627,802		
(b) Would the proposed project affect the transmission or generation of energy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>13. TRANSPORTATION:</b> <a href="#">CEQR Technical Manual Chapter 16</a>		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in <a href="#">Chapter 16</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? <i>**It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of <a href="#">Chapter 16</a> for more information.</i>	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	<input type="checkbox"/>	<input type="checkbox"/>
<b>14. AIR QUALITY:</b> <a href="#">CEQR Technical Manual Chapter 17</a>		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in <a href="#">Chapter 17</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in <a href="#">Chapter 17</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in <a href="#">Chapter 17</a> ? (Attach graph as needed) See page 5a	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Does the proposed project involve multiple buildings on the project site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>15. GREENHOUSE GAS EMISSIONS:</b> <a href="#">CEQR Technical Manual Chapter 18</a>		
(a) Is the proposed project a city capital project or a power generation plant?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project fundamentally change the City's solid waste management system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in <a href="#">Chapter 18</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>16. NOISE:</b> <a href="#">CEQR Technical Manual Chapter 19</a>		
(a) Would the proposed project generate or reroute vehicular traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project introduce new or additional receptors (see Section 124 in <a href="#">Chapter 19</a> ) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17. PUBLIC HEALTH:</b> <a href="#">CEQR Technical Manual Chapter 20</a>		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality;	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	YES	NO
Hazardous Materials; Noise?		
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in <u>Chapter 20</u> , "Public Health." Attach a preliminary analysis, if necessary. The proposed project would not result in any unmitigated impacts associated with hazardous materials, noise, or air quality; therefore a public health assessment is not warranted.		
<b>18. NEIGHBORHOOD CHARACTER:</b> <u>CEQR Technical Manual Chapter 21</u>		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in <u>Chapter 21</u> , "Neighborhood Character." Attach a preliminary analysis, if necessary. As discussed in the EAS, the proposed project would not result in significant adverse impacts in any of the technical areas referenced above in item 18(a).		
<b>19. CONSTRUCTION:</b> <u>CEQR Technical Manual Chapter 22</u>		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o The operation of several pieces of diesel equipment in a single location at peak construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Closure of a community facility or disruption in its services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Activities within 400 feet of a historic or cultural resource?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Disturbance of a site containing or adjacent to a site containing natural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in <u>Chapter 22</u> , "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		
Construction activities would not occur for longer than two years and construction effects would be typical of projects located in New York City.		
<b>20. APPLICANT'S CERTIFICATION</b>		
I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.		
Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.		
APPLICANT/REPRESENTATIVE NAME	DATE	
Eo. 14 <sup>th</sup> Street Development LLC; Richard Machida	9/30/16	
SIGNATURE	Authorised Signatory	
PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.		

**Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)**

**INSTRUCTIONS:** In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive Order 91 or 1977, as amended), which contain the State and City criteria for determining significance.

1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

IMPACT CATEGORY	Potentially Significant Adverse Impact	
	YES	NO
Land Use, Zoning, and Public Policy	<input type="checkbox"/>	<input type="checkbox"/>
Socioeconomic Conditions	<input type="checkbox"/>	<input type="checkbox"/>
Community Facilities and Services	<input type="checkbox"/>	<input type="checkbox"/>
Open Space	<input type="checkbox"/>	<input type="checkbox"/>
Shadows	<input type="checkbox"/>	<input type="checkbox"/>
Historic and Cultural Resources	<input type="checkbox"/>	<input type="checkbox"/>
Urban Design/Visual Resources	<input type="checkbox"/>	<input type="checkbox"/>
Natural Resources	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous Materials	<input type="checkbox"/>	<input type="checkbox"/>
Water and Sewer Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>
Solid Waste and Sanitation Services	<input type="checkbox"/>	<input type="checkbox"/>
Energy	<input type="checkbox"/>	<input type="checkbox"/>
Transportation	<input type="checkbox"/>	<input type="checkbox"/>
Air Quality	<input type="checkbox"/>	<input type="checkbox"/>
Greenhouse Gas Emissions	<input type="checkbox"/>	<input type="checkbox"/>
Noise	<input type="checkbox"/>	<input type="checkbox"/>
Public Health	<input type="checkbox"/>	<input type="checkbox"/>
Neighborhood Character	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input type="checkbox"/>	<input type="checkbox"/>

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials?

If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.

3. Check determination to be issued by the lead agency:

**Positive Declaration:** If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).

**Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.

**Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see [template](#)) or using the embedded Negative Declaration on the next page.

**4. LEAD AGENCY'S CERTIFICATION**

TITLE	LEAD AGENCY
NAME	DATE
SIGNATURE	

**NEGATIVE DECLARATION (Use of this form is optional)****Statement of No Significant Effect**

Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6 NYCRR, Part 617, State Environmental Quality Review, \_\_\_\_\_ assumed the role of lead agency for the environmental review of the proposed project. Based on a review of information about the project contained in this environmental assessment statement and any attachments hereto, which are incorporated by reference herein, the lead agency has determined that the proposed project would not have a significant adverse impact on the environment.

**Reasons Supporting this Determination**

The above determination is based on information contained in this EAS, which finds that the proposed project:

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA).

TITLE	LEAD AGENCY
NAME	DATE
SIGNATURE	

## **A. INTRODUCTION**

Under the 2014 *City Environmental Quality Review (CEQR) Technical Manual* guidelines, a land use analysis evaluated the uses and development trends in the area that may be affected by a project, and determines whether that project is compatible with those conditions or may affect them. The analysis also considers the project's compliance with, and effect on, the area's zoning and other applicable public policies.

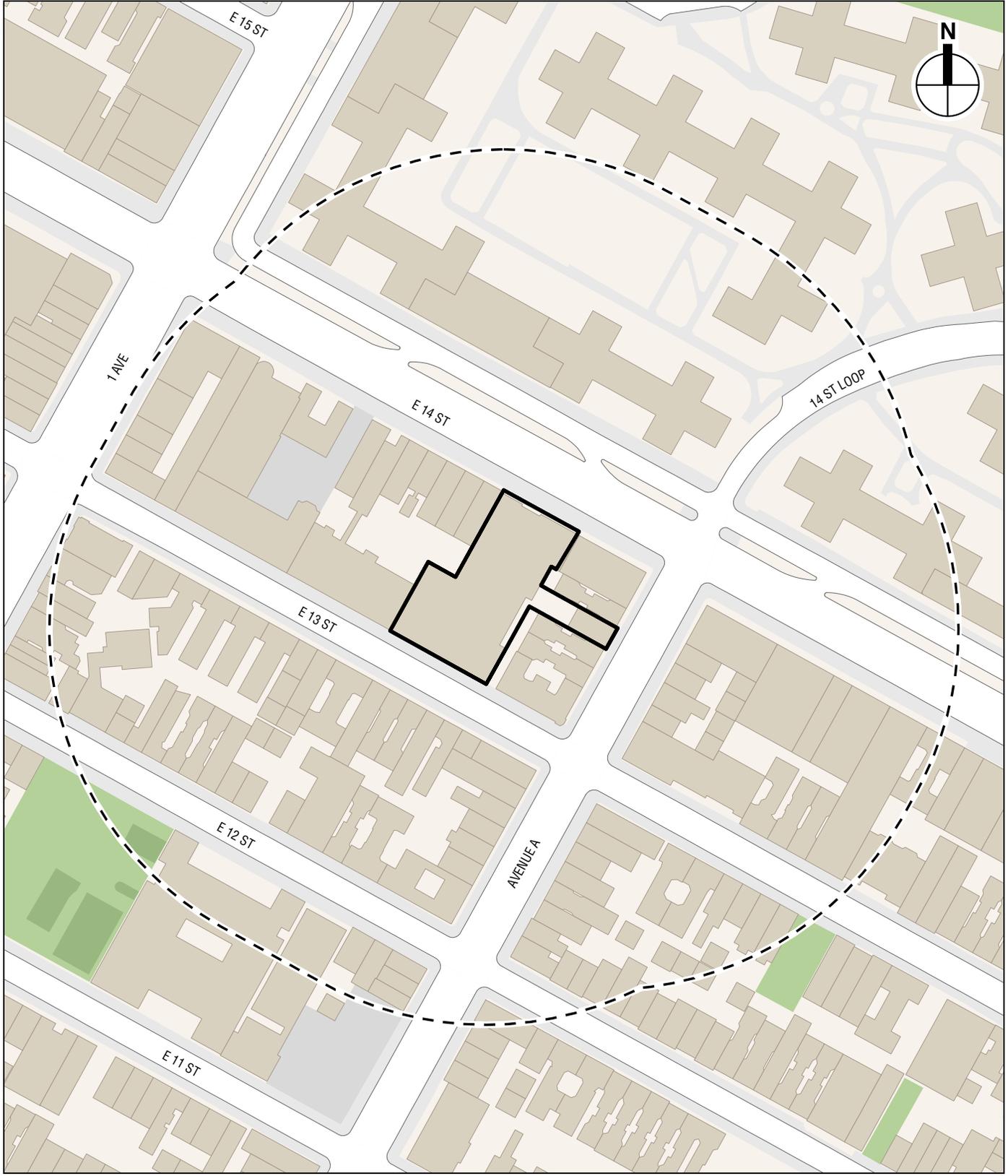
The proposed project involves the development of a mixed-use residential and commercial building at 432 East 14th Street/435 East 13th Street (Block 441, Lot 23) in the East Village neighborhood of Manhattan, Community District 3 (the "project site"). The project would utilize approximately 3,970 square feet of air rights from Block 441, Lot 32, which is currently and would continue to be occupied by a 5-story, 7,092 gross square foot (gsf) residential building. The proposed project would contain 149,009 gsf of residential use (155 dwelling units, including 31 affordable units) and approximately 17,168 gsf of retail space on portions of the ground floor and cellar level. The applicant is seeking a bulk variance from the New York City Board of Standards and Appeals (BSA) pursuant to Section 72-21 of the New York City Zoning Resolution (ZR) to waive applicable floor area, height, and setback regulations.

This attachment considers existing land use, zoning, and public policy, and compares conditions in the future without the proposed project to those that would occur in the future with the proposed project. As described below, the assessment concludes that the proposed project would be compatible with existing uses in the surrounding area, and would not result in any significant adverse impacts to land use, zoning, or public policy.

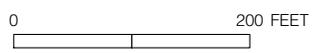
## **B. METHODOLOGY**

According to the *CEQR Technical Manual*, a preliminary land use assessment, which includes a basic description of existing and future land uses and public policy, should be provided for all projects that would affect land use or public policy on a site, regardless of the project's anticipated effects. Accordingly, a preliminary analysis has been prepared that describes existing and anticipated future conditions for the 2018 analysis year for the project site, assesses the nature of any changes on these conditions that would be created by the proposed project, and identifies those changes, if any, that could be significant or adverse. The study area for this analysis of land use, zoning, and public policy encompass the area within 400 feet of the project site, which generally extends north into Stuyvesant Town, east between Avenues A and B, south to East 12th Street, and west to First Avenue (see **Figure A-1**). Sources for this analysis include the New York City Department of City Planning (DCP) and the New York City Department of Buildings (DOB).

2/29/2016



-  Project Site
-  Study Area (400-Foot Boundary)



**432 EAST 14TH STREET**

Project Location Map  
**Figure A-1**

## C. EXISTING CONDITIONS

### LAND USE

#### *PROJECT SITE*

As shown in **Figure A-1**, the project site is Block 441, Lot 23, a through-block lot located in the middle of the block bounded by East 13th and East 14th Streets, First Avenue, and Avenue A. The site is vacant; it was previously occupied with a one-story former post office building, which was recently demolished. The air rights parcel for the project, 219 Avenue A (Block 441, Lot 32) is occupied by a five-story, 7,092 gsf brick residential building with ground-floor retail.

#### *STUDY AREA*

As shown on **Figure A-2**, the study area consists primarily of multi-family residential buildings, some containing ground floor retail space. Residential buildings in the study area range between four and seven stories in height, with the exception of buildings comprising Stuyvesant Town, which is located north of the project site across East 14th Street. The extensive Stuyvesant Town complex is on a superblock extending between East 14th and 20th Streets and Avenues A and C. It was created as a towers-in-the-park development, and its residential buildings rise to 13 stories (approximately 133 feet). These buildings contain ground floor retail space along East 14th Street. In addition, just outside the 400-foot study area is a 17-story residential building at 333 East 14th Street, with setbacks above the 15th floor.

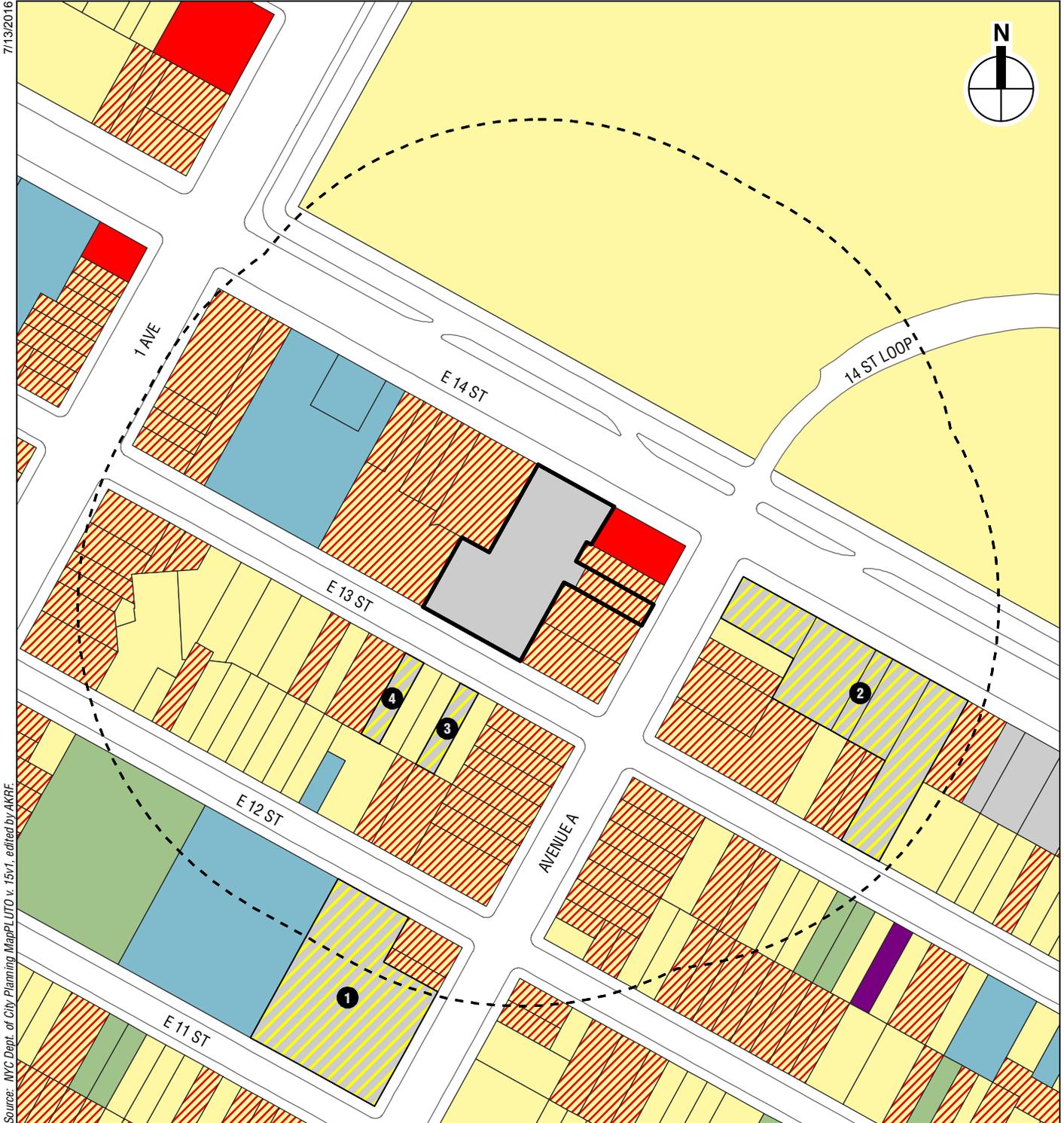
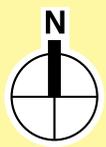
Community facilities in the study area include the Church of the Immaculate Conception on the south side of East 14th Street, and the Immaculate Conception School, a private school associated with the church located on the north side of East 13th Street. The Girls Prep Lower East Side Middle School, a charter school, and the East Side Community High School, a public school, jointly operate in the former P.S. 60 building, a through-block structure in the middle of the block bounded by East 11th and 12th Streets, First Avenue, and Avenue A. Directly adjacent to this school is the most notable open space within the study area: Open Road Park, also referred to as the Lower East Side Playground. A portion of this open space is in use as a community garden; there is also one other community garden in the study area, Dias y Flores Community Garden, at 520-522 East 13th Street. A residential development is under construction at the northeast corner of East 11th Street and Avenue A, east of the school (see “Future Without the Proposed Action,” below). Commercial uses within the study generally consist of neighborhood retail stores, including small delis and discount stores, located on the ground floor of residential buildings, as well as restaurants along First Avenue, Avenue A, East 13th Street, and East 14th Street.

### ZONING

#### *PROJECT SITE*

As shown in **Figure A-3**, the project site is located within a C1-6A zoning district (R7A equivalent district), which is a commercial district that is predominately residential in character. The C1-6A district allows commercial uses developed to an FAR of 2.0. Residential developments in C6-1A districts have a maximum FAR of 4.0, a maximum base height of 65 feet, and a maximum building height of 80 feet.

7/13/2016



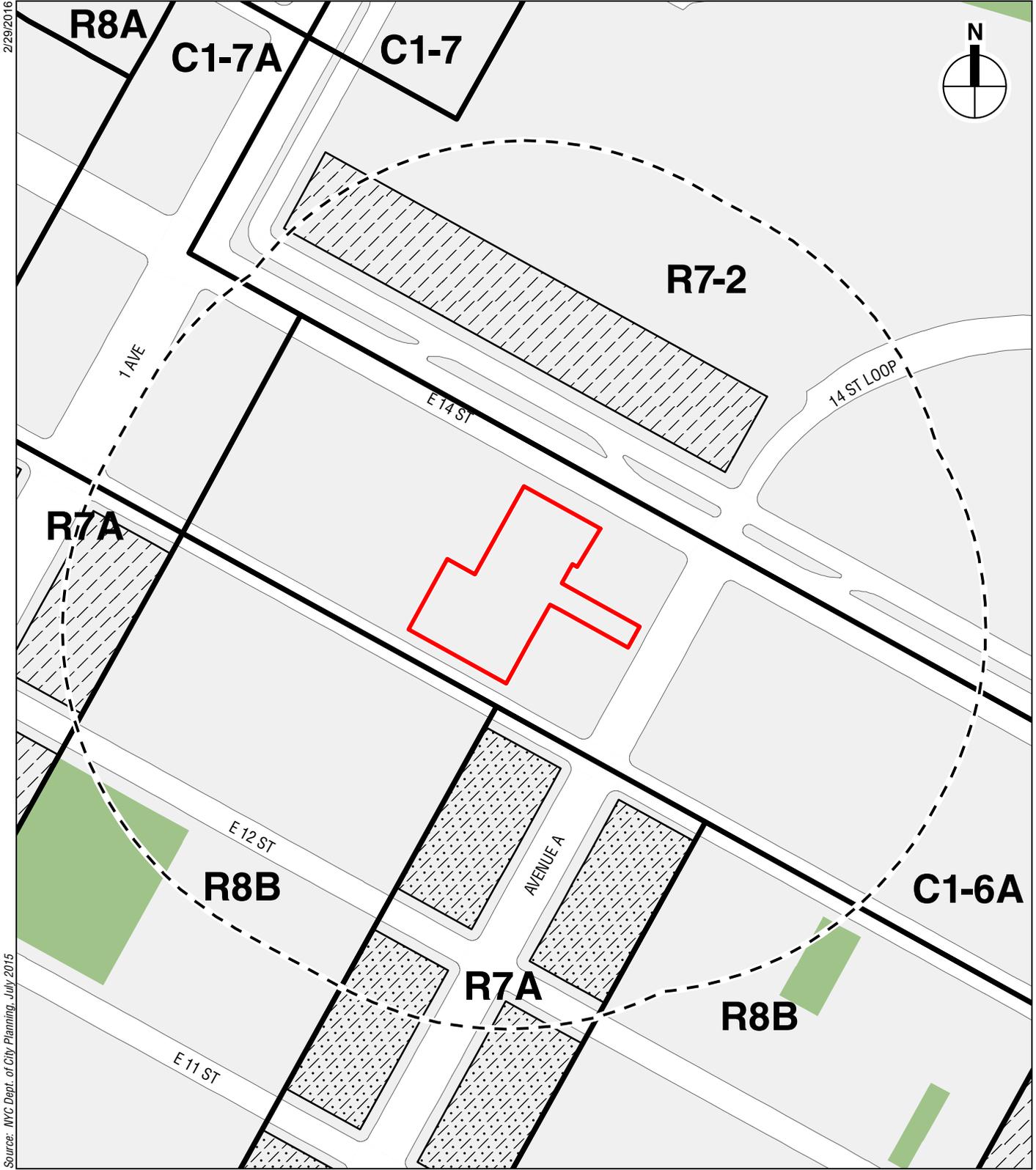
Source: NYC Dept. of City Planning MapPLUTO v. 15v1, edited by AKRF.

- |                                |                                    |                                   |
|--------------------------------|------------------------------------|-----------------------------------|
| Project Site                   | <b>Land Use</b>                    | Residential                       |
| Study Area (400-foot boundary) | Commercial and Office Buildings    | Residential with Commercial Below |
| No Build Project               | Industrial and Manufacturing       | Vacant Land                       |
|                                | Open Space and Outdoor Recreation  | Under Construction                |
|                                | Public Facilities and Institutions |                                   |

**432 EAST 14TH STREET**

Existing Land Use  
**Figure A-2**

2/29/2016



Source: NYC Dept. of City Planning, July 2015



*STUDY AREA*

The majority of the project block is within the C1-6A district, which extends east across Avenue A. The portion of the project block facing First Avenue and the west side of First Avenue between East 13th and 15th Streets is mapped with a C1-7A district. Similar to the C1-6A zoning district, the C1-7A commercial district is predominantly residential in character and is mapped along major thoroughfares in medium and higher density areas of the city. The C1-7A district allows commercial uses developed to an FAR of 2.0, and a maximum FAR of 6.02 for residential developments, with an optional Inclusionary Housing Program bonus.

The First Avenue and Avenue A blockfronts within the study area south of East 13th Street are mapped with an R7A district, which generally has the same bulk requirements as the C1-6A district. The Quality Housing regulations, which are mandatory in R7A districts, set height limits and allow high lot coverage buildings that are set near or at the street line. The regulations also include amenities related to the planting of trees, landscaping and recreation space. South of 13th Street, First Avenue has a C1-5 commercial overlay and Avenue A has a C2-5 overlay. Both overlays allow retail use to an FAR of 2.0; however, the C2-5 commercial overlay allows a somewhat wider range of retail uses. Buildings are required to be built at or near the street line with a maximum base height of 65 feet and a maximum building height of 80 feet.

Midblock portions of the study area south of East 13th Street are mapped with an R8B zoning district. Like the R7A district, the Quality Housing regulations are mandatory in R8B districts. R8B districts allow residential development of an FAR of 4.0, have a maximum building height of 75 feet and maximum base height of 60 feet. An R7-2 zoning district is mapped north of East 14th Street and east of First Avenue. The R7-2 district allows residential and community facility uses and has a maximum FAR 3.44. Maximum building height is determined by the sky exposure plane; however, as an alternative, developers may choose build in accordance with the Quality Housing regulations, which are optional in R7-2 districts. There is a C1-5 overlay within this district on the north side of East 14th Street, between First Avenue and Avenue A.

**PUBLIC POLICY**

*HOUSING NEW YORK: A FIVE-BOROUGH, TEN-YEAR PLAN*

On May 5, 2014, the de Blasio administration released *Housing New York: A Five-Borough, Ten-Year Housing Plan* (“*Housing New York*”), which plans to build or preserve 200,000 affordable residential units. To achieve this goal, the plan aims to double the Department of Housing Preservation and Development’s (HPD) capital budget, target vacant and underused land for new development, protect tenants in rent-regulated apartments, streamline rules and processes to unlock new development opportunities, contain costs, and accelerate affordable construction. The plan details the key policies and programs for implementation, including developing affordable housing on underused public and private sites.

*FRESH PROGRAM*

The project site and study area are located within the Food Retail Expansion to Support Health (FRESH) tax incentive area. This special zoning designation provides financial incentives to promote the establishment and retention of neighborhood grocery stores in underserved communities throughout the five boroughs. The FRESH program is open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail

space that will be leased by a full-line grocery store operator. Tax incentives are discretionary and assessed on a per-case basis.

#### **D. THE FUTURE WITHOUT THE PROPOSED PROJECT**

It is assumed that in the future without the proposed project, the project site will remain vacant. No development would occur. Within the 400-foot study area, there are four developments that are expected to be constructed by the 2018 analysis year (see **Figure A-2**). As noted above, the site at 438 East 12th Street directly east of the shared middle school/high school is currently under construction for a six-story, 82-unit residential development, anticipated to be completed and occupied in 2017 (No Build Site 1 on **Figure A-2**). At 222 Avenue A (504-530 East 14th Street), ground has been broken on a seven-story, 150-unit mixed-use building; expected to be completed in 2017 (No Build Site 2 on **Figure A-2**). Construction is also underway at 436 and 442 East 13th Street, which are both being developed with six-story, six unit buildings (No Build Sites 3 and 4 on **Figure A-2**). The proposed residential projects are in keeping with the existing land use of the neighborhood.

#### **E. PROBABLE IMPACTS OF THE PROPOSED PROJECT**

##### **LAND USE**

The proposed action would facilitate the redevelopment of the project site with a new, mixed-use building containing approximately 149,009 gsf of residential use (155 dwelling units, including 31 affordable units) and approximately 17,168 gsf of retail space on portions of the ground floor and cellar level. The proposed building would have frontage along East 13th and East 14th Streets. The East 13th Street portion of the building would be eight stories in height, and the East 14th Street portion of the building would be 12 stories in height. The two residential components of the building would be connected at the cellar level. The proposed retail space would occupy part of the cellar level and ground floor along East 14th Street.

The proposed project would be compatible with adjacent residential and retail uses and with land use within the larger study area, which is predominantly characterized by residential, community facility, and retail uses. Therefore, the proposed project would not result in significant adverse impacts to land use.

##### **ZONING**

As discussed above, the applicant is seeking a bulk variance pursuant to ZR Section 72-21 to waive floor area requirements and height and setback requirements. The project site's C1-6A zoning district (R7A equivalent) has an FAR of 4.0, a maximum street wall height of 65' and maximum building height of 80'. The proposed project would be developed to an FAR of 5.06, a density greater than what is allowed under the C1-6A district, and the East 14th Street portion of the building would rise to a height of 124' with no setback. Although the proposed project would be taller than most buildings to the south, the proposed building height along East 14th Street would be consistent with the maximum height of buildings located on the north side of East 14th Street in Stuyvesant Town, which are 13-stories in height (approximately 133'). In addition, located just outside the 400-foot study area is a 17-story residential building at 333 East 14th Street with setbacks above the 15th floor. The built FAR of this structure is approximately 12, considerably greater than the density sought under the proposed action. For these reasons, the proposed project would be generally consistent with other nearby residential buildings in terms

of height and bulk; therefore, the proposed project would not result in significant adverse impacts related to zoning.

**PUBLIC POLICY**

As noted above, the proposed project would provide 31 units of affordable housing. The provision of affordable housing at the project site would advance the goals of *Housing New York*. The proposed project would be consistent with adopted public policies, and no significant adverse impacts would occur. \*

## **A. INTRODUCTION**

The proposed project would introduce new residents to the project site, creating new demands for open space in the area. Because the proposed project would add a new residential population, this chapter examines the potential impacts of the proposed project on open space resources in accordance with the 2014 *City Environmental Quality Review (CEQR) Technical Manual*. Specifically, the attachment examines the potential for the proposed project to have direct effects on nearby publicly accessible open spaces, such as eliminating or altering a public open space, as well as the potential for indirect effects created by changes in demand for and use of the area's open spaces. The analysis inventories the condition and use of open spaces for the residential population within a ½-mile radius of the project area and for a non-residential population within a ¼-mile radius of the project area. The analysis addresses potential impacts on open space facilities both quantitatively and qualitatively.

## **B. PRINCIPAL CONCLUSIONS**

According to the *CEQR Technical Manual*, a proposed action may result in a significant impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently result in the overburdening of existing facilities or further exacerbating a deficiency in open space.

As described in the detailed analysis below, this analysis concludes that the proposed project would not result in any significant direct or indirect impacts on open spaces in the residential and non-residential study areas.

## **C. METHODOLOGY**

An open space assessment examines the type of open space and user population affected by the proposed project. Overall, the goal of the assessment is to determine the significance of the change in either the availability of open space relative to the demand from the new population, or the usability of the open space affected by the proposed project. For example, a commercial or mixed-use project may introduce a large worker population, which tends to place demands on passive open space. The analysis would examine in further detail the amount of passive open space available with and without the project to quantify the impact, and if necessary, the mitigation.

## **ANALYSIS APPROACH**

As the open space analysis is a density-based technical analysis, the anticipated development within the residential and non-residential study areas is added to the basis for this impact assessment.

## DIRECT EFFECT ANALYSIS

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. This attachment uses information from Attachment C, “Shadows,” Attachment H, “Air Quality,” and Attachment I, “Noise,” to determine whether the proposed actions or proposed project would directly affect any open spaces near the project site. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The direct effects analysis is included in Section E, “Future with the Proposed Action” of this Attachment.

## INDIRECT EFFECTS ANALYSIS

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residents or non-residents, to noticeably diminish the capacity of open space in an area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce 200 or more residents or 500 or more workers to an area; however, the thresholds for assessment are slightly different for areas of the city that have been identified as either underserved or well-served by open space.

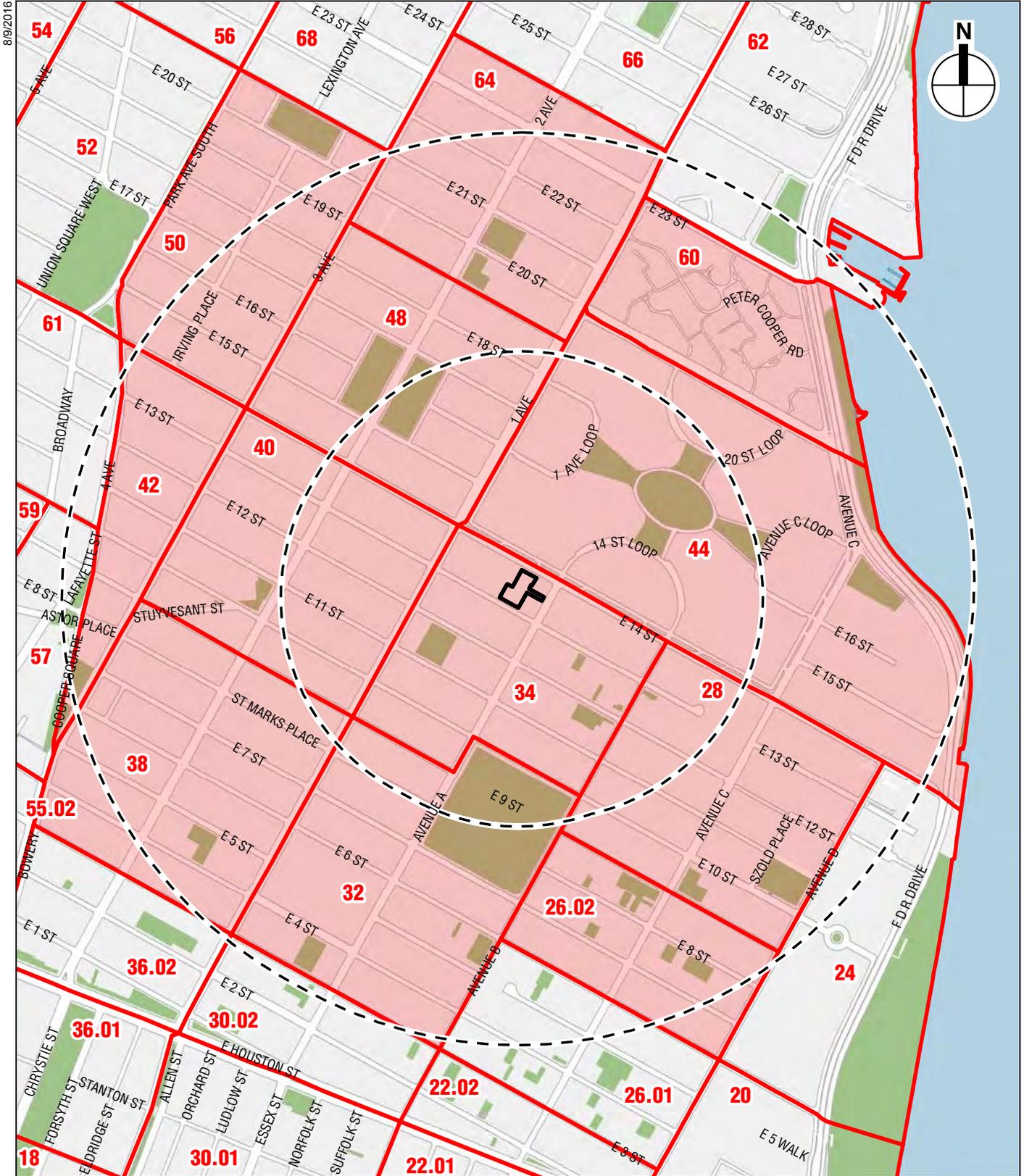
Because the project site is not located within an area that has been identified as either underserved or well-served, the 200 resident and 500 worker thresholds were applied in this analysis.

The *CEQR Technical Manual* suggests that a detailed open space analysis is necessary if a project displaces a highly utilized open space or introduces a large population in an area with low existing open space ratios. Based on a preliminary analysis, the proposed actions would introduce a large population to an area with low open space ratios. Therefore, a detailed open space analysis was conducted, as described below.

## STUDY AREAS

The *CEQR Technical Manual* recommends establishing a study area or areas as the first step in an open space assessment. The study areas are based on the distance that the respective users—residents and workers—are likely to walk to an open space. According to the *CEQR Technical Manual*, workers are assumed to walk approximately 10 minutes, or ¼-mile from their place of work to an open space, while residents are assumed to walk approximately 20 minutes, or ½-mile to an open space.

Because the proposed project would introduce new residential and worker populations to the area, the adequacy of open space resources was assessed for both the ¼-mile (non-residential) and ½-mile (residential) study areas. These two study areas were adjusted to include all census tracts with at least 50 percent of their area within the ¼- or ½-mile boundary. In this way, the study area allows analysis of both the open spaces in the area as well as population data. As shown in **Figure B-1**, the ¼-mile non-residential study area includes Census Tracts: 44, 34, 40 and 48. The ½-mile residential study area includes all the Census Tracts identified within the non-residential study area as well as Census Tracts: 26.02, 28, 32, 34, 38, 40, 42, 44, 48, 50, 60, and 64.



**432 EAST 14TH STREET**

Open Space Study Area  
Figure B-1

## STUDY AREA POPULATIONS

### *EXISTING CONDITIONS*

The residential population in the study areas was estimated using 2010-2014 American Community Survey (ACS) US Census data. The non-residential worker population was estimated using 2010 employment data from ESRI, Inc., a commercial data provider.

### *THE FUTURE WITHOUT THE PROPOSED ACTION*

There are several developments expected to be completed in the ¼- and ½-mile study areas by the 2018 build year absent the proposed project (the No Action condition). The residential population in the No Action condition was estimated by applying the average household size for Manhattan Community District 3 (2.51 people) to the number of dwelling units added by the expected developments in the study areas. The number of workers added in the No Action condition was estimated using standard employment density ratios.

### *THE FUTURE WITH THE PROPOSED ACTION*

The population introduced by the proposed project was estimated by applying the average household size for Manhattan Community District 3 (2.51 people) to the number of dwelling units introduced by the proposed project. The number of workers introduced by the proposed project was estimated using standard employment density ratios.

## INVENTORY OF OPEN SPACE RESOURCES

The *CEQR Technical Manual* defines public open space as open space that is publicly or privately owned and is accessible to the public on a regular basis, either constantly or for designated daily periods of time. Open spaces that are only available for limited users or are not available to the public on a regular or constant basis are not considered public open space, but are considered in a qualitative assessment of open space impacts.

All publicly accessible open space resources in the non-residential (¼-mile) and residential (½-mile) study areas were inventoried through field visits conducted in February 2016. Additional data were obtained from the New York City Department of Parks and Recreation (DPR).

Information was gathered about the types of facilities, levels of utilization, accessibility, and condition of each of the open space resources. According to CEQR guidelines, open spaces were also described in terms of the amount of active and passive facilities present. Active open space is used for exercise, sports, or active play, and is usually part of a recreational facility. Examples of active open space include playground equipment, athletic fields or courts, pools, and greenways. Passive open spaces encourage activities such as strolling, reading, sunbathing, people watching, and other forms of relaxation. Examples of passive open space include plazas, paths, gardens, and certain lawns with restricted uses. Open space may be characterized as passive, active, or a mixture of active and passive. Esplanades are an example of open space that may be used for active uses like running or passive dog walking.

According to *CEQR Technical Manual* guidelines, Greenstreets are not considered publicly accessible open spaces as they do not provide usable recreational areas and access is restricted. Therefore, Greenstreets were not included in the quantitative assessment.

In addition to the open spaces located in the study areas, open spaces located just outside of the study areas were considered in the qualitative analysis as they may be used by the worker or resident populations. Also the qualitative analysis discusses the open spaces that were not considered publicly accessible and were therefore excluded from the quantitative analysis.

## **ADEQUACY OF OPEN SPACE RESOURCES**

### *COMPARISON TO CITY GUIDELINES*

The adequacy of open space in the study area was quantitatively and qualitatively assessed for existing conditions, the future No Action condition, and the future With Action condition. According to CEQR guidelines, the quantitative assessment is based on ratios of usable open space acreage to the study area populations (the “open space ratios”). These ratios were then compared to the City’s open space guidelines for residential and non-residential populations. The following guidelines are used in this type of analysis:

- For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.
- For residential populations, there is a city-wide median open space ratio of 1.5 acres per 1,000 residents, which is used as a guideline. In addition to this median ratio, the City has set an open space ratio planning goal of 2.5 acres per 1,000 residents. This second ratio includes 0.50 acres of passive space and 2.0 acres of active space, and serves as an ideal benchmark.

Because these ratios may not be attainable for all areas of the City, they are considered benchmarks for comparison rather than policy or thresholds for determining impacts.

### *IMPACT ASSESSMENT*

Impacts are based on how a project would change the open space ratios in the study area. According to the *CEQR Technical Manual*, a project may result in significant adverse impacts to open space if there would be direct displacement or alteration of an open space that would significantly impact the existing users; or, if the project would reduce open space ratios by more than 5 percent in an area that is currently below the City’s median open space ratio. In areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the City. Furthermore, in areas that are well-served by open space, a greater change in the open space ratio may be tolerated.

The *CEQR Technical Manual* recommends that the quantitative open space analysis described above be supplemented by an examination of qualitative factors, as the significance of any changes to open space depends on the context of the proposed project, including the location, quality and quantity of open space in the future With Action condition. These qualitative considerations include the availability of nearby destination resources, the connectivity of open space, the effects of new open space provided by the project, and the comparison of projected open space ratios with established city guidelines. It is recognized that the open space ratios of the city guidelines described above are not feasible for many areas of the city, and they are not considered impact thresholds on their own. Rather, they are benchmarks that indicate how well an area is served by open space.

**D. EXISTING CONDITIONS**

**STUDY AREA POPULATION**

Based on 2010 employment data obtained from ESRI, Inc., the non-residential study area has a worker population of approximately 25,216 workers (see **Table B-1**).

**Table B-1**  
**Existing Worker Population within the ¼-mile Study Area**

Census Tract	Worker Population
44	825
34	2,388
40	5,355
48	16,648
<b>TOTAL</b>	<b>25,216</b>
<b>Source:</b> ESRI Business Analyst Business Summary Report	

Based on 2010-2014 ACS data, the residential study area has a population of approximately 91,440 residents (See **Table B-2**).

**Table B-2**  
**Open Space Study Area Census Tracts**

Census Tract Number	Population
26.02	4,377
28	7,409
32	7,802
34	6,673
38	8,407
40	9,543
42	5,045
44	16,735
48	7,551
50	5,238
60	5,026
64	7,634
<b>Total:</b>	<b>91,440</b>
<b>Note:</b> See <b>Figure B-1</b> for Census tract locations.	
<b>Source:</b> American Community Survey Five-Year Estimates, 2014, Table B01003.	

*AGE DISTRIBUTION*

The age distribution of a residential population has open space implications in terms of the types of facilities that are in highest demand and how open spaces are used. As described in the *CEQR Technical Manual*, children 4 years or younger typically use traditional playgrounds with play equipment for toddlers and preschool children. Children ages 5 through 9 tend to use traditional playgrounds with play equipment suitable for school-age children, as well as open spaces with grass or hard surfaces for active play. Children ages 10 through 14 also tend to use playground equipment, as well as courts and ball fields. Teenagers and young adults between the ages of 15

and 19 typically use courts and active fields. Adults use facilities for sports and active fields as well as individualized recreation that utilizes paths. Senior citizens tend to utilize facilities for active recreation like handball, tennis, and swimming, as well as passive recreational facilities.

**Table B-3** summarizes the residential age distribution in the residential, ½-mile, study area and compares it to the distributions in Manhattan and New York City.

**Table B-3**  
**Study Area Residential Population Age Distribution**

Age Category	Study Area		Manhattan		New York City	
	Persons	Percent	Persons	Percent	Persons	Percent
Under 5 Years	2,213	2.40%	81,666	5.1%	546,292	6.5%
5 to 9 Years	2,101	2.30%	61,291	3.8%	479,015	5.7%
10 to 14 Years	1,795	2.00%	58,975	3.6%	467,094	5.6%
15 to 17 Years	1,256	1.40%	35,990	2.2%	292,943	3.5%
18 to 64 Years	73,073	79.80%	1,155,199	71.4%	5,522,874	66.1%
65 Years and over	11,002	12.10%	2,25,277	13.9%	1,046,671	12.5%
<b>Total</b>	<b>91,440</b>	<b>100%</b>	<b>1,618,398</b>	<b>100%</b>	<b>8,354,889</b>	<b>100%</b>

**Source:** Social Explorer Tables: ACS 2014 (5-Year Estimates) (SE), ACS 2014 (5-Year Estimates), Social Explorer; U.S. Census Bureau

As compared to Manhattan and New York City as a whole, the residential study area has a lower proportion of children (ages 0 to 14), as well as teenagers (ages 15 to 17)—ranging from 2.0 to 2.4 percent, compared to 5.6 to 6.5 percent for children, and 1.4 percent compared to 3.5 percent for teenagers. The residential study area has a high proportion of adults aged 18 to 64 years (79.8 percent compared to 66.1 percent), and an average proportion of senior residents ages 65 years and older (12.10 percent compared to 12.5 percent).

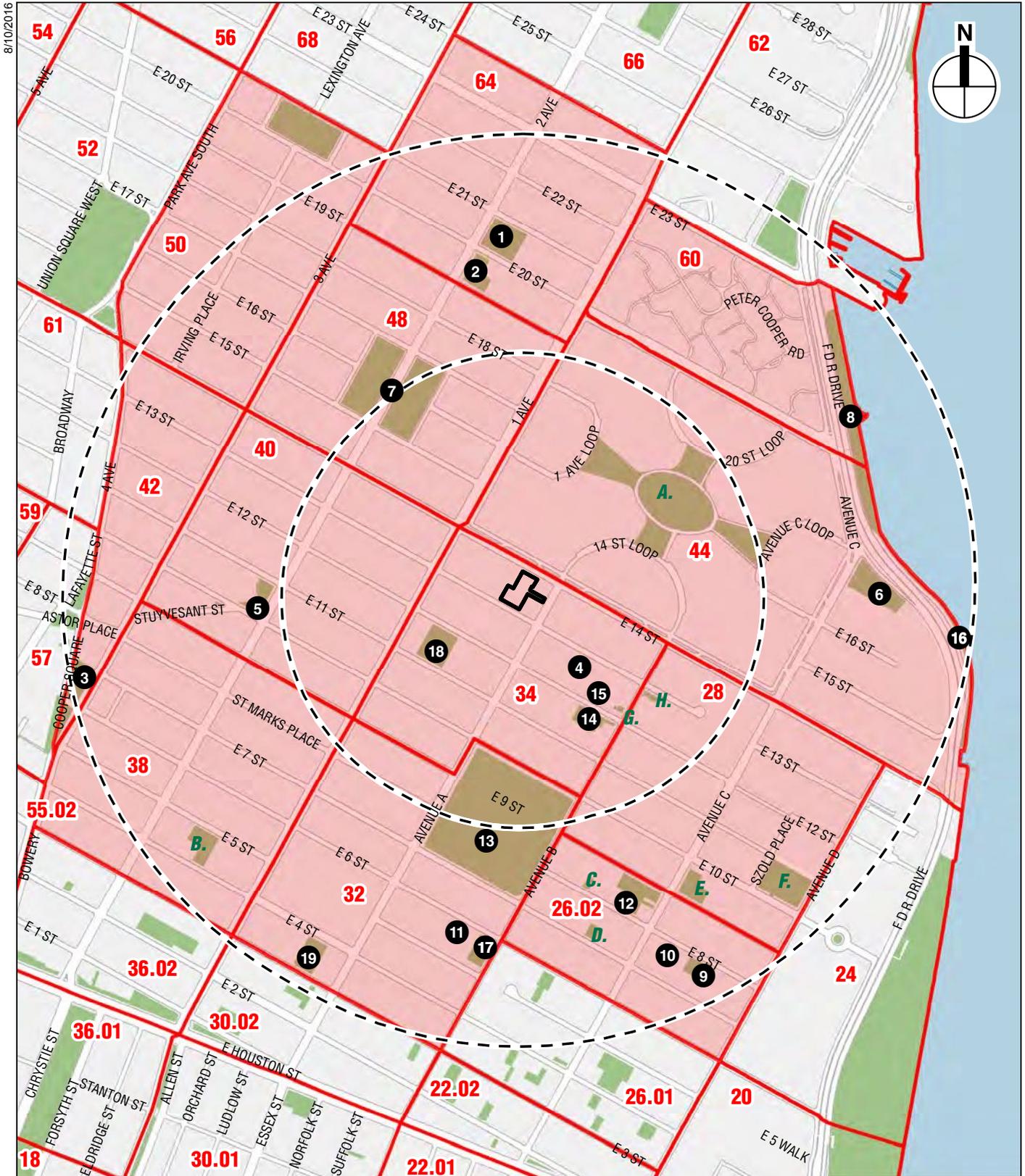
**STUDY AREA OPEN SPACES**

*NON-RESIDENTIAL (1/4-MILE) STUDY AREA*

The non-residential study area is made up of census tracts that are 50 percent or more within the ¼-miles radius drawn from the boundary of the project site; therefore the area contains the full extent of the census tracts: 44, 34, 40, and 48 (summarized in **Table B-4** and **Figure B-2**).

The open spaces within the non-residential study area are primarily comprised of community gardens which are typically dedicated to passive recreation, a playground, and Captain J. Brown Walk (an esplanade area along the East River). Overall, the non-residential study area comprises 7.77 acres of publicly-accessible open space, of which 2.92 acres provide facilities for active recreation, and 4.85 acres provide passive open space.

Included within the boundary of the non-residential study area is the Stuyvesant Oval, a landscaped lawn and fountain in the center of the Stuyvesant Town Complex, and several associated playgrounds along the oval. These open spaces are privately owned and are not publicly accessible; therefore the Stuyvesant Oval and associated private playgrounds are not included in the quantified analysis.



- Project Site
  - Study Area (Quarter-Mile Boundary)
  - Study Area (Half-Mile Boundary)
  - 10 Census Tracts
  - Open Space Resources
- 432 EAST 14TH STREET**

- A. Stuyvesant Oval
- B. Manhattan School for Career Development (M751)
- C. De Colores Community Yard
- D. Lower East Side Ecology Center
- E. 9th Street Community Garden
- F. Dry Dock Playground & Pool
- G. Community Garden Association
- H. Suen Dragon Garden

0 800 FEET

Open Space Resources  
Figure B-2

**Table B-4**  
**Open Space Resources in the ¼-Mile Study Area**

Map No. <sup>1</sup>	Name	Size Acres	Active	Passive	Condition / Utilization
4	Dias Y Flores	0.12	0.00	0.12	Fair / Low
5	Abe Lebewohl Park	0.16	0.00	0.16	Good / Low
6	Murphy's Brothers Playground	1.27	1.14	0.13	Good / Low
7	Stuyvesant Square	3.93	0.00	3.93	Good / Moderate
14	Joseph C Sauer Playground	0.40	0.20	0.20	Good / Low
15	El Sol Brillante Jr	0.06	0.00	0.06	Good / Low
16	Capt. Patrick J. Brown Walk	1.00	0.75	0.25	Good / Low
18	Open Road Park / Lower East Side Playground	0.83	0.83	0.00	Good / High
<b>Total:</b>		<b>7.77</b>	<b>2.92</b>	<b>4.85</b>	<b>N/A</b>
<b>Note:</b> <sup>1</sup> See <b>Figure B-2</b> for open space locations.					
<b>Sources:</b> New York City Department of Parks and Recreation; NYC DCP MapPLUTO v15.					

### *RESIDENTIAL (1/2-MILE) STUDY AREA*

The residential study area contains 19 public and privately-owned, publicly accessible open spaces in the residential study area. These open space resources are listed in **Table B-5** and mapped on **Figure B-2**. Overall, the residential study area comprises approximately 23.54 acres of open space, of which 11.80 acres provide facilities for active recreation, and 11.74 acres are for passive recreation.

There are three major open spaces within the residential study area: Tompkins Square Park, Stuyvesant Square, and Stuyvesant Cove Park. Tompkins Square Park is a 10.5-acre park, equipped with two playgrounds, a handball court, chess tables, and a basketball court. Stuyvesant Square is a 3.93-acre passive open space, with benches, fountains, and landscaped planted areas. Stuyvesant Cove Park is a 2.25-acre active and passive open space, equipped with an esplanade, shared use path, and dedicated seating areas. There are also many community gardens and smaller playgrounds within the residential study area.

Included within the residential study area are several open spaces that, based on *CEQR Technical Manual Guidance*, would not be considered publicly accessible. These inaccessible open spaces could contribute qualitatively to the study area's open space amenities, however were not counted in the quantitative analysis. The inaccessible open spaces total 3.35 acres of open space, and are comprised of:

- The Dry Dock Playground and Pool (1.50 acres) – closed for construction;
- 6th Street and Avenue B Community Garden (0.41 acres) – no hours posted;
- De Colores Community Yard & Cultural Center (0.07 acres) – no hours posted;
- La Plaza Cultural (0.64 acres) – no hours posted;
- 9th Street Community Garden (0.50 acres) – no hours posted;
- 11th Street Community Garden (0.02 acres) – no hours posted;
- Vamos Sembrar (0.03 acres) – no hours posted;
- Suen Dragon Garden (0.06 acres) – no hours posted;
- Campos Garden (0.12 acres) – no hours posted.

**Table B-5**  
**Open Space Resources in the 1/2-Mile Study Area**

Map No. <sup>1</sup>	Name	Size Acres	Active	Passive	Condition / Utilization
1	Peter's Field	0.88	0.88	0.00	Good / High
2	Augustus St. Gaudens Playground	0.64	0.64	0.00	Good / High
3	Cooper Triangle	0.17	0.00	0.17	Good / Low
4	Dias Y Flores	0.12	0.00	0.12	Fair / Low
5	Abe Lebewohl Park	0.16	0.00	0.16	Good / Low
6	Murphy's Brothers Playground	1.27	1.14	0.13	Good / Low
7	Stuyvesant Square	3.93	0.00	3.93	Good / Moderate
8	Stuyvesant Cove Park	2.25	1.69	0.56	Good / Moderate
9	Green Oasis And Gilbert's Garden	0.41	0.00	0.41	Good / Low
10	Firemen's Memorial Garden	0.17	0.00	0.17	Good / Low
11	The Creative Little Garden	0.05	0.00	0.05	Good / Good
12	Earth People	0.11	0.00	0.11	Good / Low
13	Tompkins Square Park	10.50	5.25	5.25	Good / High
14	Joseph C Sauer Playground	0.40	0.20	0.20	Good / Low
15	El Sol Brillante Jr	0.06	0.00	0.06	Good / Low
16	Capt. Patrick J. Brown Walk	1.00	0.75	0.25	Good / Low
17	Avenue B Community Garden Association	0.03	0.00	0.03	Poor / Low
18	Open Road Park / Lower East Side Playground	0.83	0.83	0.00	Good / High
19	Mickinley Playground	0.56	0.42	0.14	Good / Moderate
<b>Total:</b>		<b>23.54</b>	<b>11.80</b>	<b>11.74</b>	<b>N/A</b>
<b>Note:</b> <sup>1</sup> See <b>Figure B-2</b> for open space locations.					
<b>Sources:</b> New York City Department of Parks and Recreation; NYC DCP MapPLUTO v15.					

## ADEQUACY OF OPEN SPACES

### QUANTIFIED ASSESSMENT

#### *Non-Residential (1/4-Mile) Study Area*

The quantitative assessment of the adequacy of open space resources within the residential study area considers the ratios of passive open space acreage per 1,000 residents. As noted above, the non-residential study area has approximately 4.85 acres of passive open space (see **Table B-4**). As summarized in **Table B-6**, the non-residential study area has a passive open space ratio of 0.308 acres per 1,000 workers. This is above the City's planning guideline of 0.15 acres per 1,000 non-residents.

#### *Residential (1/2-Mile) Study Area*

The quantitative assessment of the adequacy of open space resources within the residential study area considers the ratios of active, passive, and total open space acreage per 1,000 residents. The residential study area has a total of approximately 23.54 acres of open space, 11.80 acres of active open space, and 11.74 acres of passive open space (see **Table B-5**). As summarized in **Table B-6**, the residential study area has a total open space ratio of 0.294 acres per 1,000 residents, 0.129 acres of active open space per 1,000 residents and 0.127 acres of passive open space per 1,000 residents. These ratios are lower than the City's planning goal of 2.5, 2.0 and 0.5 acres per 1,000 residents, respectively (see **Table B-6**).

**Table B-6**

**Existing Conditions: Adequacy of Open Space Resources**

Total Population	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			City Open Space Guidelines			
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
<b>Non-residential (1/4-Mile) Study Area</b>										
Workers	25,216	7.77	2.92	4.85	N/A	N/A	0.308	N/A	N/A	0.15
<b>Residential (1/2-Mile) Study Area</b>										
Residents	91,440	23.54	11.80	11.74	0.257	0.129	0.128	2.5	2.0	0.5

### *QUALITATIVE DISCUSSION*

Stuyvesant Cove Park and Captain J. Brown's Walk connect to the East River Park and the East River Esplanade. The East River Esplanade provides a network of open spaces along the waterfront that extends beyond the study area boundaries to the north and to the south. The East River Park, located just outside the study area, offers a variety of active and passive facilities that study area residents and workers are likely to use.

Per the *CEQR Technical Manual*, age distribution within the residential study area should be analyzed to assess the appropriateness of open space resources in the study area. For example, a study area with a large portion of children between the ages of 10 and 14 would require active playgrounds and open court spaces, including specialized little league fields and other amenities.

As shown in **Table B-3**, children ages 5 and younger in the residential study area account for approximately 2.4 percent of the residential population. This proportion of the population is less than that for Manhattan (5.10 percent) and New York City (6.50 percent). Children in this cohort typically use traditional playgrounds that have equipment for toddlers and preschool-aged children. Facilities in the study area offering such amenities include: Tompkins Square Park, Lower East Side Playground, Murphy's Brother's Playground and Augustus St. Gaudens Playground.

Children between the ages of 5 and 9 account for 2.3 percent of the residential population of the study area. This proportion of children is less than that for Manhattan (3.80 percent) and New York City (5.70 percent). Children aged 5 to 9 use traditional playgrounds with play equipment suitable for school-aged children, water play areas, as well as grassy and hard-surfaced open spaces which are important for ball playing, running, skipping and other active play. Within the study area, there are numerous active open spaces, for example the Dry Dock Playground and Pool.

Approximately 1.4 percent of the residential population of the study area comprises children between the age of 10 and 14 years old; this proportion is smaller than the percentage represented by this cohort in Manhattan (3.60 percent) and New York City (5.60 percent). Children aged 5 to 9 use traditional playgrounds with play equipment suitable for school-aged children, water play areas, as well as grassy and hard-surfaced open spaces which are important for ball playing, running, skipping and other active play. Within the study area, there are numerous active open spaces.

Teenagers between 15 and 17 years of age, account for approximately 1.40 percent of the residential population, this proportion of the population is smaller than that in Manhattan (2.20 percent) and New York City (3.50 percent). Teenagers tend to utilize court facilities and active

fields. Within the study area, there are basketball courts at Augustus St. Gaudens Playgroud, Tompkins Park, and Murphy's Brother's Playground.

The working-age population (ages 18 to 64) accounts for the largest percentage of the population in the residential study area (approximately 79.8 percent). This is a higher proportion than that for this age cohort in Manhattan (71.4 percent) and New York City (66.1 percent). This age cohort tends to use facilities for sports and active fields, as well as paths and other facilities that encourage individualized recreation. Other than the courts mentioned above for teenagers and young adults, Stuyvesant Square and the passive community garden spaces serves the working-age population.

The senior population (ages 65 and above) comprises approximately 12.1 percent of the residential study area's population. This is a lower percentage than that of Manhattan (13.9 percent) and New York City (12.5 percent). Senior citizens tend to utilize facilities for active recreation like handball, tennis, gardening, and swimming, as well as passive recreational facilities. Within the study area, the senior population is served by various facilities for active recreation and served by the extensive passive open space amenities which include several community gardens.

## **E. THE FUTURE WITHOUT THE PROPOSED ACTION**

The assessment of the No Action condition examines conditions that are expected to occur in the study area by 2018, absent the proposed project. The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors. There are several No Action development projects that will be built in the ¼-mile study area and a number of additional projects that will be completed within the ½-mile study area.

Employment density ratios were applied to the expected square footage for each use to estimate future employment. The ratios used assume one worker each per: 25 residential units; 333 sf of retail space (including dining); 250 sf of office space; 800 sf of community facility space; 1,000 sf of industrial space or other commercial space (not retail or office); 6,000 sf garage or storage space; and 50 parking spaces.

For the projected residential study area population, the 2010-2014 ACS average household size of 2.51 persons per household was used.

### **STUDY AREA POPULATION**

#### *RESIDENTIAL (1/2-MILE) STUDY AREA*

Absent the proposed project, the residential study area will continue to experience new residential development. By 2018, a total of 473 residential units would be introduced to the residential study area. Using the 2010-2014 ACS average household size of 2.51, the approximate population of the residential study area would increase by 1,187 residents, totaling 92,627 residents by 2018.

#### *NON-RESIDENTIAL (1/4-MILE) STUDY AREA*

Absent the proposed project, the non-residential study area will continue to experience new development. By 2018, a total of 172 residential units would be introduced to the non-residential

study area. Assuming one employee per 25 residential units, the approximate population of the non-residential study area would increase by 17 workers, totaling 25,233 workers by 2018.

## STUDY AREA OPEN SPACES

### *NON-RESIDENTIAL (1/4-MILE) STUDY AREA*

In the No Action condition, no open space improvements are anticipated within the non-residential study area.

As described above, included within the boundary of the non-residential study area is the Stuyvesant Oval, a landscaped lawn and fountain in the center of the Stuyvesant Town Complex, and several associated playgrounds along the oval. These open spaces are privately owned and are not publicly accessible; therefore the Stuyvesant Oval and associated private playgrounds are not included in the quantified analysis.

### *RESIDENTIAL (1/2-MILE) STUDY AREA*

In the No Action condition, construction on the Dry Dock Playground and Pool is anticipated to be complete, and the open spaces are anticipated to be open and publicly accessible. Therefore in the future No Action condition, the total publicly accessible open space would increase by 1.50 active open space acres. The open space acreage is summarized in **Table B-7**.

As described above, included within the residential study area are several open spaces that, based on *CEQR Technical Manual Guidance*, would not be considered publicly accessible. These inaccessible open spaces could contribute qualitatively to the study area's open space amenities, however were not counted for in the quantitative analysis as the open spaces had no regularly posted hours of operation. The inaccessible open spaces total 3.35 acres of open space, and are comprised of:

- 6th Street and Avenue B Community Garden (0.41 acres) – no hours posted;
- De Colores Community Yard & Cultural Center (0.07 acres) – no hours posted;
- La Plaza Cultural (0.64 acres) – no hours posted;
- 9th Street Community Garden (0.50 acres) – no hours posted;
- 11th Street Community Garden (0.02 acres) – no hours posted;
- Vamous Sembrar (0.03 acres) – no hours posted;
- Suen Dragon Garden (0.06 acres) – no hours posted;
- Campos Garden (0.12 acres) – no hours posted.

## ADAQUACY OF OPEN SPACES

### *QUANTIATIVE ASSESSMENT*

#### *Non-Residential (1/4-mile) Study Area*

Absent the proposed project, by 2018, the number of workers in the non-residential study is expected to increase to 25,233 workers and the total amount of passive open space is anticipated to remain at 4.85 acres. Therefore, the passive open space ratio would be 0.192 acres per 1,000

workers (see **Table B-7**). The passive open space ratio would be above the City’s planning guideline of 0.15 acres per 1,000 non-residents.

*Residential (1/2-Mile) Study Area*

Absent the proposed project, by 2018, the number of residents in the residential study area is expected to increase to 92,627 and the total amount of open space is expected to increase slightly due to the opening of The Dry Dock Playground and Pool, to 25.03 acres. Therefore, the total open space ratio would be 0.270 acres per 1,000 residents, the active open space ratio would be 0.144 acres per 1,000 residents, and the passive open space ratio would be 0.127 acres per 1,000 residents. Overall, the passive open space ratios for the residential study area would continue to fall below the City guidelines (see **Table B-7**).

**Table B-7**  
**No Action Condition: Adequacy of Open Space Resources**

Total Population	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			City Open Space Guidelines			
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
<b>Non-residential (1/4-Mile) Study Area</b>										
Workers	25,233	7.77	2.92	4.85	N/A	N/A	0.192	N/A	N/A	0.15
<b>Residential (1/2-Mile) Study Area</b>										
Residents	92,627	25.03	13.30	11.74	0.270	0.144	0.127	2.5	2.0	0.5

*QUALITATIVE DISCUSSION*

As in the existing condition, residents would have access to open space resources within the study area that were not accounted for in the quantitative analysis. These open space resources include many small community gardens; the inaccessible community gardens account for 1.85 total acres of passive open space. These open spaces can be considered as qualitative open space amenities.

The East River Esplanade would continue to connect residents and workers in the study area to many open space resources throughout the neighborhood, as well as to the waterfront. Study area residents would also continue to have access to open spaces just outside the study area, such as Union Square Park and East River Park. Therefore, although the open space ratios are below the City’s recommended planning goals, residents and workers in the neighborhood are able to enjoy open space amenities elsewhere in the city.

**F. THE FUTURE WITH THE PROPOSED ACTION**

The assessment of the With Action condition examines conditions that are expected to occur as a result of the proposed project by the 2018 build year. The capacity of the open space resources to serve future populations in the study areas is examined using quantitative and qualitative factors. The potential for direct effects on open space is also considered.

**DIRECT EFFECTS**

The proposed project would not directly displace any public open spaces, nor would it have any adverse impacts on existing open space in terms of air quality, noise, odors, or shadows. Therefore, the proposed project and proposed actions would not result in any significant adverse impacts on open space due to direct effects.

**INDIRECT EFFECTS**

*STUDY AREA POPULATION*

*Non-Residential (1/4-Mile) Study Area*

In 2018, the proposed project would introduce approximately 58 workers to the non-residential study area over the No Action condition. Therefore, the worker population in the non-residential study area would increase to approximately 25,291.

*Residential (1/2-Mile) Study Area*

The proposed project would introduce approximately 155 residential dwelling units over the No Action condition, resulting in a net increase of 389 residents to the residential study area (2010-2014 ACS average household size of 2.51). The population of the residential study area in the future With Action condition would be 93,016 residents.

The age distribution of the residential population is not expected to substantially change as a result of the proposed project. **Table B-8** shows the estimated number of residents in each age cohort, based on the percent share for that age cohort at the time of the 2010-2014 ACS.

**Table B-8  
With Action Condition: Residential Population Age Distribution**

Age Category	Persons	Percent
5 and younger	2,232	2.40%
5 to 9	2,139	2.30%
10 to 14	1,860	2.00%
15 to 17	1,302	1.40%
18 to 64	74,227	79.80%
65 and over	11,255	12.10%
<b>Total</b>	<b>93,016</b>	<b>100.00%</b>
<b>Source:</b> 2010-2014 ACS.		

*STUDY AREA OPEN SPACES*

As in the No Action condition construction on the Dry Dock Playground and Pool would be complete and the open space would be made accessible; no other changes to open spaces are anticipated in the future With Action condition. In the residential study area, total open space acreage would remain at 25.03 acres, of which 13.30 acres would provide active open space amenities, and 11.74 acres would provide passive open space amenities. In the non-residential study area, total acreage would remain at 7.77 acres, of which 2.92 acres would provide active open space amenities and 4.85 acres would provide passive open space amenities.

*ADEQUACY OF OPEN SPACES*

*Quantitative Assessment: Non-Residential (1/4-Mile) Study Area*

In the With Action condition, the ratio of passive open space acreage would be 0.192 acres per 1,000 non-residents. The passive open space ratio would be above the City’s planning guideline of 0.15 acres per 1,000 non-residents (see **Table B-9**).

*Quantitative Assessment: Residential (1/2-Mile) Study Area*

In the With Action condition, similar to existing conditions and the No Action condition, the total, active, and passive open space ratios in the residential study area would remain below City guideline levels. In the With Action condition, the total open space ratio would be 0.269 acres per 1,000 residents, the active open space ratio would be 0.143 acres per 1,000 residents, and the passive open space ratio would be 0.126 acres per 1,000 residents (see **Table B-9**).

**Table B-9**  
**With Action Condition: Adequacy of Open Space Resources**

Total Population	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			City Open Space Guidelines			
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
<b>Non-residential (1/4-Mile) Study Area</b>										
Workers	25,291	7.77	2.92	4.85	N/A	N/A	0.192	N/A	N/A	0.15
<b>Residential (1/2-Mile) Study Area</b>										
Residents	93,016	25.03	13.30	11.74	0.269	0.143	0.126	2.5	2.0	0.5

*Qualitative Assessment*

Although the total, active, and passive open space ratios in the With Action condition would remain below City guidelines, residents in the study area would have access to other open spaces outside the limits of the study area boundaries, such as Union Square and the East River Park. Furthermore, as discussed above, the community gardens excluded from the quantitative analysis would also contribute to qualitative amenities in the area.

When compared to the Borough of Manhattan and the City of New York, the age distribution of the residential study area is more heavily weighted toward working-aged adults (ages 18 to 64). Younger members of this age group tend to utilize court facilities for active recreation. There are many active amenities available along the East River Esplanade and in the East River Park, which is just outside the study area boundaries. Older members of this age group tend to utilize passive open space resources, in the residential study area there are many community gardens, Stuyvesant Square Park and other parks, which provide passive recreation.

**IMPACT SIGNIFICANCE**

According the *CEQR Technical Manual*, the significance of a project’s effects on open space is assessed using both qualitative and quantitative factors. These effects are compared to those that would occur in the No Action condition, to determine the effects attributable to the Proposed Action.

According to the *CEQR Technical Manual*, if the decrease in the open space ratio approaches or exceeds 5 percent, it is generally considered a substantial change warranting a more detailed analysis. However, the change in the open space ratio should be balanced against how well-served an area is by open space. If the study area exhibits a low open space ratio, even a small decrease may warrant a detailed analysis. As portions of the residential study area are within an underserved area and open space ratios are low, a detailed analysis was conducted. Likewise, if the study area exhibits an open space ratio that approaches or exceeds the planning goal of 2.5 acres, a greater percentage of change in the ratio may be acceptable.

*NON-RESIDENTIAL (1/4-MILE) STUDY AREA*

As shown in **Table B-10**, the passive open space ratio in the With Action condition would decrease by zero percent; therefore it is not considered a substantial change. Furthermore, the passive open space ratio in the With Action condition (0.192 acres per 1,000 non-residents) is higher than the recommended City planning goal of 0.15 acres per 1,000 non-residents.

*RESIDENTIAL (1/2-MILE) STUDY AREA*

As shown in **Table B-10**, the total, active, and passive open space ratios in the With Action condition would decrease compared the No Action condition and would continue to be below the level recommended by the City. The additional residents introduced in the future With Action condition would exacerbate existing deficiencies in open space resources in the study area. In addition, the analysis of the age distribution within the study area indicates that there may be greater burden on active open space in the residential study area because of the larger proportion of adults and working age people seeking court and field space, as compared to the Borough of Manhattan and New York City overall. However, the percentage changes between the No Action and With Action conditions for total, active, and passive open space acreages are not considered substantial, as the changes are less than one percent.

**Table B-10**

**With Action Condition: Open Space Ratios Summary**

Ratio	City Guideline	Open Space Ratios (acres per 1,000 people)			Percent Change No Action to With Action Condition
		Existing Conditions	No Action Condition	With Action Condition	
<b>Non-Residential (1/4-Mile) Study Area</b>					
Passive/Workers	0.15	0.308	0.192	0.192	0.000%
<b>Residential (1/2-Mile) Study Area</b>					
Total/Residents	2.5	0.257	0.270	0.269	-0.370%
Active/Residents	2.0	0.129	0.144	0.143	-0.694%
Passive/Residents	0.5	0.128	0.127	0.126	0.787%

As informed by Attachment C, “Shadows,” Attachment H, “Air Quality,” and Attachment I, “Noise,” the proposed project would not directly affect any open spaces near the project site.

In conclusion, the proposed project would not result in a significant adverse impact with respect to open space in the residential or non-residential study areas. \*

## A. INTRODUCTION

This attachment examines whether the proposed project at 432 East 14th Street/435 East 13th Street in Manhattan would result in a significant adverse shadow impact on any nearby sunlight-sensitive resources. According to the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, sunlight-sensitive resources of concern include public open spaces, sunlight-dependent features of historic architectural resources, and natural resources that depend on sunlight.

As detailed below, the proposed project would create under an hour of new shadows on one sunlight-sensitive resource: the stained glass windows and open-air arcade of the Immaculate Conception Church. The detailed shadows analysis found that incremental shadows from the proposed project would not substantially reduce the public's enjoyment of the church's sunlight-sensitive features. Therefore, the proposed project would not have a significant adverse shadows impact on this resource.

## B. DEFINITIONS AND METHODOLOGY

This analysis has been prepared in accordance with CEQR procedures and follows the guidelines of the *CEQR Technical Manual*.

### DEFINITIONS

**Incremental shadow** is the additional, or new, shadow that a structure resulting from a proposed project would cast on a sunlight-sensitive resource.

**Sunlight-sensitive resources** are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Such resources generally include:

- *Public open space* such as parks, beaches, playgrounds, plazas, schoolyards (if open to the public during non-school hours), greenways, and landscaped medians with seating. Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources.
- *Features of architectural resources that depend on sunlight for their enjoyment by the public.* Only the sunlight-sensitive features need be considered, as opposed to the entire resource. Such sunlight-sensitive features might include: design elements that depend on the contrast between light and dark (e.g., recessed balconies, arcades, deep window reveals); elaborate, highly carved ornamentation; stained glass windows; historic landscapes and scenic landmarks; and features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark.

- *Natural resources* where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

**Non-sunlight-sensitive resources** include, for the purposes of CEQR:

- *City streets and sidewalks* (except Greenstreets);
- *Private open space* (e.g., front and back yards, stoops, vacant lots, and any private, non-publicly-accessible open space);
- *Project-generated open space* cannot experience a significant adverse shadow impact from the project, according to CEQR, because without the project the open space would not exist.

A **significant adverse shadow impact** occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources. Each case must be considered on its own merits based on the extent and duration of new shadow and an analysis of the resource's sensitivity to reduced sunlight.

## METHODOLOGY

Following the guidelines of the *CEQR Technical Manual*, a preliminary screening assessment is first conducted to ascertain whether a project's shadow could reach any sunlight-sensitive resources at any time of year. The preliminary screening assessment consists of three tiers of analysis. The first tier determines a simple radius around the project site representing the longest shadow that could be cast. If there are sunlight-sensitive resources within this radius, the analysis proceeds to the second tier, which reduces the area that could be affected by project shadow by accounting for the fact that shadows can never be cast between a certain range of angles south of the project site due to the path of the sun through the sky at the latitude of New York City.

If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by project shadow by looking at specific representative days in each season and determining the maximum extent of shadow over the course of each representative day.

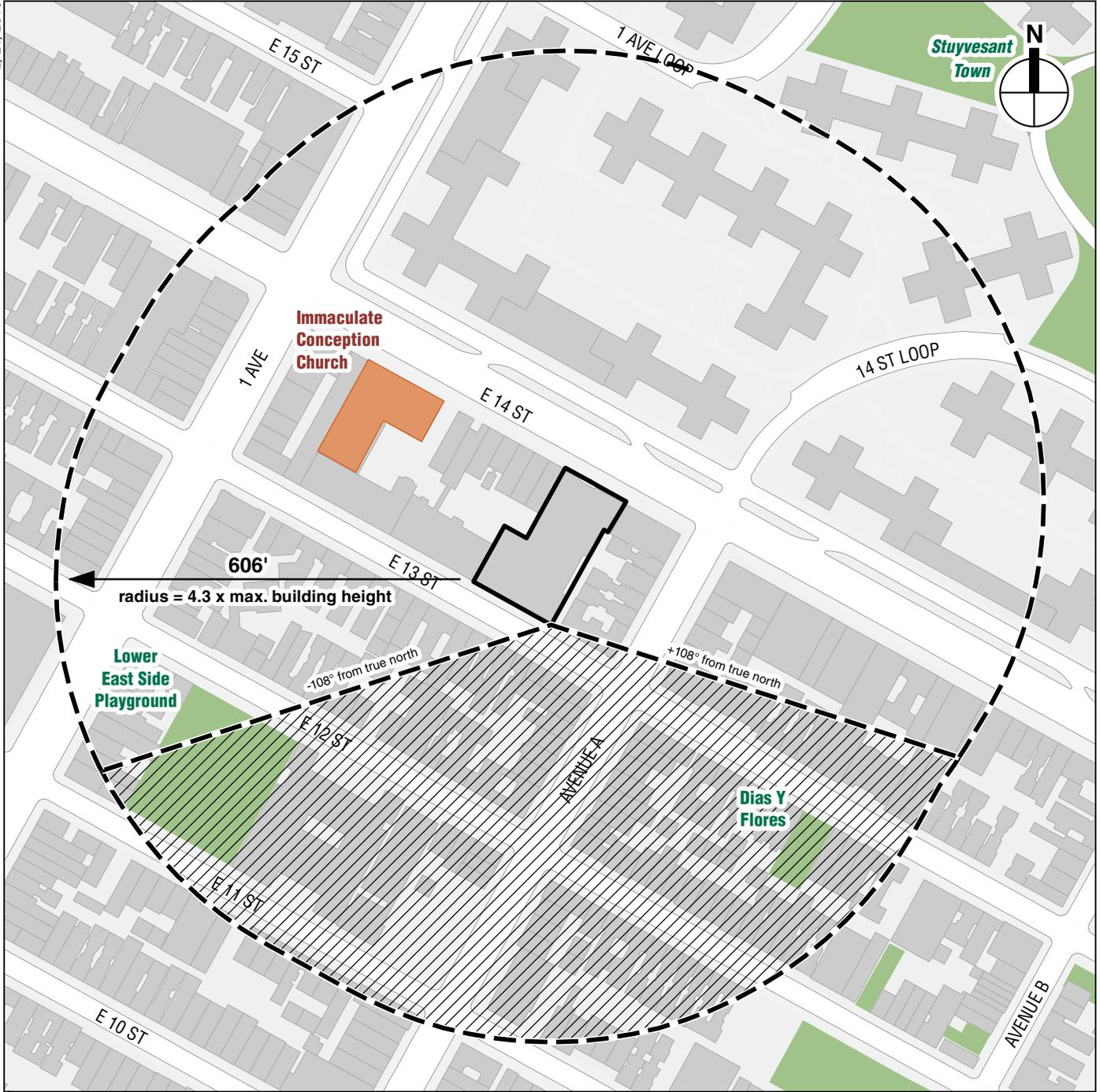
If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project. The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance is considered. The results of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text.

## C. PRELIMINARY SCREENING ASSESSMENT

A base map was developed using Geographic Information Systems (GIS)<sup>1</sup> showing the location of the proposed project and the surrounding street layout (see **Figure C-1**). In coordination with the land use and historic and cultural resources assessments presented in other attachments to

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<sup>1</sup> Software: Esri ArcGIS 10.3; Data: New York City Department of Information Technology and Telecommunications (DoITT) and other City agencies, and AKRF site visits.



- Development Site
- Tier 1: Longest shadow study area boundary
- Tier 2: Area south of site that could never be shaded by proposed building
- Publicly-Accessible Open Space
- Historic Resources with Sunlight-Sensitive Features

0 400 FEET

this Environmental Assessment Statement (EAS), potential sunlight-sensitive resources were identified and shown on the map.

### **TIER 1 SCREENING ASSESSMENT**

For the Tier 1 assessment, the longest shadow that the proposed project could cast is calculated, and, using this length as the radius, a perimeter is drawn around the project site. Anything outside this perimeter representing the longest possible shadow could never be affected by project-generated shadow, while anything inside the perimeter needs additional assessment.

According to the *CEQR Technical Manual*, the longest shadow that a structure can cast at the latitude of New York City occurs on December 21, the winter solstice, at the start of the analysis day at 8:51 AM, and is equal to 4.3 times the height of the structure.

At a maximum height of 141 feet above East 14th Street, including rooftop mechanical structures, the proposed project could cast a shadow up to 606 feet in length (141 x 4.3). Using this length as the radius, a perimeter was drawn around the project site (see **Figure C-1**). Two sunlight-sensitive resources are located within the longest shadow study area; the Lower East Side Playground, and Immaculate Conception Church (see description below). Therefore, a Tier 2 assessment is required.

### **TIER 2 SCREENING ASSESSMENT**

Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. **Figure C-1** illustrates this triangular area south of the project site. The complementing area to the north within the longest shadow study area represents the remaining area that could potentially experience new project-generated shadow. As illustrated in **Figure C-1**, the two open space resources identified in the Tier 1 screening remain within the area that could potentially experience new project-generated shadows. Therefore, a Tier 3 assessment is required to model project-generated shadows on specific representative days of the year.

### **TIER 3 SCREENING ASSESSMENT**

The direction and length of shadows vary throughout the course of the day and also differ depending on the season. Shadows move constantly but more quickly at the start and the end of the day than they do in the middle of the day. In order to determine whether project-generated shadow could fall on a sunlight-sensitive resource, three-dimensional computer mapping software is used in the Tier 3 assessment to calculate and display the incremental shadows from the proposed project on individual representative days of the year. A computer model was developed containing three-dimensional representations of the elements in the base map used in the preceding assessments, the topographic information of the study area, and the massing of the proposed project.

#### *REPRESENTATIVE DAYS FOR ANALYSIS*

Following the guidance of the *CEQR Technical Manual*, shadows on the summer solstice (June 21), winter solstice (December 21) and spring and fall equinoxes (March 21 and September 21, which are approximately the same in terms of shadow patterns) are modeled, to represent the range of shadows over the course of the year. An additional representative day during the

growing season is also modeled, the day halfway between the summer solstice and the equinoxes, i.e., May 6 or August 6, which have approximately the same shadow patterns.

#### *TIMEFRAME WINDOW OF ANALYSIS*

The shadow assessment considers shadows occurring between one and a half hours after sunrise and one and a half hours before sunset. Within the 90 minutes after sunrise and the 90 minutes before sunset, the sun is low on the horizon, and its rays reach the vicinity of the project site at low angles, producing shadows that are very long, move fast, and generally blend with shadows from existing structures until the sun reaches the horizon and sets. Consequently, shadows occurring in these two 90-minute periods are not considered significant under CEQR, and their assessment is not required.

#### *TIER 3 SCREENING ASSESSMENT RESULTS*

**Figure C-2** illustrates the range of shadows that would occur, in the absence of intervening buildings, from the proposed development on the four representative days of analysis. The extent of shadow is shown between the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset).

Because the portion of the proposed building fronting on East 14th Street would be approximately 50 feet taller than the portion of the building fronting on East 13th Street, the Tier 3 Assessment shadows stretch further to the north than to south from the project site. Due to the massing of the proposed building, the Tier 3 Assessment found that new shadow could never reach the Lower East Side Playground. However, the Tier 3 Assessment also identified that without intervening structures, project-generated shadow could fall on the Immaculate Conception Church on the March 21/September 21 and December 21 analysis days. Therefore, a detailed analysis is necessary to provide additional information on the potential extent and duration of incremental shadow on the sunlight-sensitive features of the church.

### **D. DETAILED ANALYSIS**

The purpose of the detailed analysis is to determine the extent and duration of incremental shadows that fall on sunlight-sensitive resources as a result of the project and to assess their potential effects. To complete the assessment, a baseline or future No Action condition is established by appending three-dimensional representations of the existing buildings and planned future developments within the vicinity of the project site to the three-dimensional model used in the Tier 3 assessment. The future condition with the proposed project (With Action) and its shadows can then be compared to the baseline condition to determine the incremental shadows that would result with the proposed project.

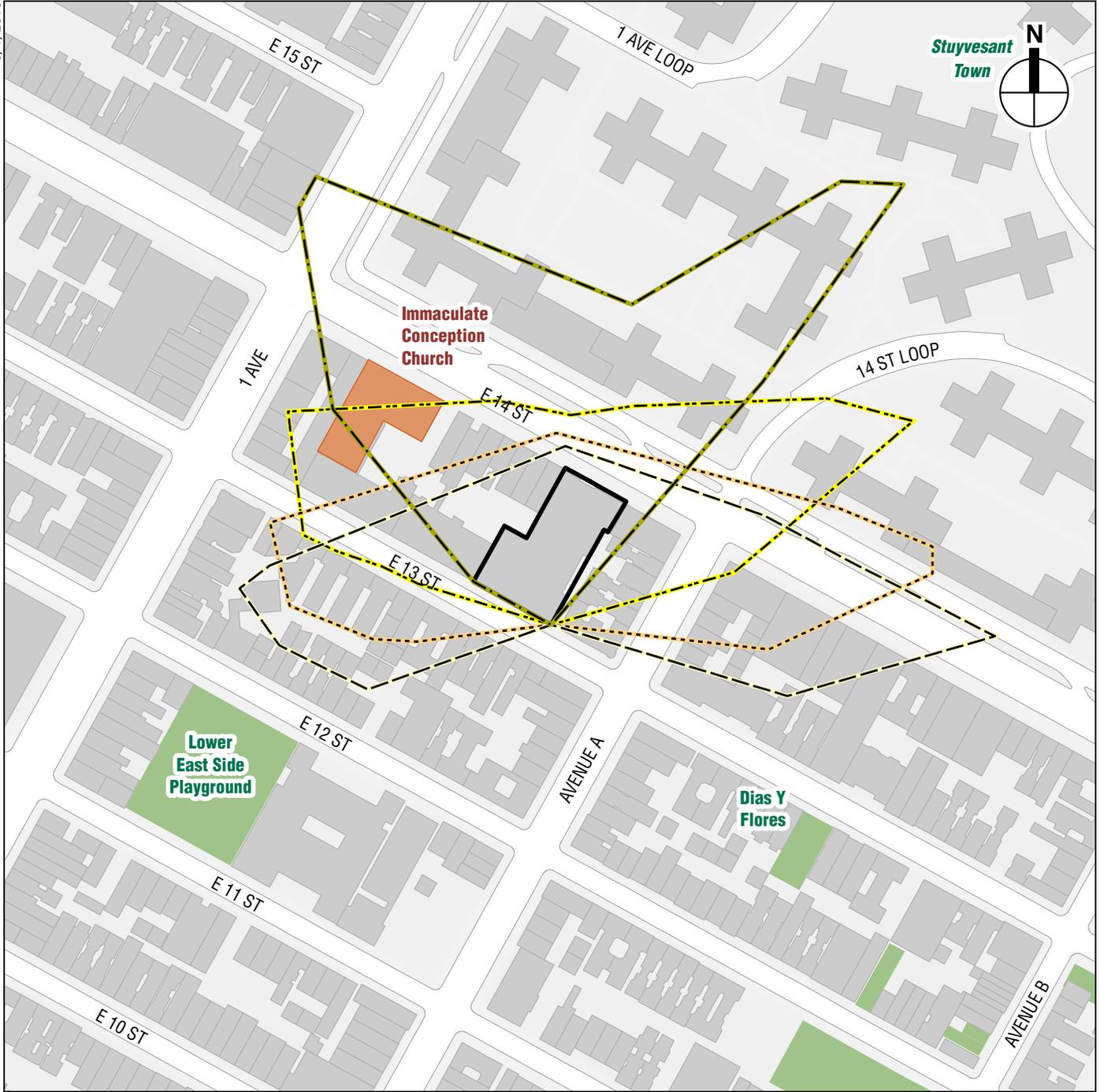
The No Action scenario assumes the project site would remain vacant. **Figure C-3** illustrates the computer models used in the detailed analysis of the future no action scenario and the future with the proposed development.

### **ANALYSIS RESULTS**

The analysis found that the sunlight-sensitive features of the Immaculate Conception Church would experience 31 minutes of new shadow at the beginning of the March 21/September 21 analysis day. **Table C-1** shows the entry and exit times and total duration of project-generated incremental shadow on the affected resource.

3/1/2016

Stuyvesant  
Town



-  *Development Site*
-  *Publicly-Accessible Open Space*
-  *Historic Resources with Sunlight-Sensitive Features*
- Shadow Path without Existing Structures*
-  *March 21/September 21*
-  *May 6/August 6*
-  *June 21*
-  *December 21*

0 400 FEET





Existing



Proposed

- Proposed Building
- Historic Resource with Sunlight Sensitive Features
- Publically Accessible open Space

**Table C-1**  
**Incremental Shadow Durations**

<b>Analysis day and timeframe window</b>	<b>March 21 / September 21</b>	<b>May 6 / August 6</b>	<b>June 21</b>	<b>December 21</b>
	<b>7:36 AM – 4:29 PM</b>	<b>6:27 AM – 5:18 PM</b>	<b>5:57 AM – 6:01 PM</b>	<b>8:51 AM – 2:53 PM</b>
Immaculate Conception Church	7:36 AM – 8:07 AM Total: 0 hr 31 min	-	-	-
<b>Notes:</b> Table indicates entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource. Daylight savings time is not used—times are Eastern Standard Time, per <i>CEQR Technical Manual</i> guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.				

The Immaculate Conception Church is located on the same block as the project site, at 414 East 14th Street. It is a designated New York City Landmark (NYCL) and is listed on the State and National Registers of Historic Places (S/NR). The church has several architectural features that are considered to be sunlight-sensitive, including stained-glass windows, an open-air arcade, and elaborate carved ornamentation. The facades of the Church that include these features were modeled in the detailed analysis to assess the impact of incremental shadow from the proposed project.

The detailed analysis found that only the facade of the Church's interior court which faces the project site could experience incremental shadow. **Figure C-4** shows a recent photograph of this façade, located in the interior of the block between East 14th and 13th Streets. **Figure C-5** illustrates the position of incremental shadow on the Church at two times on the morning of the March 21/September 21 analysis day. The analysis day would begin (at 7:36 AM) with incremental shadow from the proposed project falling on stained-glass windows and the arcade of the church. By 8:00 AM, the new shadow would move off the façade featuring stained-glass windows and remain only on a small portion of the arcade. After 8:07 AM, none of the church's sunlight-sensitive features would be affected by new shadow from the proposed project, and the affected facades would receive direct sunlight for the remainder of the morning.

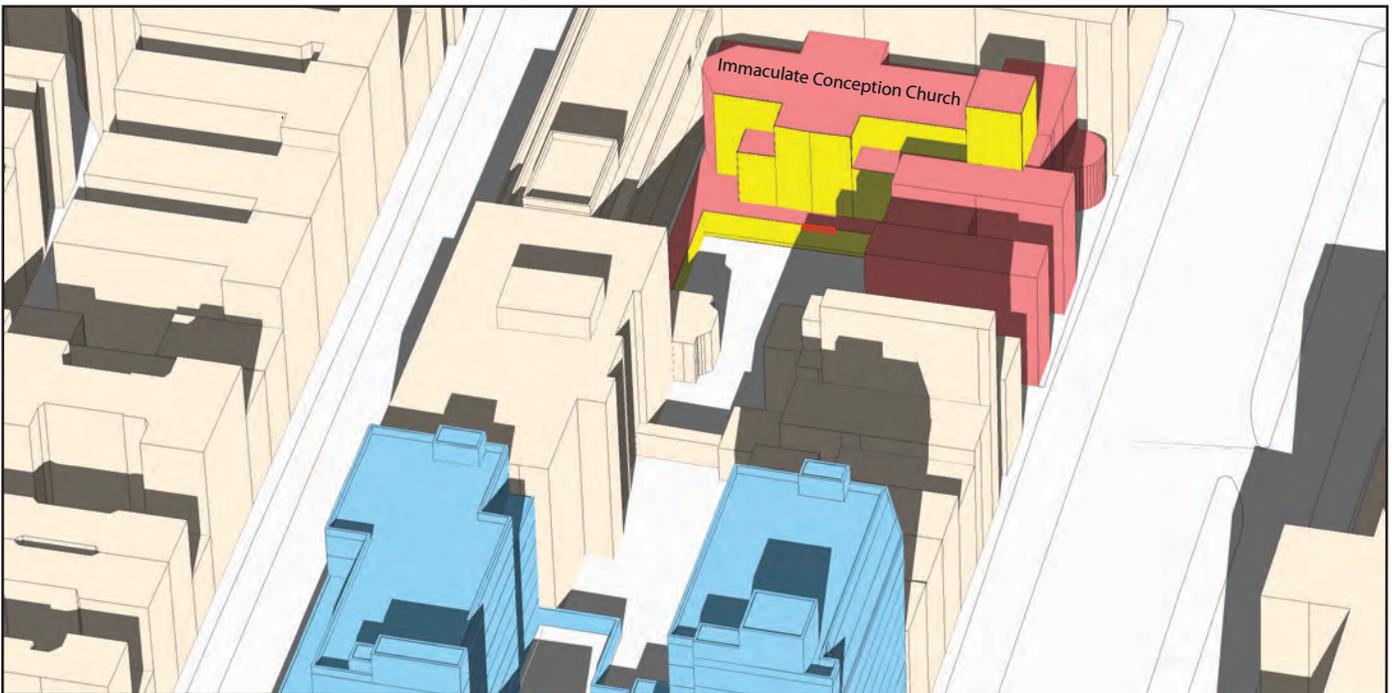
## CONCLUSION

The proposed project would create 31 minutes of new shadow on one sunlight-sensitive architectural resource, the Immaculate Conception Church. The detailed shadow analysis found that a portion of the eastern façade and arcade of the Church's interior court would be affected by shadows from the proposed project on the morning of the March 21/September 21 analysis day. However, the short duration and small extent of shadow would not substantially reduce the public's enjoyment of the church's sunlight-sensitive features. Therefore, the sunlight-sensitive resource would not experience a significant adverse shadow impact and the proposed project would not result in a significant shadow impact. \*





7:40 AM



8:00 AM

- Proposed Building
- Incremental Shadow on Sunlight-Sensitive Feature
- Facade with Sunlight -Sensitive Features

**A. INTRODUCTION**

This chapter assesses the potential of the proposed project to affect historic and cultural resources. The project site, located at 432 East 14th Street in the East Village neighborhood of Manhattan, would be redeveloped with an 8- and 12-story, 125,258 square foot (sf) building with approximately 155 dwelling units and 9,131 sf of commercial floor area.

As detailed below, the proposed project would not result in any significant adverse direct or indirect impacts to known or potential historic architectural resources on the project site or in the study area.

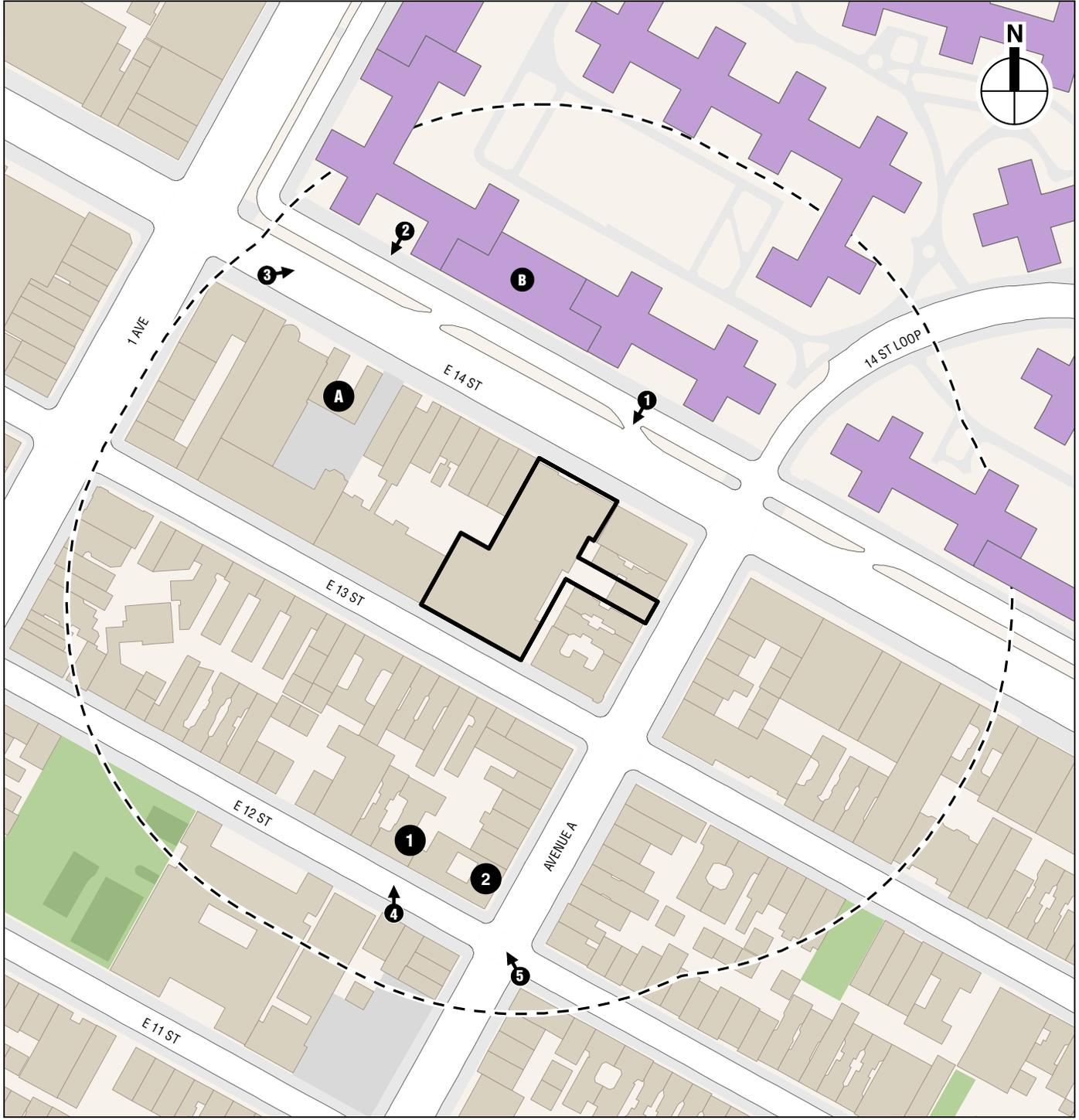
**B. METHODOLOGY**

Historic and cultural resources include both archaeological and architectural resources. The study area for archaeological resources is the project site itself where disturbance from excavation and construction can be anticipated. In a comment letter dated April 20, 2015, the New York State Historic Preservation Office (SHPO) determined that the site has no archaeological significance (see **Appendix A**). In a comment letter dated May 10, 2016, the New York City Landmarks Preservation Commission also determined that the site has no archaeological significance (see **Appendix A**). Therefore, this attachment focuses on standing structures only.

In general, potential impacts to architectural resources can include both direct, physical impacts and indirect, contextual impacts. Direct impacts include demolition of a resource and alterations to a resource that cause it to become a different visual entity. A resource could also be damaged from vibration (i.e., from construction blasting or pile driving), and additional damage from adjacent construction could occur from falling objects, subsidence, collapse, or damage from construction machinery. Adjacent construction is defined as any construction activity that would occur within 90 feet of an architectural resource, as defined in the New York City Department of Buildings (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88*.<sup>1</sup> Contextual impacts can include the isolation of a property from its surrounding environment, or the introduction of visual, audible, or atmospheric elements that are out of character with a property or that alter its setting. Therefore, to assess the potential for both physical and contextual effects, the architectural resources study area is defined as the area within 400 feet of the project site (see **Figure D-1**).

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<sup>1</sup> *TPPN #10/88* was issued by DOB on June 6, 1988, to supplement Building Code regulations with regard to historic structures. *TPPN #10/88* outlines procedures for the avoidance of damage to historic structures that are listed on the NR or New York City Landmarks (NYCLs) resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.



Project Site

Study Area (400-Foot Boundary)

Photograph View Direction and Reference Number

Known Architectural Resource

The Church of Immaculate Conception and Clergy House

Stuyvesant Town

Potential Architectural Resources

437 East 12th Street

193 Avenue A

0 200 FEET

Known architectural resources include properties that are National Historic Landmarks (NHLs), properties listed on the State/National Registers of Historic Places (S/NR) or that have been determined eligible for listing (S/NR-eligible), and properties that have been designated as New York City Landmarks (NYCLs), determined NYCL-eligible, or calendared for NYCL designation. In addition, a survey of the study area was undertaken to identify any buildings that could meet S/NR and NYCL eligibility criteria (“potential architectural resources”).

## C. EXISTING CONDITIONS

### ARCHITECTURAL RESOURCES

#### *PROJECT SITE*

The project site at 432 East 14th Street is currently vacant land (see **Figure D-2**). The air rights parcel at 219 Avenue A (Block 441, Lot 32) is currently occupied by a 5-story residential building. There are no architectural resources on the project site. The building on the air rights parcel has not been identified as a potential architectural resource.

#### *STUDY AREA*

There are two architectural resources in the study area.

**The Church of the Immaculate Conception and Clergy Houses**<sup>2</sup> (NYCL, S/NR), located at 406-414 East 14th Street, are located to the west of the project site on the project block (see **Figure D-3**). The buildings were designed in 1894 by architects Barney and Chapman. Once a part of Grace Church Parish, the chapel and clergy houses were known as Grace Chapel and Hospital on 14th Street and were furnished as a “free-pew” place of worship for those less fortunate financially than the members of Grace Church itself. The church and its clergy houses are designed in the French Gothic Revival style and faced in stone and smooth brown Roman brick. The church is rectangular in form, and rises more than three stories in height. The East 14th Street façade has a plain, asymmetrical gable which contains a large rose window directly above the entrance and its arched portal. To the right of the church entrance is a projecting six-sided chapel, with six pinnacled buttresses and paired pointed-arched windows separated by small columns. To the east and adjacent to the church is a six-story-high, freestanding tower. Each of its facades contains paired vertical openings, articulated by clusters of slender colonettes and terminating in pointed arches.

East of the church are the clergy houses, a pair of 3½-story brick and stone buildings that closely resemble French chateaus. The two houses are joined at their base by a low arch which frames the entrance to a small courtyard. Each floor of these buildings is rhythmically articulated by double windows and gabled dormer windows are set in the slate roof of the attic story. Belt course moldings at the second and fourth floors add decorative accents.

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<sup>2</sup> The text describing the Church of the Immaculate Conception and Clergy Houses is derived from the New York City Landmark designation report (1966) and the National Register of Historic Places Inventory Nomination Form, *Grace Chapel and Hospital of Fourteenth Street/Church of the Immaculate Conception and Clergy House*, 1979.



1



The Church of the Immaculate Conception and Clergy House 2



Stuyvesant Town, view east from East 14th Street 3

**Stuyvesant Town** (S/NR-eligible) is located to the north of the project site, on an 80-acre superblock bounded by East 14th and East 20th Streets, the FDR Drive, Avenue C, and First Avenue. The Stuyvesant Town development was built in 1947 by the Metropolitan Life Insurance Company to provide inexpensive housing for World War II veterans. It consists of 35 freestanding brick buildings of 13 and 14 stories, arranged around a central oval (see **Figure D-3**). The residential buildings have rectilinear footprints of multiple bays and unornamented facades. Playgrounds and lawns are interspersed throughout the development.

Two buildings in the study area were identified as potential architectural resources in the *East Village / Lower East Side Rezoning Final Environmental Impact Statement* (2005). No determination of NYCL or S/NR eligibility was made by LPC at that time. The early 20th century, 5-story brick and stone tenement building located at **437 East 12th Street** was occupied by Beat poet Allen Ginsberg for twenty-one years, from 1975-1996 (see **Figure D-4**). The apartment and neighborhood were featured in numerous poems written while Ginsberg lived in the building. **193 Avenue A** is a 6-story tenement building ornamented with stone window architraves, banding, and a decorative cornice. The building dates to the early 20th century.

## **D. THE FUTURE WITHOUT THE PROPOSED PROJECT**

In the future without the proposed project, the status of architectural resources could change. S/NR-eligible resources could be listed on the Registers, NYCL-eligible properties could be calendared for a designation hearing, and properties pending designation as Landmarks could be designated.

Section BC3309 of the New York City Building Code, “Protection of Adjoining Property,” provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. While these regulations serve to protect all structures adjacent to construction areas, they do not afford special consideration for historic resources. Section BC 3309.4.4 and a second protective measure, the DOB’s *TPPN #10/88*, applies to NYCLs, properties within New York City Historic Districts, and National Register-listed properties. *TPPN #10/88* and this sub-section of the Building Code supplements the standard building protections afforded by the Building Code by requiring a monitoring program to reduce the likelihood of construction damage to adjacent NYCLs and NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

### **PROJECT SITE**

It is assumed that in the future without the proposed project, the project site will remain vacant. No development would occur by the 2018 analysis year.

### **STUDY AREA**

As discussed in Attachment A, “Land Use, Zoning, and Public Policy,” there are four projects within the 400-foot study area that are expected to be constructed by the 2018 analysis year. The first site is located at 438 East 12th Street, one block directly south of the project site. It is currently under construction for a six-story residential development, anticipated to be completed and occupied in 2017. At 222 Avenue A (504-530 East 14th Street), on the southeast corner of East 14th Street and Avenue A, ground has been broken on a seven-story mixed-use building expected to be completed in 2017. Directly south of the project site, 436 and 442 East 13th



437 East 12th Street 4



193 Avenue A 5

**432 E 14TH STREET**

Potential Architectural Resources  
in Study Area  
**Figure D-4**

Street are both being developed with six-story residential buildings. At six and seven stories, these projects will be in keeping with the heights of buildings in the surrounding area, and thus will not substantially change the visual setting of the resources noted above. None of these projects are within 90 feet of a known architectural resource. Should the potential resources noted above be designated in the future, they would be within 90 feet of the projects at 436 and 442 East 13th Street and would be offered some protection through DOB controls governing the protection of adjacent properties from construction activities.

## **E. PROBABLE IMPACTS OF THE PROPOSED PROJECT**

### **PROJECT SITE**

With the proposed project, the project site would be redeveloped with a new 8- and 12-story mixed-use residential and commercial building. The building would be clad predominantly in brick on its street-facing facades, and would have frontage along East 13th and East 14th Streets. The East 13th Street portion of the building would be eight stories in height, and the East 14th Street portion of the building would be 12 stories in height. The two sections of the building would be connected at the cellar level. The proposed retail space would occupy part of the cellar level and ground floor along East 14th Street.

As there are no known or potential architectural resources on the project site, the proposed project would not have a direct, physical effect on such resources.

### **STUDY AREA**

There are no known or potential architectural resources located within 90 feet of the project site. Therefore, the proposed project would not have a direct, physical effect on such resources.

The proposed project would replace an existing vacant lot. The 12-story portion of the proposed building would be similar in height to the 13-story buildings across East 14th Street in the Stuyvesant Town development. The East 13th Street façade would set back above the sixth floor, to be compatible with the existing streetwall along East 13th Street. Thus, the proposed project would be in keeping with the heights of buildings in the surrounding area, and would not substantially change the visual setting of the resources noted above. Further, the anticipated materials for the proposed building, brick, stucco and metal, are consistent with those of the existing study area buildings. Therefore, the proposed building would not introduce incompatible visual, audible, or atmospheric elements to the setting of the architectural resource.

As described in Attachment C, “Shadows,” the proposed project would create under an hour of new shadows on the stained glass windows of The Church of Immaculate Conception; however this would not be considered a significant adverse effect on this architectural resource, because the project-generated shadows would not substantially reduce the public’s enjoyment of the church’s sunlight-sensitive features.

In its comment letter dated April 20, 2015, SHPO concluded that the proposed project would not have an impact on historic resources listed or determined eligible for listing on the New York State and National Registers of Historic Places.

Overall, the proposed project would not adversely impact any known or potential architectural resources on the project site or in the study area. \*

## **A. INTRODUCTION**

This attachment considers the potential of the proposed project to affect urban design and visual resources. The proposed project would construct a mixed-use residential and commercial building at 432 East 14th Street/435 East 13th Street (Block 441, Lot 23) in the East Village neighborhood of Manhattan, Community District 3 (the “project site”). The project would utilize approximately 3,970 square feet of air rights from Block 441, Lot 32, which is currently and would continue to be occupied by a 5-story mixed-use building. The proposed project would contain approximately 149,009 gross square feet (gsf) of residential use (155 dwelling units, including 31 affordable units) and approximately 17,168 gsf of retail space in the portion of the project located on East 14th Street.

Under the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, urban design is defined as the totality of components that may affect a pedestrian’s experience of public space. These components include streets, buildings, visual resources, open spaces, natural resources, and wind. An urban design assessment under CEQR must consider whether and how a project may change the experience of a pedestrian in a project area. The *CEQR Technical Manual* guidelines recommend the preparation of a preliminary assessment of urban design and visual resources, followed by a detailed analysis, if warranted based on the conclusions of the preliminary assessment. The analysis provided below addresses urban design characteristics and visual resources for existing conditions and the future without and with the proposed project.

## **B. METHODOLOGY**

Based on the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. Examples include projects that permit the modification of yard, height, and setback requirements, and projects that result in an increase in built floor area beyond what would be allowed “as-of-right” or in the future without the proposed project.

The proposed actions include an override to waive applicable floor area, height, and setback regulations. These would allow for the development of a project that includes physical alterations observable by pedestrians that are not allowed by existing zoning. Therefore, the proposed project meets the threshold for a preliminary assessment of potential impacts to urban design and visual resources.

According to the *CEQR Technical Manual*, the study area for urban design is the area where the project may influence land use patterns and the built environment, and is generally consistent with that used for the land use analysis. For visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified. Consistent with *CEQR* methodologies, the study area for the urban design and visual resources analysis has been

defined as a 400-foot radius around the project area, consistent with the analysis of land use, zoning, and public policy (see **Figure E-1**).

The *CEQR Technical Manual* recommends an analysis of pedestrian wind conditions for projects that result in the construction of large buildings at locations that experience high wind conditions (such as along the waterfront, or other location where winds from the waterfront are not attenuated by buildings or natural features), which may result in an exacerbation of wind conditions due to “channelization” or “downwash” effects that may affect pedestrian safety. The proposed project would not result in the construction of large building at a location that experience high wind conditions, and thus a pedestrian wind analysis is not warranted.

## C. EXISTING CONDITIONS

### URBAN DESIGN

#### *PROJECT SITE*

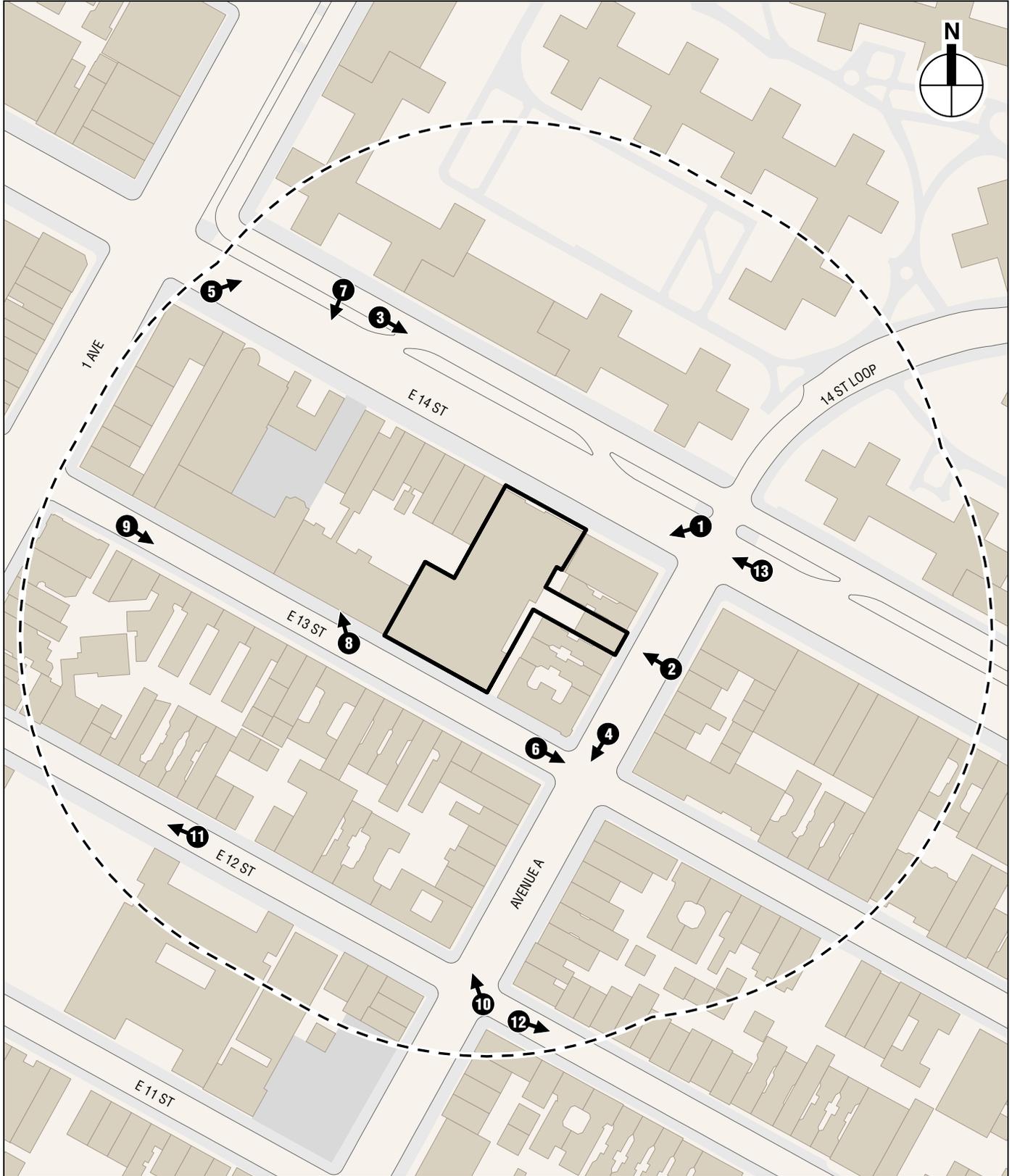
The project site is a through-block lot located in the middle of the block bounded by East 13th and East 14th Streets, First Avenue, and Avenue A (Block 441, Lot 23) (see **Figures E-1 and E-2**). The site is vacant; it was previously occupied with a one-story former post office building, which was recently demolished. A green, wooden construction fence encloses the lot along East 14th and East 13th Streets (see **Figure E-3**, photo 1). The air rights parcel for the project, 219 Avenue A (Block 441, Lot 32) is occupied by a five-story, 7,092 gsf brick residential building with ground-floor retail. The building, which has been painted white, features projecting window lintels and an ornate central-pediment cornice (see **Figure E-3**, photo 2).

#### *STUDY AREA*

The 400-foot study area developed in a typical urban grid pattern, and the topography is relatively flat. It primarily contains low-scale mixed-use brick buildings developed beginning in the early 20th century. East 14th Street is a major east-west thoroughfare in the study area. North of East 14th Street, Stuyvesant Town occupies an 80-acre superblock bounded by East 14th and East 20th Streets, the FDR Drive, Avenue C, and First Avenue. Four private loop roads extend through the superblock. The loop road within the study area, 14th Street Loop, aligns with Avenues A and B. This large complex acts as a physical and visual barrier to the north of the project site. The discussion below focuses first on the area’s urban design—its basic layout and structures—and then describes its visual resources.

#### *Streets, Streetscape, Open Space, and Natural Features*

As described above, the study area is generally developed in a grid pattern, although north of East 14th Street several blocks were combined to create the Stuyvesant Town superblock. While the street grid is broken by Stuyvesant Town, its 14th Street Loop aligns with Avenue A and is a U-shaped street with sidewalks. Street furniture in the study area includes street lamps, traffic lights, Citi Bike parking station, bus stop signs, fire hydrants, trash cans, and benches. Mature street trees line East 14th Street, while the narrower side streets have smaller street trees. East 14th Street is a major east-west street in the study area, with four lanes of two-way traffic and street parking, as well as a one-way (westbound) lane and street parking separated from the main roadway by a raised, planted median (see **Figure E-4**, photo 3).



Project Site

Study Area (400-Foot Boundary)

Photograph View Direction and Reference Number

0 200 FEET

**432 EAST 14TH STREET**

Urban Design and Visual Resources  
Reference Map  
**Figure E-1**

3/11/2016



-  Project Site
-  Study Area (400-Foot Boundary)

0 200 FEET



**432 EAST 14TH STREET**

**Aerial Map  
Figure E-2**



Proposed project site with five-story walk-ups beyond. A large, newly constructed residential building is seen on the far right. View looking southwest.

1



Building on air rights parcel, view from Avenue A

2



East 14th Street is a wide east-west cross street in the study area with a raised median dividing lanes of traffic. View looking east. **3**



Avenue A is a wide street with long views that include mature street trees just outside of the study area. View looking south. **4**

Avenue A is an 80-foot-wide, two-lane thoroughfare that runs north-south through the study area with parallel parking and bike lanes along both sides of the roadway (see **Figure E-4**, photo 4). East 13th Street is a 60-foot-wide, west-bound cross street with parking on either side of the street and a Citi Bike station near Avenue A. East 12th Street is a 60-foot-wide east-bound cross street with parking on either side of the street.

Active streets and street trees of varying size are the defining features of the streetscape. East 14th Street and Avenue A are busy with both vehicle and foot traffic. As a major east-west thoroughfare, East 14th Street has numerous bus lines and the First Avenue subway station of the L line is located at the corner of East 14th Street and First Avenue (see **Figure E-3**, photo 2). A Citi Bike station is located just east of Avenue A on East 13th Street, adding to the foot traffic in the area (see **Figure E-5**, photo 6). The east-west cross streets are heavily treed, with those along East 14th Street being larger, particularly on the north side of the street. As described more fully below, Stuyvesant Town consists of freestanding residential buildings set within landscaped grounds (see **Figure E-5**, photo 5). These grounds consist of grassy areas with trees, landscaped pedestrian passageways that run north-south and east-west through the complex, sidewalk seating areas, basketball, tennis, bocce and volleyball courts, and playgrounds. East of Avenue A, the Dias y Flores Garden is a community garden space located along East 13th Street. Another community garden is located along East 12th Street, just east of the study area, and the Lower East Side Playground is located at the southwest corner of the study area, adjacent to a public intermediate/high school.

#### *Built Environment*

The built environment within the study area is predominantly four- to six-story brick-clad buildings constructed in the first decade of the 20th century. Just east of the project site on East 14th Street, the project block is developed with one-story shops with glass and metal storefronts. The rest of the project block is mostly occupied with five-story walkup brick apartment buildings with ground-floor retail. A newly-constructed narrow, 8-story, 80-foot-tall, metal and glass residential building is located at 420 East 14th Street/427 East 13th Street (see **Figure E-3**, photo 1). This building is a through-block structure, with its other, much wider facade fronting onto East 13th Street (described below). The Church of the Immaculate Conception and Clergy House (see Attachment D, “Historic and Cultural Resources”) is located at 406-414 East 14th Street. The 3½-story clergy houses are built out to the sidewalk, while the church building is set back approximately 14 feet. The buildings are clad in brownstone and dark brown brick (see **Figure E-6**, photo 7).

Just west of the project site on East 13th Street is the newly-constructed through-block building described above. The wider East 13th Street portion of the building provides the main residential entrance and rises a total of 77 feet with a setback at the sixth floor (see **Figure E-6**, photo 8). The facade is largely glazed, with metal frames, colorful accent panels, and projecting glass and metal balconies. The Immaculate Conception School, a tan brick, stone, and metal clad building built in 1946, is located adjacent to the through-block building and south of the church and clergy houses. The central portion of the school building rises four stories before a setback, while two 70-foot-tall sections are located at the east and west ends of the building (see **Figure E-6**, photo 8).

The south side of East 13th Street between First Avenue and Avenue A is developed with a mix of brick-clad, one- to six-story buildings dating to the early 20th century. A two-story, five bay wide brick building located at 408 East 13th Street has a one-story shed-roof, metal rooftop addition. 410-420 East 13th Street is a cluster of three six-story, identically designed brick and



View to Stuyvesant Town, looking east on East 14th Street near First Avenue **5**



East 13th Street at Avenue A. A Citi Bike parking station is located on the southeast corner. View looking northeast. **6**



Church of the Immaculate Conception and Clergy Houses. View looking south. 7



East 13th Street between First Avenue and Avenue A contains a newly-constructed residential building and a brick school building. View looking northwest. 8

limestone apartment buildings constructed in 1907. All retain their projecting window surrounds, detailed window lintels, and second-floor belt course. Only 420 East 13th Street retains the original metal cornice (see **Figure E-7**, photo 9).

Just north of the project site, the Stuyvesant Town development consists of 35 freestanding brick buildings of 13 and 14 stories, arranged around a central oval (see **Figure E-5**, photo 5). Along East 14th Street, the buildings reach a height of approximately 133 feet. The residential buildings have rectilinear footprints of multiple bays and unornamented facades. Playgrounds and lawns are interspersed throughout the development. On the perimeter, the buildings are aligned with the street grid, and commercial spaces are located along portions of East 14th Street frontages. Within the study area, Stuyvesant Town acts as a visual and physical barrier, with the large brick buildings breaking only for a one-story grocery store and the 14th Street Loop. At the intersection of East 14th Street and the 14th Street Loop, there are fenced, corner grassy areas with trees.

Buildings along Avenue A between East 14th and East 12th Streets vary in height from 38 feet to 65 feet. Buildings are primarily clad in brick, and many retain their original details such as projecting window surrounds, window lintels, and cornices (see **Figure E-7**, photo 10). The buildings are all built out to the sidewalk, creating a uniform street wall.

East of Avenue A, East 13th Street within the study area is developed with a mix of four- to six-story brick buildings. On the northeast corner of the intersection of Avenue A and East 13th Street is a newly-built, brick and concrete block four-story building with a one-story section on East 13 Street. This building is contextually designed, referencing details from neighboring buildings such as quoins, a rusticated first floor, contrasting window lintels, and a simplified cornice (see **Figure E-5**, photo 6). In the middle of the block at 523-525 East 13th Street is a large, nine-story brick apartment building. The four-bay-wide central section of the building is recessed and rises seven stories before a setback; the two two-bay-wide outer portions of the building rise six-stories before a setback.

On the block bounded by East 12th and East 11th Streets, First Avenue, and Avenue A, a charter middle school and a public high school are housed in the former P.S. 60 building, a through-block structure in the middle of the block bounded by East 11th and 12th Streets, First Avenue, and Avenue A. The five-story, 60-foot-tall H-plan school building was built in 1923 and is clad in brick and limestone. Two raised entrances are recessed from the street, and parking spaces are provided between these. The Lower East Side Playground, which includes playground equipment, a basketball court, and a soccer field is located to the west of the school building. To the west of the playground on East 11th Street is a community garden. A brightly colored mural is painted on the building west-adjacent to the soccer field (see **Figure E-8**, photo 11). A newly-constructed building is located opposite the school building, at 427 East 12th Street. The black brick and metal building rises six-stories without setbacks. East of the school is a large site currently under construction for a residential building (see below under “Future Without the Proposed Project”).

East of Avenue A, East 12th Street contains three four-story brick apartment buildings with ground-floor retail and two five-story brick apartment buildings, one with ground-floor retail. These buildings were all constructed in the beginning of the 20th century (see **Figure E-8**, photo 12).



South side of East 13th Street, view looking southeast from east of First Avenue 9



View looking northwest from East 12th Street and Avenue A 10



A soccer field and brightly painted mural are part of the playground space on the south side of East 12th Street. View looking southwest. **11**



East 12th Street east of Avenue A contains a mix of brick buildings constructed in the early part of the 20th century. View looking east. **12**

## VISUAL RESOURCES

### *PROJECT SITE*

As defined in the *CEQR Technical Manual*, a visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources. As described above, the project site is vacant, and there are no visual resources located on the project site. The five story residential building on the air rights parcel is not considered to be a visual resource.

### *STUDY AREA*

Visual resources within the study area consist of historic architectural resources and natural resources. As described above, the Immaculate Conception Church and Clergy House located west of the project site on the project block are stone and brick buildings dating to 1894 (see **Figure E-6**, photo 7). The tall bell tower of the church is a notable visual element within study area views.

Along East 14th Street, views are long. To the west, views include the Consolidated Edison Company Building (a New York City Landmark that has been determined eligible for listing on the State and National Registers of Historic Places) located at the northeast corner of Irving Place and East 14th Street. The tall, white tower with hipped roof rises approximately 478 feet and is a distinctive landmark in the area (see **Figure E-9**, photo 13). To the east, views extend to the large Con Ed power plant located at the East River waterfront. Within the study area, the landscaped grounds and mature trees within and surrounding Stuyvesant Town are considered to be a visual resource.

Views east and west along East 12th and East 13th Streets tend to be shorter as the streets are narrower and lined with street trees. Avenue A provides long views to the south, including mature trees in Tompkins Square Park; views to the north on the avenue terminate at Stuyvesant Town.

## **D. THE FUTURE WITHOUT THE PROPOSED PROJECT**

### **PROJECT SITE**

Absent the proposed project, it is assumed that the project site will remain vacant and no development would occur.

### **EFFECTS OF OTHER FUTURE PROJECTS**

As discussed in Attachment A, “Land Use, Zoning, and Public Policy,” there are four developments that are expected to be constructed by the 2018 analysis year in the 400-foot study area. 438 East 12th Street, a six-story, approximately 80-foot-tall, 82-unit residential development, is anticipated to be completed and occupied in 2017. As currently designed, the facade will feature brick, aluminum, and glazing. At 222 Avenue A (504-530 East 14th Street), a seven-story, approximately 80-foot-tall, 150-unit mixed-use building is expected to be completed in 2017. Additional construction is underway at 436 and 442 East 13th Street, which are both being developed with six-story, six unit buildings.



View west to Consolidated Edison building, from East 14th Street and Avenue A 13

## E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

### URBAN DESIGN

The *CEQR Technical Manual* guidelines state that if the preliminary assessment shows that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed analysis is appropriate. Examples include projects that would potentially obstruct view corridors, compete with icons in the skyline, or make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings. Detailed analyses also are generally appropriate for areawide rezonings that include an increase in permitted floor area or changes in height and setback requirements, general large-scale developments, or projects that would result in substantial changes to the built environment of a historic district or components of a historic building that contribute to the resource's historic significance.

### PROJECT SITE

In the future with the proposed project, a new, mixed-use residential and commercial building would be constructed on the site. The proposed building would have frontage along East 13th and East 14th Streets (see **Figures E-10 and E-11**). The East 13th Street portion of the building would be eight stories in height (approximately 80 feet), with a setback above the sixth floor (see **Figure E-12**). The East 14th Street portion of the building would rise 12 stories (124 feet) without setbacks (see **Figure E-13**). Retail space would occupy the first floor of the East 14th Street portion of the building.

### STUDY AREA

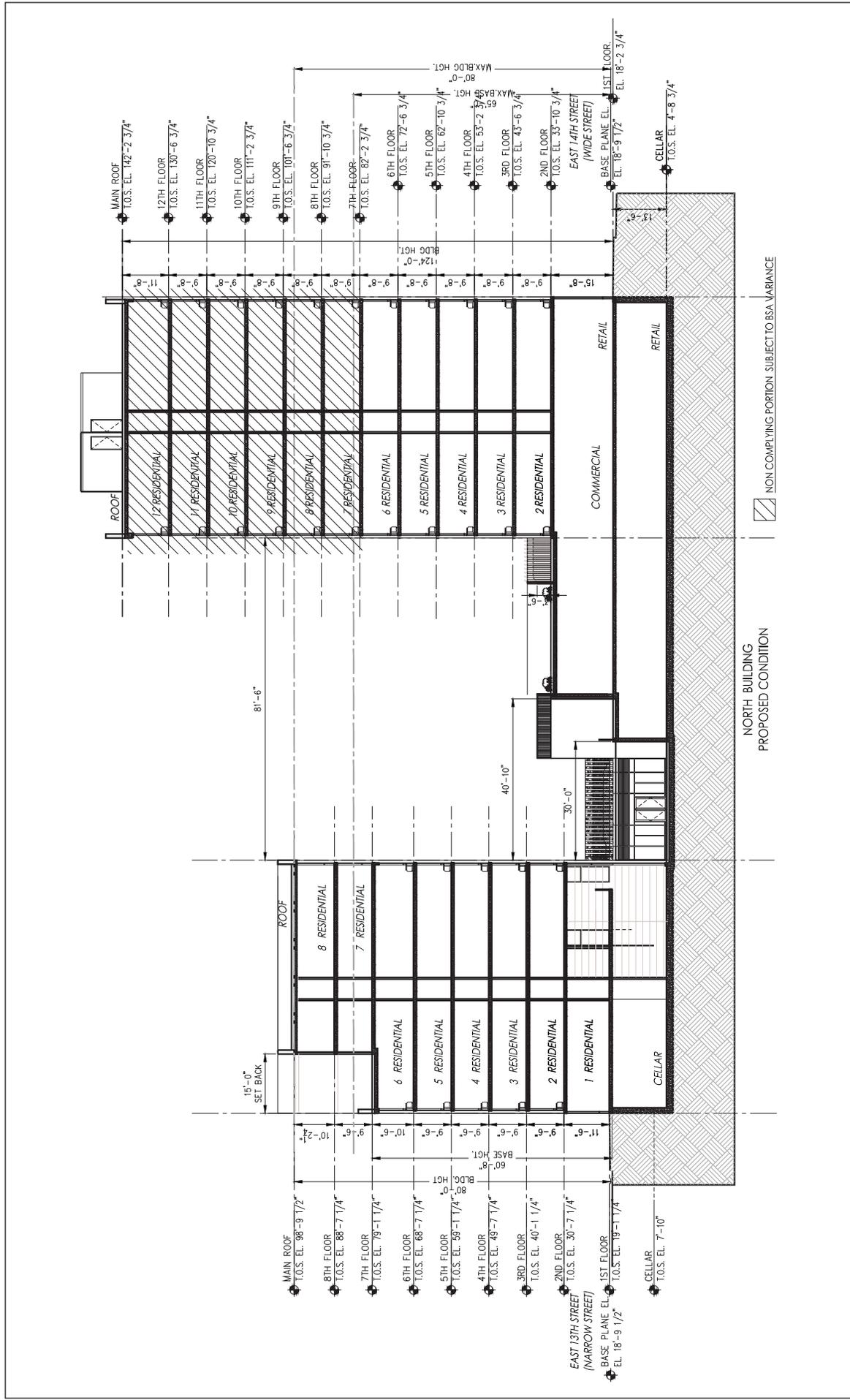
The proposed new building would be in keeping with the uses, height, and massing of buildings in the study area (see **Figures E-14 and E-15**). The East 14th Street portion of the building would be similar in height to the 13- and 14-story buildings (133 feet tall) located across the street in Stuyvesant Town (see **Figure E-16**). The East 13th Street portion of the building would have a set back above the sixth floor to maintain the surrounding streetwall height on this street. The height of this portion of the building would be in keeping with other recently constructed buildings in the area, most notably the adjacent through-block development at 420 East 14th Street/427 East 13th Street. The footprint and massing of the proposed building would be in keeping with the larger developments in the study area, such as the adjacent through-block building, Stuyvesant Town, and 523-525 East 13th Street.

The proposed project would not be anticipated to adversely affect any urban design features of the study area, and would not adversely affect the experience of the pedestrian.

### VISUAL RESOURCES

According to the guidance of the *CEQR Technical Manual*, additional visual resources analysis is required if: a project would partially or totally block a view corridor or a natural or built resource or a natural or built visual resource, and that resource is rare in the area or considered a defining feature of the neighborhood; or, a project would change urban design features so that the context of a natural or built visual resource is altered (for example, if a project alters the street grid so that the approach to the resource changes; if a project changes the scale of





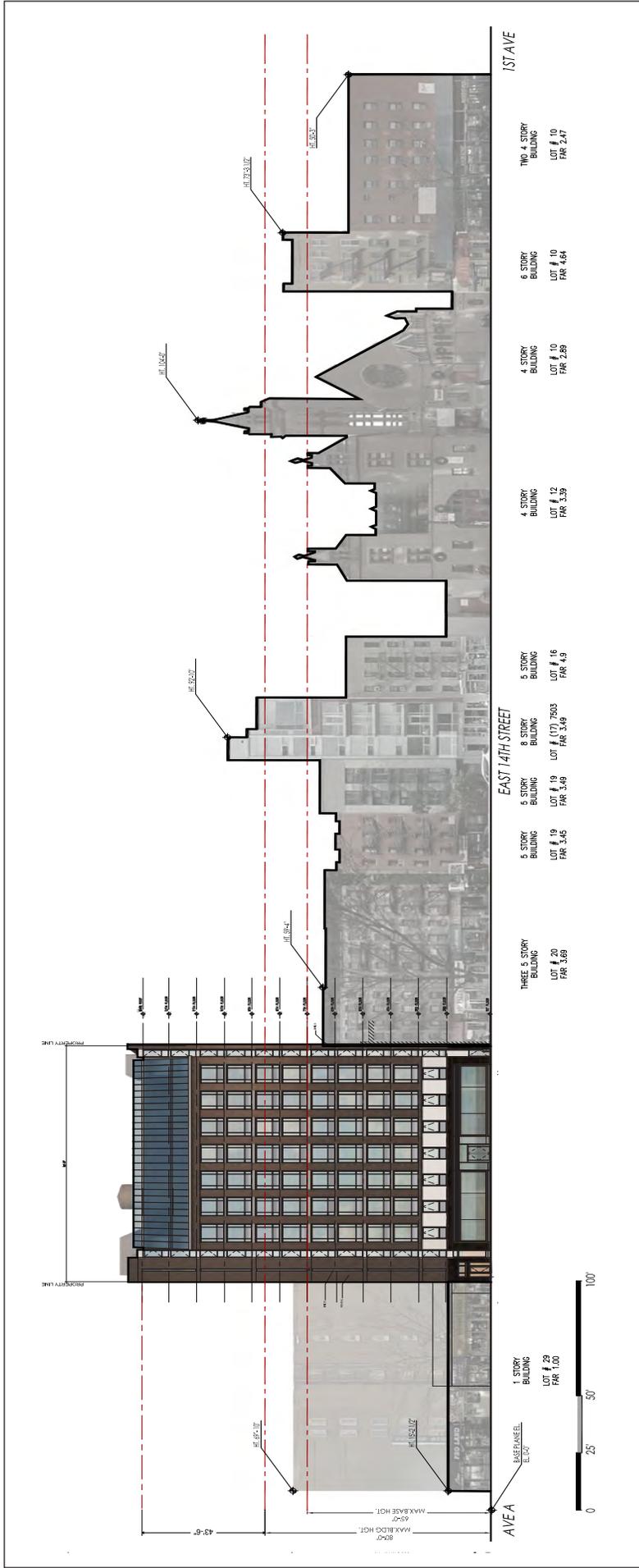
Section of Proposed Building  
Figure E-11



Illustrative Elevation, East 13th Street  
**Figure E-12**



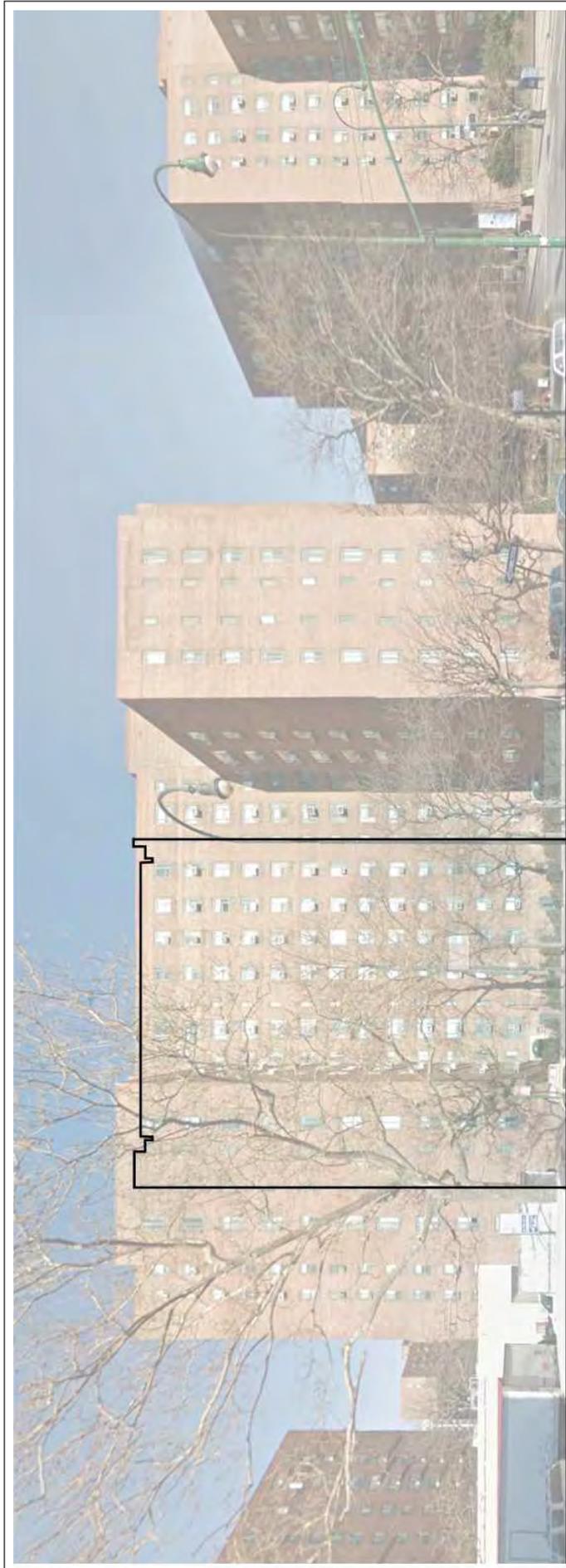
Illustrative Rendering  
East 14th Street Façade of Proposed Building  
**Figure E-13**



Proposed Building in Context on East 14th Street  
**Figure E-14**



Illustrative Rendering of Proposed Building in Context, View West on 14th Street **Figure E-15**



1ST AVE

EAST 14TH STREET

AVEA

THIRTY FIVE 13 STORY  
BUILDING  
LOT # 972  
FAR 3.34



Proposed Building,  
Comparison to Surrounding Context  
**Figure E-16**

surrounding buildings so that the context changes; or if a project removes lawns or other open areas that serve as a setting for the resource).

Key considerations in the assessment of the significance of a visual resource impact may include whether the project obstructs important visual resources and whether such obstruction would be permanent, seasonal, or temporary; how many viewers would be affected; whether the view is unique or do similar views exist; or whether the visual resource can be seen from many other locations.

*PROJECT SITE*

There are no visual resources located on the project site or the air rights parcel. Therefore, the proposed project would have no significant adverse impacts to on-site visual resources.

*VISUAL REOURCES*

The proposed building would not block any view corridors or views to any visual resources. Visual resources, including the Church of the Immaculate Conception and Clergy House and landscaping surrounding Stuyvesant Town, are located in close proximity to the project site; however, views to these resources would not be obstructed, and the proposed project would not alter the existing street grid or remove open areas that serve as a visual setting for either resource. Both resources would remain prominent in views from surrounding streets. Other visual resources in the area, such as the Consolidated Edison Building and the mature trees located within Tompkins Square Park, are located at a greater distance from the project site, and thus the addition of the proposed building would be less notable in the long views toward those resources.

Overall, the proposed project would not have a significant adverse impact on urban design or visual resources, or the pedestrian's experience of these characteristics of the built and natural environment. The proposed project does not merit further analysis of urban design and visual resources. \*

## **A. INTRODUCTION**

This attachment addresses the potential for the presence of hazardous materials resulting from previous and existing uses both on the project site and in the surrounding area, and potential risks related to the proposed project with respect to any such hazardous materials. The building formerly on the project site has been demolished, and the property is currently a vacant lot, capped with the former concrete building slab. The proposed project includes construction of a twelve-story mixed-use building with a shared cellar and landscaped areas fronting East 14th Street and an eight-story residential building with a shared cellar fronting East 13th Street.

This assessment was based on the findings of a May 2014 *Phase I Environmental Site Assessment (ESA)* performed by HydroTech Environmental Corp., an October 2014 *Subsurface (Phase II) Investigation* prepared by AKRF, Inc., a May 2015 *Geotechnical Report* prepared by Mueser Rutledge Consulting Engineers, and *Soil Waste Classification Results* reports prepared by AKRF, Inc. dated November 19, 2014, September 4, 2015, and October 5, 2015.

## **B. EXISTING CONDITIONS**

### **SUBSURFACE CONDITIONS**

The project site is approximately 20 feet above sea level. During the Subsurface (Phase II) Investigation, a layer of fill material was observed to depths ranging from 0 to 13 feet (or more) overlying apparent native material including sand. Groundwater was encountered between 13 and 15 feet below grade. Bedrock was not encountered in any of the borings, which extended to 20 feet. During a subsequent geotechnical investigation conducted in April and May 2015 by Mueser Rutledge Consulting Engineers, groundwater was observed at depths ranging from 12 to 12.5 feet below grade. Based on topography, groundwater is expected to flow east towards the East River, located approximately ½-mile away. Actual groundwater flow can be affected by many factors, including bedrock geology, past filling, subway tunnels, and subsurface geology.

### **HAZARDOUS MATERIALS ASSESSMENT**

The Phase I ESA identified that the project site was utilized as an ice cream factory and wagon builder in 1920, and Department of Sanitation wood and oil yard in 1950. The Phase I ESA also identified a former New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup (BCP) site located immediately northwest adjacent to the project site with releases of hazardous materials associated with dry cleaning. The Subsurface (Phase II) Investigation identified somewhat elevated levels of semivolatile organic compounds (SVOCs) and metals in soil. Elevated levels of volatile organic compounds (VOCs) and SVOCs in groundwater and VOCs in soil vapor were also identified. These studies are discussed in more detail below.

*PHASE I ENVIRONMENTAL SITE ASSESSMENT—432 EAST 14TH STREET,, MANHATTAN, NEW YORK, HYDRO TECH ENVIRONMENTAL, CORP., MAY 2014*

The Phase I Environmental Site Assessment identified two recognized environmental conditions (RECs), i.e., the presence or likely presence of hazardous substances or petroleum products in, on, or at a property. The first was a 1,000-gallon underground storage tank (UST) containing No. 2 fuel oil beneath the southern portion of the building. The second was the northwest adjacent NYSDEC BCP site. A petroleum spill was reported to have occurred at the dry cleaner previously located at 427-429 East 13th Street. Although the BCP site remediation was completed in December 2007, a potential for residual soil vapor and vapor intrusion was identified. The suspected presence of asbestos-containing materials (ACM) throughout the building was also identified.

*SUBSURFACE (PHASE II) INVESTIGATION—432 EAST 14TH STREET, NEW YORK, NEW YORK, AKRF, INC., OCTOBER 2014.*

The investigation included a geophysical survey and the advancement of six borings with the collection and laboratory analysis of six soil and four groundwater samples. Four subsurface soil vapor points were also installed to collect soil vapor samples. The geophysical survey identified an anomaly consistent with the suspected UST, in the loading area near East 13th Street. The borings encountered up to 15 feet of historical fill material (sand and silt with gravel, brick, asphalt, concrete, brick, and glass) underlain by apparent native sand. Groundwater was first encountered between approximately 13 and 15 feet below grade, but bedrock was not encountered. Laboratory analysis of the soil samples indicated levels of certain VOCs, SVOCs, and metals were above 6 NYCRR Part 375 Restricted Residential Soil Cleanup Objectives; however, these are based on long-term exposure to soil in a multi-family residential setting, a scenario which does not occur now and would not occur in the future with the proposed project. Groundwater samples did not meet drinking water criteria, but groundwater in Manhattan is not used as a source of drinking water. Twenty-four VOCs associated with petroleum or chlorinated solvents were detected in the soil vapor samples, including tetrachloroethylene (PCE) and trichloroethylene (TCE) above the New York State Department of Health (NYSDOH) indoor air guidance values (AGVs) in one or more samples.

*SOIL WASTE CHARACTERIZATION RESULTS—432 EAST 14TH STREET, NEW YORK, NEW YORK, AKRF, INC., NOVEMBER 19, 2014 AND SEPTEMBER 4, 2015 REPORT ADDENDUM*

The report detailed the laboratory results, sampling methodology, and quality assurance procedures that were employed during waste characterization soil sampling. The results indicated that the majority of the soil/fill materials requiring excavation for the new building foundation could be disposed of as non-hazardous material. The test results for Toxicity Characteristic Leaching Procedure (TCLP) lead included in the report identified TCLP lead at 5,400 micrograms per kilogram (ug/kg), above the hazardous waste threshold of 5,000 ug/kg at one sample location identified as SB-C1 (0-15'). Based on these results, the soil from grid C1 would need to be transported and disposed of in accordance with hazardous waste regulatory requirements.

*SOIL WASTE CHARACTERIZATION RESULTS REPORT ADDENDUM #2—432 EAST 14TH STREET, NEW YORK, NEW YORK, AKRF, INC., OCTOBER 5, 2015*

The report detailed the laboratory results, sampling methodology, and quality assurance procedures that were employed during additional waste characterization soil sampling for polycyclic biphenyls (PCBs) and herbicides as well as additional total and TCLP lead testing to determine the extent of the hazardous area identified during prior testing. The results indicated the subsurface soil beneath the site did not contain PCBs or herbicides above the laboratory reporting limits. The results for the soil samples collected for TCLP lead indicated that the previously identified hazardous levels in soil boring SB-C1 were not reproducible; therefore, the hazardous-lead soil appeared to be limited to the immediate vicinity of boring SB-C1. For disposal planning purposes, the soil 10 feet to the east, west and south, and north to the building wall of SB-C1 would need to be excavated, transported, and disposed off-site as hazardous waste.

*REMEDIAL ACTION PLAN AND CONSTRUCTION HEALTH AND SAFETY PLAN, SUBSURFACE—432 EAST 14TH STREET, NEW YORK, NEW YORK, AKRF, INC., APRIL 2016.*

The Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) were prepared for the proposed development to present procedures for managing soil and groundwater during subsurface disturbance activities. The document included measures for the removal of underground storage tanks (USTs), the excavation and the installation of a vapor barrier beneath the new building as a protective measure against potential vapor intrusion. The RAP and CHASP were approved by the New York City Department of Environmental Protection (DEP) on September 8, 2016 (see Appendix A).

### **C. THE FUTURE WITHOUT THE PROPOSED PROJECT**

In the future without the proposed project, the project site would be expected to remain in its existing condition. Without excavation for new development, there would be no significant potential for exposure to subsurface contaminants. The UST, which is no longer in use, would require removal or closure-in-place in accordance with NYSDEC regulatory requirements.

### **D. PROBABLE IMPACTS OF THE PROPOSED PROJECT**

The greatest potential for exposure to any hazardous materials would occur during the proposed project's construction, which would require subsurface disturbance to construct the cellar and foundations of the new building. The potential for significant adverse impacts would be avoided by adhering to the following:

- An RAP and CHASP have been approved by the New York City Department of Environmental Protection (DEP), the City agency overseeing the development of this property, for implementation during subsurface disturbance. The RAP and CHASP are based on the findings of the Subsurface Investigation and waste classification testing and address requirements for: management of excavated soils (including stockpiling and transportation/disposal of excess soil), dust control, and contingency measures should unforeseen petroleum tanks or soil contamination be encountered. The RAP includes a provision for a vapor barrier beneath/outside of the foundations of the new building as a protective measure against potential vapor intrusion.

- The known UST and any additional petroleum tanks encountered during construction would be removed (along with any contaminated soil) in accordance with applicable regulations, including New York City Fire Department and NYSDEC requirements (including those relating to spill reporting and tank registration).
- If dewatering is necessary during construction, water would be discharged to sewers in accordance with DEP requirements. Groundwater would likely require treatment with granular activated carbon filters prior to discharge into the New York City sewers system.

With these measures in place, the proposed project would not result in any significant adverse impacts related to hazardous materials. Upon completion of the DEP-approved remedial requirements, a P.E.-certified Remedial Closure Report will be submitted to DEP for review and approval. This report will demonstrate that all remedial activities have been properly implemented, including site capping and installation of a vapor barrier, in accordance with the DEP-approved RAP and CHASP. \*

## **A. INTRODUCTION**

This attachment examines the potential effects of the proposed project on the study area's transportation systems. Specifically, it compares conditions in the future with the proposed project against conditions in the future without the proposed project in order to determine the potential for significant adverse transportation-related impacts. The analyses consider the 2018 project completion year to identify potential impacts, and if warranted, determine project improvement measures that would be appropriate to address those impacts. The travel demand projections, trip assignments, and capacity analysis presented in this attachment were conducted pursuant to the methodologies outlined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual*.

## **PRINCIPAL CONCLUSIONS**

The proposed project's incremental vehicle, bus, and subway trips during the weekday AM, midday, and PM peak hours would be below the *CEQR Technical Manual* analysis thresholds of 50 peak hour vehicle trips, 50 peak hour bus riders in a single direction of travel, and 200 peak hour subway trips, respectively. Therefore, detailed traffic, bus line haul, and subway analyses are not warranted and the proposed project is not expected to result in any significant adverse traffic or transit impacts.

Based on a detailed assignment of project-generated pedestrian trips, one sidewalk and clean were identified as warranting detailed analysis for the weekday AM, midday, and PM peak hours. Analyses performed for these pedestrian elements showed that the proposed project would not result in any significant adverse pedestrian impacts. Since no area crosswalks and traffic intersections were identified to require a detailed analysis of potential impacts, an assessment of vehicular and pedestrian safety at area intersections is also not warranted.

The *CEQR Technical Manual* states that if a quantified traffic analysis is not required, it is likely that a parking assessment is also not warranted. Per conclusions made above for traffic, an on- and off-street parking analysis is not required and the proposed project is not expected to result in any significant adverse parking impacts.

## **B. PRELIMINARY ANALYSIS METHODOLOGY AND SCREENING ASSESSMENT**

The *CEQR Technical Manual* recommends a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trips attributable to the proposed project. If the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted.

When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would result in 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

**BACKGROUND**

For the purposes of this analysis, trip estimates are based on the program shown in **Table G-1**. In the future with the proposed actions (the “With Action” condition), the project site would be redeveloped with a mixed-use residential building with frontage along East 13th and East 14th streets. The proposed project would contain approximately 155 dwelling units (including 31 affordable units) and approximately 17,168 square feet of retail space on portions of the ground floor and cellar level. Absent the proposed actions, in the future without the proposed actions (the “No Action” condition), no development is anticipated to occur on the project site.

**Table G-1**  
**Future With Action Development Program Assumptions**

<b>Components</b>	<b>Future No Action</b>	<b>Future With Action</b>	<b>Increment</b>
Residential (dwelling units)	0	155	155
Local Retail (gsf)	0	17,168	17,168

The proposed uses would result in incremental trip generation, as detailed below. The proposed building would have pedestrian access on both the East 13th Street and East 14th Street sides of the building. The East 13th Street side would provide partial access to the residential use. The East 14th Street side would provide access to both the residential and retail uses.

**LEVEL 1 SCREENING ASSESSMENT**

A Level 1 trip generation screening assessment was conducted to estimate the numbers of person and vehicle trips by mode expected to be generated by the proposed project during the weekday AM, midday, and PM peak hours. These estimates were then compared to the *CEQR Technical Manual* thresholds to determine if a Level 2 screening and/or quantified operational analyses would be warranted.

*TRANSPORTATION PLANNING ASSUMPTIONS*

Trip generation factors for the proposed project were developed based on information from the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, the 2008 *East Village/Lower East Side Rezoning EIS*, the 2012 *NYU Core FEIS*, and U.S. Census Data, as summarized in **Table G-2**.

**Table G-2  
Travel Demand Assumptions**

Use	Residential			Local Retail			
<b>Total Daily Person Trip</b>	(1) Weekday 8.075 Trips / DU			(1) Weekday 205.0 Trips / KSF			
<b>Trip Linkage</b>	0%			0%			
<b>Net Daily Person trip</b>	Weekday 8.075 Trips / DU			Weekday 205.00 Trips / KSF			
<b>Temporal</b>	<b>AM</b>	<b>MD</b>	<b>PM</b>	<b>AM</b>	<b>MD</b>	<b>PM</b>	
	(1)			(1)			
<b>Direction</b>	(2)			(4)			
	In	15%	50%	70%	50%	50%	50%
	Out	85%	50%	30%	50%	50%	50%
	Total	100%	100%	100%	100%	100%	
<b>Modal Split</b>	(3)			(4)			
	<b>AM</b>	<b>MD</b>	<b>PM</b>	<b>AM</b>	<b>MD</b>	<b>PM</b>	
	Auto	5.0%	5.0%	5.0%	2.0%	2.0%	2.0%
	Taxi	2.0%	2.0%	2.0%	3.0%	3.0%	3.0%
	Subway	53.0%	53.0%	53.0%	6.0%	6.0%	6.0%
	Bus	10.0%	10.0%	10.0%	6.0%	6.0%	6.0%
	Walk	30.0%	30.0%	30.0%	83.0%	83.0%	83.0%
	Total	100%	100%	100%	100%	100%	
<b>Vehicle Occupancy</b>	(2)(3) Weekday			(4) Weekday			
	Auto	1.4315			1.65		
	Taxi	1.40			1.40		
<b>Daily Delivery Trip Generation Rate</b>	(1) Weekday 0.06 Delivery Trips / DU			(1) Weekday 0.35 Delivery Trips / KSF			
<b>Delivery Temporal</b>	<b>AM</b>	<b>MD</b>	<b>PM</b>	<b>AM</b>	<b>MD</b>	<b>PM</b>	
	(1)			(1)			
	12%	9%	2%	8%	11%	2%	
<b>Delivery Direction</b>	(2)			(1)			
	In	50%	50%	50%	50%	50%	50%
	Out	50%	50%	50%	50%	50%	
	Total	100%	100%	100%	100%	100%	
<b>Sources:</b>	(1) 2014 CEQR Technical Manual (2) East Village/Lower East Side Rezoning EIS (2008) (3) U.S. Census Bureau, ACS 2011-2015 Five-Year Estimates—Journey-to-Work (JTW) Data (4) NYU Core FEIS (2012)						

*Residential*

The daily person trip rate and temporal distribution are from the *CEQR Technical Manual*. Modal splits are based on the Journey-to-Work (JTW) data from the 2011-2015 U.S. Census Bureau American Community Survey (ACS). The directional distributions for all peak periods are from the 2008 *East Village/Lower East Side Rezoning EIS*. The vehicle occupancies are from the 2011-2015 U.S. Census ACS for autos and from the *East Village/Lower East Side Rezoning EIS* for taxis. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

*Local Retail*

The daily trip generation rate for the local neighborhood retail component is from the *CEQR Technical Manual*. The modal splits were obtained from the 2012 *NYU Core FEIS*. The vehicle occupancies were obtained from the *NYU Core FEIS*. The temporal and directional distributions for all peak periods were obtained from the *CEQR Technical Manual* and the *NYU Core FEIS*,

respectively. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

*TRAVEL DEMAND PROJECTION SUMMARY*

As summarized in **Table G-3**, the proposed project would generate a total of 231, 734, and 492 incremental person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 15, 40, and 28 incremental vehicle trips would be generated during the same respective time periods.

**Table G-3**  
**Trip Generation Summary: Incremental Trips**

Peak Hour	Person Trips							Vehicle Trips				
	In/Out	Auto	Taxi	Subway	City Bus	Walk	Total	In/Out	Auto	Taxi	Delivery	Total
AM	In	2	2	13	5	50	72	In	2	3	1	6
	Out	6	4	59	14	76	159	Out	5	3	1	9
	Total	8	6	72	19	126	231	Total	7	6	2	15
MD	In	9	11	37	23	287	367	In	6	14	0	20
	Out	9	11	37	23	287	367	Out	6	14	0	20
	Total	18	22	74	46	574	734	Total	12	28	0	40
PM	In	9	7	62	21	175	274	In	6	9	0	15
	Out	6	6	33	15	158	218	Out	4	9	0	13
	Total	15	13	95	36	333	492	Total	10	18	0	28

**LEVEL 1 SCREENING**

*TRAFFIC*

As shown in **Table G-3**, the proposed project would generate 15, 40, and 28 incremental vehicle trips during the weekday AM, midday, and PM peak hours, respectively. Because these peak hour incremental vehicle trips are below the *CEQR Technical Manual* analysis threshold of 50 peak hour vehicle trips, a detailed traffic analysis is not warranted and the proposed project is not expected to result in any significant adverse traffic impacts.

*TRANSIT*

As detailed in **Table G-3**, the proposed project would generate 72, 74, and 95 incremental person trips by subway during the weekday AM, midday, and PM peak hours, respectively. Because these peak hour incremental trips would not result in trip-making exceeding the *CEQR Technical Manual* analysis threshold of 200 peak hour trips at any single subway station/line, a detailed analysis of subway facilities is not warranted and the proposed project is not expected to result in any significant adverse subway impacts. Similarly, the incremental bus trips generated by the proposed project 19, 46, and 36 person trips during the weekday AM, midday, and PM peak hours, respectively—would not result in trip-making exceeding the *CEQR Technical Manual* analysis threshold of 50 peak hour bus riders for any bus route in a single direction. Therefore, a detailed bus line-haul analysis is also not warranted and the proposed project is not expected to result in any significant adverse bus line-haul impacts.

*PEDESTRIANS*

All person trips generated by the proposed project would traverse the pedestrian elements (i.e., sidewalks, corners, and crosswalks) surrounding the project site. As shown in **Table G-3**, the net

incremental pedestrian trips would be greater than 200 during the AM, midday, and PM peak hours. A Level 2 screening assessment (presented in the section below) was conducted to determine if there is a need for additional quantified pedestrian analyses.

## LEVEL 2 SCREENING ASSESSMENT

As part of the Level 2 screening assessment, project-generated trips were assigned to specific intersections and pedestrian elements near the project site. As previously stated, further quantified analyses to assess the potential impacts of the proposed project on the transportation system would be warranted if the trip assignments were to identify key pedestrian elements incurring 200 or more peak hour pedestrian trips.

### *SITE ACCESS AND EGRESS*

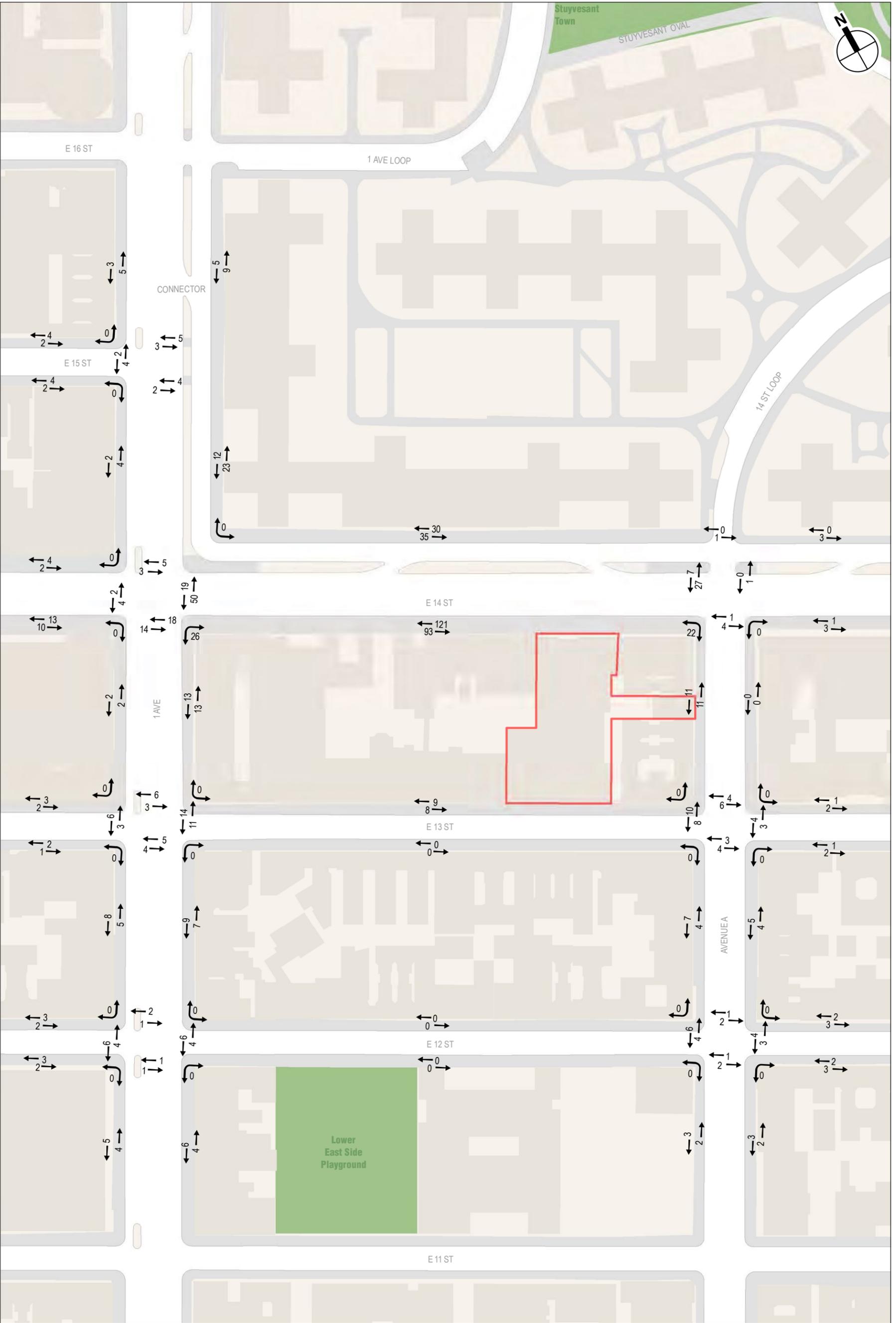
The proposed building would have pedestrian access on both the East 13th Street and East 14th Street sides of the building. The East 13th Street side would provide partial access to the residential use. The East 14th Street side would provide access to both the residential and retail uses.

### *PEDESTRIANS*

As shown in **Table G-3**, the projected peak hour pedestrian trips would exceed the CEQR analysis threshold of 200 pedestrians during the midday and PM weekday peak hours. Level 2 pedestrian trip assignments were individually developed for all the proposed development components and are shown in **Figures G-1 through G-3** and discussed below.

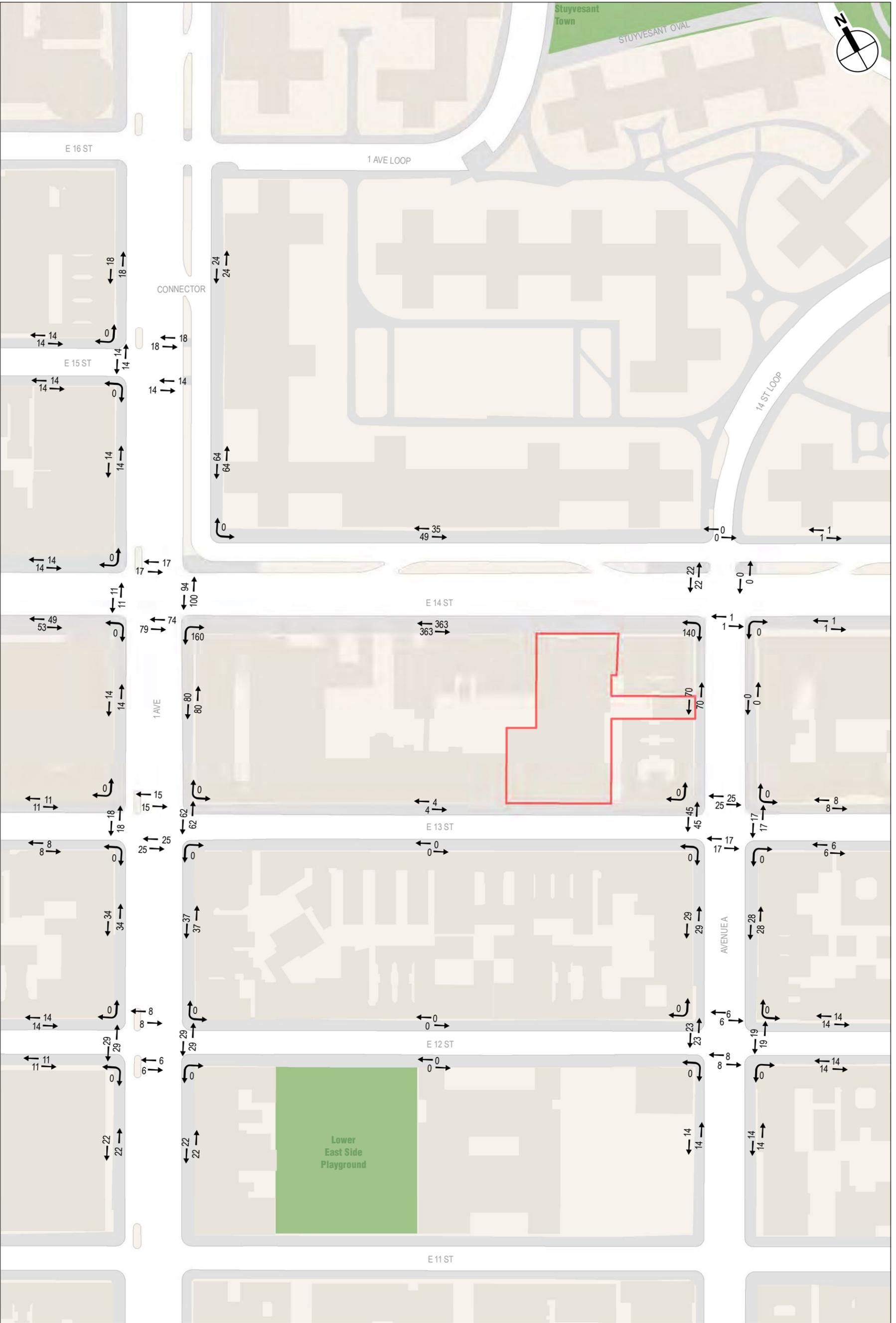
- Auto Trips—Motorists would park at parking facilities in the study area.
- Taxi Trips—Taxi patrons would get dropped off and picked up along East 14th Street, East 13th Street, First Avenue, and Avenue A.
- City Bus Trips—City bus riders would use buses along East 14th Street, First Avenue, and Second Avenue, and would get on/off at bus stops nearest to the project site.
- Subway Trips—Subway riders were assigned to the First Avenue Station (L train).
- Walk-Only Trips—Pedestrian walk-only trips were developed by distributing project-generated person trips to surrounding pedestrian facilities (i.e., sidewalks, corner reservoirs, and crosswalks) based on population data as well as the land use characteristics of the surrounding neighborhood.

Based on the detailed assignment of pedestrian trips, 1 sidewalk and 2 corners were selected for detailed analysis for the weekday AM, midday, and PM peak hours, as shown in **Table G-4**.



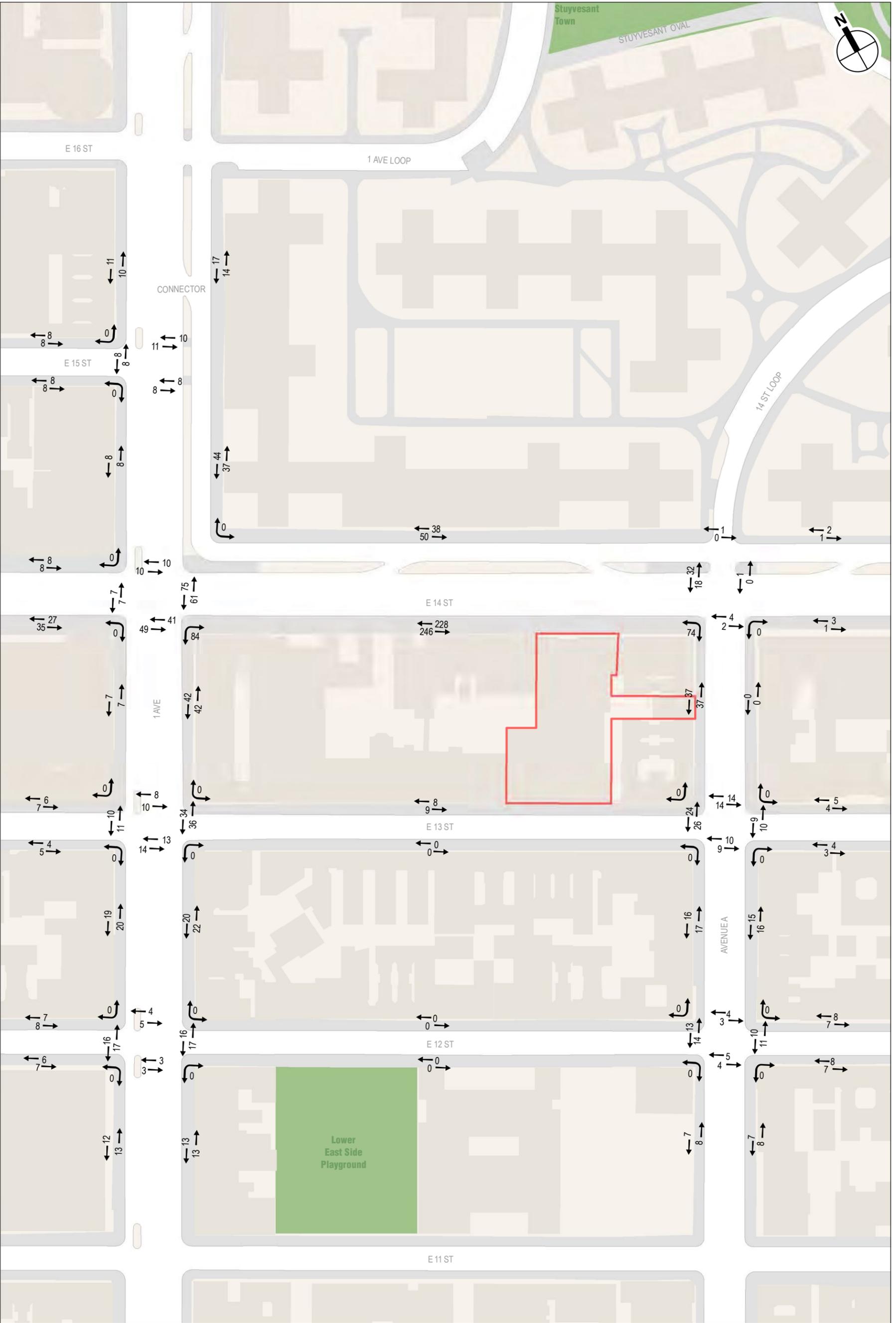
 Project Site

Proposed Project Generated Pedestrian Trips  
Weekday AM Peak Hour  
**Figure G-1**



 Project Site

Proposed Project Generated Pedestrian Trips  
Weekday Midday Peak Hour  
**Figure G-2**



 Project Site

Proposed Project Generated Pedestrian Trips  
Weekday PM Peak Hour  
**Figure G-3**

**Table G-4**

**Pedestrian Level 2 Screening Analysis Results—Selected Analysis Locations**

Location	Weekday			Selected Analysis Location
	AM	Midday	PM	
<b>Avenue A and East 14th Street</b>				
East Sidewalk along Avenue A between E. 14th Street and E. 13th Street	0	0	0	
West Sidewalk along Avenue A between E. 14th Street and E. 13th Street	22	140	74	
North Sidewalk along E. 14th Street between Avenue A and Avenue B	3	2	3	
South Sidewalk along E. 14th Street between Avenue A and Avenue B	4	2	4	
North Sidewalk along E. 14th Street between Avenue A and First Avenue	65	84	88	
South Sidewalk along E. 14th Street between Avenue A and First Avenue	214	726	474	✓
Southeast Corner	6	2	7	
Southwest Corner	61	186	130	
North Crosswalk	1	0	1	
South Crosswalk	5	2	6	
East Crosswalk	1	0	1	
West Crosswalk	34	44	50	
<b>First Avenue and East 14th Street</b>				
East Sidewalk along First Avenue between E. 14th Street and E. 13th Street	26	160	84	
West Sidewalk along First Avenue between E. 14th Street and E. 13th Street	4	28	14	
North Sidewalk along E. 14th Street between First Avenue and Second Avenue	6	28	16	
South Sidewalk along E. 14th Street between First Avenue and Second Avenue	23	102	62	
Northeast Corner	77	228	156	✓
Northwest Corner	14	56	34	
Southeast Corner	127	507	310	✓
Southwest Corner	38	175	104	
North Crosswalk	8	34	20	
South Crosswalk	32	153	90	
East Crosswalk	69	194	136	
West Crosswalk	6	22	14	
<b>Notes:</b> ✓ denotes pedestrian elements selected for detailed analysis.				

## C. TRANSPORTATION ANALYSIS METHODOLOGIES

### PEDESTRIAN OPERATIONS

The adequacy of the study area’s sidewalk and corner reservoir capacities in relation to the demand imposed on them is evaluated based on the methodologies presented in the 2010 *HCM*, pursuant to procedures detailed in the *CEQR Technical Manual*.

The primary performance measure for sidewalks and walkways is pedestrian space, expressed as square feet per pedestrian (SFP), which is an indicator of the quality of pedestrian movement and comfort. The calculation of the sidewalk SFP is based on the pedestrian volumes by direction, the effective sidewalk or walkway width, and average walking speed. The SFP forms the basis for a sidewalk Level of Service (LOS) analysis. The determination of sidewalk LOS is also dependent on whether the pedestrian flow being analyzed is best described as “non-platoon” or “platoon.” Non-platoon flow occurs when pedestrian volume within the peak 15-minute period is relatively uniform, whereas, platoon flow occurs when pedestrian volumes vary significantly

with the peak 15-minute period. Such variation typically occurs near bus stops, subway stations, and/or where adjacent crosswalks account for much of the walkway’s pedestrian volume.

Street corners are not easily measured in terms of free pedestrian flow, as they are influenced by the effects of traffic signals. Street corners must be able to provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the street or moving around the corner). The *HCM* methodologies apply a measure of time and space availability based on the area of the corner, the timing of the intersection signal, and the estimated space used by circulating pedestrians. The total “time-space” available for these activities, expressed in square feet-second, is calculated by multiplying the net area of the corner (in square feet) by the signal’s cycle length. The analysis then determines the total circulation time for all pedestrian movements at the corner per signal cycle (expressed as pedestrians per second). The ratio of net time-space divided by the total pedestrian circulation volume per signal cycle provides the LOS measurement of available SFP. The LOS standards for sidewalks and corner reservoirs are summarized in **Table G-5**. The *CEQR Technical Manual* specifies acceptable LOS as mid-LOS D or better (minimum of 31.5 SFP platoon flows for sidewalks; minimum of 19.5 SFP for corners) in Central Business District (CBD) settings, which include the project study area.

**Table G-5**  
**Level of Service Criteria for Pedestrian Elements**

LOS	Sidewalks		Corner Reservoirs
	Non-Platoon Flow	Platoon Flow	
A	> 60 SFP	> 530 SFP	> 60 SFP
B	> 40 and ≤ 60 SFP	> 90 and ≤ 530 SFP	> 40 and ≤ 60 SFP
C	> 24 and ≤ 40 SFP	> 40 and ≤ 90 SFP	> 24 and ≤ 40 SFP
D	> 15 and ≤ 24 SFP	> 23 and ≤ 40 SFP	> 15 and ≤ 24 SFP
E	> 8 and ≤ 15 SFP	> 11 and ≤ 23 SFP	> 8 and ≤ 15 SFP
F	≤ 8 SFP	≤ 11 SFP	≤ 8 SFP

**Notes:** SFP = square feet per pedestrian.  
**Source:** New York City Mayor’s Office of Environmental Coordination, *CEQR Technical Manual*.

*SIGNIFICANT IMPACT CRITERIA*

The determination of significant pedestrian impacts considers the level of predicted decrease in pedestrian space between the No Action and With Action conditions. For different pedestrian elements, flow conditions, and area types, the CEQR procedure for impact determination corresponds with various sliding-scale formulas, as further detailed below.

*Sidewalks*

There are two sliding-scale formulas for determining significant sidewalk impacts. For non-platoon flow, the determination of significant sidewalk impacts is based on the sliding scale using the following formula:  $Y \geq X/(9.0 - 0.31)$ , where Y is the decrease in pedestrian space in SFP and X is the No Action pedestrian space in SFP. For platoon flow, the sliding-scale formula is  $Y \geq X/(9.5 - 0.321)$ . Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, these formulas would apply only if the With Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table G-6** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant sidewalk impacts.

**Table G-6**  
**Significant Impact Guidance for Sidewalks**

Non-Platoon Flow				Platoon Flow			
Sliding Scale Formula: $Y \geq X/(9.0 - 0.31)$				Sliding Scale Formula: $Y \geq X/(9.5 - 0.321)$			
Non-CBD Areas		CBD Areas		Non-CBD Areas		CBD Areas	
No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)
–	–	–	–	43.5 to 44.3	≥ 4.3	–	–
–	–	–	–	42.5 to 43.4	≥ 4.2	–	–
–	–	–	–	41.6 to 42.4	≥ 4.1	–	–
–	–	–	–	40.6 to 41.5	≥ 4.0	–	–
–	–	–	–	39.7 to 40.5	≥ 3.9	–	–
–	–	–	–	38.7 to 39.6	≥ 3.8	38.7 to 39.2	≥ 3.8
–	–	–	–	37.8 to 38.6	≥ 3.7	37.8 to 38.6	≥ 3.7
–	–	–	–	36.8 to 37.7	≥ 3.6	36.8 to 37.7	≥ 3.6
–	–	–	–	35.9 to 36.7	≥ 3.5	35.9 to 36.7	≥ 3.5
–	–	–	–	34.9 to 35.8	≥ 3.4	34.9 to 35.8	≥ 3.4
–	–	–	–	34.0 to 34.8	≥ 3.3	34.0 to 34.8	≥ 3.3
–	–	–	–	33.0 to 33.9	≥ 3.2	33.0 to 33.9	≥ 3.2
–	–	–	–	32.1 to 32.9	≥ 3.1	32.1 to 32.9	≥ 3.1
–	–	–	–	31.1 to 32.0	≥ 3.0	31.1 to 32.0	≥ 3.0
–	–	–	–	30.2 to 31.0	≥ 2.9	30.2 to 31.0	≥ 2.9
–	–	–	–	29.2 to 30.1	≥ 2.8	29.2 to 30.1	≥ 2.8
25.8 to 26.6	≥ 2.6	–	–	28.3 to 29.1	≥ 2.7	28.3 to 29.1	≥ 2.7
24.9 to 25.7	≥ 2.5	–	–	27.3 to 28.2	≥ 2.6	27.3 to 28.2	≥ 2.6
24.0 to 24.8	≥ 2.4	–	–	26.4 to 27.2	≥ 2.5	26.4 to 27.2	≥ 2.5
23.1 to 23.9	≥ 2.3	–	–	25.4 to 26.3	≥ 2.4	25.4 to 26.3	≥ 2.4
22.2 to 23.0	≥ 2.2	–	–	24.5 to 25.3	≥ 2.3	24.5 to 25.3	≥ 2.3
21.3 to 22.1	≥ 2.1	21.3 to 21.5	≥ 2.1	23.5 to 24.4	≥ 2.2	23.5 to 24.4	≥ 2.2
20.4 to 21.2	≥ 2.0	20.4 to 21.2	≥ 2.0	22.6 to 23.4	≥ 2.1	22.6 to 23.4	≥ 2.1
19.5 to 20.3	≥ 1.9	19.5 to 20.3	≥ 1.9	21.6 to 22.5	≥ 2.0	21.6 to 22.5	≥ 2.0
18.6 to 19.4	≥ 1.8	18.6 to 19.4	≥ 1.8	20.7 to 21.5	≥ 1.9	20.7 to 21.5	≥ 1.9
17.7 to 18.5	≥ 1.7	17.7 to 18.5	≥ 1.7	19.7 to 20.6	≥ 1.8	19.7 to 20.6	≥ 1.8
16.8 to 17.6	≥ 1.6	16.8 to 17.6	≥ 1.6	18.8 to 19.6	≥ 1.7	18.8 to 19.6	≥ 1.7
15.9 to 16.7	≥ 1.5	15.9 to 16.7	≥ 1.5	17.8 to 18.7	≥ 1.6	17.8 to 18.7	≥ 1.6
15.0 to 15.8	≥ 1.4	15.0 to 15.8	≥ 1.4	16.9 to 17.7	≥ 1.5	16.9 to 17.7	≥ 1.5
14.1 to 14.9	≥ 1.3	14.1 to 14.9	≥ 1.3	15.9 to 16.8	≥ 1.4	15.9 to 16.8	≥ 1.4
13.2 to 14.0	≥ 1.2	13.2 to 14.0	≥ 1.2	15.0 to 15.8	≥ 1.3	15.0 to 15.8	≥ 1.3
12.3 to 13.1	≥ 1.1	12.3 to 13.1	≥ 1.1	14.0 to 14.9	≥ 1.2	14.0 to 14.9	≥ 1.2
11.4 to 12.2	≥ 1.0	11.4 to 12.2	≥ 1.0	13.1 to 13.9	≥ 1.1	13.1 to 13.9	≥ 1.1
10.5 to 11.3	≥ 0.9	10.5 to 11.3	≥ 0.9	12.1 to 13.0	≥ 1.0	12.1 to 13.0	≥ 1.0
9.6 to 10.4	≥ 0.8	9.6 to 10.4	≥ 0.8	11.2 to 12.0	≥ 0.9	11.2 to 12.0	≥ 0.9
8.7 to 9.5	≥ 0.7	8.7 to 9.5	≥ 0.7	10.2 to 11.1	≥ 0.8	10.2 to 11.1	≥ 0.8
7.8 to 8.6	≥ 0.6	7.8 to 8.6	≥ 0.6	9.3 to 10.1	≥ 0.7	9.3 to 10.1	≥ 0.7
6.9 to 7.7	≥ 0.5	6.9 to 7.7	≥ 0.5	8.3 to 9.2	≥ 0.6	8.3 to 9.2	≥ 0.6
6.0 to 6.8	≥ 0.4	6.0 to 6.8	≥ 0.4	7.4 to 8.2	≥ 0.5	7.4 to 8.2	≥ 0.5
5.1 to 5.9	≥ 0.3	5.1 to 5.9	≥ 0.3	6.4 to 7.3	≥ 0.4	6.4 to 7.3	≥ 0.4
< 5.1	≥ 0.2	< 5.1	≥ 0.2	< 6.4	≥ 0.3	< 6.4	≥ 0.3

**Notes:** SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP.  
**Sources:** New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*.

*Corner Reservoirs*

The determination of significant corner impacts is also based on a sliding scale using the following formula:  $Y \geq X/(9.0 - 0.31)$ , where Y is the decrease in pedestrian space in SFP and X is the No Action pedestrian space in SFP. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, this formula would apply only if the With Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table G-7** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant corner reservoir impacts.

**Table G-7**  
**Significant Impact Guidance for Corners**

Sliding Scale Formula: $Y \geq X(9.0 - 0.31)$			
Non-CBD Areas		CBD Areas	
No Action Pedestrian Space (X, SFP)	With Action Pedestrian Space Reduction (Y, SFP)	No Action Pedestrian Space (X, SFP)	With Action Pedestrian Space Reduction (Y, SFP)
25.8 to 26.6	≥ 2.6	-	-
24.9 to 25.7	≥ 2.5	-	-
24.0 to 24.8	≥ 2.4	-	-
23.1 to 23.9	≥ 2.3	-	-
22.2 to 23.0	≥ 2.2	-	-
21.3 to 22.1	≥ 2.1	21.3 to 21.5	≥ 2.1
20.4 to 21.2	≥ 2.0	20.4 to 21.2	≥ 2.0
19.5 to 20.3	≥ 1.9	19.5 to 20.3	≥ 1.9
18.6 to 19.4	≥ 1.8	18.6 to 19.4	≥ 1.8
17.7 to 18.5	≥ 1.7	17.7 to 18.5	≥ 1.7
16.8 to 17.6	≥ 1.6	16.8 to 17.6	≥ 1.6
15.9 to 16.7	≥ 1.5	15.9 to 16.7	≥ 1.5
15.0 to 15.8	≥ 1.4	15.0 to 15.8	≥ 1.4
14.1 to 14.9	≥ 1.3	14.1 to 14.9	≥ 1.3
13.2 to 14.0	≥ 1.2	13.2 to 14.0	≥ 1.2
12.3 to 13.1	≥ 1.1	12.3 to 13.1	≥ 1.1
11.4 to 12.2	≥ 1.0	11.4 to 12.2	≥ 1.0
10.5 to 11.3	≥ 0.9	10.5 to 11.3	≥ 0.9
9.6 to 10.4	≥ 0.8	9.6 to 10.4	≥ 0.8
8.7 to 9.5	≥ 0.7	8.7 to 9.5	≥ 0.7
7.8 to 8.6	≥ 0.6	7.8 to 8.6	≥ 0.6
6.9 to 7.7	≥ 0.5	6.9 to 7.7	≥ 0.5
6.0 to 6.8	≥ 0.4	6.0 to 6.8	≥ 0.4
5.1 to 5.9	≥ 0.3	5.1 to 5.9	≥ 0.3
< 5.1	≥ 0.2	< 5.1	≥ 0.2

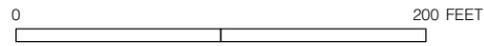
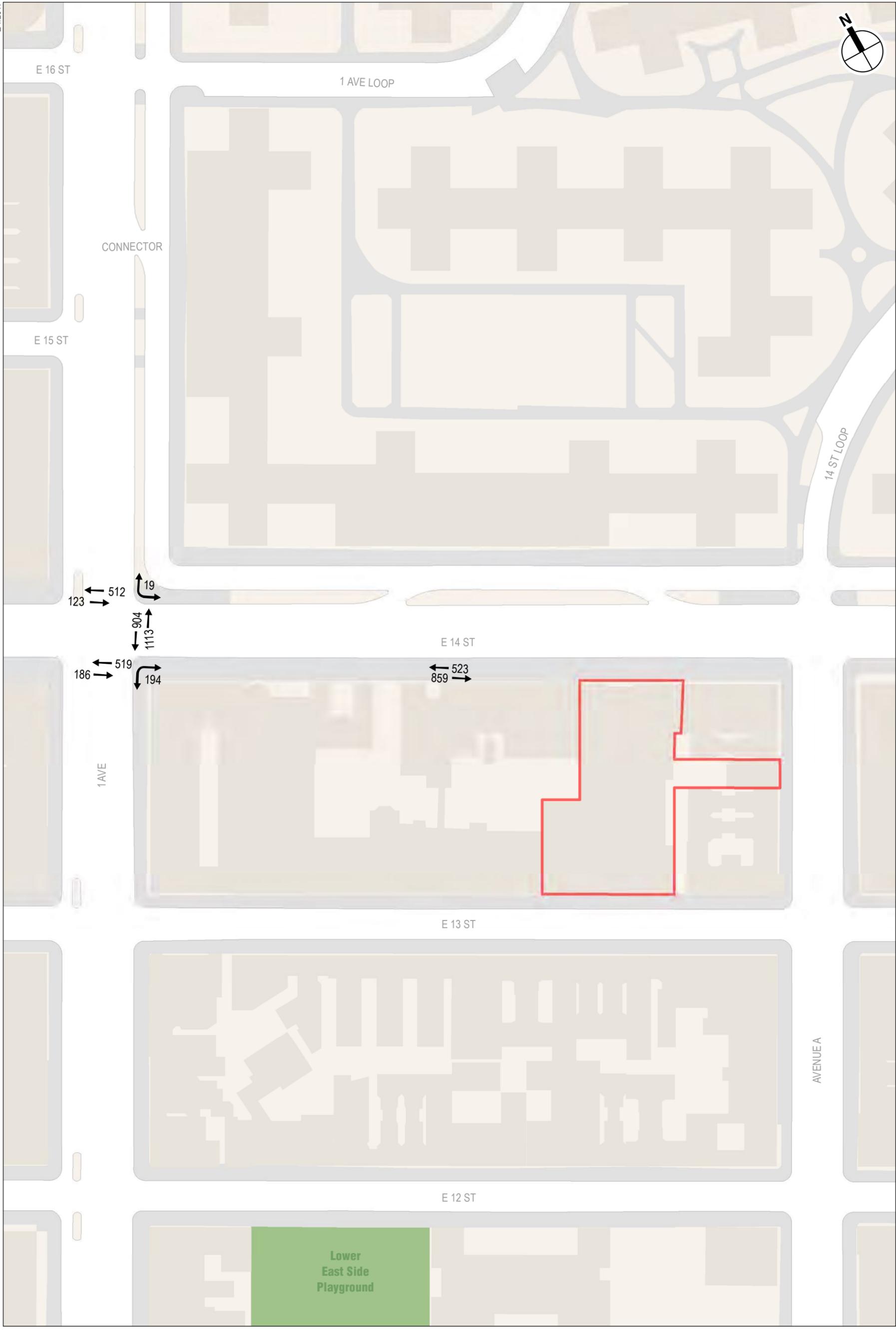
**Notes:** SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP.  
**Sources:** New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*.

## D. DETAILED PEDESTRIAN ANALYSIS

As described above in Section B, “Preliminary Analysis Methodology and Screening Assessment,” Level 1 and Level 2 screening analyses were prepared to identify the pedestrian elements warranted a detailed analysis. Based on the assignment of pedestrian trips, one sidewalk and one corner were selected for analysis for the weekday midday and PM peak hours.

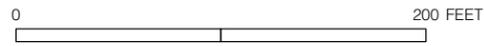
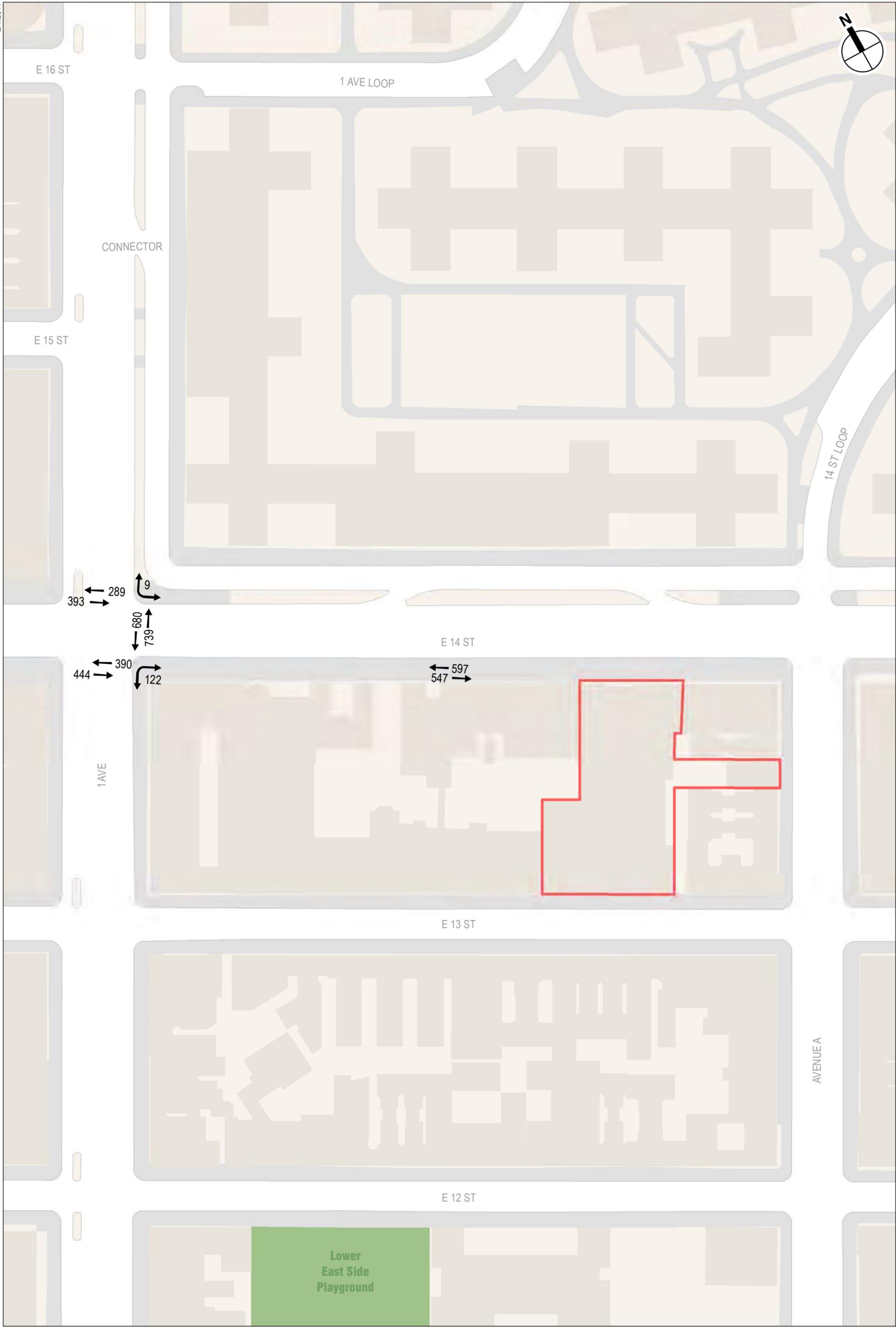
### 2016 EXISTING CONDITIONS

Pedestrian data were collected in June 2016 in accordance with procedures outlined in the *CEQR Technical Manual* during the weekday hours of 7:00 AM to 10:00 AM, 11:00 AM to 2:00 PM, and 4:00 PM to 7:00 PM. Peak hours were determined by comparing rolling hourly averages and the highest 15-minute volumes within the selected peak hours were selected for analysis. The existing peak hour pedestrian volumes are shown in **Figures G-4 through G-6**. As shown in **Tables G-8 and G-9**, all sidewalk and corner reservoir analysis locations currently operate at favorable LOS A and B.



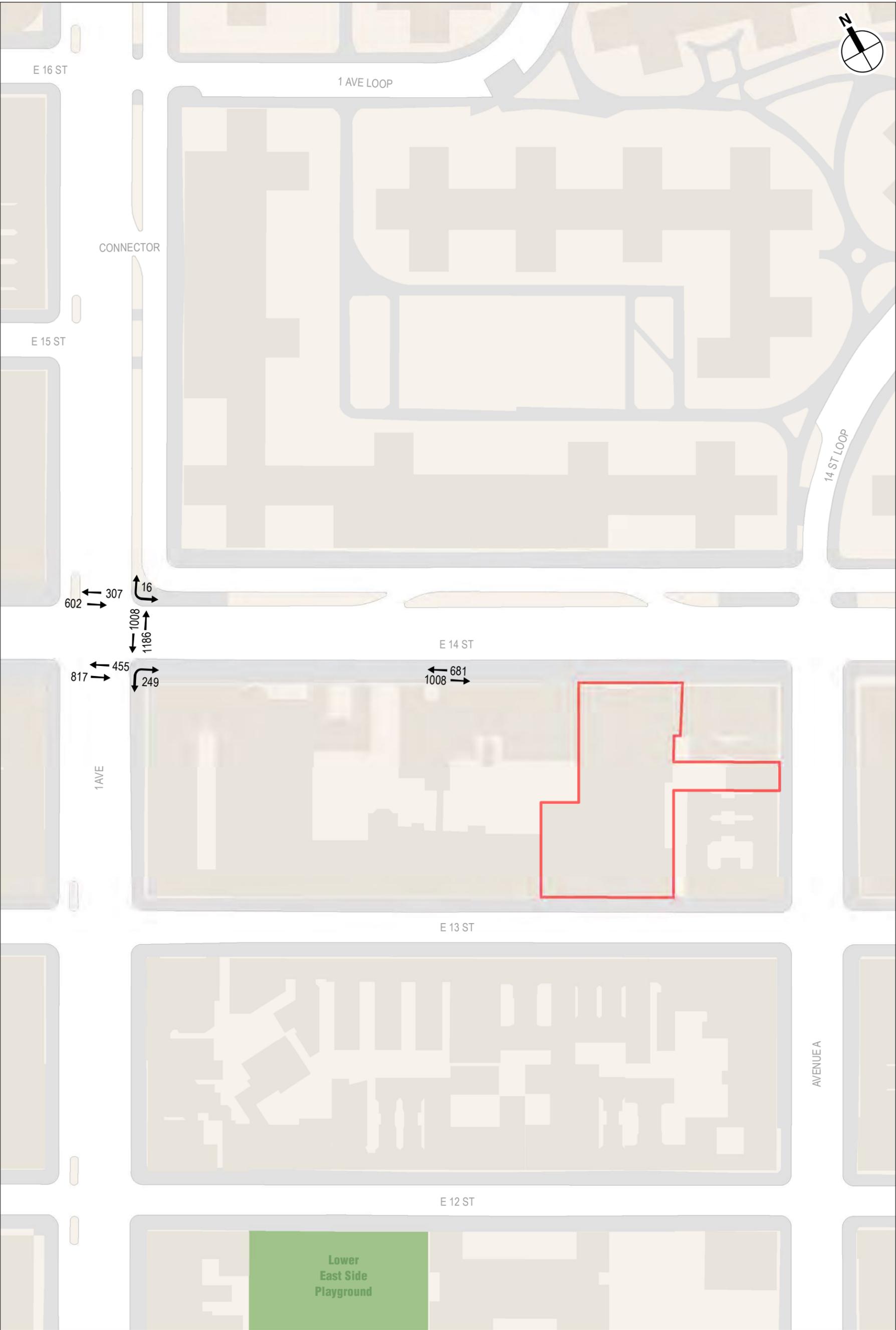
 Project Site

2016 Existing Pedestrian Volumes  
 Weekday AM Peak Hour  
**Figure G-4**



 Project Site

2016 Existing Pedestrian Volumes  
Weekday Midday Peak Hour  
**Figure G-5**



0 200 FEET

Project Site

2016 Existing Pedestrian Volumes  
Weekday PM Peak Hour  
**Figure G-6**

**Table G-8**  
**2016 Existing Conditions: Sidewalk Analysis**

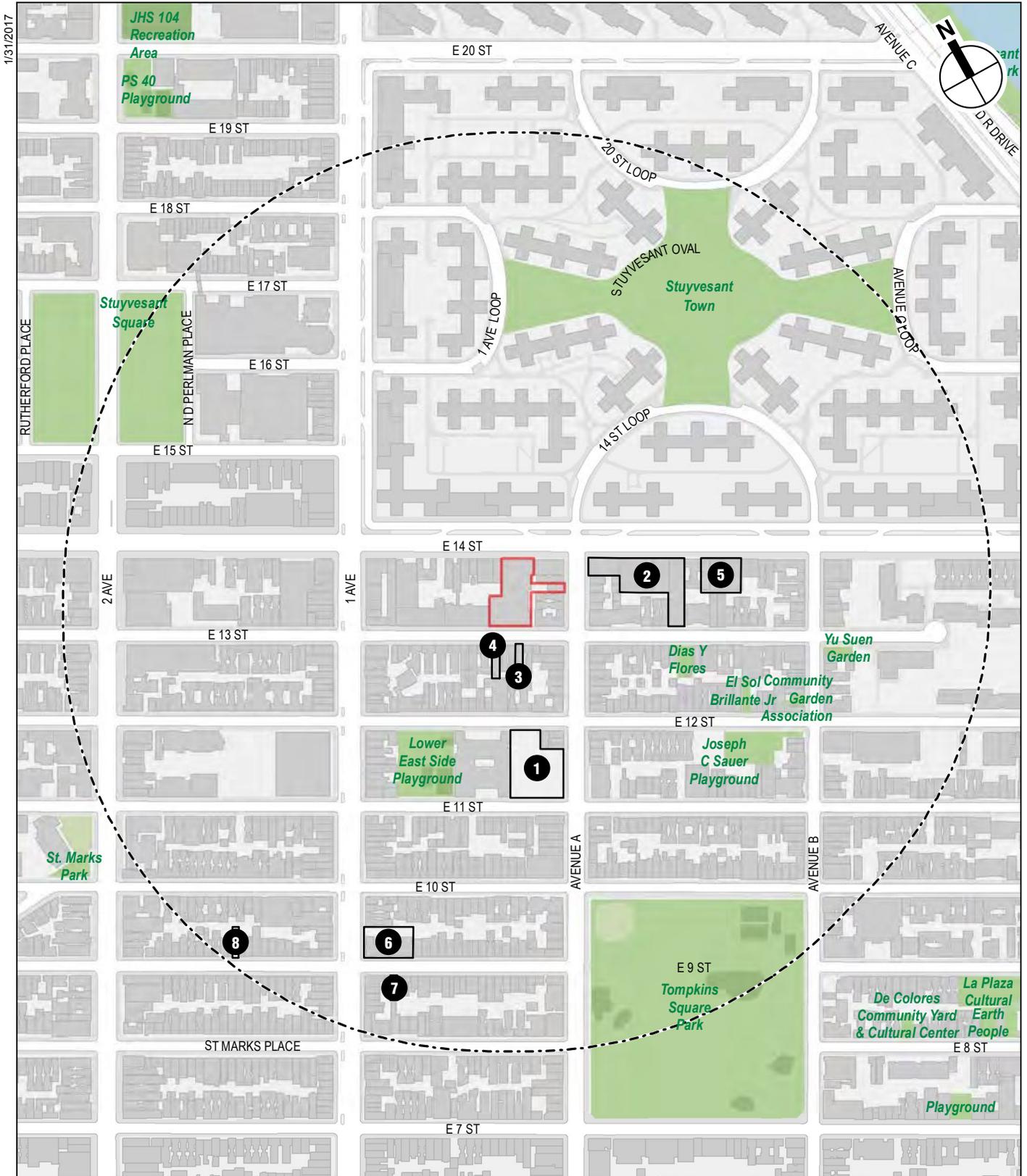
Location	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
<b>Weekday AM Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	1,382	0.77	136.40	B
<b>Weekday Midday Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	1,144	0.87	185.71	B
<b>Weekday PM Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	1,689	0.96	139.16	B
<b>Note:</b> SFP = square feet per pedestrian.					

**Table G-9**  
**2016 Existing Conditions: Corner Analysis**

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
First Avenue and East 14th Street	Northeast	61.07	A	88.66	A	56.86	B
	Southeast	70.35	A	94.07	A	57.54	B
<b>Note:</b> SFP = square feet per pedestrian.							

**THE FUTURE WITHOUT THE PROPOSED ACTIONS**

In the No Action condition, no new development would take place on the project site. No Action condition pedestrian volumes were estimated by increasing existing pedestrian levels to reflect expected growth in overall travel through and within the study area. As per *CEQR* guidelines, an annual background growth rate of 0.25 percent was assumed for the years 2016 to 2018. A total of 8 development projects expected to occur in the No Action condition (No Build projects) were identified as being planned for the 1/4-mile study area (see **Figure G-7**). However, some of these planned projects are modest in size and would be very modest traffic generators. After reviewing the development programs for each of the planned projects, it was determined that background growth will address the increase in pedestrian levels for 5 of the small- to moderate-sized projects in the study area. For the other No Build projects, person and vehicle trips were determined and incorporated into the No Action analyses. **Table G-10** and **Figure G-7** summarize the projects that were accounted for in this future 2018 baseline, including those that were considered as part of the study area background growth. Trips generated in the No Action condition are shown in **Figures G-8 through G-10**.

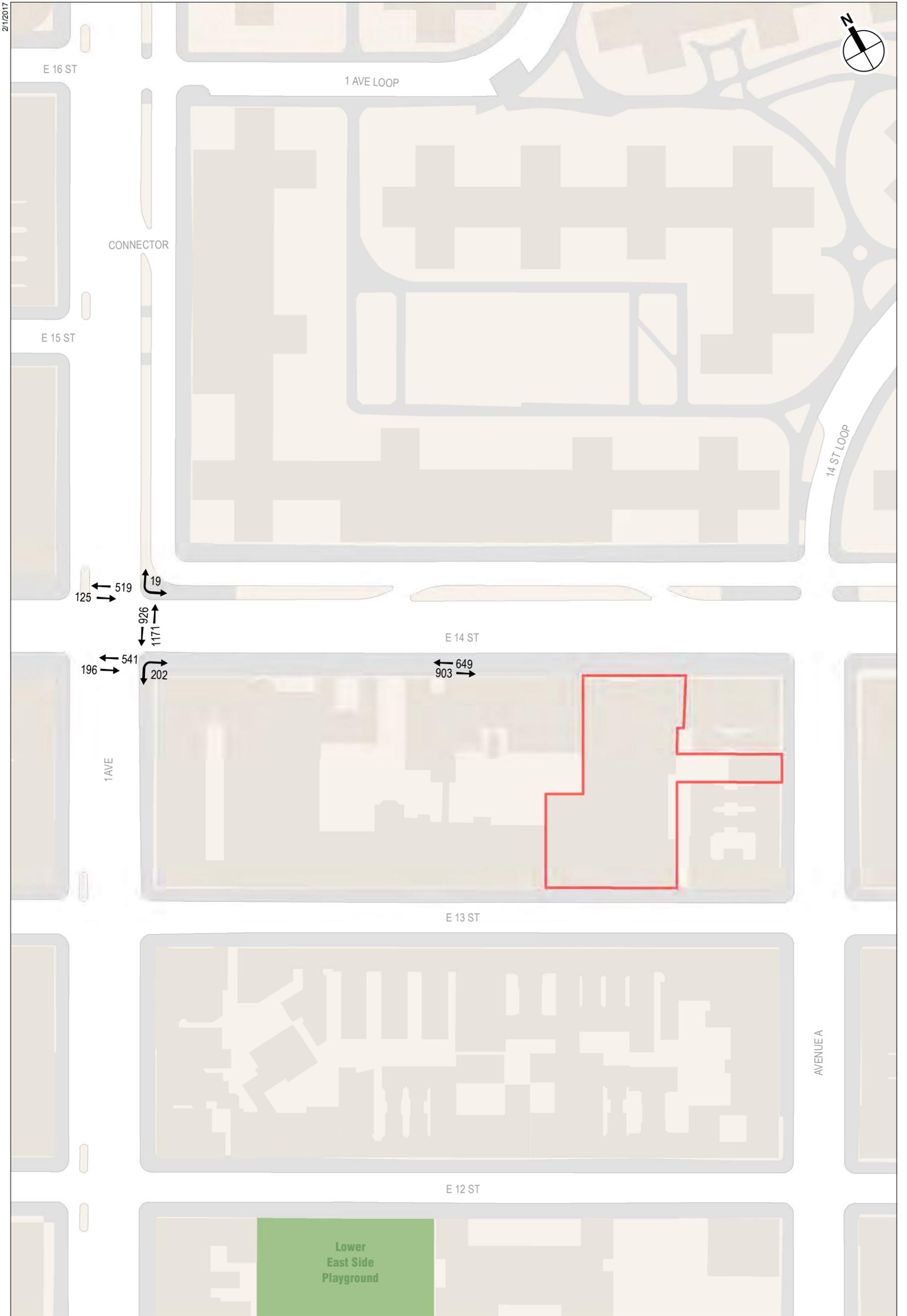


Project Site

No Build Project

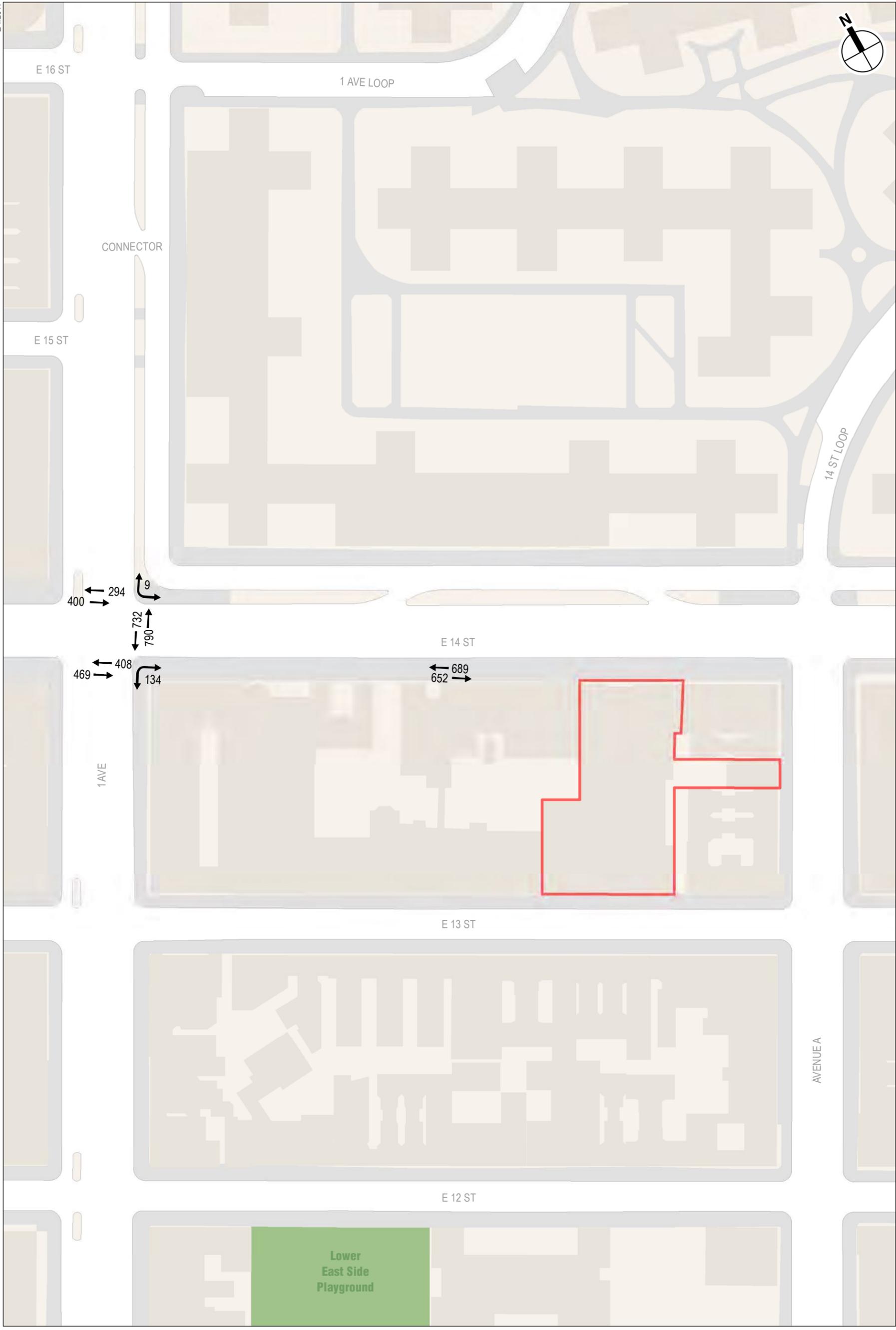
Study Area (Quarter-Mile boundary)

0  1,000 FEET



Project Site

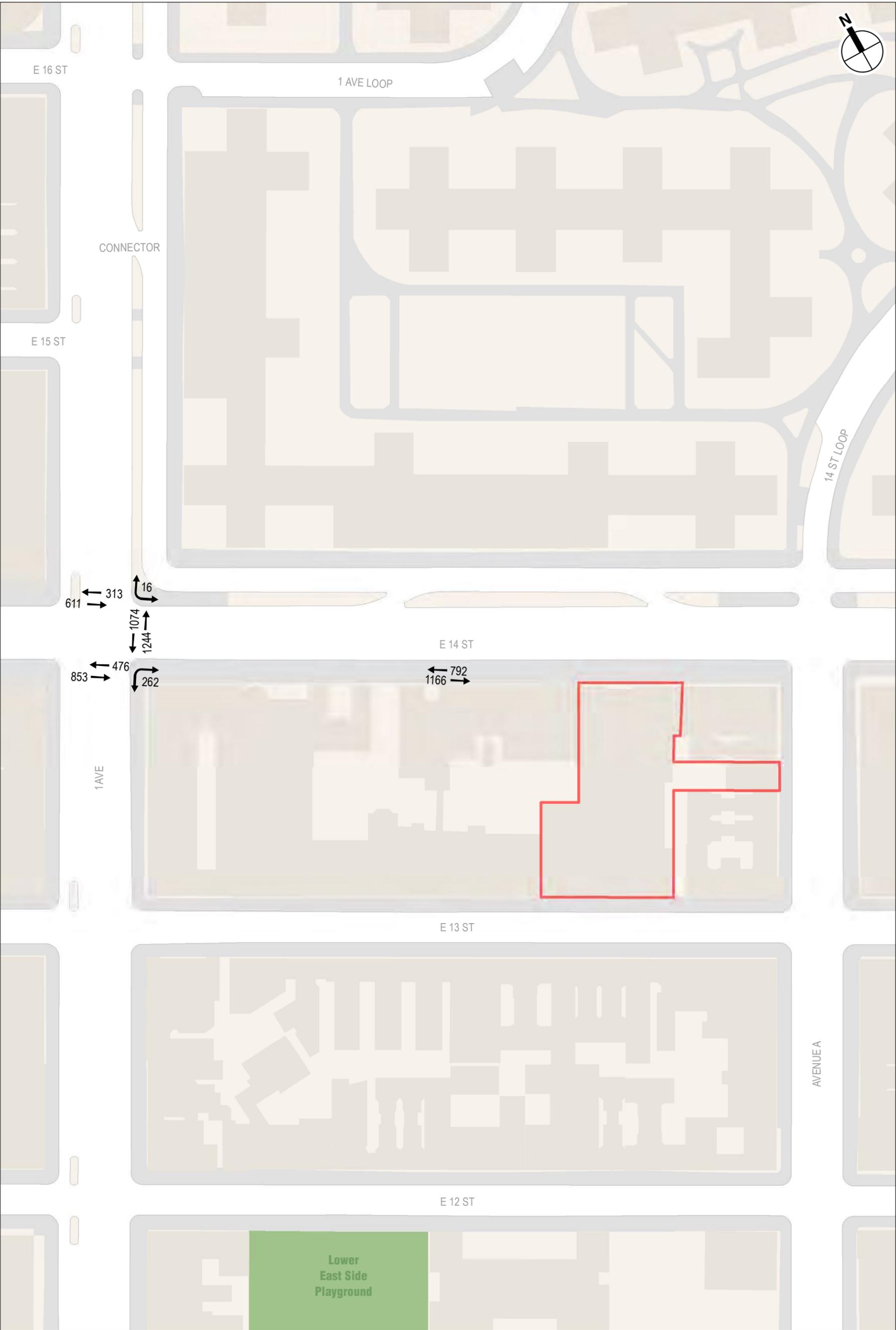
2018 No Action Pedestrian Volumes  
 Weekday AM Peak Hour  
**Figure G-8**



 Project Site

**432 EAST 14TH STREET**

2018 No Action Pedestrian Volumes  
Weekday Midday Peak Hour  
**Figure G-9**



Project Site

2018 No Action Pedestrian Volumes  
Weekday PM Peak Hour  
**Figure G-10**

**Table G-10  
No Build Projects Expected to be Complete by 2018**

Map Ref. No. <sup>1</sup>	Project Name/ Address	Development Program	Transportation Assumptions	Status/ Build Year
<b>Development Projects Within 1/4-Mile</b>				
1	438 East 12th Street	82 Residential units	Transportation assumptions from the 2014 <i>CEQR Technical Manual</i> , the <i>East Village/Lower East Side Rezoning EIS</i> (2008) and U.S. Census data	2017
2	222 Avenue A	150 Residential units	Same assumptions as NB site 1	2018
3	442 East 13th Street	6 Residential units	Included in background growth	2018
4	436 East 13th Street	6 Residential units	Included in background growth	2018
5	524 East 14th Street	Mixed-use commercial and residential building with 160 residential units and 45,407 gsf of retail	Transportation assumptions from the 2014 <i>CEQR Technical Manual</i> , the <i>East Village/Lower East Side Rezoning EIS</i> (2008), the <i>Hudson Square Rezoning FEIS</i> (2013), and U.S. Census data	2017
6	150 First Avenue	Renovation and expansion of community facility from 43,220 gsf to 52,380 gsf	Included in background growth	2018
7	404 East 9th Street	Conversion of multiple dwelling unit building to single residence	Included in background growth	2018
8	327 East 9th Street	2 Residential units	Included in background growth	2018
<b>Notes:</b>				
<sup>1</sup> See <b>Figure G-6</b> .				

*STREET-LEVEL PEDESTRIAN OPERATIONS*

As shown in **Tables G-11 and G-12**, in the No Action condition, both sidewalk and corner reservoir analysis locations will continue to operate at favorable LOS A and B.

**Table G-11  
2018 No Action Condition: Sidewalk Analysis**

Location	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
<b>Weekday AM Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	1,552	0.77	121.36	B
<b>Weekday Midday Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	1,341	0.87	158.33	B
<b>Weekday PM Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	1,958	0.96	119.93	B
<b>Note:</b> SFP = square feet per pedestrian.					

Table G-12

2018 No Action Condition: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
First Avenue and East 14th Street	Northeast	58.81	B	83.28	A	53.76	B
	Southeast	66.74	A	87.35	A	54.06	B

**Note:** SFP = square feet per pedestrian.

PROBABLE IMPACTS OF THE PROPOSED PROJECT

Project-generated pedestrian volumes were assigned to the pedestrian network considering current land uses in the area, population distribution, available transit services, and surrounding pedestrian facilities. The hourly incremental pedestrian volumes presented above in Section B, “Level 2 Screening Assessment,” were added to the projected 2018 No Action volumes to generate the 2018 With Action pedestrian volumes for analysis (see **Figures G-11 through G-13**).

STREET-LEVEL PEDESTRIAN OPERATIONS

As shown in **Tables G-13 and G-14**, both sidewalk and corner reservoir analysis locations would continue to operate at favorable LOS A and B. Based on the *CEQR Technical Manual* sliding scale impact thresholds, no significant adverse pedestrian impacts were identified for either one of the sidewalk and corner analysis locations during the weekday AM, midday, or PM peak hours.

Table G-13

2018 With Action Condition: Sidewalk Analysis

Location	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
<b>Weekday AM Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	1,766	0.77	106.54	B
<b>Weekday Midday Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	2,067	0.87	102.42	B
<b>Weekday PM Peak Hour</b>					
South Sidewalk along East 14th Street between Avenue A and First Avenue	15.5	432	0.96	96.35	B

**Note:** SFP = square feet per pedestrian.

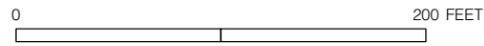
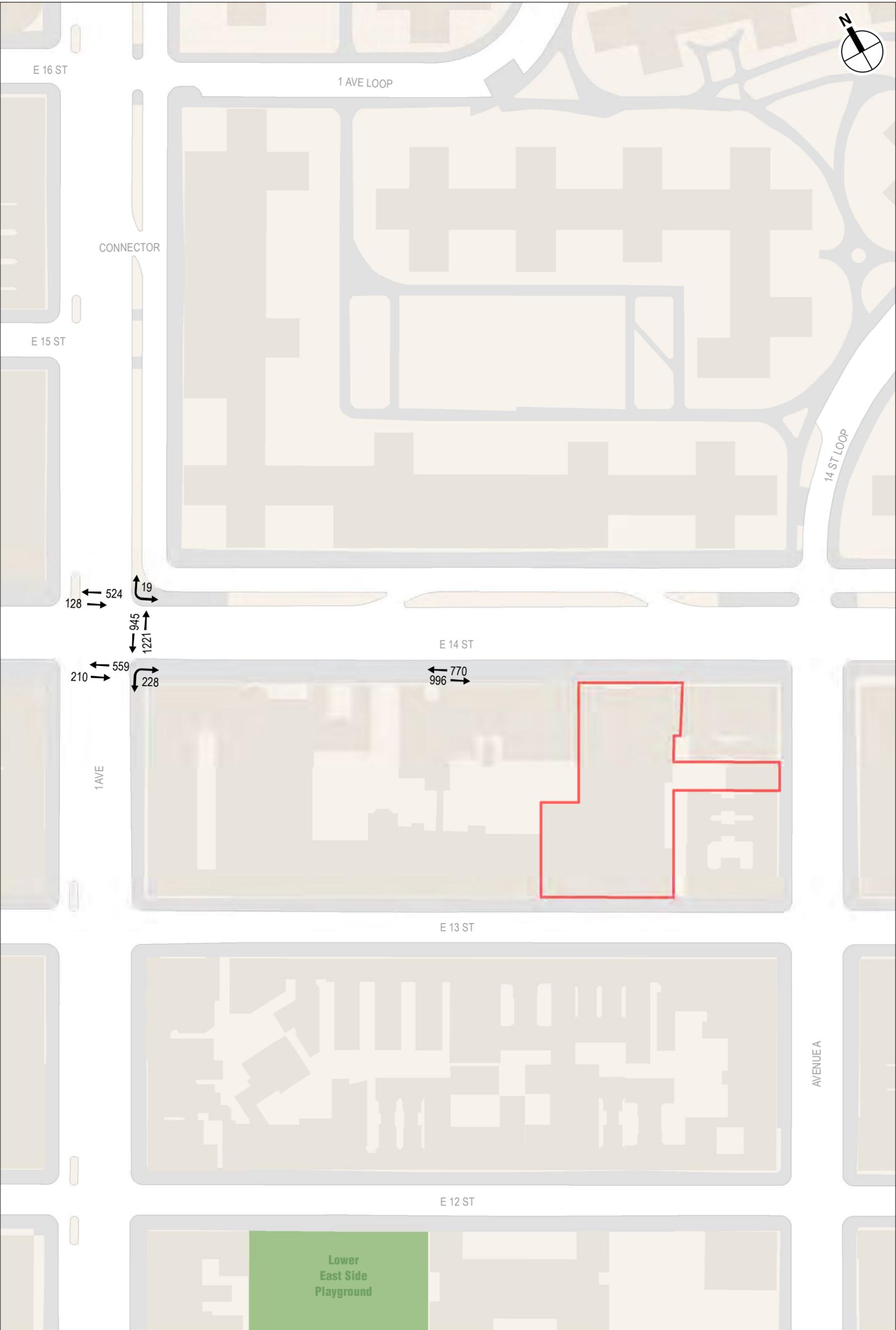
Table G-14

2018 With Action Condition: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
First Avenue and East 14th Street	Northeast	56.99	B	74.13	A	50.55	B
	Southeast	63.39	A	70.74	A	49.22	B

**Note:** SFP = square feet per pedestrian.

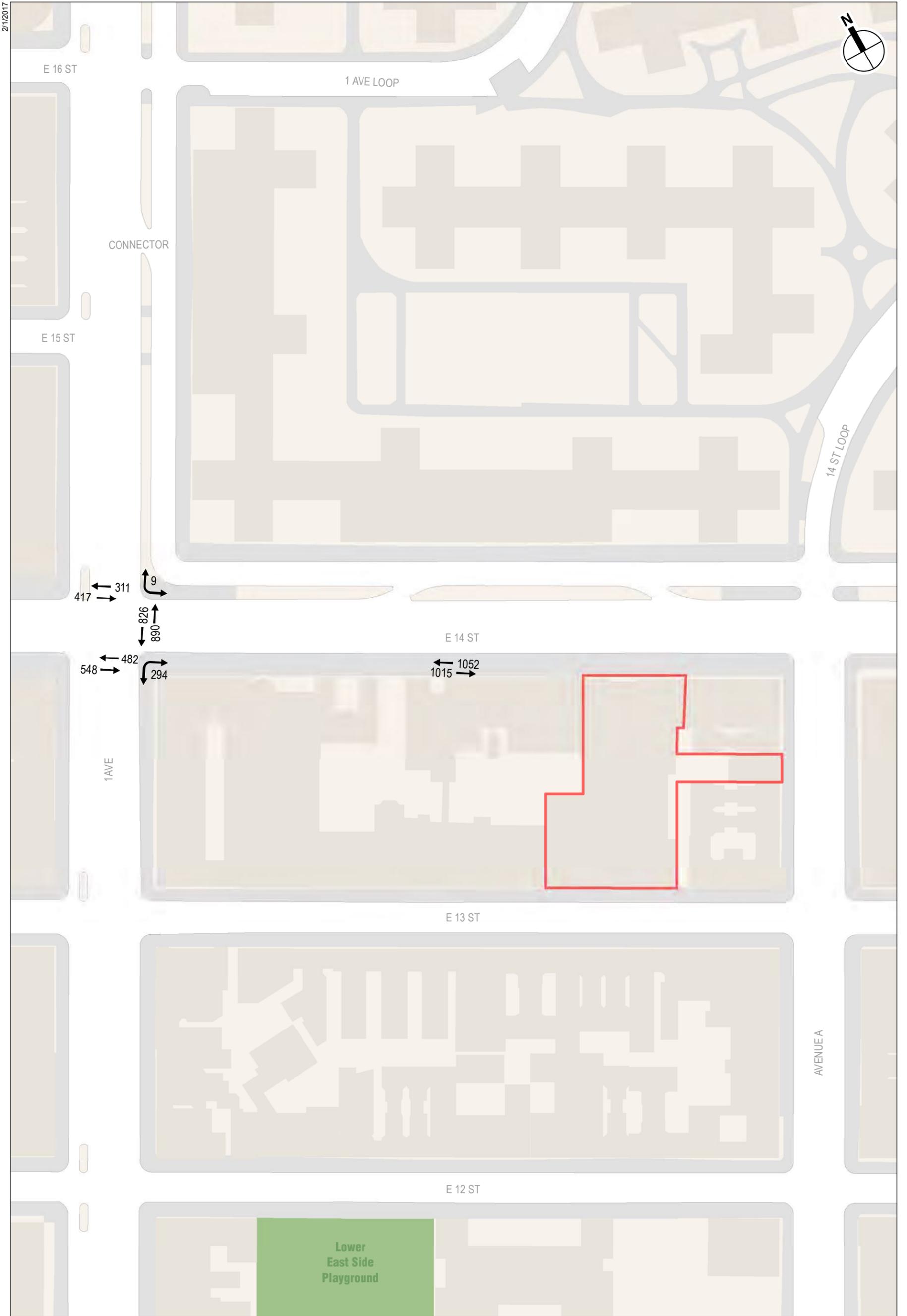
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Project Site

**432 EAST 14TH STREET**

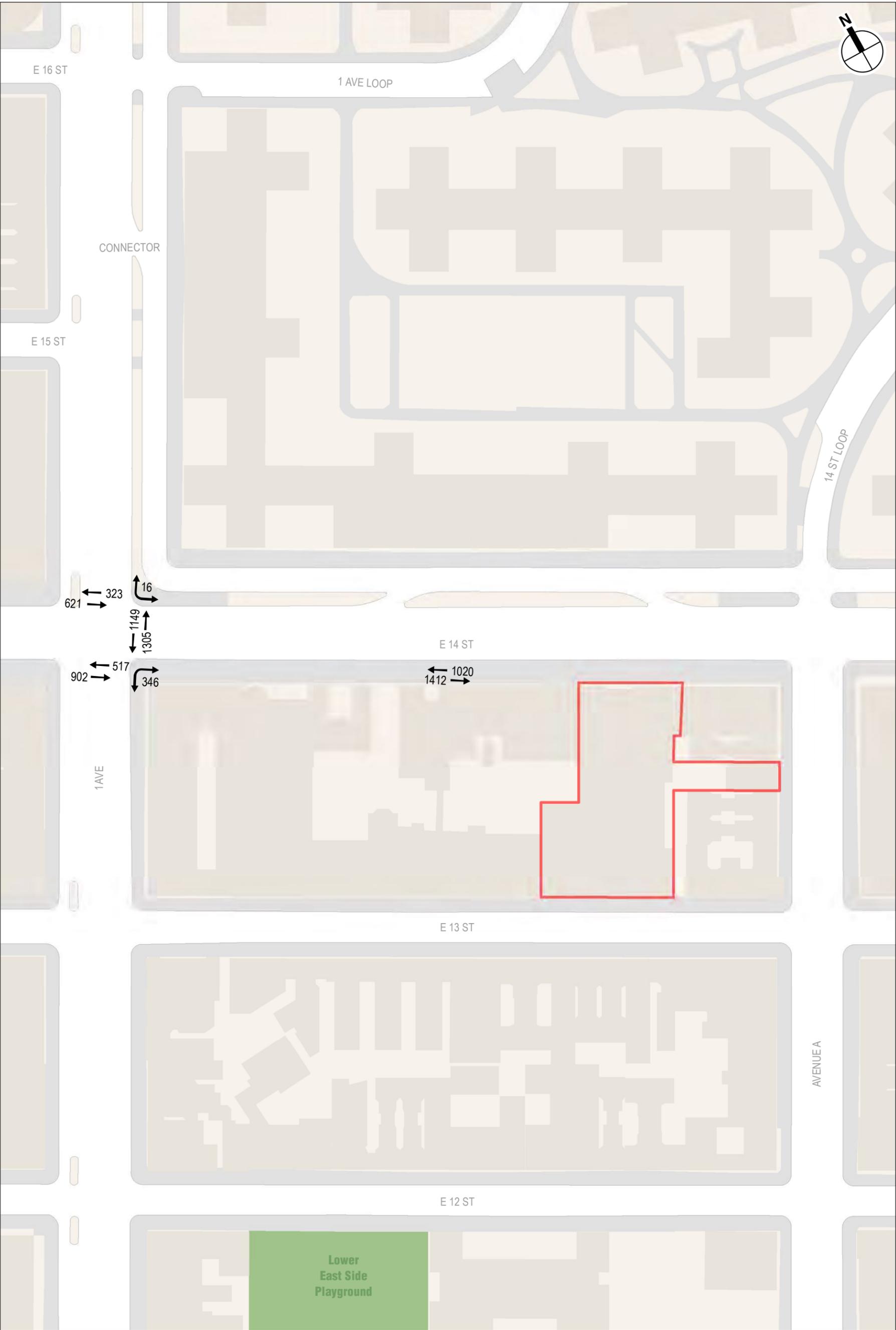
2018 With Action Pedestrian Volumes  
 Weekday AM Peak Hour  
**Figure G-11**



Project Site

**432 EAST 14TH STREET**

2018 With Action Pedestrian Volumes  
 Weekday Midday Peak Hour  
**Figure G-12**



 Project Site

**432 EAST 14TH STREET**

2018 With Action Pedestrian Volumes  
Weekday PM Peak Hour  
**Figure G-13**

**A. INTRODUCTION**

The potential for air quality impacts associated with the proposed mixed-use project at 432 East 14th Street in the East Village neighborhood of Manhattan (Block 441, Lots 23 and 32) was analyzed.

The proposed project is not expected to significantly alter traffic conditions. The maximum hourly increase in traffic volume due to the proposed project would not exceed the 2014 *City Environmental Quality Review (CEQR) Technical Manual* carbon monoxide screening threshold of 170 auto trips during peak hour at nearby intersections in the study area, nor would it exceed the particulate matter (PM) screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, a mobile source analysis is not required.

The *CEQR Technical Manual* requires an assessment of any actions that could result in the location of sensitive uses within 1,000 feet of a major or large emission sources (e.g., a power plant) requiring federal or state facility permits. To assess the potential effects of these existing sources on the proposed project, a review of existing permitted facilities was conducted. The nearest existing major or large emission source is the East River Generating Station operated by Con Edison, located more than 1,000 feet from the project area. Therefore, analysis of the potential impact of large sources on the proposed project is not required.

The proposed project involves the development of a mixed-use building containing 155 dwelling units and commercial use with a 12-story frontage facing East 14th Street, and an 8-story frontage facing East 13th Street. Since the proposed building would include a fossil fuel-fired heat and hot water system, an analysis of potential future pollutant concentrations from this source was conducted. As presented below, there would be no potential for significant adverse air quality impacts from the proposed project's heat and hot water systems. Therefore, overall, no significant adverse air quality impacts would occur as a result of the proposed project.

**B. METHODOLOGY**

Two analyses were prepared to assess the potential for air quality impacts associated with emissions from the proposed project's heat and hot water systems, according to the methods described in the *CEQR Technical Manual*. It was conservatively assumed that the heat and hot water system would utilize No. 2 fuel oil. The main pollutant of concern when burning No. 2 fuel oil is sulfur dioxide (SO<sub>2</sub>). An initial screening analysis was prepared using the methodology for the initial screening of impacts from heat and hot water system described in the *CEQR Technical Manual*, and further screening was prepared using the EPA approved AERSCREEN model to evaluate potential impacts on concentrations of 1-hour average nitrogen dioxide (NO<sub>2</sub>), 1-hour average concentrations of SO<sub>2</sub>, and 24-hour and annual average concentrations of PM less than 2.5 micrometers in diameter (PM<sub>2.5</sub>).

## INITIAL SCREENING

An initial screening analysis was performed using the methodology described in Section 322.1 of Chapter 17 of the *CEQR Technical Manual*. This methodology determines the threshold of development size below which the action would not have a significant adverse impact for most pollutants and averaging periods. The screening procedure utilizes information regarding the type of fuel to be burned, the maximum development size, and the exhaust stack height to evaluate whether or not a significant impact is possible.

Based on the distance from the development to the nearest building of similar or greater height, if the maximum development size is greater than the threshold size in the *CEQR Technical Manual*, then there is the potential for significant air quality impacts and a refined dispersion modeling analysis would be required. Otherwise, the source passes the screening analysis.

The nearest building of similar or greater height would be 630 feet from the project site. This is further than the 400 foot maximum screening distance, therefore a distance of 400 feet was chosen in accordance with the guidance provided in the *CEQR Technical Manual*.

However, since the screening does not address the most recently introduced standards, additional screening was undertaken (see below).

## AERSCREEN ANALYSIS

Potential 1-hour NO<sub>2</sub>, 1-hour SO<sub>2</sub>, and 24-hour and annual average PM<sub>2.5</sub> impacts from the proposed project's heat and hot water system's emissions were evaluated using the EPA's AERSCREEN model (version 15181 EPA, 2015). The AERSCREEN model predicts worst-case 1-hour average concentrations downwind from a point, area, or volume source. AERSCREEN generates application-specific worst-case meteorology using representative minimum and maximum ambient air temperatures, and site-specific surface characteristics such as albedo, Bowen ratio, and surface roughness length.<sup>1</sup> The AERSCREEN model was used to calculate worst-case ambient concentrations of criteria pollutants from the proposed project downwind of the stack. Potential 1-hour average NO<sub>2</sub> and 1-hour average SO<sub>2</sub> concentrations, added to representative background concentrations in the area, were compared with the National Ambient Air Quality Standards (NAAQS). Potential 24-hour and annual average incremental concentrations of PM<sub>2.5</sub> were compared with PM<sub>2.5</sub> *de minimis* criteria thresholds defined in the *CEQR Technical Manual*.

The model incorporates the Plume Rise Model Enhancements (PRIME) downwash algorithm, which is designed to predict impacts in the "cavity region" (i.e., the area around a structure which, under certain conditions, may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). AERSCREEN applies the PRIME algorithm based on inputs from the Building Profile Input Program for PRIME (BPIP-PRM) to provide a detailed analysis of downwash influences on a direction-specific basis. AERSCREEN also incorporates complex terrain algorithms and uses a terrain processor to account for the terrain in the vicinity of the source on a direction-specific basis.

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<sup>1</sup> The albedo is the fraction of the total incident solar radiation reflected by the ground surface. The Bowen ratio is the ratio of the sensible heat flux to the latent (evaporative) heat flux. The surface roughness length is related to the height of obstacles to the wind flow and represents the height at which the mean horizontal wind speed is zero based on a logarithmic profile.

The AERSCREEN model was run both with and without the influence of building downwash, using urban diffusion coefficients that were based on a review of land-use maps of the area. Other model options were selected based on EPA guidance.

Nitrogen oxides (nitric oxide [NO] and NO<sub>2</sub>, collectively referred to as NO<sub>x</sub>) are emitted mostly as NO and are transformed to NO<sub>2</sub> as part of the chemical reactions in the atmosphere. Maximum 1-hour average NO<sub>2</sub> concentrations were estimated using an NO<sub>2</sub> to NO<sub>x</sub> ratio of 0.8. The 0.8 ratio used for the maximum 1-hour concentration is the recommended default ratio per EPA’s guidance for NO<sub>2</sub> modeling.<sup>2</sup>

*EMISSION RATES AND STACK PARAMETERS*

The stack exhaust parameters and emission rates used in the AERSCREEN analysis are presented in **Table H-1**. Annual emissions rates from the heat and hot water system were calculated based on fuel consumption estimates, using energy use estimates based on the type of development and size of the building (166,177 gross square feet [gsf]) as recommended in the *CEQR Technical Manual*, and applying the EPA’s emission factors for No. 2 fuel oil-fired boilers.<sup>3</sup> The short-term emission rates were calculated by scaling the annual emissions to account for a 100-day heating season. The exhaust from the heat and hot water system was assumed to be vented through a single stack located on the bulkhead roof of the building at a height of 145 feet above grade (3 feet above the roof). The exhaust velocity was calculated based on the exhaust flowrate for the boiler capacity estimated using the energy use of the proposed project and EPA’s fuel factors<sup>4</sup>. Assumptions for stack diameter and exhaust temperature for the proposed system were obtained from a survey of boiler exhaust data performed and provided by New York City Department of Environmental Protection (NYCDEP) and were used to calculate the exhaust velocity.

**Table H-1  
Heat and Hot Water System Stack Parameters and  
Emission Rates**

Stack Parameter	Value
Stack Height (feet)	145
Stack Diameter (feet)	1.00
Exhaust Velocity (feet per second)	17.2
Exhaust Temperature (degrees Fahrenheit)	300
<i>Emission Rate (grams/second)</i>	
NO <sub>2</sub> (1-hour average)	0.0676
SO <sub>2</sub> (1-hour average)	0.0008
PM <sub>2.5</sub> (24-hour average)	0.0064
PM <sub>2.5</sub> (Annual average)	0.0018

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<sup>2</sup> EPA. Memorandum: *Clarification on the use of AERMOD Dispersion Modeling for Demonstrating Compliance with the NO<sub>2</sub> National Ambient Air Quality Standard*. September 30, 2014.

<sup>3</sup> EPA. *Compilations of Air Pollutant Emission Factors AP-42*. Fifth Edition, Volume I, Chapter 1, Section 3. <http://www.epa.gov/ttn/chief/ap42>. September, 1998.

<sup>4</sup> Table 19-2 40 C.F.R Chapter I Subchapter C Part 60

*RECEPTOR LOCATIONS*

A receptor is specific location at which concentrations are projected. Receptor information provides the distance from the source, terrain height, and height above ground for selected locations. The screening analysis considered the effect of the proposed project’s stationary source emissions on a residential building located at 445 East 14th Street (which is the nearest building with a height above 100 feet above grade, at approximately 130 feet away from the proposed project on the side closest to the receptor building), as well as other adjacent buildings that are three to seven stories shorter than the proposed project (with heights between 50 and 90 feet above grade) that were also considered due to its proximity.

*BACKGROUND CONCENTRATIONS*

To estimate the maximum expected total NO<sub>2</sub> and SO<sub>2</sub> concentrations at a given receptor, the maximum concentration increments predicted from the heating system were added to the corresponding background concentrations (see **Table H-2**). These background levels represent the 98th and 99th percentile annually of the daily-highest 1-hour average NO<sub>2</sub> and SO<sub>2</sub> concentrations, respectively (these are the statistical forms of the respective standards) that were measured at the nearest New York State Department of Department of Environmental Conservation (NYSDEC) background monitoring station for each of the pollutants. It was conservatively assumed that these high background concentrations occur on all days.

**Table H-2**  
**Maximum Background Pollutant Concentrations**  
**For Heat and Hot Water System Analysis**

Pollutant	Average Period	Location	Background Concentration (µg/m <sup>3</sup> )	Standard (µg/m <sup>3</sup> )
NO <sub>2</sub>	1-hour	Queens College, Queens	109	188 <sup>(1)</sup>
SO <sub>2</sub>	1-hour	Queens College, Queens	37	196 <sup>(1)</sup>
PM <sub>2.5</sub>	24-hour	PS 19, New York	25.6	6.4 <sup>(2)</sup>
PM <sub>2.5</sub>	Annual	N/A	N/A	0.3 <sup>(3)</sup>

**Notes:**  
 N/A – Not Applicable  
 1. 1-hour average NAAQS.  
 2. 24-hour average PM<sub>2.5</sub> *de minimis* criterion, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m<sup>3</sup>.  
 3. *de minimis* criterion for annual average PM<sub>2.5</sub> (discrete receptor), not to exceed.

The background concentration for annual average PM<sub>2.5</sub> is not used since the criterion for this standard is based on incremental concentrations only, as described above. However, the *de minimis* criterion for 24-hour average PM<sub>2.5</sub> takes into account the background concentration.

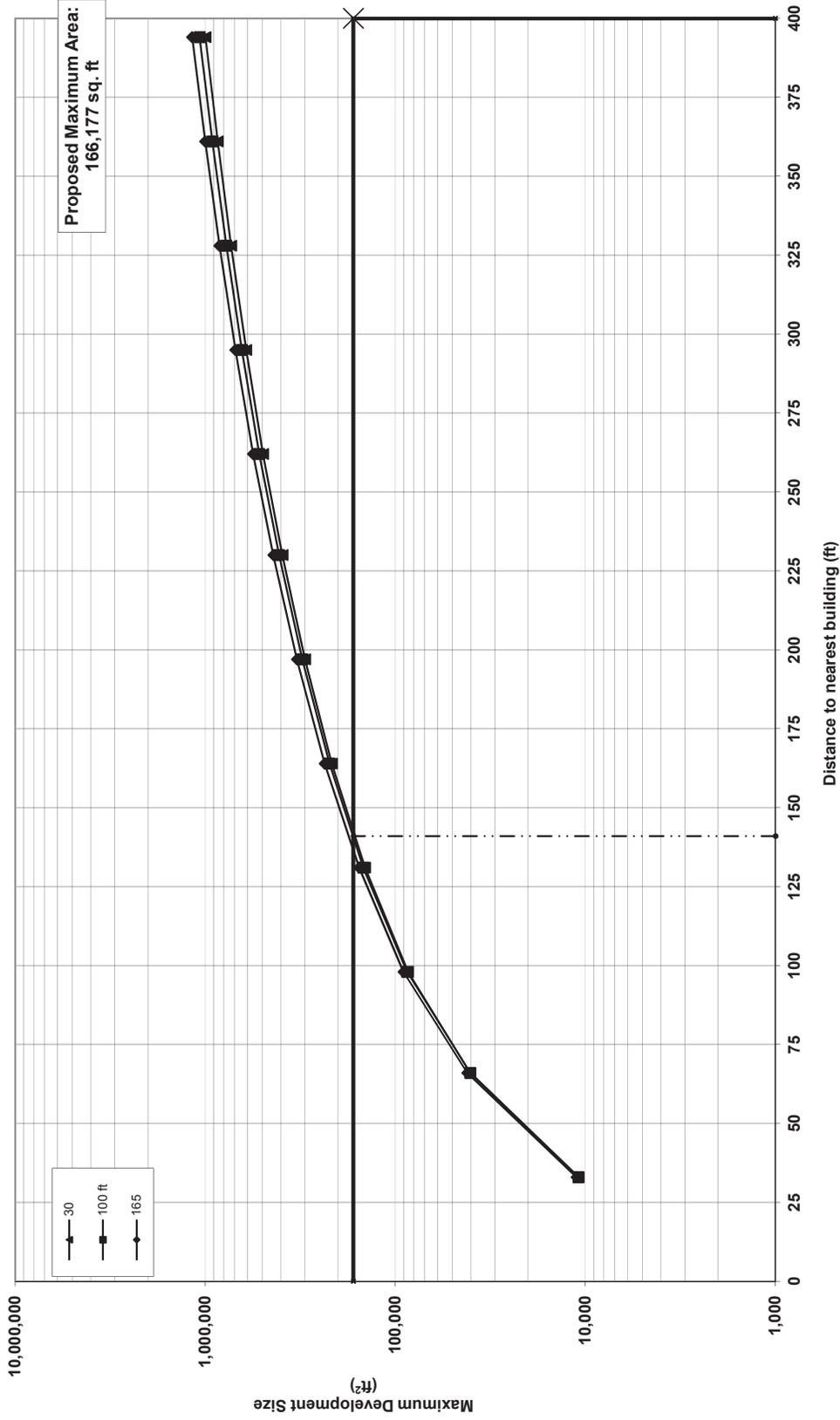
**PROBABLE IMPACTS OF THE PROPOSED PROJECT**

*INITIAL SCREENING*

The results of the simplified screening analysis are presented in **Figure H-1**. The distance below which impacts might occur on buildings of similar height was determined to be approximately 141 feet. There would be no building of similar height within 400 feet of the project site. Therefore, a distance of 400 feet was chosen in accordance with the guidance provided in the *CEQR*

HVAC Screening Analysis  
Site: 432 East 14th Street  
Date: 2/29/2016  
Pass

FIG App 17-5  
SO<sub>2</sub> BOILER SCREEN  
RESIDENTIAL DEVELOPMENT - FUEL OIL #2



Stack Height: 145 ft  
Distance to Nearest Building of Similar or Greater Height: 400 ft  
Proposed Maximum SQFA: 166,177 sq. ft  
Minimum Allowable Distance to Nearest Building: 141 ft

*Technical Manual.* Since annual average SO<sub>2</sub> is the critical pollutant in this analysis, impacts would also not be expected for the annual average NO<sub>2</sub>, PM<sub>10</sub>, and CO standards.

*AERSCREEN ANALYSIS*

The results of the AERSCREEN analysis for 1-hour average NO<sub>2</sub>, 1-hour average SO<sub>2</sub>, and 24-hour and annual average PM<sub>2.5</sub> are presented in **Table H-3**. The projected potential impacts from the proposed project’s heat and hot water system on all pollutant concentrations are less than their respective thresholds (NAAQS and *de minimis* criteria).

**Table H-3  
Maximum Modeled Pollutant Concentrations (µg/m<sup>3</sup>)**

Pollutant	Averaging Period	Maximum Modeled Increment	Background Concentration	Total / Incremental Concentration	Criterion
NO <sub>2</sub>	1-hour	25	109	134	188
SO <sub>2</sub>	1-hour	1	37	38	196
PM <sub>2.5</sub>	24-hour	1.8	N/A	4.1	4.7 <sup>(1)</sup>
	Annual	0.08	N/A	0.19	0.3 <sup>(2)</sup>
<b>Notes:</b>					
N/A—Not Applicable					
<sup>1</sup> PM <sub>2.5</sub> 24-hour average <i>de minimis</i> criteria—not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m <sup>3</sup> .					
<sup>2</sup> PM <sub>2.5</sub> annual average <i>de minimis</i> criteria for discrete receptors.					

*CONCLUSION*

Based on the results of both screening analyses, the proposed project’s heat and hot water systems would not result in any significant adverse air quality impacts. \*

## **A. INTRODUCTION**

The proposed project at 432 East 14th Street would not generate sufficient traffic to have the potential to cause a significant noise impact (i.e., it would not result in a doubling of noise passenger car equivalents [Noise PCEs] which would be necessary to cause a 3 dBA increase in noise levels). However, the effects of ambient noise adjacent to the project site (including noise from vehicular traffic) are addressed in the following attachment. The analysis determines the level of building attenuation necessary to ensure that the proposed building's interior noise levels satisfy applicable 2014 *City Environmental Quality Review (CEQR) Technical Manual* interior noise criteria.

## **B. ACOUSTICS FUNDAMENTALS**

Sound is a fluctuation in air pressure. Sound pressure levels are measured in units called "decibels" ("dB"). The particular character of the sound that we hear (a whistle compared with a French horn, for example) is determined by the speed, or "frequency," at which the air pressure fluctuates, or "oscillates." Frequency defines the oscillation of sound pressure in terms of cycles per second. One cycle per second is known as 1 Hertz ("Hz"). People can hear over a relatively limited range of sound frequencies, generally between 20 Hz and 20,000 Hz, and the human ear does not perceive all frequencies equally well. High frequencies (e.g., a whistle) are more easily discernable and therefore more intrusive than many of the lower frequencies (e.g., the lower notes on the French horn).

### **"A"-WEIGHTED SOUND LEVEL (DBA)**

In order to establish a uniform noise measurement that simulates people's perception of loudness and annoyance, the decibel measurement is weighted to account for those frequencies most audible to the human ear. This is known as the A-weighted sound level, or "dBA," and it is the descriptor of noise levels most often used for community noise. As shown in **Table I-1**, the threshold of human hearing is defined as 0 dBA; quiet conditions (as in a library, for example) are approximately 40 dBA; levels between 50 dBA and 70 dBA define the range of noise levels generated by normal daily activity; levels above 70 dBA would be considered noisy, and then loud, intrusive, and deafening as the scale approaches 130 dBA.

In considering these values, it is important to note that the dBA scale is logarithmic, meaning that each increase of 10 dBA describes a doubling of perceived loudness. Thus, the background noise in an office, at 50 dBA, is perceived as twice as loud as a library at 40 dBA. For most people to perceive an increase in noise, it must be at least 3 dBA. At 5 dBA, the change will be readily noticeable.

**Table I-1  
Common Noise Levels**

Sound Source	(dBA)
Military jet, air raid siren	130
Amplified rock music	110
Jet takeoff at 500 meters	100
Freight train at 30 meters	95
Train horn at 30 meters	90
Heavy truck at 15 meters	80–90
Busy city street, loud shout	80
Busy traffic intersection	70–80
Highway traffic at 15 meters, train	70
Predominantly industrial area	60
Light car traffic at 15 meters, city or commercial areas, or residential areas close to industry	50–60
Background noise in an office	50
Suburban areas with medium-density transportation	40–50
Public library	40
Soft whisper at 5 meters	30
Threshold of hearing	0
<b>Note:</b>	A 10 dBA increase in level appears to double the loudness, and a 10 dBA decrease halves the apparent loudness.
<b>Sources:</b>	Cowan, James P. <i>Handbook of Environmental Acoustics</i> , Van Nostrand Reinhold, New York, 1994. Egan, M. David, <i>Architectural Acoustics</i> . McGraw-Hill Book Company, 1988.

**SOUND LEVEL DESCRIPTORS**

Because the sound pressure level unit of dBA describes a noise level at just one moment and few noises are constant, other ways of describing noise that fluctuates over extended periods have been developed. One way is to describe the fluctuating sound heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the “equivalent sound level,”  $L_{eq}$ , can be computed.  $L_{eq}$  is the constant sound level that, in a given situation and time period (e.g., 1 hour, denoted by  $L_{eq(1)}$ , or 24 hours, denoted by  $L_{eq(24)}$ ), conveys the same sound energy as the actual time-varying sound. Statistical sound level descriptors such as  $L_1$ ,  $L_{10}$ ,  $L_{50}$ ,  $L_{90}$ , and  $L_x$ , are used to indicate noise levels that are exceeded 1, 10, 50, 90, and x percent of the time, respectively.

The relationship between  $L_{eq}$  and levels of exceedance is worth noting. Because  $L_{eq}$  is defined in energy rather than straight numerical terms, it is not simply related to the levels of exceedance. If the noise fluctuates little,  $L_{eq}$  will be approximately equal to the  $L_{50}$  or the median value. If the noise fluctuates broadly, the  $L_{eq}$  will be approximately equal to the  $L_{10}$  value. If extreme fluctuations are present, the  $L_{eq}$  will exceed  $L_{90}$  or the background level by 10 or more decibels. Thus the relationship between  $L_{eq}$  and the levels of exceedance will depend on the character of the noise. In community noise measurements, it has been observed that the  $L_{eq}$  is generally between  $L_{10}$  and  $L_{50}$ .

For purposes of the proposed project, the  $L_{10}$  descriptor has been selected as the noise descriptor to be used in this noise impact evaluation. The 1-hour  $L_{10}$  is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines for CEQR classification.

## C. NOISE STANDARDS AND CRITERIA

### NEW YORK CEQR NOISE CRITERIA

The *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise level (see **Table I-2**). Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential uses and interior noise levels of 50 dBA or lower for commercial uses and are determined based on exterior  $L_{10(1)}$  noise levels.

**Table I-2**  
**Required Attenuation Values to Achieve Acceptable Interior Noise Levels**

Noise Level With Proposed Project	Marginally Unacceptable				Clearly Unacceptable
	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Attenuation <sup>A</sup>	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)^B$ dB(A)
<b>Notes:</b> <sup>A</sup> The above composite window-wall attenuation requirements are for residential dwellings and community facility development. Commercial uses would require 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation. <sup>B</sup> Required attenuation values increase by 1 dB(A) increments for $L_{10}$ values greater than 80 dBA. <b>Source:</b> New York City Department of Environmental Protection.					

## D. EXISTING NOISE LEVELS

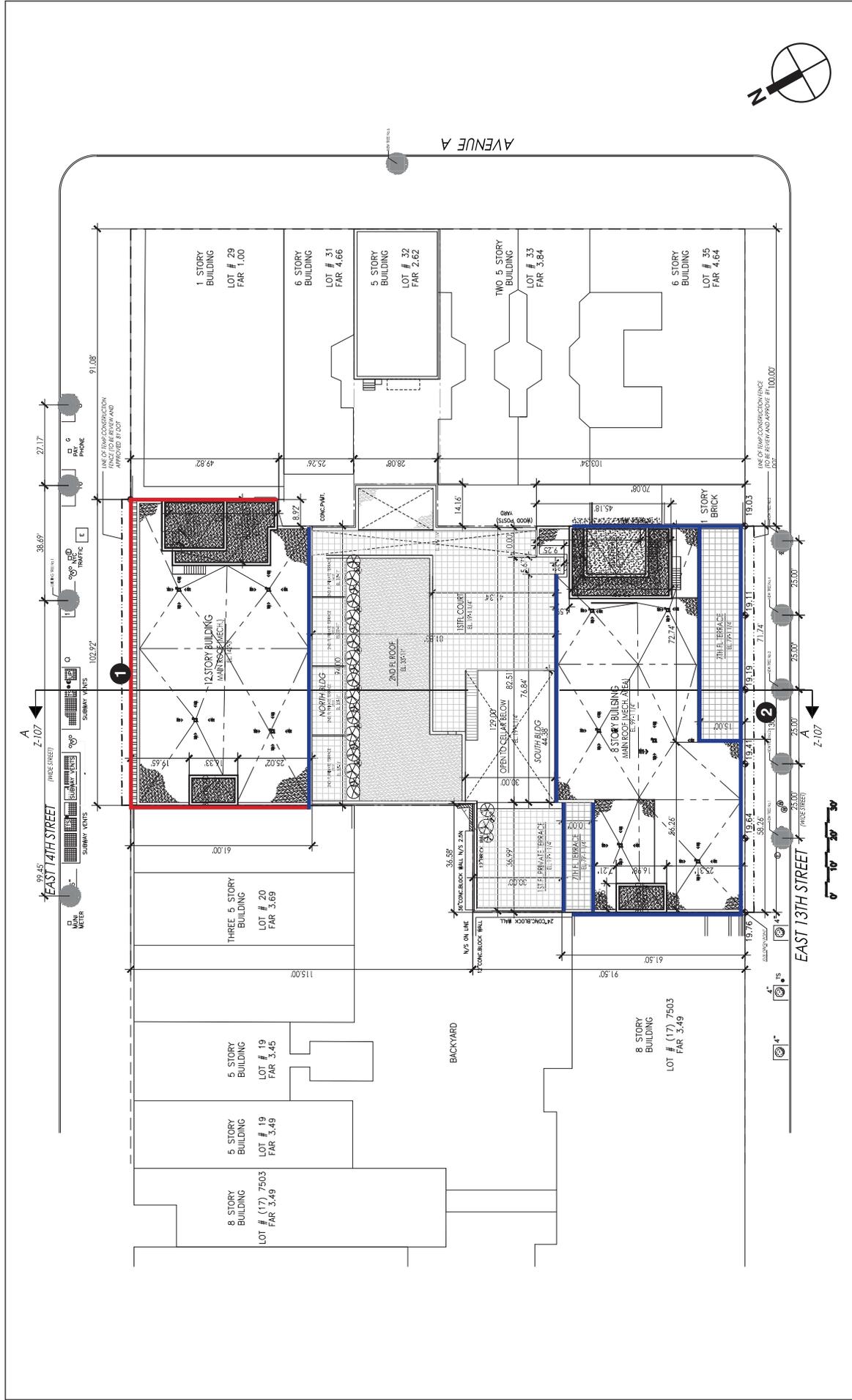
Existing noise levels at the project site were measured at two locations. Site 1 was located on East 14th Street between First Avenue and Avenue A, and Site 2 was located on East 13th Street between First Avenue and Avenue A (see **Figure I-1**).

At the receptor sites, the existing noise levels were measured for a 20-minute period during the three weekday peak periods—AM (7:00 AM to 9:00 AM), midday (MD) (12:00 PM to 2:00 PM), and PM (4:00 PM to 6:00 PM). Measurements were taken on February 11, 2016 and February 25, 2016.

### EQUIPMENT USED DURING NOISE MONITORING

Measurements were performed using a Brüel & Kjær Sound Level Meter (SLM) Type 2260, a Brüel & Kjær ½-inch microphone Type 4189, and a Brüel & Kjær Sound Level Calibrator Type 4231. The SLM has a valid laboratory calibration within 1 year, as is standard practice. The Brüel & Kjær SLM is a Type 1 instrument according to ANSI Standard S1.4-1983 (R2006). The microphone was mounted at a height of approximately five feet above the ground surface on a tripod and at least approximately five feet away from any large reflecting surfaces. The SLM was calibrated before and after readings with a Brüel & Kjær Type 4231 Sound Level Calibrator using the appropriate adaptor. Measurements were made on the A-scale (dBA). The data were digitally recorded by the sound level meter and displayed at the end of the measurement period in units of dBA. Measured quantities included  $L_{eq}$ ,  $L_1$ ,  $L_{10}$ ,  $L_{50}$ ,  $L_{90}$ , and 1/3 octave band levels. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

The results of the existing noise level measurements are summarized in **Table I-3**.



**1** Noise Monitoring Location

**2** No Attenuation Requirement

**3** 31 dBA Attenuation Requirement

**432 E 14TH STREET**

**Façade Attenuation Requirement**  
**Figure I-1**

**Table I-3**  
**Existing Noise Levels in dBA**

Site	Location	Time Period	L <sub>eq</sub>	L <sub>1</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
1	East 14th Street between First Avenue and Avenue A	AM	72.2	80.4	75.2	69.3	64.4
		MD	70.9	79.6	74.0	67.5	62.1
		PM	70.1	79.4	73.2	67.3	60.7
2	East 13th Street between First Avenue and Avenue A	AM	66.8	78.6	69.2	59.3	54.6
		MD	68.1	80.9	68.2	60.7	57.6
		PM	63.9	73.2	68.2	59.7	54.2

**Note:** Noise measurements were performed on February 11, 2016 and February 25, 2016.

At the receptor site, vehicular traffic was the dominant noise source. Measured levels are relatively low to moderate and reflect the level of vehicular activity on the adjacent roadways. In terms of the CEQR criteria, the existing noise levels at Site 1 are in the “marginally unacceptable” category and the existing noise levels at Site 2 are in the “marginally acceptable” category.

## E. NOISE ATTENUATION MEASURES

As shown in **Table I-2**, the *CEQR Technical Manual* has set noise attenuation quantities for buildings based on exterior L<sub>10(1)</sub> noise levels in order to maintain interior noise levels of 45 dBA or lower for residential uses and 50 dBA or lower for commercial uses. The results of the building attenuation analysis are summarized in **Table I-4**.

**Table I-4**  
**CEQR Building Attenuation Requirements**

Tower	Façade	Associated Receptor Site	Maximum Measured L <sub>10</sub> (in dBA)	Attenuation Required <sup>1</sup> (in dBA)
North (East 14th Street)	North, East and West	1	75.2	31
	South	2	69.2	N/A <sup>2</sup>
South (East 13th Street)	North, South, East and West	2	69.2	N/A <sup>2</sup>

**Notes:**

- The CEQR attenuation requirements shown are for residential use; commercial uses would require 5 dBA less attenuation.
- “N/A” indicates that the L<sub>10</sub> value is less than 70 dB(A). The *CEQR Technical Manual* does not address noise levels this low, therefore there is no minimum attenuation guidance.

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Normally, a building façade consists of wall, glazing, and any vents or louvers associated with the building mechanical systems in various ratios of area. Currently, the proposed design for the building includes acoustically rated windows and central air conditioning as an alternate means of ventilation. The proposed building’s façades, including these elements, would be designed to provide a

composite Outdoor-Indoor Transmission Class (OITC) rating<sup>1</sup> greater than or equal to those listed in above in **Table I-4**, along with an alternative means of ventilation in all habitable rooms of the residential units. By adhering to these design specifications, the proposed building will provide sufficient attenuation to achieve the CEQR interior noise level guideline of 45 dBA or lower for residential uses and 50 dBA or lower for commercial uses, which would be considered acceptable according to CEQR interior noise level guidelines.

## **F. MECHANICAL EQUIPMENT**

It is assumed that the building's mechanical systems (i.e., HVAC systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, the proposed project would not result in any significant adverse noise impacts related to building mechanical equipment. \*

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<sup>1</sup> The OITC classification is defined by ASTM International (ASTM E1332) and provides a single-number rating that is used for designing a building façade including walls, doors, glazing, and combinations thereof. The OITC rating is designed to evaluate building elements by their ability to reduce the overall loudness of ground and air transportation noise.

## **Appendix A**



September 8, 2016

Ms. Gjela Prenga  
Project Manager  
New York City Board of Standards and Appeals  
250 Broadway, 29th Floor  
New York, New York 10007

**Vincent Sapienza, P.E.**  
*Acting Commissioner*

**Angela Licata**  
*Deputy Commissioner of  
Sustainability*

59-17 Junction Blvd.  
Flushing, NY 11373

Tel. (718) 595-4398  
Fax (718) 595-4479  
alicata@dep.nyc.gov

**Re: 432 East 14th Street  
Block 441, Lots 23 and 32  
CEQR # 16BSA117M  
New York, New York**

Dear Ms. Prenga:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the May 2016 Environmental Assessment Statement, the May 2014 Phase I Environmental Site Assessment Report (Phase I) prepared by Hydro Tech Environmental, Corp., the October 2014 limited Phase II Environmental Site Investigation (Phase II), and the April 2016 Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) prepared by AKRF, Inc. (AKRF) on behalf of 432 East 14th Street UDP LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking a variance from the New York City Board of Standards and Appeals (BSA) to waive applicable floor area, height, and setback regulations to permit the development of a mixed-use residential and commercial building at 432 East 14th Street (Block 441, Lot 23) with frontage along East 13th and East 14th Streets. The East 13th Street portion of the building would be eight stories in height and the East 14th Street portion of the building would be 12 stories in height. The two residential components of the building would be connected at the cellar level. The proposed project would contain 155 dwelling units (including 31 affordable units) and approximately 9,100 square feet of retail space would occupy the ground floor along East 14th Street as well as part of the cellar level. It should be noted that a common courtyard would occupy the rear of each building. Excavation for the foundation and a cellar level will occur to a depth of 18.75 feet site-wide and up to 24 feet below grade surface (bgs) for the elevator pits and certain foundation elements. The project would utilize approximately 3,970 square feet of air rights from Block 441, Lot 32, which is currently and would continue to be occupied by a 5-story residential building. The subject property is located midblock between East 13th and East 14th Streets, between First Avenue and Avenue A in the East Village neighborhood of Manhattan Community District 3.

The May 2014 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial

uses including a post office, a stationary shop, dry cleaners, residential and commercial buildings, open coal storage, a wagon yard, an ice cream factory, a Department of Sanitation wood and oil yard, Seaboard Finance Co Inc., Stone Specialty Shop, Key Pharmacy Inc., banks, schools, garages, undertakers, a convent, a bakery, churches, a synagogue, a hospital, a Salvation Army home, a furniture factory, a furniture warehouse, a macaroni factory, a die maker, a brush maker, etc. The New York State Department of Environmental Conservation (NYSDEC) Spills database identified 45 spills within a 1/8-mile of the subject property and the NYSDEC leaking storage tank sites (LTANKS) database identified 98 LTANKS within a 1/2-mile of the subject property. In addition, there is 1 NYSDEC Brownfield site within a 1/2-mile radius of the subject property.

During the September 2014 fieldwork, AKRF personnel, Enviroprobe Services, Inc. of Moorestown, New Jersey, and Zebra Technical Services of Lynbrook, NY advanced six (6) soil borings (SB-1 through SB-6) to a depth of approximately 5 feet below the water table or approximately 20 feet bgs. One sample from each boring was collected. Soil samples from SB-1, SB-2, SB-4, SB-5, and SB-6 were collected from 3 to 5 feet bgs and soil sample SB-3 was collected at the deepest interval above the observed groundwater table (11-13 feet bgs). Soil samples were collected and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls (PCBs) by EPA Method 8082, and Target Analyte List (TAL) metals. Groundwater was encountered between approximately 13 and 15 feet bgs. Four groundwater samples were collected from temporary well points (TW-1 through TW-4) installed in four soil borings (SB-1, SB-2, SB-5, and SB-6). Groundwater samples were collected and analyzed for VOCs by EPA Method 8260 and SVOCs by EPA Method 8270. Four soil vapor samples (SV-1 through SV-4) and one ambient air sample (AA-1) were collected and analyzed for VOCs by EPA Method TO-15.

The soil analytical results revealed VOCs, pesticides, and PCBs concentrations were either non-detect or below their respective NYSDEC 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs). Several SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd) pyrene) and several metals (barium, copper, lead, and mercury) were detected above their respective NYSDEC Unrestricted Use and/or Residential Use SCOs.

The groundwater analytical results revealed several VOCs (benzene, cis-1,2-dichloroethene, tetrachloroethene (PCE), and vinyl chloride) and several SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, and indeno(1,2,3-cd)pyrene) were detected above their respective NYSDEC Technical and Operational Guidance Series 1.1.1 Class GA Ambient Water Quality Standards.

The soil vapor analytical results revealed several VOCs (1,1,1-trichloroethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-butadiene, 2,2,4-trimethylpentane, 4-ethyltoluene, acetone, benzene, bromodichloromethane, chloroform, chloromethane, cumene, cyclohexane, dichlorodifluoromethane, ethylbenzene, Freon 22, Freon TF, m,p-xylene, methyl butyl ketone, n-butane, n-heptane, n-hexane, n-propylbenzene, PCE, toluene, trichloroethene (TCE),

trichlorofluoromethane, and o-xylene) were detected. The concentrations of PCE and TCE were detected above their respective New York State Department of Health Air Guideline Values.

**It should be noted that the limited Phase II was conducted without DEP approval.**

The April 2016 RAP proposes the installation of vapor barrier consisting of 0.032 in. (0.8 mm) Grace Preprufe 160R along the foundation walls and 0.046 in. (1.2 mm) Grace Preprufe 300R below the lowest level horizontal slab (the vapor mitigation measures cannot incorporate a sub-slab depressurization system as the bottom of the foundation slab would be at or below the groundwater table); proper handling, transportation, and disposal of soil in accordance with applicable federal, state, and local requirements; the known underground storage tank, as well as any other tanks encountered during the proposed project, will be cleaned, removed and disposed of along with any appurtenances in accordance with accepted industry standards and applicable federal, state, and local regulatory agency requirements; soil stockpiled on-site will be covered with polyethylene sheeting; dust monitoring and control; and dewatering into the municipal sewer system will be conducted in accordance with a New York City Department of Environmental Protection Bureau of Wastewater Treatment Wastewater Quality Control Permit. It should be noted that footprint of the foundation slab will encompass the entire site. All surfaces on the site will be covered by the new building or pavement. However, if construction plans change and landscaped areas not capped by building or pavement are to be constructed, a minimum of two feet of certified clean fill would be imported as a cap for these areas. Nonvirgin imported material that does not have an approved NYSDEC Beneficial Use Determination would be tested from a segregated stockpile at the originating facility for full list VOCs, SVOCs, pesticides, PCBs, and TAL metals by a New York State-certified laboratory. The sampling would be conducted by an environmental professional with a sampling frequency of one per every 500 cubic yards. The results would be compared to the appropriate Part 375 Soil Cleanup Objectives and submitted to DEP for review and approval prior to importing of the material from a segregated stockpile. The April 2016 CHASP addresses worker and community health and safety during redevelopment.

Based upon our review of the submitted documentation, we have the following comments and recommendations to BSA:

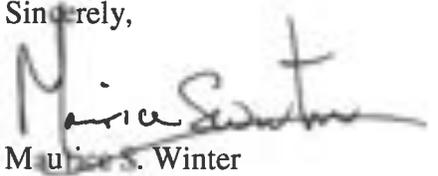
**RAP**

- BSA should inform the applicant that the segregated clean fill/top soil should be sampled with a frequency of one (1) sample for every **250** (not 500) cubic yards.
- BSA should inform the applicant that upon completion of the clean fill (for landscaped areas not capped by building or pavement) investigation activities, the consultant should submit a detailed clean soil report to DEP for review and approval prior to importation and placement on-site. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data, and comparison of soil analytical results (i.e., NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs).

DEP finds the April 2016 RAP and CHASP for the proposed project acceptable as long as the aforementioned information is incorporated into the RAP. BSA should instruct the applicant that at the completion of the project, a Professional Engineer (P.E.) certified Remedial Closure Report should be submitted to DEP for review and approval for the proposed project. The P.E. certified Remedial Closure Report should indicate that all remedial requirements have been properly implemented (i.e., installation of vapor barrier; transportation/disposal manifests for removal and disposal of soil in accordance with NYSDEC regulations; and two feet of DEP approved certified clean fill/top soil capping requirement in any landscaped/grass covered areas not capped with concrete/asphalt, etc.).

Future correspondence and submittals related to this project should include the following CEQR number **16BSA117M**. If you have any questions, you may contact Wei Yu at (718) 595-4358.

Sincerely,

A handwritten signature in black ink, appearing to read "Maurice Winter", is written over a faint, larger version of the same signature.

Maurice Winter  
Deputy Director, Site Assessment

c: E. Mahoney  
M. Winter  
W. Yu  
T. Estes  
M. Wimbish  
R. Levy – BSA  
File

## ENVIRONMENTAL REVIEW

**Project number:** BOARD OF STANDARDS AND APPEALS / LA-CEQR-M  
**Project:**  
**Address:** 432 EAST 14 STREET, **BBL:** 1004410023  
**Date Received:** 5/3/2016

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**No archaeological significance**

**Comments:** ARCHAEOLOGY REVIEW ONLY.

*Gina Santucci*

5/10/2016

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SIGNATURE  
Gina Santucci, Environmental Review Coordinator

DATE

**File Name:** 31420\_FSO\_DNP\_05102016.doc



# Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO  
Governor

ROSE HARVEY  
Commissioner

April 20, 2015

Mrs. Claudia Cooney  
Vice President  
AKRF, Inc.  
440 Park Avenue South  
7th floor  
New York, NY 10016

Re: HFA  
435 East 13th Street Residential Development  
432 East 14th Street, New York, NY 10009  
15PR01790

Dear Mrs. Cooney:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the New York State Office of Parks, Recreation and Historic Preservation's opinion that your project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Deputy Commissioner for Historic Preservation