475 Park Avenue South New York, New York 10016 www.goldmanharris.com

T. 212 935.1622 F. 212 935.2651

7811 200 - 5 A 1emoser@goldmanharris.com

CAL. NO.

Ezra Moser

June 5, 2014

125-14-B7=

# **BY HAND**

Hon. Meenakshi Srinivasan, Chair NYC Board of Standards and Appeals 250 Broadway, 29<sup>th</sup> Floor New York, NY 10007

Re: Variance Application

11 Avenue C

New York, New York Block 384, Lot 33

#### Dear Chair Srinivasan:

Submitted herewith is an application for a variance pursuant to Zoning Resolution Section 71-21 to allow the construction of a ten-story Use Group 2 residential development with Use Group 6 retail on the ground floor at the above captioned property (the "Property"). The Property is located in a R8A zoning district, and the proposed development would require waivers of the use (ZR §22-00) and lot coverage (ZR §23-145) regulations of the Zoning Resolution.

In connection with this application, please find enclosed the following attachments:

- BZ Application Form;
- 2. Statement of Facts and Findings;
- Department of Buildings Objection;
- Affidavit of Ownership;
- 5. Certificate of Occupancy;
- Economic Analysis and Financial Feasibility Study, prepared by Freeman Frazier Associates and dated May 30, 2014;
- 7. Zoning Map;
- BSA Zoning Analysis form;
- 9. Tax Map;
- 10. Radius Diagram/Land Use Map;
- 11. Photographs;
- Existing Conditions and Site Plans;
- 13. As-of-Right Building Massing;
- 14. Typical Development Plans;
- 15. Proposed Conditions Plans;
- 16. List of Affected Property Owners;

Hon. Meenakshi Srinivasan June 5, 2014 Page 2

# 17. CEQR Application; and

- 18. Evidence of Uniqueness:
  - A. Geotechnical Memorandum prepared by JZN Engineering and dated May 19, 2014;
  - B. Structural Engineering Report prepared by Anastos Engineering, dated May 27, 2014;
  - C. Preliminary Construction Cost Estimate for the As-of-Right Development, prepared by McQuilkin Associates and dated May 23, 2014;
  - D. Preliminary Construction Cost Estimate for the Typical Development, prepared by McQuilkin Associates and dated May 21, 2014;
  - E. Preliminary Construction Cost Estimate for the Proposed Development, prepared by McQuilkin Associates and dated May 23, 2014;
  - F. Construction Cost Premium Memorandum, prepared by McQuilkin Associates and dated May 23, 2014.
  - G. Limited Soil Investigation Report, prepared by Emteque LLC and dated July 15, 2013; and
  - H. Remediation Cost Estimate Memorandum, prepared by WCD Group and dated March 24, 2014.

In addition, checks in the amount of \$8,560.00 for the filing fee and \$5,465.00 for the CEQR fee are submitted herewith.

Please let us know if you require any additional information in this regard.

Very truly yours,

Ezra Moser

Planning Specialist

cc: Hon. Gale Brewer, Manhattan Borough President:

Hon. Rosie Mendez, Council Member, District 2:

Ms. Susan Stetzer, District Manager, Manhattan Community Board 3:

Mr. Edwin Tang, R.A., Department of Buildings;

Ms. Edith Hsu-Chen, Director, Department of City Planning Manhattan Bor. Office;

Mr. Christopher Holme, Zoning Division, Department of City Planning:



250 Broadway, 29th Floor New York, NY 10007 212-386-0009 - Phone www.nyc.gov/bsa

# **ZONING (BZ) CALENDAR**

Application Form

BSA APPLI	CATION NO.	25-1	4-	B	7 -
CEQR NO.	14-1	BSA-	16	9	M

Section A	GoldmanHarris LLC			350 East Houston LLC c/o BLDG Management Inc.			
Applicant/	Applicant/ AZE Dock Avenue South			OWNER OF RECORD			
Owner	475 Park Avenue South			417 Fifth Ave	enue, Suite 400		
	ADDRESS	744		ADDRESS			
	New York	NY 10016		New York	NY	10016	
	CITY	STATE	ZIP	CITY	STATE	ZIP	
	212	935-1622					
	AREA CODE TELEPHONE			LESSEE / CONTRACT VENDEE			
	212 935-2651			1000000			
	AREA CODE FAX			ADDRESS			
	charris@goldmanha	ms.com		01774	OTATE	710	
	EMAIL			CITY	STATE	ZIP	
Section B	11 Avenue C				10	0009	
0.11	STREET ADDRESS (INC	LUDE ANY A/K/A)	613		ZIF	CODE	
Site Data		eet & E. Houston Stre					
		PERTY BY BOUNDING OF		EETS			
	384 33	Manhattan	3		None		
	BLOCK LOT(S)	BOROUGH	COMMUI	NITY DISTRICT	LANDMARKHISTO	DRIC DISTRICT	
	Hon. Rosie Mendez	10.00			12C		
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475 Park Avenue South New York, New York 10016

T. 212 935.1622 F. 212 935.2651

June 5, 2014

# STATEMENT OF FACTS AND FINDINGS

Re: Variance Application 11 Avenue C, Manhattan Block 384, Lot 33

#### I. INTRODUCTION

This is an application pursuant to Section 72-21 of the Zoning Resolution of the City of New York (the "ZR") on behalf of 350 East Houston LLC to facilitate the construction of a ten-story mixed-use residential building (the "Proposed Development") on the captioned property (the "Property").

The Property is a 5,874 square-foot small, narrow, irregularly shaped parcel on Avenue C, East 2<sup>nd</sup> Street, and East Houston Street. The Property is currently occupied by a Use Group 16 gasoline service station.

The Property is located entirely in an R8A zoning district and within an Inclusionary Housing Designated Area in Manhattan Community Board 3. The base maximum floor area ratio ("FAR") is 5.4, bonusable to 7.2 under the Inclusionary Housing Program.

The Proposed Development is 7.20 FAR,<sup>1</sup> ten-story, mixed-use residential rental building with 46 dwelling units and Use Group 6 retail at the ground floor and cellar, built full on the lot. This proposal requests variances of ZR Section 22-10 (Uses permitted as-of-right) and Section 23-145 (Lot coverage for Quality Housing Buildings). The requested variances are necessary due to the uniquely small, narrow and irregular shape of the Property, as well as unique subsurface conditions.

<sup>&</sup>lt;sup>1</sup> Under the provisions of Section 23-90 of the Zoning Resolution of the City of New York (the "Zoning Resolution"), the base maximum residential floor area ratio ("FAR") for the Property is 5.4, which may be increased up to a maximum FAR of 7.2 through either the provision of affordable housing onsite, or the purchase of bonus development rights from a qualified generating site. It is intended that the floor area of the Proposed Development will be increased to 7.20 FAR through the purchase of bonus development rights.

# II. STATEMENT OF FACTS

# A. Property

The Property is a 5,874 square foot parcel on the block bounded by Avenue C, East 2<sup>nd</sup> Street, Avenue B, and East Houston Street. The Property is small, narrow and trapezoidal in shape. It fronts on three streets, with 122 feet of frontage on East 2nd Street, 123 feet of frontage on Houston Street, and approximately 40 feet of frontage on Avenue C. The western end of the Property is approximately 56 feet wide.

The Property is zoned R8A and currently is improved with a Use Group 16 gasoline service station that was granted a variance in 1961. This gasoline service station will be demolished in connection with the Proposed Development. The Property and improvements thereon are neither an individual landmark nor located in a historic district as designated by the New York City Landmarks Preservation Commission.

# B. Neighborhood Context

The Property is located on the northern side of East Houston Street, which separates the neighborhoods of "Alphabet City" to the north (bounded by East 13th Street, Avenue D, East Houston, and Avenue A) and the Lower East Side to the south.

#### East Houston Street

East Houston Street was dramatically widened in the early 1930's and again in the late 1950's. Incidentally, the widening actions created five narrow, triangular shaped blocks on the north side of East Houston Street between Second Avenue and Avenue D. (See Irregular Site Study attached as <a href="Exhibit A">Exhibit A</a>.) Two of these blocks are occupied by Peretz Square and Gustave Hartman Square, both of which are public parks. One block (between First and Second Ave) is partially improved with buildings and partially occupied by First Park. The remaining two blocks (between Avenues A and B, and Avenues B and C, which is the block containing the Property) are entirely improved with buildings. These two blocks contain three irregularly shaped, trapezoidal parcels: 250 East Houston Street (Block 397, Lot 63), 310 East Houston Street (Block 384, Lot 7503) and the Property.

The block that contains the Property, Block 384, is the narrowest block with building. It contains two trapezoidal lots. 310 East Houston Street, was granted a variance for ground floor retail use (BSA Ca. No. 132-04-BZ) on the basis of its small, narrow and irregular shape. 310 East Houston Street is approximately 7,860 square feet, which is 2,000 square feet larger than the Property. The Property is the smallest of these irregularly shaped lots on both blocks.

# Zoning

The Property is zoned R8A. The blocks directly north of the Property along both sides of Avenue C are zoned residential with a commercial overlay (R7A with a C2-2 overlay, and R8A with a C2-2 overlay; see Zoning Map submitted herewith). The Property is the only lot facing Avenue C without a commercial overlay, even though it has been improved with a commercial use since 1960.

The parcels on the south side of East Houston Street are located within the same R8A zoning district as the Property. The midblock portions of the blocks between Avenue B and Avenue D are zoned R8B.

# Surrounding Uses, Heights and Buildings

The surrounding area is comprised of a mix of residential, commercial, and community facility uses. Avenue C is characterized by five-to-seven-story multifamily buildings with ground floor, local retail uses. The midblock portions of East 2nd and East 3rd Streets are predominantly five-to-seven-story multifamily buildings. East Houston Street easterly to FDR Drive is primarily five-to-eight-story residential buildings with a mix of auto-related and local retail uses in ground floor spaces.

There are four residential developments located near the Property that are comparable to or greater in height than the Proposed Development. A new eleven-story affordable housing development is located directly across East Houston Street to the south that was developed in 2010. A seven-story residence located to the north, across East 2nd Street, was developed in 2006. An eleven-story multifamily residential building developed in 1997 to the northeast of the Property is on the south side of East 2<sup>nd</sup> and East 3<sup>rd</sup> Streets. A new twelve-story multifamily residential building with ground

11 Avenue C June 5, 2014 Page 4

floor retail is currently under construction at the corner of East Houston Street and Avenue D.

Gustave Hartman Square, a publicly accessible open area, is located directly to the east of the Property, and Hamilton Fish Park is located cater-corner to its southeast, at the corner of Houston Street and Pitt Street (the southern continuation of Avenue C).

#### Traffic

East Houston Street experiences a high volume of automobile traffic. Rear yard gardens and ground floor retail uses in the buildings on the north side of East Houston Street serve as a buffer for the upper floor dwellings in those buildings. The residential uses on the block cater-corner to the northeast are either fully shielded from East Houston Street by Gustave Hartman Square or contain ground floor retail.

# C. Applicable Zoning Regulations

The Property is located in a R8A zoning district and within an Inclusionary Housing designated area. The Property fronts on East 2<sup>nd</sup> Street and Avenue C, both of which are narrow streets, and East Houston Street, which is wide. Pursuant to ZR Section 22-10, Use Groups 1, 2, 3, and 4 are permitted in R8A zoning districts, but Use Group 6 commercial uses are not permitted. The Applicant seeks a waiver of the prohibition on Use Group 6.

Under the Inclusionary Housing provisions of Section 23-90 of the Zoning Resolution, the base maximum residential FAR for the Property is 5.4, which may be increased up to a maximum FAR of 7.2 through either the provision of affordable housing onsite, or the purchase of certificates for bonus development rights from a qualified generating site. It is intended that the floor area of the Proposed Development will be increased through the purchase of bonus development rights certificates.

Section 23-145 of the Zoning Resolution permits a maximum lot coverage of 80% for corner lots and 70% for through lots in R8A districts. The Applicant seeks a variance of the lot coverage requirements.

The R8A zoning district permits a maximum base height of 85', after which setbacks of ten and 15 feet are required from wide streets and narrow streets respectively. Above the maximum base height of 85 feet, a building may rise to a

maximum permitted height of 120 feet. If the variance for lot coverage is granted, the Proposed Development will meet the height and setback requirements.

No rear yard or rear yard equivalent is required. A rear yard with a depth of at least 30 feet is required pursuant to Section 23-47, except that the portions of the Property within 100 feet of the corners of Avenue C and East Houston and East 2<sup>nd</sup> Streets are not subject to rear yard regulations. The westernmost portion of the Property is a through lot that measures approximately 22 feet wide by 56 feet deep. Pursuant to Section 23-531(a) of the Zoning Resolution, in a R8A district, no rear yard regulations apply to any through lot with a maximum depth of less than 110 feet from street to street. Therefore, no rear yard is required for the entirety of the Property.

# D. As-of-Right and Typical Development Schemes

Submitted herewith are architectural plans for: (1) an as-of-right building based on current site conditions (the "As-of-Right Drawings"); and (2) an as-of-right building assuming a 100-foot by 50-foot rectangular corner parcel with no physical hardship (the "Typical Development Drawings").

# As-of-Right Development

As-of-right, the Property could be developed with a 6.3 FAR, ten-story, 100-foot tall Use Group 2 residential building containing 37,296.5 square feet of floor area. As shown on the As-of-Right Drawings, a conforming building would have 4,009.5 square feet on the first floor. The first floor would be occupied by six one- and two-bedroom dwelling units and a small residential lobby entered from East 2<sup>nd</sup> Street. The second through eighth floors would comprise 4,138.5 square feet each, and include a mix of one- and two-bedroom dwelling units. The ninth floor would contain 2,240 square feet with three one-bedroom dwelling units; it would have a 1,722 square-foot outdoor recreation area. The tenth floor would include 2,077.5 square feet, with two one-bedroom units featuring terraces. Tenant storage space would be located in the cellar.

Due to the unusual configuration of the Property, the lot coverage regulations significantly constrain the portion of the Property that is buildable. The resulting footprint is shallow (north to south); it would not reach a depth of 45 feet at any point. As shown on the As-of-Right Drawings, the floor plates of an as-of-right residential

building can accommodate only small, irregularly configured residential units with many acute angles. The underlying lot coverage regulations also result a zigzag strip of non-buildable land fronting on East 2<sup>nd</sup> Street. To meet the street wall requirements, a "fin wall" must be erected on Avenue C.

Height and setback regulations require a ten-foot setback from Houston Street and a 15-foot setback from Avenue C and East 2<sup>nd</sup> Street above 85 feet (the ninth floor). When on top of a base that complies with the lot coverage requirements, the height and setback regulations cause the ninth floor to become exceptionally narrow, with irregularly configured dwelling units.

# Typical Development

The Typical Development would be a 7.20 FAR residential development with 41,760 zoning square feet of floor area. The Typical Development would include 12 stories and contain 51 dwelling units. It would be located on a 5,800 square-foot, rectangular corner lot and would contain a 1,200 square-foot inner court.

At a height of 80 feet (eight stories), the Typical Development would set back ten feet from a wide street and 15 feet from a narrow street. It would then rise to a maximum building height of 120 feet. The Typical Development would comply with all bulk regulations applicable to an R8A zoning district.

# E. The Proposed Development

The Proposed Development would comprise a 7.20 FAR, mixed-use residential and retail development totaling 42,293 zoning square feet built full on the Property. The Proposed Development would include ten stories with ground-floor retail, accessory retail storage space in the cellar, and residential apartments above.

The first floor of the Proposed Development would contain a residential lobby, entered from East 2<sup>nd</sup> Street, and a 4,550 zoning square-foot retail space accessed from Houston Street. A 3,330 square-foot cellar for accessory storage would be provided. The second through eighth floors would contain six units each comprising one- and two-bedroom units.

The ninth and tenth floors would each contain one one-bedroom and one twobedroom unit, and the ninth floor would feature a 2,812 square-foot outdoor recreation area that complies with Quality Housing Program regulations. The total dwelling unit count for the Proposed Development, therefore, is 46 dwelling units. Although the units will not be rectangular, their increased width mitigates their acute angular shape.

Waiver of Use Regulations: Because retail use is not permitted in the R8A zoning district on an as-of-right basis, a variance of ZR Section 22-10 (Uses permitted as-of-right) is requested to permit the proposed Use Group 6 commercial space on the ground floor and a portion of the cellar.

Waiver of Lot Coverage Regulations: As the Proposed Development would be built full on the zoning lot, a variance of ZR Section 23-145 (Lot coverage for Quality Housing Buildings) is requested.

# F. Department of Buildings & Violations

The New York City Department of Buildings issued the following objections, dated May 6, 2014, with respect to the Proposed Development:

- ZR 22-10: Proposed use group 6 is not permitted as-of-right in an R8A district.
- ZR 23-145: Proposed lot coverage (corner lot and through lot portion) exceeds the maximum permitted, and therefore is contrary to ZR 23-145.

The attached printout from the online records of the Department of Buildings shows that there are no outstanding violations of record against the Property as of the date hereof.

# G. Prior Actions by the Board

In 1960, the Board permitted the use of the Property for a gasoline service station for a term of 20 years (381-60-BZ). The Board amended the site plan in 1961 and 1975, and amended the resolution in 1982 to allow for a "self-service" operation. The term of the variance was extended a number of times and lapsed in 1995. The Property continued to be used as a self-service automotive service station, and the variance was re-established in 2000 (130-99-BZ) pursuant to Section 11-411 of the Zoning Resolution. The variance was granted for a term of ten years. The variance was renewed and amended in 2008 (55-08-BZ) and is valid until July 1, 2018.

# III. FINDINGS PURSUANT TO ZONING RESOLUTION SECTION 72-21

Pursuant to ZR §72-21, the Board has the authority to vary the strict application of zoning regulations, provided that the required findings are satisfied. Each of the necessary findings is satisfied by this application, as discussed below.

# (A) UNIQUENESS

There are unique physical conditions, including irregularity, narrowness or shallowness of lot size or shape, or exceptional topographical or other physical conditions peculiar to and inherent in the particular zoning lot; and that, as a result of such unique physical conditions, practical difficulties or unnecessary hardship arise in complying strictly with the use or bulk provisions of the Resolution; and that the alleged practical difficulties or unnecessary hardship are not due to circumstances created generally by the strict application of such provisions in the neighborhood or district in which the zoning lot is located;

There are three unique physical conditions that create practical difficulty and unnecessary hardship in complying with the use and lot coverage requirements of the R8A zoning district in which the Property is located. Specifically, these are: (1) the Property's small, narrow and irregular shape; (2) a weak, liquefaction-probable layer of soil between the sidewalk grade and bedrock that necessitates a more costly and robust foundation system, and (3) subsurface contamination resulting from a documented spill that requires environmental remediation.

As a result of the unique physical conditions, unnecessary hardship arises in complying strictly with the bulk provisions of the Zoning Resolution. The grant of a variance is necessary to enable the owner of the Property to realize a reasonable return.

# Lot Size and Shape

The Property is a 5,874 square-foot small, narrow, trapezoidal lot with 122 feet of frontage on East 2nd Street, 123 feet of frontage on Houston Street, and approximately 40 feet of frontage on Avenue C. The western end of the Property is approximately 56

feet wide. Due to this unusual configuration, the lot coverage regulations significantly reduce the buildable portion of the Property.

A building footprint that complies with the lot coverage regulations compromises the utility of the interior spaces due to the shallowness of the site (measured north to south). The width of an as-of-right building would range from 40 to 43 feet. Such a narrow floor plate results in inefficient interior layouts. As shown on Drawings AR-000 through AR-303, submitted herewith (the "As-of-Right Drawings"), the floor plates of an as-of-right residential building can accommodate only irregularly configured residential units that are small and have many acute angles. These units are inefficient and below market standards. The underlying lot coverage regulations also result in an unusable zigzag strip of land fronting on East 2<sup>nd</sup> Street, and require the construction of a useless "fin wall" in order to comply with the street wall requirements along Avenue C.

Above a height of 85 feet, the Zoning Resolution requires a ten-foot setback from Houston Street and a 15-foot setback from Avenue C and East 2<sup>nd</sup> Street. This setback occurs at the 9<sup>th</sup> floor. At this level, the already narrow floor plates become 25 feet thinner. Such long, narrow, irregularly configured dwelling units are even less efficient than those on the lower floor and would be difficult to market.

#### Subsurface Conditions

The Property is burdened by two unique subsurface conditions. First, the liquefaction potential of its underlying soil necessitates a more costly deep foundation system, and, combined with the Property's narrow and irregular shape, requires additional lateral bracing. Second, the presence of subsurface contamination requires further excavation and environmental remediation measures than would be necessary for a typical site.

# Liquefaction Potential

A Geotechnical Memorandum was prepared by JZN Engineering (dated May 2014 and submitted herewith; the "JZN Memo") to review the soil conditions on the Property. The JZN Memo describes a zone of probable liquefaction below the groundwater table and up to 50 feet below the ground surface. Soil liquefaction occurs when a saturated or partially saturated soil loses strength in response to an applied

stress, such as seismic activity. As a result of an applied stress, the granular soil will act more like a liquid than a solid, thereby jeopardizing the load-bearing capacity of a foundation system. The piles for the As-of-Right and the Proposed Development would therefore need to be deep enough to extend through the liquefiable zone, as they cannot rely on friction between the soil and pile within the liquefiable zone. In this case, the Piles must extend 90 to 100 feet to bedrock. These longer piles are more costly than typical piles.

The combination of liquefiable soil condition with the Property's narrow, trapezoidal profile magnifies the overturning or "foundation uplift" forces during a seismic event. The foundational uplift requires that the deep foundation be laterally braced, requiring additional lateral support, especially for the As-of-Right Development. These are an added expense. According to the Structural Report prepared by Anastos Engineering, dated May 27, 2014, and submitted herewith (the "Anastos Memo"), the As-of-Right Development would be subject to a maximum foundation uplift load of 762.29 kips.<sup>2</sup> It would therefore require additional steel reinforcement in the west sheer and increased lateral bracing at the foundation level.

In contrast, the Proposed Development, with its higher lot coverage and slightly more squat footprint, is subject to a lower maximum foundation uplift load of 607.05 kips, necessitating less lateral reinforcement and representing a cost savings. A typical corner site would not require lateral bracing.

#### Subsurface Contamination

The Property is further burdened by subsurface contamination, which requires additional excavation and remediation measures that would not apply to a typical, clean site. The Property has been occupied by a gasoline service station since 1961. In May 1990, the New York State Department of Environmental Conservation ("NYSDEC") was notified of a release as a result of an underground storage tank ("UST") tank test failure. A spill case number (9-001894) was assigned to the Property by NYSDEC and the spill remains open. NYSDEC also assigned a petroleum bulk storage number (2-157872) to the Property for the registration of 21 active USTs.

<sup>&</sup>lt;sup>2</sup> A kip is a non-SI engineering unit of measurement representing 1,000 pounds of force.

11 Avenue C June 5, 2014 Page 11

As described in the Limited Soil Investigation Report prepared by Emteque LLC (the "Emteque Report") and submitted herewith, the soil sample analyses revealed that the VOC n-butylbenzene and SVOC naphthalene were detected in one or more soil samples exceeding NYSDEC regulatory standards. In addition, the metals copper, lead, and zinc and certain pesticides also were detected in one or more soil samples above their respective regulatory standards.

As a result of these environmental conditions, development of the Property must include additional soil excavation and remediation measures than would be required to accommodate a single cellar on an unburdened site. Groundwater was encountered at approximately 11 feet below grade, which is anticipated to complicate remediation efforts. The extra excavation is required in order to safely remove and dispose of potentially contaminated soil, and generates additional costs and complications relating to dewatering, dust control, soil disposal, support of excavation, backfilling, oversight, and general site work. In addition, special protective features must be incorporated into the building's design. The developer must install a vapor barrier, an active sub-slab depressurization system and similar engineering controls.

As described in the Environmental Assessment Statement ("EAS") prepared by Equity Environmental LLC and submitted herewith, remediation of the site has been overseen by the New York State Department of Environmental Conservation ("DEC") as DEC Spill No. 90-01894. DEC issued Consent Order No. 2-157872 and a Corrective Action Plan for the site on October 21, 2004. DEC has approved a Remedial Action Plan Amendment for the Property, by letter dated October 29, 2007 and a Localized Air Sparge/Soil Vapor Extraction Work Plan by letter dated February 24, 2012. The Remedial Action Plan and subsequent amendment consists of various methods to mitigate the soil vapors caused by the previous petroleum spill as reflected in the Emteque Report.

# (B) REASONABLE RETURN

Because of such physical conditions there is no reasonable possibility that the development of the zoning lot in strict conformity with the provisions of this Resolution will bring a reasonable return, and that the grant of a variance is therefore necessary to enable the owner to realize a reasonable return from such zoning lot; this finding shall not be required for the granting of a variance to a non-profit organization;

The Economic Analysis Report prepared by J.S. Freeman Associates, dated May 30, 2014 and submitted herewith (the "Freeman Report"), uses the capitalization of income method to determine the financial feasibility of the Proposed Development, the As-of-Right Development, and the Typical Development. The Freeman Report concludes that the As-of-Right Development will not yield a reasonable return.

# As-of-Right Development

As shown on the As-of-Right Drawings, the As-of-Right Development would contain 37,296 square feet of floor area on a 5,874 square foot lot (FAR 6.53) in ten stories. It would be occupied only by conforming Use Group 2 dwelling units on the ground floor.

The Freeman Report found that the As-of-Right Development would have a total development cost of \$32,774,000, including the premium costs described below, but would have a value of capitalized net operating income of only \$29,109,000—a significantly negative net capital value of \$3,665,000. The Freeman Report concluded that the As-of-Right Development "contains significantly less value than the development cost and, therefore, would not be considered feasible."

# Typical Development

The Typical Development would contain a total of 41,760 square feet of floor area on a 5,800 square foot corner lot (FAR 7.2) in 12 stories. Because the Typical Development would be built on a rectangular site with a typical width-to-depth ratio, it would have an efficient floor plan. Like the As-of-Right Development, the Typical Development would be occupied on the ground floor by conforming Use Group 2 dwelling units.

The Freeman Report found that the Typical Development would have no premium costs. It would have a total development cost of \$33,730,000, and a capitalized net operating income of \$33,727,000 resulting in a slightly negative net capital value of \$3,000. The Freeman Report concluded that because the Typical Development would have "negligibly less value than the total development cost, and therefore... would be considered feasible." However, because the Typical Development is theoretical, this development scenario only has value for comparison purposes.

# Proposed Development

The Proposed Development would contain a total of 42,293 square feet of floor area on a 5,874 square foot corner lot (FAR 7.2) in ten stories. The Freeman Report found that the Proposed Development would have premium costs, but fewer than the As-of-Right Design. It would have a total development cost of \$35,350,000 and a capitalized net operating income \$35,400,000, which results in a positive net capitalized value of \$50,000. The Freeman Report found that the "Proposed Development contains slightly more value than the total development cost and is a significant improvement over the As-of-Right Development alternative."

#### Cost Premiums

As noted above in Finding (A), the Property has a small and irregular shape. The irregular shape of the Property results in inefficient floor plates. A rectangular site, such as that in the Typical Development, would allow for efficient floors of greater size and provide more beneficial income than the constrained floor plates of the Property.

The Property is also burdened by liquefaction-probable soil, which in combination with its narrow profile requires a deeper, more robust and, ultimately, a more costly foundation as well as supplementary structural support. Furthermore, the Property is burdened by subsurface contamination, which requires additional excavation and remediation measures.

As shown in both the Freeman Report and the Construction Cost Premium Memorandum prepared by McQuilkin Associates, dated May 23, 2014 and submitted herewith, the As-of-Right Development has premium construction costs of approximately \$2,287,476 resulting from the unique physical conditions inherent in the

Property. Compared to the Typical Development, the As-of-Right Development has \$50 per-square-foot greater construction costs due to these premiums (\$394/square-foot versus \$344/square-foot).

As documented in the WCD Group Memorandum, dated March 24, 2014 and submitted herewith, environmental mitigation results in an additional \$900,371 in premium costs.

In summary, the Freeman Report found that the total cost premiums resulting from the unique physical conditions at the Property are estimated at \$3,187,476, significantly contributing to the inability to realize a reasonable return from a development of the Property in strict conformity and compliance with the applicable provisions of the Zoning Resolution.

Apart from the premium costs, the unique shape of the Property contributes to a loss of net operating income from dwelling units. The Freeman Report found that due to the narrow and trapezoidal shape of the Property, average monthly rents for units in the As-of-Right Development were \$3,783/month for one-bedroom units and \$5,013/month for two-bedroom units. By comparison, the Typical Development, with more regularly configured units, would have average monthly rents of \$4,319/month for one-bedroom units and \$5,519/month for two-bedroom units. The Freeman Report concludes that "the value of the residential income in the As-of-Right Development does not support the cost of development."

# Summary

Based on the Freeman Report, the requested variance is needed in order to enable the Applicant to make a reasonable return from a development on the Property.

# (C) CHARACTER OF NEIGHBORHOOD

The variance, if granted, will not alter the essential character of the neighborhood or district in which the zoning lot is located; will not substantially impair the appropriate use or development of adjacent property; and will not be detrimental to the public welfare;

The Proposed Development will not alter the essential character of the area, or impair the permitted use or development of nearby or adjacent properties. With the exception of the requested lot coverage waiver, the Proposed Development would comply with the zoning envelope permitted by the R8A zoning district. It would contain less floor area than the maximum FAR of 7.2 and be shorter than the maximum building height of 120 feet. Owing to its location on the corner of three street frontages, the Property is well suited for a building built full to the lot lines. In fact, the requested waiver would eliminate the need to provide an 8-foot zigzag strip along the side lot line and the unusual fin wall required for an as-of-right design, which are inconsistent with the street walls of the buildings to the west. The waiver would extend the existing street wall on East 2<sup>nd</sup> Street to the eastern end of the block, which would be consistent with other street frontages in the neighborhood.

The proposed first floor commercial use would be consistent with the historic use of the Property, as well as the use and zoning of Avenue C, as described above.

Anticipated tenants for the ground floor of the Proposed Development include retail or a restaurant, consistent with other local area uses and existing neighborhood character.

The proposed first floor commercial use would also create a de facto vertical buffer between the automobile traffic on East Houston Street and the residential uses on the second through ninth floors. The other residential buildings on the subject block and further west either have rear yards or ground floor commercial uses that serve as buffers from East Houston Street.

# (D) SELF-CREATED HARDSHIP

The practical difficulties or unnecessary hardship claimed as a ground for a variance have not been created by the owner or by a predecessor in title; however where all other required findings are made, the purchase of a zoning lot subject to the restrictions sought to be varied shall not itself constitute a self-created hardship; and

The practical difficulties and unnecessary hardship encountered on the Property have not been created by the owner of the Property or a predecessor in title, but result from the unique subsurface conditions discussed above.

# (E) MINIMUM VARIANCE

Within the intent and purposes of this Resolution the variance, if granted, is the minimum variance necessary to afford relief; and to this end, the Board may permit a lesser variance than that applied for.

The Freeman Report demonstrates that the Proposed Development is the only feasible scenario that would provide the owner of the Property with a reasonable return on investment. The return that would be derived from the Proposed Development represents a minimally acceptable return for a commercial real estate investment venture. The variances requested are no greater than is necessary to permit financing and afford relief.

#### IV. CONLCUSION

The five findings of ZR §72-21 are met, as demonstrated above. We respectfully request that the Board approve this application for a variance to facilitate the construction of the Proposed Development on the Property.

Respectfully submitted,

Caroline G. Harris



1. Block 442, Lot 1 2 2nd Ave. Lot Area: 38,794 ft.<sup>2</sup> Public Park

2. Block 428, Lot 1 Peretz Square Lot Area: 11,800 ft.<sup>2</sup> Public Park

3. Block 397, Lot 63 250 E. Houston St. Lot Area: 33,650 ft.<sup>2</sup>

4. Block 384, Lot 4 310 E. Houston St. Lot Area: 7,860 ft.<sup>2</sup>

5. Block 384, Lot 33 11 Ave. C (The Property) Lot Area: 5,887 ft.<sup>2</sup>

6. Block 371, Lot 3 10 Ave. C Lot Area: 8,292 ft.<sup>2</sup> Public Park



250 Broadway, 29th Floor New York, NY 10007 212-386-0009 - Phone 646-500-6271 - Fax www.nyc.gov/bsa



## AFFIDAVIT OF OWNERSHIP AND AUTHORIZATION

## **Affidavit of Ownership**

Lloyd Goldman	, being dul	y sworn, deposes and says that (s)he resides
941 Park Avenue , in the City of Ne		i, al altrical il gradio del galtra referentia la factor della intro gradio di galtra della
State of New York ; that 350		
lot, piece or parcel of land located in the Bor	ough of Ma	nhattan , in the City of New York
and known and designated as Block 384	, <sub>Lot(s)</sub> <u>33</u>	Street and House Number
11 Avenue C ; and that the	ne statement o	of facts in the annexed application are true.
Check one of the following conditions:		
Sole property owner of zoning lot		
Cooperative Building		
Condominium Building		
Zoning lot contains more than one ta	x lot and prope	erty owner
Own	ner's Authoriza	ition
The owner identified above hereby authorize	<sub>s</sub> Goldm	anHarris LLC
to make the annexed application in her/his b	ehalf.	
Signa	ature of Owner	
Print	Name	Lloyd Goldman
Print	Title	Yresiden+
110th		
Sworn to before me this	_day	
Of 12014		
		JEANNINE CACACE Notary Public, State of New York
		No. 01CA6087741  Qualified in Richmond County  Commission Expires Feb. 24, 2015

Revised March 8, 2012

# 125-14-B7-



NYC Davelopmant Hub

Department of Buildings 80 Centre Street Third Floor New York, New York 10013 nycdevelopmenthub@buildings.nyc.gov

2018 2001 - G JA, 11: 1 1

# CAL: NO. **Notice of Comments**

**Owner: KEVIN TARTAGLIONE** 

Date: 05-06-14

Job Application #: 121185092

Application type: NEW BUILDING Premises Address: 251 EAST 2 STREET

**Zoning District: R8A** 

Block: 384

Lot: 33

Doc(s):

Lead Plan Examiner at NYC Development Hub: Damian Titus

Examiner's Signature:

Applicant: LANCE BLAKE

Obj. #	Doc #	Section of Code	Comments	Date Resolved	Comments
1.	01	ZR 22-10	Proposed use group 6 is not permitted as-of-right in an R8A district as per ZR 22-10.		
2.	01	ZR 23- 145	Proposed lot coverage (corner lot and through lot portion) exceeds the maximum permitted, and therefore is contrary to ZR 23-145.		

**REVIEWED BY** Edwin Tang, RA **Executive Director** 

Leen au

For Appeal to Board of Standards and Appeals

Date/Time: 5/7/14 6:06p





# Certificate of Occupancy

CO Number:

110100774F

This certifies that the premises described herein conforms substantially to the approved plans and specifications and to the requirements of all applicable laws, rules and regulations for the uses and occupancies specified. No change of use or occupancy shall be made unless a new Certificate of Occupancy is issued. This document or a copy shall be available for inspection at the building at all reasonable times.

Α.	Borough: Manhattan  Address: 350 EAST HOUSTON STREET  Building Identification Number (BIN): 100	Lot Numl 04586 Building	ber(s): 33	Certificate Type: Final  Effective Date: 11/26/2008			
	For zoning lot metes & bounds, please see	e BISWeb.					
В.	Construction classification:	3	(Prior to 1968	Code)			
	Building Occupancy Group classification: Multiple Dwelling Law Classification:	E None	(1968 Code)				
	No. of stories: 1	Height in feet: 14		No. of dwelling units: 0			
C.	Fire Protection Equipment: None associated with this filing.						
D.	Type and number of open spaces: None associated with this filing.						
E.	This Certificate is issued with the following legal limitations: None						
	Borough Comments: None						

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Borough Commissioner

Commissioner



# Certificate of Occupancy

CO Number:

110100774F

			Perm	issible Us	e and Oc	cupancy
All Build	ding Code	occupano ar	y group des e 1938 Build	signations ar	e 1968 des cupancy g	ignations, except RES, COM, or PUB which roup designations.
Floor From To	Maximum persons permitted	lbs per	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
001	5	OG			16B	GASOLINE SERVICE STATION, LUBRITION, MINOR AUTO REPAIRS, CAR WASHINE (NON-AUTOMATIC OFFICE AND SALES, STORAGE ROOM AND PARKING AND STORAGE OR MOTOR VEHICLES IN OPEN AREA ALL IN AACORDANCE WITH BOARD OF STANDARDS AND APPEALSCAL. #55-08 BZ ON CONDITION THAT: -THIS PERMIT SHALL BE FOR A TERM OF 10 YEARS TO EXPIRE ON JULY 2018 -THE LOFT SHALL KEPT FREE OF GRAFFITI, DIRT AND DEBRIS
				END OF	SECTION	

had de spand

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1 -10-37-

# ECONOMIC ANALYSIS REPORT 11 AVENUE C NEW YORK, NEW YORK

BLDG Management Co., Inc. May 30, 2014

J.S. Freeman Associates, Inc. 132 Nassau Street, Suite 1220 New York, New York 10038

#### 1.00 Scope of Report

The purpose of this Report is to analyze the feasibility of three alternatives for the development of a site located at 11 Avenue C, New York, New York. The alternatives considered include: 1) the As of Right Development ("As of Right Development"); 2) the Typical As of Right Development ("Typical As of Right Development"); and 3) the Proposed Development ("Proposed Development"). The Proposed Development option requires approval from the Board of Standards and Appeals.

The report includes detailed financial schedules that compare the ability of each development alternative to provide an acceptable return on the investment required to facilitate development. A summary of the economic characteristics of the As of Right Development and Proposed Development alternatives, including projected cash flows, and development costs, may be found on Schedules A and B.

Recent, verifiable comparable land sales were reviewed to establish the market in the vicinity of the subject property. A schedule of this review may be found as Schedule C.

Recent, verifiable retail rents were reviewed to establish the potential space market in the vicinity of the subject property. A schedule of this review may be found as Schedule D.

Recent, verifiable rental apartments were reviewed to establish the potential market in the vicinity of the subject property. A schedule of this review may be found as Schedule E.

Financial feasibility, that is the ability to provide the developer and investor with the return of, and a reasonable return on capital invested, was analyzed for each alternative using actual and estimated costs, for acquisition, hard and soft construction costs and building operating expenses. These assumptions are detailed in subsequent sections of this Report.

#### 1.10 Description of Property and Project Area

The subject property is an irregularly shaped lot located at 11 Avenue C (Block 384, Lot 33) with frontage on three streets: approximately 122 feet of frontage along East 2<sup>nd</sup> Street, approximately 40 feet of frontage along Avenue C and approximately 123 feet of frontage along East Houston Street. The site has approximately 56 feet of depth along the adjacent five-story residential building. The site has an area of approximately 5,874 sq. ft. There is an existing gas station on the site.

The subject property is located in Manhattan Community Board #3. The East Village community is composed of a mix of rental and condominium apartment buildings, along with a variety of ground floor commercial uses, and mixed-use. The immediate vicinity of the site is mixed residential and commercial.

#### 1.20 Zoning Regulations

The present zoning for the property is R8A. The property is located within an Inclusionary Housing Designated area.

The current base floor area ratio (FAR) permitted by the Zoning Resolution for this district is 5.40, which allows a bonus up to an FAR of 7.20, pursuant to the IH Regulations of Section 23-90 of the ZR. For residential use, the maximum developable square footage permitted by R8A regulations for this site is 7.20 x 5,874.3 sq. ft. (total site area), which yields an allowable zoning floor area of 42,295 sq. ft.

Under the Proposed Development, the zoning floor area would be 42,293 sq.ft., of which, 4,550 sq.ft. would be commercial. The proposed development requires approval by the Board of Standards and Appeals to allow commercial use.

#### 1.30 Property Ownership

350 East Houston, LLC owns the subject property.

The property is tentatively assessed in the 2014/15-tax year as follows:

	<u>Land</u>	<u>Total</u>
Target	\$385,200	\$688,950
Transitional	\$385,173	\$612,963

At a Class 4 tax rate of 10.323%, taxes on the property are estimated at \$63,276/year as per the NYC Department of Finance website.

The applicant in this BSA case is Caroline Harris, Esq. of Goldman Harris, LLP on behalf of 350 East Houston, LLC.

#### 1.40 Development Alternatives

The alternatives analyzed include the As of Right Development, Typical As of Right and Proposed Development.

#### 1.41 As of Right Development

The As of Right Development alternative would consist of new construction of a ten story residential development with the following program:

The ground floor through tenth floors would have 41,270 sq.ft. of gross residential space. There would be six apartments per floor on floors ground through eight; three apartments on the ninth floor and two apartments on the tenth floor for a total of 53 apartments and a total

rentable area of 35,009 sq.ft. There would be 45 one bedroom apartments and eight two bedroom apartments. The average apartment size would be 661 sq.ft. The gross built area of this alternative would be 41,270 sq. ft. not including the cellar. The zoning floor area for this development would be 37,295 sq. ft. The F.A.R. for the As of Right Development would be 6.35.

This development program is referred to as the "As of Right Development".

# 1.42 Typical As of Right Development

The Typical As of Right Development alternative would consist of new construction of a regularly shaped twelve story residential development that would have a lot area of 5,800 sq.ft. and assumed to be on a corner lot. The Typical As of Right Development would have the following program:

The ground floor through twelfth floors would have 50,255 sq.ft. of gross residential space. There would be five apartments per floor on floors ground through eight; three apartments per floor on floors nine through eleven; and two apartments on the twelfth floor for a total of 51 apartments and a total rentable area of 37,689 sq.ft. There would be 37 one bedroom apartments and 14 two bedroom apartments. The average apartment size would be 768 sq.ft. The gross built area of this alternative would be 50,255 sq. ft. not including the cellar. The zoning floor area for this development would be 41,760 sq. ft. The F.A.R. for the Typical As of Right Development would be 7.20.

This development program is referred to as the "Typical As of Right Development".

#### 1.43 Proposed Development

The Proposed Development alternative would consist of new construction of a ten story mixed-use building with the following program:

The ground floor would have 4,550 sq.ft. of retail along with 3,330 sq.ft. of retail storage in the cellar. The second through ninth floor would have 43,786 sq.ft. of gross residential space. There would be six apartments per floor on floors two through eight and two apartments per floor on floors nine and ten for a total of 46 apartments and a total rentable area of 35,351 sq.ft. There would be 30 one bedroom apartments and 16 two bedroom apartments. The average apartment size would be 768 sq.ft.

The total gross built area would be 49,442 sq. ft. The total zoning floor area for this development would be 42,293 sq. ft. The F.A.R. for the Proposed Development would be 7.20.

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

# 2.00 Methodology

#### 2.10 Value of the Vacant Land

The value of the property was estimated based on comparison with recent sales of similar properties.

The subject property contains approximately 5,874 sq. ft. of land area.

In order to estimate the value of the land under consideration, recent sales prices for comparable properties in similar residential zones and in geographic proximity within Manhattan were reviewed. Five appropriate sales were identified. A site visit to each property was made and location, condition and sales price data were compared. A schedule of the comparable sales is attached as Schedule C.

When adjusted for comparability, existing building sales ranged from \$207/sq.ft. of development area to \$327/sq. ft. with an average of \$255/sq.ft. For purposes of this analysis, a value of \$250/sq. ft. or slightly below average was used. The site area is approximately 5,874 sq. ft. with a base FAR of 5.40 the potential zoning floor area of 31,720 sq. ft. Therefore, the value of the site is estimated at \$7,930,000.

#### 2.11 Value of Inclusionary Housing Bonus Floor Area

In order for the development alternatives to develop to an FAR over 5.40, inclusionary housing bonus floor area would need to be purchased. In order to estimate the value of the development rights under consideration transferred development rights transactions were researched throughout Manhattan to determine an appropriate ratio of value compared to vacant land sales.

As seen in Schedule C1, transferred development rights values range from 53% to 84% of price/FAR sq.ft. The average ratio of transferred development rights to price/FAR sq.ft. is 72%. For purposes of this analysis, 70% of the value of vacant land price has been utilized with a value of \$175/sq.ft.

#### As of Right Development

The As of Right Development has an FAR of 6.35. This is approximately 0.95 FAR over the base FAR of 5.40 and approximately 5,573 sq.ft. of inclusionary housing bonus floor area would need to be purchased to develop this alternative. Therefore, the value of the inclusionary housing bonus floor area for the As of Right Development is estimated to be 5,573 sq.ft times \$175/sq.ft. which is \$975,324.

#### Typical As of Right Development

The Typical As of Right Development has an FAR of 7.20. This is approximately 1.80 FAR over the base FAR of 5.40 and approximately 10,440 sq.ft. of inclusionary housing bonus floor area would need to be purchased to develop this alternative. Therefore, the value of the inclusionary housing bonus floor area for the Typical As of Right Development is estimated to be 10,440 sq.ft times \$175/sq.ft. which is \$1,827,000.

#### Proposed Development

The Proposed Development has an FAR of 7.20. This is approximately 1.80 FAR over the base FAR of 5.40 and approximately 10,572 sq.ft. of inclusionary housing bonus floor area would need to be purchased to develop this alternative. Therefore, the value of the inclusionary housing bonus floor area for the Proposed Development is estimated to be 10,572 sq.ft. times \$175/sq.ft. which is \$1,850,062.

#### **2.12** Total Value of the Property As Is

The total value of each development alterative is the sum of the vacant land and the individual cost to purchase the inclusionary housing bonus floor area.

#### As of Right Development

The total acquisition cost of the As of Right Development is \$7,930,000 for the vacant land and \$975,000 for the inclusionary housing bonus floor area for a total value of the property of \$8,905,000.

#### Typical As of Right Development

The total acquisition cost of the Typical As of Right Development is \$7,930,000 for the vacant land and \$1,827,000 for the inclusionary housing bonus floor area for a total value of the property of \$9,757,000.

#### Proposed Development

The total acquisition cost of the Proposed Development is the \$7,930,000 for the vacant land and \$1,850,000 for the inclusionary housing bonus floor area for a total value of the property of \$9,780,000.

#### 3.00 Economic Assumptions

An economic analysis of the three development alternatives was undertaken. As part of this analysis, a review of comparable recent retail and apartment rentals was performed. Schedule A of this Report identifies and compares the ability of each alternative to provide acceptable income to justify the capital investments required.

#### 3.10 Development Cost Assumptions

Development Costs consist of Acquisition Costs, as described in Section 2.00, above; Hard Construction Costs for specific improvements; and Soft Costs including construction loan interest, professional and other fees, property and other taxes and miscellaneous development related expenses incurred during the construction period.

Development related soft costs for the alternatives were estimated based on typical expenses incurred for similar types of development.

The architectural firm, Rotwein + Blake has provided plans for each development alternative and construction cost estimates have been provided by McQuilkin Associates, LLC. The construction cost estimates are attached as Exhibit "A" to this Report.

The estimated hard construction cost for the As of Right Development is \$18,106,660. The work includes residential core and shell, electrical, mechanical and elevator systems as well as residential lobbies. Apartment interiors include kitchen appliances, bathrooms and high end finishes. The estimated hard construction cost for the As of Right Development includes premium costs.

The estimated hard construction cost for the Typical As of Right Development is \$18,927,838. The work includes residential core and shell, electrical, mechanical and elevator systems as well as residential lobbies. Apartment interiors include kitchen appliances, bathrooms and high end finishes. The estimated hard construction cost for the Typical As of Right Development has no premium costs.

The estimated hard construction cost for the Proposed Development is \$19,313,581. The work includes residential core and shell, electrical, mechanical and elevator systems as well as residential lobbies. Apartment interiors include kitchen appliances, bathrooms and high end finishes. The estimated hard construction cost for the Proposed Development includes premium costs.

Based on our review, the cost estimates provided by McQuilkin Associates, LLC can be considered within the reasonable range for comparable construction and finishes for this type of project, taking into account the cost premiums resulting from the property's unique physical conditions.

#### 3.20 Financing Assumptions

Typically, construction loan interest rates are indexed to the Prime Rate, at a variable index related to the type of project and its inherent risks. As of the Report's date, the Prime Rate was an unusually low 3.25%, which cannot be reasonably assumed to remain in effect during the development's projected timeframe. Therefore, 5.00% was used as the construction loan rate for the analysis.

Long-term mortgage financing rates are incorporated in the determination of the capitalization rate referenced in section 4.30 of this report. No further consideration of long-term mortgage financing rates is assumed.

#### 3.30 Real Estate Tax Assumptions

Current taxes were assumed as a base for the construction periods for each alternative.

Current taxes, for the assumed construction period, are included as a development cost.

#### 3.40 Expense Assumptions

Operating characteristics for similar projects were reviewed. Expenses for the residential units are consistent with expenses for similar properties.

#### 3.60 Retail Rents

Retail rents in the East Village and surrounding neighborhoods of Manhattan were reviewed.

As identified in Schedule D, adjusted rents are in the \$55/sq. ft. to \$63/sq. ft. range for comparable retail space, with an average of \$61/sq. ft. For purposes of the analysis, \$60/sq. ft., or slightly below average, has been used for ground floor retail space and \$20/sq.ft. has been used for cellar retail storage space.

#### 3.70 Rental Apartments

A review of apartments in the East Village and surrounding neighborhood of Manhattan were reviewed. Comparable apartments have been used, and appropriate adjustments made to account for their location and other pertinent factors. In estimating the potential rental prices for the development alternatives, adjustments to rental rates were made for time, building location and location of unit within the building, size and level of finish.

Attached as Schedule E, are comparable recent apartment rents within the East Village market. Appropriate adjustments were made to the comparable apartment rents to account for their location and other pertinent factors. The comparables for one bedroom apartments

range in the \$3,308/month to \$4,714/month with an average of \$3,582; the comparables for two bedroom apartments range in the \$4,000/month to \$6,210/month with an average of \$4,838.

Pricing for each unit in the development alternatives was estimated based on the adjusted comparable rentals contained in Schedule E. The attached Schedules E1, E2 and E3 identify these estimated rental prices.

#### 4.00 Consideration

#### 4.10 Property Acquisition

Based on our market review, the estimated price is within the observed market range, taking into account the special features and conditions regarding the subject property as noted in Section 2.10. Economic feasibility issues regarding the project are not, therefore, a result of the estimated value of the property.

#### 4.20 Unique Site Conditions

The unique physical site conditions of the site have a significant impact on the economic feasibility of conforming use for several reasons.

#### Environmental Cost Premiums

Unique environmental conditions which have an effect on construction costs are documented in the report of WCD Group, attached as Exhibit B to this Report. As described in the WCD Group report, the remediation on site is estimated to be \$900,371.

#### Construction Cost Premiums

As seen in the attached McQuilkin Associates, LLC memo, attached as Exhibit C to this Report, the cost premiums associated with the As of Right Development when compared to the Typical As of Right Development is a result of the liquefaction probable soil, deep piles, supplementary structural support and site configuration. The As of Right Development has a construction cost of \$18,106,660 which is approximately \$394/sq.ft., while the Typical As of Right Development has a construction cost of \$18,927,838 which is approximately \$344/sq.ft. On a \$/sq.ft. basis there is a significant difference between the As of Right Development and the Typical As of Right Development.

As noted in the McQuilkin Associates, LLC comparison document:

"By multiplying the Actual AOR area (45,986 SF) by the Cost/SF of the Typical AOR (\$344/SF), we ascertain the non-premium construction cost of our Actual AOR Building to be (\$15,819,184).

To calculate the construction cost premium associated with our Actual AOR building. We deduct the non-premium construction cost (\$15,819,184) from the Actual AOR construction cost (\$18,106,660) resulting in a construction cost premium of \$2,287,476."

The As of Right Development is slightly smaller, but costs more on a price per sq.ft. basis because the premium costs and the conditions affecting the value cannot be spread over a larger building.

#### Total Cost Premium

The total cost premium consists of the sum of the environmental cost premium of \$900,371 and the construction cost premium, identified in the McQuilkin Associates comparison of \$2,287,476. Therefore, the total cost premium is \$3,187,476.

#### Site Conditions Affecting Value

The unique shape of the lot with its varying width does not provide for an efficient floor plate for a complying residential development. The unique shape results in an As of Right building with a floor plate of 4,561 sq.ft. and a useable square footage of 3,930 sq.ft. per floor. The small and odd shape of the floorplate generates an economically inefficient relationship between the size of the core (elevator and stairs) and rentable area. A building having a floorplate of twice the size could easily be served by a core of almost the same size.

In addition, the trapezoidal shape of the lot creates units in the As of Right Development, which generate less income when compared with the Typical As of Right Development. As seen in the pricing schedules, the average monthly rents for one bedrooms in the As of Right is \$3,783/month and an average of \$5,013/month for two bedrooms. The Typical As of Right with its more regularly configured units has an average monthly rents for one bedrooms of \$4,319/month and an average of \$5,519/month for two bedrooms. As a result of the deficient income, the value of the income from the apartments in the As of Right Development is significantly less than the value of the income from the apartments in the Typical As of Right Development. Therefore, the value of the residential income in the As of Right Development does not support the cost of development.

The As of Right Development is limited in other ways when compared to the Typical Development. In a Typical Development, without the limitations of the unique site conditions, two additional floors could be built. There is a larger percentage of regularly configured two bedroom apartments and approximately 8,985 sq.ft. of additional gross floor area and approximately 4,159 sq.ft. of additional rentable floor area could be built.

#### 4.30 Feasibility Analysis

We have used the capitalization of income method to determine the development alternatives value and feasibility. This method capitalizes the net operating income, which is the sum of all rents less commission and expenses. For purposes of our analyses, capitalization rates are based on a survey of lenders and investors taken by RealtyRates.com in the 2<sup>nd</sup> quarter of 2014, which includes both lender and investor expectations, attached as Exhibit C. The Lower East Side can be considered a strong residential market area for residential rental projects. Therefore, for purposes of the development alternatives contained in this Report, a capitalization rate of 5.50% has been utilized for the development alternatives. This is at the low end of the range of cap rates identified by RealtyRates for these types of projects.

The feasibility of the development is determined by comparing the value created by capitalizing the net operating income with the cost of development, including land acquisition, holding and preparation costs, hard construction cost and development related soft costs. When the capitalized value is approximately equal to the total development cost then the project is feasible. When the capitalized value is significantly less than the total development cost, it is not a feasible project.

A project value which is equal to or not significantly more or less than the total development cost would meet the minimum acceptable return on investment generally acceptable as the minimum variance standard of the Board of Standards and Appeals.

#### 4.40 As of Right Development

Using the capitalization of income method, as shown in the attached Schedule A, the capitalized value determined by the analysis for the As of Right Development is \$29,109,000.

As shown in the attached Schedule A, the total development cost, including estimated property value, hard construction costs and soft costs, for the As of Right Development is estimated to be \$32,774,000.

The difference between the value of the capitalized net operating income of \$29,109,000 and the development cost of \$32,774,000 is (\$3,665,000). The As of Right Development contains significantly less value than the total development cost and, therefore, would not be considered feasible.

## 4.50 Typical As of Right Development

Using the capitalization of income method, as shown in the attached Schedule A, the capitalized value determined by the analysis for the Typical As of Right Development is \$33,727,000.

As shown in the attached Schedule A, the total development cost, including estimated property value, hard construction costs and soft costs, for the Typical As of Right Development is estimated to be \$33,730,000.

The difference between the value of the capitalized net operating income of \$33,727,000 and the development cost of \$33,730,000 is (\$3,000). The Typical As of Right Development contains negligibly less value than the total development cost and, therefore a project of this size would be considered feasible.

#### 4.60 Proposed Development

Using the capitalization of income method, as shown in the attached Schedule A, the capitalized value of the Net Operating Income determined by the analysis for the Proposed Development is \$35,400,000.

As shown in the attached Schedule A, the total development cost, including estimated property value, hard construction costs and soft costs, for the Proposed Development is estimated to be \$35,350,000.

The difference between the value of the capitalized net operating income of \$35,400,000 and the development cost of \$35,350,000 is \$50,000. The Proposed Development contains slightly more value than the total development cost and is a significant improvement over the As of Right Development alternative.

#### 5.00 Conclusion

Using the capitalization of income, the Proposed Development contains slightly more value than the total development cost. Although this slightly positive value is at the threshold of economic feasibility, taking into account the current investment in the property and the lack of alternative development opportunities, the Proposed Development would meet the minimum return on investment criteria of the Board of Standards and Appeals.

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

#### 6.00 Professional Qualifications

A statement of my professional qualifications is attached. Please note that I am independent of the subject property's owner and have no legal or financial interest in the subject property.

ECONOMIC ANALYSIS 11 AVENUE C NEW YORK, NY MAY 30, 2014 PAGE 12

#### SCHEDULE A: DEVELOPMENT ANALYSIS

		AS OF RIGHT RESIDENTIAL DEVELOPMENT	TYPICAL AS OF RIGHT DEVELOPMENT	PROPOSED RESIDENTIAL DEVELOPMENT
BUILDING AREA (SQ.FT.)				
RENTABLE RESIDENTIAL AREA RETAIL AREA		35,009 NA	39,168 NA	44,892 7,880
TOTAL AREA		45,831	50,255	55,316
CAPITAL INVESTMENT SUMMARY				
LAND PURCHASE COST IH BONUS PURCHASE COST HOLDING & PREP. COSTS BASE CONSTRUCTION COSTS SOFT CONSTRUCTION COSTS		\$7,930,000 \$975,000 \$900,000 \$18,107,000 \$4,862,000	\$7,930,000 \$1,827,000 \$0 \$18,928,000 \$5,045,000	\$7,930,000 \$1,850,000 \$900,000 \$19,314,000 \$5,356,000
		\$32,774,000	\$33,730,000	\$35,350,000
PROJECT VALUE				
RESIDENTIAL INCOME RETAIL INCOME		\$2,524,000 NA	\$2,848,000 NA	\$2,575,000 \$340,000
GROSS INCOME (less)VACANCY (@ 2/10%)		\$2,524,000 (\$50,000)	\$2,848,000 (\$57,000)	\$2,915,000 (\$86,000)
EFFECTIVE INCOME		\$2,524,000	\$2,791,000	\$2,829,000
(less)M&O EXPENSES (less)WATER & SEWER (less)R.E. TAXES		(\$352,000) (\$16,000) (\$505,000)	(\$351,000) (\$15,000) (\$570,000)	(\$339,000) (\$14,000) (\$529,000)
NET OPERATING INCOME		\$1,601,000	\$1,855,000	\$1,947,000
CAPITALIZED VALUE OF NOI @	5.50%	\$29,109,000	\$33,727,000	\$35,400,000
FEASIBILITY ANALYSIS				
PROJECT VALUE @ CAP RATE = PROJECT DEVELOPMENT COST	5.50%	\$29,109,000 \$32,774,000	\$33,727,000 \$33,730,000	\$35,400,000 \$35,350,000
PROJECT VALUE (less) PROJECT DEVELOPMENT COST		(\$3,665,000)	(\$3,000)	\$50,000

NOTE: ALL \$ FIGURES ROUNDED TO NEAREST THOUSAND

ECONOMIC ANALYSIS 11 AVENUE C NEW YORK, NY MAY 30, 2014 PAGE 13

#### SCHEDULE B : DEVELOPMENT COSTS

	=======			
			TYPICAL	
	,	AS OF RIGHT	AS OF RIGHT	PROPOSED
	[	DEVELOPMENT	DEVELOPMENT	DEVELOPMENT
DEVELOPMENT COST SUMMARY	-			
LAND PURCHASE COST		\$7,930,000	\$7,930,000	\$7,930,000
IH BONUS PURCHASE COST		\$975,000	\$1,827,000	\$1,850,000 \$1,850,000
HOLDING & PREP. COSTS:		\$900,000	\$1,827,000	\$900,000
BASE CONSTRUCTION COSTS		\$18,107,000	\$18,928,000	\$19,314,000
EST.SOFT COSTS		\$4,862,000	\$5,045,000	\$5,356,000
EST. TOTAL DEV.COSTS		\$32,774,000	\$33,730,000	\$35,350,000
ACQUISITION COSTS:	=======			
Land Purchase Price		\$7,930,000	\$7,930,000	\$7,930,000
IH Bonus Floor Area Purchase Price		\$975,000	\$1,827,000	\$1,850,000
III Bolius i looi Alea i ulchase i lice		ψ973,000 	Ψ1,027,000	
TOTAL LAND VALUE		\$8,905,000	\$9,757,000	\$9,780,000
HOLDING & PREP. COSTS:		\$900,000	\$0	\$900,000
BASE CONSTRUCTION COSTS:		\$18,107,000	\$18,928,000	\$19,314,000
EST.CONST.LOAN AMOUNT :		\$18,633,000	\$19,350,000	\$20,565,000
EST.CONST.PERIOD(MOS):		20	18	20
EST. SOFT COSTS:				
Builder's Fee/Developer's Profit	1.50%	\$492,000	\$506,000	\$530,000
Archit.& Engin. Fees	1.0070	\$1,086,000	\$1,136,000	\$1,159,000
Bank Inspect.Engin.		\$7,000	\$7,000	\$7,000
Inspections, Borings & Surveys		, ,		
Laboratory Fees	LS	\$5,000	\$5,000	\$5,000
Soil Investigation	LS	\$10,000	\$10,000	\$10,000
Preliminary Surveys	LS	\$5,000	\$5,000	\$5,000
Ongoing Surveys	LS	\$10,000	\$10,000	\$10,000
Environmental Surveys/Reports	LS	\$2,000	\$2,000	\$2,000
Controlled Inspection Fees	LS	\$75,000	\$75,000	\$75,000
Legal Fees		<b>#45.000</b>	<b>#45.000</b>	<b>#</b> 40,000
Dev.Legal Fees		\$15,000 \$38,000	\$15,000 \$29,000	\$40,000 \$31,000
Con.Lender Legal End Loan Legal		\$28,000 \$13,000	\$15,000	\$31,000 \$16,000
Permits & Approvals		\$13,000	\$15,000	\$10,000
D.O.B. Fees	25.53%	\$12,000	\$13,000	\$13,000
Other		\$10,000	\$10,000	\$10,000
Accounting Fees		\$5,000	\$5,000	\$5,000
Appraisal Fees		\$8,000	\$8,000	\$8,000
Financing and Other Charges				
Con.Loan Int. @ Loan Rate =	5.00%	\$776,000	\$726,000	\$857,000
Rent-up Loan Int. @ Loan Rate =	5.00%	\$384,000	\$445,000	\$467,000
Con.Lender Fees	1.00%	\$186,000	\$194,000	\$206,000
End Loan Fee	1.00%	\$256,000	\$297,000	\$312,000
Construction Real Estate Tax		\$95,000	\$95,000	\$95,000
Rent-up Real Estate Tax	0.220/	\$32,000	\$32,000	\$32,000 \$117,000
Title Insurance	0.33%	\$108,000	\$111,000	\$117,000
Mtge.Rec.Tax Construction Insurance	2.75%	\$512,000 \$373,000	\$532,000 \$384,000	\$566,000 \$300,000
Water and Sewer	1.00%	\$272,000 \$5,000	\$284,000 \$5,000	\$290,000 \$5,000
Other		\$5,000 \$0	\$5,000 \$0	\$5,000 \$0
TOTAL EST.SOFT COSTS		\$4,862,000	\$5,045,000	\$5,356,000
		• • •	. , , , , , , , , , , , , , , , , , , ,	. , , , , , , , , , , , , , , , , , , ,

NOTE: ALL \$ FIGURES ROUNDED TO NEAREST THOUSAND

New York, NY

 Date
 : May 30, 2014

 Property
 : 11 Avenue C

 Block
 : 384 Lot 33

 Total Land Area
 : 5,874.3 sq.ft.

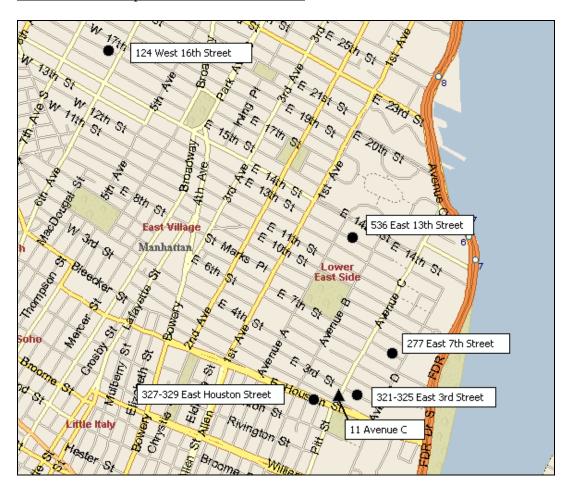
 Zone
 : R8A

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Schedule C: Comparable Vacant Land Sales

Schedule C: Comparable Vacant Land SALE LOCATION	<u>ZONE</u>	<u>DATE</u>	<u>PRICE</u>	LOT <u>AREA</u>	TOTAL FLOOR AREA	PRICE/SF OF FLOOR AREA	TIME	LOCATION	SIZE	<u>ZONING</u>	OTHER	COMPOS FACTOR	ADJUSTED PRICE/S.F.
1. 277 East 7th Street New York, NY Blk 377 Lot 49	R8B	1/30/2013	\$1,957,475	2,169	8,676	\$226	1.00	0.95	1.00	1.00	1.00	0.95	\$214
2. 536 East 13th Street New York, NY Blk 406 Lot 23	R8B	4/22/2013	\$3,275,000	2,581	10,324	\$317	1.00	0.90	1.00	1.00	1.00	0.90	\$285
3. 321-325 East 3rd Street New York, NY Blk 373 Lot 43	R8B	5/24/2012	\$4,550,000	5,770	23,080	\$197	1.05	1.00	1.00	1.00	1.00	1.05	\$207
4. 124 West 16th Street New York, NY Blk 791 Lot 56	R8A	4/16/2012	\$4,000,000	2,581	15,538	\$257	1.05	1.00	1.00	1.00	0.90	0.95	\$243
5. 327-329 East Houston New York, NY Blk 345 Lots 15 & 16	R8A	6/13/2012	\$8,400,000	5,000	27,000	\$311	1.05	1.00	1.00	1.00	1.00	1.05	\$327
												Average	\$255
Subject 11 Avenue C			\$7,930,000	5,874	31,720	\$250	1.00	1.00	1.00	1.00	1.00	1.00	\$250

Schedule C: Comparable Vacant Land Sales



#### Schedule C: Comparable Vacant Land Sales

#### 1. 277 East 7<sup>th</sup> Street

This is a 2,169 sq.ft. vacant lot in a R8B zoning district. Located in the East Village neighborhood of Manhattan, the lot is located between Avenue C and Avenue D, and is approximately six blocks away from the subject property. A -5% adjustment was made for the superior location. No adjustments were made for time, size, zoning or other factors.

## 2. 536 East 13<sup>th</sup> Street

This is a 2,581 sq.ft. vacant lot in a R8B zoning district. Located in the East Village neighborhood of Manhattan, the lot is located between Avenue A and Avenue B, and is approximately 0.7 of a mile away from the subject property. A -10% adjustment was made for the superior location. No adjustments were made for time, size, zoning or other factors.

### 3. 321-325 East 3<sup>rd</sup> Street

This is a 5,770 sq.ft. vacant lot in a R8B zoning district. Located in the East Village neighborhood of Manhattan, the lot is located between Avenue C and Avenue D, and is approximately two blocks away from the subject property. A +5% adjustment was made for time. No adjustments were made for location, size, zoning or other factors.

### 4. 124 West 16<sup>th</sup> Street

This is a 2,581 sq.ft. vacant lot in a R8A zoning district. The existing building was demolished under NYC DOB Job # 121012000. Located in the Chelsea neighborhood of Manhattan, the lot is located between 6<sup>th</sup> and 7<sup>th</sup> Avenue, and is approximately two miles away from the subject property. A +5% adjustment was made for time and a -10% adjustment was made because the existing building needed to be demolished. No adjustments were made for location, size or zoning.

## Schedule C: Comparable Vacant Land Sales

### 5. 327-329 East Houston Street

This is a 5,000 sq.ft. vacant lot in a R8A zoning district. Located in the East Village neighborhood of Manhattan, the lot is located between Attorney and Ridge Streets, and is approximately two blocks away from the subject property. A +5% adjustment was made for time. No adjustments were made for location, size, zoning or other factors.

# Schedule C: Comparable Vacant Land Sales

# 1. 277 East 7<sup>th</sup> Street



# 2. 536 East 13<sup>th</sup> Street



# Schedule C: Comparable Vacant Land Sales

3. 321-325 East 3<sup>rd</sup> Street



# 4. 124 West 16<sup>th</sup> Street



# Schedule C: Comparable Vacant Land Sales

### 5. 327-329 East Houston Street



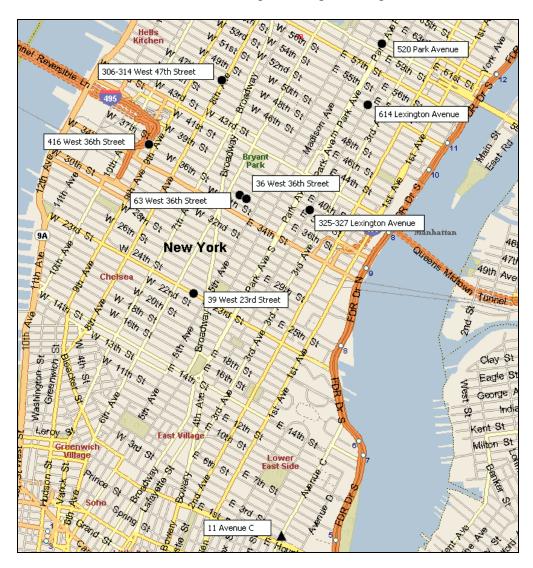
: May 30, 2014 Date : 11 Avenue C Property Block : 384 Lot 33 Total Land Area : 5,874.3 sq.ft. Zone : R8A

New York, NY

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Scheo	dule C1: Land Sales and I	Development Rig	ghts Comparis	son												
SALI	E LOCATION	<u>ZONE</u>	<u>DATE</u>	<u>PRICE</u>	TRANSFERRED DEVELOPMENT <u>RIGHTS</u>	LOT <u>AREA</u>	FAR <u>AREA</u>	PRICE/ SQ.FT.	<u>TIME</u>	LOCATION	SIZE	ZONING	<u>OTHER</u>	COMPOS FACTOR	ADJUSTED PRICE/S.F.	RATIO
1a.	306-314 West 47th Stree New York, NY Blk 1037 Lot 38	R8/CL/C6-4	1/31/2013	\$3,451,475	9,903	NA	NA	\$348.53	1.00	1.00	1.00	1.00	1.00	1.00	\$348.53	
1b.	416 West 36th Street New York, NY Blk 733 Lot 47	C2-5/R8A/HY	11/6/2012	\$4,000,000	NA	2,173	8,692	\$460.19	1.00	1.00	1.00	1.00	1.00	1.00	\$460.19	76%
2-	520 Park Avenue	R10/PL	2/27/2012	\$30,383,370	70,659	NA	NA	\$430.00	1.00	1.00	1.00	1.00	1.00	1.00	\$430.00	1
2a.	New York, NY Blk 1375 Lot 36	K10/PL	2/2//2013	\$30,383,370	70,039	NA	NA	\$430.00	1.00	1.00	1.00	1.00	1.00	1.00	\$430.00	53%
2b.	325-327 Lexington Aver New York, NY Blk 576 Lot 14	R10	12/21/2012	\$30,950,484	NA	3,787	37,870	\$817.28	1.00	1.00	1.00	1.00	1.00	1.00	\$817.28	53%
																_
3a.	63 West 36th Street New York, NY Blk 838 Lot 8	C6-6/MID	4/17/2013	\$6,215,320	21,065	NA	NA	\$295.05	1.00	1.00	1.00	1.00	1.00	1.00	\$295.05	
3b.	614 Lexington Avenue New York, NY Blk 1307 Lot 59	C6-6/MID	2/21/2012	\$78,041,438	NA	13,342	200,130	\$389.95	1.00	1.00	1.00	1.00	1.00	1.00	\$389.95	76%
4a.	36 west 36th Street	M1-6	1/31/2013	\$2,100,000	7,000	NA	NA	\$300.00	1.00	1.00	1.00	1.00	1.00	1.00	\$300.00	1
	New York, NY Blk 837 Lot 66			<del></del> ,,	,,,,,			*******	-110						*******	84%
4b.	39 west 23rd Street New York, NY Blk 825 Lot 20	M1-6	6/9/2011	\$23,475,316	NA	6,541	65,410	\$358.89	1.00	1.00	1.00	1.00	1.00	1.00	\$358.89	0476
	Subject 11 Avenue C	R8A							1.00	1.00	1.00	1.00	1.00	1.00		•

Schedule C1: Land Sales and Development Rights Comparisons



#### Schedule C1: Land Sales and Development Rights Comparisons

#### 1a. 306-314 West 47<sup>th</sup> Street

This is an existing building that sold approximately 9,903 sq.ft. of development rights. Located in a R8/CL/C6-4 zoning district, it is located between 8<sup>th</sup> and 9<sup>th</sup> Avenues and is approximately 4.4 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 1b. 416 West 36th Street

This is a 2,173 sq.ft. vacant lot located in a C2-5/R8A/HY zoning district. Located between 9th and 10th Avenues it is approximately 5.2 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 2a. 520 Park Avenue

This is an existing building that sold approximately 70,659 sq.ft. of development rights. Located in a R10/PL zoning district, it is located between East 60th and East 61st Street and is approximately 3.2 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 2b. 325-327 Lexington Avenue

This is a 3,787 sq.ft. vacant lot located in a R10 zoning district. Located between East 38th and East 39th Streets it is approximately 4.4 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 3a. 63 West 36th Street

This is an existing building that sold approximately 21,065 sq.ft. of development rights. Located in a C6-6/MID zoning district, it is located between 5th and 6th Avenues and is approximately 4.8 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### Schedule C1: Land Sales and Development Rights Comparisons

#### 3b. 614 Lexington Avenue

This is a 13,342 sq.ft. vacant lot located in a C6-6/MID zoning district. Located between East 52nd and East 53rd Streets it is approximately 3.7 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 4a. 36 West 36th Street

This is an existing building that sold approximately 7,000 sq.ft. of development rights. Located in a M1-6 zoning district, it is located between 5th and 6th Avenues and is approximately 4.7 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 4b. 39 West 23rd Street

This is a 6,541 sq.ft. vacant lot located in a M1-6 zoning district. Located between 5th and 6th Avenues it is approximately 5.3 miles away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

# Schedule C1: Land Sales and Development Rights Comparisons

1a. 306-314 West 47<sup>th</sup> Street



1b. 416 West 36<sup>th</sup> Street



# Schedule C1: Land Sales and Development Rights Comparison

# 2a. 520 Park Avenue



2b. 325-327 Lexington Avenue



# Schedule C1: Land Sales and Development Rights Comparison

3a. 63 West 36<sup>th</sup> Street



3b. 614 Lexington Avenue



# Schedule C1: Land Sales and Development Rights Comparison

# 4a. 36 West 36<sup>th</sup> Street



# 4b. 39 West 23<sup>rd</sup> Street



Date : May 30, 2014
Property : 11 Avenue C
Block : 384 Lot 33
Total Land Area : 5,874.3 sq.ft.

Zone : R8A

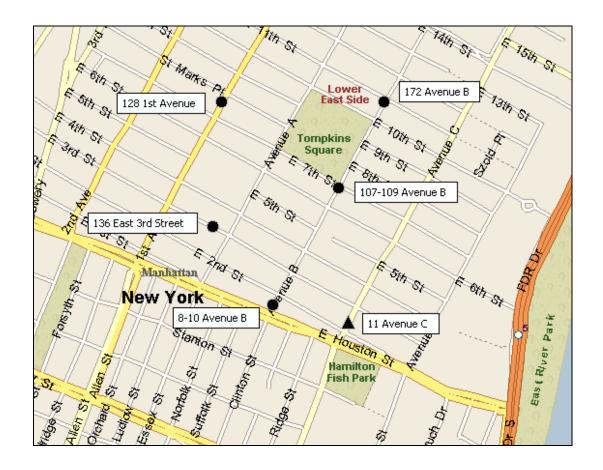
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#### Schedule D : Comparable Retail Rents

GATETO	ACA TRON	D. A. TETE	DENEZIO	4 D.E. 4	RENT	TD C	LOGATION	OLZE.	ZOVINIC	OTHER		ADJUSTED
SALE LC	<u>OCATION</u>	<u>DATE</u>	<u>RENT/YR</u>	<u>AREA</u>	<u>SQ.FT.</u>	<u>TIME</u>	<u>LOCATION</u>	<u>SIZE</u>	<u>ZONING</u>	<u>OTHER</u>	<u>FACTOR</u>	PRICE/S.F.
1.	8-10 Avenue B New York, NY	Asking	\$84,000	1,200	\$70.00	1.00	1.00	0.90	1.00	1.00	0.90	\$63
2.	136 East 3rd Street New York, NY	Asking	\$79,680	1,328	\$60.00	1.00	1.10	0.95	1.00	1.00	1.05	\$63
3.	172 Avenue B New York, NY	Asking	\$102,000	1,600	\$63.75	1.00	0.95	0.95	1.00	1.00	0.90	\$58
4.	128 1st Avenue New York, NY	Asking	\$108,000	1,500	\$72.00	1.00	1.00	0.95	1.00	1.00	0.95	\$68
5.	107-109 Avenue B New York, NY	Asking	\$84,000	1,450	\$57.93	1.00	1.00	0.95	1.00	1.00	0.95	\$55
											Average	\$61
	Subject				\$60.00	1.00	1.00	1.00	1.00	1.00	1.00	\$60

11 Avenue C New York, NY

Schedule D: Comparable Retail Rents



#### Schedule D: Comparable Retail Rents

#### 1. 8-10 Avenue B

This is a 1,200 sq.ft. retail space for rent in the East Village neighborhood of Manhattan. It is located between East Houston and East 2<sup>nd</sup> Streets, and is approximately four blocks away from the subject property. A -10% adjustment was made for the small size. No adjustments were made for time, location, zoning or other factors.

#### 2. 136 East 3<sup>rd</sup> Street

This is a 1,328 sq.ft. retail space for rent in the East Village neighborhood of Manhattan. It is located between 1<sup>st</sup> Avenue and Avenue A, and is approximately three blocks away from the subject property. A +10% adjustment was made for the inferior location and a -5% adjustment was made for the small size. No adjustments were made for time, zoning or other factors.

#### 3. 172 Avenue B

This is a 1,600 sq.ft. retail space for rent in the East Village neighborhood of Manhattan. It is located between East 10<sup>th</sup> and East 11<sup>th</sup> Streets, and is approximately ten blocks away from the subject property. A -5% adjustment was made for the small size. No adjustments were made for time, location, zoning or other factors.

#### 4. 128 1<sup>st</sup> Avenue

This is a 1,500 sq.ft. retail space for rent in the East Village neighborhood of Manhattan. It is located between St. Marks Place and East 9<sup>th</sup> Streets, and is approximately nine blocks away from the subject property. A -5% adjustment was made for the small size. No adjustments were made for time, location, zoning or other factors.

#### 5. 107-109 Avenue B

This is an 1,450 sq.ft. retail space for rent in the East Village neighborhood of Manhattan. It is located between East 6<sup>th</sup> and East 7<sup>th</sup> Streets, and is approximately six blocks away from the subject property. A -5% adjustment was made for the small size. No adjustments were made for time, location, zoning or other factors.

# Schedule D: Comparable Retail Rents

### 1. 8-10 Avenue B



# 2. 136 East 3<sup>rd</sup> Street



# Schedule D: Comparable Retail Rents

### 3. 172 Avenue B



# 4. 128 1<sup>st</sup> Avenue



# Schedule D: Comparable Retail Rents

# 5. 107-109 Avenue B



 Date
 : May 30, 2014

 Property
 : 11 Avenue C

 Block
 : 384 Lot 33

 Total Land Area
 : 5,874.3 sq.ft.

 Zone
 : R8A

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#### Schedule E: Comparable Residential Rents

RENTAL LOCATION	<u>DATE</u>	ANNUAL <u>RENT</u>	MONTHLY <u>RENT</u>	UNIT TYPE	<u>TIME</u>	LOCATION	SIZE	ZONING	<u>OTHER</u>	COMPOS FACTOR	ADJUSTED MONTHLY RENT
1. 62 Avenue B #1F New York, NY	Asking	\$42,000	\$3,500	1 Bd/1 Ba	1.00	1.00	1.00	1.00	1.00	1.00	\$3,500
<ol> <li>229 Chrystie Street #709 New York, NY</li> </ol>	Asking	\$52,500	\$4,375	1 Bd/1 Ba	1.00	0.90	1.00	1.00	1.00	0.90	\$3,938
3. 250 East Houton #PHL New York, NY	Asking	\$44,100	\$3,675	1 Bd/1 Ba	1.00	0.90	1.00	1.00	1.00	0.90	\$3,308
4. 188 Ludlow Street #14G New York, NY	Asking	\$51,420	\$4,285	1 Bd/1 Ba	1.00	1.10	1.00	1.00	1.00	1.10	\$4,714
1000 1010, 101										Average	\$3,582
5. 252 East 2nd Street New York, NY	Asking	\$48,000	\$4,000	2 Bd/1 Ba	1.00	1.00	1.00	1.00	1.00	1.00	\$4,000
6. 62 Avenue B #6F New York, NY	Asking	\$60,000	\$5,000	2 Bd/2 Ba	1.00	1.00	1.00	1.00	1.00	1.00	\$5,000
7. 250 East Houston #3D New York, NY	Asking	\$55,200	\$4,600	2 Bd/2 Ba	1.00	0.90	1.00	1.00	1.00	0.90	\$4,140
8. 229 Chyrstie Street #515 New York, NY	Asking	\$82,800	\$6,900	2 Bd/2 Ba	1.00	0.90	1.00	1.00	1.00	0.90	\$6,210
1018, 211										Average	\$4,838
Subject Property					1.00	1.00	1.00	1.00	1.00	1.00	(See Schedule E1, E2 & E3)

11 Avenue C New York, NY

Date : May 30, 2014
Property : 11 Avenue C
Block : 384 Lot 33
Total Land Area : 5,874.3 sq.ft.

Zone : R8A

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Schedule E1: As of Right Development Apartment Pricing

Floor	<u>Unit</u>	<u>Size</u>	<u>\$/</u> ]	Month		\$/Year	<u>Type</u>
	A	418	\$	3,655	\$	43,860	1
	В	416	\$	3,650	\$	43,800	1
Cround	С	664	\$	3,720	\$	44,640	1
Ground	D	580	\$	3,670	\$	44,040	1
	Е	583	\$	3,675	\$	44,100	1
	F	994	\$	4,925	\$	59,100	2
	A	595	\$	3,700	\$	44,400	1
	В	580	\$	3,695	\$	44,340	1
Two	C	665	\$	3,745	\$	44,940	1
1 WO	D	553	\$	3,685	\$	44,220	1
	Е	544	\$	3,680	\$	44,160	1
	F	993	\$	4,950	\$	59,400	2
	A	595	\$	3,725	\$	44,700	1
	В	580	\$	3,720	\$	44,640	1
Three	C	665	\$	3,770	\$	45,240	1
Three	D	553	\$	3,710	\$	44,520	1
	Е	544	\$	3,705	\$	44,460	1
	F	993	\$	4,975	\$	59,700	2
	•						
	A	595	\$	3,750	\$	45,000	1
	В	580	\$	3,745	\$	44,940	1
Four	С	665	\$	3,795	\$	45,540	1
1001	D	553	\$	3,735	\$	44,820	1
	Е	544	\$	3,730	\$	44,760	1
	F	993	\$	5,000	\$	60,000	2
		-			1		
	A	595	\$	3,775	\$	45,300	1
	В	580	\$	3,770	\$	45,240	1
Five	С	665	\$	3,820	\$	45,840	1
	D	553	\$	3,760	\$	45,120	1
	Е	544	\$	3,755	\$	45,060	1
	F	993	\$	5,025	\$	60,300	2
	_					•	
	A	595	\$	3,800	\$	45,600	1
	В	580	\$	3,795	\$	45,540	1
Six	С	665	\$	3,845	\$	46,140	1
JIA	D	553	\$	3,785	\$	45,420	1
	Е	544	\$	3,780	\$	45,360	1
	F	993	\$	5,050	\$	60,600	2

Date : May 30, 2014
Property : 11 Avenue C
Block : 384 Lot 33
Total Land Area : 5,874.3 sq.ft.

Zone : R8A

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Schedule E1: As of Right Development Apartment Pricing

<u>Floor</u>	<u>Unit</u>	<u>Size</u>	<u>\$/Month</u>		<u>\$/Year</u>		<u>Type</u>
	A	595	\$	3,825	\$	45,900	 1
	В	580	\$	3,820	\$	45,840	1
C	С	665	\$	3,870	\$	46,440	1
Seven	D	553	\$	3,810	\$	45,720	1
	Е	544	\$	3,805	\$	45,660	1
	F	993	\$	5,075	\$	60,900	2
	A	595	\$	3,850	\$	46,200	1
	В	580	\$	3,845	\$	46,140	1
Eight	C	665	\$	3,895	\$	46,740	1
Eigiit	D	553	\$	3,835	\$	46,020	1
	Е	544	\$	3,830	\$	45,960	1
	F	993	\$	5,100	\$	61,200	2
	A	684	\$	3,925	\$	47,100	1
Nine	В	736	\$	3,895	\$	46,740	1
	C	700	\$	3,935	\$	47,220	1
Ten	A	1047	\$	3,985	\$	47,820	1
1 611	В	677	\$	3,950	\$	47,400	1

Total 53 35,009 \$ 210,320 \$ 2,523,840

		Sum of	Average Size	Average Per
	Count	Sizes	by Type	Month
One Bedroom	45	27,064	601	\$3,783
Two Bedrooms	8	7,945	993	\$5,013
Total	53	35,009	661	

Date : May 30, 2014
Property : 11 Avenue C
Block : 384 Lot 33
Total Land Area : 5,874.3 sq.ft.

Zone : R8A

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Schedule E2: Typical Development Apartment Pricing

<u>Floor</u>	<u>Unit</u>	Size		\$/Month	<u>\$/Year</u>			<u>Type</u>
	A	590	\$	4,175	\$	50,100		1
	В	616	\$	4,185	\$	50,220		1
Ground	C	638	\$	4,195	\$	50,340		1
	D	642	\$	4,200	\$	50,400		1
	Е	660	\$	4,210	\$	50,520		1
	A	616	\$	4,210	\$	50,520		1
	В	638	\$	4,220	\$	50,640		1
Two	C	706	\$	4,250	\$	51,000		1
	D	775	\$	4,260	\$	51,120		1
	E	924	\$	5,375	\$	64,500		2
	A	616	\$	4,235	\$	50,820		1
	В	638	\$	4,245	\$	50,940		1
Three	C	706	\$	4,275	\$	51,300		1
	D	775	\$	4,285	\$	51,420		1
	E	924	\$	5,400	\$	64,800		2
	1.	0.40	Φ	4.260	Ф	51 120	1	1
	A	616	\$	4,260	\$	51,120		1
	В	638	\$	4,270	\$	51,240		
Four	С	706	\$	4,300	\$	51,600		1
	D	775	\$	4,310	\$	51,720		1
	Е	924	\$	5,425	\$	65,100		2
	Ta	616	\$	4,285	\$	51.420		1
	A B	638	\$	4,283	\$	51,420 51,540		1
Five	С	706	\$	4,293	\$			1
TIVE	D	700	\$	4,325	\$	51,900 52,020		1
	E	924	\$	5,450	\$			2
	Ľ	924	Φ	3,430	φ	65,400		2
	A	616	\$	4,310	\$	51,720		1
	В	638	\$	4,310	\$	51,720		1
Six	C	706	\$	4,350	\$	52,200		1
Sin.	D	775	\$	4,360	\$	52,320		1
	E	924	\$	5,475	\$	65,700		2
		32 i	Ψ	5,175	Ψ	05,700		

Date : May 30, 2014
Property : 11 Avenue C
Block : 384 Lot 33
Total Land Area : 5,874.3 sq.ft.

Zone : R8A

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Schedule E2: Typical Development Apartment Pricing

<u>Floor</u>	<u>Unit</u>	Size	\$/Month	5	\$/Year	<u>Type</u>
	A	616	\$ 4,335	\$	52,020	1
	В	638	\$ 4,370	\$	52,440	1
Seven	С	706	\$ 4,425	\$	53,100	1
	D	775	\$ 4,460	\$	53,520	1
	Е	924	\$ 5,475	\$	65,700	2
	A	616	\$ 4,360		52,320	1
	В	638	\$ 4,395	\$	52,740	1
Eight	C	706	\$ 4,450	\$	53,400	1
	D	775	\$ 4,485	\$	53,820	1
	E	924	\$ 5,500	\$	66,000	2
	A	638	\$ 4,420		53,040	1
Nine	В	1130	\$ 5,550	\$	66,600	2
	С	1144	\$ 5,550	\$	66,600	2
	A	606	\$ 4,445		53,340	1
Ten	В	1038	\$ 5,600	\$	67,200	2
	C	1060	\$ 5,625	\$	67,500	2
	1					
	A	709	\$ 4,470		53,640	1
Eleven	В	805	\$ 4,520	\$	54,240	1
	C	985	\$ 5,625	\$	67,500	2
	1.	4000	Φ 5.700	Τφ	60.400	1 2
Twelve	A	1000	\$ 5,700		68,400	2
	В	1294	\$ 5,755	\$	69,060	2

Total 51 39,168 \$ 237,305 \$ 2,847,660

		Sum of	Average Size	Average Per
	Count	Sizes	by Type	Month
One Bedroom	37	25,049	677	\$4,319
Two Bedrooms	14	14,119	1009	\$5,519
	51	39,168		

Date : May 30, 2014
Property : 11 Avenue C
Block : 384 Lot 33
Total Land Area : 5,874.3 sq.ft.

Zone : R8A

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Schedule E3: Proposed Development Apartment Pricing

Floor	<u>Unit</u>	Size	<u>\$/</u>	<u>Month</u>	<u>\$/Year</u>		Type			
Two	A	1,001	\$	5,375	\$	64,500	2			
	В	1,118	\$	5,400	\$	64,800	2			
	С	612	\$	4,150	\$	49,800	1			
	D	612	\$	4,150	\$	49,800	1			
	Е	612	\$	4,150	\$	49,800	1			
	F	643	\$	4,175	\$	50,100	1			
	A	1,001	\$	5,400	\$	64,800	2			
	В	1,118	\$	5,425	\$	65,100	2			
Three	С	612	\$	4,175	\$	50,100	1			
Tillee	D	612	\$	4,175	\$	50,100	1			
	Е	612	\$	4,175	\$	50,100	1			
	F	643	\$	4,200	\$	50,400	1			
	- <del>-</del>		-	•		- <del>-</del>	-			
	A	1,001	\$	5,425	\$	65,100	2			
	В	1,118	\$	5,450	\$	65,400	2			
Eour	С	612	\$	4,200	\$	50,400	1			
Four	D	612	\$	4,200	\$	50,400	1			
	Е	612	\$	4,200	\$	50,400	1			
	F	643	\$	4,225	\$	50,700	1			
	A	1,001	\$	5,450	\$	65,400	2			
	В	1,118	\$	5,475	\$	65,700	2			
Five	С	612	\$	4,225	\$	50,700	1			
1110	D	612	\$	4,225	\$	50,700	1			
	Е	612	\$	4,225	\$	50,700	1			
	F	643	\$	4,250	\$	51,000	1			
Six	A	1,001	\$	5,450	\$	65,400	2			
	В	1,118	\$	5,475	\$	65,700	2			
	С	612	\$	4,225	\$	50,700	1			
	D	612	\$	4,225	\$	50,700	1			
	Е	612	\$	4,225	\$	50,700	1			
	F	643	\$	4,250	\$	51,000	1			

Date : May 30, 2014
Property : 11 Avenue C
Block : 384 Lot 33
Total Land Area : 5,874.3 sq.ft.

Zone : R8A

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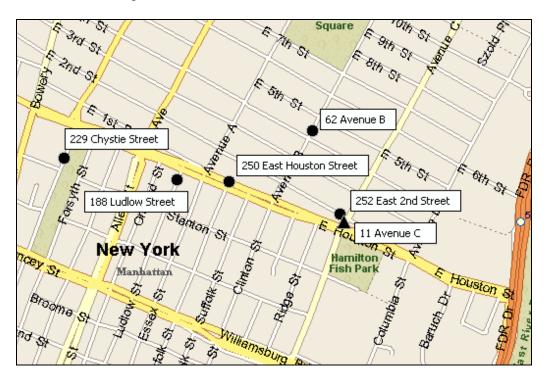
Schedule E3: Proposed Development Apartment Pricing

<u>Floor</u>	<u>Unit</u>	Size	<u>\$/</u>	Month	Month <u>\$/Year</u>		<u>Type</u>
Same	A	1,001	\$	5,475	\$	65,700	2
	В	1,118	\$	5,500	\$	66,000	2
	С	612	\$	4,250	\$	51,000	1
Seven	D	612	\$	4,250	\$	51,000	1
	E	612	\$	4,250	\$	51,000	1
	F	643	\$	4,275	\$	51,300	1
	A	1,001	\$	5,500	\$	66,000	2
	В	1,118	\$	5,525	\$	66,300	2
Eight	C	612	\$	4,275	\$	51,300	1
Eight	D	612	\$	4,275	\$	51,300	1
	Е	612	\$	4,275	\$	51,300	1
	F	643	\$	4,300	\$	51,600	1
	•						
Nine	A	982	\$	5,600	\$	67,200	2
INITIC	В	602	\$	4,375	\$	52,500	1
	_	T	_			•	
Ten	A	601	\$	4,425	\$	53,100	1
	В	980	\$	5,650	\$	67,800	2

Total	46	35,351	\$ 214,550	\$ 2,574,600	\$	72.83

_	Count	Sum of Sizes	Average Size by Type	Average Per Month			
One bedroom	30	18,556	618.5	\$	4,269.32		
Two Bedroom	16_	16,795	1049.7	\$	5,473.44		
	46	35,351					

Schedule E: Comparable Residential Rents



#### Schedule E: Comparable Residential Rents

#### 1. 62 Avenue B #1F

This is a one bedroom one bathroom apartment for rent located in the East Village neighborhood of Manhattan. Located between East 4<sup>th</sup> and East 5<sup>th</sup> Street, it is approximately three blocks away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 2. 229 Chrystie Street #709

This is a one bedroom one bathroom apartment for rent located in the Lower East Side neighborhood of Manhattan. Located between Stanton and East Houston Street, it is approximately four blocks away from the subject property. A -10% adjustment was made for the superior location. No adjustments were made for time, size, zoning or other factors.

#### 3. 250 East Houston Street #PHL

This is a one bedroom one bathroom apartment for rent located in the East Village neighborhood of Manhattan. Located between Avenue A and Avenue B, it is approximately two blocks away from the subject property. A -10% adjustment was made for the superior location. No adjustments were made for time, size, zoning or other factors.

#### 4. 188 Ludlow Street #14G

This is a one bedroom one bathroom apartment for rent located in the Lower East Side neighborhood of Manhattan. Located between Stanton and East Houston Street, it is approximately three blocks away from the subject property. A +10% adjustment was made for the inferior location. No adjustments were made for time, size, zoning or other factors.

### 5. 252 East 2<sup>nd</sup> Street

This is a two bedroom one bathroom apartment for rent located in the East Village neighborhood of Manhattan. Located between Avenue B and Avenue C, it is approximately one block away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### Schedule E: Comparable Residential Rents

#### 6. 62 Avenue B #6F

This is a two bedroom two bathroom apartment for rent located in the East Village neighborhood of Manhattan. Located between East 4<sup>th</sup> and East 5<sup>th</sup> Street, it is approximately three blocks away from the subject property. No adjustments were made for time, location, size, zoning or other factors.

#### 7. 250 East Houston Street #3D

This is a two bedroom two bathroom apartment for rent located in the East Village neighborhood of Manhattan. Located between Avenue A and Avenue B, it is approximately two blocks away from the subject property. A -10% adjustment was made for the superior location. No adjustments were made for time, size, zoning or other factors.

#### 8. 229 Chrystie Street #515

This is a two bedroom two bathroom apartment for rent located in the Lower East Side neighborhood of Manhattan. Located between Stanton and East Houston Street, it is approximately four blocks away from the subject property. A -10% adjustment was made for the superior location. No adjustments were made for time, size, zoning or other factors.

# Schedule E: Comparable Residential Rents

# 1. 62 Avenue B #1F



# 2. 229 Chrystie Street #709



# Schedule E: Comparable Residential Rents

3. 250 East Houston Street #PHL



### 4. 188 Ludlow Street #14G



# Schedule E: Comparable Residential Rents

# 5. 252 East 2<sup>nd</sup> Street



### 6. 62 Avenue B #6F



Economic Analysis Report 11 Avenue C New York, NY May 30, 2014 Page 47

# Schedule E: Comparable Residential Rents

# 7. 250 East Houston Street #3D



# 8. 229 Chrystie Street #515



# EXHIBIT A: CONSTRUCTION COST ESTIMATES

# 11 AVENUE C

As of Right Residential

Preliminary Construction Cost Estimate

New York, New York

May 23, 2014

DATE: 5/23/14

REV.:

PROJECT: 11 AVENUE C

**LOCATION: NEW YORK, NY** 

### **AS OF RIGHT RESIDENTIAL**

### **QUALIFICATIONS**

- 1 Estimate is based on drawings AR-000 through AR-303 as prepared by Rotwein+Blake dated 5/9/14 labeled As of Right Scheme (FAR 6.3)
- 2 Escalation Estimate Based on Construction Start 2ND Qtr 2014

### **EXCLUSIONS**

- 1 Design/Professional fees.
- 2 Surveys & Reports
- 3 Treatment/Removal of Contaminated Materials
- 4 Controlled Testing and Inspection
- 5 Public Agency Approvals/Inspection Fees
- 6 Building permit/filing fees.
- 7 Builder's risk insurance.
- 8 Utility Company Charges (other than Temporary for Contractor)
- 9 Overtime
- 10 Performance Bond
- 11 Tenant Fit Out- Retail
- 12 Mock-Ups
- 13 Contractors Profit or Construction Manager's Fee

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE: 5/23/14

REV.:

CSI		
CODE	DESCRIPTION	TOTAL

# **AS OF RIGHT RESIDENTIAL**

01500	TEMPORARY CONSTRUCTION		469,125
02500	PAVING & SURFACING		139,854
02600	SITE UTILITIES		88,500
02800	PILING		589,500
02950	EXCAVATION/FOUNDATION		931,598
3300	SUPERSTRUCTURE CONCRETE		2,979,632
04100	MASONRY		77,418
05500	MISCELLANOUS IRON		55,690
06100	ROUGH CARPENTRY		148,739
06200	FINISH CARPENTRY		317,807
07100	WATERPROOFING		63,662
07510	ROOFING/INSULATION/FIRESTOPPING		149,395
07900	CAULKING & SEALANTS		72,295
08100	HOLLOW METAL		36,575
08200	WOOD DOORS		62,600
08400	ENTRANCES AND STOREFRONT		34,000
08700	HARDWARE		62,800
08950	EXTERIOR FAÇADE		2,462,245
09000	INTERIOR FIT OUT		88,200
09250	DRYWALL		911,417
09300	TILE		965,000
09550	WOOD FLOORING		335,290
09650	RESILIENT FLOORING		13,513
09900	PAINTING		246,752
10400	IDENTIFYING DEVICES		10,600
10550	POSTAL SPECIALTIES		7,950
10800	TOILET ACCESSORIES		12,200
11175	TRASH CHUTE & COMPACTOR		33,750
11450	RESIDENTIAL EQUIPMENT		238,500
14200	ELEVATORS		275,000
15300	FIRE PROTECTION		298,909
15400	PLUMBING		811,800
15500	HEATING, VENTILATING AND AIR CONDITIONING		1,689,288
16,000	ELECTRICAL WORK		1,016,183
		SUBTOTAL	15,695,787
	GENERAL CONDITIONS 12%		1,883,494
		SUBTOTAL	17,579,281
	INSURANCE 3%		527,378
		TOTAL	18,106,660



# McQuilkin Associates, LLC

# Construction Consultants

May 23, 2014

### 11 AVENUE C - AS OF RIGHT RESIDENTIAL

This document explains the cost premiums associated with constructing our As of Right residential building at the 11 Avenue C site with a Typical As of Right residential building site unencumbered by the construction cost hardships associated with the 11 Avenue C site. These construction cost premiums are caused by two factors.

### 1. Soil Conditions

Due to the poor soil conditions, we are required to construct a driven steel H pile foundation system to refusal onto bedrock to support our structure. As opposed to a more conventional spread footing foundation system.

### 2. Site Configuration

Because of the long, narrow, and tapered shape of the site, including street frontages on both sides of the site, the comparative costs of several items are adversely affected. The first being the exterior façade. Due to the site shape and the dual frontages, we have a considerably larger area of exterior façade than would be encountered in a typical residential scenario. The second affected area is the efficiency of the residential layouts.

In order to calculate the construction cost premium, we offer the following:

Actual AOR Residential Building Cost Actual AOR Residential Building Area Actual AOR Residential Building Cost/SF	\$ 18,106,660 45,986 SF \$394/SF
Typical AOR Residential Building Cost Typical AOR Residential Building Area Typical AOR Residential Building Cost/SF	\$ 18,927,838 55,019 SF \$344/SF

By multiplying the Actual AOR area (45,986 SF) by the Cost/SF of the Typical AOR (\$344/SF), we ascertain the non-premium construction cost of our Actual AOR building to be (\$15,819,184).

To calculate the construction cost premium associated with our Actual AOR building. We deduct the non-premium construction cost (\$15,819,184) from the Actual AOR construction cost (\$18,106,660) resulting in a construction cost premium of \$2,287,476.

# 11 AVENUE C

Proposed Residential

Preliminary Construction Cost Estimate

New York, New York

May 23, 2014

McQUILKIN ASSOCIATES, LLC DATE: 5/23/14

REV.:

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

### **PROPOSED RESIDENTIAL**

### **QUALIFICATIONS**

- 1 Estimate is based on drawings SK-000 through SK-303 as prepared by Rotwein+Blake dated 5/9/14 labeled Proposed Scheme (FAR 7.2)
- 2 Escalation Estimate Based on Construction Start 2ND Qtr 2014

### **EXCLUSIONS**

- 1 Design/Professional fees.
- 2 Surveys & Reports
- 3 Treatment/Removal of Contaminated Materials
- 4 Controlled Testing and Inspection
- 5 Public Agency Approvals/Inspection Fees
- 6 Building permit/filing fees.
- 7 Builder's risk insurance.
- 8 Utility Company Charges (other than Temporary for Contractor)
- 9 Overtime
- 10 Performance Bond
- 11 Tenant Fit Out- Retail
- 12 Mock-Ups
- 13 Contractors Profit or Construction Manager's Fee

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE: 5/23/14

REV.:

CSI		
CODE	DESCRIPTION	TOTAL

	PROPOSED RESIDENTIAL		
01500	TEMPORARY CONSTRUCTION		419,125
02500	PAVING & SURFACING		81,444
02600	SITE UTILITIES		88,500
02800	PILING		492,000
02950	EXCAVATION/FOUNDATION		1,045,362
3300	SUPERSTRUCTURE CONCRETE		3,648,550
04100	MASONRY		179,586
05500	MISCELLANOUS IRON		55,690
06100	ROUGH CARPENTRY		165,931
06200	FINISH CARPENTRY		295,712
07100	WATERPROOFING		48,428
07510	ROOFING/INSULATION/FIRESTOPPING		253,060
07900	CAULKING & SEALANTS		83,397
08100	HOLLOW METAL		17,400
08200	WOOD DOORS		24,200
08400	ENTRANCES AND STOREFRONT		411,500
08700	HARDWARE		58,000
08950	EXTERIOR FAÇADE		2,421,630
09000	INTERIOR FIT OUT		94,500
09250	DRYWALL		981,776
09300	TILE		887,800
09550	WOOD FLOORING		330,500
09650	RESILIENT FLOORING		24,014
09900	PAINTING		268,088
10400	IDENTIFYING DEVICES		9,200
10550	POSTAL SPECIALTIES		6,900
10800	TOILET ACCESSORIES		12,400
11175	TRASH CHUTE & COMPACTOR		35,000
11450	RESIDENTIAL EQUIPMENT		207,000
14200	ELEVATORS		275,000
15300	FIRE PROTECTION		360,412
15400	PLUMBING		803,600
15500	HEATING, VENTILATING AND AIR CONDITIONING		1,521,742
16,000	ELECTRICAL WORK		1,134,562
	OFNERAL COMPITIONS (200)	SUBTOTAL	16,742,009
	GENERAL CONDITIONS 12%	<b>.</b>	2,009,041
	INCUDANCE ON	SUBTOTAL	18,751,050
	INSURANCE 3%	T0T41	562,531
		TOTAL	19,313,581

# 11 AVENUE C

Typical Residential

Preliminary Construction Cost Estimate

New York, New York

May 21, 2014

DATE: 5/21/14 **PROJECT: 11 AVENUE C** REV.:

**LOCATION: NEW YORK, NY** 

### **TYPICAL RESIDENTIAL**

### **QUALIFICATIONS**

- 1 Estimate is based on drawings TYP-000 through TYP-303 as prepared by Rotwein+Blake dated 5/9/14 labeled Typical Design Scheme (FAR 7.2)
- 2 Escalation Estimate Based on Construction Start 2ND Qtr 2014

### **EXCLUSIONS**

- 1 Design/Professional fees.
- 2 Surveys & Reports
- 3 Treatment/Removal of Contaminated Materials
- 4 Controlled Testing and Inspection
- 5 Public Agency Approvals/Inspection Fees
- 6 Building permit/filing fees.
- 7 Builder's risk insurance.
- 8 Utility Company Charges (other than Temporary for Contractor)
- 9 Overtime
- 10 Performance Bond
- 11 Tenant Fit Out- Retail
- 12 Mock-Ups
- 13 Contractors Profit or Construction Manager's Fee

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE: 5/21/14

REV.:

CSI		
CODE	DESCRIPTION	TOTAL

# TYPICAL RESIDENTIAL

01500	TEMPORARY CONSTRUCTION		468,820
02500	PAVING & SURFACING		97,964
02600	SITE UTILITIES		88,500
02950	EXCAVATION/FOUNDATION		1,123,900
3300	SUPERSTRUCTURE CONCRETE		3,578,678
04100	MASONRY		90,222
05500	MISCELLANOUS IRON		66,250
06100	ROUGH CARPENTRY		165,696
06200	FINISH CARPENTRY		316,714
07100	WATERPROOFING		35,336
07510	ROOFING/INSULATION/FIRESTOPPING		143,815
07900	CAULKING & SEALANTS		80,017
08100	HOLLOW METAL		37,275
08200	WOOD DOORS		74,200
08400	ENTRANCES AND STOREFRONT		55,500
08700	HARDWARE		69,100
08950	EXTERIOR FAÇADE		2,498,610
09000	INTERIOR FIT OUT		195,300
09250	DRYWALL		1,014,888
09300	TILE		941,660
09550	WOOD FLOORING		363,230
09650	RESILIENT FLOORING		22,334
09900	PAINTING		279,124
10400	IDENTIFYING DEVICES		10,200
10550	POSTAL SPECIALTIES		7,650
10800	TOILET ACCESSORIES		12,800
11175	TRASH CHUTE & COMPACTOR		36,250
11450	RESIDENTIAL EQUIPMENT		229,500
14200	ELEVATORS		325,000
15300	FIRE PROTECTION		357,624
15400	PLUMBING		843,000
15500	HEATING, VENTILATING AND AIR CONDITIONING		1,641,250
16,000	ELECTRICAL WORK		1,137,221
		SUBTOTAL	16,407,627
	GENERAL CONDITIONS 12%		1,968,915
		SUBTOTAL	18,376,542
	INSURANCE 3%		551,296
		TOTAL	18,927,838





March 24, 2013

Based on the results of the Limited Soil Investigation performed by WCD in June 2013 and a document review performed by WCD in October 2013, implementing the remediation and environmental control measures listed below is recommended for the property located at 11 Avenue C, New York, New York 10009 (Block 384, Lot 33):

- Site development should involve coordination with the NYSDEC to ensure closure of the spill case following completion of development.
- To prevent volatile organic compounds in soil vapor from entering the building, a soil vapor barrier and active sub-slab depressurization system should be integrated into the building design.
- Emteque recommends properly characterizing the soil to identify appropriate material handling, reuse, and/or disposal requirements. Excavated material should be managed in accordance with applicable federal, state, and local laws and regulations and in consideration of the results of the characterization sampling and analysis. Based on the results of the analyses of soil samples collected during the Limited Soil Investigation, material excavated from the Site is expected to be non-hazardous industrial waste, and should be identified as such for bidding purposes. Additionally, the project construction specifications should require completion of waste characterization sampling.
- A minimum of 2 feet of environmentally clean fill should be placed over remaining existing soils in all landscaped or exposed areas.
- USTs, hydraulic lifts, and all associated on-site petroleum impacted soil (to approximately 9 to 15 feet below grade or four feet into the water table) should be excavated, decommissioned, and/or disposed of in accordance with all federal, state, and local regulations.
- Dewatering may be necessary during remedial excavation and treatment of dewatering effluent will be required prior to discharge to the municipal sewer. Dewatering, groundwater treatment, and disposal should be performed in accordance with applicable local, state and federal regulations. Dewatering required during construction should be minimized to mitigate potential influx of contaminated water from off-site sources toward the Site.
- Any asbestos containing materials (ACM), lead-based paint (LBP), or polychlorinated biphenyl (PCB) containing materials (from the on-site structures and/or buried debris) affected by future redevelopment of the Site should be identified and properly managed during such activities.
- Construction of the building will require Site excavation of petroleum-impacted odiferous soils. A community air monitoring plan should be implemented during excavation activities. Additionally, post-excavation samples should be collected in accordance with DER-10 to confirm the absence of petroleum-related VOCs and SVOCs at concentrations above regulatory criteria in unsaturated soil samples.

# Site Remediation – UST, Hydraulic Lift System and Associated Contaminated Soil Removal, Dewatering and Environmental Oversight

The cost estimate for the first remediation measure uses the following assumptions:

- Five (5) gasoline USTs and one (1) waste oil UST are present on Site;
- Two (2) hydraulic lift systems are present on Site;
- The five (5) gasoline USTs are 4,000-gallons in capacity and the waste oil UST is 550-gallons in capacity:
- The USTs and hydraulic lift systems contain a combined total of 10,000 gallons of fuel oil/waste oil/hydraulic oil;
- Approximately 1,450 tons of petroleum-contaminated material (PCM) will be removed from the Site (assumes Site is approximately 5,250 square feet, petroleum contaminated soil will be removed from 5 to 15 feet bgs and one cubic yard weighs 1.5 tons);
- Approximately 2,623 tons of non-hazardous regulated material will be removed from the Site (assumes Site is approximately 5,250 square feet, non-hazardous regulated materials will be removed from grade surface to 9 feet bgs and one cubic yard weighs 1.5 tons);
- Dewatering will be required for excavation into the water table. Dewatering will be performed using sump or "trash" pumps and dewatering fluids will be conveyed to an onsite treatment system consisting of a settling tank (i.e., oil-water separator), bag filters, and activated carbon. Dewatering will be required for a period of 4 weeks; and
- Soil characterization sampling is required by soil disposal facilities prior to acceptance of the material. The Site is approximately 5,250 square feet, the depth of excavation is estimated to extend to 15 feet bgs generating approximately 2,900 cubic yards of material.
- On-site environmental oversight is recommended during the Site remediation activities.

Activity	Units	Rate	Total
Removal and disposal of oil for recycling	10,000 gallons	\$1.00/gallon	\$10,000
Excavation, UST removal, hydraulic lift and tank decommissioning	Lump Sum	\$75,000	\$75,000
Soil Characterization Sampling	Lump Sum	\$17,000	\$17,000
CAMP Air Monitoring During Excavation	4 Weeks	\$5,300/week	\$21,000
Owner Environmental Inspector	4 Weeks	\$4,600/week	\$18,400
Transportation and disposal of 5 feet of overburden Historic Fill material within the building footprint. From 0 to 5 feet bgs.	1,460 tons	\$50/ton	\$73,000
Transportation and disposal of petroleum contaminated soil at a permitted landfill. From 5 to 15 feet bgs.	2,900 tons	\$90/ton	\$261,000
Transportation and disposal of soil generated during foundation installation.	150 tons	\$90/ton	\$13,500
Laboratory analysis of endpoint samples for CP-51 list VOCs/SVOCs	20 samples	\$200/sample	\$4,000
Closure Reporting and Agency Liaison	\$12,500	LS	\$12,500

Activity	Units	Rate	Total
Dewatering	\$100,000	LS	\$100,000
Activity Total Cost (rounded)			\$605,400
Engineering Design, Specifications, Drawings, Data Evaluation, and Labor Expenses (10%)			\$60,540
Subtotal Project Costs (rounded)		\$666,000	
15% Contingency on all Costs (rounded)			\$99,900
Total System Cost (rounded):			\$765,900

### First Engineering Control - Soil Vapor Barrier

The cost estimate for the vapor barrier is based on the following:

- 1. The proposed 9-story building includes a full basement.
- 2. The area of the vapor barrier includes an assumed building footprint of approximately 5,246 square feet with a 14 foot deep basement. Therefore, for cost estimating purposes, Emteque has assumed that the total area to be covered by the vapor barrier is approximately 10,020 square feet to cover any vertical sub-grade foundation elements (including an assumed 14 foot sub-grade wall and 341 foot building perimeter).

### **Vapor Barrier Cost Estimate**

Activity	Units	Rate	Total
Install Vapor Barrier (Building footprint and sub-grade walls)	10,020 sf	\$5.50/sf	\$55,110
Activity Total Estimated Cost			\$55,110
Engineering Design, Specifications, Drawings, Data Evaluation, and Reporting Labor Expenses (20%)			\$11,022
Subtotal Estimated Project Costs			\$66,132
15% Contingency on all Costs (rounded)			\$9,919
Total System Cost (rounded):			\$76,051

### Second Engineering Control – Sub-Slab Depressurization System (SSDS)

The cost estimate for the installation of an active SSDS is based on the following:

- 1. The building will be a nine-story building with full basement.
- 2. The SSDS would underlie the entire 5,246-square foot footprint of the proposed building.
- 3. The major components of the system will consist of sub-slab pits embedded in a 12-inch thick layer of permeable aggregate, roof-mounted suction fan, and steel pipe risers.
- 4. One (1) sub-slab pit will be required for every 6,000-square feet of building footprint. Therefore, one (1) sub-slab pit will be required. The sub-slab pit will be constructed of masonry block covered with 2-inch thick reinforced concrete planks.
- 5. Operations and maintenance (O&M) costs are not included.

# **Sub-Slab Depressurization System Cost Estimate**

Activity	Units	Rate	Total Cost
Non-Woven Drainage Geotextile	600 sy	\$3/sy	\$1,800
12 Inches of Gas Permeable Aggregate Backfill and Compaction	200 cy	\$45/cy	\$9,000
Suction Pits and Associated Sub-Slab Piping	1 each	\$3,000/ea	\$3,000
Cast Iron Pipe Risers (four)	120 lf	\$95/If	\$11,400
Roof-Mounted Suction Fans and Accessories	1 ea	\$4,000/ea	\$4,000
Monitoring Points	2 ea	\$800/ea	\$1,600
Testing	1 ea	\$5,000/ea	\$5,000
Activity Total Estimated Cost			\$35,800
Engineering Design, Specifications, Drawings, Data Evaluation, and Reporting Labor Expenses (Lump Sum)			\$15,000
Subtotal Project Costs			\$50,800
15% Contingency on all Costs		\$7,620	
Total System Cost (rounded):			\$58,420

# **Total Engineering and Remediation Cost Estimate (Rounded)**

Line Item Description	Cost
First Remediation Measure (UST, Hydraulic Lift System and Associated Contaminated Soil Removal and Groundwater Monitoring)	\$765,900
First Engineering Control (Soil Vapor Barrier)	\$76,051
Second Engineering Control (Active Sub-Slab Depressurization System)	\$58,420
Total (rounded)	\$900,371

Note: The total engineering and remedial cost estimate may change based on remedial measures required by the NYSDEC. In addition, the installation cost of the SSDS may change based on the design need to install an active SSDS below the water table.



RealtyR	ates.com	INVESTOR	SURYEY - 2nd	l Quar	ter 2014"		
AP	ARTMEN	TS - HI-RISE	/URBAN TO\	/NHO	USE		
Item	Input						OAR
Minimum							
Spread Over 10-Year Treasury	0.87%	DCR Techn	ique	1.35	0.054423	0.75	5.51
Debt Coverage Ratio	1.35	Band of Inv	Band of Investment Technique				
Interest Rate	3.58%	Mortgage		75%	0.054423	0.040817	
Amortization	30	Equity		25%	0.065415	0.016354	
Mortgage Constant	0.054423	OAR					5.72
Loan-to-Value Ratio	75%	Surveyed Rates					
Equity Dividend Rate	6.54%						
Mazimum							
Spread Over 10-Year Treasury	5.88%	DCR Techn	ique	1.96	0.118803	0.50	11.64
Debt Coverage Ratio	1.96	Band of Inv	estment Tec	hnique	•		
Interest Rate	8.59%	Mortgage		50%	0.118803	0.059401	
Amortization	15	Equity		50%	0.158064	0.079032	
Mortgage Constant	0.118803	OAR					13.84
Loan-to-Value Ratio	50%	Surveyed Rates					
Equity Dividend Rate	15.81%						
Average							
Spread Over 10-Year Treasury	3.38%	DCR Techn	ique	1.66	0.081701	0.68	9.13
Debt Coverage Ratio	1.66	Band of Investment Technique					
Interest Rate	6.09%	Mortgage		68%	0.081701	0.055148	
Amortization	23	Equity		33%	0.107107	0.034810	
Mortgage Constant	0.081701	OAR					9.00
Loan-to-Value Ratio	68%	Surveged Rates					9.02
Equity Dividend Rate	10.71%						

RealtyR	ates.com	INVESTOR S	SURVEY - 2nd	d Quar	ter 2014"		
		RETAIL - AL					
Item	Input						OAR
Minimum							
Spread Over 10-Year Treasury	0.75%	DCR Techn	ique	1.05	0.046199	0.90	4.37
Debt Coverage Ratio	1.05	Band of Investment Technique					
Interest Rate	3.46%	Mortgage		90%	0.046199	0.041580	
Amortiz ation	40	Equity		10%	0.080484	0.008048	
Mortgage Constant	0.046199	OAR					4.96
Loan-to-Value Ratio	90%	Surveyed Rates					
Equity Dividend Rate	8.05%						
Mazimum							
Spread Over 10-Year Treasury	7.21%	DCR Technique 2.25 0.128366 0.5		0.50	14.44		
Debt Coverage Ratio	2.25	Band of Investment Technique					
Interest Rate	9.92%	Mortgage		50%	0.128366	0.064183	
Amortization	15	Equity		50%	0.180736	0.090368	
Mortgage Constant	0.128366	OAR					15.46
Loan-to-Value Ratio	50%	Surveyed Rates					
Equity Dividend Rate	18.07%						
Average							
Spread Over 10-Year Treasury	2.80%	DCR Techn	ique	1.42	0.074333	0.70	7.41
Debt Coverage Ratio	1.42	Band of Investment Technique					
Interest Rate	5.51%	Mortgage		70%	0.074333	0.052266	
Amortiz ation	25	Equity		30%	0.135623	0.040263	
Mortgage Constant	0.074333	OAR					9.25
Loan-to-Value Ratio	70.3%	Surveyed Rates					10.17
Equity Dividend Rate	13.6%						



### **JACK FREEMAN**

Jack Freeman is principal of J.S. Freeman Associates and Freeman/Frazier & Associates. Mr. Freeman's professional background combines real estate finance, development planning, project management and public sector experience to provide comprehensive real estate advisory services to the benefit of his clients.

His development financing background includes several years experience as a mortgage Officer for The New York City Community Preservation Corporation, responsible for construction and permanent loan origination. The Corporation is a consortium of the New York City Commercial Banks and Savings Institutions, established to provide mortgage financing for multifamily housing rehabilitation and economic development.

Public Sector experience includes the position of Director, New York City Department of City Planning, Zoning Study Group and Senior Staff positions in the Mayor's Office of Development, responsible for management of major commercial and residential projects in Lower Manhattan.

As a developer, Mr. Freeman has been a principal and General Partner in the development of multifamily market rate and affordable housing projects, with a value in excess of \$17 million.

In 1993, Mr. Freeman was appointed, and served until 1996, as a Commissioner of the New York City Landmarks Preservation Commission. For three years, Mr. Freeman was a member of the New York State Council of Arts Capital Program Review Panel. He has been a recipient of a National Endowment for the Arts Grant for Architecture and a Progressive Architecture Award for Urban Design.

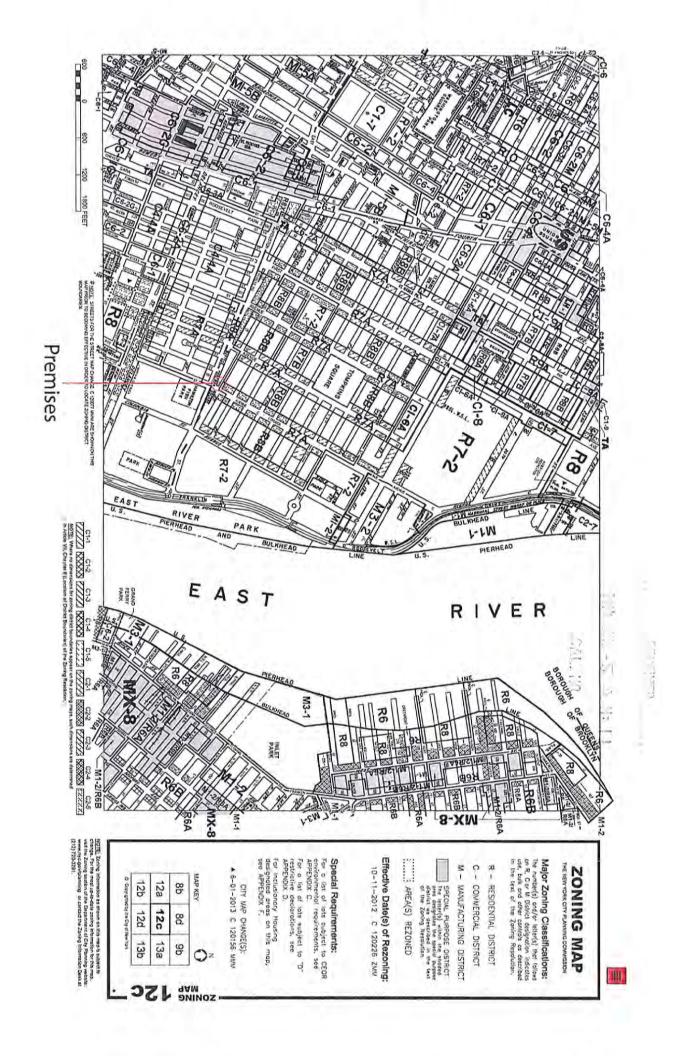
Mr. Freeman is a Licensed Real Estate Broker, a member of the Real Estate Board of New York, the Urban Land Institute and the American Planning Association. He has taught Real Estate Development as a member of the Graduate Faculty of the City University of New York and has been a regular lecturer in Real Estate Finance at Princeton University.

Mr. Freeman holds a Masters Degree in City Planning from the City University of New York and a Bachelor of Architecture Degree from Cooper Union.

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



BSA CALENDAR NO.	BSA ZONING ANALYSIS				REVISED APRIL 2005		
	BLOCK 384			LOT 33			
SUBJECT SITE ADDRESS	11 Avenue C, NY NY						
APPLICANT	350 East Houston LLC						COMPLIANT: "Y
ZONING DISTRICT R8A	PRIOR BSA # - 5 A. []: 1			1 1		IF NOT: "N" and	
SPECIAL/HISTORIC DISTRICT COMMUNITY BOARD 3	* APPLICABLE ZR SECTION	MAXIMUM PERMITTED	REQUIRED	LEGAL PER C of O or BSA	EXISTING	PROPOSED	OVER/UNDER
LOT AREA	23-32		1,700 sf		5874.3	5874.3	Y
LOT WIDTH	23-32		18 ft		40	40	Υ
USE GROUP (S)	22-00	1-4	W. 301	16B	16B	2 & 6	N (6)
FA RESIDENTIAL	23-952	42,295 sf			0	37,743 sf	Υ
FA COMMUNITY FACILITY	23-952	0	(1) A		0	0	Υ
FA COMMERCIAL/INDUST.	23-952	0	1		1,344 sf	4,550 sf	N (+4,550 sf
FLOOR AREA TOTAL	23-952	42,295 sf	12		1,344 sf	42,293 sf	Y
FAR RESIDENTIAL	23-952	7.2			0	6.43	Y
FAR COMMUNITY FACILITY	23-952	0	THE ST		0	0	Υ
FAR COMMERCIAL/INDUST.	23-952	0			0.22	0.77	N (+0.77)
FAR TOTAL	23-952	7.2			0.22	7.2	Υ
OPEN SPACE	23-952		NA			0	Υ
OPEN SPACE RATIO	23-952		NA			0	Υ
LOT COVERAGE (%)	23-145	78%	F 822		23%	100%	N (+ 1,295 sf
NO. DWELLING UNITS	23-22 & 23	57	DI RO		0	46	Υ
WALL HEIGHT	23-633	85'	100		14'	85'	Y
TOTAL HEIGHT	23-692 (6)	120'	200		14'	105'	· Y
NUMBER OF STORIES					1	10	Υ
FRONT YARD	23-633		0			0	Υ
SIDE YARD	23-462c		0			0	Υ
SIDE YARD	23-462c		0			0	Υ
REAR YARD	23-531		0			0	Y
SETBACK (S)	23-633		10',15',15'	/		10',21',15'	Υ
SKY EXP. PLANE (SLOPE)	23-633	NA	15	/=			Y
NO. PARKING SPACES	28-51		0			0	Y
OTHER: TERED ARCH	25-72		0 .			0	Υ

<sup>\*</sup> In Applicable / Section columns to RASIDENTIAL developments in non-residential districts, indicate nearest R district, e.g., R4/23-141, and contrast compliance for committee of RASIDENTIAL developments in residential districts, contrast proposed bulk and area elements to current R district requirements, except to see up and pading requirements (contrast to nearest district where use is permitted). For COMMUNITY FACILITY uses in districts where not pelmitted, courselved the permitted. For all applications, attach zoning map and highlight subject site. Be sure that all items noted in the DOB Denia Committed. NOTES: Existing structure to be demolished and use discontinued

433 Finance
NYC Digital Tax Map
Effective Date 107-77-2010 10:42-27
End Date - Coment
Manhattan Block: 384

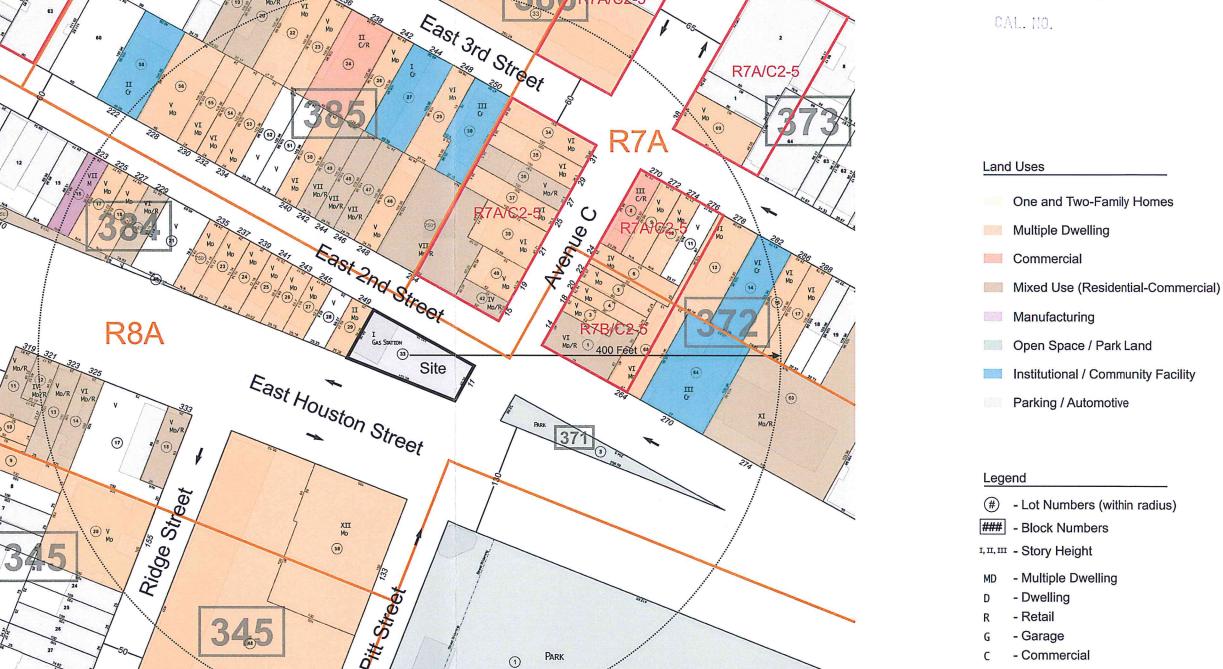
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CONDO #: 1618 998 70 JUL 300 -5 A 11:11 808 21 348

Premises

Block 384, Lot 33 Zoning Map: 12c Site - R8A

2011 JUN -5 A II: 11 CAL. NO.



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274 (East 4th Street)

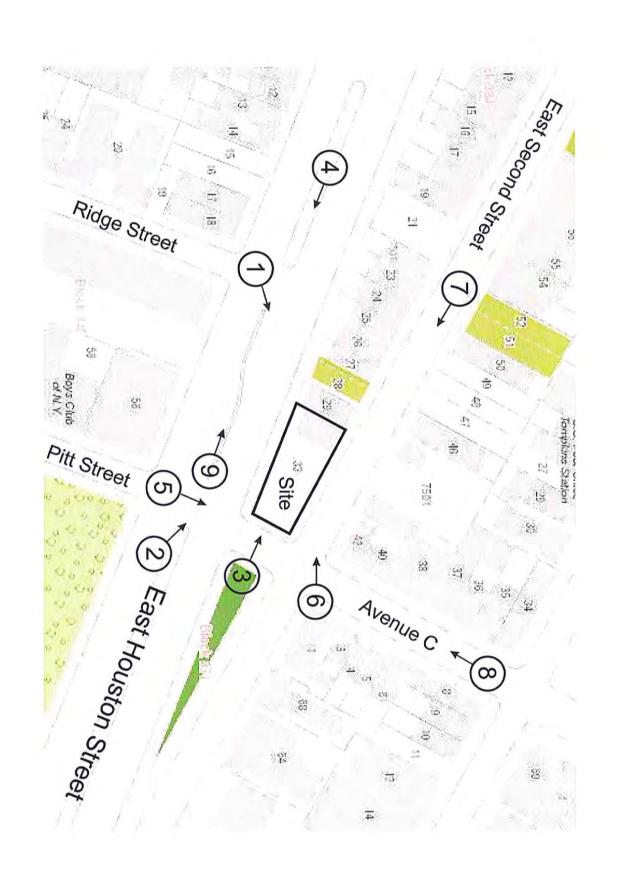
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Scale: 1" = 100'

- Community Facility

- Industrial - Manufacturing

- Warehouse - Vacant



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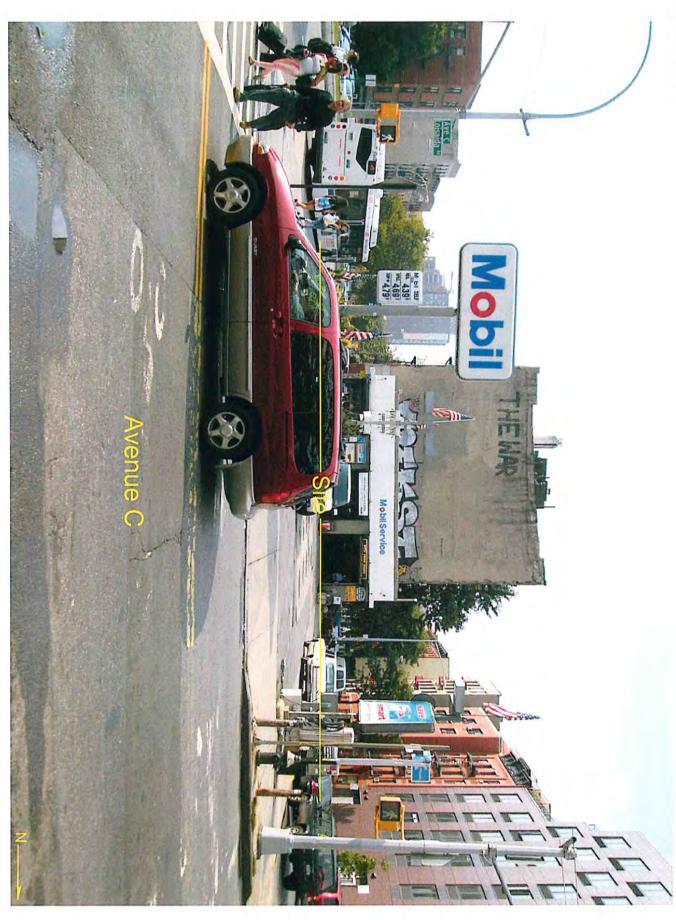
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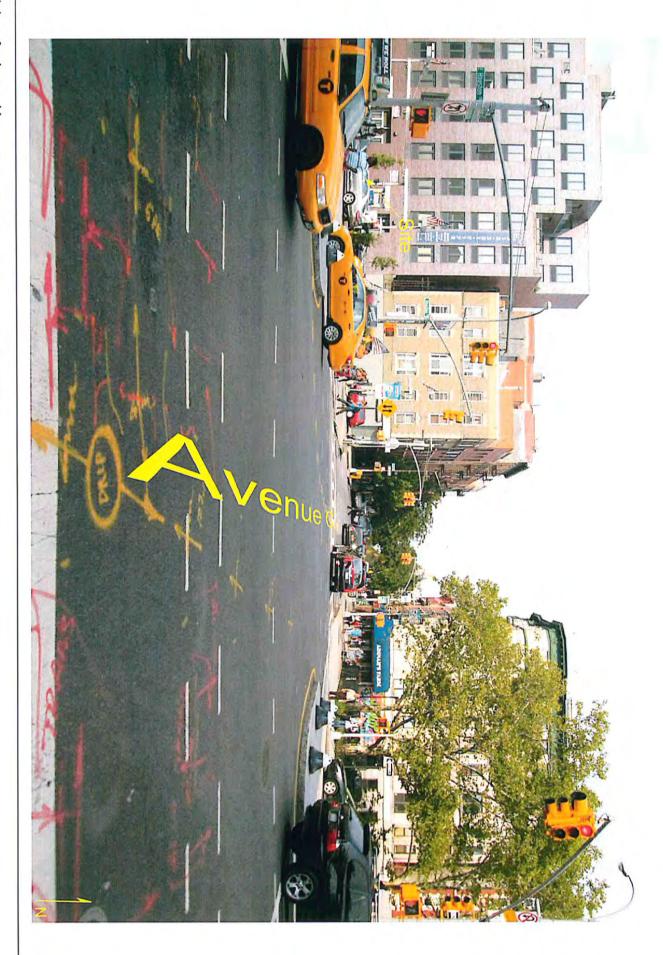
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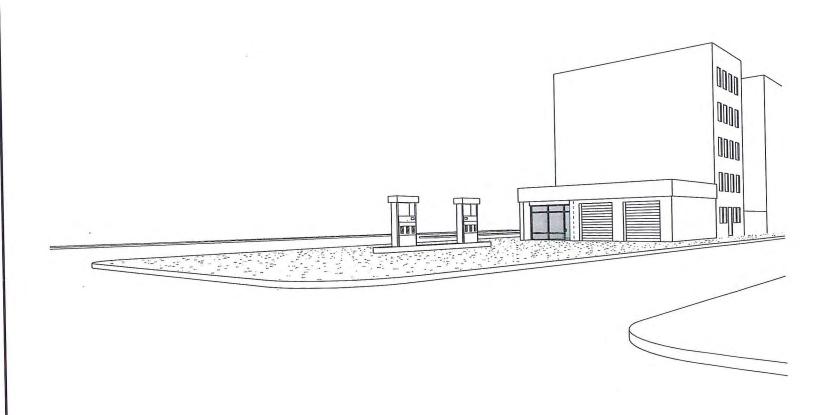
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## PROPOSED RESIDENTIAL DEVELOPMENT

# 11 AVENUE C NEW YORK, N.Y.

350 EAST HOUSTON, LLC

**EXISTING BUILDING** 



#### DRAWING INDEX

EX-000 TITLE SHEET
EX-001 SURVEY
EX-101 FLOOR PLAN
EX-201 ELEVATIONS

EX-202 ELEVATIONS EX-301 SECTIONS 125=11-97

ECHIVED .....

2014 JUN -5 .A. N: 1 1 CAL. NO.

NO. REVISION DATE

ARCHITECT:

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Rotwein+Blake

16 Microtab Road Swite B Livingston, NJ 07039-1602

973. 740. 9755 • Fax: 973. 740. 9766

E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
EXISTING
TITLE SHEET



05/28/14 DATE: 201305

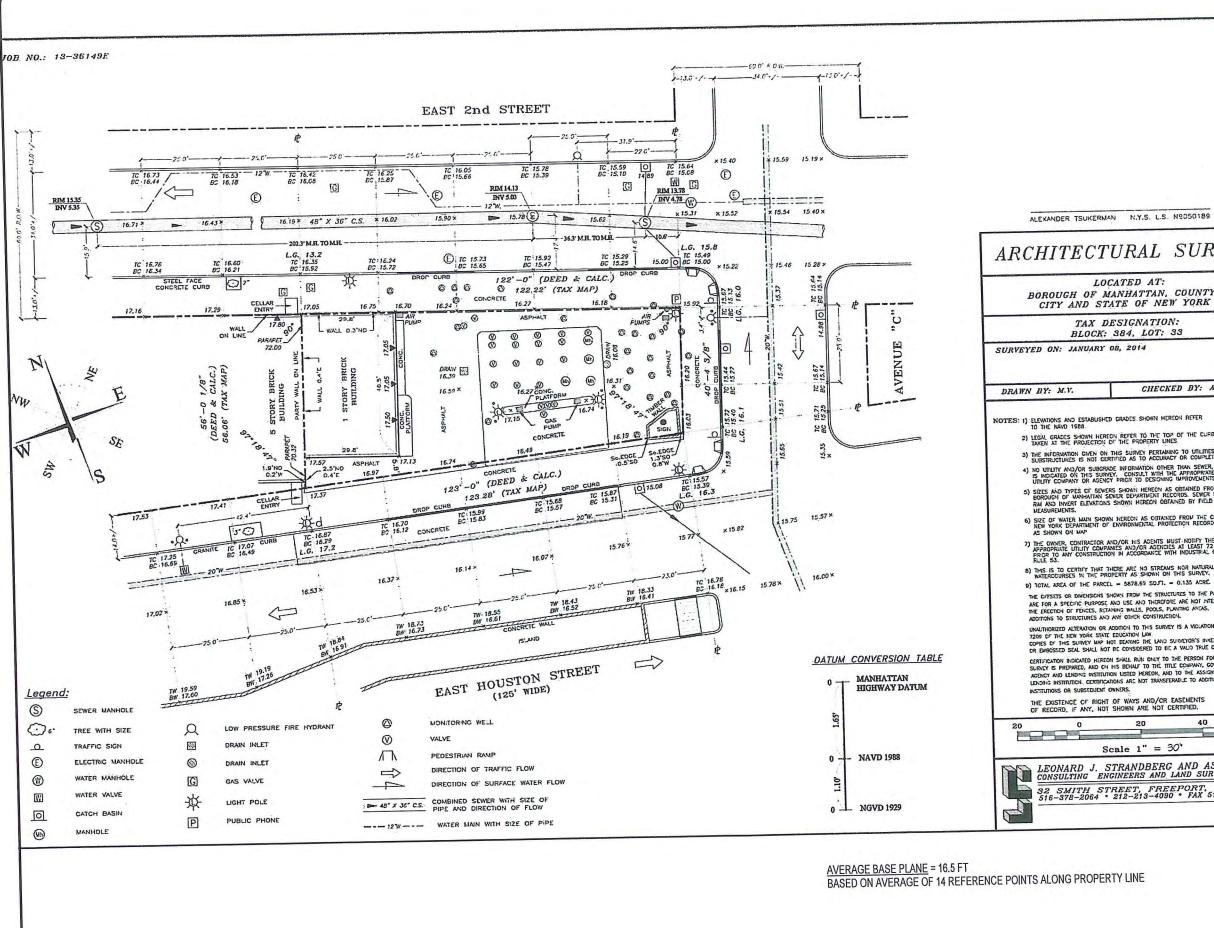
PROJECT NO.

MGT
DWN. BY:

CHECKED BY:

EX-000 DRAWING NO.

1 of (



2014 JUN -5 A II: 11 CAL. NO.

ALEXANDER TSUKERMAN N.Y.S. L.S. Nº050189

#### ARCHITECTURAL SURVEY

LOCATED AT: BOROUGH OF MANHATTAN, COUNTY, CITY AND STATE OF NEW YORK

> TAX DESIGNATION: BLOCK: 384, LOT: 33

SURVEYED ON: JANUARY 08, 2014

CHECKED BY: A.T.

NOTES: 1) ELEVATIONS AND ESTABLISHED GRADES SHOWN HEREON REFER TO THE NAVD 1988.

- 5) SIZES AND TYPES OF SEWERS SHOWN HEREON AS OBTAINED FROM THE BORDUCH OF WANHATTAN SEWER DEPARTMENT RECORDS, SEWER WANHOLE RAI AND INVEST ELEVATIONS SHOWN HEREON OBTAINED BY FIELD UFESUIPELITIES

- THE EXPERTS OR DIVERSIONS SHOWN FROM THE STRUCTURES TO THE PROPERTY LAILS ARE FOR A SPECIAL PURPOSE AND LISE AND THEREFORE ARE NOT INTENDED TO GUIDE RECEIVED OF PIDECES, RETAINING BALLS, POOLS, PLANNING ASSAS, ADDITIONS TO STRUCTURES AND ANY OTHER CONSTRUCTION.

UNILTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7200 OF THE ININ YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAN HOTE EXENCE THE UNID SURVEYOR'S INVESTIGATION OF CONSIDERED TO BE A VALID TRUE COPY.

CENTIFICATION INDICATED MERCON SHALL RUIS ONLY TO THE PERSON FOR WHOM THE SURVEY IS PROPARED, AND ON HIS BURLEY TO THE TITLE COMPANY, COMERNMENTAL ACCION AND LEADING INSTITUTION, UNITED MERCOL, AND TO THE ASSIGNESS OF THE INDICATE SHALL PROPAGATION, CENTIFICATIONS ARE NOT TRANSFERRED. TO ADOPTIONAL

THE EXISTENCE OF RIGHT OF WAYS AND/OR EASEMENTS OF RECORD, IF ANY, NOT SHOWN ARE NOT CERTIFIED.

Scale 1" = 30"

LEONARD J. STRANDBERG AND ASSOCIATES CONSULTING ENGINEERS AND LAND SURVEYORS, P.C. 32 SMITH STREET, FREEPORT, NY 1152: 516-378-2064 ° 212-213-4090 ° FAX 516-378-664

BASED ON AVERAGE OF 14 REFERENCE POINTS ALONG PROPERTY LINE

NO.

REVISION

DATE

ARCHITECT:

Rotwein+Blake 973 . 740 . 9755 • Fax: 973 . 740 . 9766 E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> **BSA APPLICATION** EXISTING SURVEY

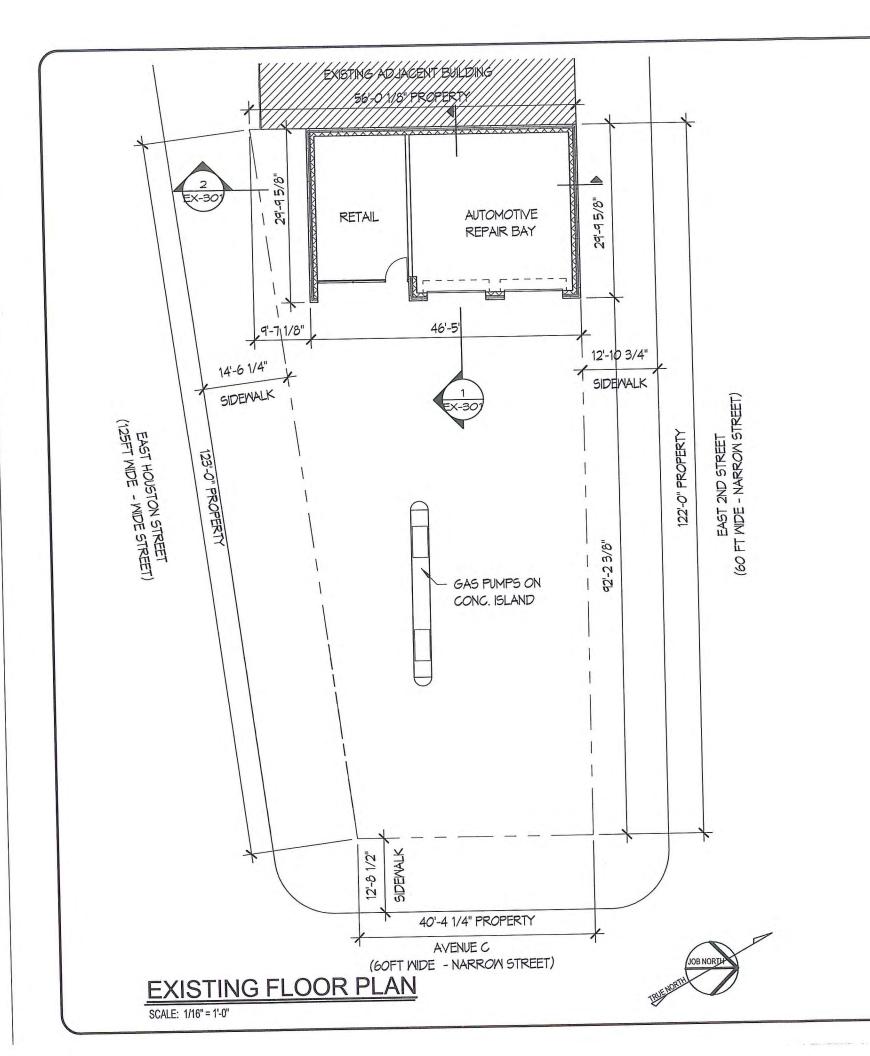


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201305 PROJECT NO. MGT

LMB CHECKED BY:

EX-001 DRAWING NO.



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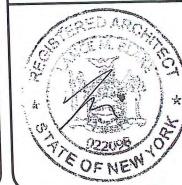
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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
EXISTING
FLOOR PLAN



05/28/14 DATE: 201305 PROJECT NO.

MGT DWN. BY:

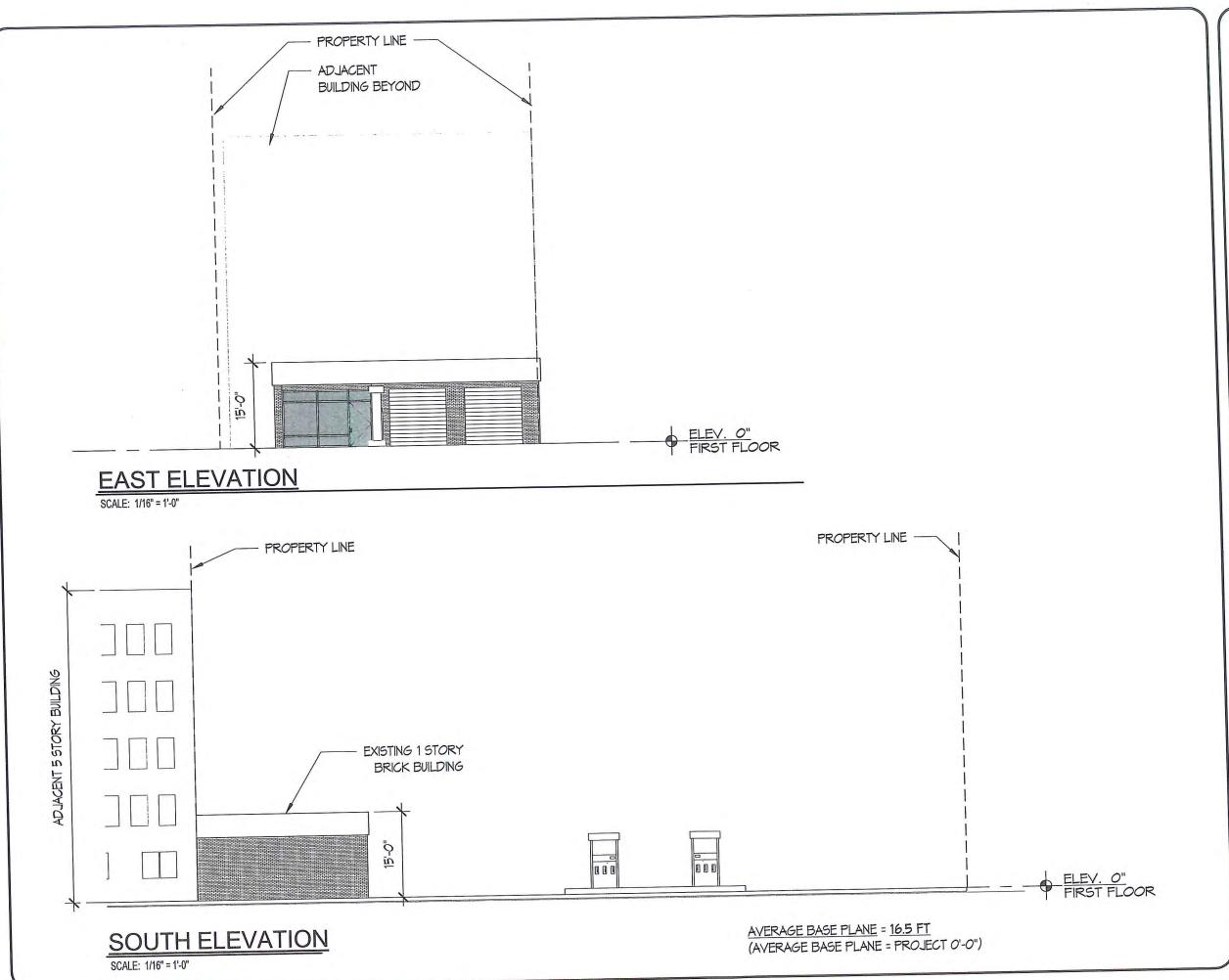
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EX-101 DRAWING NO.

3 of 6

FLOOR AREA SCHEDULE

FLOOR AREA = 1,331 SF



160-14-0

ZON JUN -S A H: 11.

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16 Microlab Road Suite B Livingston, NJ 07039-4502

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

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ELEVATIONS



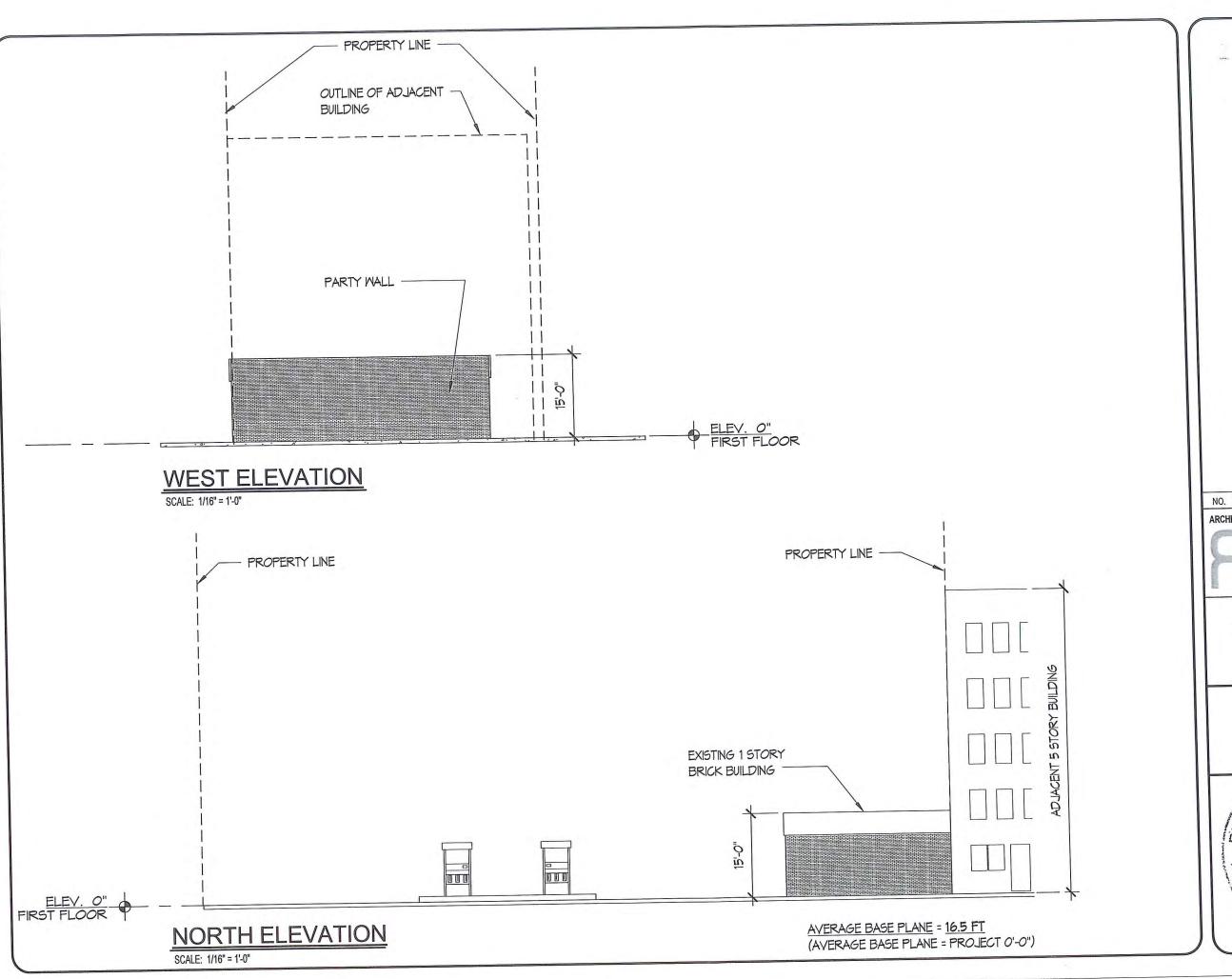
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201305 PROJECT NO. MGT DWN. BY:

LMB CHECKED BY:

EX-201

DRAWING NO.
4 of 6



20H JUH -5 A H: 11 CAL. NO.

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DATE

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

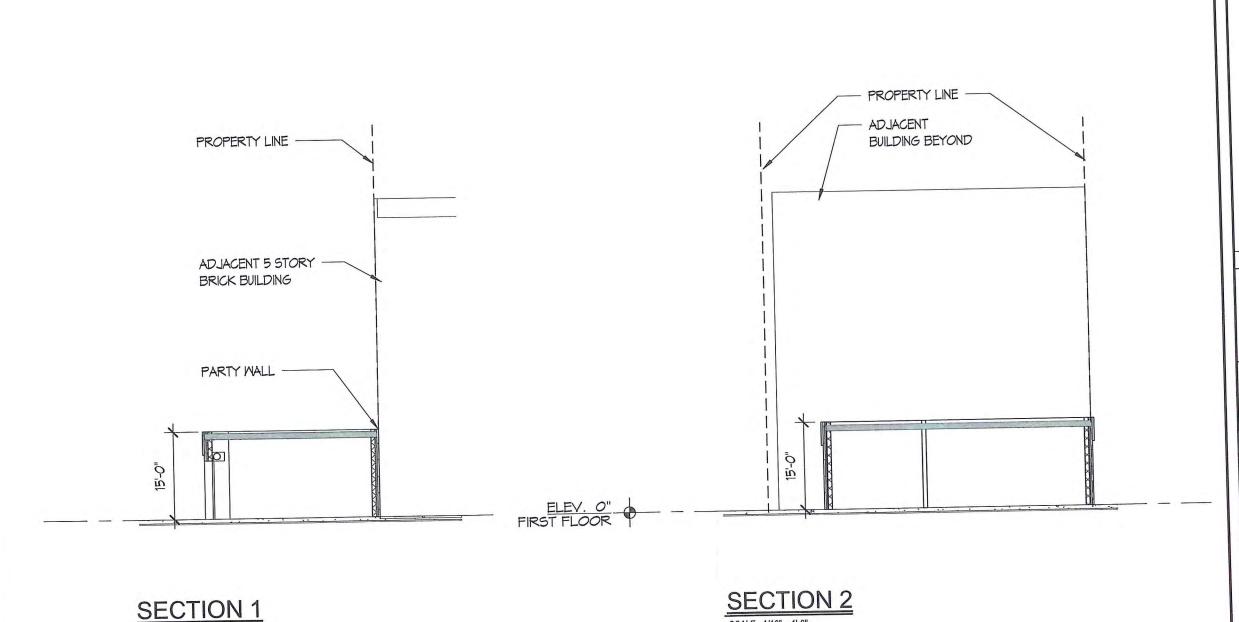
BSA APPLICATION
EXISTING
ELEVATIONS



05/28/14 201305

LMB CHECKED BY:

**EX-202** DRAWING NO.



SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'-0"

125-14-18-

received .... 2010 JUN -5 A N: 11 CAL. NO.

DATE

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PROPOSED RESIDENTIAL DEVELOPMENT

REVISION

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
EXISTING
SECTIONS



05/28/14 DATE:

201305 PROJECT NO. MGT

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EX-301 DRAWING NO.

## PROPOSED RESIDENTIAL DEVELOPMENT

# 11 AVENUE C NEW YORK, N.Y.

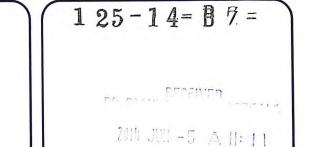
350 EAST HOUSTON, LLC

AS OF RIGHT SCHEME: (F.A.R. = 6.3)



#### **DRAWING INDEX**

AR-000	TITLE SHEET
AR-001	EXISTING SURVEY
AR-002	ZONING COMPARISON
AR-003	ZONING ANALYSIS
AR-004	FLOOR AREA & RESIDENTIAL UNIT SCHEDULES
AR-005	LOT PLAN, ZONING SITE PLAN & ZONING MAP
AR-100	LOT COVERAGE PLANS PLANS
AR-101	CELLAR & FIRST FLOOR PLANS
AR-102	SECOND THRU EIGHTH & NINTH FLOOR PLANS
AR-103	TENTH FLOOR & ROOF PLANS
AR-201	ELEVATIONS
AR-202	ELEVATIONS
AR-203	ELEVATIONS
AR-301	SECTIONS
AR-302	SECTIONS
AR-303	AXON



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NO. REVISION DATE

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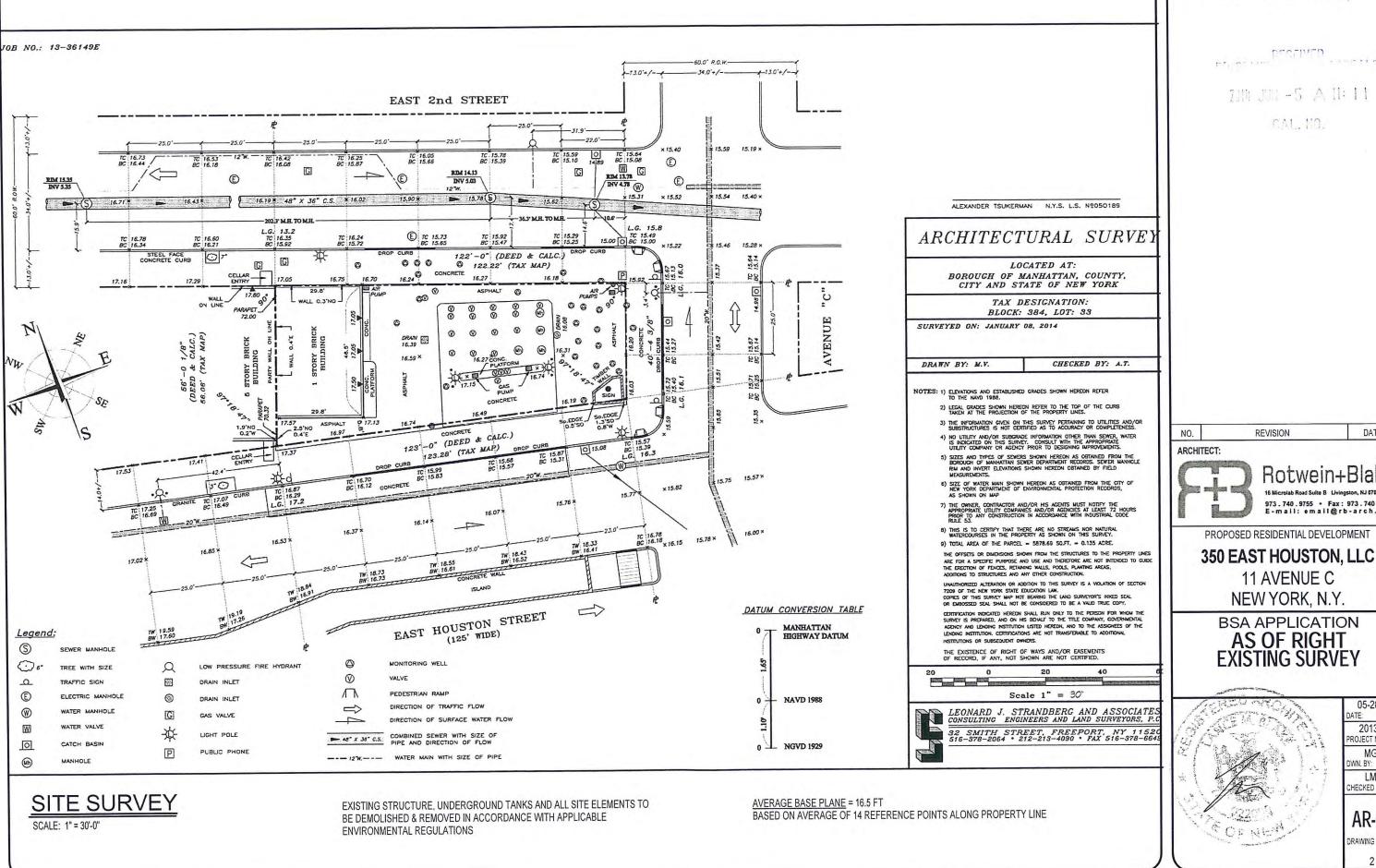
BSA APPLICATION
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TITLE SHEET



05-28-14 DATE: 201305

> MGT DWN, BY: LMB

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11 AVENUE C

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DRAWING NO.

### **ZONING COMPARISON**

ZR REF	ZONING RESOLUTION HEADING	ZR ITEM	ZR DATA	AS-OF-RIGHT SCHEME	TYPICAL SCHEME	PROPOSED SCHEME
	ZONING MAP		12C	12C	12C	12C
	ZONING DISTRICT		R8A	R8A	R8A	R8A
	COMMUNITY DISTRICT		3	3	3	3
	INCLUSIONARY HOUSING		YES	YES	YES	YES
	SITE AREA IRREGULAR 40.3X1233X56X123 100' CORNER + 22' THROUGH LOT WIDTH		5874.3 SF	5874.3 SF	5800 SF	5874.3 SF
2-00	USES		USE GROUPS 1-4 PERMITTED AS-OF-RIGHT	USE GROUPS 2	USE GROUPS 2	USE GROUPS 2 & 6 (NONCOMPLIANT
23-010	QUALITY HOUSING	CHAPTER 28	REQUIRED	PROVIDED	PROVIDED	PROVIDED
23-951	MAXIMUM FLOOR AREA RATIO	RESIDENTIAL				
,		BASE FAR (INCLUSIONARY HOUSING)	5.4 FAR	NA	NA	NA
		MAX. FAR WITH BONUS (INCLUSIONARY HOUSING)	7.2 FAR	6.3 FAR	7.2 FAR	7.2 FAR (MIXED USE - SEE BELOW)
		MAX. RESIDENTIAL ZONING FAR				6.43 FAR
		MAX. RESIDENTIAL ZONING FLOOR AREA	5,874.3 SF X 7.2 = 42,295 SF	37,296.5 SF	41,760 SF (41,760 SF PERMITTED)	37,743 SF
		MAX. COMMERCIAL ZONING FAR	NOT PERMITTED	0 FAR	0 FAR	0.77 FAR (NONCOMPLIANT)
		MAX. COMMERCIAL ZONING FLOOR AREA	NOT PERMITTED	0 SF	0 SF	4,550 SF (NONCOMPLIANT)
		ANLA				MIXED USE 7.2 FAR (42,293 SF) (NONCOMPLIANT)
28-31	QUALITY HOUSING: MINUMUM INTERIOR OR	2.8% OF TOTAL FLOOR AREA	42,295 SF X 2.8% = 1,184 SF MIN.	37,296 SF X 2.8% = 1,044 SF MIN.	41,760 SF X 2.8% = 1,169 SF MIN.	42,293 SF X 2.8% = 1,184 SF MIN.
	EXTERIOR RECREATION SPACE			1,722 SF ROOF DECK PROVIDED	1200 SF GROUND FLOOR OPEN SPACE PROVIDED	2,812 SF ROOF DECK PROVIDED
23-145	MAXIMUM LOT COVERAGE					A OTO OF (ADDOV) (NONCOMPLIANT)
		CORNER LOT 80%	3,738.4 SF	3,738.4 SF (80%)	4,640 SF	4.673 SF (100%) (NONCOMPLIANT) 1,201 SF (100%) (NONCOMPLIANT)
		THROUGH LOT 70%  MAXIMUM TOTAL LOT COVERAGE	840.0 SF 4,579 SF (78.0 %)	830.7 SF (69.2%) 4,569.1 SF (78.0%)	NA 4,640 SF (80%) (CORNER LOT 80%)	5,874SF (100%) (NONCOMPLIANT)
23-22	DENSITY - MAX DWELLING UNITS	FLR AREA X 740 (FACTOR FROM CHART)	42,292 SF / 740 = 57 UNITS	53 UNITS	51 UNITS (56 PERMITTED)	46 UNITS
23-620 (23-633)	INITIAL SET BACKS: 23-633 PROVIDES ZERO SETBACK UP TO 85' MAX BASE HEIGHT					
	(HOUSTON @ 125' IS A "WIDE STREET")	WIDE STREET	10' SETBACK	10' SETBACK	10' SETBACK	10' SETBACK
	(AVE C & 2ND STREETS @ 60' ARE "NARROW STREETS")	NARROW STREET	15' SETBACK	15' SETBACK	15' SETBACK	15' SETBACK
23-621C	PERMITTED OBSTRUCTIONS	DORMERS 60% OF STREET WALL AT MAX BASE HEIGHT & REDUCES AT A RATE OF 1% OF STREET WALL	NONE	DORMERS	DORMERS	DORMERS
23-633 (a)(3)	MINIMUM BASE HEIGHT		60'	80'	80'	85'
& CHART	MAXIMUM BASE HEIGHT		85'	80'	80'	85'
	MAXIMUM BUILDING HEIGHT		120'	100'	120'	105'
				45 1BEDROOM 8 2BEDROOM	37 1BEDROOM 14 2BEDROOM	30 1BEDROOM 16 2BEDROOM

 45
 1BEDROOM
 37
 1BEDROOM
 30
 1BEDROOM

 8
 2BEDROOM
 14
 2BEDROOM
 16
 2BEDROOM

 53
 TOTAL APARTMENTS
 46
 TOTAL APARTMENTS

 10 STORIES
 12 STORIES
 10 STORIES

4,547 SF COMMERCIAL = POSSIBLE (6) 1BEDROOM APTS.

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21/1 312 -5 A H: 11 CAL. 110.

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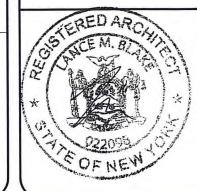
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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
AS OF RIGHT
ZONING COMPARISON



05-28-14 DATE: 201305 PROJECT NO.

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AR-002

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3 of 16

### **ZONING ANALYSIS**

0.000	Zoning District R8A No Commercial Overlay	23-542	Short Demension Block, R8: front lot line of a zoning lot coincides with all or part of a street line measuring less than 230 feet in length between two intersecting streets, no rear yard shall be required within 100 feet of such front lot line.	23-843	R8: In all districts, as indicated, the width of an outer court recess shall be at least twice the depth of the recess, except that such width need not exceed 60 feet
	Community District 3			23-851	Inner Courts - minimal dimensions: R8: the area of an inner court shall not be
	Within Inclusionary Housing Area	23-62	Height & Setback Obstructions		less than 1,200 square feet, and the minimum dimension of such inner court shall
			a) Awnings and sun control 2'-6" max projection above first story level When		not be less than 30 feet.
	Site Area =5874.3		located on the first story above a setback, awnings and other sun control devices		852: inner court recess similar to 843
	Irregular Site 40.3 x 123.3 x 56 x 123 100' Corner Lot + 22' Through Lot		shall be limited to a projection of 50 percent of the depth of the required setback, and shall be limited, in total, to 50 percent of the width of the building wall from	00.004	Min distance between Legally required Windows, walls lot lines at an inner court
	100 Cornel Lot + 22 Through Lot		which they project	23-861	R8: 30ft to any wall, rear lotline or side lot line or verical projection thereof
	Average Base Plane = 16.5ft (Average Base Plane = Project 0'-0")		g) Elevator or stair bulkheads (including shafts; and vestibules not larger than 60		Ro. 301t to any wall, real lottine of side lot line of vertical projection thereof
	Avoidge base i lane i locott ( ) thorage base i lane i i specia i ,		square feet in area providing access to a roof	23-863	Min distance between legal req windows and walls on same lot (Inner Court). 30ft
22-9	Uses: Use Groups 1-4		<ol> <li>shall be located not less than 10 feet from the street wallexcept that such obstructions need not be set back more than 25 feet from a narrow street line or more than 20 feet from a wide street line. However, such restrictions on location</li> </ol>	20 000	min or 1/2 the height above window sill to max of 60ft
	Nameplates or Idendification signs: b)multiple dwellingsNon-illuminatedone identification sign, with an area not exceeding 12 square feet and indicating only the name of the permitted use,the name or address of the building or name of managementheight of letters on any side of such awnings or canopies shall not		shall not apply to elevator or stair bulkheads (including shafts or vestibules), provided the aggregate width of street walls of such bulkheads within 10 feet of a street wall, facing each street frontage, times their average height, in feet, does not exceed an area equal to four times the width, in feet, of the street wall of the	23-892	R8A and QH planting at ground or raised in raised planters open space between street line and streetwalls
	exceed 12 inches		building facing such frontage	28	Quality Housing
00.10	Co. I'm Harris and (Co. Charles 39)		Other obstructions: balconies, columns, chimnies, decks, Screened mechanical equip, flagpoles, parapets, roof thickness, skylights, solar energy sys,vegetsated		
23-10	Quality Housing required (See Chapter 28)		equip, flagpoles, parapets, roof trickfless, skylights, solar energy sys, vegetsated roofs,		The Quality Housing Program consists of four components: neighborhood impact,
23-144	Maximum Floor Area Ratio (Inclusionary Housing see 23-952)		10010,		building interior, recreation space and planting, and safety and security
23-144	Waximum Floor Area Ratio (Inclusionary Flousing See 23-302)	*****	Projections over Streetline: Architectural details, Marquee, balconies, overhangs,	00.04	A dwelling unit shall have an area of at least 400 square feet of floor area
23-952	Maximum Floor Area Ratio (FAR)		awnings see Chapter 32 of Building Code: Encroachments into Right of Way	28-21	A dwelling unit shall have an area of at least 400 square leet of floor area
20-902	Maximum Floor Area Ratio (FAR)		3202.2.1.2 Architectural Details ground to 10ft 4" projectionAbove 10ft	28-23	A refuse disposal room of not less than twelve square feet with no dimension less
	Lot Area = 5874sf		10"projections above 10ft may be allowed more subject to approval of Commissioner DOT	20-23	than three feet shall be provided on each story that has entrances to dwelling units
			3202.2.1.4 Marquees: 10ft aboveproject no closer than 2ft from curb3ft max		Twelve square feet of such refuse storage room shall be excluded from the
	Inclusionary Housing: 5.4 minimum to 7.2 maximum		thickness, supported from buildingon Multiple dwellings		definition of floor area.
	Zoning Area = 5874sf x 5.4 = 31,719.6 sf		3202.2.1.3 Balconies: 10 ft above 22" projection beyond streetline	20.20	to the second se
	Zoning Area = 5874sf x 7.2 = 42,292.8 sf		3202.2.3.1 Store awnings: 8ft above 8ft max projection	28-24	Laundry Facility: provide a laundry room with one washing machine per 20 units and 1 dryer per 40 units (Provided: one washer and dryer in each unit)
			above building elements to be removable, permission revocableall subject to		and raise per 40 and
23-145	Maximum Lot Coverage  Corner Lot: 80% 4,704sf x .8 = 3,763sf		applicable Iregulations including DOB & DOT	28-25	Daylight in Corridors: Fifty percent of the square footage of a corridor may be
	Through Lot: 70% 1170sf x .7 = 819sf	22.22.	e transfer and the second		excluded from the definition of floor area if a window with a clear, non-tinted,
	Total = 4582sf	23-621	Permitted obstructions c) R8A & QH: Dormers 60% of street wall and reduces at a rate of 1% of street wall		glazed area of at least 20 square feet is provided in such corridor, provided that such window:
	Quality Housing: 6.02 FAR				(a) shall be directly visible from 50 percent of the corridor or from the#vertical
	Zoning Area = 5874sf x 6.02 = 35,361.5 sf	23-633	a3) Along Wide street and within 50ft of wide street intersection		circulation core. This standard shall be achieved when a visually unobstructed
			a3i) the street wall shall extend along the entire street frontage of a zoning lot		straight line can
23-22 & 23	Maximum number of Dwelling Units		a3ii) at least 70 percent of the aggregate width of street walls shall be located		be drawn between such corridor, elevator or stairwell, and the window; and
	R8A: factor of 740		within eight feet of the street line and extend to at least the minimum base height specified in the table in this Section or the height of the building, whichever is less.		(b) is located at least 20 feet from a wall or a side or rear lot line measured in a
	Max. Residential FAR / Factor		The remaining 30 percent of the aggregate width of street walls may be recessed		horizontal plane and perpendicular to the rough window opening.
	42,292.8 sf / 740 = 57.1		beyond eight feet of the street line provided any such recesses deeper than 10 feet		
23-462c	Side Yards:		along a wide street or 15 feet along a narrow street are located within an outer court; and	28-31	Recreation Space:
23-4620	None required in R8 zones. Any Open Area along a side yard shall be min. 8ft		court, and		Minimum Required Recreation Space as a percentage of the residential floor area
	wide and extend lenght of Side Lot Line		a3iii) No street wall location provisions shall apply along any narrow street beyond	00.00	R8: 2.8  a) All recreation space shall be accessible to the residents
			50 feet of their intersection with a wide street	28-32	b) The minimum dimension of any recreation space shall be 15 feet. The minimum
23-47	Rear Yards:				size of any outdoor recreation space shall be 225 square feet, and the minimum
	Minimum 30ft		b)Setbacks required above maximum base height		size of any indoor
			Wide Street = 10ft		recreation space shall be 300 square feet
23-471	R8: for #interior# or through lot portions of corner lots, and for zoning lots bounded by two or more streets that are neither corner lots nor through lots, the portion of a		Narrow Street= 15ft		<ul> <li>c) Outdoor open to the sky</li> <li>d) Indoorat least one exterior wall with windows that measure not less than 9.5</li> </ul>
	side lot line beyond 100 feet of the street line that it intersects shall be considered		a) Maximum Building Height R8A		percent of the total floor space of the room
	a rear lot line and the following rules shall apply along such rear lot line		<ul> <li>c) Maximum Building Height R8A</li> <li>60ft Min Base Height 85ft Max Base Height 120 Max. Building Height</li> </ul>		A CAMPAGE STORY STANDARD AND THE STANDARD STANDARD
	<ul> <li>a) In all districts, a rear yard with a minimum depth of 30 feet shall be provided where such rear lot line coincides with a rear lot line of an adjoining zoning lot</li> </ul>		SOIL MINE DESCRIPTION SOIL MAN DESCRIPTION 120 MENT DESCRIPTION	28-33	Planting Area see 23-892
		23-663b	no portion of building above maximum base shall be nearer than 10ft to Rear Yard		
	<ul><li>b) NA</li><li>c) In R6 through R10 Districts, no rear yard shall be required where such rear lot</li></ul>	2557	Line.	28-41	Density per Corridor: If the number of dwelling units served by a vertical
	line coincides with a side lot line of an adjoining zoning lot.				circulation core and corridor on each story does not exceed(10) 50 percent of the square feet of the corridor serving such dwelling units
	lot line# beyond 100 feet of the #street	23-692	Height Limitation for narrow building R8:buildings with street walls less than 45 feet in width shall not be permitted above the following heights		and different and different and
	line# that it intersects shall be considered a #rear lot line#		c) For comer lots bounded by at least one wide street, a height equal to the width	28-51	Off street Parkingrequired by QH but in 25-242 waived for R8 districts with
23-531	a) R8 zones: no rear yard regulations shall apply to any through lots that extend		of the widest street on which it fronts, or 100 feet, whichever is less	-3.5	zoning lot 10,00sf or less
23-331	less than 110 feet in maximum depth from street to street.		6) Quality Housing buildings shall be exempt from the provisions of this Section		
	<ul> <li>Quality Housing buildings, no rear yard regulations shall apply to any zoning lot that includes a through lot portion that is contiguous on one side to two corner lot portions and such zoning lot occupies the entire block frontage of a street</li> </ul>		provided the width of the street wall at the maximum base height specified in the applicable table in Section 23-633 or 35-24 is at least 45 feet. For such buildings, a street wall that is less than 45 feet wide may be constructed above such base		
23-532	Rear yard Equivilants: Do not apply to through lots less than 110 in depth	23-80	Court Regulations, Open area requirements		
		23-841	R8: In all districts indicated, if an outer court is less than 30 feet wide, the width		
			of such outer court shall be at least one and one third the depth of such outer court		
		23-842	R8: In all districts, as indicated, if an outer court is 30 feet or more in width, the width of such outer court must be at least equal to the depth of such outer court, except that such width need not exceed 60 feet		

50-14-00

7/14 JUL -5 A 11: 11

NO.

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

**BSA APPLICATION** AS OF RIGHT ZONING ANALYSIS



05-28-14 201305

PROJECT NO. MGT WN. BY:

LMB CHECKED BY:

**AR-003** DRAWING NO.

#### FLOOR AREA SCHEDULE

FLOOR LEVEL	GROSS FLOOR AREA	<b>DEDUCTIONS</b>	<b>ZONING FLOOR AREA</b>	REMARKS
CELLAR	4,561 SF	- 4,561 SF	0 SF	NOT ZONING AREA
FIRST FLOOR	4,561 SF	- 551.5 SF	4,009.5 SF	
SECOND FLOOR	4,561 SF	- 422.5 SF	4,138.5 SF	
THIRD FLOOR	4,561 SF	- 422.5 SF	4,138.5 SF	
FOURTH FLOOR	4,561 SF	- 422.5 SF	4,138.5 SF	
FIFTH FLOOR	4,561 SF	- 422.5 SF	4,138.5 SF	
SIXTH FLOOR	4,561 SF	- 422.5 SF	4,138.5 SF	
SEVENTH FLOOR	4,561 SF	- 422.5 SF	4,138.5 SF	
EIGHT FLOOR	4,561 SF	- 422.5 SF	4,138.5 SF	
9TH FLOOR	2,579 SF	- 339.0 SF	2,240.0 SF	
10TH FLOOR	2,203 SF	- 125.5 SF	2,077.5 SF	
TOTALS	45,831.0	- 8,534.5	37,296.5 SF	

45,831.0 TOTALS

GROSS FLOOR AREA 45,831.0 SF **DEDUCTIONS** 8,534.5 SF

TOTAL ZONING FLOOR AREA 37,296.5 SF

37,296.5 SF / 5,874 SF = 6.3 FAR

37,296.5 SF 0 SF

RESIDENTIAL ZONING FLOOR AREA COMMERCIAL ZONING FLOOR AREA

QUALITY HOUSING DEDUCTIONS: 50% OF CORRIDOR - DENSITY PER CORRIDOR (FLOORS 1-10)

50% OF CORRIDOR - DAYLIGHT IN CORRIDORS (FLOOR 9)
12 SF REFUSE STORAGE & DISPOSAL ROOMS (FLOORS 1-10)

MECHANICAL DEDUCTIONS: SHAFTS, PLUMBING CHASES & TRASH CHUTE 5% (2290 SF)

#### RESIDENTIAL UNIT SCHEDULE

UNIT TYPE	Area	UNIT TYPE	Area	UNIT TYPE	Area
ST FLOOR		4TH FLOOR		7TH FLOOR	
1 BEDROOM	418 SF	1 BEDROOM	595 SF	1 BEDROOM	595 SF
1 BEDROOM	416 SF	1 BEDROOM	580 SF	1 BEDROOM	580 SF
1 BEDROOM	664 SF	1 BEDROOM	665 SF	1 BEDROOM	665 SF
1 BEDROOM	580 SF	1 BEDROOM	553 SF	1 BEDROOM	553 SF
1 BEDROOM	583 SF	1 BEDROOM	544 SF	1 BEDROOM	544 SF
2 BEDROOM	994 SF	2 BEDROOM	993 SF	2 BEDROOM	993 SF
	3654 SF		3929 SF		3929 SF
2ND FLOOR		5TH FLOOR		8TH FLOOR	
1 BEDROOM	595 SF	1 BEDROOM	595 SF	1 BEDROOM	595 SF
1 BEDROOM	580 SF	1 BEDROOM	580 SF	1 BEDROOM	580 SF
1 BEDROOM	665 SF	1 BEDROOM	665 SF	1 BEDROOM	665 SF
1 BEDROOM	553 SF	1 BEDROOM	553 SF	1 BEDROOM	553 SF
1 BEDROOM	544 SF	1 BEDROOM	544 SF	1 BEDROOM	544 SF
2 BEDROOM	993 SF	2 BEDROOM	993 SF	2 BEDROOM	993 SF
	3929 SF		3929 SF		3929 SF
3RD FLOOR		6TH FLOOR		9TH FLOOR	
1 BEDROOM	595 SF	1 BEDROOM	595 SF	1 BEDROOM	684 SF
1 BEDROOM	580 SF	1 BEDROOM	580 SF	1 BEDROOM	736 SF
1 BEDROOM	665 SF	1 BEDROOM	665 SF	1 BEDROOM	700 SF
1 BEDROOM	553 SF	1 BEDROOM	553 SF		2120 SF
1 BEDROOM	544 SF	1 BEDROOM	544 SF	10TH FLOOR	
2 BEDROOM	993 SF	2 BEDROOM	993 SF	1 BEDROOM	1047 SF
	3929 SF		3929 SF	1 BEDROOM	677 SF
					1724 SF
45 1 BED	ROOM			Grand total	35003 SF
8 2 BED	ROOM				

7111 July -5 A 11: 11 CAL. NO.

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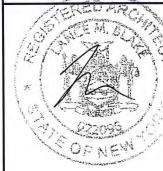


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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

**BSA APPLICATION** AS OF RIGHT FLOOR AREA & RESIDENTIAL **UNIT SCHEDULES** 

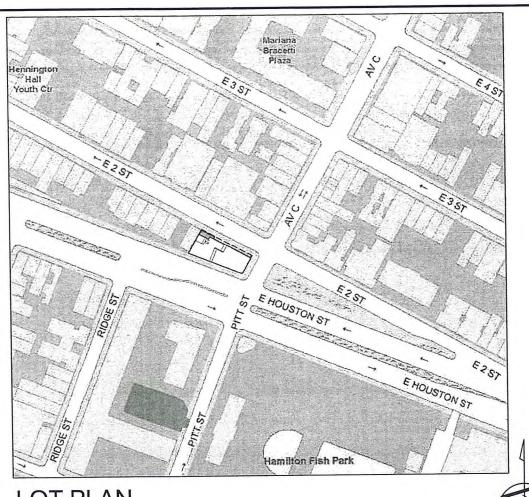


201305 ROJECT NO.

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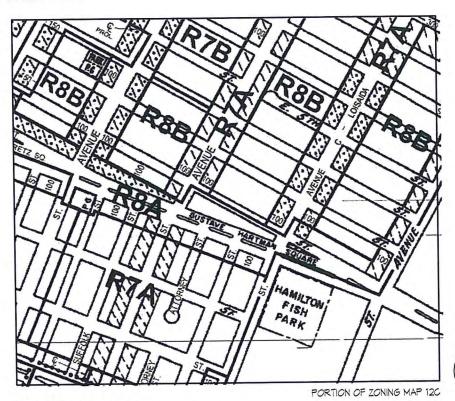
AR-004

DRAWING NO. 5 of 16



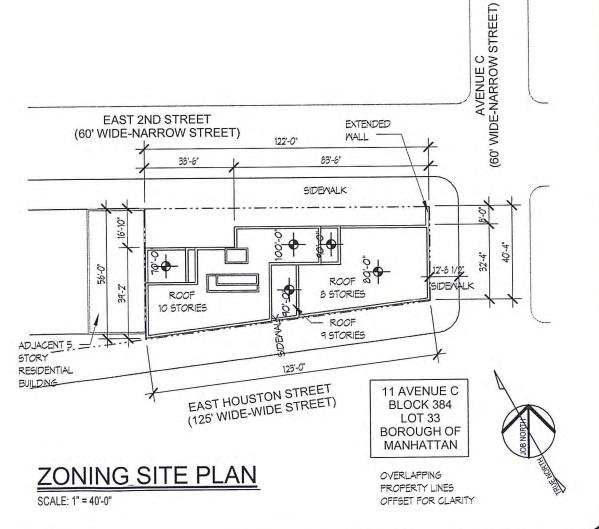
#### **LOT PLAN**

SCALE: 1" = 200'-0"



**ZONING MAP** 

SCALE: 1" = 600'-0"



#### 125-14-B7,-

2014 JUL -5 A II: 11 CAL NO.

NO. REVISION

ARCHITECT:

Rotwein+Blake

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
AS OF RIGHT
LOT PLAN, ZONING SITE
PLAN & ZONING MAP



05-28-14 DATE: 201305 PROJECT NO.

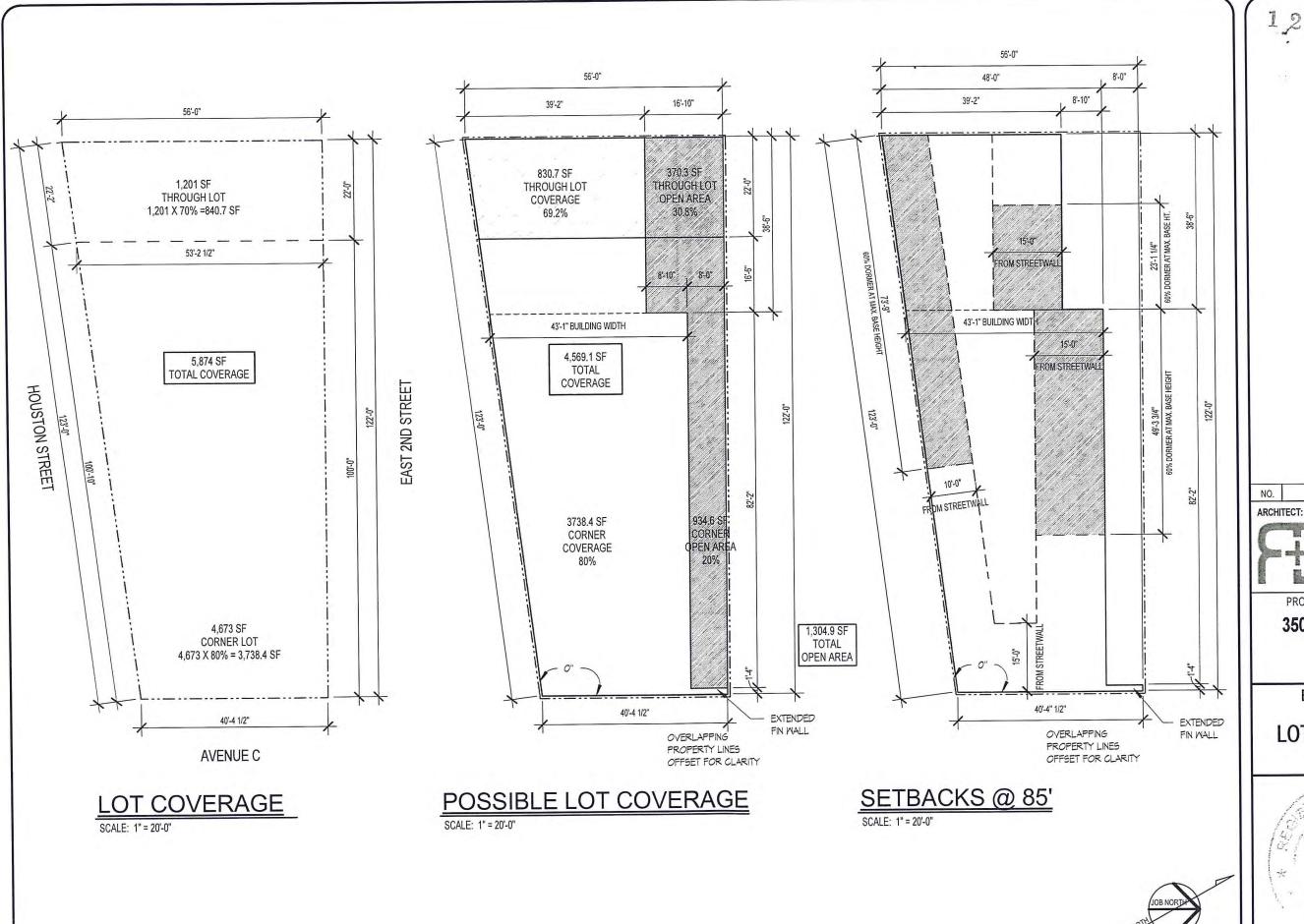
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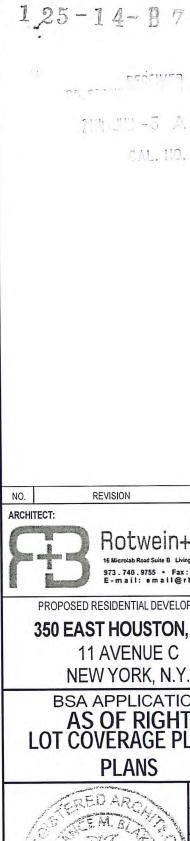
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AR-005

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6 of 16





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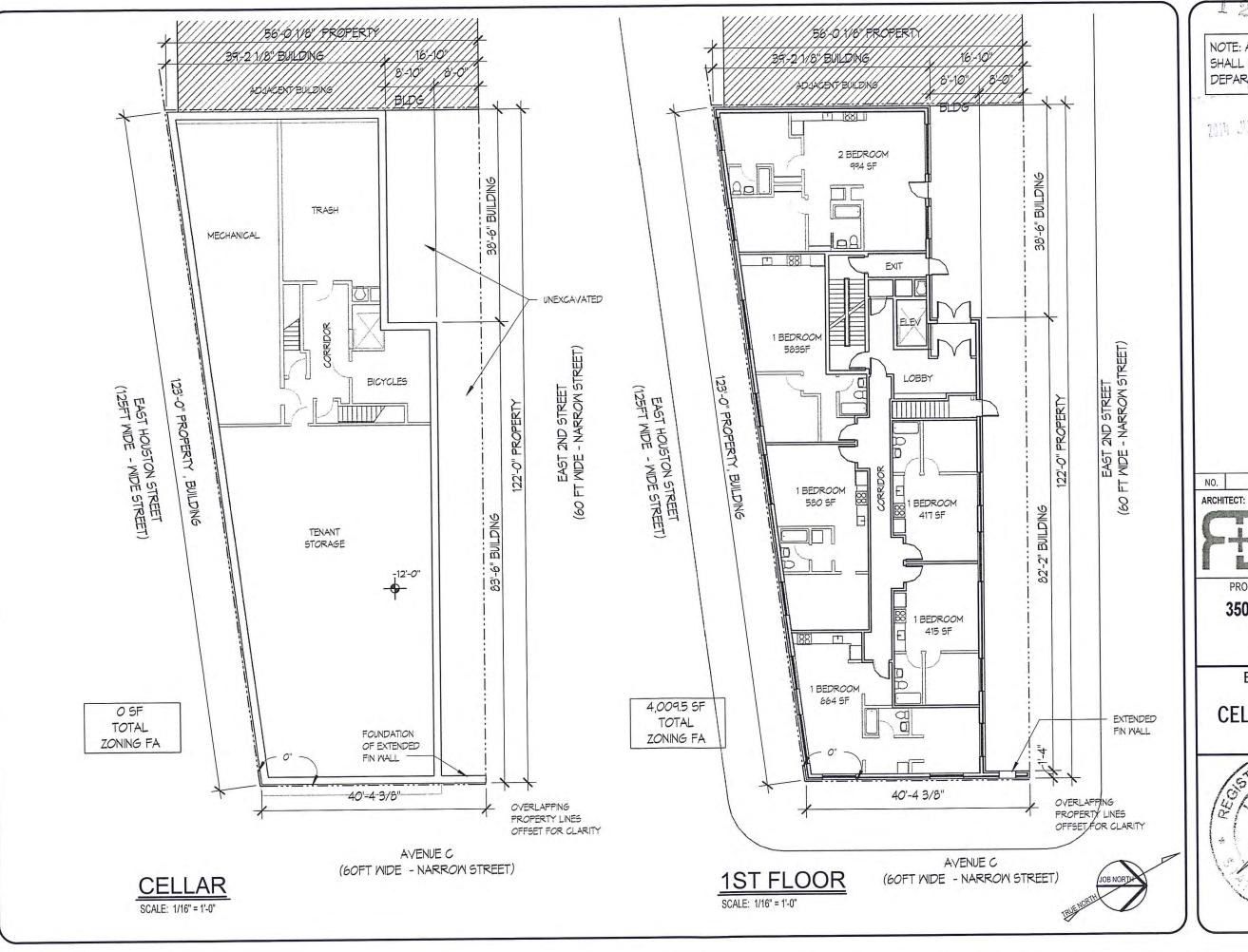
05-28-14

DATE

201305 PROJECT NO. MGT

LMB CHECKED BY:

**AR-100** DRAWING NO.



125-14-17-

NOTE: ALL PARTITIONS AND EXITS
SHALL BE AS APPROVED BY
DEPARTMENT: OF BUILDINGS

2011 JUN -5 A 11:11

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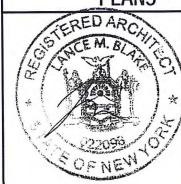
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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
AS OF RIGHT
CELLAR & FIRST FLOOR
PLANS

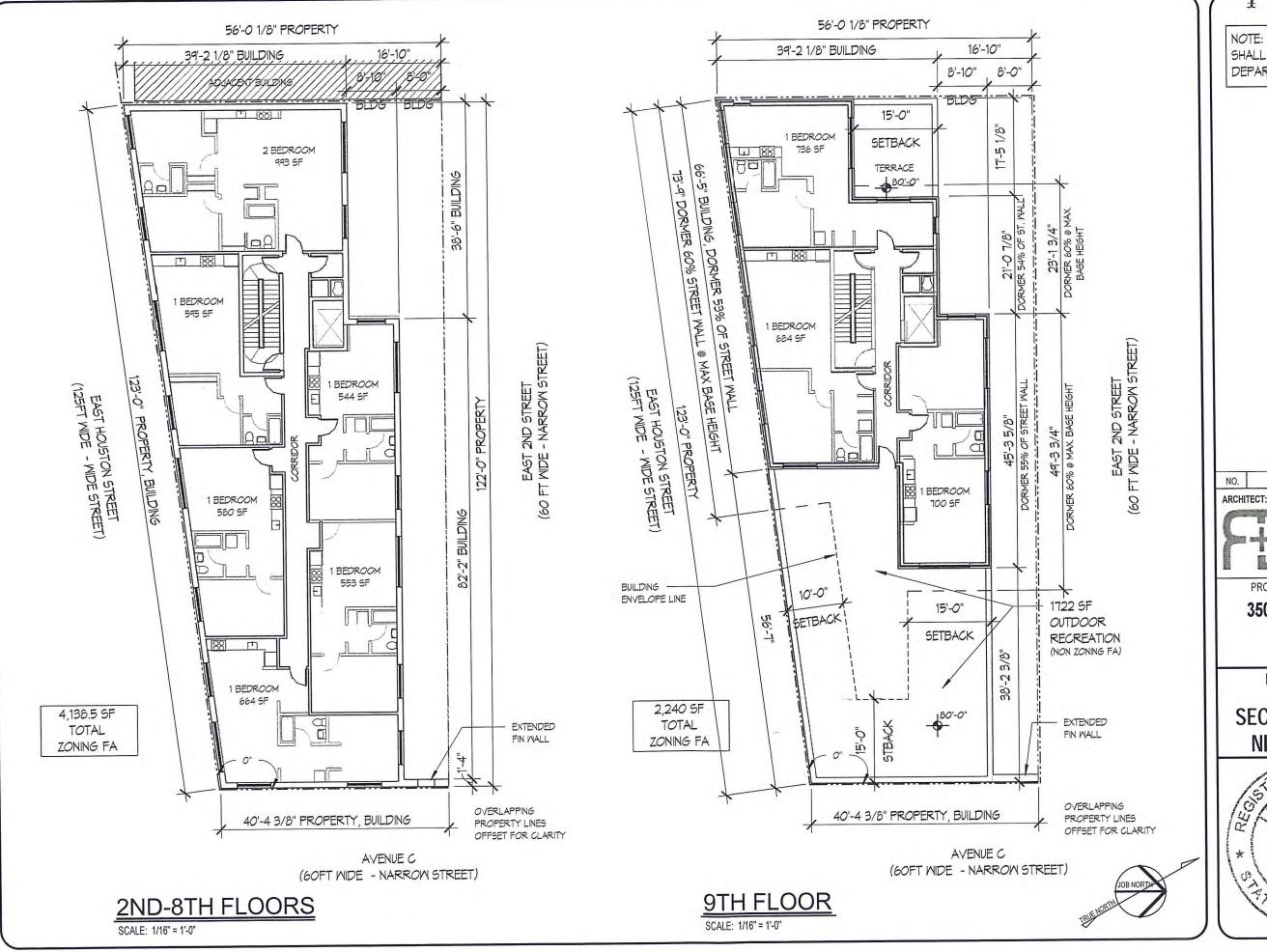


05-28-14 DATE: 201305 PROJECT NO.

MGT OWN, BY: LMB CHECKED BY:

AR-101

DRAWING NO.



125-14-B7.-

NOTE: ALL PARTITIONS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

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DATE

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

**BSA APPLICATION** AS OF RIGHT SECOND THRU EIGHTH & **NINTH FLOOR PLANS** 

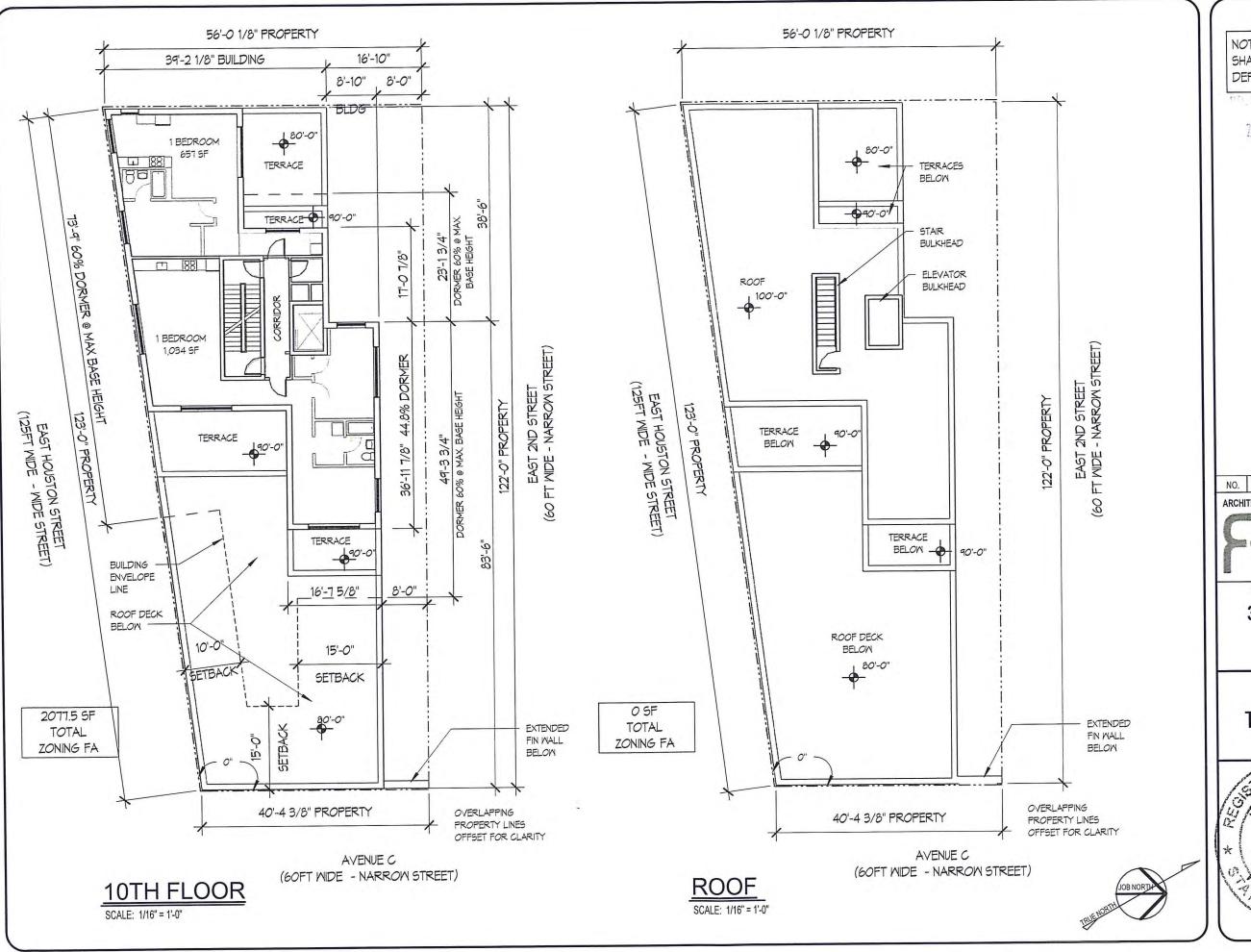


05-28-14 201305

MGT LMB HECKED BY:

**AR-102** 

DRAWING NO. 9 of 16



125-14-87-

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

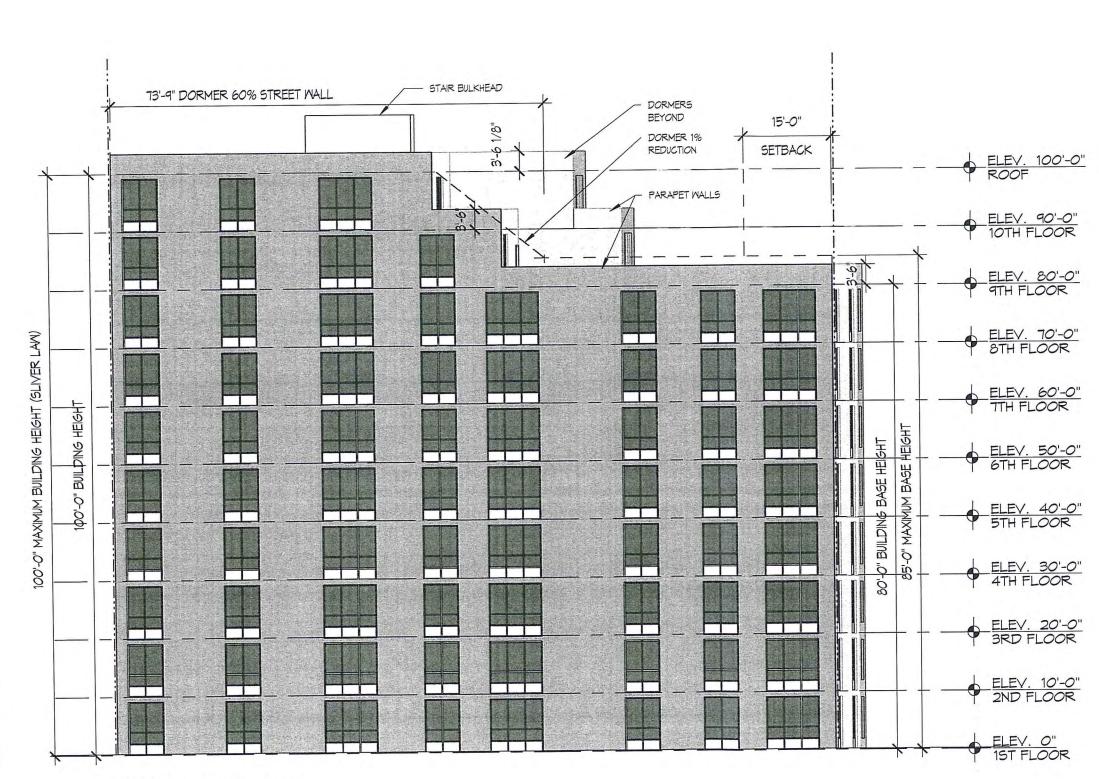
**BSA APPLICATION** AS OF RIGHT TENTH FLOOR & ROOF **PLANS** 



05-28-14 201305 PROJECT NO. MGT

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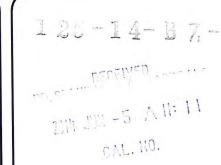
**AR-103** DRAWING NO.



AVERAGE BASE PLANE = 16.5 FT
(AVERAGE BASE PLANE = PROJECT O FT)

#### **SOUTH ELEVATION**

SCALE: 1/16" = 1'-0"



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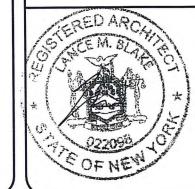
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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> AS OF RIGHT ELEVATIONS



05-28-14 DATE:

DATE

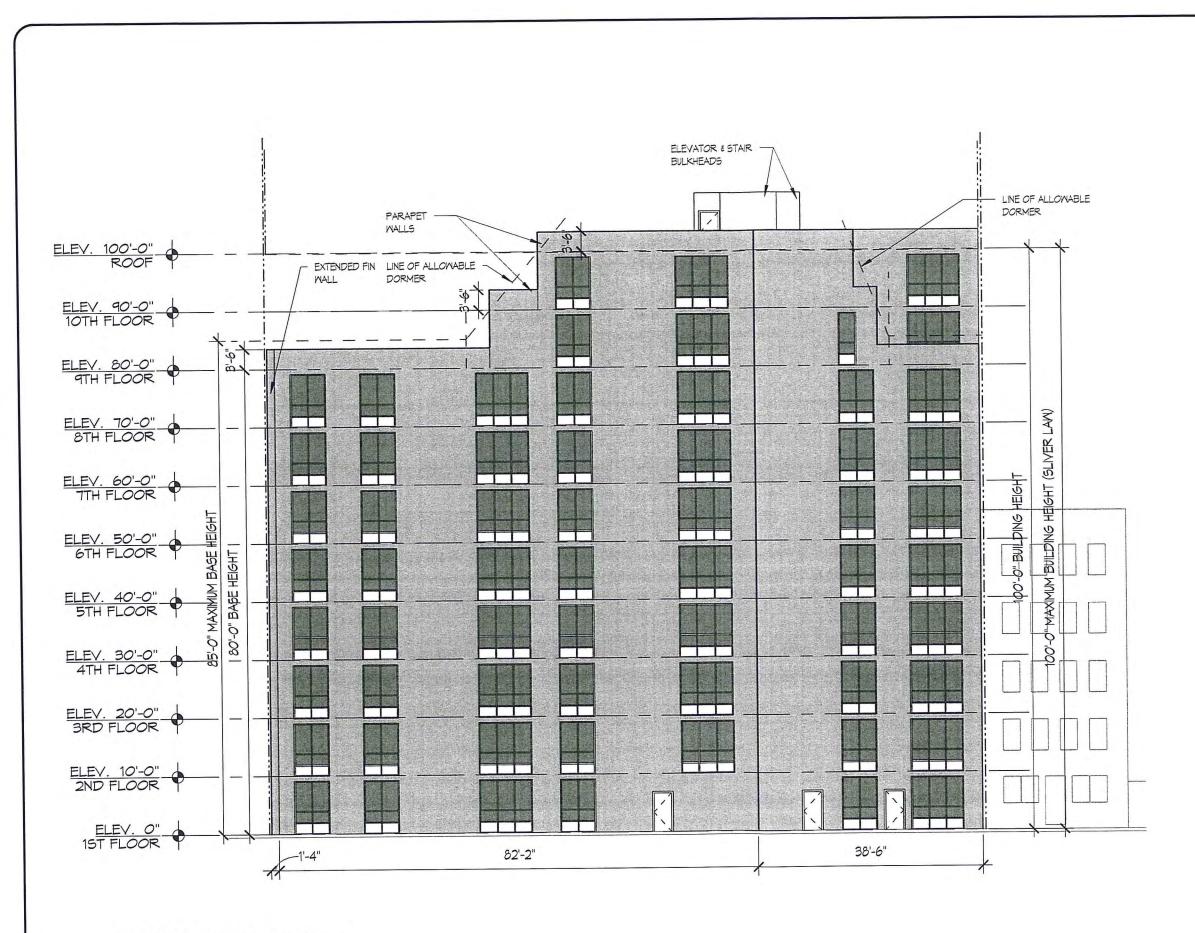
201305 PROJECT NO. MGT

DWN. BY:

LMB
CHECKED BY:

AR-201

DRAWING NO.



NORTH ELEVATION

SCALE: 1/16" = 1'-0"

1 25 - 1 4 - 8 Z = 100 -

NO.

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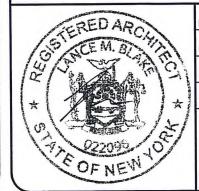
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E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> AS OF RIGHT ELEVATIONS



05-28-14 DATE: 201305

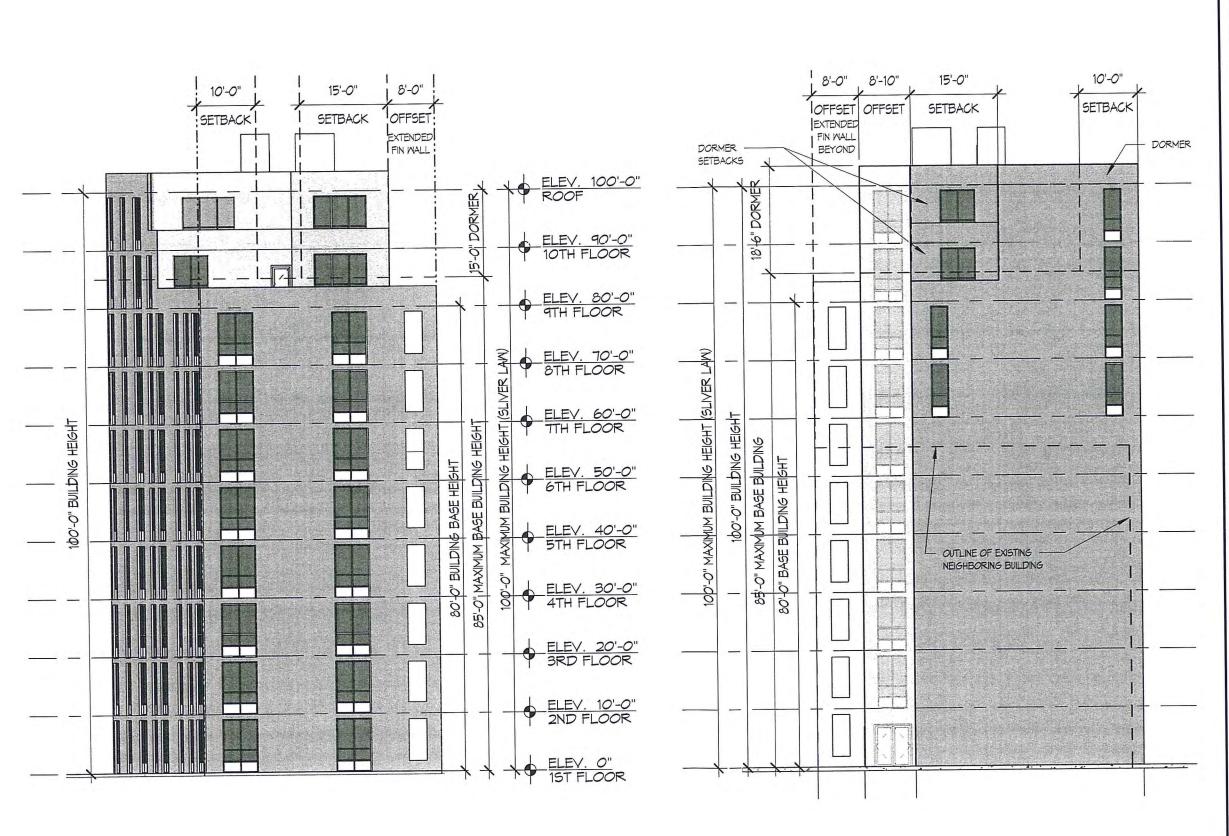
DATE

PROJECT NO.

MGT
DWN. BY:

LMB CHECKED BY:

> AR-202 DRAWING NO.



**EAST ELEVATION** 

SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'-0"

WEST ELEVATION

NO.

REVISION

DATE

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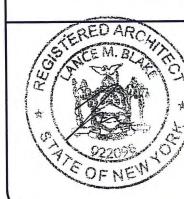
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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> AS OF RIGHT ELEVATIONS



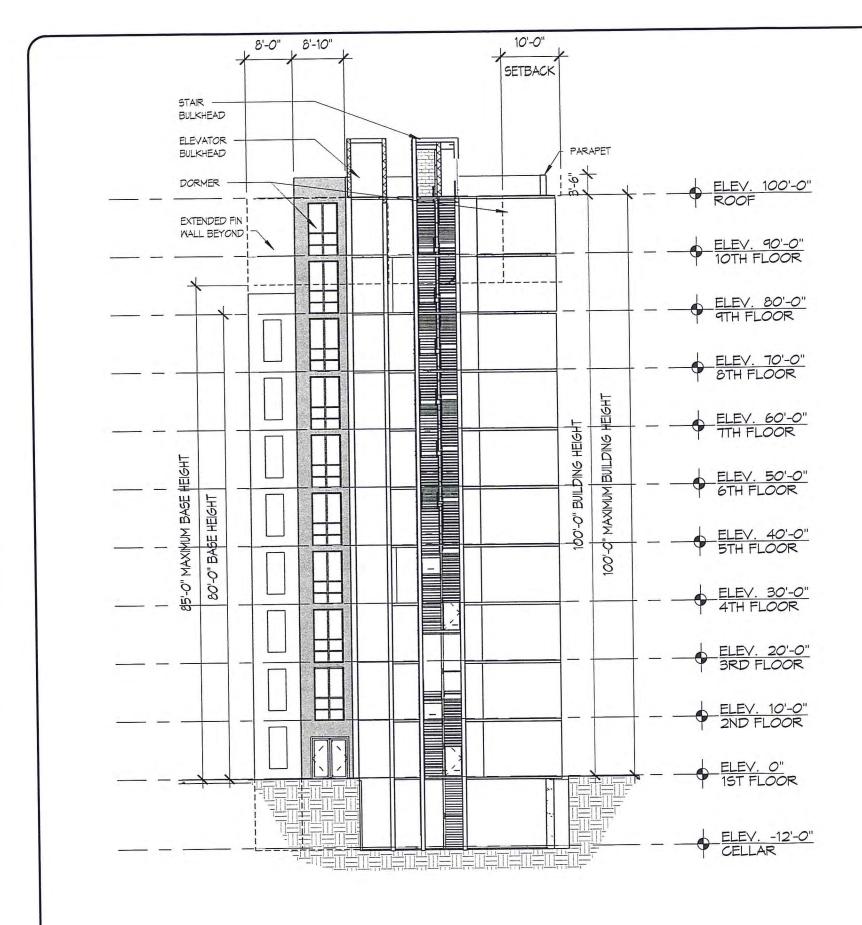
05-28-14 DATE:

201305 PROJECT NO. MGT

DWN, BY:
LMB
CHECKED BY:

AR-203

DRAWING NO.



SECTION
SCALE: 1/16" = 1'-0"

125-14-B7-

ZON JUN -5 A.N: I T CAL. MO.

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

AS OF RIGHT SECTIONS



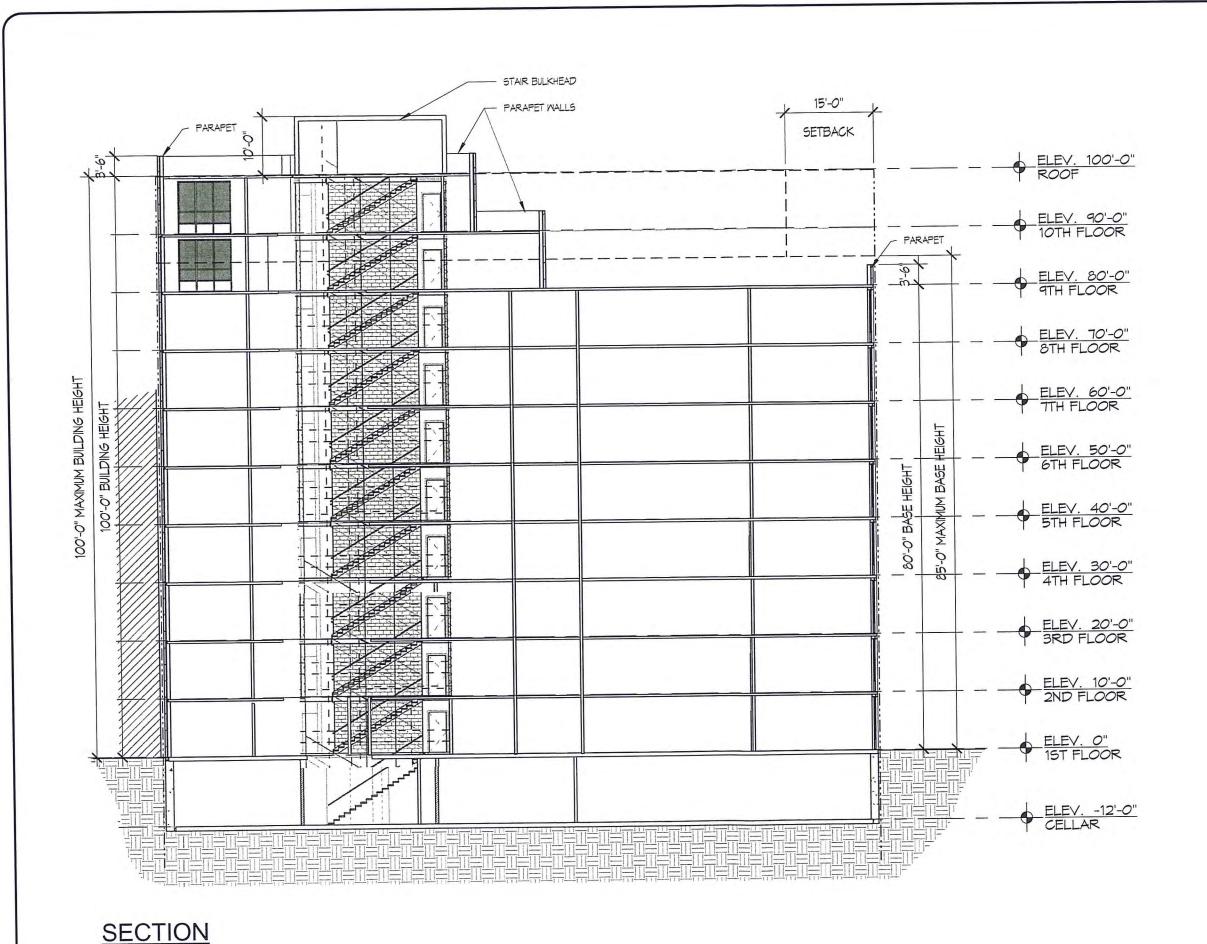
05-28-14 DATE: 201305

201305 PROJECT NO.

DWN, BY:

LMB
CHECKED BY:

AR-301 DRAWING NO.



SCALE: 1/16" = 1'-0"

125-14-B7-

2014 JUN -5 A. H: 1.1 CAL. 110.

NO.

REVISION

DATE

ARCHITECT:

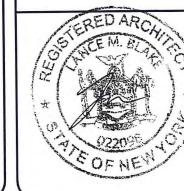


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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
AS OF RIGHT
SECTIONS



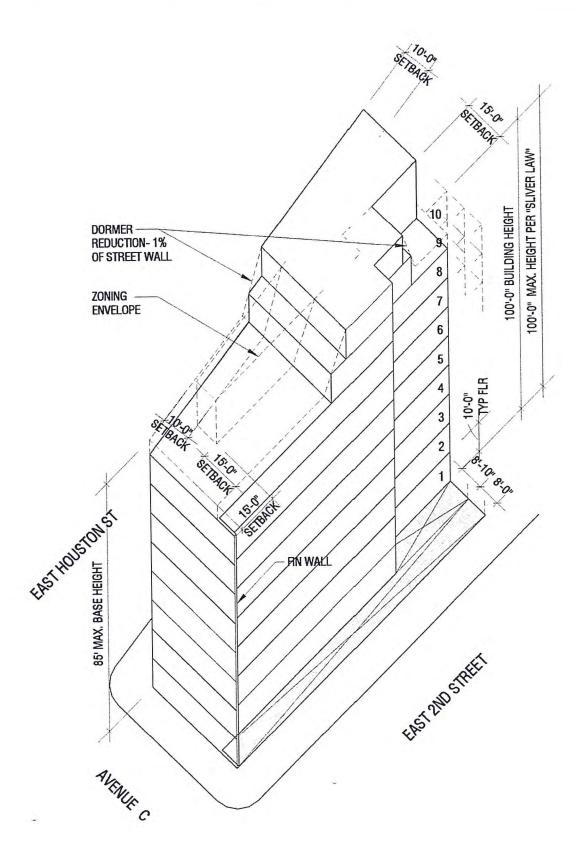
05-28-14 DATE:

201305 PROJECT NO.

DWN. BY:

LMB
CHECKED BY:

AR-302 DRAWING NO.



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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

AS OF RIGHT AXON



05-28-14 DATE:

201305 PROJECT NO. MGT

DWN, BY:

LMB
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AR-303

DRAWING NO.

**AXONOMETRIC** 

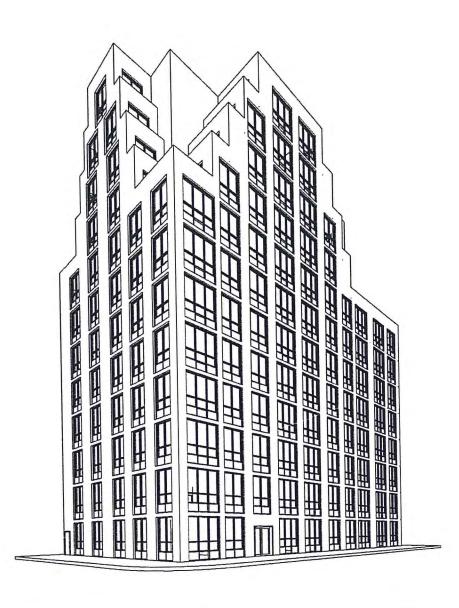
SCALE: 1/32" = 1'-0"

# PROPOSED RESIDENTIAL DEVELOPMENT

# 11 AVENUE C NEW YORK, N.Y.

350 EAST HOUSTON, LLC

TYPICAL DESIGN SCHEME: 58'-0" X 100'-0" CORNER LOT (F.A.R. = 7.2)



#### DRAWING INDEX

TYP-000 TITLE SHEET

TYP-001 ZONING COMPARISON

TYP-002 ZONING ANALYSIS

TYP-003 FLOOR AREA & RESIDENTIAL UNIT

SCHEDULES

TYP-100 LOT COVERAGE & SETBACKS

TYP-101 CELLAR & FIRST FLOOR PLANS

TYP-102 SECOND THRU EIGHTH & NINTH

FLOOR PLANS

TYP-103 TENTH & ELEVENTH FLOOR

**PLANS** 

TYP-104 TWELFTH FLOOR & ROOF PLANS

TYP-201 ELEVATIONS

TYP-202 ELEVATIONS

TYP-203 ELEVATIONS

TYP-301 SECTIONS

TYP-302 SECTIONS

TYP-303 AXON

125-14-B7-

2018 JUL -5 A 11: 11

CAL. NO.

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C

BSA APPLICATION **TYPICAL** TITLE SHEET

NEW YORK, N.Y.



**TYP-000** DRAWING NO.

## **ZONING COMPARISON**

ZR REF	ZONING RESOLUTION HEADING	ZR ITEM	ZR DATA	AS-OF-RIGHT SCHEME	TYPICAL SCHEME	PROPOSED SCHEME
	ZONING MAP ZONING DISTRICT		12C R8A	12C R8A	12C R8A	12C R8A 3
	COMMUNITY DISTRICT INCLUSIONARY HOUSING		3 YES	3 YES	3 YES	YES
	SITE AREA IRREGULAR 40.3X1233X56X123 100' CORNER + 22' THROUGH LOT WIDTH		5874.3 SF	5874.3 SF	5800 SF	5874.3 SF
2-00	USES		USE GROUPS 1-4 PERMITTED AS-OF-RIGHT	USE GROUPS 2	USE GROUPS 2	USE GROUPS 2 & 6 (NONCOMPLIANT)
23-010	QUALITY HOUSING	CHAPTER 28	REQUIRED	PROVIDED	PROVIDED	PROVIDED
23-951	MAXIMUM FLOOR AREA RATIO	RESIDENTIAL BASE FAR (INCLUSIONARY HOUSING) MAX. FAR WITH BONUS (INCLUSIONARY HOUSING)	5.4 FAR 7.2 FAR	NA 6.3 FAR	NA 7.2 FAR	NA 7.2 FAR (MIXED USE - SEE BELOW)
		MAX. RESIDENTIAL ZONING FAR MAX. RESIDENTIAL ZONING FLOOR AREA	5,874.3 SF X 7.2 = 42,295 SF	37,296.5 SF	41,760 SF (41,760 SF PERMITTED)	6.43 FAR 37,743 SF
		MAX. COMMERCIAL ZONING FAR MAX. COMMERCIAL ZONING FLOOR AREA	NOT PERMITTED NOT PERMITTED	0 FAR 0 SF	0 FAR 0 SF	0.77 FAR (NONCOMPLIANT) 4,550 SF (NONCOMPLIANT) MIXED USE 7.2 FAR (42,293 SF) (NONCOMPLIANT)
20 24	QUALITY HOUSING: MINUMUM INTERIOR OR	2.8% OF TOTAL FLOOR AREA	42,295 SF X 2.8% = 1,184 SF MIN.	37,296 SF X 2.8% = 1,044 SF MIN.	41,760 SF X 2.8% = 1,169 SF MIN.	42,293 SF X 2.8% = 1,184 SF MIN.
28-31	EXTERIOR RECREATION SPACE			1,722 SF ROOF DECK PROVIDED	1200 SF GROUND FLOOR OPEN SPACE PROVIDED	2,812 SF ROOF DECK PROVIDED
23-145	MAXIMUM LOT COVERAGE	CORNER LOT 80% THROUGH LOT 70% MAXIMUM TOTAL LOT COVERAGE	3,738.4 SF 840.0 SF 4,579 SF (78.0 %)	3,738.4 SF (80%) 830.7 SF (69.2%) 4,569.1 SF (78.0%)	4,640 SF NA 4,640 SF (80%) (CORNER LOT 80%)	4.673 SF (100%) (NONCOMPLIANT) 1,201 SF (100%) (NONCOMPLIANT) 5,874SF (100%) (NONCOMPLIANT)
23-22	DENSITY - MAX DWELLING UNITS	FLR AREA X 740 (FACTOR FROM CHART	) 42,292 SF / 740 = 57 UNITS	53 UNITS	51 UNITS (56 PERMITTED)	46 UNITS
23-620 (23-633)	INITIAL SET BACKS: 23-633 PROVIDES ZERO SETBACK UP TO 85' MAX BASE HEIGHT		*			
	(HOUSTON @ 125' IS A "WIDE STREET") (AVE C & 2ND STREETS @ 60'	WIDE STREET	10' SETBACK	10' SETBACK	10' SETBACK 15' SETBACK	10' SETBACK 15' SETBACK
	ARE "NARROW STREETS")	NARROW STREET  DORMERS 60% OF STREET WALL AT	15' SETBACK NONE	15' SETBACK DORMERS	DORMERS	DORMERS
23-621C	PERMITTED OBSTRUCTIONS	MAX BASE HEIGHT & REDUCES AT A RATE OF 1% OF STREET WALL	HONE			
00.000 (-)(0)	MINIMUM BASE HEIGHT		60'	80'	80'	85'
23-633 (a)(3) & CHART	MAXIMUM BASE HEIGHT MAXIMUM BUILDING HEIGHT		85' 120'	80' 100'	80' 120'	85' 105'
				45 1BEDROOM 8 2BEDROOM 53 TOTAL APARTMENTS	37 1BEDROOM  14 2BEDROOM  51 TOTAL APARTMENTS	30 1BEDROOM 16 2BEDROOM 46 TOTAL APARTMENTS

10 STORIES

125-14-B7-

25% JUN -5 A II: 11 CAL. NO.

NO. REVISION

ARCHITECT:

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DATE

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
ZONING COMPARISON



10 STORIES

4,547 SF COMMERCIAL = POSSIBLE (6) 1BEDROOM APTS.

05-28-14 DATE:

201305 PROJECT NO. MGT DWN. BY:

LMB CHECKED BY:

TYP-001

DRAWING NO. 2 of 15

### **ZONING ANALYSIS**

		Zoning District R8A No Commercial Overlay	23-542	Short Demension Block, R8: front lot line of a zoning lot coincides with all or part of a street line measuring less than 230 feet in length between two intersecting streets, no rear yard shall be required within 100 feet of such front lot line.	23-843	R8: In all districts, as indicated, the width of an outer court recess shall be at least twice the depth of the recess, except that such width need not exceed 60 fee
		Community District 3		streets, no rear yard shall be required within 100 lest of sauth north services	23-851	Inner Courts - minimal dimensions: R8: the area of an inner court shall not be
		Within Inclusionary Housing Area	23-62	Height & Setback Obstructions		less than 1,200 square feet, and the minimum dimension of such inner court shall
			25-02	a) Awaings and sun control 2'-6" max projection above first story level When		not be less than 30 feet.
		Site Area =5800 sf		legated on the first story above a sethack awnings and other sun control devices		852: inner court recess similar to 843
		100'-0" X 58'-0" Corner Lot		shall be limited to a projection of 50 percent of the depth of the required setback, and shall be limited, in total, to 50 percent of the width of the building wall from	23-861	Min distance between Legally required Windows, walls lot lines at an inner court
				which they project	25-001	R8: 30ft to any wall, rear lotline or side lot line or verical projection thereof
		Average Base Plane = 0'-0"		g) Elevator or stair bulkheads (including shafts; and vestibules not larger than 60		
		Average base i land to t		square feet in area providing access to a roof	23-863	Min distance between legal req windows and walls on same lot (Inner Court). 30ft
	22-9	Uses: Use Groups 1-4		<ol> <li>shall be located not less than 10 feet from the street wallexcept that such obstructions need not be set back more than 25 feet from a narrow street line or more than 20 feet from a wide street line. However, such restrictions on location</li> </ol>		min or 1/2 the height above window sill to max of 60ft
		Nameplates or Idendification signs: b)multiple dwellingsNon-illuminatedone identification sign, with an area not exceeding 12 square feet and indicating only the name of the permitted use, the name or address of the building or name of managementheight of letters on any side of such awnings or canopies shall not		shall not apply to elevator or stair bulkheads (including shafts or vestibules), provided the aggregate width of street walls of such bulkheads within 10 feet of a street wall, facing each street frontage, times their average height, in feet, does not exceed an area equal to four times the width, in feet, of the street wall of the	23-892	R8A and QH planting at ground or raised in raised planters open space between street line and streetwalls
		exceed 12 inches		building facing such frontage	28	Quality Housing
		1 (Co. Charter 20)		Other obstructions: balconies, columns, chimnies, decks, Screened mechanical equip, flagpoles, parapets, roof thickness, skylights, solar energy sys,vegetsated		
	23-10	Quality Housing required (See Chapter 28)		roofs,		The Quality Housing Program consists of four components: neighborhood impact, building interior, recreation space and planting, and safety and security
	23-144	Maximum Floor Area Ratio (Inclusionary Housing see 23-952)				building interior, restriction epicor and promise,
		Maximum Floor Area Ratio (FAR)	******	Projections over Streetline: Architectural details, Marquee, balconies, overhangs, awnings see Chapter 32 of Building Code: Encroachments into Right of Way	28-21	A dwelling unit shall have an area of at least 400 square feet of floor area
	23-952	Maximum Floor Area Ratio (FAR)		3202.2.1.2 Architectural Details ground to 10ft 4" projectionAbove 10ft 10"projections above 10ft may be allowed more subject to approval of	28-23	A refuse disposal room of not less than twelve square feet with no dimension less
		Lot Area = 5800sf		Commissioner DOT		than three feet shall be provided on each story that has entrances to dwelling unit Twelve square feet of such refuse storage room shall beexcluded from the
		and the first contribution and the property of the contribution of		3202 2 1 4 Marquees: 10ft aboveproject no closer than 2ft from curb3ft max		definition of floor area.
		Inclusionary Housing: 5.4 minimum to 7.2 maximum		thickness, supported from buildingon Multiple dwellings		
		Zoning Area = 5800 sf x 5.4 = 31,320 sf Zoning Area = 5800 sf x 7.2 = 41,760 sf		3202.2.1.3 Balconies: 10 ft above 22" projection beyond streetline	28-24	Laundry Facility: provide a laundry room with one washing machine per 20 units
		Zoning Area = 3600 St X 7.2 = 41,700 St		3202.2.3.1 Store awnings: 8ft above 8ft max projection above building elements to be removable, permission revocableall subject to		and 1 dryer per 40 units (Provided: one washer and dryer in each unit)
	23-145	Maximum Lot Coverage		applicable Iregulations including DOB & DOT	00.05	Daylight in Corridors: Fifty percent of the square footage of a corridor may be
		Corner Lot: 80% 5800 sf x .8 = 4,640 sf			28-25	excluded from the definition of floor area if a window with a clear, non-tinted,
			23-621	Permitted obstructions c) R8A & QH: Dormers 60% of street wall and reduces at a rate of 1% of street wall		glazed area of at least 20 square feet is provided in such corridor, provided that such window:
ı		Quality Housing: 6.02 FAR				(a) shall be directly visible from 50 percent of the corridor or from the#vertical
ı		Zoning Area = 5800sf x 6.02 = 34,916 sf	23-633	a3) Along Wide street and within 50ft of wide street intersection		circulation core. This standard shall be achieved when a visually unobstructed
ı				a3i) the street wall shall extend along the entire street frontage of a zoning lot		straight line can be drawn between such corridor, elevator or stairwell, and
ı	23-22 & 23			a3ii) at least 70 percent of the aggregate width of street walls shall be located within eight feet of the street line and extend to at least the minimum base height		the window; and
١		R8A: factor of 740  Max. Residential FAR / Factor		enseifed in the table in this Section or the height of the building, whichever is less.		(b) is located at least 20 feet from a wall or a side or rear lot line measured in a horizontal plane and perpendicular to the rough window opening.
ı		41.760 sf / 740 = 56.4		The remaining 30 percent of the aggregate width of street walls may be recessed beyond eight feet of the street line provided any such recesses deeper than 10 feet		nonzoniai piane and perpendicular to the rough window opening.
l				along a wide street or 15 feet along a narrow street are located within an outer	28-31	Recreation Space:
١	23-462c	Side Yards:		court; and	20 0 ,	Minimum Required Recreation Space as a percentage of the residential floor are
١		None required in R8 zones. Any Open Area along a side yard shall be min. 8ft		the second secon		R8: 2.8
١		wide and extend lenght of Side Lot Line		a3iii) No street wall location provisions shall apply along any narrow street beyond 50 feet of their intersection with a wide street	28-32	<ul> <li>a) All recreation space shall be accessible to the residents</li> <li>b) The minimum dimension of any recreation space shall be 15 feet. The minimum</li> </ul>
١	23-47	Rear Yards:		50 feet of their interesses. They are a second		size of any outdoor recreation space shall be 225 square feet, and the minimum
١	25-47	Minimum 30ft		b)Setbacks required above maximum base height		size of any indoor
١				Wide Street = 10ft		recreation space shall be 300 square feet
١	23-471	R8: for #interior# or through lot portions of corner lots, and for zoning lots bounded by two or more streets that are neither corner lots nor through lots, the portion of a		Narrow Street= 15ft		<ul> <li>c) Outdoor open to the sky</li> <li>d) Indoorat least one exterior wall with windows that measure not less than 9.5</li> </ul>
١		side lot line beyond 100 feet of the street line that it intersects shall be considered		c) Maximum Building Height R8A		percent of the total floor space of the room
١		a rear lot line and the following rules shall apply along such rear lot line		60ft Min Base Height 85ft Max Base Height 120 Max. Building Height		
١		<ul> <li>a) In all districts, a rear yard with a minimum depth of 30 feet shall be provided where such rear lot line coincides with a rear lot line of an adjoining zoning lot</li> </ul>			28-33	Planting Area see 23-892
١		b) NA	23-663b	no portion of building above maximum base shall be nearer than 10ft to Rear Yard	00.44	Density per Corridor: If the number of dwelling units served by a vertical
١		c) In R6 through R10 Districts, no rear yard shall be required where such rear lot		Line.	28-41	circulation core and corridor on each story does not exceed(10) 50 percent of
١		line coincides with a side lot line of an adjoining zoning lot.	23-692	Height Limitation for narrow building R8:buildings with street walls less		the square feet of the corridor serving such dwelling units
١		lot line# beyond 100 feet of the #street line# that it intersects shall be considered a #rear lot line#	23-092	than 45 feet in width shall not be permitted above the following heights	-0.0 5 a	are an analysis of the OLL beat is 05 040 united for B9 districts with
١				c) For corner lots bounded by at least one wide street, a height equal to the width	28-51	Off street Parkingrequired by QH but in 25-242 waived for R8 districts with zoning lot 10,00sf or less
١	23-531	a) R8 zones: no rear yard regulations shall apply to any through lots that extend		of the widest street on which it fronts, or 100 feet, whichever is less  6) Quality Housing buildings shall be exempt from the provisions of this Section		<del></del>
١		less than 110 feet in maximum depth from street to street.		provided the width of the street wall at the maximum base height specified in the		
		b) Quality Housing buildings, no rear yard regulations shall apply to any zoning lot that includes a through lot portion that is contiguous on one side to two corner lot portions and such zoning lot occupies the entire block frontage of a street		applicable table in Section 23-633 or 35-24 is at least 45 feet. For such buildings, a street wall that is less than 45 feet wide may be constructed above such base		
	22 522	Rear yard Equivilants: Do not apply to through lots less than 110 in depth	23-80	Court Regulations, Open area requirements		
	23-532	real yard Equivilance. Do not uppy, to anough the last the second	00.044	R8: In all districts indicated, if an outer court is less than 30 feet wide, the width		
			23-841	of such outer court shall be at least one and one third the depth of such outer court		
			23-842	R8: In all districts, as indicated, if an outer court is 30 feet or more in width, the width of such outer court must be at least equal to the depth of such outer court, except that such width need not exceed 60 feet		

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2014 JUN -5 A W: 1 1 CAL. NO.

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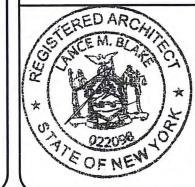


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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

**BSA APPLICATION TYPICAL ZONING ANALYSIS** 



05-28-14 201305 PROJECT NO.

> MGT WN. BY: LMB

CHECKED BY:

TYP-002 DRAWING NO.

#### FLOOR AREA SCHEDULE

FLOOR LEVEL	<b>GROSS FLOOR AREA</b>	<b>DEDUCTIONS</b>	ZONING FLOOR AREA	REMARKS
CELLAR	4,600 SF	-4,600 SF	0 SF	NOT ZONING AREA
FIRST FLOOR	4,600 SF	- 1,062 SF	3,538 SF	
SECOND FLOOR	4,600 SF	- 768 SF	3,832 SF	
THIRD FLOOR	4,600 SF	- 768 SF	3,832 SF	
FOURTH FLOOR	4,600 SF	- 768 SF	3,832 SF	
FIFTH FLOOR	4,600 SF	- 768 SF	3,832 SF	
SIXTH FLOOR	4,600 SF	- 768 SF	3,832 SF	
SEVENTH FLOOR	4,600 SF	- 768 SF	3,832 SF	
EIGHT FLOOR	4,600 SF	- 768 SF	3,832 SF	
NINTH FLOOR	3,674 SF	- 530 SF	3,144 SF	
TENTH FLOOR	3,465 SF	- 520 SF	2,945 SF	
ELEVENTH FLOOR	3,260 SF	- 507 SF	2,753 SF	
TWELFTH FLOOR	3,056 SF	- 500 SF	2,556 SF	
TOTALS	54,855 SF	-13,095 SF	41,760 SF	

54,855 SF 13,095 SF **GROSS FLOOR AREA DEDUCTIONS** 

41,760 SF

TOTAL ZONING FLOOR AREA

41,760 SF / 5,800 SF = 7.2 FAR

41,760 SF

RESIDENTIAL ZONING FLOOR AREA

0 SF

COMMERCIAL ZONING FLOOR AREA

QUALITY HOUSING DEDUCTIONS: 50% OF CORRIDOR - DENSITY PER CORRIDOR (FLOORS 1-12) 50% OF CORRIDOR - DAYLIGHT IN CORRIDORS (FLOORS 1-12) 12 SF REFUSE STORAGE & DISPOSAL ROOMS (FLOORS 1-12)

MECHANICAL DEDUCTIONS: SHAFTS, PLUMBING CHASES & TRASH CHUTE 5.0% (2,742 SF)

#### RESIDENTIAL UNIT SCHEDULE

UNIT TYP	E AREA	UNIT TYPE	AREA	UNIT TYPE	AREA
1ST FLOOR		4TH FLOOR		8TH FLOOR	
1 BEDROOM	590 SF	1 BEDROOM	616 SF	1 BEDROOM	616 SF
1 BEDROOM	616 SF	1 BEDROOM	638 SF	1 BEDROOM	638 SF
1 BEDROOM	638 SF	1 BEDROOM	706 SF	1 BEDROOM	706 SF
1 BEDROOM	642 SF	1 BEDROOM	775 SF	1 BEDROOM	775 SF
1 BEDROOM	660 SF	2 BEDROOM	924 SF	2 BEDROOM	924 SF
I BEDROOM	3146 SF		3659 SF		3659 SF
2ND FLOOR	3140 01	5TH FLOOR		9TH FLOOR	
1 BEDROOM	616 SF	1 BEDROOM	616 SF	1 BEDROOM	638 SF
1 BEDROOM	638 SF	1 BEDROOM	638 SF	2 BEDROOM	1130 SF
1 BEDROOM	706 SF	1 BEDROOM	706 SF	2 BEDROOM	1144 SF
1 BEDROOM	775 SF	1 BEDROOM	775 SF		2912 SF
2 BEDROOM	924 SF	2 BEDROOM	924 SF	10TH FLOOR	
2 BEDITOON	3659 SF	77777	3659 SF	1 BEDROOM	606 SF
3RD FLOOR	0000 01	6TH FLOOR		2 BEDROOM	1038 SF
1 BEDROOM	616 SF	1 BEDROOM	616 SF	2 BEDROOM	1060 SF
1 BEDROOM	638 SF	1 BEDROOM	638 SF		2704 SF
1 BEDROOM	706 SF	1 BEDROOM	706 SF	11TH FLOOR	
1 BEDROOM	775 SF	1 BEDROOM	775 SF	1 BEDROOM	709 SF
2 BEDROOM	924 SF	2 BEDROOM	924 SF	1 BEDROOM	805 SF
2 BEDROOM	3659 SF		3659 SF	2 BEDROOM	985 SF
	0000 01	7TH FLOOR			2499 SF
		1 BEDROOM	616 SF	12TH FLOOR	
		1 BEDROOM	638 SF	2 BEDROOM	1000 SF
37	1 BEDROOM	1 BEDROOM	706 SF	2 BEDROOM	1294 SF
	2 BEDROOM	1 BEDROOM	775 SF		2293 SF
10.0	77 (8) (2) (5) (5) (5) (5) (6) (7)	2 BEDROOM	924 SF	Grand total	39168 SF
51	TOTAL		3659 SF		



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NO.

REVISION

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION **TYPICAL** FLOOR AREA & RESIDENTIAL **UNIT SCHEDULES** 

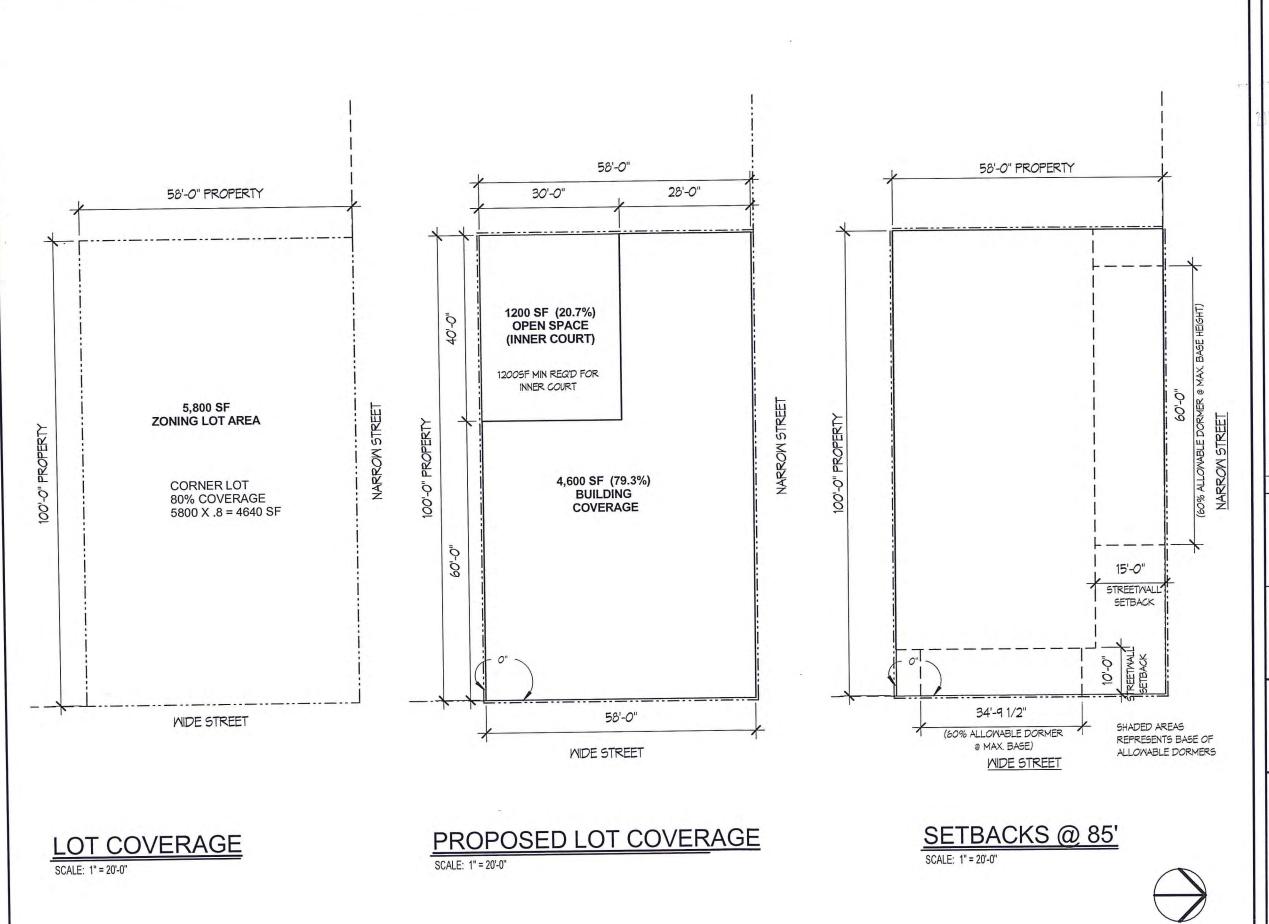


201305 PROJECT NO. MGT

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**TYP-003** 

DRAWING NO. 4 of 15



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Rotwein+Blake

16 Microlab Road Suite B Livingston, NJ 07039-1602

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E-mail: email@rb-arch.com

DATE

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
LOT COVERAGE & SETBACKS

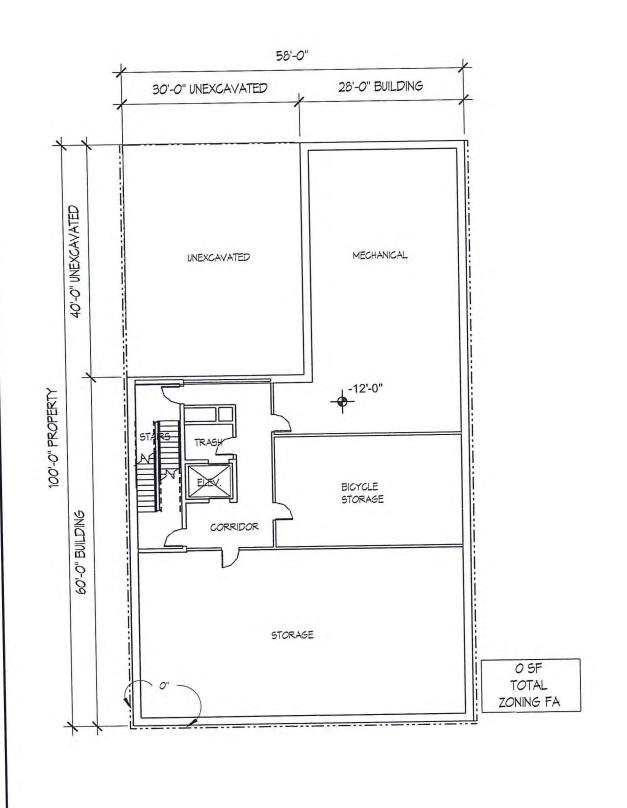


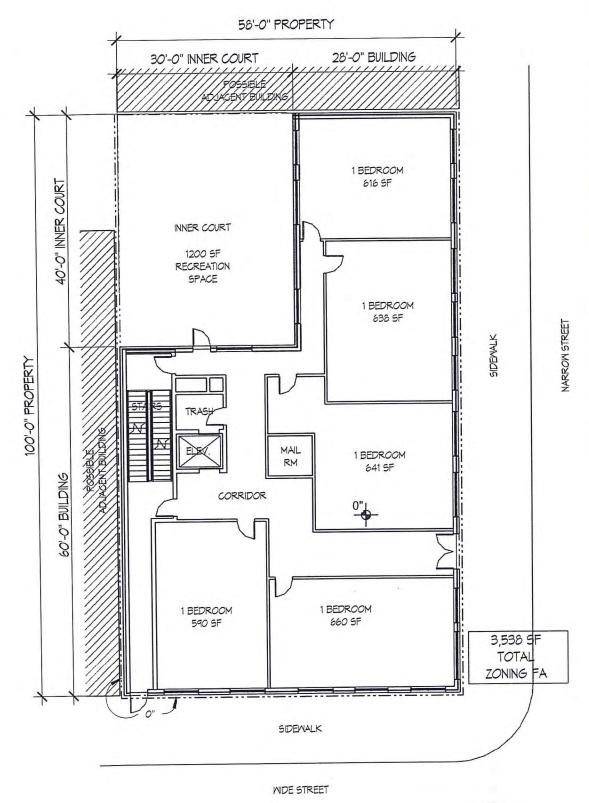
05-28-14 DATE: 201305 PROJECT NO.

MGT DWN, BY: LMB CHECKED BY:

TYP-100

DRAWING NO. 5 of 15





TYPICAL 1ST FLOOR

SCALE: 1/16" = 1'-0"



NOTE: ALL PARTITIONS AND EXITS
SHALL BE AS APPROVED BY
DEPARTMENT OF BUILDINGS

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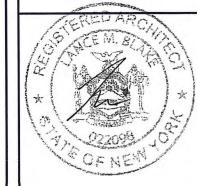
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E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
CELLAR & FIRST FLOOR PLANS



05-28-14 DATE: 201305

DATE

201305 PROJECT NO. MGT DWN. BY:

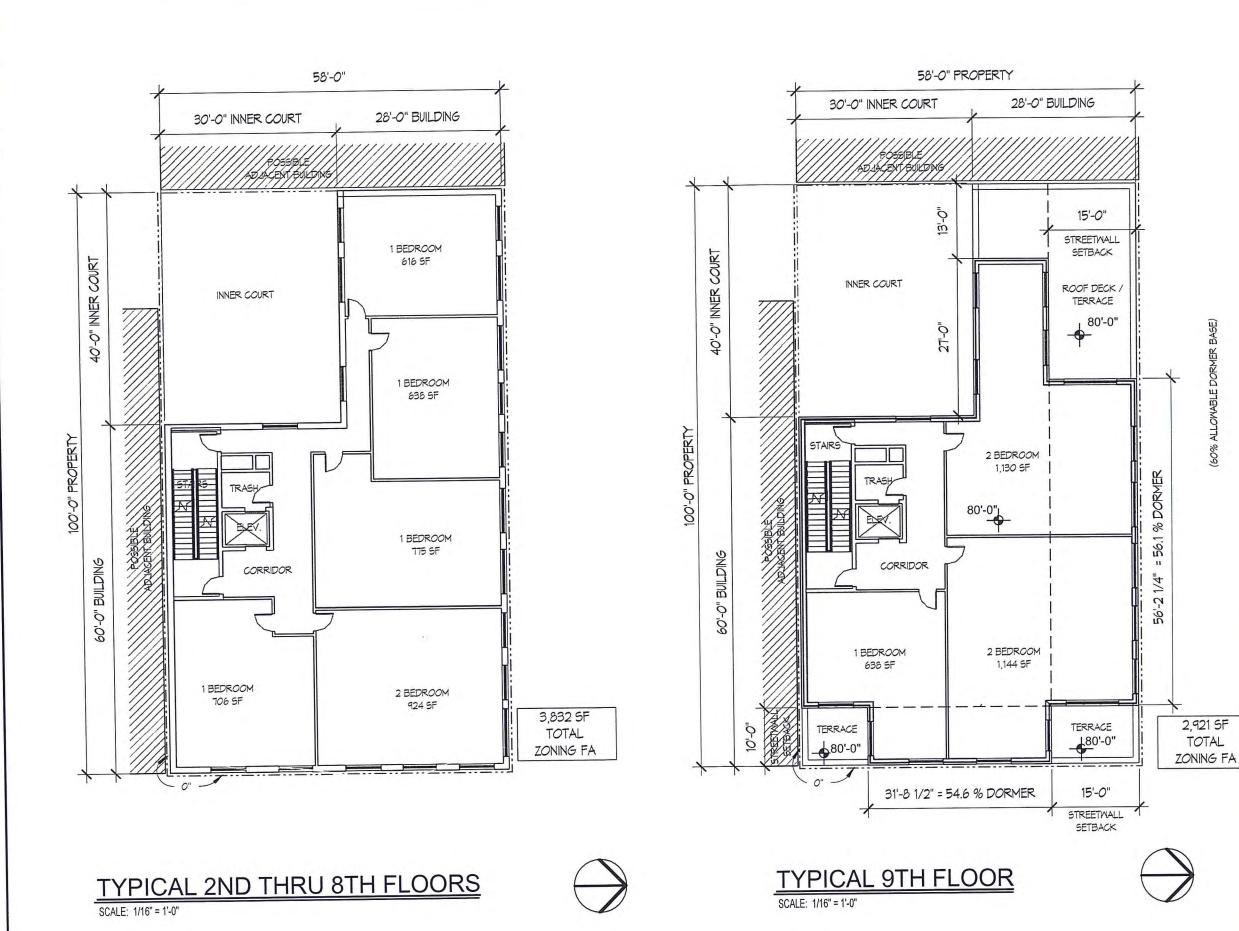
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DRAWING NO. 6 of 15

TYPICAL CELLAR

SCALE: 1/16" = 1'-0"



125-14-B7-

NOTE: ALL PARTITIONS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

2074 JUN -5 A N: 11 CAL. NO.

NO. REVISION DATE

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
SECOND THRU EIGHTH & NINTH
FLOOR PLANS



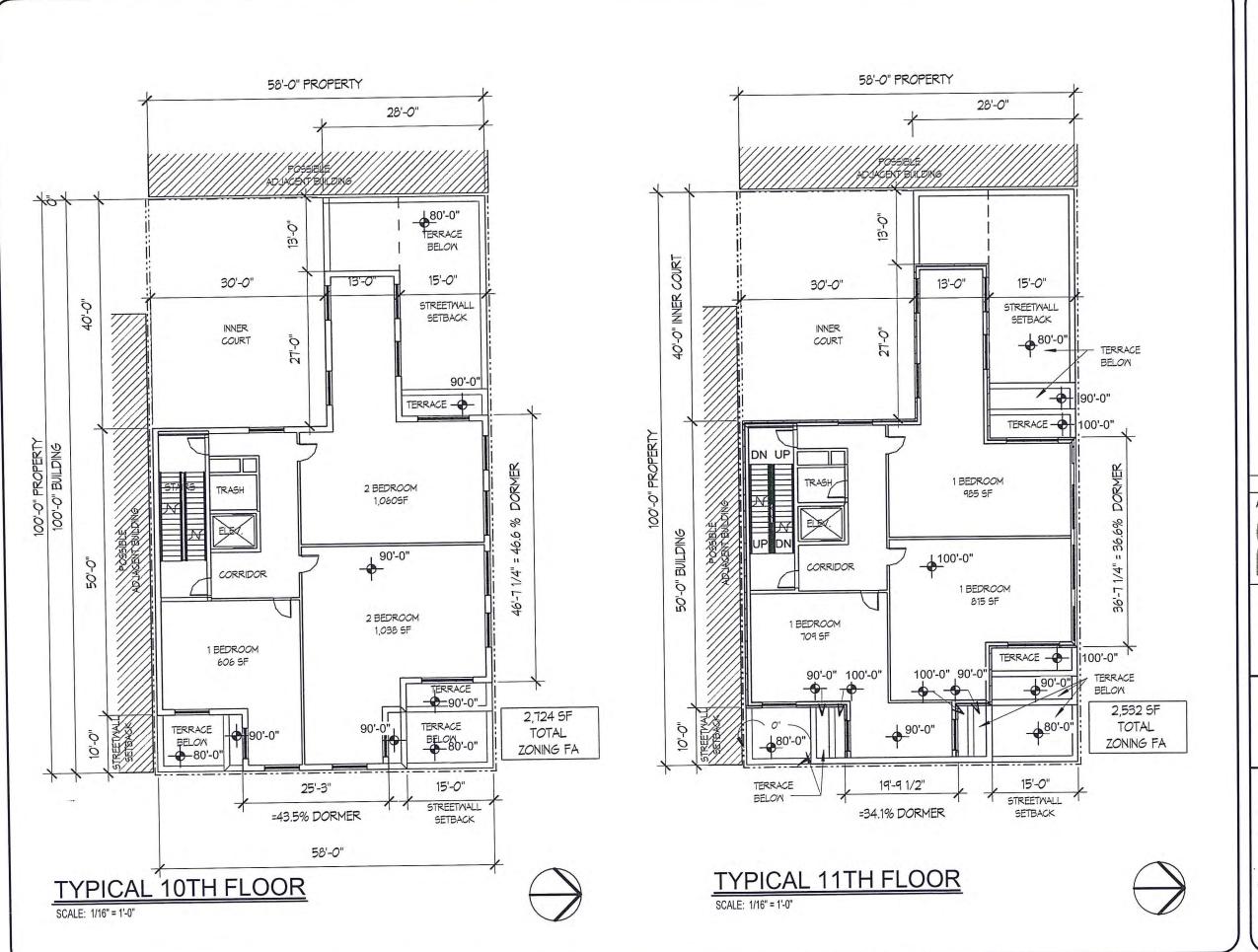
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PROJECT NO.

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DWN. BY:

LMB
CHECKED BY:

05-28-14

TYP-102 DRAWING NO.



125-14-B7-

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2014 JUL - 5 A II: 11 CAL NO.

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
TENTH & ELEVENTH FLOOR
PLANS

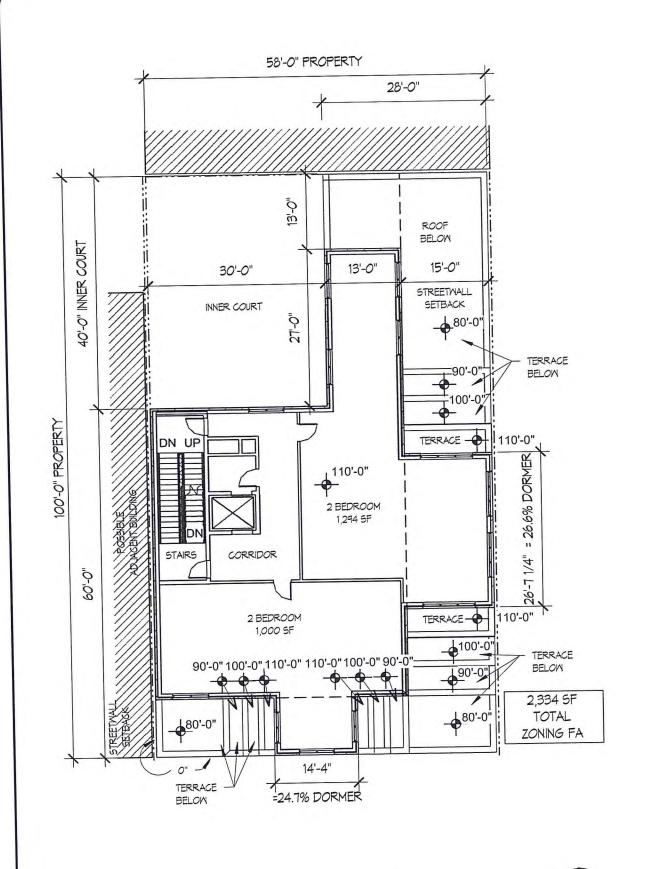


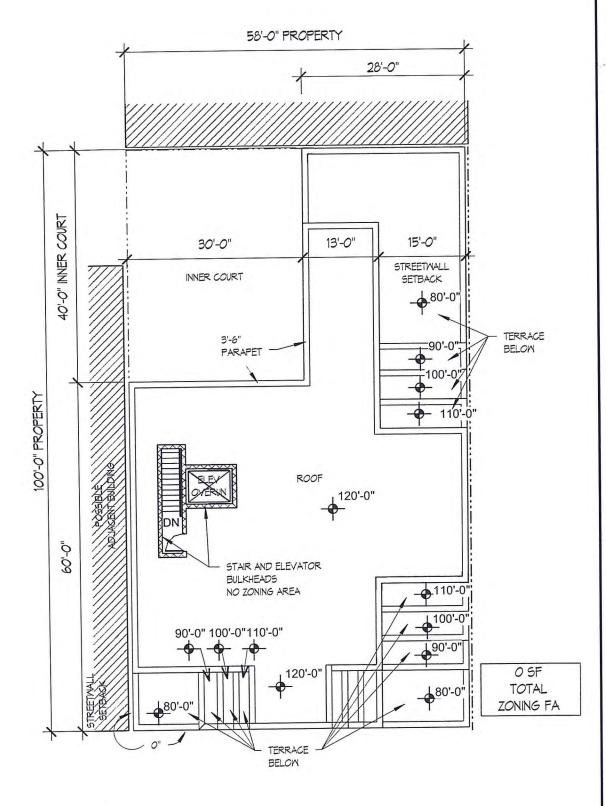
05-28-14 DATE:

201305 PROJECT NO. MGT DWN. BY:

LMB CHECKED BY:

TYP-103 DRAWING NO.





TYPICAL 12TH FLOOR PLAN



SCALE: 1/16" = 1'-0"



25-14-R7-

NOTE: ALL PARTITIONS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

2814 JUN -5 A H: II CAL. NO.

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DATE

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION TYPICAL TWELFTH FLOOR & ROOF **PLANS** 



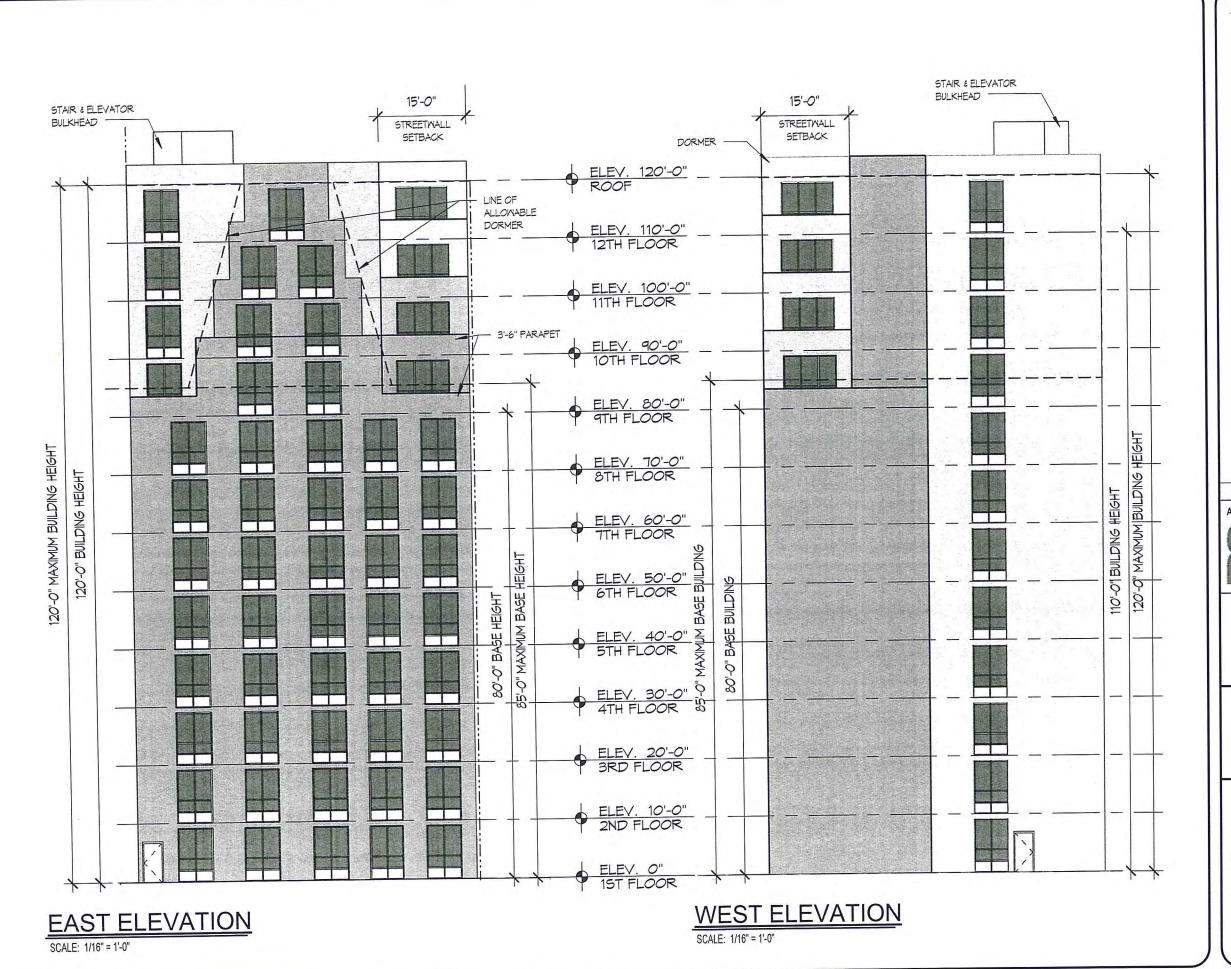
05-28-14 201305 PROJECT NO. MGT

LMB CHECKED BY:

TYP-104 DRAWING NO.

9 of 15

TYPICAL ROOF PLAN



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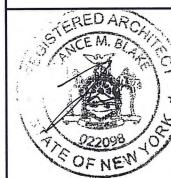


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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
ELEVATIONS

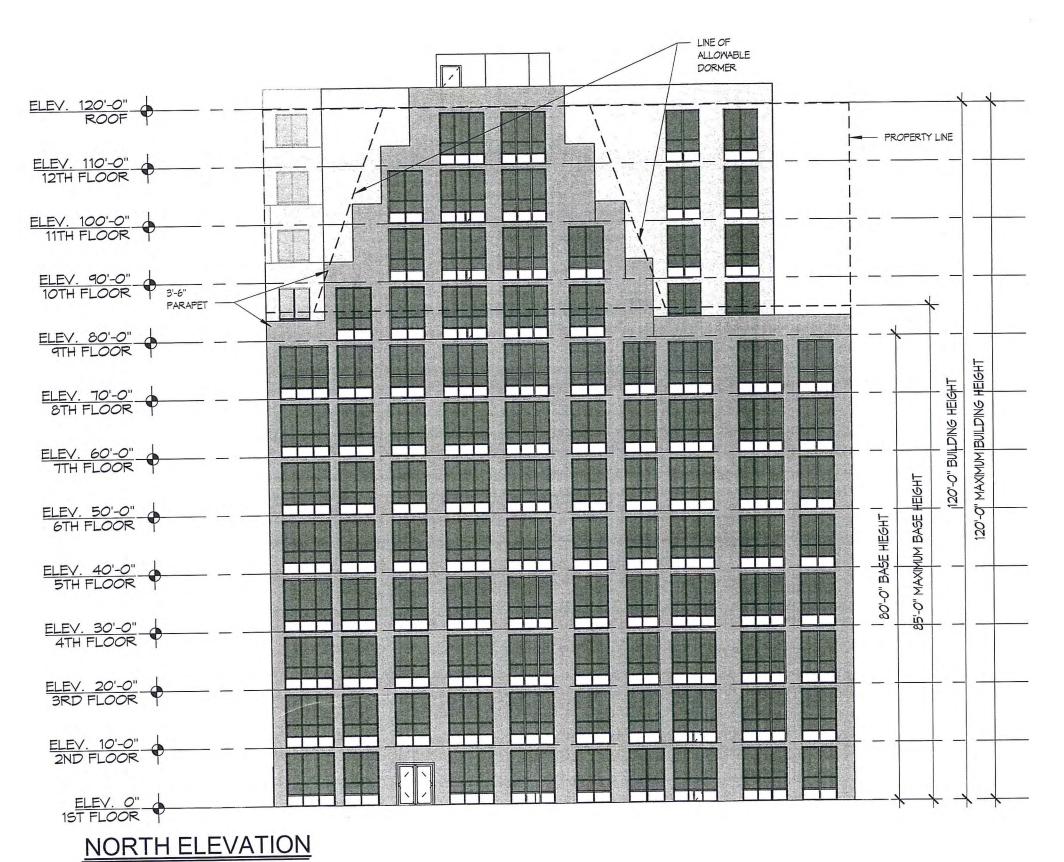


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125-14-R7-

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
ELEVATIONS



05-28-14 DATE:

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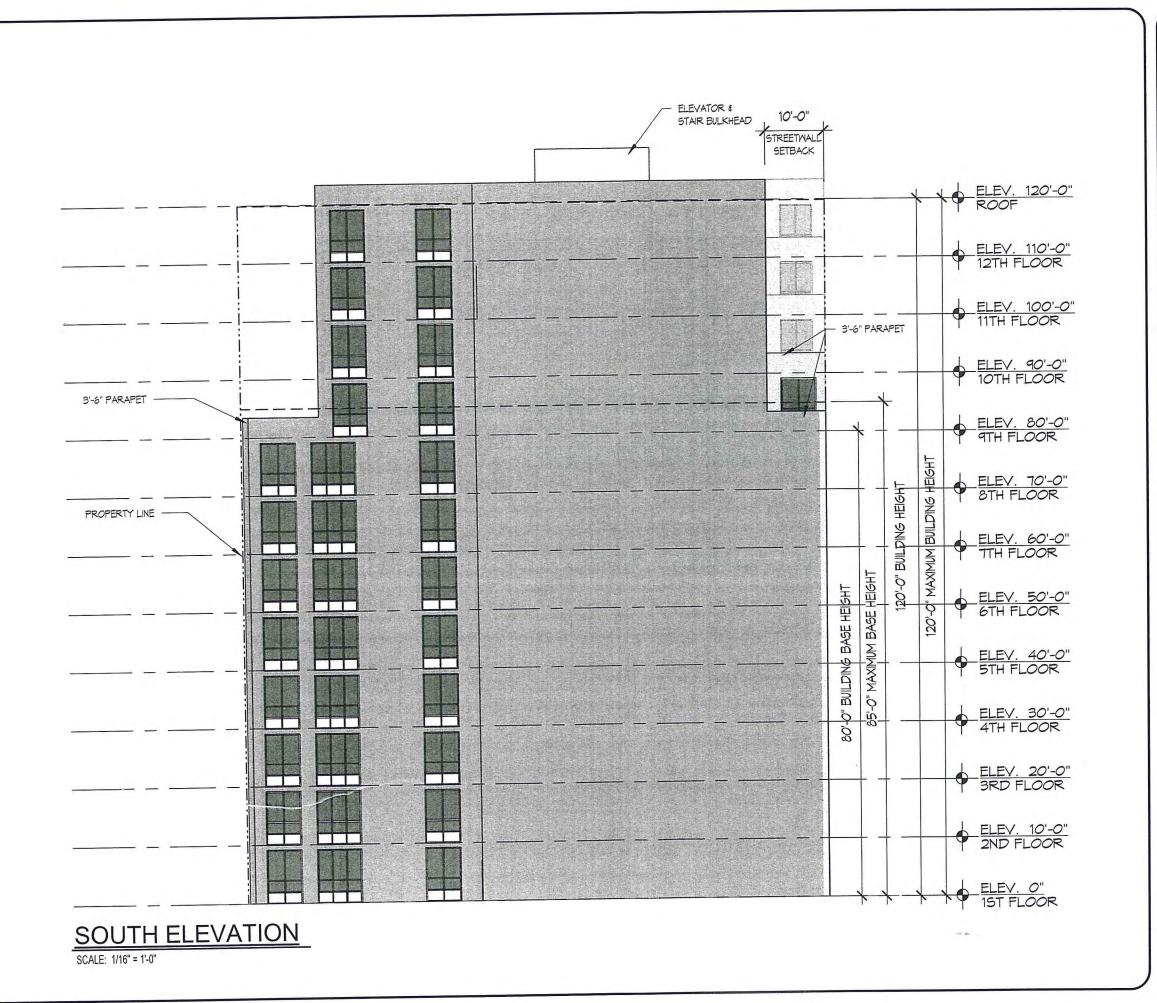
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SCALE: 1/16" = 1'-0"



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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
ELEVATIONS



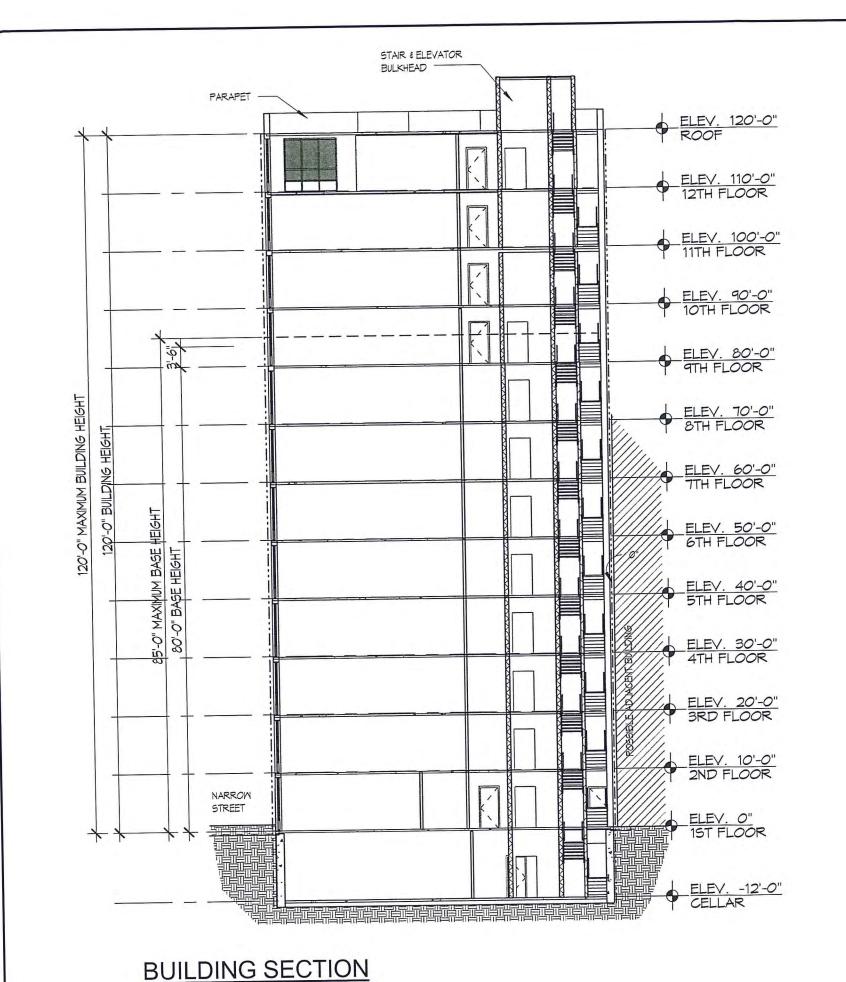
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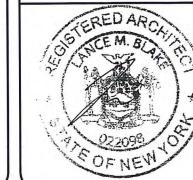
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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
SECTIONS



05-28-14 DATE: 201305

PROJECT NO.

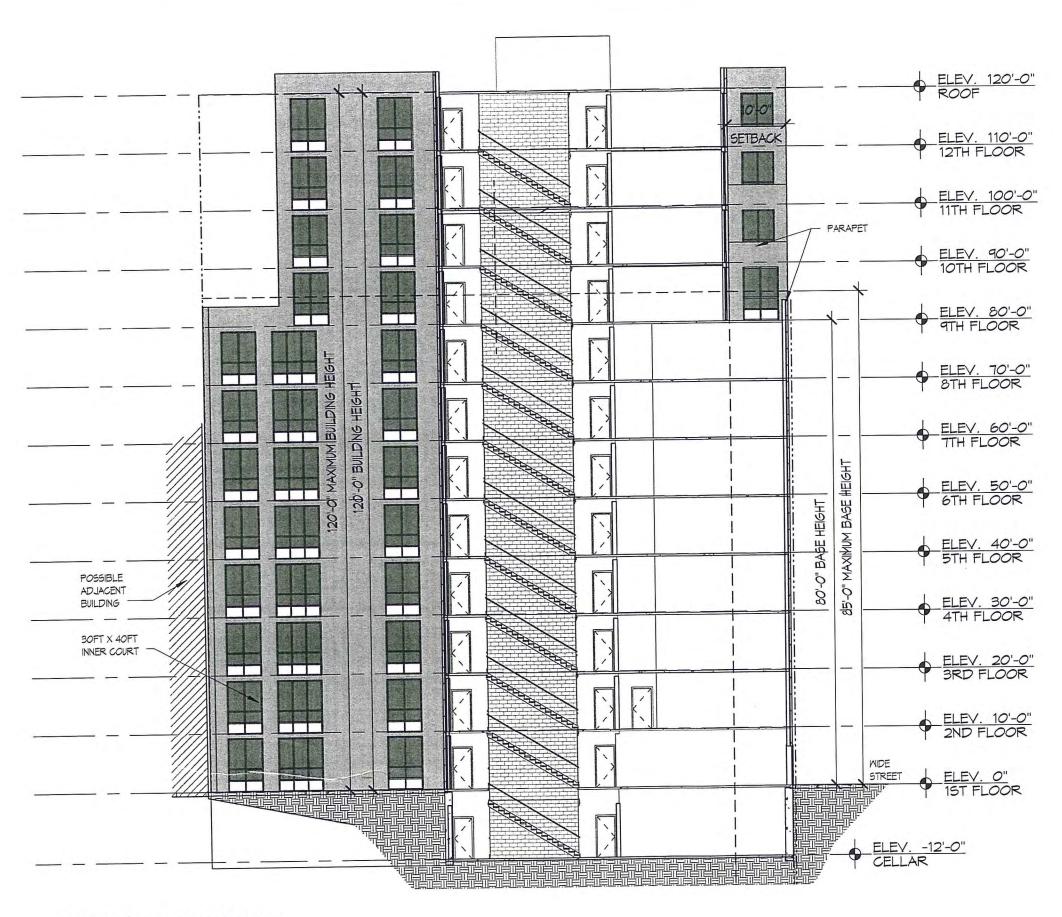
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DWN. BY:

LMB CHECKED BY:

TYP-301

DRAWING NO.

SCALE: 1/16" = 1'-0"



**BUILDING SECTION** 

SCALE: 1/16" = 1'-0"



NO. REVIS

REVISION

ARCHITECT:



PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
SECTIONS



05-28-14 DATE: 201305 PROJECT NO.

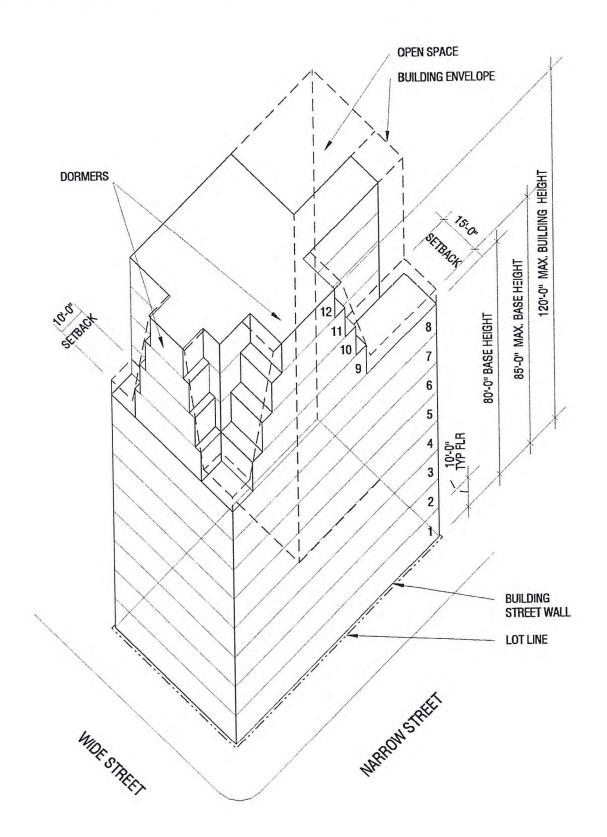
DATE

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LMB
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TYP-302

DRAWING NO.



TYPICAL AXON

SCALE: 1/32" = 1'-0"

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REVISION

DATE

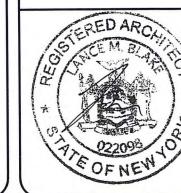
ARCHITECT:



PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
TYPICAL
AXON



05-28-14 DATE:

201305 PROJECT NO. MGT

LMB CHECKED BY:

TYP-303 DRAWING NO.

# PROPOSED RESIDENTIAL DEVELOPMENT

# 11 AVENUE C NEW YORK, N.Y.

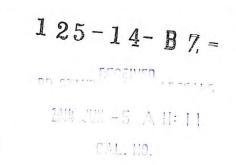
350 EAST HOUSTON, LLC

PROPOSED SCHEME: (F.A.R. 7.2)



### DRAWING INDEX

SK-000	TITLE SHEET
SK-001	EXISTING SURVEY
SK-002	ZONING COMPARISON
SK-003	ZONING ANALYSIS
SK-004	FLOOR AREA & RES. UNIT SCHEDULES & REQUESTED WAIVERS
SK-005	LOT PLAN , ZONING SITE PLAN, ZONING MAP
SK-100	LOT COVERAGE PLANS PLANS
SK-101	CELLAR & FIRST FLOOR PLANS
SK-102	SECOND & THIRD THRU EIGHTH FLOOR PLANS
SK-103	NINTH & TENTH FLOOR PLANS
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SK-105	BALCONY DETAILS
SK-201	ELEVATIONS
SK-202	ELEVATIONS
SK-203	ELEVATIONS
SK-301	SECTIONS
SK-302	SECTIONS
SK-303	AXON



ARCHITECT:



PROPOSED RESIDENTIAL DEVELOPMENT

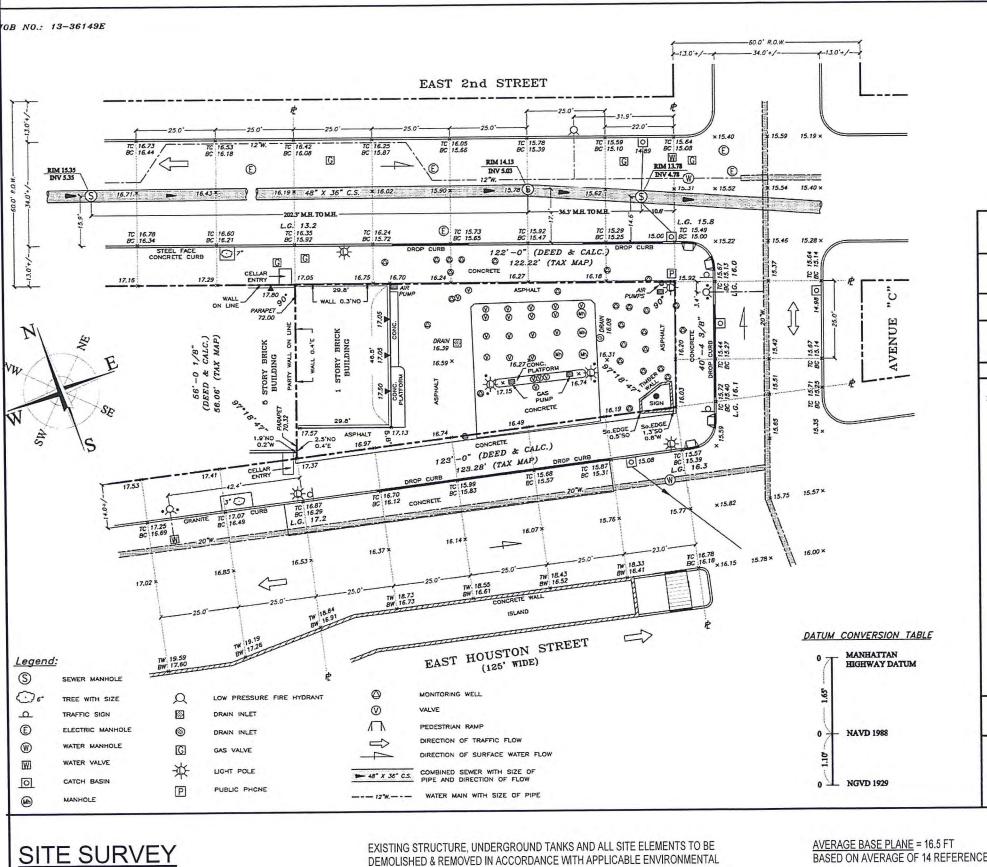
350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> **BSA APPLICATION** PROPOSED TITLE SHEET



SK-000

RAWING NO.



125-14-B7-

REVISION

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC

11 AVENUE C

NEW YORK, N.Y.

**BSA APPLICATION** 

PROPOSED EXISTING SURVEY

NO.

ARCHITECT:

ALEXANDER TSUKERMAN N.Y.S. L.S. Nº050189

#### ARCHITECTURAL SURVEY

LOCATED AT: BOROUGH OF MANHATTAN, COUNTY, CITY AND STATE OF NEW YORK

> TAX DESIGNATION: BLOCK: 384, LOT: 33

SURVEYED ON: JANUARY 08, 2014

DRAWN BY: M.V.

CHECKED BY: A.T.

- 5) SIZES AND TYPES OF SEWERS SHOWN HEREON AS OBTAINED FROM THE ROROUGH OF MANHATTAN SEWER DEPARTMENT RECORDS, SEWER MANHALE

- B) THIS IS TO CERTIFY THAT THERE ARE NO STREAMS NOR NATURAL WATERCOURSES IN THE PROPERTY AS SHOWN ON THIS SURVEY.
- 9) TOTAL AREA OF THE PARCEL 5878.69 SQ.FT. 0.135 ACRE.

THE OFFSETS OR DIMENSIONS SHOWN FROM THE STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE AND THERSEFORE ARE NOT INTENDED TO GUIDE THE ERECTION OF FENCES, RETAINING WALLS, POOLS, PUNTING AREAS, NOUTIONS TO STRUCTURES AND ANY OTHER CONSTRUCTION.

Unwithdrized Alteration or addition to this survey is a volation of section 7200 of the New York State Education Law. Copies of this survey map not berapic the Livid Surveyor's Indeo Sea. Or Eurossed Seal. Stall not be considered to be a valid true copy.

CERTIFICATION INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, COVERNIUDITAL AGENCY AND LEHONIG INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LINDING INSTITUTION, CERTIFICATIONS ARE NOT TRANSFERABLE TO AL

Scale 1" = 30'



LEONARD J. STRANDBERG AND ASSOCIATES CONSULTING ENGINEERS AND LAND SURVEYORS, P.C.

32 SMITH STREET, FREEPORT, NY 11520 516-378-2064 • 212-213-4090 • FAX 516-378-664

05-28-14

DATE

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201305 ROJECT NO. MGT

WN. BY: LMB HECKED BY:

SK-001

DRAWING NO. 2 of 18

**REGULATIONS** 

SCALE: 1" = 30'-0"

BASED ON AVERAGE OF 14 REFERENCE POINTS ALONG PROPERTY LINE

ZONING COMPARISON							
ZR REF	ZONING RESOLUTION HEADING	ZR ITEM	ZR DATA	AS-OF-RIGHT SCHEME	TYPICAL SCHEME	PROPOSED SCHEME	
	ZONING MAP		12C	12C	12C	12C R8A	
	ZONING DISTRICT		R8A 3	R8A 3	R8A 3	3	
	COMMUNITY DISTRICT INCLUSIONARY HOUSING		YES	YES	YES	YES	
	SITE AREA IRREGULAR 40.3X1233X56X123 100' CORNER + 22' THROUGH LOT WIDTH		5874.3 SF	5874.3 SF	5800 SF	5874.3 SF	
2-00	USES		USE GROUPS 1-4 PERMITTED AS-OF-RIGHT	USE GROUPS 2	USE GROUPS 2	USE GROUPS 2 & 6 (NONCOMPLIANT)	
3-010	QUALITY HOUSING	CHAPTER 28	REQUIRED	PROVIDED	PROVIDED	PROVIDED	
3-951	MAXIMUM FLOOR AREA RATIO	RESIDENTIAL			200	2.2	
		BASE FAR (INCLUSIONARY HOUSING)	5.4 FAR	NA	NA TO SAD	NA	
		MAX. FAR WITH BONUS (INCLUSIONARY HOUSING)	7.2 FAR	6.3 FAR	7.2 FAR	7.2 FAR (MIXED USE - SEE BELOW)	
		MAX. RESIDENTIAL ZONING FAR				6.43 FAR	
		MAX. RESIDENTIAL ZONING FAR MAX. RESIDENTIAL ZONING FLOOR AREA	5,874.3 SF X 7.2 = 42,295 SF	37,296.5 SF	41,760 SF (41,760 SF PERMITTED)	37,743 SF	
		MAX. COMMERCIAL ZONING FAR	NOT PERMITTED	0 FAR	0 FAR	0.77 FAR (NONCOMPLIANT)	
		MAX. COMMERCIAL ZONING FLOOR	NOT PERMITTED	0 SF	0 SF	4,550 SF (NONCOMPLIANT)	
		AREA				MIXED USE 7.2 FAR (42,293 SF) (NONCOMPLIANT)	
28-31	QUALITY HOUSING: MINUMUM INTERIOR OR	2.8% OF TOTAL FLOOR AREA	42,295 SF X 2.8% = 1,184 SF MIN.	37,296 SF X 2.8% = 1,044 SF MIN.	41,760 SF X 2.8% = 1,169 SF MIN.	42,293 SF X 2.8% = 1,184 SF MIN.	
	EXTERIOR RECREATION SPACE			1,722 SF ROOF DECK PROVIDED	1200 SF GROUND FLOOR OPEN SPACE PROVIDED	2,812 SF ROOF DECK PROVIDED	
23-145	MAXIMUM LOT COVERAGE					A TO	
20-140	IN CAMERA 201 CO. L. W. C.	CORNER LOT 80%	3,738.4 SF	3,738.4 SF (80%)	4,640 SF	4.673 SF (100%) (NONCOMPLIANT) 1,201 SF (100%) (NONCOMPLIANT)	
		THROUGH LOT 70% MAXIMUM TOTAL LOT COVERAGE	840.0 SF 4,579 SF (78.0 %)	830.7 SF (69.2%) 4,569.1 SF (78.0%)	NA 4,640 SF (80%) (CORNER LOT 80%)		
23-22	DENSITY - MAX DWELLING UNITS	FLR AREA X 740 (FACTOR FROM CHART)	) 42,292 SF / 740 = 57 UNITS	53 UNITS	51 UNITS (56 PERMITTED)	46 UNITS	
23-620 (23-633)	INITIAL SET BACKS: 23-633 PROVIDES ZERO SETBACK UP TO 85' MAX BASE HEIGHT						
	(HOUSTON @ 125' IS A "WIDE STREET")	WIDE STREET	10' SETBACK	10' SETBACK	10' SETBACK	10' SETBACK	
	(AVE C & 2ND STREETS @ 60' ARE "NARROW STREETS")	NARROW STREET	15' SETBACK	15' SETBACK	15' SETBACK	15' SETBACK	
23-621C	PERMITTED OBSTRUCTIONS	DORMERS 60% OF STREET WALL AT MAX BASE HEIGHT & REDUCES AT A RATE OF 1% OF STREET WALL	NONE	DORMERS	DORMERS	DORMERS	
23-633 (a)(3)	MINIMUM BASE HEIGHT		60'	80'	80'	85'	
& CHART	MAXIMUM BASE HEIGHT MAXIMUM BUILDING HEIGHT		85' 120'	80' 100'	80' 120'	85' 105'	
				45 1BEDROOM	37 1BEDROOM	30 1BEDROOM 16 2BEDROOM	

10 STORIES

37 1BEDROOM 30 1BEDROOM
14 2BEDROOM 16 2BEDROOM
51 TOTAL APARTMENTS 46 TOTAL APARTMENTS

12 STORIES 10 STORIES

4.547 SF COMMERCIAL = POSSIBLE (6) 1BEDROOM APTS.

24 22 -5 A N: 11

CAL 110.

NO. REVISION DATE

ARCHITECT:



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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
PROPOSED
ZONING COMPARISON



05-28-14 DATE: 201305 PROJECT NO.

MGT DWN. BY: LMB

CHECKED BY:

SK-002 DRAWING NO.

# **ZONING ANALYSIS**

least twice the depth of the recess, except that such width need not exceed 60 feet

Map 12C	Zoning District R8A	00.00	U. J. L. 9. Cathards Obstructions
	No Commercial Overlay	23-62	Height & Setback Obstructions
	Community District 3		a) Awnings and sun control 2'-6" max projection above first story level When
	Within Inclusionary Housing Area		located on the first story above a setback, awnings and other sun control devices shall be limited to a projection of 50 percent of the depth of the required setback, and shall be limited, in total, to 50 percent of the width of the building wall from
	Site Area =5874.3		which they project
	Irregular Site 40.3 x 123.3 x 56 x 123		g) Elevator or stair bulkheads (including shafts; and vestibules not larger than 60
	100' Corner Lot + 22' Through Lot		square feet in area providing access to a roof  1) shall be located not less than 10 feet from the street wallexcept that such
	Average Base Plane = 16.5ft (Average Base Plane = Project 0'-0")		obstructions need not be set back more than 25 feet from a narrow street line or more than 20 feet from a wide street line. However, such restrictions on location shall not apply to elevator or stair bulkheads (including shafts or vestibules),
22-9	Uses: Use Groups 1-4  Nameplates or Idendification signs: b)multiple dwellingsNon-illuminatedone		provided the aggregate width of street walls of such bulkheads within 10 feet of a street wall, facing each street frontage, times their average height, in feet, does not exceed an area equal to four times the width, in feet, of the street wall of the
22-321	identification sign, with an area not exceeding 12 square feet and indicating only the name of the permitted use the name or address of the building or name of		building facing such frontage  Other obstructions: halconies, columns, chimnies, decks, Screened mechanical
	managementheight of letters on any side of such awnings or canopies shall not exceed 12 inches		equip, flagpoles, parapets, roof thickness, skylights, solar energy sys,vegetsated roofs,
23-10	Quality Housing required (See Chapter 28)	*****	Projections over Streetline: Architectural details, Marquee, balconies, overhangs, awnings see Chapter 32 of Building Code: Encroachments into Right of Way
23-144	Maximum Floor Area Ratio (Inclusionary Housing see 23-952)		3202.2.1.2 Architectural Details ground to 10ft 4" projectionAbove 10ft 10"projections above 10ft may be allowed more subject to approval of
23-952	Maximum Floor Area Ratio (FAR)		Commissioner DOT
20 002	Lot Area = 5874.3sf		3202.2.1.4 Marquees: 10ft aboveproject no closer than 2ft from curb3ft max thickness, supported from buildingon Multiple dwellings
	Inclusionary Housing: 5.4 minimum to 7.2 maximum		3202.2.1.3 Balconies: 10 ft above 22" projection beyond streetline
	Zoning Area = 5874.3sf x 5.4 = 31,721 sf		3202.2.3.1 Store awnings: 8ft above 8ft max projection
	Zoning Area = 5874.3sf x 7.2 = 42,295 sf		above building elements to be removable, permission revocableall subject to applicable Iregulations including DOB & DOT
23-145	Maximum Lot Coverage	23-621	Permitted obstructions
	Corner Lot: 80% 4,704sf x .8 = 3,763sf	23-021	c) R8A & QH: Dormers 60% of street wall and reduces at a rate of 1% of street
	Through Lot: 70% 1170sf x .7 = 819sf Total = 4582sf		wall
		23-633	a3) Along Wide street and within 50ft of wide street intersection
	Quality Housing: $6.02 \text{ FAR}$ Zoning Area = $5874.3 \text{sf} \times 6.02 = 35,363.3 \text{ sf}$ (not applicable)		a3i) the street wall shall extend along the entire street frontage of a zoning lot a3ii) at least 70 percent of the aggregate width of street walls shall be located within eight feet of the street line and extend to at least the minimum base height
23-22 & 23	Maximum number of Dwelling Units R8A: factor of 740		specified in the table in this Section or the height of the building, whichever is less. The remaining 30 percent of the aggregate width of street walls may be recessed beyond eight feet of the street line provided any such recesses deeper than 10 feet
	Max. Residential FAR / Factor 42,295 sf / 740 = 57.2		along a wide street or 15 feet along a narrow street are located within an outer court; and
23-462c	Side Yards:		a3iii) No street wall location provisions shall apply along any narrow street beyond
20 1020	None required in R8 zones. Any Open Area along a side yard shall be min. 8ft wide and extend lenght of Side Lot Line		50 feet of their intersection with a wide street
			b)Setbacks required above maximum base height
23-47	Rear Yards: Minimum 30ft		Wide Street = 10ft Narrow Street= 15ft
23-471	R8: for interior or through lot portions of corner lots, and for zoning lots bounded by		c) Maximum Building Height R8A
20 47 1	two or more streets that are neither comer lots nor through lots, the portion of a side lot line beyond 100 feet of the street line that it intersects shall be considered a rear lot line and the following rules shall apply along such rear lot line		60ft Min Base Height 85ft Max Base Height 120 Max. Building Height
	a) In all districts, a rear yard with a minimum depth of 30 feet shall be provided where such rear lot line coincides with a rear lot line of an adjoining zoning lot	23-663b	no portion of building above maximum base shall be nearer than 10ft to Rear Yard Line. (NA there are no Rear Yards)
	<ul><li>b) NA</li><li>c) In R6 through R10 Districts, no rear yard shall be required where such rear lot</li></ul>	23-692	Height Limitation for narrow building R8:buildings with street walls less
	line coincides with a side lot line of an adjoining zoning lot.  lot line# beyond 100 feet of the #street		than 45 feet in width shall not be permitted above the following heights  c) For corner lots bounded by at least one wide street, a height equal to the width
	line# that it intersects shall be considered a #rear lot line#		of the widest street on which it fronts, or 100 feet, whichever is less  6) Quality Housing buildings shall be exempt from the provisions of this Section
23-531	a) R8 zones: no rear yard regulations shall apply to any through lots that extend less than 110 feet in maximum depth from street to street.		provided the width of the street wall at the maximum base height specified in the applicable table in Section 23-633 or 35-24 is at least 45 feet. For such buildings, a street wall that is less than 45 feet wide may be constructed above such base
	<ul> <li>Quality Housing buildings, no rear yard regulations shall apply to any zoning lot that includes a through lot portion that is contiguous on one side to two corner lot portions and such zoning lot occupies the entire block frontage of a street</li> </ul>	23-80	Court Regulations, Open area requirements
23-532	Rear yard Equivilants: Do not apply to through lots less than 110 in depth	23-841	<ul> <li>R8: In all districts indicated, if an outer court is less than 30 feet wide, the width of such outer court shall be at least one and one third the depth of such outer court</li> <li>R8: In all districts, as indicated, if an outer court is 30 feet or more in width, the</li> </ul>
23-542	Short Demension Block, R8: front lot line of a zoning lot coincides with all or part of a street line measuring less than 230 feet in length between two intersecting streets, no rear yard shall be required within 100 feet of such front lot line.	23-842	width of such outer court must be at least equal to the depth of such outer court, except that such width need not exceed 60 feet
	Success, no real yard shall be required main. The fact of dear mention in the	23-843	R8: In all districts, as indicated, the width of an outer court recess shall be at least twice the depth of the recess, except that such width need not exceed 60 feet

Inner Courts - minimal dimensions: R8: the area of an inner court shall not be 23-851 less than 1,200 square feet, and the minimum dimension of such inner court shall not be less than 30 feet. 852: inner court recess similar to 843 Min distance between Legally required Windows, walls lot lines at an inner court 23-861 R8: 30ft to any wall, rear lotline or side lot line or verical projection thereof Min distance between legal req windows and walls on same lot (Inner Court). 30ft 23-863 min or 1/2 the height above window sill to max of 60ft R8A and QH planting at ground or raised in raised planters open space 23-892 between street line and streetwalls **Quality Housing** 28 The Quality Housing Program consists of four components: neighborhood impact, building interior, recreation space and planting, and safety and security A dwelling unit shall have an area of at least 400 square feet of floor area A refuse disposal room of not less than twelve square feet with no dimension less than three feet shall be provided on each story that has entrances to dwelling units ... Twelve square feet of such refuse storage room shall be excluded from the definition of floor area. Laundry Facility: provide a laundry room with one washing machine per 20 units 28-24 and 1 dryer per 40 units. ..... (Provided: one washer and dryer in each unit) Daylight in Corridors: Fifty percent of the square footage of a corridor may be 28-25 excluded from the definition of floor area if a window with a clear, non-tinted, glazed area of at least 20 square feet is provided in such corridor, provided that such window: (a) shall be directly visible from 50 percent of the corridor or from the#vertical circulation core. This standard shall be achieved when a visually unobstructed straight line can be drawn between such corridor, elevator or stairwell, and (b) is located at least 20 feet from a wall or a side or rear lot line measured in a horizontal plane and perpendicular to the rough window opening. 28-31 Recreation Space: Minimum Required Recreation Space as a percentage of the residential floor area a) All recreation space shall be accessible to the residents... 28-32 b) The minimum dimension of any recreation space shall be 15 feet. The minimum size of any outdoor recreation space shall be 225 square feet, and the minimum size of any indoor

recreation space shall be 300 square feet

percent of the total floor space of the room ...

the square feet of the corridor serving such dwelling units

d) Indoor...at least one exterior wall with windows that measure not less than 9.5

Density per Corridor: If the number of dwelling units ... served by a vertical circulation core and corridor on each story does not exceed..(10)... 50 percent of

Off street Parking...required by QH but in 25-242 waived for R8 districts with

c) Outdoor open to the sky

Planting Area see 23-892

zoning lot 10,00sf or less

28-33

28-41

28-51

ARCHITECT:

NO.

Rotwein+Blake

DATE

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PROPOSED RESIDENTIAL DEVELOPMENT

REVISION

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION PROPOSED ZONING ANALYSIS



05-28-14 DATE: 201305 PROJECT NO

> MGT DWN, BY: LMB

CHECKED BY:

SK-003 DRAWING NO.

### FLOOR AREA SCHEDULE

FLOOR LEVEL	<b>GROSS FLOOR AREA</b>	<b>DEDUCTIONS</b>	<b>ZONING FLOOR AREA</b>	REMARKS
CELLAR	5,874 SF	- 5,874 SF	0 SF	NOT ZONING AREA
FIRST FLOOR	5,656 SF	- 282 SF	5,374 SF	
SECOND FLOOR	5,600 SF	- 576 SF	5,024 SF	
THIRD FLOOR	5,600 SF	- 907 SF	4,693 SF	
FOURTH FLOOR	5,600 SF	- 907 SF	4,693 SF	
FIFTH FLOOR	5,600 SF	- 907 SF	4,693 SF	
SIXTH FLOOR	5,600 SF	- 907 SF	4,693 SF	
SEVENTH FLOOR	5,600 SF	- 907 SF	4,693 SF	
EIGHT FLOOR	5,600 SF	- 907 SF	4,693 SF	
NINETH FLOOR	2,302 SF	- 425 SF	1,877 SF	
TENTH FLOOR	2,284 SF	- 424 SF	1,860 SF	
TOTAL	55,316 SF	-13,023 SF	42,293 SF	

55,316 SF GROSS FLOOR AREA 13,023 SF DEDUCTIONS

42,293 SF TOTAL ZONING FLOOR AREA

42,293 SF / 5,874.3 SF = 7.2 FAR

37,743 SF RESIDENTIAL ZONING FLOOR AREA 4,550 SF COMMERCIAL ZONING FLOOR AREA

QUALITY HOUSING DEDUCTIONS:

50% OF CORRIDOR - DENSITY PER CORRIDOR (FLOORS 2-9) 50% OF CORRIDOR - DAYLIGHT IN CORRIDORS (FLOOR 3-9) 12 SF REFUSE STORAGE & DISPOSAL ROOMS (FLOORS 2-9)

MECHANICAL DEDUCTIONS:

SHAFTS, PLUMBING CHASES & TRASH CHUTE 5% (2,765 SF)

# RESIDENTIAL UNIT SCHEDULE

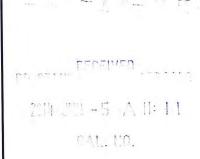
UNIT TYPE	Area	UNIT TYPE	Area	UNIT TYPE	Area
2ND FLOOR		4TH FLOOR		7TH FLOOR	
2 BEDROOM	1001 SF	2 BEDROOM	1001 SF	2 BEDROOM	1006 SF
2 BEDROOM	1118 SF	2 BEDROOM	1118 SF	2 BEDROOM	1118 SF
IBEDROOM	612 SF	IBEDROOM	612 SF	IBEDROOM	612 SF
IBEDROOM	612 SF	IBEDROOM	612 SF	IBEDROOM	612 SF
IBEDROOM	612 SF	IBEDROOM	612 SF	IBEDROOM	612 SF
IBEDROOM	643 SF	IBEDROOM	639 SF	IBEDROOM	639 SF
	4599 SF		4595 SF		4599 SF
3RD FLOOR		5TH FLOOR		8TH FLOOR	
2 BEDROOM	1001 SF	2 BEDROOM	1006 SF	2 BEDROOM	1006 SF
2 BEDROOM	1118 SF	2 BEDROOM	1118 SF	2 BEDROOM	1118 SF
I BEDROOM	612 SF	IBEDROOM	612 SF	IBEDROOM	612 SF
IBEDROOM	612 SF	IBEDROOM	612 SF	IBEDROOM	612 SF
IBEDROOM	612 SF	IBEDROOM	612 SF	IBEDROOM	612 SF
IBEDROOM	643 SF	IBEDROOM	643 SF	IBEDROOM	643 SF
	4599 SF		4603 SF		4603 SF
		6TH FLOOR		9TH FLOOR	
		2 BEDROOM	1006 SF	2 BEDROOM	982 SF
		2 BEDROOM	1118 SF	IBEDROOM	602 SF
		IBEDROOM	612 SF		1583 SF
00 4555	DOOM	IBEDROOM	612 SF	10TH FLOOR	
	DROOM	IBEDROOM	612 SF	1 BEDROOM	601 SF
16 2 BED	DROOM	IBEDROOM	643 SF	2 BEDROOM	980 SF
10 TOT	A.		4603 SF		1582 SF
46 TOTA	AL			Grand total	35366 SF

### REQUESTED WAIVERS

Use: Commercial use is not permitted as-of right in R8A zoning districts pursuant to Zoning Resolution 22-10.

The proposed variance would allow Use Group 6 retail use at the ground floor and cellar.

Lot coverage: Zoning Resolution 23-145 permits a maximum lot coverage of 80 percent for corner lot portions of a zoning lot and 70 percent for through lot portions of a zoning lot. The proposed variance would allow full lot coverage on the Lot.



NO.

REVISION

DATE

ARCHITECT:

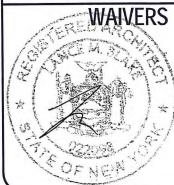


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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
PROPOSED
FLOOR AREA & RES. UNIT
SCHEDULES & REQUESTED



05-28-14 DATE: 201305

PROJECT NO.

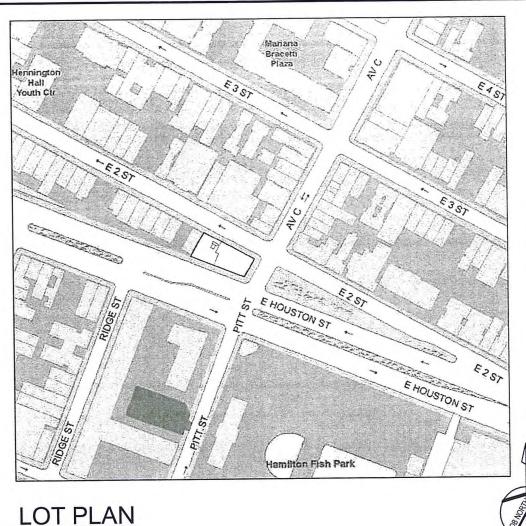
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DWN, BY:

LMB

CHECKED BY:

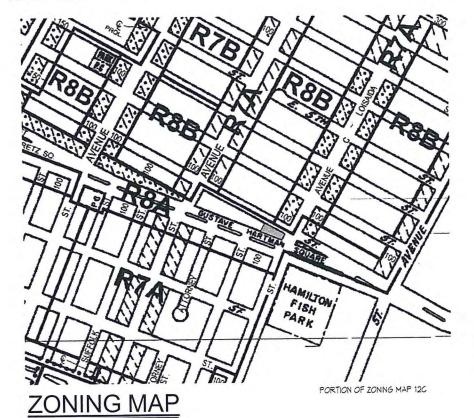
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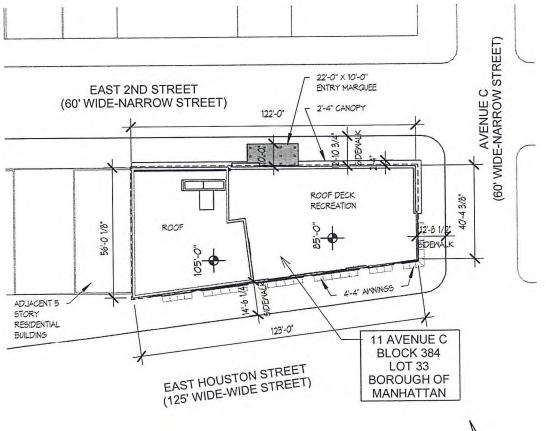
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# **LOT PLAN**

SCALE: 1" = 600'-0"





NOTE PROPERTY LINE HAS BEEN OFFSET TO CLEARLY SHOW LOCATION OF

BUILDING WALLS



**ZONING SITE PLAN** 

SCALE: 1" = 40'-0"



CAL. NO.

NO.

REVISION

DATE

ARCHITECT:

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
PROPOSED
LOT PLAN , ZONING SITE PLAN, ZONING MAP

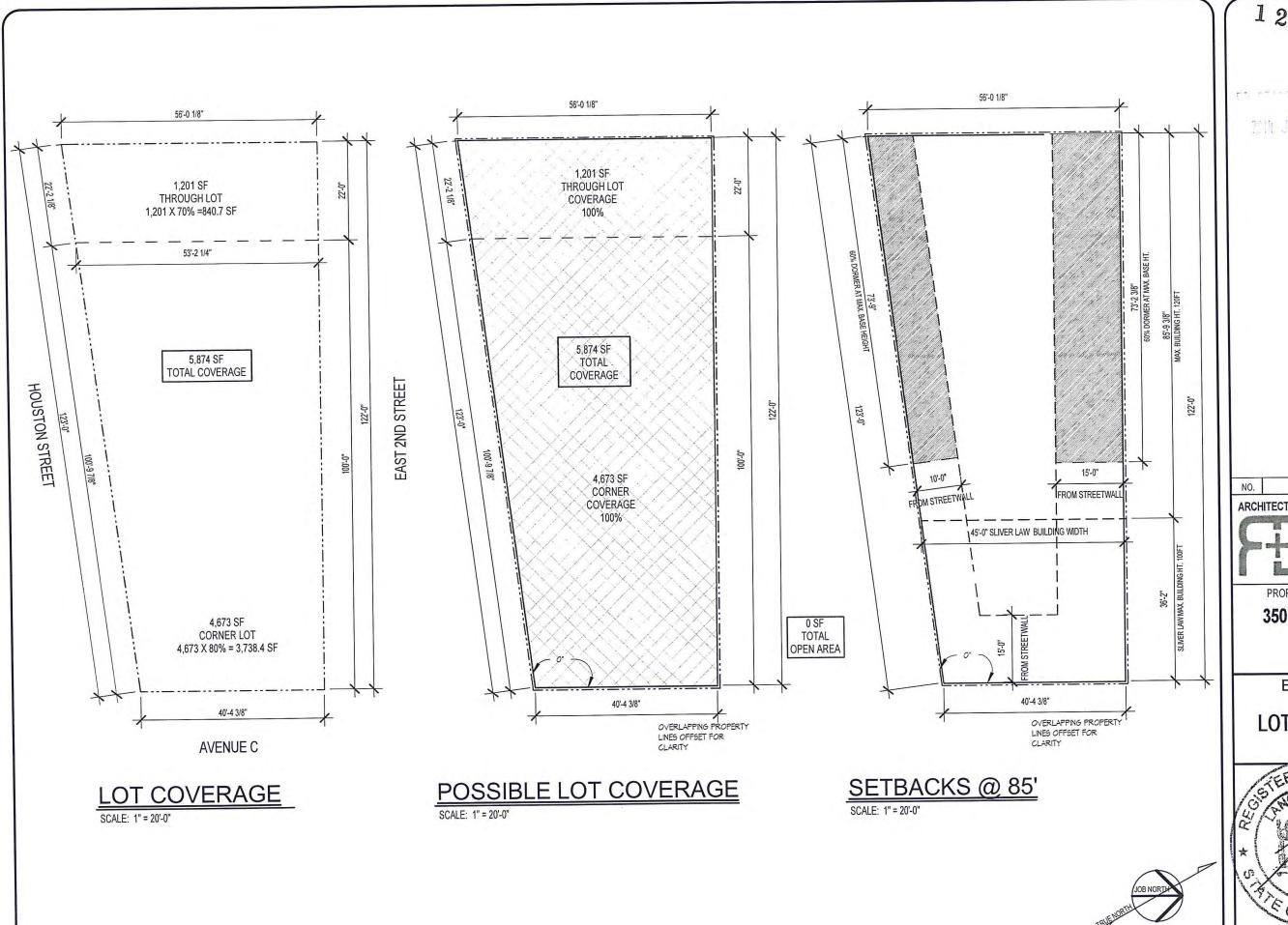


05-28-14 201305 ROJECT NO.

> MGT LMB

CHECKED BY:

SK-005 DRAWING NO.



125-14-B7-2010 JULY - 5 A H: 11 CAL. NO. REVISION ARCHITECT:

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
PROPOSED
LOT COVERAGE PLANS **PLANS** 



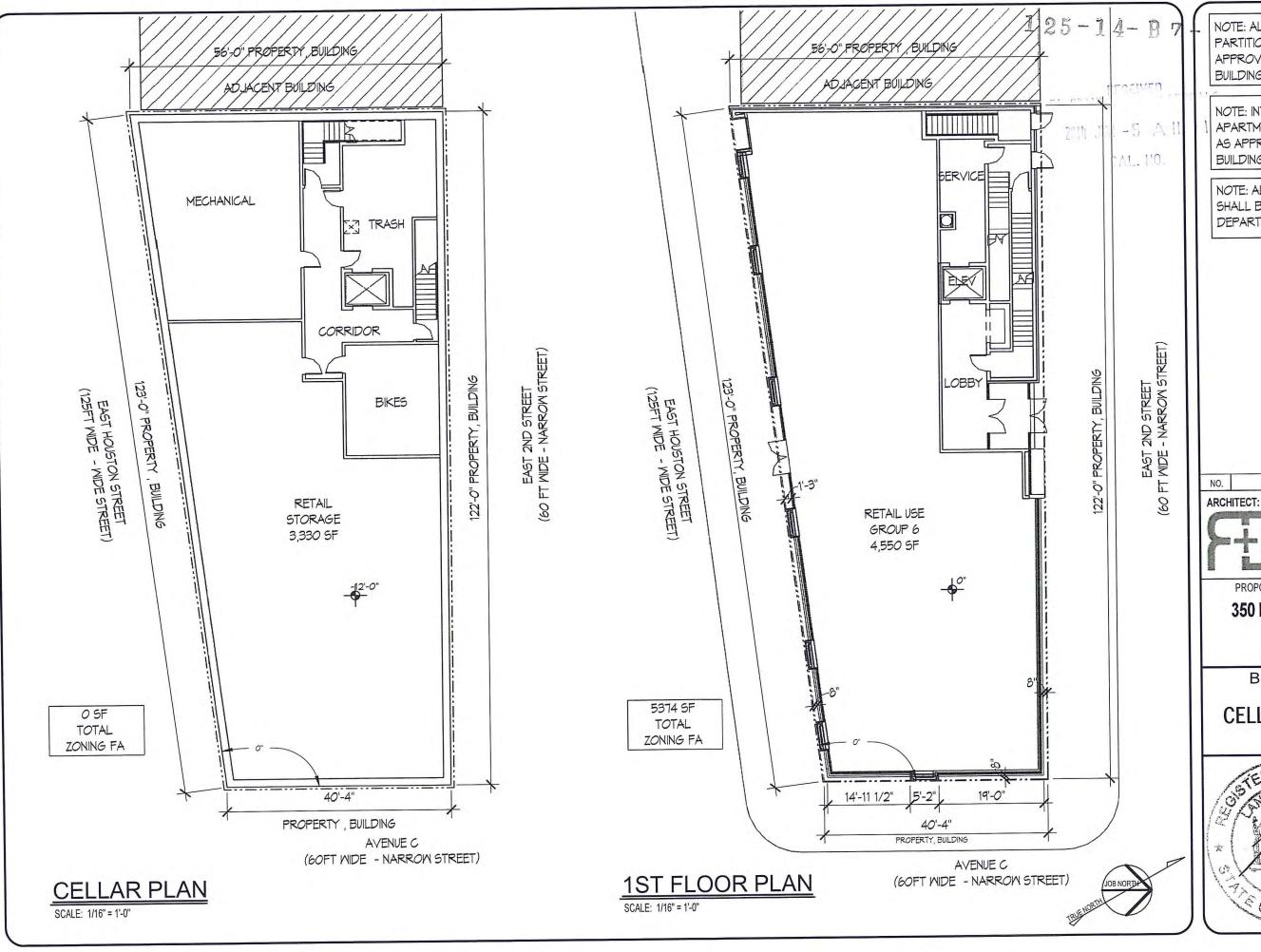
05-28-14 201305 PROJECT NO.

DATE

MGT LMB HECKED BY:

SK-100

DRAWING NO. 7 of 18



NOTE: ALL CELLAR LEVEL PARTITIONS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

NOTE: INTERIOR LAYOUT OF APARTMENTS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

NOTE: ALL PARTITIONS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

REVISION

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

**BSA APPLICATION** PROPOSED CELLAR & FIRST FLOOR **PLANS** 

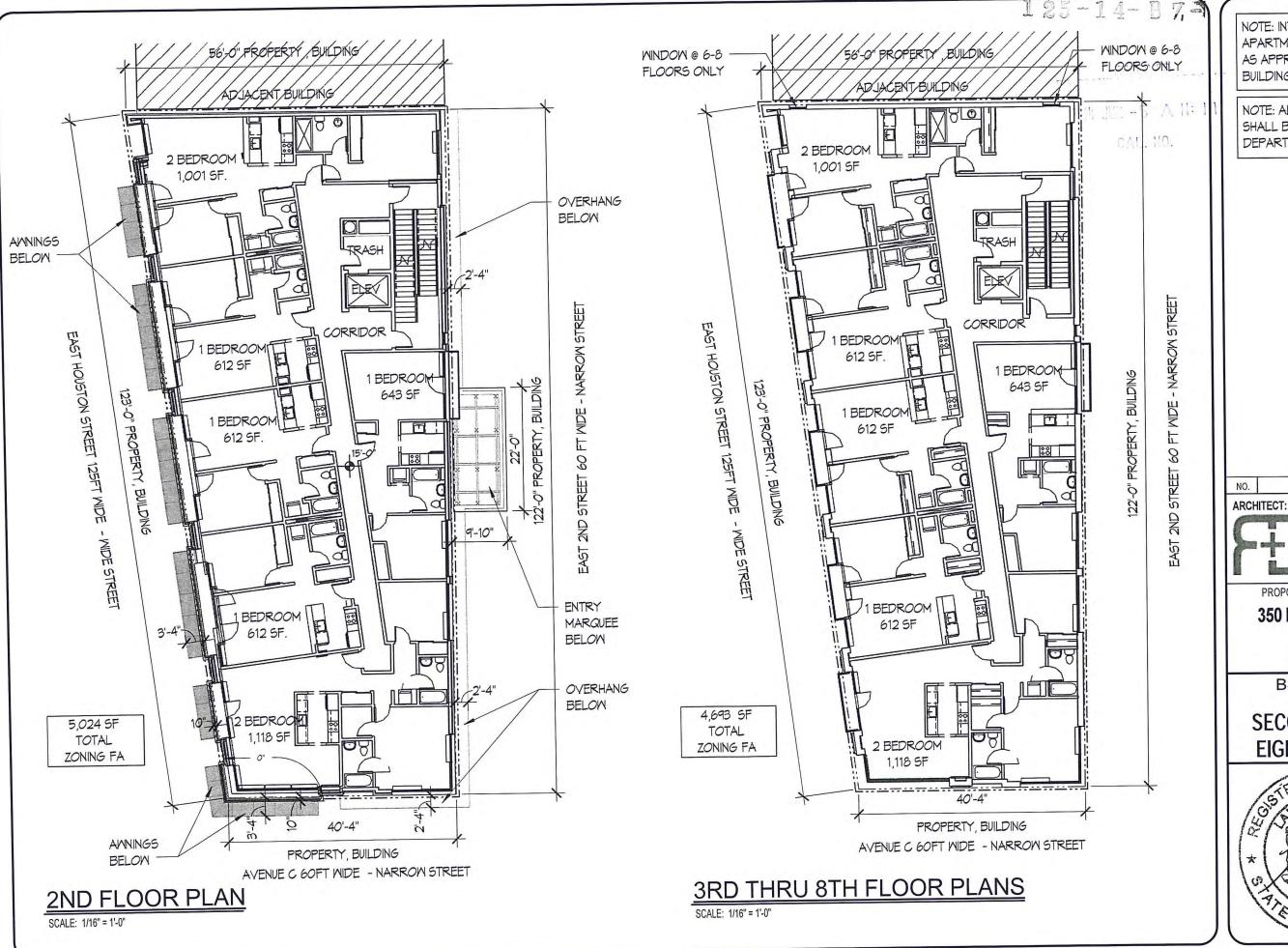


05-28-14 DATE: 201305 PROJECT NO.

MGT WN. BY: LMB CHECKED BY:

SK-101

DRAWING NO.



NOTE: INTERIOR LAYOUT OF APARTMENTS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

NOTE: ALL PARTITIONS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

REVISION

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

**BSA APPLICATION** PROPOSED SECOND & THIRD THRU **EIGHTH FLOOR PLANS** 



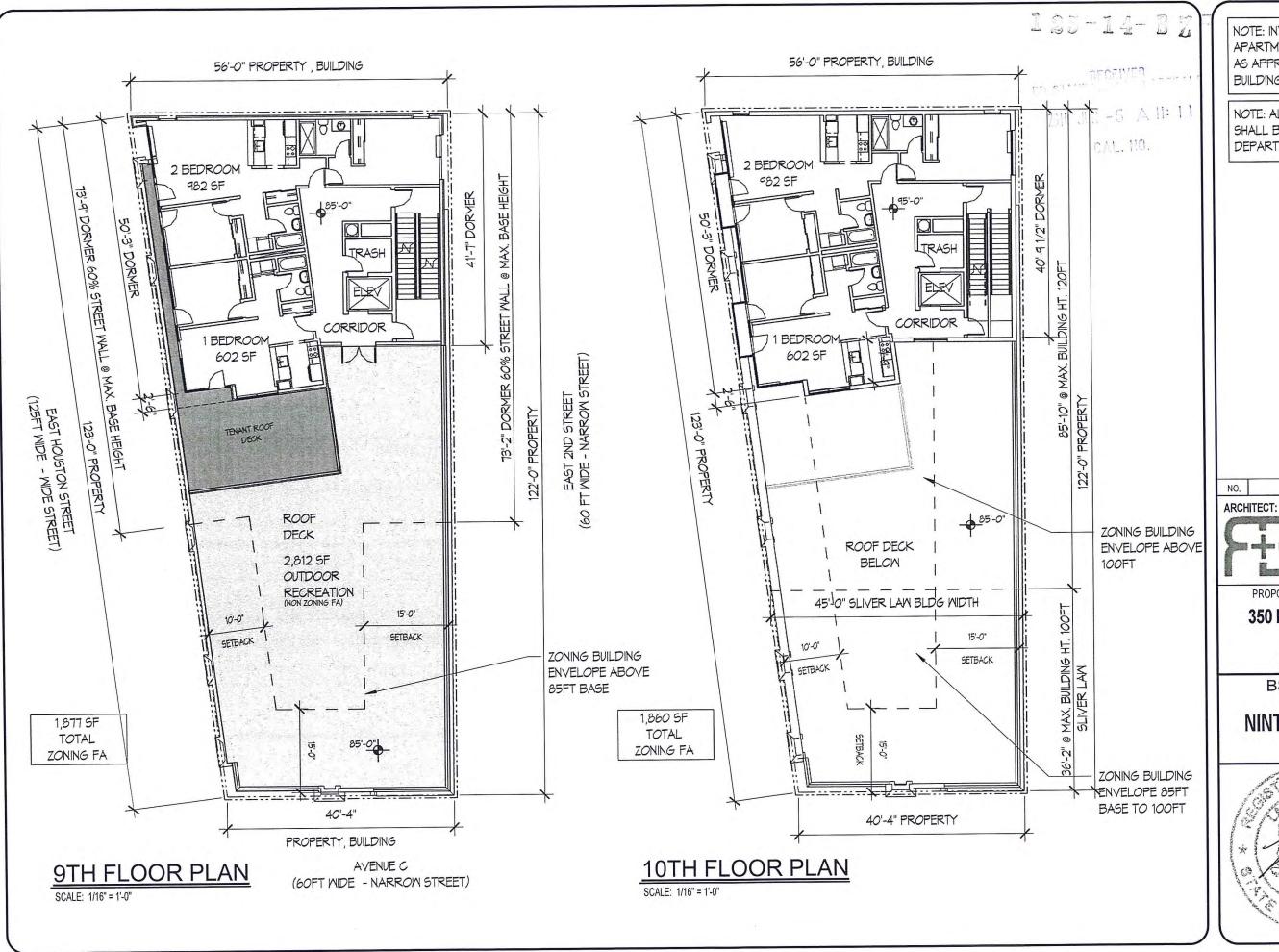
201305

MGT

LMB CHECKED BY:

SK-102

DRAWING NO.



NOTE: INTERIOR LAYOUT OF APARTMENTS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

NOTE: ALL PARTITIONS AND EXITS SHALL BE AS APPROVED BY DEPARTMENT OF BUILDINGS

REVISION

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PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

**BSA APPLICATION** PROPOSED NINTH & TENTH FLOOR **PLANS** 

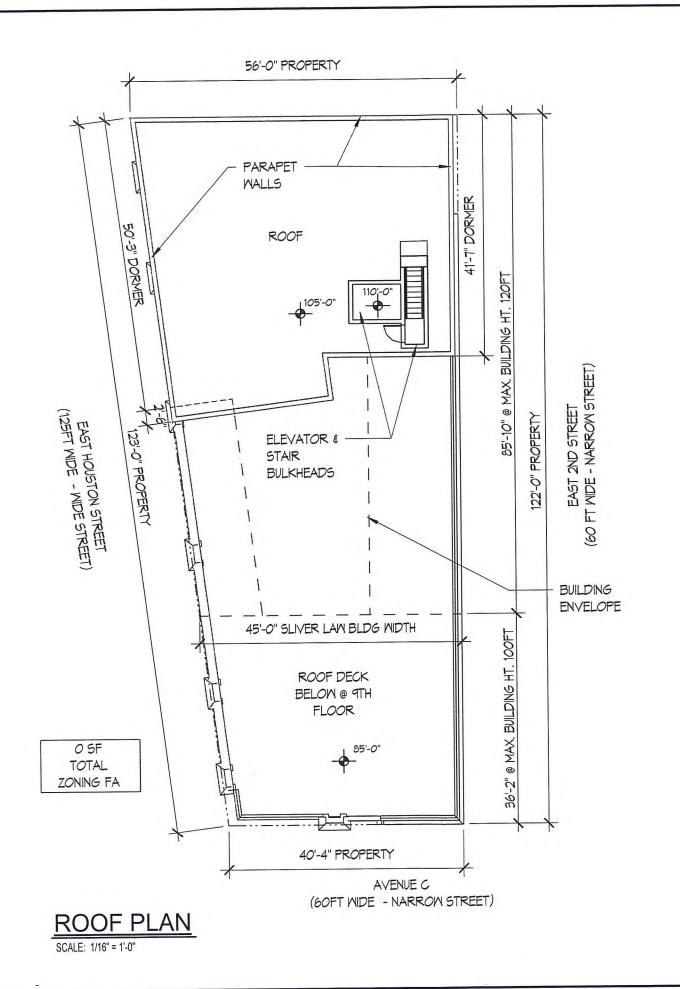


05-28-14 201305 PROJECT NO. MGT

LMB CHECKED BY:

SK-103

DRAWING NO. 10 of 18



125-14-B7-

ZAM JUR -5 A H: 11 CAL. NO.

NO.

REVISION

DATE

ARCHITECT:

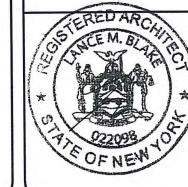


Rotwein+Blake
16 Microlab Road Suite B Livingston, NJ 07039-1602
973 . 740 . 9755 • Fax: 973 . 740 . 9766
E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> PROPOSED ROOF PLAN



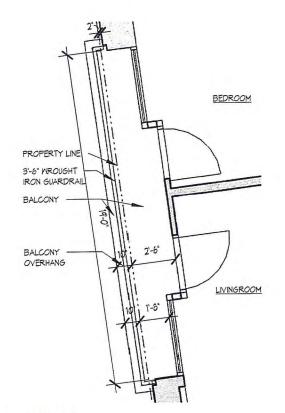
05-28-14 DATE:

201305 PROJECT NO.

MGT DWN. BY: LMB CHECKED BY:

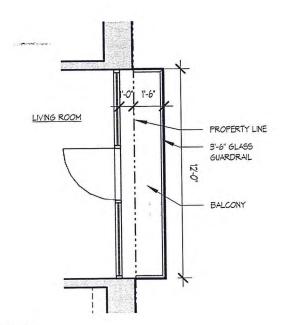
SK-104

DRAWING NO.



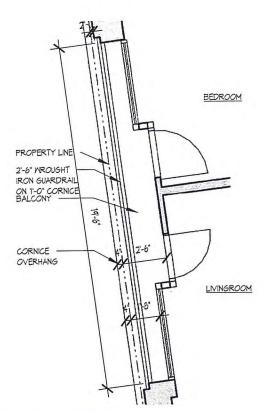
# **TYPICAL** SECOND FLOOR SOUTH BALCONY

SCALE: 3/16" = 1'-0"

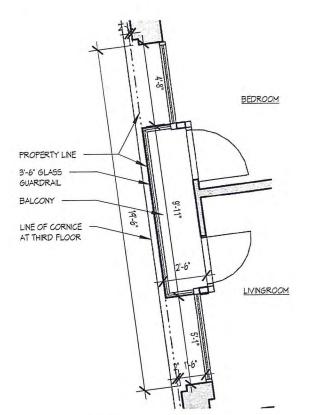


TYPICAL 2-8 FLOOR NORTH BALCONY

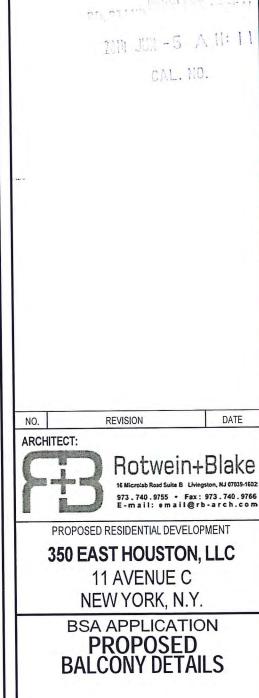
SCALE: 3/16" = 1'-0"



**TYPICAL** THIRD FLOOR SOUTH BALCONY SCALE: 3/16" = 1'-0"



**TYPICAL** 4-8 FLOOR SOUTH BALCONY



DATE

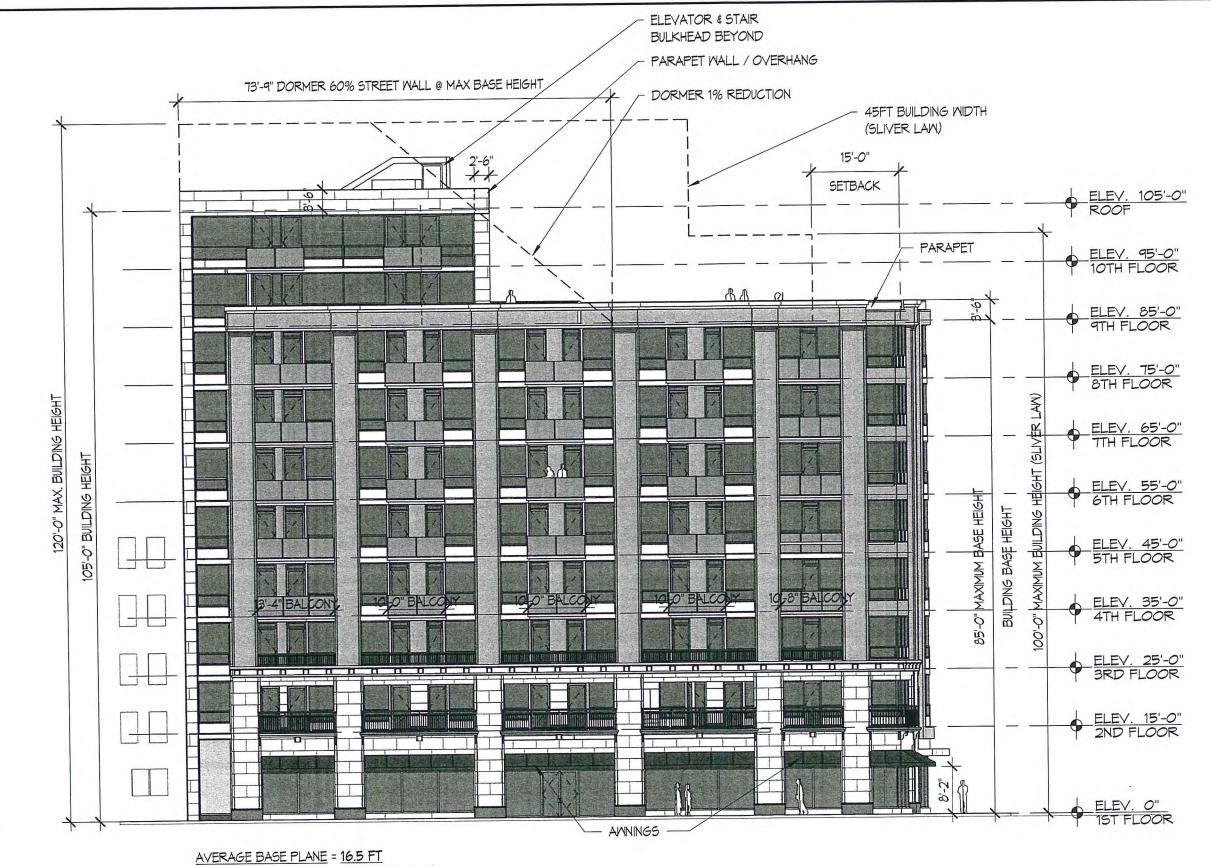
05-28-14 201305 PROJECT NO. MGT LMB

HECKED BY:

SK-105

DRAWING NO. 12 of 18

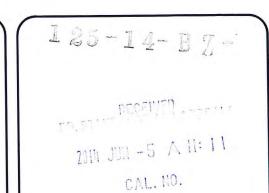
125-14-BZ-1



(AVERAGE BASE PLANE = PROJECT 0'-0")

## **SOUTH ELEVATION**

SCALE: 1/16" = 1'-0"



DATE REVISION NO.

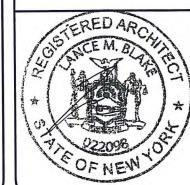
ARCHITECT:

Rotwein+Blake 973.740.9755 • Fax: 973.740.9766 E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> **BSA APPLICATION** PROPOSED ELEVATIONS



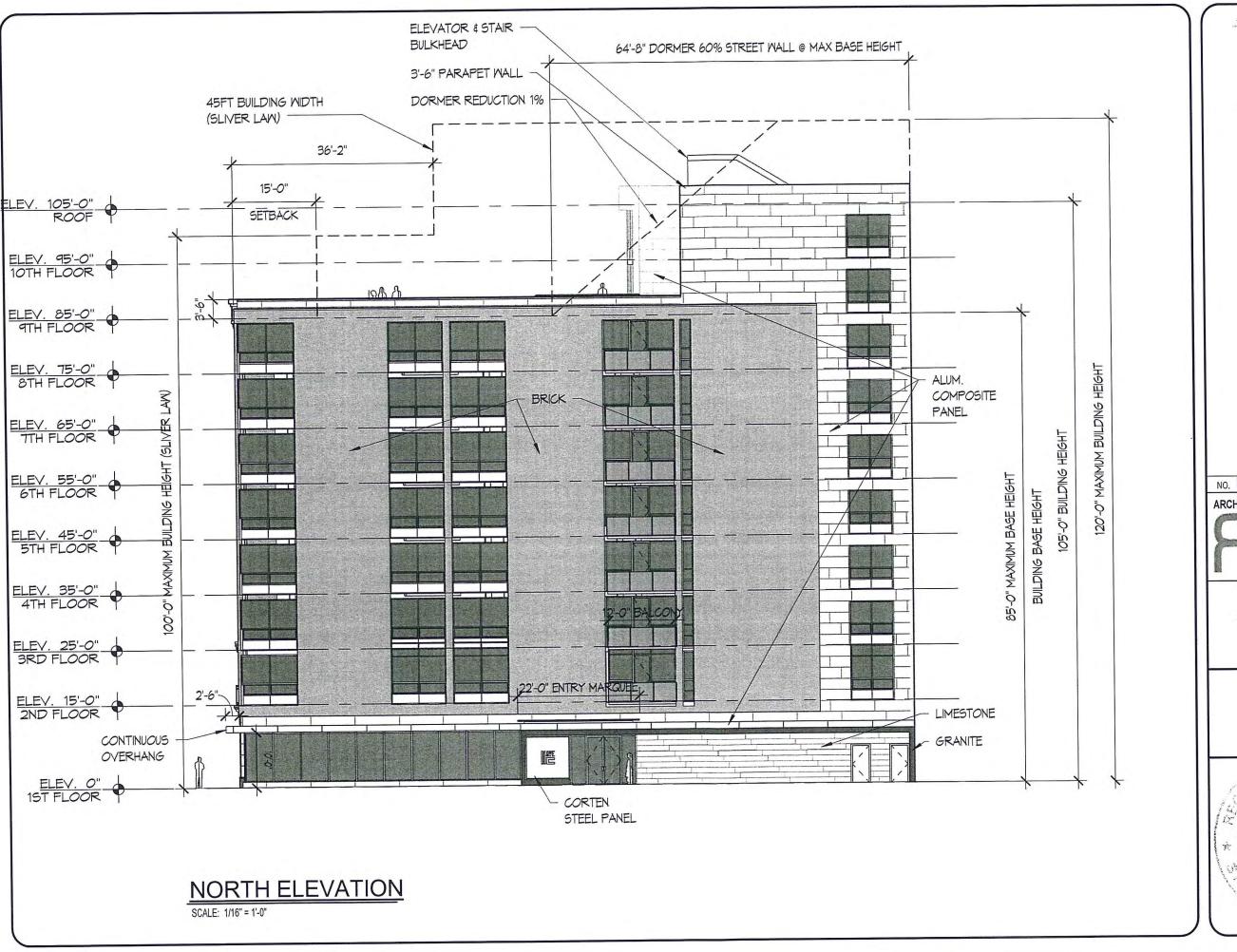
05-28-14

201305 PROJECT NO. MGT

OWN. BY: LMB CHECKED BY:

SK-201

DRAWING NO.



2814 JUN -5 A II: 11 CAL. NO.

REVISION

DATE

ARCHITECT:

Rotwein+Blake 973.740.9755 • Fax: 973.740.9766 E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

> **BSA APPLICATION** PROPOSED ELEVATIONS

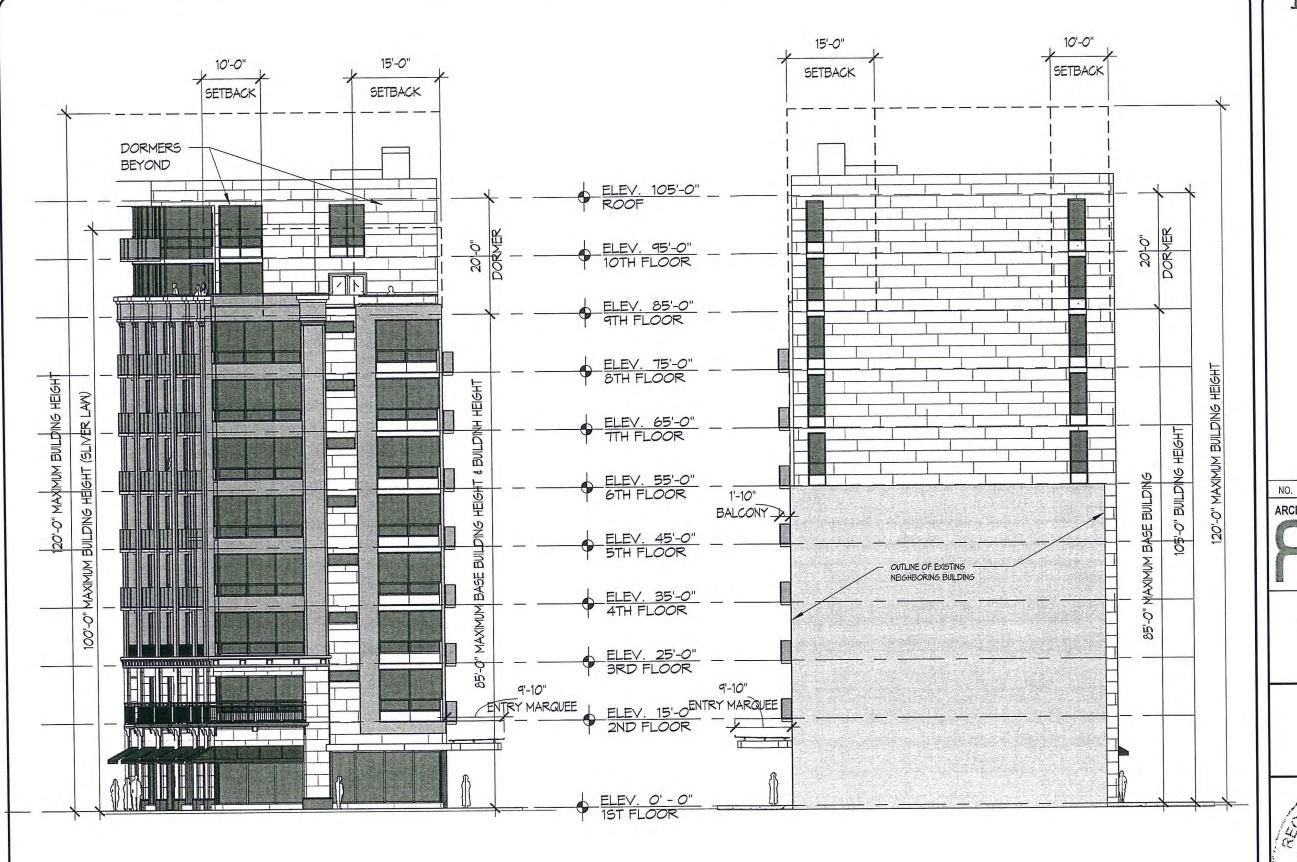


05-28-14 201305 PROJECT NO.

> MGT DWN, BY: LMB HECKED BY:

SK-202

DRAWING NO. 14 of 18



**EAST ELEVATION** 

SCALE: 1/16" = 1'-0"

WEST ELEVATION
SCALE: 1/16" = 1'-0"

125-14-B7-

200 JUL -5 A II: 11

CAL. NO.

REVISION

EVISION DATE

ARCHITECT:

Rotwein+Blake
16 Microlab Road Sulte B Livingston, NJ 07039-1602
973 . 740 . 9755 • Fax: 973 . 740 . 9766
E-mail: email:@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION PROPOSED ELEVATIONS

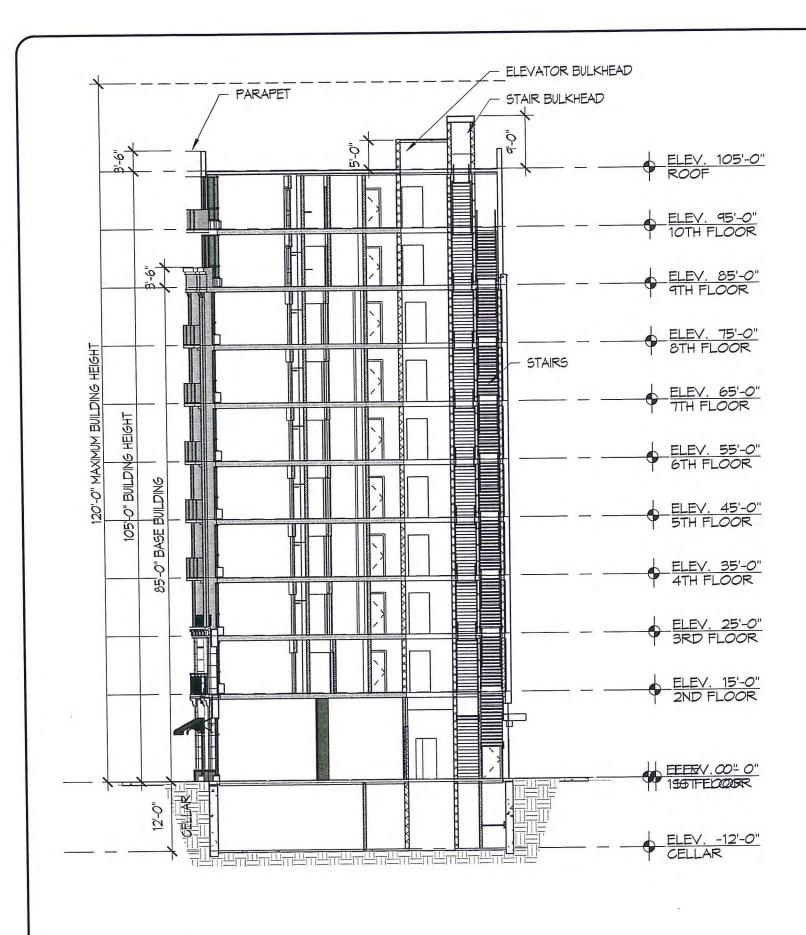


05-28-14 DATE: 201305 PROJECT NO.

MGT DWN, BY: LMB CHECKED BY:

SK-203

DRAWING NO.



**SECTION** 

SCALE: 1/16" = 1'-0"

125-14-B7,=

2014 JUN -5 A N: 11 CAL. NO.

0.

REVISION

DATE

ARCHITECT:



Rotwein+Blake

16 Microlab Road Suite B Livingston, NJ 07039-1602

973 . 740 . 9755 • Fax: 973 . 740 . 9766
E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION
PROPOSED
SECTIONS



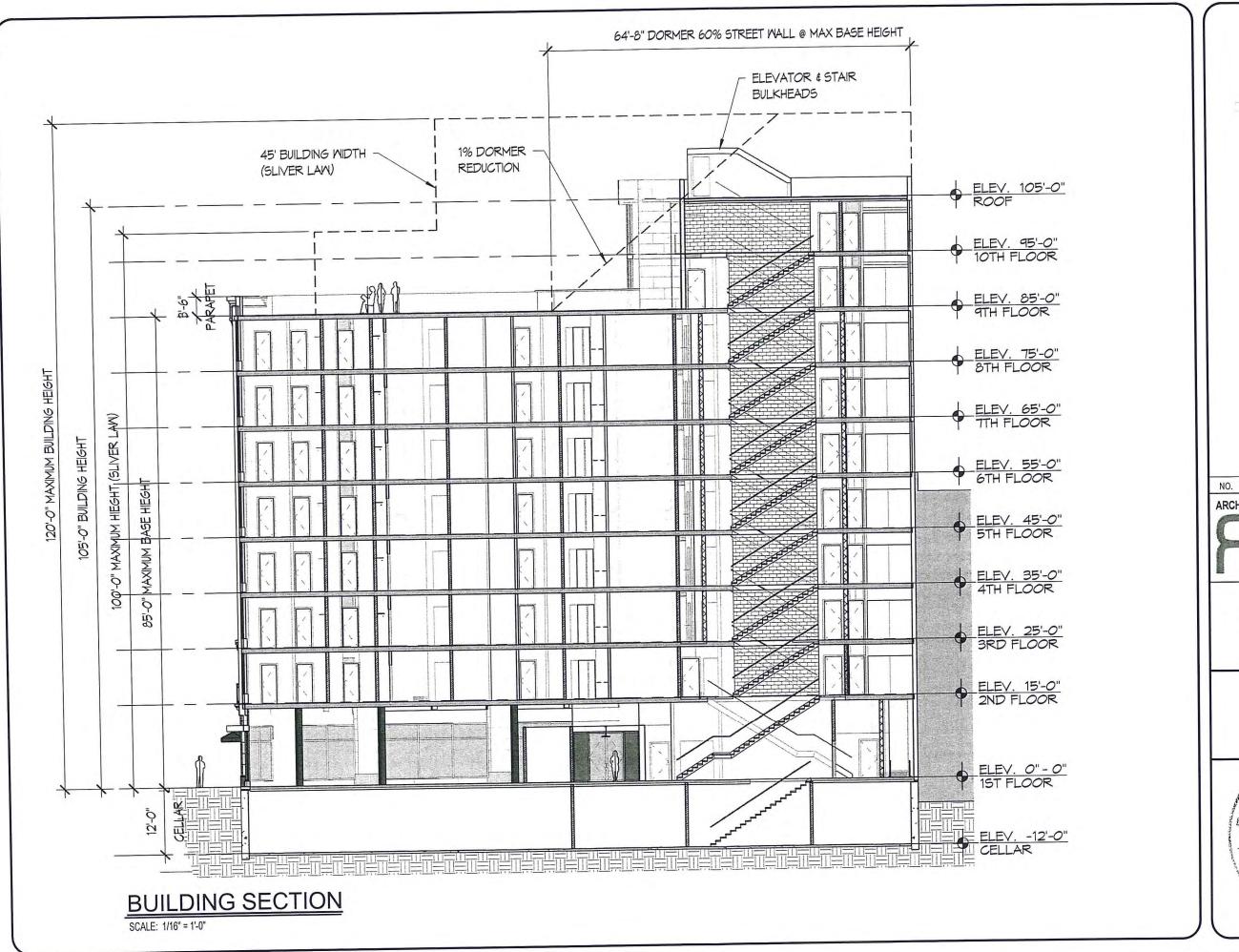
05-28-14 DATE:

201305 ROJECT NO.

DWN. BY:

SK-301

DRAWING NO.



125-14-B7-

2010 JUN -5 A II: 11 CAL. NO.

R

REVISION

ARCHITECT:

Rotwein+Blake

16 Microtab Road Suite B Livingston, NJ 67039-1602

973 . 740 . 9755 • Fax: 973 . 740 . 9766
E-mail: em ail@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION PROPOSED SECTIONS



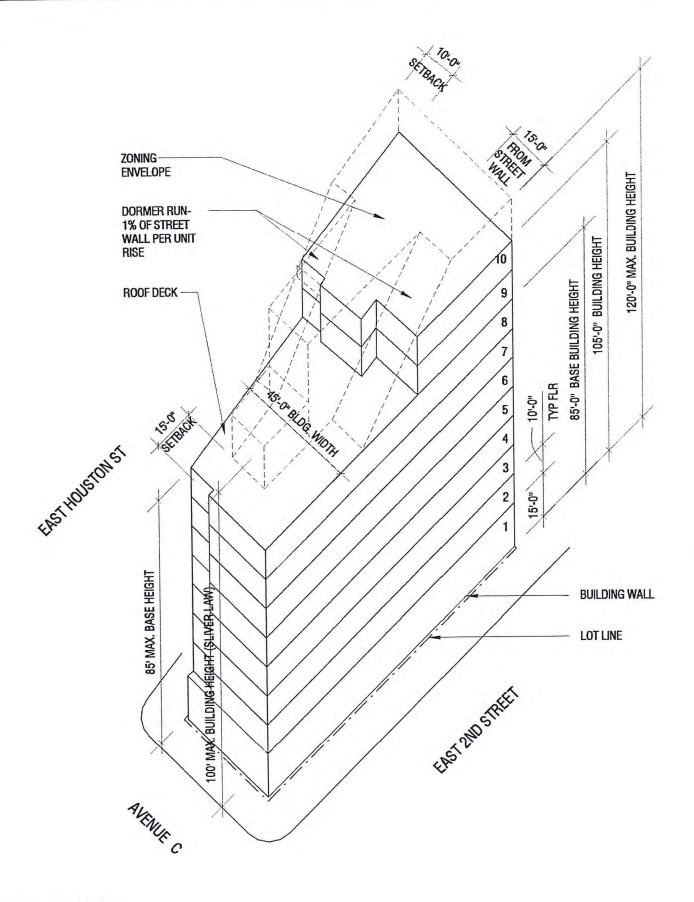
05-28-14 DATE: 201305 PROJECT NO.

DATE

MGT DWN. BY: LMB CHECKED BY:

SK-302

DRAWING NO.



PROPOSED AXON

SCALE: 1/32" = 1'-0"

1 = 30 + 14 - 1 K = 1

Annia - Egeliala

2014 JUN -5 A II: 11 CAL. NO.

NO.

REVISION

DATE

ARCHITECT:



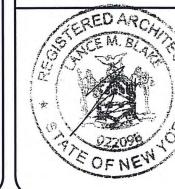
## Rotwein+Blake

16 Microtab Road Suite B Livingston, NJ 07019-1602 973 . 740 . 9755 • Fax: 973 . 740 . 9766 E-mail: email@rb-arch.com

PROPOSED RESIDENTIAL DEVELOPMENT

350 EAST HOUSTON, LLC 11 AVENUE C NEW YORK, N.Y.

BSA APPLICATION PROPOSED AXON



05-28-14 DATE:

201305 PROJECT NO.

MGT DWN. BY:

CHECKED BY:

SK-303 DRAWING NO.

#### 11 Avenue C, Manhattan

#### Block 340

#### Block 340, Lot 1

PARKS AND RECREATION (GENERAL) ARSENAL WEST 16 W. 61ST ST. NEW YORK, NY 10023-7604

#### Block 345

#### Block 345, Lot 9

PEOPLE'S MUTUAL ETC LESPMHA, INC. 228 E. 3RD ST. NEW YORK, NY 10009-7584

#### Block 345, Lot 11

MERLOT MANAGMENT 201 W. 91ST ST. APT. 1D NEW YORK, NY 10024-1324

#### Block 345, Lot 12

GHATAN HABIBOLLAH 41 TARA DR. ROSLYN, NY 11576-2611

#### Block 345, Lot 13

323 HOUSTON STREET CO. 248 W. 108TH ST. NEW YORK, NY 10025-2956

#### Block 345, Lot 14

EL CARIBE LTD. PTNRSHP 141 NORFOLK ST. APT. G/F NEW YORK, NY 10002

#### Block 345, Lot 17

EAST HOUSTON DEVELOPMENT, LLC BRUCE BERG 1120 AVENUE OF THE AMERIC SUITE 1513 NEW YORK, NY 10036

#### Block 345, Lot 18

HAXHAJ, SHPEND 333 EAST HOUSTON STREET NEW YORK, NY 10002

#### Block 345, Lot 20

#### Block 345, Lot 48

LP. SOLUTIONS LLC CCP MANAGEMENT 754 EASTERN PKWY. BROOKLYN, NY 11213-3409

#### Block 345, Lot 58

PITT STREET L.P. 133 PITT ST. NEW YORK, NY 10002-4332

#### Block 371

#### Block 371, Lot 3

PARKS AND RECREATION (GENERAL) ARSENAL WEST 16 W. 61ST ST. NEW YORK, NY 10023-7604

#### Block 372

#### Block 372, Lot 1

262 EAST 2ND ST. LLC C/O NYRM 335 E. 10TH ST. NEW YORK, NY 10009-5032

#### Block 372, Lot 3

18-22 AVENUE C. REALTY, 18-22 AVENUE C. REALTY LLC 151 E. 3RD ST. APT. 3E NEW YORK, NY 10009-7469

#### Block 372, Lot 4

18-22 AVENUE C. REALTY, 20 AVENUE C. NEW YORK, NY 10009-7887

#### Block 372, Lot 5

18-22 AVENUE C. REALTY, 22 AVENUE C. NEW YORK, NY 10009-7884

#### Block 372, Lot 6

LOIZA REALTY CORP. 24 AVENUE C. NEW YORK, NY 10009-7826

#### Block 372, Lot 8

FAIRFAX MANAGEMENT CORP. 270 EAST 3 STREET NEW YORK, NY 10009

#### Block 372, Lot 9

AVENUE C. DAVID OGRIN 40 E. 23RD ST. FL. 5 NEW YORK, NY 10010-4400

#### Block 372, Lot 10

MOSHE SAMOVHA P.O. BOX 2516 NEW YORK, NY 10185-2516

#### Block 372, Lot 11

HOUSING PRESERVATION & DEVELOPMENT 134 BROADWAY APT. #77 BROOKLYN, NY 11211-6031

#### Block 372, Lot 12

PEOPLE'S MUTUAL HSNGETC LESPMHA, INC. 228 E. 3RD ST. NEW YORK, NY 10009-7584

#### Block 372, Lot 14

CITY OF NEW YORK 282 E. 3RD ST. NEW YORK, NY 10009-7839

#### Block 372, Lot 16

THE SECOND HENRY STR 265 HENRY ST. NEW YORK, NY 10002-4808

#### Block 372, Lot 17

THE SECOND HENRY STR 265 HENRY ST. NEW YORK, NY 10002-4808

#### Block 372, Lot 60

C.D.280 ASSOC.LLC. 101 W. 55TH ST, NEW YORK, NY 10019-5343

#### Block 372, Lot 64

NEW YORK CENTER ETAL 270 E. 2ND ST. NEW YORK, NY 10009-7815

#### Block 372, Lot 68

DANIELLE ASSETS, INC. 338 NORTHERN BLVD. STE 4 GREAT NECK, NY 11021-4808

#### Block 373

#### Block 373, Lot 69

273 EAST THIRD LLC DSA MANAGEMENT CO. INC. 60 MADISON AVE. STE 1111 NEW YORK, NY 10010-1644

#### Block 384

#### Block 384, Lot 16

ARGENTO ANTHONY 3172 38TH ST. LONG ISLAND CITY, NY 11103-3915

#### Block 384, Lot 17

ESPACEA, LLC 59 PILGRIM PATH HUNTINGTON, NY 11743-3126

#### Block 384, Lot 18

ESPACEA LLC 59 PILGRIM PATH HUNTINGTON, NY 11743-3126

#### Block 384, Lot 19

229 2ND STREET LLC 229 2ND STREET REALTY LLC 151 EAST 3RD STREET SUIT NEW YORK, NY 10009

#### Block 384, Lot 21

TOLEDANO, DANIEL 25 RUE PIERRE DEMOUR PARIS, 75017 FRANCE

#### Block 384, Lot 7501

NO INFORMATION AVAILABLE

#### Block 384, Lot 23

237 REALTY LLC P.O. BOX 908 MONSEY, NY 10952-0908

#### Block 384, Lot 24

JOSEPH CARDONA MEMOETC THERESA HAGAN 239 E. 2ND ST. APT. 2 NEW YORK, NY 10009-8072

#### Block 384, Lot 25

LES COALITION HOUSING DEVELOPMENT FUND CORPORATION 308 E. 8TH ST. NEW YORK, NY 10009-5902

#### Block 384, Lot 26

J.D. 243 LLC 319 LAFAYETTE ST. APT. BOX 140 NEW YORK, NY 10012-2711

#### Block 384, Lot 27

J.D. 245 LLC ANDREWS BUILDING CORP. 666 BROADWAY FL. 12 NEW YORK, NY 10012-2317

#### Block 384, Lot 28

PARKS AND RECREATION (GENERAL) ARSENAL WEST 16 W. 61ST ST. NEW YORK, NY 10023-7604

#### Block 384, Lot 29

249 EAST SECOND STREET REALTY, LLC 249 E. 2ND ST. NEW YORK, NY 10009-8027

#### Block 384, Lot 33

350 EAST HOUSTON LLC BLDG. MANAGEMENT CO.INC. 417 5TH AVE. FL. 4 NEW YORK, NY 10016-2239

#### Block 384, Lot 40

NO INFORMATION AVAILABLE

#### Block 385

#### Block 385, Lot 19

EAST THIRD STREET HOUSING DEVELOPMENT FUND CO. INC. LESPMHA, INC. 228 E. 3RD ST. NEW YORK, NY 10009-7584

#### Block 385, Lot 20

EAST THIRD STREET HOUSING DEVELOPMENT FUND CO. INC. 228 E. 3RD ST. NEW YORK, NY 10009-7584

#### Block 385, Lot 22

234 EAST 3RD STREETREALTY COMPANY, P.O. BOX 301118 BROOKLYN, NY 11230-8118

#### Block 385, Lot 23

NUYORICAN POETS CAFE INC. P.O. BOX 20794 NEW YORK, NY 10009-8967

#### Block 385, Lot 24

THIRD STREET THEATER, 599 BROADWAY FL. 6 NEW YORK, NY 10012-3371

#### Block 385, Lot 26

242 EAST 3RD ASSOCIATES, 242 E. 3RD ST. NEW YORK, NY 10009-7429

#### Block 385, Lot 27

US POSTAL SERVICE 90 CHURCH ST. REAL ESTATE NEW YORK, NY 10007-1377

#### Block 385, Lot 29

248 EAST THIRD STREET HOUSING DEVELOPMENT 248 E. 3RD ST. NEW YORK, NY 10009-7431

#### Block 385, Lot 30

CITY OF NEW YORK 250 E. 3RD ST. NEW YORK, NY 10009-7437

#### Block 385, Lot 34

254 EAST 3RD STREET 190 BROOKS BND. PRINCETON, NJ 08540-7545

#### Block 385, Lot 35

29 AVENUE C. NEW REALTY LLC 565 PLANDOME RD. #166 MANHASSET, NY 11030-1945

#### Block 385, Lot 36

ANDREW CHANG 27 AVENUE C. NEW YORK, NY 10009-7827

#### Block 385, Lot 37

25 AVENUE C. NEW REALTY LLC 25 AVENUE C. NEW YORK, NY 10009-7897

#### Block 385, Lot 38

UMBRELLA HOUSE HDFC 21-23 AVENUE C. APT. 5D NEW YORK, NY 10009

#### Block 385, Lot 40

17-19 AVE. C. LLC 17-19 AVENUE C. LLC 151 E. 3RD ST. APT. 3E NEW YORK, NY 10009-7469

#### Block 385, Lot 42

15 AVENUE C. CORP. 15 AVENUE C. NEW YORK, NY 10009-7824

#### Block 385, Lot 7501

254 EAST 2ND ST. CONDOMINIUM C/O 254 DEVELOPMENT LLC 161 CHRYSTIE ST. NEW YORK, NY 10002-2885

#### Block 385, Lot 46

JAMES ATAMANUK 155 E. 4TH ST. APT. 9B NEW YORK, NY 10009-7352

#### Block 385, Lot 47

DIVERSITY HOUSES HSG DEVEL FDG CO. LOWER EAST SIDE PEOPLES MUTUAL 209 E. 3RD ST. NEW YORK, NY 10009-7524

#### Block 385, Lot 48

DIVERSITY HOUSES HOUSING DEVEL. FUNDING CO., INC. 244 EAST 2 STREET NEW YORK, NY 10009

#### Block 385, Lot 49

DIVERSITY HOUSES HSG DEVEL FDG CO. LOWER EAST SIDE PEOPLES MUTUAL 209 E. 3RD ST. NEW YORK, NY 10009-7524

#### Block 385, Lot 50

BRU-SAL REALTY INC. 78 BELFIELD AVE. STATEN ISLAND, NY 10312-2926

#### Block 385, Lot 51

PARKS AND RECREATION (GENERAL) ARSENAL WEST 16 W. 61ST ST. NEW YORK, NY 10023-7604

#### Block 385, Lot 52

PARKS AND RECREATION (GENERAL) ARSENAL WEST 16 W. 61ST ST. NEW YORK, NY 10023-7604

#### Block 385, Lot 53

BRIDGE 202 APARTMENTS REVITALIZATION HOUSING 248 W. 108TH ST. NEW YORK, NY 10025-2956

#### Block 385, Lot 54

JULIUS COOPER P.O. BOX 110525 BROOKLYN, NY 11211-0525

#### Block 385, Lot 55

LASKER ABRAHAM P.O. BOX 110525 BROOKLYN, NY 11211-0525

#### Block 385, Lot 56

226-8 EAST 2 OWNERS C. NEW BEDFORD MANAGEMENT 210 E. 23RD ST. STE 4 NEW YORK, NY 10010-4604

#### Block 385, Lot 58

FIRE DEPARTMENT 250 9 METROTECH CTR. BROOKLYN, NY 11201-5431

#### Block 386

#### Block 386, Lot 33

NEW YORK CITY HOUSING AUTHORITY 274 E. 4TH ST. NEW YORK, NY 10009

#### 11 Avenue C, Manhattan

#### **Community Board**

Manhattan Community Board 3 59 East 4th Street New York, NY 10003

#### City Councilperson

Rosie Mendez 237 First Ave, Suite 504 New York, NY 10003

#### **Borough President**

Office of Manhattan Borough President Scott M. Stringer 1 Centre Street, 19th Floor New York, NY 10007

#### Department of City Planning (Manhattan Office)

Ms. Edith Hsu-Chen Director, Manhattan Office Department of City Planning 22 Reade Street, 6W New York, NY 10007-1216

#### Department of City Planning (Central Office)

Christopher Holme 22 Reade Street New York, NY 10007-1216

State of New York )
County of Uzers)

Miya Alcivar, being duly sworn, deposes and says: That the foregoing names and addresses were obtained from the City Collector's office on the 11<sup>th</sup> day of September, 2013.

Sworn before me on

this 18 day of September, 2013.

Miya Alciva

JHUMA ROY

Notary Public - State of New York

NO. 01R06154572

Qualified in Queens County
My Commission Expires 1612

[Notary Public Stamp]



# 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					TENTE		
1. Does the Action Exceed Any 1977, as amended)?	Type I Thresho	Id in 6 NYCRR Pa	rt 617.4 or 43 RCNY §6	-15(A) (Executive	Order 91 of		
If "yes," STOP and complete the	If "yes," STOP and complete the <u>FULL EAS FORM</u> .						
2. Project Name 11 Avenue C							
3. Reference Numbers							
CEOR REFERENCE NUMBERS to be assig	I 6 9 M	:y)	BSA REFERENCE SUMBE	1 (if Applicable) Z -	1		
ULURP REFERENCE NUMBER (if applicable)			OTHER REFERENCE NUMBER(S) (if applicable)				
As I and Annual Information			(e.g., legislative intro, CA				
4a. Lead Agency Information NAME OF LEAD AGENCY			4b. Applicant Information NAME OF APPLICANT	mation			
Board of Standards & Appeals			350 East Houston LL	r			
NAME OF LEAD AGENCY CONTACT PER	SON				ONTACT PERSON		
Rory Levy, CEQR Examiner			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Equity Environmental Engineering				
ADDRESS 250 Broadway, 29th Flo	or		ADDRESS 227 Route				
CITY New York	STATE NY	ZIP 10007	CITY Flanders	STATE NJ	ZIP 07836		
TELEPHONE	EMAIL		TELEPHONE	EMAIL	1 -0 -1 -1 -1		
5. Project Description		111111111111	-3-77-77-79-4-51				
The applicant proposes to deve	lop a mixed res	idential and com	mercial building at a sit	te located on the	west side of		
Avenue C, between East Housto							
residential units, and 4,550 squa							
requirements of the site's R8A z			addi mener ib bought ii	om the use and to	recruge		
Project Location							
BOROUGH Manhattan	COMMUNITY D	STRICT(S) 3	STREET ADDRESS 11 A	venue C			
TAX BLOCK(S) AND LOT(S) Block 384	, Lot 33		ZIP CODE 10002	1			
DESCRIPTION OF PROPERTY BY BOUND	ING OR CROSS ST	REETS west side o	of Avenue C between Ea	st Houston and E	ast 2 <sup>nd</sup> streets		
EXISTING ZONING DISTRICT, INCLUDIN	G SPECIAL ZONING	DISTRICT DESIGNAT	TION, IF ANY R8A ZO	NING SECTIONAL MA	NUMBER 12C		
6. Required Actions or Approve	als (check all that	apply)					
City Planning Commission:	YES 🛛 N	0	UNIFORM LAND US	E REVIEW PROCEDUR	E (ULURP)		
CITY MAP AMENDMENT	ZON	ING CERTIFICATION		CONCESSION			
ZONING MAP AMENDMENT	ZON	ING AUTHORIZATION		UDAAP			
ZONING TEXT AMENDMENT	ACQ	UISITION—REAL PRO	PERTY	REVOCABLE CONSENT	ŕ		
SITE SELECTION—PUBLIC FACILITY	DISP	OSITION—REAL PRO	PERTY	FRANCHISE			
HOUSING PLAN & PROJECT OTHER, explain:							
SPECIAL PERMIT (if appropriate, s	pecify type: m	odification; re	newal; other); EXPIRAT	TION DATE:			
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION							
Board of Standards and Appeals: X YES NO							
VARIANCE (use)							
VARIANCE (bulk)							
SPECIAL PERMIT (if appropriate, specify type: modification; renewal; other); EXPIRATION DATE:							
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION 22-00, 23-145, 23-951							
Department of Environmental	per la pe	YES N					
Other City Approvals Subject to	CEQR (check all	that apply)					
LEGISLATION		A 1. 2. 2.	FUNDING OF CONS	TRUCTION, specify:			
RULEMAKING			POLICY OR PLAN, S	pecify:			

CONSTRUCTION OF PU	JBLIC FACILITIES	P	FUNDING OF PROGRAMS, s	pecify:
384(b)(4) APPROVAL OTHER, explain:			PERMITS, specify:	
THE RESERVE OF THE PARTY OF THE	Not Subject to CEQR (ch	ack all that apply	<del></del>	
	OFFICE OF CONSTRUCTION		LANDMARKS PRESERVATION	N COMMISSION APPROVAL
COORDINATION (OCMC)	OFFICE OF CONSTRUCTION		OTHER, explain:	N COMMISSION APPROVAL
State or Federal Actio	ns/Approvals/Funding	: YES NO	If "yes," specify:	
7. Site Description: The	e directly affected area cons	sists of the project site and the	area subject to any change i	n regulatory controls. Except
		nation with regard to the dire		
				te. Each map must clearly depict
		d indicate a 400-foot radius d must be folded to 8.5 x 11 incl		ries of the project site. Maps may
SITE LOCATION MAP	K A	NING MAP		N OR OTHER LAND USE MAP
TAX MAP				T DEFINES THE PROJECT SITE(S)
The state of the s	all the first the all the property of the party of the pa	HIN 6 MONTHS OF EAS SUBMI		
	developed and undeveloped		SSION AND RETED TO THE ST	TE LOCATION WAT
Total directly affected area			terbody area (sq. ft) and type	:
	paved surfaces (sq. ft.): 5,		er, describe (sq. ft.):	
				opment facilitated by the action)
	VELOPED (gross square feet)		21127/ 1/10/10/10/10/10/10/10/10/10/10/10/10/10	epinens issuitates ay the autient
NUMBER OF BUILDINGS: 1			OR AREA OF EACH BUILDING	(sg. ft.): 55.316
HEIGHT OF EACH BUILDING	No. 14 - D. E. E. L. & C. V.		STORIES OF EACH BUILDING	
	involve changes in zoning o		5-2	
	square feet owned or contro	. 1991. S. 1991 S. 1991. S. 1	-	
	square feet not owned or co			
			ncluding, but not limited to f	oundation work, pilings, utility
lines, or grading?	The second secon			
		isions of subsurface permane	nt and temporary disturbanc	e (if known):
	URBANCE: 5,874 sq. ft. (w		E OF DISTURBANCE: 76,000	O cubic ft. (width x length x depth)
	TURBANCE: 5,874 sq. ft. (w			
Description of Propos	ed Uses (please complete	the following information as a		
	Residential	Commercial	Community Facility	Industrial/Manufacturing
Size (in gross sq. ft.)	43,786	7,880		
Type (e.g., retail, office, school)	46 units	local retail and cellar storage		
		residents and/or on-site work	State of the state	
If "yes," please specify:		R OF ADDITIONAL RESIDENTS		ADDITIONAL WORKERS: 9
		e determined: assume ave	rage 2 persons per hous	sehold, two retail
	and square feet of com			
Does the proposed project			'yes," specify size of project-	
		that differs from the existing	condition? YES	⊠ NO
A management of the latest and the l		ework" and describe briefly:		
	Technical Manual Chapter 2			
The second secon		ompleted and operational):	2016	
	ONSTRUCTION IN MONTHS			
	MPLEMENTED IN A SINGLE P		D IF MULTIPLE PHASE	ES, HOW MANY?
	AND CONSTRUCTION SCHE			
process process		the Project (check all that a		
RESIDENTIAL _	MANUFACTURING	COMMERCIAL	PARK/FOREST/OPEN SPACE	OTHER, specify: community facility

#### 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
1. LAND USE, ZONING, AND PUBLIC POLICY: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?		
(b) Would the proposed project result in a change in zoning different from surrounding zoning?		
(c) Is there the potential to affect an applicable public policy?		
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?		
o If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?		
o If "yes," complete the Consistency Assessment Form.		
2. SOCIOECONOMIC CONDITIONS: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		1.1
o Generate a net increase of 200 or more residential units?		
<ul> <li>Generate a net increase of 200,000 or more square feet of commercial space?</li> </ul>		
o Directly displace more than 500 residents?	ī	
o Directly displace more than 100 employees?	Ħ	
Affect conditions in a specific industry?		X
3. COMMUNITY FACILITIES: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
<ul> <li>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?</li> </ul>		
(b) Indirect Effects		
<ul> <li>Child Care Centers: 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 <u>Chapter 6</u>)</li> </ul>		$\boxtimes$
<ul> <li>Libraries: Would the project result in a 5 percent or more increase in the ratio of residential units to library branches?</li> <li>(See Table 6-1 in <u>Chapter 6</u>)</li> </ul>		$\boxtimes$
<ul> <li>Public Schools: 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 <u>Chapter 6</u>)</li> </ul>		
<ul> <li>Health Care Facilities and Fire/Police Protection: Would the project result in the introduction of a sizeable new neighborhood?</li> </ul>		$\boxtimes$
4. OPEN SPACE: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?		
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?		
o If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?		
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?		X
o If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?		
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?		

	YES	NO
5. SHADOWS: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	X	П
(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?		
6. HISTORIC AND CULTURAL RESOURCES: CEQR Technical Manual Chapter 9		
(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 GIS System for Archaeology and National Register to confirm)		
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?		
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting informat whether the proposed project would potentially affect any architectural or archeological resources.	ion on	
7. URBAN DESIGN AND VISUAL RESOURCES: CEQR Technical Manual Chapter 10		
(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?	M	Ш
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?		$\boxtimes$
8. NATURAL RESOURCES: CEQR Technical Manual Chapter 11		3 1
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?		$\boxtimes$
o If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these re	sources.	
(b) Is any part of the directly affected area within the <u>Jamaica Bay Watershed</u> ?		
<ul> <li>If "yes," complete the <u>Jamaica Bay Watershed Form</u>, and submit according to its <u>instructions</u>.</li> </ul>		
9. HAZARDOUS MATERIALS: CEQR Technical Manual Chapter 12	10	
(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?		
(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?		$\boxtimes$
(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 <u>Appendix 1</u> (including nonconforming uses)?	$\boxtimes$	
(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?		
(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)?		
(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?		
(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?		
(h) Has a Phase I Environmental Site Assessment been performed for the site?		
<ul> <li>If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: petroleum contamination,</li> <li>VOCs, SVOCs, metals, pesticides</li> </ul>		
10. WATER AND SEWER INFRASTRUCTURE: CEOR Technical Manual Chapter 13	1 / /	
(a) Would the project result in water demand of more than one million gallons per day?		
(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?		$\boxtimes$
(c) If the proposed project located in a <u>separately sewered area</u> , would it result in the same or greater development than the amounts listed in Table 13-1 in <u>Chapter 13</u> ?		
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?		$\boxtimes$
(e) If the project is located within the <u>Jamaica Bay Watershed</u> or in certain <u>specific drainage areas</u> , including Bronx River, Coney		

#### **EAS SHORT FORM PAGE 5**

	YES	NO
involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	-	
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?		
(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?		×
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?		
11. SOLID WASTE AND SANITATION SERVICES: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per wee	k): 2,8	337
O Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	П	
(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?		
12. ENERGY: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 5,35	58,143	3
(b) Would the proposed project affect the transmission or generation of energy?		
13. TRANSPORTATION: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?		
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following q	uestion	is:
<ul> <li>Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?</li> </ul>		
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection?  **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 Chapter 16 for more information.		
O Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?		
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?		
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?		
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?		
14. AIR QUALITY: CEQR Technical Manual Chapter 17		Service.
(a) Mobile Sources: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?		$\boxtimes$
(b) Stationary Sources: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	$\boxtimes$	
<ul> <li>If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in <u>Chapter 17</u>? (Attach graph as needed)</li> </ul>		
(c) Does the proposed project involve multiple buildings on the project site?		$\boxtimes$
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?		
(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?		
15. GREENHOUSE GAS EMISSIONS: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?		
(b) Would the proposed project fundamentally change the City's solid waste management system?		$\boxtimes$
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	100	
16. NOISE: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?		$\boxtimes$
(b) Would the proposed project introduce new or additional receptors (see Section 124 in <u>Chapter 19</u> ) 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?		
(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?		
(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?		
17. PUBLIC HEALTH: CEOR Technical Manual Chapter 20		

#### **EAS SHORT FORM PAGE 6**

		YES	NO
(a) Based upon the analyses conducted, do any of the following t Hazardous Materials; Noise?	echnical areas require a detailed analysis: Air Quality;		$\boxtimes$
(b) If "yes," explain why an assessment of public health is or is n preliminary analysis, if necessary.	ot warranted based on the guidance in <u>Chapter 20</u> , "Public Health	ı." Attac	ch a
18. NEIGHBORHOOD CHARACTER: CEQR Technical Manual	Chapter 21		
(a) Based upon the analyses conducted, do any of the following t and Public Policy; Socioeconomic Conditions; Open Space; His Resources; Shadows; Transportation; Noise?		$\boxtimes$	
(b) If "yes," explain why an assessment of neighborhood charact Character." Attach a preliminary analysis, if necessary. The the potential for adverse impacts to these constit	analyses of urban design, shadows, and noise did not	the state of the s	
19. CONSTRUCTION: CEQR Technical Manual Chapter 22			
(a) Would the project's construction activities involve:			
o Construction activities lasting longer than two years?			
o Construction activities within a Central Business District or	along an arterial highway or major thoroughfare?	$\boxtimes$	
<ul> <li>Closing, narrowing, or otherwise impeding traffic, transit, or routes, sidewalks, crosswalks, corners, etc.)?</li> </ul>	or pedestrian elements (roadways, parking spaces, bicycle	$\boxtimes$	
<ul> <li>Construction of multiple buildings where there is a potent build-out?</li> </ul>	ial for on-site receptors on buildings completed before the final		$\boxtimes$
<ul> <li>The operation of several pieces of diesel equipment in a si</li> </ul>	ngle location at peak construction?		$\boxtimes$
<ul> <li>Closure of a community facility or disruption in its services</li> </ul>	?		$\boxtimes$
Activities within 400 feet of a historic or cultural resource?			
o Disturbance of a site containing or adjacent to a site conta	ining natural resources?		
<ul> <li>Construction on multiple development sites in the same go construction timelines to overlap or last for more than tw</li> </ul>			
	xtent of any commitment to use the Best Available Technology for ctivities should be considered when making this determination.		
No. 10 Sept. 10 Control of Contro			
I swear or affirm under oath and subject to the penalties for p Statement (EAS) is true and accurate to the best of my knowle with the information described herein and after examination have personal knowledge of such information or who have ex	edge and belief, based upon my personal knowledge and fa of the pertinent books and records and/or after inquiry of	amiliarit	ty
Still under oath, I further swear or affirm that I make this stat that seeks the permits, approvals, funding, or other government		the ent	tity
APPLICANT/REPRESENTATIVE NAME  James Heineman	DATE May 25, 2014		
SIGNATURE James Cleiner			
	RED TO SUBSTANTIATE RESPONSES IN THIS FORM AT MAY SUPPORT ITS DETERMINATION OF SIGNIFICAN		

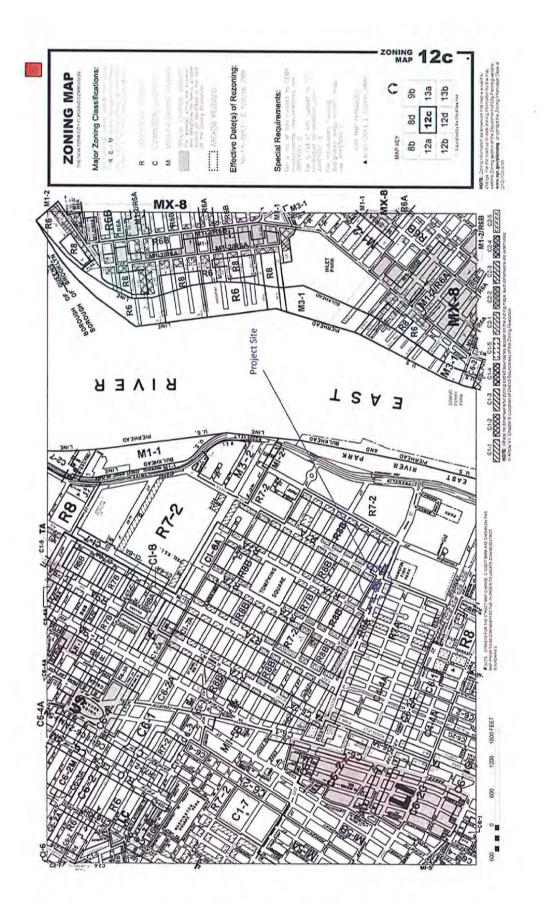
<ol> <li>For each of the impact categories listed below, consi adverse effect on the environment, taking into accound duration; (d) irreversibility; (e) geographic scope; and</li> </ol>	unt its (a) location; (b) probability of occurring; (c)	10.1.300	ntially ficant e Impac
IMPACT CATEGORY		YES	NO
Land Use, Zoning, and Public Policy			
Socioeconomic Conditions			
Community Facilities and Services			11/12/
Open Space			1 111 (11
Shadows			
Historic and Cultural Resources			1
Urban Design/Visual Resources			
Natural Resources			
Hazardous Materials			14.0
Water and Sewer Infrastructure			
Solid Waste and Sanitation Services		П	
Energy		H	
Transportation			
Air Quality			
Greenhouse Gas Emissions			1
Noise			1 =
Public Health			
Neighborhood Character			
Construction			
<ol><li>Are there any aspects of the project relevant to the of significant impact on the environment, such as comb covered by other responses and supporting material</li></ol>	pined or cumulative impacts, that were not fully		Е
If there are such impacts, attach an explanation stati have a significant impact on the environment.	ing whether, as a result of them, the project may		
3. Check determination to be issued by the lead ag	gency:		
Positive Declaration: If the lead agency has determine and if a Conditional Negative Declaration is not appr a draft Scope of Work for the Environmental Impact  Conditional Negative Declaration: A Conditional Negapplicant for an Unlisted action AND when condition no significant adverse environmental impacts would the requirements of 6 NYCRR Part 617.	opriate, then the lead agency issues a <i>Positive Declo</i> Statement (EIS). In active Declaration (CND) may be appropriate if there In imposed by the lead agency will modify the propo	ration and is a private sed projec	prepare e t so tha
Negative Declaration: If the lead agency has determin environmental impacts, then the lead agency issues separate document (see <u>template</u> ) or using the emb	a Negative Declaration. The Negative Declaration m		
4. LEAD AGENCY'S CERTIFICATION			
LE	LEAD AGENCY		
ME	DATE		
	-7114		

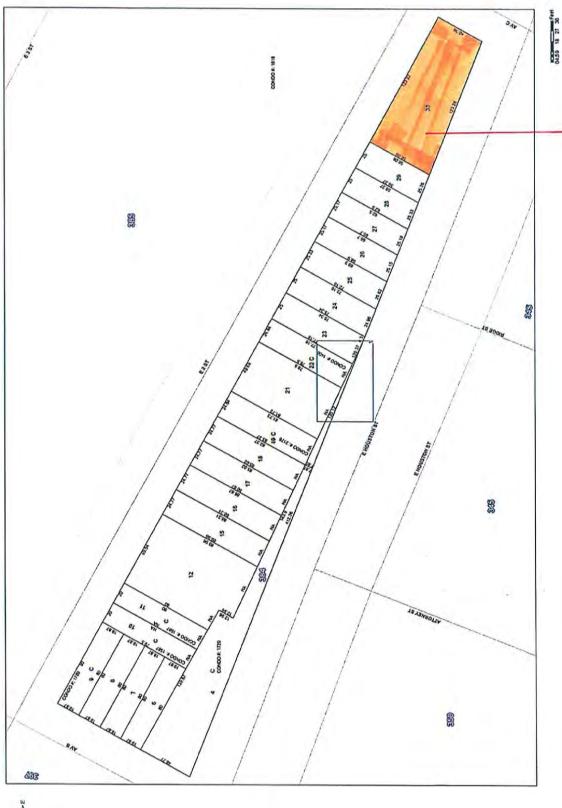
### NEGATIVE DECLARATION (Use of this form is optional) Statement of No Significant Effect Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6 NYCRR, Part 617, State Environmental Quality assumed the role of lead agency for the environmental review of the proposed project. Based on a Review, 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

DATE

NAME

**SIGNATURE** 





Premises



Finance

NYC Digital Tax Map

Enective Date : 07-07-2010 104/227

End Date : 0-current

Manhattan Block: 384

Legend

State

Microbroov Ind

Presention Next

Description

Lef Face Personnel

Underwale

Tat Lef Poppon

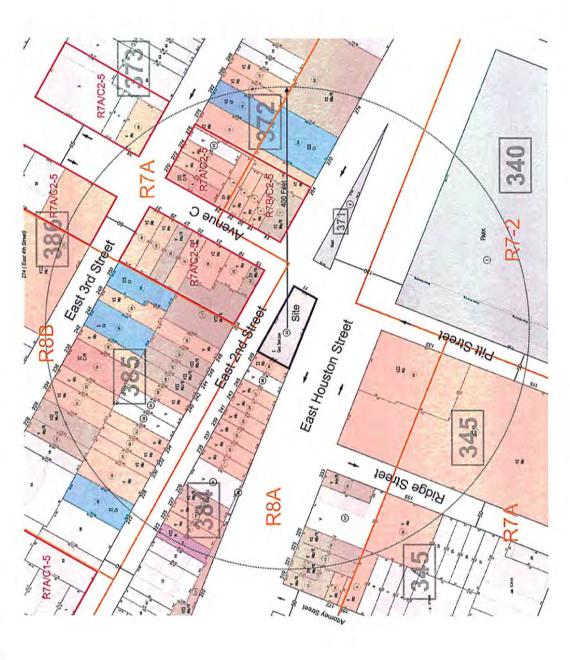
Tat Lef Poppon

Tat Lef Poppon

Tat Lef Poppon

Tat Block Poppon

Tat Block Poppon



Land Uses

One and Two-Family Homes

Multiple Dwelling

Commercial

Mixed Use (Residential-Commercial)

Manufacturing

Open Space / Park Land

Institutional / Community Facility

Parking / Automotive

# - Lot Numbers (within radius)

ı.п.ш - Story Height

MD - Multiple Dwelling

- Dwelling - Retail

- Garage

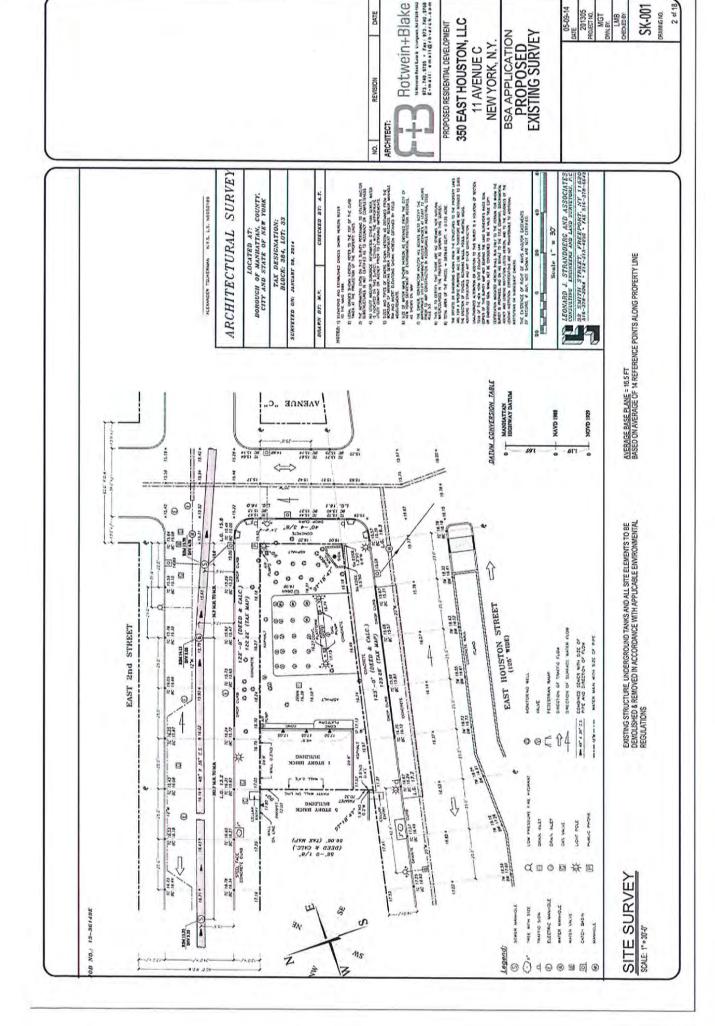
- Commercial - Industrial - Manufacturing

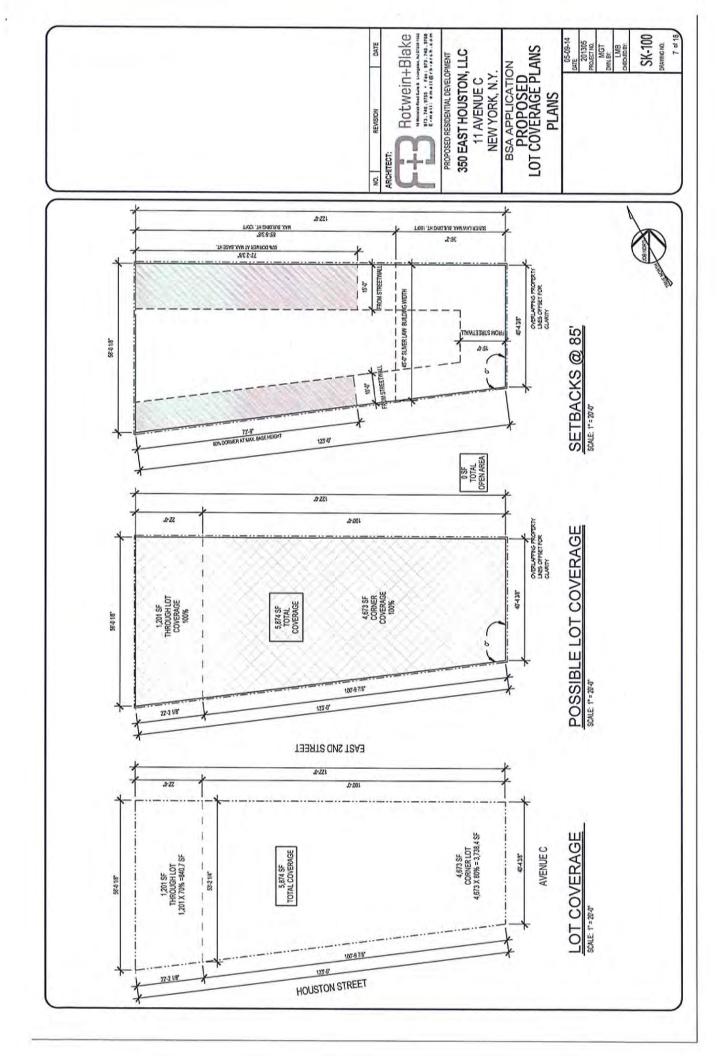
- Warehouse

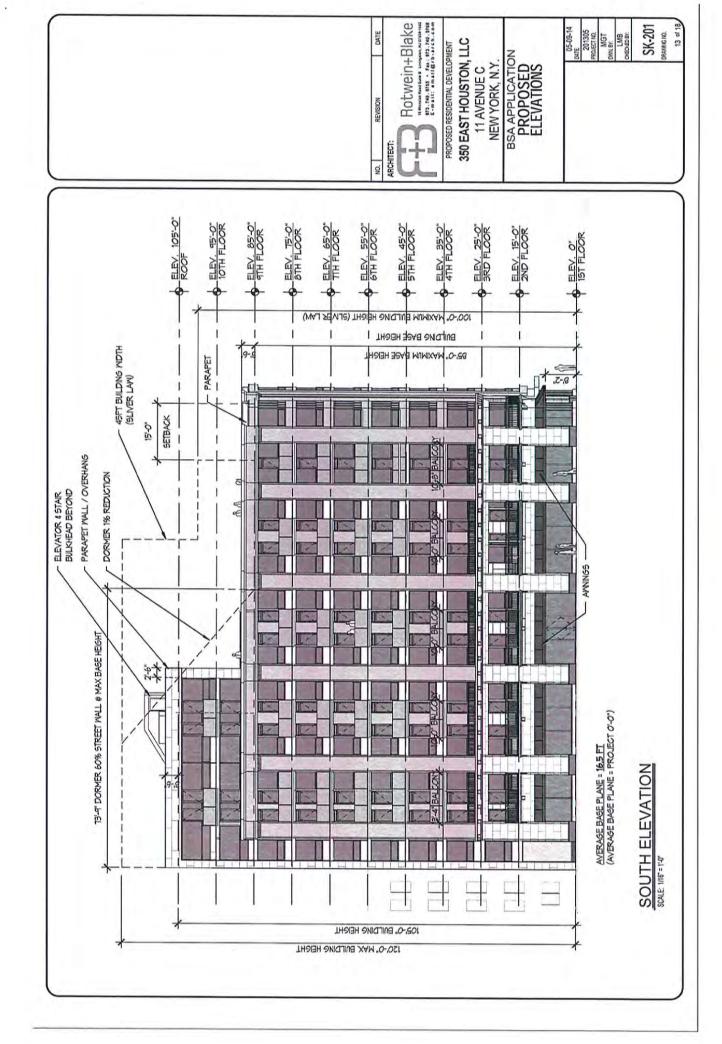
Community Facility

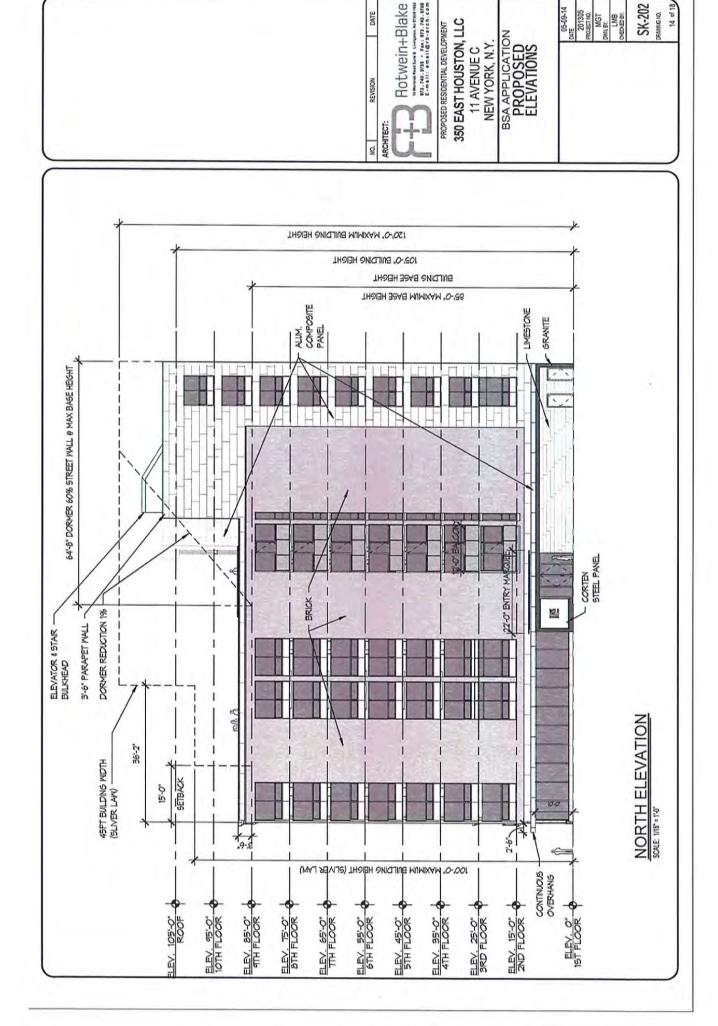
Scale: 1" = 100' 0 20 50

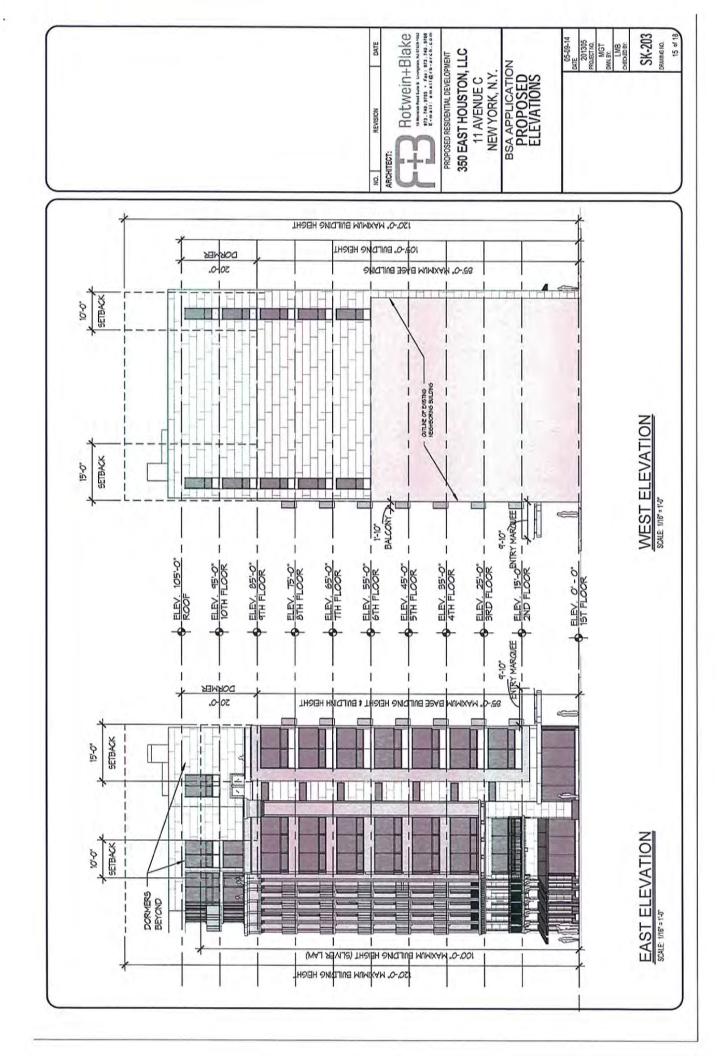
North











## **Project Description**

#### Proposed Development

The project sponsor proposes to develop a new ten-story mixed commercial and residential building containing forty-six residential units and 4,550 square feet of ground floor retail space at 11 Avenue C, located on the west side of Avenue C between East Houston Street and East 2<sup>nd</sup> Street in the Lower East Side section of Manhattan Community District 3. The site is currently occupied by a gasoline service station. The proposed development requires a use variance to permit the commercial component of the project within an R8A zoning district, and a bulk variance to waive lot coverage of the zoning district. The site's R8A zoning does not permit the proposed Use Group 6 local retail component proposed for the ground floor of the development. R8A has maximum lot coverage regulations of 80% of the lot area for the corner lot portion of the site, and 70% for the through lot portion of the site. The proposal would result in 100% coverage of the site. The overall floor area is within the limit established within the R8A district for an inclusionary housing building, and the overall building height and setbacks comply with the district's bulk regulations.

#### Existing Site Conditions

The subject property is an irregularly shaped, narrow trapezoidal parcel with 40.36 feet of frontage on Avenue C to the east, 56 feet abutting an adjacent lot to the west, and over 122 feet of frontage on East Houston Street and East 2<sup>nd</sup> Street. The site is developed with a gasoline service station containing a one-story office and repair building with two bays, and a fueling island.

#### Surrounding Area

The surrounding area is composed of a mix of residential, commercial, and community facility uses. A new eleven story affordable housing development is located directly across Houston Street to the south and a new eight-story residence is located to the north, across East 2<sup>nd</sup> Street. Older residential structures in the area are predominantly four to six stories in height. Hamilton Fish Park is located cater corner to the site, at the southeast corner of Houston Street and Pitt Street (southern continuation of Avenue C). East Houston Street contains a mix of auto related and local retail uses in ground floor space, while Avenue C contains local retail uses.

## Impact Analysis

Based on the information provided in the EAS Form, the project does not have the potential for adverse impacts related to Socioeconomic Conditions, Community Facilities, Open Space, Historic and Cultural Resources, Natural Resources, Water and Sewer Infrastructure, Solid Waste and Sanitation Services, Energy, Transportation, Greenhouse Gas Emissions, or Public Health. Additional discussion of those aspects of the environment which may be affected by the project is provided below.

#### Land Use, Zoning, and Public Policy

The proposed project would include the construction of a mixed residential and commercial building within an R8A zoning district. Although the proposed project's commercial component would not conform to established zoning regulations for the site, the property is currently in commercial use as a gas station, and ground floor commercial uses are common on surrounding streets including Houston Street west of Ridge Street, and Avenue C north of the subject site. Allowing a commercial component of new development of the site would maintain a commercial presence at the site and would be consistent with the land use pattern on Avenue C north of the subject site, where residential structures typically have ground floor retail.

The building would not comply with the lot coverage regulations of the R8A district. With 100% lot coverage it would resemble nearby development containing buildings built to the street line. The project site is triangular in site, with a single, short 56' lot line shared with the building to the west. Most of the site's perimeter adjoins public streets – Avenue C, East Houston Street, and East 2<sup>nd</sup> Street – and there would be minimal encroachment on neighboring properties' light and air.

A variance affecting a single lot, permitting the same type of retail use permitted by the adjoining C2-2 overlay district, would not conflict with zoning patterns. Modifying the lot coverage requirements on a narrow triangular site surrounded on its long sides by streets would have a minimal effect on development bulk in the area. The city's land use policy includes the availability of a zoning variance when certain findings are made relating to the site and the proposed development. By meeting the variance findings, the proposed development would demonstrate its compatibility with zoning and public policy.

#### Shadows

The proposed action would result in a building with a total height of 105 feet. This building height is permitted by the area's R8A zoning district, which allows a maximum building height of 120 feet. The only publicly accessible open spaces in the area, Le Petit Versailles community

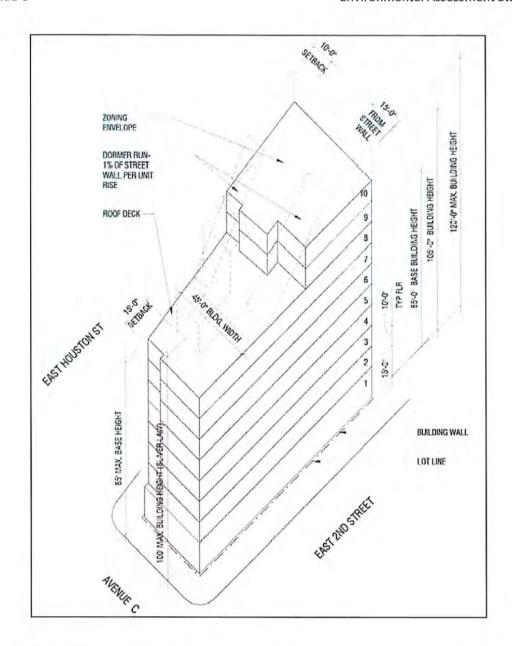
garden and Peach Tree Garden, are separated from the subject site by intervening buildings, whose existing shadows would encompass any new shadows generated by project development.

#### Urban Design and Visual Resources

The proposed action would permit development of a new ten-story commercial and residential building. Although the building's height and setbacks comply with the bulk regulations of the R8A district, its lot coverage would exceed the district's limits. As shown in the following renderings, the proposed building's bulk would be consistent with the recent buildings immediately to the south, across Houston Street, and to the north, across East 2<sup>nd</sup> Street. The proposed building's bulk is appropriate for its location on a very wide street, and on a narrow triangular site where only a short (56') lot line abuts another lot, with the overwhelming majority of the site perimeter facing public streets. Because the site shares only a short lot line with an adjoining property, the proposed bulk would have minimal effect on neighboring properties' light and air.

The following rendering and axonometric figure show the bulk of the proposed building:





The new building would be similar in height and bulk to existing residences in the area. Proposed development would not alter the area's street pattern. The proposed development would not affect publicly accessible views of significant visual resources.

#### Hazardous Materials

The proposed development would result in construction of a residential building on a site that is currently used as a gas station. The Site is actively being remediated under oversight of NYSDEC and assigned Spill Program Case No. 90-01894 and Consent Order No. 2-157872. The Site is an active Mobil gasoline service station defined as a petroleum bulk storage facility by the NYS Petroleum Bulk Storage (PBS) Program and has been assigned PBS Site No. 2-157872. The party responsible for conducting the remediation is Liberty Petroleum Realty, LLC, Springfield, Virginia.

A Limited Soil Investigation Report was conducted in July, 2013 by Emteque to evaluate the environmental condition of subsurface soils during installation of four (4) geotechnical borings at the Site. The purpose of the investigation was to determine the nature and extent of petroleum-related and/or historic fill impacts to soil on the property that require special considerations during redevelopment. The analytical data collected during this study will also assist in preliminarily characterizing the soil anticipated to be excavated for construction of the new building. To accomplish these objectives, four (4) soil borings were advanced on the Site, and eight (8) soil samples were collected and submitted for laboratory analysis.

This analysis identified certain Volatile Organic Compounds (VOCs), Semi-volatile Organic Compounds (SVOCs), pesticides, and metals in excess of Unrestricted Use Soil Cleanup Objectives (SCOs) and/or Soil Cleanup Levels (SCLs) as promulgated by the Department of Environmental Protection in 6 NYCRR 375-6, Remedial Program Soil Cleanup Objectives.

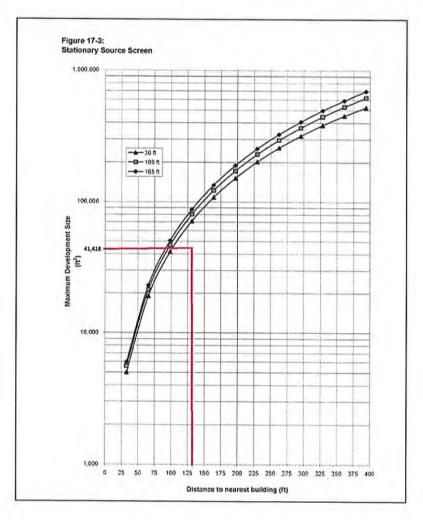
Remediation activities completed to date at the Site include underground storage tank (UST) closures; soil excavation and disposal; vacuum enhanced fluid recovery; air sparging and soil vapor extraction; and in-situ treatment of petroleum-based compounds using injections of oxygen release compounds to the subsurface. The current remedial program at the Site is a sixmonth trial period (expired in March 2014) of Monitored Natural Attenuation (MNA).

Groundwater at the Site is impacted by the petroleum-related VOCs. The source of groundwater contamination is attributed to historic releases at the Site. The concentration of BTEX and MTBE detected in on-site and off-site monitoring wells has decreased significantly since the groundwater monitoring program was implemented in 1995. However, concentrations of BTEX and/or MTBE are present in on-site at concentrations one to two orders of magnitude greater than the NYSDEC Class GA Groundwater Standards and Guidance Values. In addition, it appears the groundwater plume is not fully delineated to the north and south.

Site development should involve coordination with the NYSDEC. A Remedial Action Work Plan (RAWP) will likely be required by the NYSDEC prior to redevelopment of the Site. Remediation and environmental control measures are recommended during site redevelopment to ensure no adverse impacts on construction workers, building occupants, or neighbors as a result of site development. With these measures in place, no adverse impacts would occur.

#### Air Quality

A screening assessment of the proposed development's potential to create adverse impacts related to HVAC emissions was conducted using Figure 17-3 of the CEQR Technical Manual. The proposed building would have a roof height of 105 feet. Therefore the closest building of equal or greater height would be the twelve-story residential building located across Houston Street from the project site, at a distance of approximately 130 feet. As indicated on the attached figure, the proposed project would not have the potential for adverse impacts related to HVAC emissions.



#### Noise

Because the proposed action would permit residential use in an area where vehicular traffic is a concern, noise monitoring was conducted in accordance with CEQR Technical Manual methodology. Noise monitoring was conducted during typical weekday conditions during the a.m., midday, and p.m. peak travel periods.

#### Measurement Location and Equipment

Because the predominant noise source in the area of the proposed project is vehicular and subway traffic, noise monitoring was conducted during peak vehicular travel periods, 8:00-9:00 a.m., 12 p.m.-1 p.m., and 5-6 p.m. Pursuant to CEQR Technical Manual methodology, readings were conducted for 20-minute periods during each peak hour.

Noise monitoring was conducted using a Type 2 Larson-Davis LxT2 sound meter, with wind screen. The monitor was placed on a tripod at a height of approximately three feet above the ground, away from any other surfaces. The monitor was calibrated prior to and following each monitoring session. Two monitoring locations were used during the noise assessment. The first was at the center of the site's property line along East Houston Street, and the second was at the center of the property line along East 2<sup>nd</sup> Street.

#### Measurement Conditions

Monitoring was conducted on a typical weekday, 04/02/2014, with dry weather and moderate wind speeds. Traffic volumes and vehicle classification were documented during the noise monitoring. The sound meter was calibrated before and after each monitoring session.

#### **Existing Conditions**

Based on the noise measurements taken at the project site, the predominant source of noise at the site is vehicular traffic. Table Noise-1 contains the results for the measurements taken at the subject site.

	AM	MD	PM
Lmax	88.7	88.6	86.6
L5	77.2	77.0	75.7
L10	74.8	75.6	74.2
Leq	72.2	71.8	70.5
L50	67.9	68.0	67.1
L90	62.0	60.5	58.8
Lmin	56.6	56.0	55.0

Table Noise-1: Noise Levels along Houston Street

Table Noise-2:	Noise Levels along	East 2nd Street
----------------	--------------------	-----------------

	AM	MD	PM
L <sub>max</sub>	90,2	83.5	89.9
L <sub>5</sub>	72.3	69.9	70.6
$L_{10}$	69.9	67.5	68.1
Leq	69.7	65.9	67.1
L50	64.4	62.5	62.9
L90	61.0	59.2	59.9
Lmin	57.9	54.0	56.3

Traffic volumes and vehicle classifications during the noise monitoring sessions are presented in Table Noise-3.

Table Noise-3: Traffic Volumes and Vehicle Classifications (20-minute counts)

	AM		Midday		PM	
	Houston St Location	East 2 <sup>nd</sup> Location	Houston St Location	East 2 <sup>nd</sup> Location	Houston St Location	East 2 <sup>nd</sup> Location
Car/taxi	235	48	203	24	216	41
Light truck/van	47	10	41	8	30	6
Heavy truck	8	3	11	3	0	2
Bus	14	0	5	0	5	0
Mini Bus	0	0	3	0	2	2

The CEQR Technical Manual Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the proposed action, an  $L_{10}$  between 70 and 80 dB(A) is identified as marginally unacceptable. The highest recorded  $L_{10}$  at the project was 75.6 during the midday period along Houston Street. Therefore, window-wall noise attenuation of 31 dB(A) would be required according to the CEQR Technical Manual Table 19-3. Inclusion of this level of noise attenuation would ensure that there are no significant adverse impacts related to noise.

#### Neighborhood Character

The proposed mixed residential and commercial development at 11 Avenue C would be consistent with the height and bulk of recently-built residences immediately to the north, across East 2<sup>nd</sup> Street, and to the south across East Houston Street. The proposed ground floor retail element would be consistent with the land use pattern north of the site on Avenue C, and west of the site on East Houston Street and would serve local residents. The site is triangular in shape, with only a short lot line shared with an adjacent property. The site's location on a wide street is suitable for a building of this height and bulk.

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## REPORT OF GEOTECHNICAL INVESTIGATION

PROPOSED MIXED-USE BUILDING
11 AVENUE C
BOROUGH OF MANHATTAN
CITY AND STATE OF NEW YORK



BY

JZN ENGINEERING, PC. SPRINGFIELD, NEW JERSEY

PREPARED FOR

350 East Houston, LLC New York, New York



99 Morris Avenue Suite 302 Springfield, NJ 07081

Corporate Office

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Revised May 19, 2014 July 1, 2013 File No. 20414-000

350 EAST HOUSTON STREET, LLC 417 Fifth Avenue 4th Floor New York, New York 10016

Attention: Mr. Kevin Tartaglione

Senior VP of Development

REGARDING: REPORT OF GEOTECHNICAL INVESTIGATION

Proposed Mixed-Use Building

11 Avenue C at the Intersection with East Houston Street Borough of Manhattan, City & State of New York

Dear Mr. Tartaglione:

The enclosed report summarizes the results of our geotechnical investigation and recommendations conducted on behalf of 350 East Houston Street, LLC. in support of the proposed Mixed-Use Building development. This work was undertaken in accordance with our proposal dated March 21, 2013 and your subsequent authorization on June 13, 2013.

We appreciate the opportunity to work with you on this project. Please contact us if you wish to discuss this report or any aspect of the project.

Sincerely,

JZN ENGINEERING, PC.

Nejm E. Jundi, P.E.

President

Enclosures



#### **EXECUTIVE SUMMARY**

This report summarizes our geotechnical study and provides our geotechnical engineering recommendations for the proposed Mixed-Use Building to be located at 11 Avenue C, Borough of Manhattan, City & State of New York.

The study included the performance of a total of four (4) exploration borings. The exploration boring was drilled on the site to refusal on apparent bedrock. Engineering analyses were performed to evaluate foundation system for the structure and to develop recommendations for foundation design and construction, utility support and earthwork. Inferred subsurface sections based on the borings are presented in Section 2. A description of site conditions and our evaluation is presented in the following report. The principal conclusions are described below:

- The field exploration revealed a subsurface profile consisting of asphaltic pavement cover materials followed by existing fill materials. The fill materials extended to depths that ranged between approximately 11 and 12.5 feet below the existing ground surface. Generally the existing fill materials consisted of a mixture of medium to fine sand with varying amounts of gravel, silt, and debris (brick and wood). Glacial deposits below the existing fill materials were encountered to depths that ranged between approximately 89.9 to 100.5 feet below existing ground surface. The glacial deposits consisted of medium dense to dense medium to fine sand and silt with varying amounts of clay. Refusal on apparent bedrock was encountered below the glacial deposits at depths ranging between 89.9 and 100.5 feet. Groundwater conditions were encountered at depths between nine (9) and 12.5 feet below the existing ground surface at the time of the investigation.
- Reuse of onsite soil materials is subject to the specifications presented in Section 6.3 of this report and the environmental conditions of the soil. If the soil is environmentally impacted, then the contractor should seek approval of the project Environmental Engineer prior to reuse of the soil.
- The subsurface soils conditions at the site generally consist of thick loose sand deposits followed by bedrock. The presence of these loose sand deposits under the groundwater table presents a case of liquefaction of the subsurface soils under seismic loads as such the use of conventional shallow foundation system and/or a reinforced mat foundation system typically used within the vicinity of the subject site will not be feasible due to the magnitude of building settlement due to soil liquefaction under seismic load event. As such, deep foundation system consisting of driven piles will be required for the support of the proposed building.



- Due to the potential for lateral spreading of the subsurface loose soils under seismic event, increased number of piles would be required to account for the loss of lateral support beyond typical needed for the support of a similar structure regardless of the width of the building on this site, and lateral foundation bracing will also be required and considered during the design of the building foundations.
- Use of shoring system will be required to allow for site remediation and/or the construction of below grade space if considered. The shoring system should be design both to retain the soil behind it, support the loads imposed by neighboring structures, protect adjacent structures, and control groundwater seepage; and
- Due to the proximity of existing structures, including residential buildings and public roadways, etc. every effort to protect these structures during and after construction should be taken. A geotechnical instrumentation and monitoring program should be implemented prior to and during construction due to the excavation proximity to surrounding properties. The program should include: vibration monitoring, monitoring settlement of adjacent structures; and monitoring the performance of the shoring system if one used.

Detailed recommendations are presented in the following report.

Anastos Engineering Associates Structural Engineers 240 West 35th Street New York, NY 10001

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## STRUCTURAL REPORT

FOR

## 350 HOUSTON, LLC. 11 AVENUE C, MANHATTAN

# BUILDING COMPARISON STUDY AS-OF-RIGHT CONSTRUCTION PREMIUM

May 27, 2014

Prepared for:

BLDG Management Co., Inc. 417 Fifth Avenue, 4<sup>th</sup> Floor New York, NY 10016



#### **Executive Summary**

This report summarizes the results of our structural design study for a new 10 story building proposed for the property located at 11 Avenue C in the borough of Manhattan.

The property is a narrow, irregular shaped end lot, influenced by multiple site specific zoning restrictions. We were provided with an architectural building design based on these as-of-right zoning restrictions for the site. To maximize the potential floor area, the architectural design dictates that the building shape takes on a tall, narrow profile. This tall, narrow profile restricts the building's natural ability to resist lateral forces, including wind and seismic forces.

We were also provided with a geotechnical investigation report for the building site. Bedrock was found approximately 100 feet under the existing sidewalk grade and the investigation determined that a weak soil layer, described as a "liquefaction probable" layer, exists between the sidewalk grade and the bedrock. The geotechnical report concluded that this weak layer has a potential to shift during a seismic event and driven piles will be required, extending to bedrock, to support the proposed building.

Through our study, we found that the tall, narrow as-of-right building profile, coupled with these unfavorable soil conditions has greatly increased the magnitude of seismic design forces in the building's structural system and the requirements of the deep foundation system to resist the magnified overturning forces created by the narrow profile. This ultimately results in an increase in construction materials and costs. To quantify the magnitude of this construction premium, we investigated two additional building schemes. One scheme considers a typical end lot condition and the second scheme is based on the actual irregular end lot property profile, while considering zoning allowances to maximize the property profile.

We found the construction premium to build the as-or-right building scheme to be on the magnitude 14% greater than a building on a typical end lot. With the considerations of potential zoning allowances on the property, we found that the total construction costs, per square foot, could be reduced by 17%. Detailed findings from our study can be found on the following pages.

#### introduction:

BLDG Management Co. is planning on building a new 10 story building at the irregular shaped end lot property site located at 11 Avenue C, in the borough of Manhattan. The property lot is bordered by East 2<sup>nd</sup> Street to the north, Avenue C to the east, and East Houston Street to the south. Currently, a five story brick building is located on the adjacent lot along the west property line. The narrow lot spans longitudinally in the east-west direction for 122.20 feet along East 2<sup>nd</sup> Street and East Houston Street, where the skewed longitudinal plot length is 123.35 feet. The property has a lot frontage of 40.45 feet along Avenue C and a through lot dimension of 56.10 feet at the adjacent building along the west property border. The site is subject to multiple zoning regulations, including the following items:

- Use Group 2 Construction (Residential Use / Non-Commercial)
- A maximum base building height of 80 feet (with an additional 20 feet allowable height through dormer setbacks)
- A 20% corner lot reduction in coverage
- · Additional 30% through lot reduction in coverage.

A Geotechnical Report was prepared for BLDG Management by JZN Engineering. The report, dated May 19, 2014, found that the soil layer at the proposed foundation bearing level below the basement is approximately 12 feet of loose fill material. Below this layer of fill there exists a layer of glacial deposits, consisting of medium to medium dense sand. These glacial deposits extend to bedrock, found at approximately 100 feet below street level. Groundwater levels were observed at approximately 9 feet below street level. The density of the glacial deposit soil layer was found to be inconsistent, where weak soil layers were encountered at a depth of approximately 20 feet to 50 feet below the street level. These weak soil layers are classified as "Liquefaction Probable" for seismic design requirements. As noted later in this report, this "Liquefaction Probable" classification requires the design assumption that the soil directly below the building will not be adequate for supporting the building in the occurrence of a seismic event. Deep pile foundations will be required, extending through the poor upper soil layer to the bedrock below.

#### **Building Design Schemes:**

Three sets of architectural drawings have been prepared for BLDG Management by Rotwein and Blake Architects for a comparison to determine if the as-of-right zoning regulations and in situ geotechnical conditions are creating an economic hardship in their attempt to develop the site. The three design schemes are as follows.

As-of-Right Design (AOR) – The AOR building design, as shown on the attached SK-AOR is a 10 story, 100 foot high residential building consisting of a full basement, 8 floors and 2 partial penthouse levels. Due to zoning requirements, the building footprint has a setback along the north property line and an additional notch in the northeast corner of the footprint, creating a reentrant corner. The building footprint is 4561 square feet and has a height to width ratio of 1.7. The total floor area of the AOR design is 45,831 square feet. This design scheme is based on Rotwein and Blake architectural drawings AR-001 through AR-303, dated May 9, 2014. The AOR design scheme meets all current requirements of the New York City Department of Buildings (NYC DoB), including all site specific zoning requirements of the Department of City Planning (NYC DCP).

<u>Proposed Building Design (PROP)</u> – The PROP design is a 10 story residential / retail mixed use building, with a building footprint of 5600 square feet. The PROP design is a site specific design scheme that slightly deviates from the as-of-right requirements of the 1961 NYC DCP Zoning Resolution but is a much more efficient design scheme. The building footprint matches the property layout, without any reentrant corners or zoning setbacks. The PROP building design includes the entire building footprint for 8 stories and the basement. There are two partial penthouses. The building is 100 feet high, and has a height to width ratio of 2.5. The total floor area of the C.E.D. design is 55,316 square feet. The PROP scheme is shown on the attached SK-PROP, based on Rotwein and Blake drawings SK-001 through SK-303, dated May 9, 2014.

Typical Building Design (TYP) – The TYP design scheme drawings, Rotwein and Blake drawings TYP-001 through TYP-303 dated May 9, 2014, were also provided as a comparison tool. The TYP design, shown on the attached SK-TYP, considers a typical NYC end lot building construction scheme based on a rectangular lot of similar plot dimensions and assumes expected local soil conditions, where liquefaction of the soil is not a consideration thus allowing the use of conventional spread footing in lieu of deep foundations. The TYP design scheme is a 12 story, 120 foot high residential building consisting of a full basement, 8 floors and 4 partial penthouse floors. The building footprint includes a 1200 square foot inner courtyard which requires a reentrant corner. The building has a height to width ratio of 2.1. The total floor area of the TYP design is 54,855 square feet.

For purposes of this analysis, and for our initial determination of the most efficient structural system for this building, we are considering a cast in place flat plate structural system for all three building schemes. The flat plate construction is a 12" concrete slab. Columns are located along both longitudinal perimeters and an additional column line is located in the approximate center of the floor plan, spanning longitudinally. The lateral load resisting system for wind and seismic loading for all three building designs is a concrete shear wall / moment frame dual system.

Since the three building designs have different square feet of total floor area, our comparisons of the three building designs is based on a per square foot cost, versus a total cost, for a more accurate comparison. Refer to the attached Structural Design Comparison Study for details of our comparative cost analysis.

#### **Gravity Design:**

The vertical loading of the three building designs are based on the total floor area and total building perimeter. For the floor area loading considerations, with the upper floors of the three building schemes intended for residential use, the live load and dead load comparisons are a function of the floor area. For the building perimeter, the AOR design scheme requires the use of a reentrant corner and has a greater building height than the PROP design scheme. The TYP building design also required the use of a reentrant corner and has a larger total building height than both site specific designs. We found that the gravity load imposed from each of the three building schemes to be relative to the total floor area of each of the building schemes.

#### Lateral Design:

The lateral design for both the AOR and the PROP design schemes are much more complicated than the TYP design scheme. There are two primary reasons for this. The TYP design scheme allows for the lateral resisting system of the building to utilize all perimeter walls and thus distribute the lateral forces throughout the building. For the AOR and PROP building schemes, 70% of the lateral resisting system in the transverse direction is limited to the shear wall along the west property line.

The second complication with both the AOR and PROP design scheme is the existing soil conditions found during the geotechnical investigation. Based on the data from the Geotechnical Report, the building is classified as Seismic Design Category 'C' per NYC Building Code. This design category creates additional design considerations, including additional steel reinforcement for concrete at the reentrant corner found in the AOR design.

Both the AOR and PROP buildings utilize the west façade as a shear wall for lateral forces imposed in the north-south direction. The AOR building does have a requirement for 30% open space at the through lot. This reduces the length of the shear wall, creating a height to width ratio of 2.5. The PROP design, utilizing the entire property footprint, lessens the severity of the height to width ratio, providing a 2.5 ratio. This height to width ratio becomes apparent when resolving the lateral forces. For the site specific Seismic Category 'C', the stresses in the AOR west shear wall require extensive steel reinforcing and detailing, including a 25% increase in connection strength at shear wall / diaphragm (concrete slab) interface.

#### Foundation Design:

As previously noted, the soil has been classified as "Liquefaction Probable" due to weak soil found in the glacial till soil layer between the sidewalk elevation and bedrock, which was found to exist approximately 100 feet below the sidewalk. According to the NYC Building Code, Liquefiable soils shall be considered to have no passive (lateral) resistance or bearing capacity value during an earthquake. (NYCBC Section BC1813.4.1). For the building design, this liquefaction design condition introduces the requirement of supporting the building on a deep foundation system, where steel H-Piles are set directly on bedrock. The steel piles that are required for gravity loading cannot be assumed to resist forces from seismic loading.

As discussed in the lateral design section above, the seismic design requirements combined with the shape ratio and concentrated shear loading along the west shear wall of both the AOR and PROP design increase the forces transferred to the foundation. The restrictions imposed by designing for liquefaction, increase the number of building piles required for support of the superstructure. Additional building piles are required specifically for lateral resistance at the foundation. The shape ratio of the west shear wall for both the AOR and PROP designs create an uplift phenomenon of the building during a seismic event. Based on the steel H-Pile capacity values provided in the Geotechnical Report, our analysis found that the approximate total piles for the two site specific building designs to be as follows:

AOR Building Design Steel H-Piles:

Gravity Piles:

5200 linear feet

Lateral Piles:

3100 linear feet

PROP Building Design Steel H-Piles:

Gravity Piles:

5700 linear feet

Lateral Piles:

1200 linear feet

The PROP building design has a greater total dead load weight and a more favorable shape ratio than the AOR design. This additional weight allows for natural resistance to uplift forces and the higher shape ratio, based on utilizing the entire building footprint, decreases the total uplift values by allowing for a wider base for the shear resistance.

Both the AOR and PROP building schemes will require extensive support of excavation (SOE) work. The construction of a full basement will require braced sheeting along the perimeter along the three (3) streets bordering the site. The existing five (5) story building to the west of the property will require underpinning.

#### Building Envelope / Façade:

The construction of the exterior wall and façade system of both site specific buildings will be relatively the same due to the additional perimeter wall area of the AOR. scheme for the reentrant corner. The total exterior wall area of the PROP scheme is 5% greater than the AOR design. This 5% additional material cost will be offset by the additional work required for the scaffolding and access due to the reentrant corner and additional building height. The two stories of penthouse will

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also increase the costs as this will require additional worker access at the penthouse levels, including additional scaffolding on the roof. The typical building design does find an increase in total exterior wall by 11%. This increase is offset by a total floor area increase of 14% for the typical building design.

### Comparative Cost Analysis:

For our quantitative cost analysis, we provided design requirements for the three building schemes to McQuilkin Associates, LLC and used the figures presented on their cost estimates for the three building schemes. The cost per square foot comparisons are presented below.

TYP Building Design Scheme \$344 / square foot

AOR Building Design Scheme \$394 / square foot

PROP Building Design Scheme \$349 / square foot

The cost of the AOR scheme is \$394 per square foot, while the cost per square foot of the PROP building design is \$340. The site specific requirements for this building lot increase the construction costs by 15% from a typical design. When considering both the effects of seismic load and the total perimeter area, the reduced costs/square foot for the Cost Effective Design Building is \$48. This is a very significant amount, resulting in a 17% savings on the construction cost. There are additional, non-structural costs that should be considered that would add to this percent differential in cost increase as well, including construction time and unforeseen conditions at the building site.

### Structural Design Comparison

Typical End Lot Building (TYP) layout and preliminary design based on Rotwein & Blake drawings TYP-000 thru TYP-303 dated May 9, 2014.

As-of Right Building (AoR) layout and preliminary design based on Rotwein & Blake drawings AR-000 thru AR-303 dated May 9, 2014.

Cost Eective Proposed Design Building (PROP) layout and preliminary design based on Rotwein & Blake drawings SK-000 thru SK-303 dated May 9, 2014

### **Building Comparison**

Typical (TYP)	As-of-Right (AOR)	Proposed (PROP)	
4600	4561	5600	(sq.ft.)
8	8	8	
4	2	2	(sq.ft.)
2826	2391	2293	
10	10	10	(ft.)
316	332	340	(ft.)
256	272	242	(ft.)
120	100	105	(ft.)
54855	45831	55316	(sq.ft.)
	(TYP)  4600  8  4  2826  10  316  256  120	(TYP) (AOR)  4600 4561 8 8 4 2 2826 2391 10 10 316 332 256 272 120 100	(TYP) (AOR) (PROP)  4600 4561 5600  8 8 8 8  4 2 2  2826 2391 2293  10 10 10 10  316 332 340  256 272 242  120 100 105

### Structural System

Substructure:

**Deep Foundation System** 

80 Ton Driven H-Piles

(Length approx. 100 ft./pile)

Grade Beam / Pile Cap System

Superstructure:

**Concrete Flat Plate Floor System** 

12" Concrete Slab

Lateral Resisting System - Duel System with RC Shear Wall & IMF

Cocnrete Columns / Shear Walls

### Structural Engineers

### 11 Avenue C, Manhattan End Lot Building Comparison Study

### **Loading Criteria**

Dead Load:	Framed Concrete Slab	150 psf
Live Load:	MEP & Misc	15 psf
	Exterior Structural Walls	145 psf
	<b>Exterior Windows</b>	25 psf
	Foundation Walls	200 psf
	Cellar Slab	75 psf
	Grade Beams / Pile Caps	1050 plf
Live Load:	First Floor / Basement	100 psf
	Residential Upper Floors	40 psf
	Roof	25 psf
	Balcony / Roof Deck	60 psf
Wind Load:	Design Pressure	30 psf
	Components & Cladding	20 psf

Seismic:

Occupany Category II

Site Class 'D'

Spectral Response at 0.2 Sec. Period

Ss = 0.36 g Fa = 1.51 Sds= 0.362 g

Spectral Response at 1 Sec. Period

S1 = 0.07 g F1 = 2.39Sd1 = 0.112 g

Seismic Design Category 'C'

Response Modification System Factor 5.5

Overstrength Factor 2.5

Deflection Amplification Factor 4.5

### Seismic Notes:

- 1) Liquefaction Probale per Geotechnical Investigation Deep Foundation System Required)
- 2) AoR building has a Type 2 Horizontal Plan Irregularity 25% increase in connections of diapragm & collectors

Structural Engineers

### 11 Avenue C, Manhattan End Lot Building Comparison Study

**Design Forces:** 

Proposed (PROP) Building Design

	DL floor	DL wall				hx wx (k-	hx wx /			Mot
	(k)	(k)	LL (k)	hx (ft)	wx (k)	ft)	∑hx wx	Vx (k)	Fx (k)	(k-ft)
<b>Pent Roof</b>	378.3	102.9	57.3	105	481.2	50525	0.082	952.565	62.765	6590
Pent.	378.3	102.9	57.3	95	481.2	45714	0.075	861.844	56.788	5395
Roof/Pent	924.0	288.2	174.4	85	1212.2	103033	0.168	1942.49	127.99	10879
8	924.0	370.6	224	75	1294.6	97095	0.158	1830.55	120.62	9046
7	924.0	370.6	224	65	1294.6	84149	0.137	1586.47	104.53	6795
6	924.0	370.6	224	55	1294.6	71203	0.116	1342.4	88.452	4865
5	924.0	370,6	224	45	1294.6	58257	0.095	1098.33	72.37	3257
4	924.0	370.6	224	35	1294.6	45311	0.074	854.255	56.288	1970
3	924.0	463.3	224	25	1387.3	34681	0.057	653,851	43.083	1077
2	924.0	593.0	224	15	1517.0	22754	0.037	428.992	28.267	424
1	924.0	655.0	560	0	1579.0	0	0	0	0	0
c	420.0	340.0	560	0	760.0	0	0	0	0	0

Total Seismic Weight 11551.8 kips (sum of wx 2-R)

Base Shear Coefficient 0.066

Total Overturning Moment 50298 kip-ft

Total Dead Load 13891 kip
Total Live Load 2977 kip

Total Load per Square Foot at Foundation 3012.1 psf

Maximum Foundation Uplift: 607.05 kips

Note: uplift value based on shape ratio of west shear wall considering 70% seismic shear resistance.

Structural Engineers

11 Avenue C, Manhattan End Lot Building Comparison Study

**Design Forces:** 

As-of-Right (AOR) Building

DL floor	DL wall				hx wx (k-	hx wx /			Mot
(k)	(k)	LL (k)	hx (ft)	wx (k)	ft)	Σhx wx	Vx (k)	Fx (k)	(k-ft)
394.5	115.6	59.775	100	510.1	51012	0.101	1012.13	66.69	6669
394.5	231.2	95.64	90	625.7	56314	0.112	1117.34	73.623	6626
752.6	296.5	149.89	80	1049.1	83928	0.167	1665.24	109.72	8778
752.6	361.9	182.44	70	1114.4	78011	0.155	1547.83	101.99	7139
752.6	361.9	182.44	60	1114.4	66867	0.133	1326.72	87.418	5245
752.6	361.9	182.44	50	1114.4	55722	0.111	1105.6	72.849	3642
752.6	361.9	182.44	40	1114.4	44578	0.089	884.477	58.279	2331
752.6	361.9	182.44	30	1114.4	33433	0.066	663.358	43.709	1311
752.6	361.9	182.44	20	1114.4	22289	0.044	442.238	29.139	582.8
752.6	361.9	182.44	10	1114.4	11144	0.022	221.119	14.57	145.7
752.6	512.9	456.1	0	1265.5	0	0.000	0	0	0
342.1	332.0	456.1	0	674.1	0	0.000	0	0	0
	(k) 394.5 394.5 752.6 752.6 752.6 752.6 752.6 752.6 752.6 752.6	(k) (k) 394.5 115.6 394.5 231.2 752.6 296.5 752.6 361.9 752.6 361.9 752.6 361.9 752.6 361.9 752.6 361.9 752.6 361.9 752.6 361.9 752.6 361.9 752.6 361.9	(k)         (k)         LL (k)           394.5         115.6         59.775           394.5         231.2         95.64           752.6         296.5         149.89           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.44           752.6         361.9         182.64	(k)         (k)         LL (k)         hx (ft)           394.5         115.6         59.775         100           394.5         231.2         95.64         90           752.6         296.5         149.89         80           752.6         361.9         182.44         70           752.6         361.9         182.44         50           752.6         361.9         182.44         40           752.6         361.9         182.44         30           752.6         361.9         182.44         20           752.6         361.9         182.44         10           752.6         361.9         182.44         10           752.6         361.9         182.44         10           752.6         361.9         182.44         10	(k)         (k)         LL (k)         hx (ft)         wx (k)           394.5         115.6         59.775         100         510.1           394.5         231.2         95.64         90         625.7           752.6         296.5         149.89         80         1049.1           752.6         361.9         182.44         70         1114.4           752.6         361.9         182.44         60         1114.4           752.6         361.9         182.44         40         1114.4           752.6         361.9         182.44         30         1114.4           752.6         361.9         182.44         20         1114.4           752.6         361.9         182.44         10         1114.4           752.6         361.9         182.44         10         1114.4           752.6         361.9         182.44         10         1114.4           752.6         361.9         182.44         10         1114.4           752.6         361.9         182.44         10         1114.4           752.6         361.9         182.44         10         1114.4           752.6         361.9<	(k)         (k)         LL (k)         hx (ft)         wx (k)         ft)           394.5         115.6         59.775         100         510.1         51012           394.5         231.2         95.64         90         625.7         56314           752.6         296.5         149.89         80         1049.1         83928           752.6         361.9         182.44         70         1114.4         78011           752.6         361.9         182.44         60         1114.4         66867           752.6         361.9         182.44         50         1114.4         55722           752.6         361.9         182.44         40         1114.4         44578           752.6         361.9         182.44         30         1114.4         33433           752.6         361.9         182.44         20         1114.4         22289           752.6         361.9         182.44         10         1114.4         11144           752.6         361.9         182.44         10         1114.4         11144           752.6         361.9         182.44         10         1114.4         11144 <t< td=""><td>(k)         (k)         LL (k)         hx (ft)         wx (k)         ft)         ∑hx wx           394.5         115.6         59.775         100         510.1         51012         0.101           394.5         231.2         95.64         90         625.7         56314         0.112           752.6         296.5         149.89         80         1049.1         83928         0.167           752.6         361.9         182.44         70         1114.4         78011         0.155           752.6         361.9         182.44         60         1114.4         66867         0.133           752.6         361.9         182.44         50         1114.4         55722         0.111           752.6         361.9         182.44         40         1114.4         44578         0.089           752.6         361.9         182.44         30         1114.4         33433         0.066           752.6         361.9         182.44         20         1114.4         22289         0.044           752.6         361.9         182.44         10         1114.4         11144         0.022           752.6         361.9         182.44</td></t<> <td>(k) (k) LL (k) hx (ft) wx (k) ft) ∑hx wx Vx (k)  394.5 115.6 59.775 100 510.1 51012 0.101 1012.13  394.5 231.2 95.64 90 625.7 56314 0.112 1117.34  752.6 296.5 149.89 80 1049.1 83928 0.167 1665.24  752.6 361.9 182.44 70 1114.4 78011 0.155 1547.83  752.6 361.9 182.44 60 1114.4 66867 0.133 1326.72  752.6 361.9 182.44 50 1114.4 55722 0.111 1105.6  752.6 361.9 182.44 40 1114.4 44578 0.089 884.477  752.6 361.9 182.44 30 1114.4 33433 0.066 663.358  752.6 361.9 182.44 20 1114.4 22289 0.044 442.238  752.6 361.9 182.44 10 1114.4 11144 0.022 221.119  752.6 512.9 456.1 0 1265.5 0 0.000 0</td> <td>(k)         (k)         LL (k)         hx (ft)         wx (k)         ft)         ∑hx wx         Vx (k)         Fx (k)           394.5         115.6         59.775         100         510.1         51012         0.101         1012.13         66.69           394.5         231.2         95.64         90         625.7         56314         0.112         1117.34         73.623           752.6         296.5         149.89         80         1049.1         83928         0.167         1665.24         109.72           752.6         361.9         182.44         70         1114.4         78011         0.155         1547.83         101.99           752.6         361.9         182.44         60         1114.4         66867         0.133         1326.72         87.418           752.6         361.9         182.44         50         1114.4         55722         0.111         1105.6         72.849           752.6         361.9         182.44         40         1114.4         44578         0.089         884.477         58.279           752.6         361.9         182.44         20         1114.4         33433         0.066         663.358         43.709     <!--</td--></td>	(k)         (k)         LL (k)         hx (ft)         wx (k)         ft)         ∑hx wx           394.5         115.6         59.775         100         510.1         51012         0.101           394.5         231.2         95.64         90         625.7         56314         0.112           752.6         296.5         149.89         80         1049.1         83928         0.167           752.6         361.9         182.44         70         1114.4         78011         0.155           752.6         361.9         182.44         60         1114.4         66867         0.133           752.6         361.9         182.44         50         1114.4         55722         0.111           752.6         361.9         182.44         40         1114.4         44578         0.089           752.6         361.9         182.44         30         1114.4         33433         0.066           752.6         361.9         182.44         20         1114.4         22289         0.044           752.6         361.9         182.44         10         1114.4         11144         0.022           752.6         361.9         182.44	(k) (k) LL (k) hx (ft) wx (k) ft) ∑hx wx Vx (k)  394.5 115.6 59.775 100 510.1 51012 0.101 1012.13  394.5 231.2 95.64 90 625.7 56314 0.112 1117.34  752.6 296.5 149.89 80 1049.1 83928 0.167 1665.24  752.6 361.9 182.44 70 1114.4 78011 0.155 1547.83  752.6 361.9 182.44 60 1114.4 66867 0.133 1326.72  752.6 361.9 182.44 50 1114.4 55722 0.111 1105.6  752.6 361.9 182.44 40 1114.4 44578 0.089 884.477  752.6 361.9 182.44 30 1114.4 33433 0.066 663.358  752.6 361.9 182.44 20 1114.4 22289 0.044 442.238  752.6 361.9 182.44 10 1114.4 11144 0.022 221.119  752.6 512.9 456.1 0 1265.5 0 0.000 0	(k)         (k)         LL (k)         hx (ft)         wx (k)         ft)         ∑hx wx         Vx (k)         Fx (k)           394.5         115.6         59.775         100         510.1         51012         0.101         1012.13         66.69           394.5         231.2         95.64         90         625.7         56314         0.112         1117.34         73.623           752.6         296.5         149.89         80         1049.1         83928         0.167         1665.24         109.72           752.6         361.9         182.44         70         1114.4         78011         0.155         1547.83         101.99           752.6         361.9         182.44         60         1114.4         66867         0.133         1326.72         87.418           752.6         361.9         182.44         50         1114.4         55722         0.111         1105.6         72.849           752.6         361.9         182.44         40         1114.4         44578         0.089         884.477         58.279           752.6         361.9         182.44         20         1114.4         33433         0.066         663.358         43.709 </td

Total Seismic Weight	9986.1 kips	(sum of wx 2-R)
Base Shear Coefficient	0.066	
Total Overturning Moment	42471 kip-ft	
Total Dead Load	11926 kip	
Total Live Load	2494.6 kip	

**Total Load per Square Foot at Foundation** 

3161.6 psf

Maximum Foundation Uplift:

762.29 kips

Note: uplift value based on shape ratio of west shear wall considering 70% seismic shear resistance.

Structural Engineers

11 Avenue C, Manhattan End Lot Building Comparison Study

**Design Forces:** 

Typical Design Building (TYP)

	DL floor	DL wall				hx wx (k-	hx wx /			Mot
	(k)	(k)	LL (k)	hx (ft)	wx (k)	ft)	∑hx wx	Vx (k)	Fx (k)	(k-ft)
Pent Roof	466	78	71	120	544	65324	0	1156	76	9141
Pent	466	156	71	110	622	68470	0	1212	80	8783
Pent	466	156	71	100	622	62245	0	1102	73	7259
Pent	466	156	71	90	622	56021	0	991	65	5880
Roof/Pent	759	281	157	80	1040	83202	0	1473	97	7762
8	759	344	184	70	1103	77241	0	1367	90	6305
7	759	344	184	60	1103	66206	0	1172	77	4632
6	759	344	184	50	1103	55172	0	976	64	3217
5	759	344	184	40	1103	44138	0	781	51	2059
4	759	344	184	30	1103	33103	0	586	39	1158
3	759	431	184	20	1190	23791	0	421	28	555
2	759	551	184	10	1310	13101	0	232	15	153
1	759	609	460	0	1368	0	0	0	0	0
c	345	316	460	0	661	0	0	0	0	0

Total Seismic Weight	11468.6 kips	(sum of wx 2-R)
Base Shear Coefficient	0.066	
<b>Total Overturning Moment</b>	31721 kip-ft	
Total Dead Load	13497 kip	
Total Live Load	2648 kip	

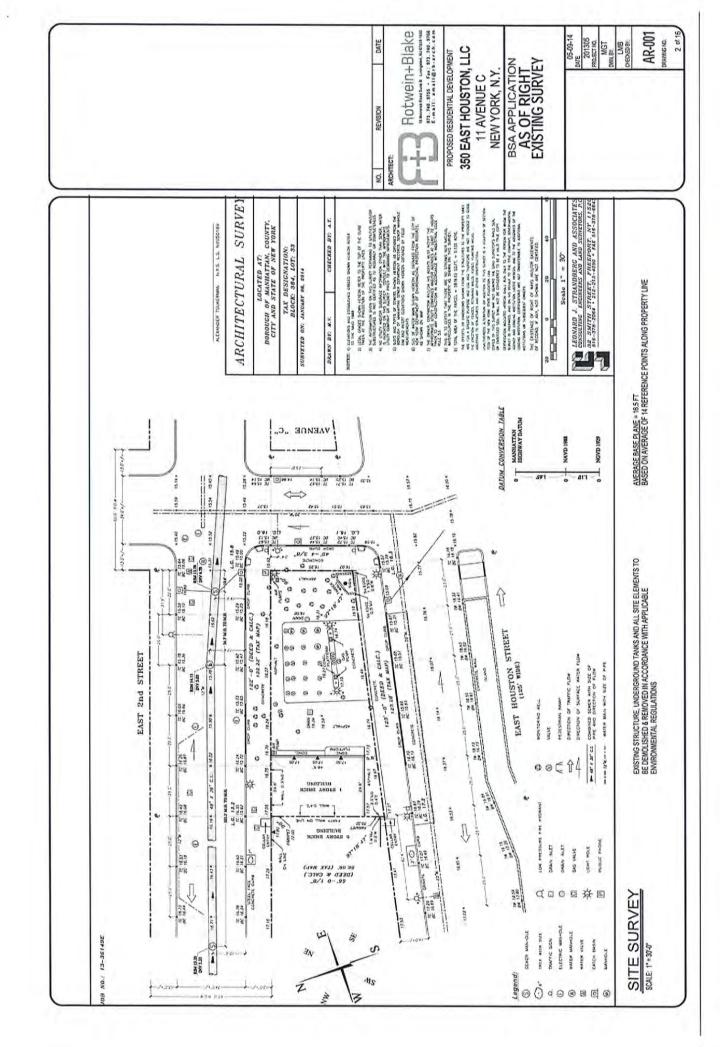
**Total Load per Square Foot at Foundation** 

3509.9 psf

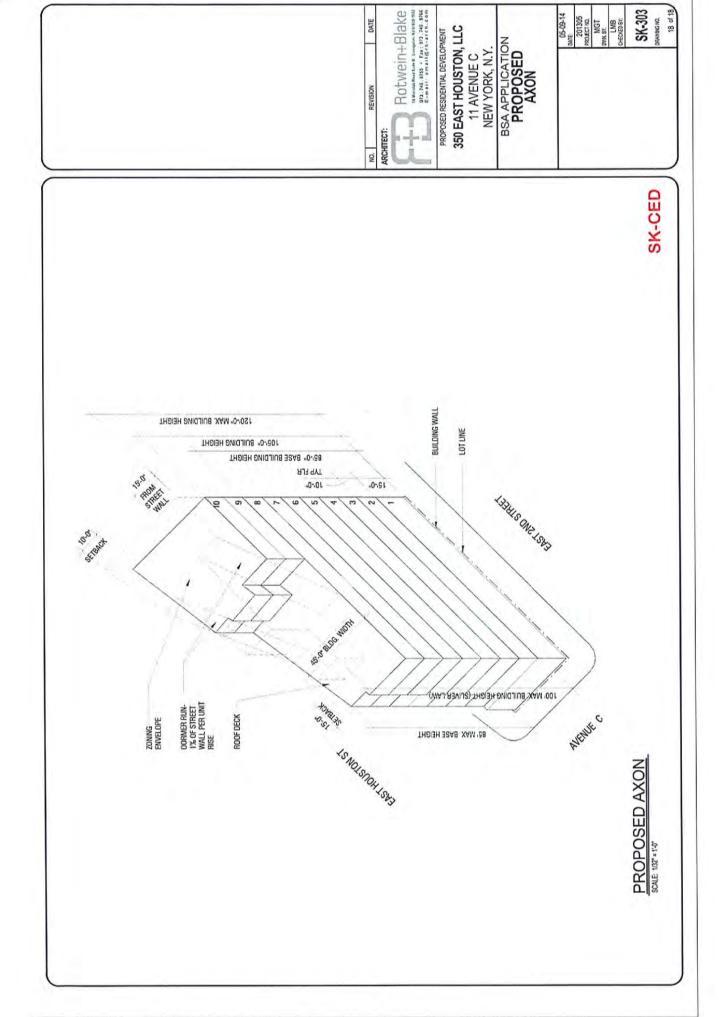
**Maximum Foundation Uplift:** 

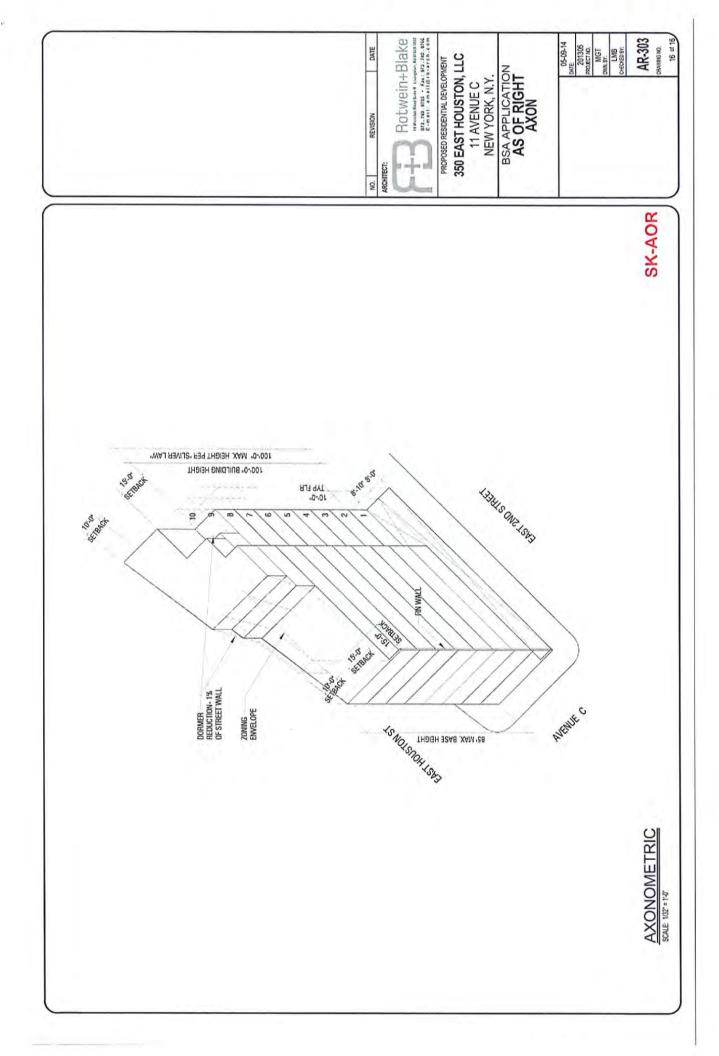
283.2 kips

Note: uplift value based on all exterior wall contributing to shear resistance



Rotwein+Blake TYP-303 DRAMBIGNO. 15 of 15 05-09-14
DATE
201305
PROJECT NO.
MGT
DNN. SY.
LMB
CHECKED SY. 350 EAST HOUSTON, LLC
11 AVENUE C
NEW YORK, N.Y. BSA APPLICATION TYPICAL NO. SK-TYP BUILDING STREET WALL LOTLINE 120'-0" MAX. BUILDING HEIGHT THOISH SEAS ,XAM \*0-\*88 BUILDING ENVELOPE THOISH SSA8 "0-'08 OPEN SPACE 10-0" 17P FLR DORMERS TYPICAL AXON





125-14-87.3 200-5: Ference (125-14-87.3 200-5: A II: III CAL: NO.

### 11 AVENUE C

As of Right Residential

Preliminary Construction Cost Estimate

New York, New York

May 23, 2014

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE: 5/23/14

REV .:

### AS OF RIGHT RESIDENTIAL

### QUALIFICATIONS

- 1 Estimate is based on drawings AR-000 through AR-303 as prepared by Rotwein+Blake dated 5/9/14 labeled As of Right Scheme (FAR 6.3)
- 2 Escalation Estimate Based on Construction Start 2ND Qtr 2014

### **EXCLUSIONS**

- 1 Design/Professional fees.
- 2 Surveys & Reports
- 3 Treatment/Removal of Contaminated Materials
- 4 Controlled Testing and Inspection
- 5 Public Agency Approvals/Inspection Fees
- 6 Building permit/filing fees.
- 7 Builder's risk insurance.
- 8 Utility Company Charges (other than Temporary for Contractor)
- 9 Overtime
- 10 Performance Bond
- 11 Tenant Fit Out- Retail
- 12 Mock-Ups
- 13 Contractors Profit or Construction Manager's Fee

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE:

5/23/14

REV.:

CSI		
CODE	DESCRIPTION	TOTAL
		121 (

### AS OF RIGHT RESIDENTIAL

	THE		
01500	TEMPORARY CONSTRUCTION		469,125
02500	PAVING & SURFACING		139,854
02600	SITE UTILITIES		88,500
02800	PILING		589,500
02950	EXCAVATION/FOUNDATION		931,598
3300	SUPERSTRUCTURE CONCRETE		2,979,632
04100	MASONRY		77,418
05500	MISCELLANOUS IRON		55,690
06100	ROUGH CARPENTRY		148,739
06200	FINISH CARPENTRY		317,807
07100	WATERPROOFING		63,662
07510	ROOFING/INSULATION/FIRESTOPPING		149,395
07900	CAULKING & SEALANTS		72,295
08100	HOLLOW METAL		36,575
08200	WOOD DOORS		62,600
08400	ENTRANCES AND STOREFRONT		34,000
08700	HARDWARE		62,800
08950	EXTERIOR FAÇADE		2,462,245
09000	INTERIOR FIT OUT		88,200
09250	DRYWALL		911,417
09300	TILE		965,000
09550	WOOD FLOORING		335,290
09650	RESILIENT FLOORING		13,513
09900	PAINTING		246,752
10400	IDENTIFYING DEVICES		10,600
10550	POSTAL SPECIALTIES		7,950
10800	TOILET ACCESSORIES		12,200
11175	TRASH CHUTE & COMPACTOR		33,750
11450	RESIDENTIAL EQUIPMENT		238,500
14200	ELEVATORS		275,000
15300	FIRE PROTECTION		298,909
15400	PLUMBING		811,800
15500	HEATING, VENTILATING AND AIR CONDITIONING		1,689,288
16,000	ELECTRICAL WORK		1,016,183
		SUBTOTAL	15,695,787
	GENERAL CONDITIONS 12%		1,883,494
		SUBTOTAL	17,579,281
	INSURANCE 3%		527,378
		TOTAL	18,106,660

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE:

5/23/14

REV.:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	AS OF RIGHT RESIDENTIAL				
01500	TEMPORARY CONSTRUCTION				
	Sidewalk Bridge	325	LF	175.00	56,875
	Construction Fence	350	LF	35.00	12,250
	Hoist	1	LS	400,000.00	400,000
				TEST CAL	469,125
2500	PAVING & SURFACING				
	Sidewalks	3,762	SF	12.00	45,144
	Plaza Paving	1,298	SF	45.00	58,410
	Concrete Curbs	330	LF	60.00	19,800
	Repair Street	330	LF	50.00	16,500
				600 to 1	139,854
02600	SITE UTILITIES				
	Water Service	1	EA	18,000.00	18,000
	Sewer Service	1	EA	22,000.00	22,000
	Gas Service	1	EA	18,000.00	18,000
	Telephone Service	1	EA	5,000.00	5,000
	Fire Service	1	EA	18,000.00	18,000
	Electrical Service	1	EA	7,500.00	7,500
					88,500
02800	PILING				
	Steel H Piles	8,300	LF	65.00	539,500
	Load Testing	2	EA	25,000.00	50,000
					589,500

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

REV.:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	AS OF RIGHT RESIDENTIAL				¥
02950	EXCAVATION/FOUNDATION				
	Sheeting & Shoring	5,216	SF	60.00	312,960
	General Excavation	2,667	CY	50.00	133,35
	Backfill Foundation Walls	470	CY	45.00	21,15
	Underpinning	40	LF	2,500.00	100,00
	Pumping	1	LS	75,000.00	75,00
	Footing Excavation	200	CY	60.00	12,00
	Pile Caps	86	CY	750.00	6450
	Wall Footings	36	CY	650.00	2340
	Foundation Walls	145	CY	950.00	137,75
	Slab on Grade	4,561	SF	8.00	36,48
	Elevator Pits	1	EA	15,000.00	15,00
				Water State of	931,59
03300	SUPERSTRUCTURE CONCRETE				
	8" Flat Plate Incl Cols & Beams	45,986	SF	62.00	2,851,13
	Concrete Stairs	19	FLT	6,500.00	123,50
	Misc. Concrete	1	LS	5,000.00	5,00
				200 Car.	2,979,63
04100	MASONRY				
	8" CMU	3,519	SF	22.00	77,41
					77,41
05500	MISCELLANEOUS IRON				
	Stair Railings Wall Mtd	608	LF	55.00	33,44
	Miscellaneous Iron	1	LS	20,000.00	20,00
	Elevator Pit Ladder	1	EA	750.00	75
	Hoist Beams	1	EA	1,500.00	1,50
					55,69

PROJECT: 11 AVENUE C

CODE DESCRIPTION

LOCATION: NEW YORK, NY

DATE:

E: 5/23/14

**AMOUNT** 

REV.:

**UNIT PR** 

QUANTITY UNIT

		7.77			11.847.471
	AS OF RIGHT RESIDENTIAL				
06100	ROUGH CARPENTRY				
50 Y/ C	Protection (Allow) incl Roof	10	FL	2,000.00	20,000
	Perimeter Netting Incl Roof	2,781	LF	8.50	23,639
	Roof Blocking	1	LS	5,000.00	5,000
	Install Wood Doors & Frames - Single	114	EA	200.00	22,800
	Install Wood Pocket Doors - Single	8	EA	200.00	1,600
	Install Wood Doors Double - Slider	130	PR	100.00	13,000
	Install Kitchen Cabinets	53	Set	450.00	22,800
	Bathroom Vanity	61	EA	100.00	6,100
	Install H.M. Doors & Frames - Single	94	EA	200.00	18,800
	Roof Terrace Dividers		ĹF	250.00	0
	Misc blocking	1	LS	15,000.00	15,000
				Adiable A.A.	148,739
06200	FINISH CARPENTRY				
	Wood Base	11,159	LF	3.00	33,477
	Closet Shelf & Pole	724	LF	20.00	14,480
	Kitchen cabinets & Countertops	53	SET	4,500.00	238,500
	Medicine cabinets	61	EA	350.00	21,350
	Mailroom Millwork	1	LS	10,000.00	10,000
				177	317,807
7100	WATERPROOFING				
	Elevator Pit	1	EA	5,000.00	5,000
	Slab on Grade	4,561	SF	6.00	27,366
	Foundation Walls	3,912	SF	8.00	31,296
				11/2/2	63,662
07510	ROOFING/INSULATION/FIRESTOPPING				
	Membrane Roofing	4,561	SF	25.00	114,025
	Terrace/Balcony Pavers	2,358	SF	15.00	35,370
				100.74	149,395
07900	CAULKING & SEALANTS				
	Caulking - Interior	45,986	SF	0.50	22,993
	Caulking - Exterior	32,868	SF	1.50	49,302
					72,295

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

REV.:

CODE DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT

### AS OF RIGHT RESIDENTIAL

HOLLOW METAL				
	53	EΔ	400.00	21,200
				9,375
				6,000
olligio	10		373.00	36,575
WOOD DOORS				
Apartment Interior Doors & Frames	122	FA	300.00	36,600
Closet Double Sliders				26,000
	1001.	37.3		62,600
ENTRANCES & STOREFRONT				
	120	EA	2.500.00	0
	4			14,000
Entry Doors - Double	2			20,000
Storefront	27 P			0
				34,000
HARDWARE				
Apartment Entry Doors	53	SETS	400.00	21,200
Apartment Interior Doors	252	SETS	100.00	25,200
Stair/Service Doors	41	SETS	400.00	16,400
			9.40	62,800
EXTERIOR FAÇADE				
Lot Line Block wall	2,155	SF	22.00	47,410
Brick Cavity Walls	20,483	SF	65.00	1,331,395
Brick Fin Wall	1,414	SF	85.00	120,190
Brick parapets	1,568	SF	125.00	196,000
Windows	10,230	SF	75.00	767,250
			0 11/11	2,462,245
INTERIOR FIT-OUT				
Entrance Lobby Area	252	SF	350.00	88,200
			1, 1997	88,200
	Apartment Interior Doors & Frames Closet Double Sliders  ENTRANCES & STOREFRONT Terrace Glass Doors - Single Swing Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront  HARDWARE Apartment Entry Doors Apartment Interior Doors Stair/Service Doors  EXTERIOR FAÇADE Lot Line Block wall Brick Cavity Walls Brick Fin Wall Brick parapets Windows  INTERIOR FIT-OUT	H.M. Doors & Frames Apartment Entry - Single H.M. Doors & Frames Stair - Single H.M. Doors & Frames Service - Single H.M. Doors & Frames Service - Single  WOOD DOORS Apartment Interior Doors & Frames 122 Closet Double Sliders  ENTRANCES & STOREFRONT Terrace Glass Doors - Single Swing Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront  HARDWARE Apartment Entry Doors Apartment Interior Doors Stair/Service Doors  EXTERIOR FACADE Lot Line Block wall Brick Cavity Walls Brick Cavity Walls Brick parapets Windows  INTERIOR FIT-OUT	H.M. Doors & Frames Apartment Entry - Single       53       EA         H.M. Doors & Frames Stair - Single       25       EA         H.M. Doors & Frames Service - Single       16       EA         WOOD DOORS         Apartment Interior Doors & Frames       122       EA         Closet Double Sliders       130       PR         ENTRANCES & STOREFRONT         Terrace Glass Doors - Single Swing       -       EA         Terrace Glass Doors - Double Sliding       4       PR         Entry Doors - Double       2       PR         Storefront       -       SF         HARDWARE         Apartment Entry Doors       53       SETS         Apartment Interior Doors       252       SETS         Stair/Service Doors       41       SETS         EXTERIOR FAÇADE         Lot Line Block wall       2,155       SF         Brick Cavity Walls       20,483       SF         Brick parapets       1,568       SF         Windows       10,230       SF          INTERIOR FIT-OUT	H.M. Doors & Frames Apartment Entry - Single

PROJECT: 11 AVENUE C

CODE DESCRIPTION

LOCATION: NEW YORK, NY

DATE:

5/23/14

**AMOUNT** 

13,513

REV .:

**UNIT PR** 

QUANTITY UNIT

	AS OF RIGHT RESIDENTIAL				
09250	DRYWALL				
	Partitions:				
	Corridor	13,475	SF	9.00	121,275
	Stair Walls	8,145	SF	12.00	97,740
	Demising	7,530	SF	9.00	67,770
	Interior 1M1	33,340	SF	6.00	200,040
	Demising Chase	200	SF	9.00	0
	Chase	4,880	SF	5.50	26,840
	Furring	6,240	SF	6.00	37,440
	Exhaust Shaft	8,240	SF	12.00	98,880
	Suspended Drywall Ceilings	16,245	SF	8.00	129,960
	GWB + Vapor Barrier+ Batt @ Exterior Wall	32,868	SF	4.00	131,472
				-	911,417
09300	TILEWORK				
	Marble Tile Floor	5,537	SF	30.00	166,110
	Marble Tile Base	2,892	SF	30.00	86,760
	Marble Tile Wall	23,636	SF	30.00	709,080
	Marble Saddles	61	EA	50.00	3,050
					965,000
09550	WOOD FLOORING				
	Strip Oak Flooring	33,529	SF	10.00	335,290
				-	335,290
9650	RESILIENT FLOORING				
	Carpet at Corridors	326	SY	35.00	11,410
	VCT	412	SF	3.00	1,236
	Vinyl Base	289	LF	3.00	867

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE:

5/23/14

REV .:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	AS OF RIGHT RESIDENTIAL				
09900	PAINTING/WALLCOVERING				
	Sealed Comcrete	5,254	SF	0.60	3,152
	Partitions - Paint	111,044	SF	0.65	72,179
	Gyp Ceiling - Paint	16,245	SF	1.00	16,245
	Kadex On Concrete Slab	22,292	SF	2.00	44,584
	Paint Mas/Conc Walls	7,944	SF	0.85	6,752
	Paint WD Base	11,159	LF	2.00	22,318
	Paint Stairs	19	FLT	750.00	14,250
	Paint Stair Railing	608	LF	5.00	3,040
	Doors and Frames	460	LVS	60.00	27,600
	Vinyl Wallcovering @ Corridors	10,544	SF	3.00	31,632
	Miscellaneous Painting	1	LS	5,000.00	5,000
					246,752
10400	IDENTIFYING DEVICES				
	# of Apartments	53	EA	200.00	10,600
					10,600
10550	POSTAL SPECIALTIES				
	Mailboxes	53	EA	150.00	7,950
				0.0000.000	7,950
10800	TOILET PATITIIONS/ACCESSORIES				
	Powder rooms	4.	EA	100.00	C
	Baths	61	EA	200.00	12,200
				200	12,200
11175	TRASH CHUTE & COMPACTOR				
	Trash Chute	110	LF	125.00	13,750
	Compactor	1	EA	20,000.00	20,000
					33,750
11450	RESIDENTIAL EQUIPMENT				
	Allow for Appliances	53	SET	4,500.00	238,500
					238,500

PROJECT: 11 AVENUE C

CODE DESCRIPTION

LOCATION: NEW YORK, NY

DATE:

5/23/14

**AMOUNT** 

REV.:

UNIT PR

QUANTITY UNIT

	AS OF RIGHT RESIDENTIAL				
14200	ELEVATOR				
	Passenger 11 Stop	1	EA	275,000.00	275,000
				C. Marine	275,000
15300	FIRE PROTECTION				
	Sprinkler System Incl Standpipes	45,986	SF	6.50	298,909
					298,909
5400	PLUMBING				
	Equipment				
	Water Heaters, Tanks, Pumps, etc	1	LS	150,000.00	150,000
	Gas Piping & Meters	1	LS	90,000.00	90,000
	Water Closets	61	EA	2,500.00	152,500
	Bathtubs	61	EA	2,500.00	152,500
	Lavatories	61	EA	2,200.00	134,200
	Kitchen Sinks	53	EA	2,200.00	116,600
	Terrace Drains	4	EA	2,000.00	8,000
	Roof Drains	4	EA	2,000.00	8,000
					811,800
15500	HEATING, VENTILLATING AND AIR CONDITIONING				
	Boilers. Pumps, ETC	1	LS	150,000.00	150,000
	Ventilation for Basement	4,561	SF	8.00	36,488
	HVAC for Lobby	252	SF	25.00	6,300
	HVAC per Unit	53	EA	25,000.00	1,325,000
	Corridor Supply Air Handler	1	EA	35,000.00	35,000
	Kitchen Exhaust	5	EA	5,000.00	25,000
	Toilet Exhaust	6	EA	5,000.00	30,000
	Elevator machine Room Unit	1	EA	5,000.00	5,000
	Trash Room Unit	1	EA	5,000.00	5,000
	Meter Room Exhaust fans	2	EA	2,500.00	5,000
	DDC Controls	1	LS	30,000.00	30,000
	Tempetature Control	53	APT	500.00	26,500
	Testing & Balancing	1	LS	10,000.00	10,000

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY

DATE:

5/23/14

REV.:

CODE DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT

### AS OF RIGHT RESIDENTIAL

16000	EL	EC1	RIC
-------	----	-----	-----

Equipment	1	LS	100,000.00	100,000
Meters	54	SET	750.00	40,500
Panelboards & Risers	55	EA	3,200.00	176,000
Power & Lighting for Basement	4,561	SF	8.00	36,488
Power & Lighting for Lobby	252	SF	20.00	5,040
Lighting & Power at Units	41,173	SF	12.00	494,076
Fire Alarm System Class"C"	45,986	SF	1.50	68,979
House Intercom/Video System	54	EA	650.00	35,100
Cable TV Raceways	10	RIS	3,000.00	30,000
Telephone Raceway System	10	RIS	3,000.00	30,000
			-7.47.77	2 2 7 2 7 2 2

1,016,183

/IcQUILKIN	and it spring the up a decrease which is a re-	the second secon					DATE:	5/23/14
ROJECT: 1			1777 100	D.O.L.	in bio sail		REV.:	
OCATION:	NEW YOR	K, NY	AS OF RI	GHT RES	IDENTIAL			
				BASIC AI	REA SHEET			
FLOOR	SOG AREA	STRUCT	ENCLOS'D	ROOF AREA	TERRACE	LINEAR	FL to FL HEIGHT	GROSS EXTERIOR
12000			AREA	-		PERIM	40.00	070
Cellar	4,561	C CAS	4,561			326	12.00	978
1st		4,561	4,561		~ ~	326	10.00	3,260
2nd		4,561	4,561		2.1	326	10.00	3,260
3rd		4,561	4,561		141	326	10.00	3,260
4th		4,561	4,561		-	326	10.00	3,260
5th	7	4,561	4,561		414	326	10.00	3,260
6th		4,561	4,561			326	10.00	3,260
7th		4,561	4,561		8.1	326	10.00	3,260
8th		4,561	4,561		H	326	10.00	3,260
9th	4	4,561	2,579		1,982	257	10.00	2,570
10th		2,579	2,203		376	242	10.00	2,420
Roof		2,203	155	2,048		82	10.00	820
	7	155		155				
	4,561	45,986	45,986	2,203	2,358	3,515	122	32,868

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE: 5/23/14 REV.:

### **UNIT MATRIX**

# AS OF RIGHT RESIDENTIAL

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2	4 4 4
	5 5
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9	9 9
9	9
7	7 7
7	7 7
27	0.00

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TOTAL TO A TELES

### 11 AVENUE C

Typical Residential

**Preliminary Construction Cost Estimate** 

New York, New York

May 21, 2014

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE: 5/21/14

REV .:

### TYPICAL RESIDENTIAL

### QUALIFICATIONS

- 1 Estimate is based on drawings TYP-000 through TYP-303 as prepared by Rotwein+Blake dated 5/9/14 labeled Typical Design Scheme (FAR 7.2)
- 2 Escalation Estimate Based on Construction Start 2ND Qtr 2014

### **EXCLUSIONS**

- 1 Design/Professional fees.
- 2 Surveys & Reports
- 3 Treatment/Removal of Contaminated Materials
- 4 Controlled Testing and Inspection
- 5 Public Agency Approvals/Inspection Fees
- 6 Building permit/filing fees.
- 7 Builder's risk insurance.
- 8 Utility Company Charges (other than Temporary for Contractor)
- 9 Overtime
- 10 Performance Bond
- 11 Tenant Fit Out- Retail
- 12 Mock-Ups
- 13 Contractors Profit or Construction Manager's Fee

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE: 5/21/14

REV.:

CSI		
CODE	DESCRIPTION	TOTAL
	First Ann	

### TYPICAL RESIDENTIAL

01500	TEMPORARY CONSTRUCTION		468,820
02500	PAVING & SURFACING		97,964
02600	SITE UTILITIES		88,500
02950	EXCAVATION/FOUNDATION		1,123,900
3300	SUPERSTRUCTURE CONCRETE		3,578,678
04100	MASONRY		90,222
05500	MISCELLANOUS IRON		66,250
06100	ROUGH CARPENTRY		165,696
06200	FINISH CARPENTRY		316,714
07100	WATERPROOFING		35,336
07510	ROOFING/INSULATION/FIRESTOPPING		143,815
07900	CAULKING & SEALANTS		80,017
08100	HOLLOW METAL		37,275
08200	WOOD DOORS		74,200
08400	ENTRANCES AND STOREFRONT		55,500
08700	HARDWARE		69,100
08950	EXTERIOR FAÇADE		2,498,610
09000	INTERIOR FIT OUT		195,300
09250	DRYWALL		1,014,888
09300	TILE		941,660
09550	WOOD FLOORING		363,230
09650	RESILIENT FLOORING		22,334
09900	PAINTING		279,124
10400	IDENTIFYING DEVICES		10,200
10550	POSTAL SPECIALTIES		7,650
10800	TOILET ACCESSORIES		12,800
11175	TRASH CHUTE & COMPACTOR		36,250
11450	RESIDENTIAL EQUIPMENT		229,500
14200	ELEVATORS		325,000
15300	FIRE PROTECTION		357,624
15400	PLUMBING		843,000
15500	HEATING, VENTILATING AND AIR CONDITIONING		1,641,250
16,000	ELECTRICAL WORK		1,137,221
		SUBTOTAL	16,407,627
	GENERAL CONDITIONS 12%		1,968,915
		SUBTOTAL	18,376,542
	INSURANCE 3%		551,296
		TOTAL	18,927,838

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/21/14

REV .:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	TYPICAL RESIDENTIAL				
01500	TEMPORARY CONSTRUCTION				
	Sidewalk Bridge	188	LF	175.00	32,900
	Construction Fence	312	LF	35.00	10,92
	Hoist	1	LS	425,000.00	425,00
				a saction and	468,82
02500	PAVING & SURFACING				
	Sidewalks	2,032	SF	12.00	24,38
	Plaza Paving	1,200	SF	45.00	54,00
	Concrete Curbs	178	LF	60.00	10,68
	Repair Street	178	LF	50.00	8,90
				186.20	97,96
02600	SITE UTILITIES				
	Water Service	1	EA	18,000.00	18,00
	Sewer Service	1	EA	22,000.00	22,00
	Gas Service	1	EA	18,000.00	18,00
	Telephone Service	1	EA	5,000.00	5,00
	Fire Service	1	EA	18,000.00	18,00
	Electrical Service	1	EA	7,500.00	7,50
					88,50
02950	EXCAVATION/FOUNDATION				
	Sheeting & Shoring	5,056	SF	60.00	303,36
	General Excavation	2,671	CY	50.00	133,55
	Backfill Foundation Walls	456	CY	45.00	20,52
	Underpinning	138	LF	2,500.00	345,00
	Pumping	1	LS	25,000.00	25,00
	Footing Excavation	207	CY	60.00	12,42
	Spread Footings	102	CY	750.00	7650
	Wall Footings	35	CY	650.00	2275
	Foundation Walls	140	CY	950.00	133,00
	Slab on Grade	4,600	SF	8.00	36,80
	Elevator Pits	1	EA	15,000.00	15,00

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE: 5/21/14

REV .:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	TYPICAL RESIDENTIAL				
03300	SUPERSTRUCTURE CONCRETE				
	8" Flat Plate Incl Cols & Beams	55,019	SF	62.00	3,411,178
	Concrete Stairs	25	FLT	6,500.00	162,500
	Misc. Concrete	1	LS	5,000.00	5,000
					3,578,678
04100	MASONRY				
	8" CMU	4,101	SF	22.00	90,222
					90,222
05500	MISCELLANEOUS IRON				
	Stair Railings Wall Mtd	800	LF	55.00	44,000
	Miscellaneous Iron	1	LS	20,000.00	20,000
	Elevator Pit Ladder	1	EA	750.00	750
	Hoist Beams	1	EA	1,500.00	1,500
					66,250
06100	ROUGH CARPENTRY				
	Protection (Allow) incl Roof	12	FL	2,000.00	24,000
	Perimeter Netting Incl Roof	3,176	LF	8.50	26,996
	Roof Blocking	1	LS	5,000.00	5,000
	Install Wood Doors & Frames - Single	128	EA	200.00	25,60
	Install Wood Pocket Doors - Single	80	EA	200.00	1.1
	Install Wood Doors Double - Slider	179	PR	100.00	17,90
	Install Kitchen Cabinets	51	Set	450.00	25,60
	Bathroom Vanity	64	EA	100.00	6,40
	Install H.M. Doors & Frames - Single	96	EA	200.00	19,20
	Roof Terrace Dividers		LF	250.00	
	Misc blocking	1	LS	15,000.00	15,00
					165,69

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/21/14

REV.:

CODE DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
TYPICAL RESIDENTIAL				
06200 FINISH CARPENTRY				

	TYPICAL RESIDENTIAL				
06200	FINISH CARPENTRY				
	Wood Base	11,718	LF	3.00	35,154
	Closet Shelf & Pole	983	LF	20.00	19,660
	Kitchen cabinets & Countertops	51	SET	4,500.00	229,500
	Medicine cabinets	64	EA	350.00	22,400
	Mailroom Millwork	1	LS	10,000.00	10,000
					316,714
07100	WATERPROOFING				
	Elevator Pit	1	EA	5,000.00	5,000
	Foundation Walls	3,792	SF	8.00	30,336
				4.4	35,336
07510	ROOFING/INSULATION/FIRESTOPPING				
	Membrane Roofing	4,600	SF	25.00	115,000
	Terrace/Balcony Pavers	1,921	SF	15.00	28,815
				-	143,815
07900	CAULKING & SEALANTS				
	Caulking - Interior	53,491	SF	0.50	26,746
	Caulking - Exterior	35,514	SF	1.50	53,271
				7	80,017
08100	HOLLOW METAL				
	H.M. Doors & Frames Apartment Entry - Single	51	EA	400.00	20,400
	H.M. Doors & Frames Stair - Single	28	EA	375.00	10,500
	H.M. Doors & Frames Service - Single	17	EA	375.00	6,375
				N. V.	37,275
08210	WOOD DOORS				
	Apartment Interior Doors & Frames	128	EA	300.00	38,400
	Closet Double Sliders	179	PR	200.00	35,800
					74,200

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/21/14

REV.:

Terrace Glass Doors - Single Swing Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront Terrace Glass Doors - Double Sliding Entry Doors - Double Terrace Glass Doors - Double Sliding Terrace Glass Doors - Doo	CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
Terrace Glass Doors - Single Swing Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront Terrace Glass Doors - Double Sliding Entry Doors - Double Storefront Terrace Glass Doors - Double Sliding Entry Doors - Double Terrace Glass Doors - Double Sliding Terrace Glass Doors - Doo		TYPICAL RESIDENTIAL				
Terrace Glass Doors - Double Sliding Entry Doors - Double Entry Doors - Double Storefront  1 PR 10,000.00 10,000 55,500  08700 HARDWARE Apartment Entry Doors 51 SETS 400.00 20,400 Apartment Interior Doors 307 SETS 100.00 30,700 Stair/Service Doors 45 SETS 400.00 18,000 69,100  08950 EXTERIOR FAÇADE Lot Line Block wall 6,400 SF 22,00 140,800 Brick Cavity Walls 17,824 SF 65.00 1,158,560 Brick parapets 1,740 SF 125.00 217,500 Windows 13,090 SF 75.00 981,750 2,498,610	08400	ENTRANCES & STOREFRONT				
Entry Doors - Double		Terrace Glass Doors - Single Swing	1	EA	3,500.00	3,500
Storefront - SF 100.00 0 55,500		Terrace Glass Doors - Double Sliding	12	PR	3,500.00	42,000
Description		Entry Doors - Double	1	PR	10,000.00	10,000
Name		Storefront	0.4.2	SF	100.00	(
Apartment Entry Doors					1000	55,500
Apartment Interior Doors  Stair/Service Doors  45 SETS  400.00  18,000  69,100  08950  EXTERIOR FAÇADE  Lot Line Block wall  Brick Cavity Walls  Brick parapets  Windows  17,824 SF  65.00  1,158,560  1,740 SF  125.00  217,500  Windows  13,090 SF  75.00  981,750  2,498,610	08700	HARDWARE				
Stair/Service Doors  45 SETS 400.00  18,000 69,100  08950 EXTERIOR FAÇADE  Lot Line Block wall  Brick Cavity Walls  Brick parapets  Windows  13,090 SF  75.00  195,300  195,300		Apartment Entry Doors	51	SETS	400.00	20,400
08950 EXTERIOR FAÇADE Lot Line Block wall Brick Cavity Walls Brick parapets Windows  17,824 SF 1,740 SF 125.00 217,500 2,498,610  09000 INTERIOR FIT-OUT Entrance Lobby Area  6,400 SF 22.00 140,800 17,824 SF 65.00 1,158,560 2,17,500 217,50		Apartment Interior Doors	307	SETS	100.00	30,700
EXTERIOR FAÇADE   Lot Line Block wall   6,400 SF   22.00   140,800 Brick Cavity Walls   17,824 SF   65.00   1,158,560 Brick parapets   1,740 SF   125.00   217,500 Windows   13,090 SF   75.00   981,750   2,498,610     2,498,6		Stair/Service Doors	45	SETS	400.00	18,000
Lot Line Block wall 6,400 SF 22.00 140,800 Brick Cavity Walls 17,824 SF 65.00 1,158,560 Brick parapets 1,740 SF 125.00 217,500 Windows 13,090 SF 75.00 981,750 2,498,610  D9000 INTERIOR FIT-OUT Entrance Lobby Area 558 SF 350.00 195,300					-34.73	69,100
Brick Cavity Walls 17,824 SF 65.00 1,158,560 Brick parapets 1,740 SF 125.00 217,500 Windows 13,090 SF 75.00 981,750 2,498,610  D9000 INTERIOR FIT-OUT Entrance Lobby Area 558 SF 350.00 195,300	08950	EXTERIOR FAÇADE				
Brick parapets 1,740 SF 125.00 217,500 Windows 13,090 SF 75.00 981,750 2,498,610 20000 INTERIOR FIT-OUT Entrance Lobby Area 558 SF 350.00 195,300		Lot Line Block wall	6,400	SF	22.00	140,800
Windows 13,090 SF 75.00 981,750 2,498,610  D9000 INTERIOR FIT-OUT Entrance Lobby Area 558 SF 350.00 195,300		Brick Cavity Walls	17,824	SF	65.00	1,158,560
2,498,610  09000 INTERIOR FIT-OUT Entrance Lobby Area 558 SF 350.00 195,300		Brick parapets	1,740	SF	125.00	217,500
09000 <u>INTERIOR FIT-OUT</u> Entrance Lobby Area 558 SF 350.00 195,300		Windows	13,090	SF	75.00	981,750
Entrance Lobby Area 558 SF 350.00 195,300					10.00	2,498,610
	09000	INTERIOR FIT-OUT				
195,300		Entrance Lobby Area	558	SF	350.00	195,300
					100	195,300

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/21/14

REV.:

QUANTITY	UNIT	UNIT PR	AMOUNT
	QUANTITY	QUANTITY UNIT	QUANTITY UNIT UNIT PR

### TYPICAL RESIDENTIAL

	A WAY TO THE TAX TO TH				
09250	DRYWALL				
	Partitions:				
	Corridor	12,280	SF	9.00	110,520
	Elevator/Stair Walls	11,480	SF	12.00	137,760
	Demising	9,800	SF	9.00	88,200
	Interior 1M1	42,480	SF	6.00	254,880
	Demising Chase	- 1	SF	9.00	0
	Chase	5,120	SF	5.50	28,160
	Furring	6,720	SF	6.00	40,320
	Exhaust Shaft	5,120	SF	12.00	61,440
	Suspended Drywall Ceilings	18,044	SF	8.00	144,352
	GWB + Vapor Barrier+ Batt @ Exterior Wall	37,314	SF	4.00	149,256
					1,014,888
09300	TILEWORK				
	Marble Tile Floor	5,125	SF	30.00	153,750
	Marble Tile Base	2,873	SF	30.00	86,190
	Marble Tile Wall	23,284	SF	30.00	698,520
	Marble Saddles	64	EA	50.00	3,200
					941,660
09550	WOOD FLOORING				
	Strip Oak Flooring	36,323	SF	10.00	363,230
	and the first of t				363,230
09650	RESILIENT FLOORING				
	Carpet at Corridors	535	SY	35.00	18,725
	VCT	788	SF	3.00	2,364
	Vinyl Base	415	LF	3.00	1,245
	AND A COURT OF THE			745.4	22,334

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/21/14

REV.:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	TYPICAL RESIDENTIAL				
09900	PAINTING/WALLCOVERING				
	Sealed Comcrete	6,489	SF	0.60	3,893
	Partitions - Paint	118,952	SF	0.65	77,319
	Gyp Ceiling - Paint	18,044	SF	1.00	18,044
	Kadex On Concrete Slab	24,520	SF	2.00	49,040
	Paint Mas/Conc Walls	8,052	SF	0.85	6,844
	Paint WD Base	11,289	LF	2.00	22,578
	Paint Stairs	25	FLT	750.00	18,750
	Paint Stair Railing	800	LF	5.00	4,000
	Doors and Frames	582	LVS	60.00	34,920
	Vinyl Wallcovering @ Corridors	12,912	SF	3.00	38,736
	Miscellaneous Painting	1	LS	5,000.00	5,000
					279,124
10400	IDENTIFYING DEVICES				
	# of Apartments	51	EA	200.00	10,200
					10,200
10550	POSTAL SPECIALTIES				
	Mailboxes	51	EA	150.00	7,650
					7,650
10800	TOILET PATITIIONS/ACCESSORIES				
	Powder rooms	-	EA	100.00	(
	Baths	64	EA	200.00	12,800
					12,800
11175	TRASH CHUTE & COMPACTOR				
	Trash Chute	130	LF	125.00	16,250
	Compactor	1	EA	20,000.00	20,000
				7.7 X.	36,25
11450	RESIDENTIAL EQUIPMENT				
	Allow for Appliances	51	SET	4,500.00	229,500
					229,500

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY

CODE DESCRIPTION

DATE:

UNIT PR

QUANTITY UNIT

5/21/14

**AMOUNT** 

REV.:

	The state of the s	Same Co	1.7.70	1000	And And
	TYPICAL RESIDENTIAL				
14200	ELEVATOR				
	Passenger 13 Stop	1	EA	325,000.00	325,000
					325,000
15300	FIRE PROTECTION				
	Sprinkler System Incl Standpipes	55,019	SF	6.50	357,624
					357,624
15400	PLUMBING				
	Equipment				
	Water Heaters, Tanks, Pumps, etc	1	LS	150,000.00	150,000
	Gas Piping & Meters	1	LS	90,000.00	90,000
	Water Closets	64	EA	2,500.00	160,000
	Bathtubs	64	EA	2,500.00	160,000
	Lavatories	64	EA	2,200.00	140,800
	Kitchen Sinks	51	EA	2,200.00	112,200
	Terrace Drains	11	EA	2,000.00	22,000
	Roof Drains	4	EA	2,000.00	8,000
				1	843,000
15500	HEATING, VENTILLATING AND AIR CONDITIONING	3			
	Boilers. Pumps, ETC	1	LS	150,000.00	150,000
	Ventilation for Basement	4,600	SF	8.00	36,800
	HVAC for Lobby	558	SF	25.00	13,950
	HVAC per Unit	51	EA	25,000.00	1,275,000
	Corridor Supply Air Handler	1	EA	35,000.00	35,000
	Kitchen Exhaust	5	EA	5,000.00	25,000
	Toilet Exhaust	5	EA	5,000.00	25,000
	Elevator machine Room Unit	1	EA	5,000.00	5,000
	Trash Room Unit	1	EA	5,000.00	5,000
	Meter Room Exhaust fans	2	EA	2,500.00	5,000
	DDC Controls	1	LS	30,000.00	30,000
	Tempetature Control	51	APT	500.00	25,500
	Testing & Balancing	1	LS	10,000.00	10,000
	A Contract of the Section of the Sec			Private and	1,641,250

Cable TV Raceways

Telephone Raceway System

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

3,000.00

3,000.00

11

11

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RIS

5/21/14

REV .:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT

### TYPICAL RESIDENTIAL

16000	ELECTRIC				
	Equipment	1	LS	100,000.00	100,000
	Meters	52	SET	750.00	39,000
	Panelboards & Risers	53	EA	3,200.00	169,600
	Power & Lighting for Basement	4,600	SF	8.00	36,800
	Power & Lighting for Lobby	558	SF	20.00	11,160
	Lighting & Power at Units	49,861	SF	12.00	598,332
	Fire Alarm System Class"C"	55,019	SF	1.50	82,529
	House Intercom/Video System	52	EA	650.00	33,800

1,137,221

33,000

33,000

AcQUILKIN .							DATE:	5/21/14
ROJECT: 1	Contract of the Contract of th	167.	1,7,000	1000	00		REV.:	
OCATION:	NEW YORI	K, NY	TYPICA	L RESID	ENTIAL			
				BASIC AI	REA SHEET			
FLOOR	SOG	STRUCT	GROSS ENCLOS'D	ROOF	TERRACE	LINEAR	FL to FL HEIGHT	GROSS
			AREA			PERIM		
Cellar	4,600		4,600			316	12.00	Found
1st		4,600	4,600			316	10.00	3,160
2nd		4,600	4,600		161	316	10.00	3,160
3rd		4,600	4,600			316	10.00	3,160
4th	1	4,600	4,600		-	316	10.00	3,160
5th		4,600	4,600			316	10.00	3,160
6th		4,600	4,600			316	10.00	3,160
7th		4,600	4,600		-	316	10.00	3,160
8th		4,600	4,600			316	10.00	3,160
9th		4,600	3,674		926	286	10.00	2,860
10th		3,674	3,465		209	286	10.00	2,860
11th	7 = =	3,465	3,260		205	286	10.00	2,860
12th		3,260	3,056		204	286	10.00	2,860
Roof		3,056	164	2,892		66	9.00	594
		164		164				4
	4,600	55,019	55,019	3,056	1,544	4,054	141	37,314

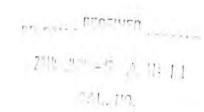
PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY

**UNIT MATRIX** 

DATE: 5/21/14 REV.:

## TYPICAL RESIDENTIAL

TOTALS		38	13	1	51	51	64	64	243
12			2		2	2	4	4	14
11		3			က	8	3	3	12
10		1	2		က	ဗ	5	5	18
6		1	2		က	က	5	5	18
80		4	1		2	2	9	9	23
7		4	1		2	5	9	9	23
9	1	4	1		2	5	9	9	23
2		4	1	- 1	2	2	9	9	23
4		4	1		2	2	9	9	23
8		4	1		2	2	9	9	23
2		4	1		2	2	9	9	23
-		5			2	5	5	5	20
Type/Floor		1BR 1BTH	2BR 2BTH		TOTALS	Kitchens	Beds	Baths	Plumbing Fixture



# 11 AVENUE C

Proposed Residential

**Preliminary Construction Cost Estimate** 

New York, New York

May 23, 2014

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE: 5/23/14

REV.:

# PROPOSED RESIDENTIAL

## QUALIFICATIONS

- 1 Estimate is based on drawings SK-000 through SK-303 as prepared by Rotwein+Blake dated 5/9/14 labeled Proposed Scheme (FAR 7.2)
- 2 Escalation Estimate Based on Construction Start 2ND Qtr 2014

## **EXCLUSIONS**

- 1 Design/Professional fees.
- 2 Surveys & Reports
- 3 Treatment/Removal of Contaminated Materials
- 4 Controlled Testing and Inspection
- 5 Public Agency Approvals/Inspection Fees
- 6 Building permit/filing fees.
- 7 Builder's risk insurance.
- 8 Utility Company Charges (other than Temporary for Contractor)
- 9 Overtime
- 10 Performance Bond
- 11 Tenant Fit Out- Retail
- 12 Mock-Ups
- 13 Contractors Profit or Construction Manager's Fee

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE:

5/23/14

REV .:

CSI CODE DESCRIPTION TOTAL

	PROPOSED RESIDENTIAL		
01500	TEMPORARY CONSTRUCTION		419,125
02500	PAVING & SURFACING		81,444
02600	SITE UTILITIES		88,500
02800	PILING		492,000
02950	EXCAVATION/FOUNDATION		1,045,362
3300	SUPERSTRUCTURE CONCRETE		3,648,550
04100	MASONRY		179,586
05500	MISCELLANOUS IRON		55,690
06100	ROUGH CARPENTRY		165,931
06200	FINISH CARPENTRY		295,712
07100	WATERPROOFING		48,428
07510	ROOFING/INSULATION/FIRESTOPPING		253,060
07900	CAULKING & SEALANTS		83,397
08100	HOLLOW METAL		17,400
08200	WOOD DOORS		24,200
08400	ENTRANCES AND STOREFRONT		411,500
08700	HARDWARE		58,000
08950	EXTERIOR FAÇADE		2,421,630
09000	INTERIOR FIT OUT		94,500
09250	DRYWALL		981,776
09300	TILE		887,800
09550	WOOD FLOORING		330,500
09650	RESILIENT FLOORING		24,014
09900	PAINTING		268,088
10400	IDENTIFYING DEVICES		9,200
10550	POSTAL SPECIALTIES		6,900
10800	TOILET ACCESSORIES		12,400
11175	TRASH CHUTE & COMPACTOR		35,000
11450	RESIDENTIAL EQUIPMENT		207,000
14200	ELEVATORS		275,000
15300	FIRE PROTECTION		360,412
15400	PLUMBING		803,600
15500	HEATING, VENTILATING AND AIR CONDITIONING		1,521,742
16,000	ELECTRICAL WORK		1,134,562
		SUBTOTAL	16,742,009
	GENERAL CONDITIONS 12%		2,009,041
		SUBTOTAL	18,751,050
	INSURANCE 3%		562,531
		TOTAL	19,313,581

PROJECT: 11 AVENUE C

LOCATION: NEW YORK, NY

DATE:

5/23/14

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
01500	TEMPORARY CONSTRUCTION				
	Sidewalk Bridge	325	LF	175.00	56,875
	Construction Fence	350	LF	35.00	12,250
	Hoist	1	LS	350,000.00	350,000
					419,125
02500	PAVING & SURFACING				
	Sidewalks	3,762	SF	12.00	45,144
	Concrete Curbs	330	LF	60.00	19,800
	Repair Street	330	LF	50.00	16,500
					81,444
2600	SITE UTILITIES				
	Water Service	1	EA	18,000.00	18,000
	Sewer Service	1	EA	22,000.00	22,000
	Gas Service	1	EA	18,000.00	18,000
	Telephone Service	1	EA	5,000.00	5,000
	Fire Service	1	EA	18,000.00	18,000
	Electrical Service	1	EA	7,500.00	7,500
					88,500
02800	PILING				
	Steel H Piles	6,800	LF	65.00	442,000
	Load Testing	2	EA	25,000.00	50,000
				7 2 3	492,000

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
02950	EXCAVATION/FOUNDATION				
	Sheeting & Shoring	5,456	SF	60.00	327,360
	General Excavation	3,320	CY	50.00	166,000
	Backfill Foundation Walls	498	CY	45.00	22,41
	Underpinning	54	LF	2,500.00	135,00
	Pumping	1	LS	75,000.00	75,000
	Footing Excavation	225	CY	60.00	13,500
	Pile Caps	100	CY	750.00	7500
	Wall Footings	38	CY	650.00	2470
	Foundation Walls	152	CY	950.00	144,40
	Slab on Grade	5,874	SF	8.00	46,99
	Elevator Pits	1	EA	15,000.00	15,00
				Manne.	1,045,36
03300	SUPERSTRUCTURE CONCRETE				
	8" Flat Plate Incl Cols & Beams	56,775	SF	62.00	3,520,050
	Concrete Stairs	19	FLT	6,500.00	123,50
	Misc. Concrete	1	LS	5,000.00	5,000
					3,648,550
04100	MASONRY				
	8" CMU	8,163	SF	22.00	179,586
					179,586
05500	MISCELLANEOUS IRON				
	Stair Railings Wall Mtd	608	LF	55.00	33,44
	Miscellaneous Iron	1	LS	20,000.00	20,00
	Elevator Pit Ladder	1	EA	750.00	75
	Hoist Beams	1	EA	1,500.00	1,50
					55,69

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
06100	ROUGH CARPENTRY				
	Protection (Allow) incl Roof	10	FL	2,000.00	20,00
	Perimeter Netting Incl Roof	3,086	LF	8.50	26,23
	Roof Blocking	1	LS	5,000.00	5,00
	Install Wood Doors & Frames - Single	140	EA	200.00	28,00
	Install Wood Doors Double - Slider	100	PR	100.00	10,00
	Install Kitchen Cabinets	46	Set	450.00	28,00
	Bathroom Vanity	62	EA	100.00	6,20
	Install H.M. Doors & Frames - Single	85	EA	200.00	17,00
	Roof Terrace Dividers	42	LF	250.00	10,50
	Misc blocking	1	LS	15,000.00	15,00
					165,93
06200	FINISH CARPENTRY				
	Wood Base	11,304	LF	3.00	33,91
	Closet Shelf & Pole	1,130	LF	20.00	22,60
	Kitchen cabinets & Countertops	45	SET	4,500.00	202,50
	Medicine cabinets	62	EA	350.00	21,70
	Concierge/Mailroom Millwork	1	LS	15,000.00	15,00
					295,71
7100	WATERPROOFING				
	Elevator Pit	1	EA	5,000.00	5,00
	Slab on Grade	5,874	SF	6.00	35,24
	Foundation Walls	1,023	SF	8.00	8,18
					48,42
07510	ROOFING/INSULATION/FIRESTOPPING				
	Membrane Roofing	7,183	SF	25.00	179,57
	Terrace/Balcony Pavers	4,899	SF	15.00	73,48
					253,06
07900	CAULKING & SEALANTS				
	Caulking - Interior	55,448	SF	0.50	27,72
	Caulking - Exterior	37,115	SF	1.50	55,67
					83,39

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
08100	HOLLOW METAL				
	H.M. Doors & Frames Apartment Entry - Single	6	EA	400.00	2,400
	H.M. Doors & Frames Stair - Single	25	EA	375.00	9,375
	H.M. Doors & Frames Service - Single	15	EA	375.00	5,625
					17,400
08210	WOOD DOORS				
	Apartment Interior Doors & Frames	14	EA	300.00	4,200
	Closet Double Sliders	100	PR	200.00	20,000
					24,200
08400	ENTRANCES & STOREFRONT				
	Terrace Glass Doors - Single Swing	78	EA	2,500.00	195,000
	Terrace Glass Doors - Double Swing	1	PR	8,000.00	8,000
	Entry Doors - Double	3	PR	10,000.00	30,000
	Storefront	1,785	SF	100.00	178,500
					411,500
08700	HARDWARE				
	Apartment Entry Doors	45	SETS	400.00	18,000
	Apartment Interior Doors	240	SETS	100.00	24,000
	Stair/Service Doors	40	SETS	400.00	16,000
					58,000

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY

DATE: 5/23/14 REV.:

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CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
08950	EXTERIOR FAÇADE				
	Lot Line Block wall	2,970	SF	22.00	65,340
	Granite Water Table	234	SF	150.00	35,100
	Cast Stone Panels	2,449	SF	85.00	208,16
	Cast Stone Cornice	136	LF	500.00	68,000
	Cast Stone Balcony Edge @ 2nd Floor	96	LF	250.00	24,000
	Limestone Panels	408	SF	150.00	61,200
	Corten Steel Panel	56	SF	250.00	14,000
	Brick Cavity Walls	5,355	SF	65.00	348,075
	Brick Piers	3,120	SF	85.00	265,200
	Brick parapets	585	SF	125.00	73,125
	Aluminum Composite Panels	7,769	SF	65.00	504,985
	Aluminum Composite Panel Parapets	1,149	SF	85.00	97,66
	Aluminum Composite Panel - Overhang	715	SF	75.00	53,62
	Windows	6,762	SF	75.00	507,150
	Awnings	96	LF	1,000.00	96,000
				· manual ·	2,421,630
9000	INTERIOR FIT-OUT				
	Entrance Lobby Area	270	SF	350.00	94,500
	QLIATI.				94,500
09250	2 Control of the Cont				
	Partitions:				
	Corridor	14,660	SF	9.00	131,940
	Stair Walls	7,490	SF	12.00	89,880
	Demising	7,200	SF	9.00	64,800
	Interior 1M1	42,380	SF	6.00	254,280
	Demising Chase	1,760	SF	9.00	15,840
	Chase	4,880	SF	5.50	26,840
	Furring	1,080	SF	6.00	6,480
	Exhaust Shaft	8,668	SF	12.00	104,016
	Suspended Drywall Ceilings	17,405	SF	8.00	139,240
	GWB + Vapor Barrier+ Batt @ Exterior Wall	37,115	SF	4.00	148,460

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
09300	TILEWORK				
	Marble Tile Floor	5,014	SF	30.00	150,420
	Marble Tile Base	2,664	SF	30.00	79,92
	Marble Tile Wall	21,812	SF	30.00	654,36
	Marble Saddles	62	EA	50.00	3,10
					887,80
09550	WOOD FLOORING				
	Strip Oak Flooring	33,050	SF	10.00	330,50
					330,50
09650	RESILIENT FLOORING				
	Carpet at Corridors	589	SY	35.00	20,61
	VCT	979	SF	3.00	2,93
	Vinyl Base	154	LF	3.00	46
					24,01
09900	PAINTING/WALLCOVERING				
	Sealed Comcrete	7,588	SF	0.60	4,55
	Partitions - Paint	107,905	SF	0.65	70,13
	Gyp Ceiling - Paint	17,405	SF	1.00	17,40
	Kadex On Concrete Slab	23,116	SF	2.00	46,23
	Paint Mas/Conc Walls	13,339	SF	0.85	11,33
	Paint WD Base	11,304	LF	2.00	22,60
	Paint Stairs	19	FLT	750.00	14,25
	Paint Stair Railing	608	LF	5.00	3,04
	Doors and Frames	423	LVS	60.00	25,38
	Vinyl Wallcovering @ Corridors	16,048	SF	3.00	48,14
	Miscellaneous Painting	1	LS	5,000.00	5,00
					268,08
10400	IDENTIFYING DEVICES				
	# of Apartments	46	EA	200.00	9,20
					9,20

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
10550	POSTAL SPECIALTIES				
	Mailboxes	46	EA	150.00	6,900 6,900
10800	TOILET PATITIONS/ACCESSORIES				
	Powder rooms	-	EA	100.00	(
	Baths	62	EA	200.00	12,400
				1,71,41	12,400
11175	TRASH CHUTE & COMPACTOR				
	Trash Chute	120	LF	125.00	15,000
	Compactor	1	EA	20,000.00	20,000
					35,000
11450	RESIDENTIAL EQUIPMENT				
	Allow for Appliances	46	SET	4,500.00	207,000
				1 1000	207,000
14200	ELEVATOR				
	Passenger 11 Stop	1	EA	275,000.00	275,000
					275,000
15300	FIRE PROTECTION				
	Sprinkler System Incl Standpipes	55,448	SF	6.50	360,412
					360,412

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

REV .:

CODE DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
Delining August 1				

	PROPOSED RESIDENTIAL				
15400	PLUMBING				
	Equipment				
	Water Heaters, Tanks, Pumps, etc	1	LS	150,000.00	150,000
	Gas Piping & Meters	1	LS	90,000.00	90,000
	Water Closets	62	EA	2,500.00	155,000
	Bathtubs	62	EA	2,500.00	155,000
	Lavatories	62	EA	2,200.00	136,400
	Kitchen Sinks	46	EA	2,200.00	101,200
	Terrace Drains	4	EA	2,000.00	8,000
	Roof Drains	4	EA	2,000.00	8,000
					803,600
					V. 12. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
15500	HEATING, VENTILLATING AND AIR CONDITIONING				
	Boilers. Pumps, ETC	1	LS	150,000.00	150,000
	Ventilation for Basement	5,874	SF	8.00	46,992
	HVAC for Lobby	270	SF	25.00	6,750
	HVAC per Unit	46	EA	25,000.00	1,150,000
	Corridor Supply Air Handler	1	EA	35,000.00	35,000
	Kitchen Exhaust	5	EA	5,000.00	25,000
	Toilet Exhaust	6	EA	5,000.00	30,000
	Elevator machine Room Unit	1	EA	5,000.00	5,000
	Trash Room Unit	1	EA	5,000.00	5,000
	Meter Room Exhaust fans	2	EA	2,500.00	5,000
	DDC Controls	1	LS	30,000.00	30,000
	Tempetature Control	46	APT	500.00	23,000
	Testing & Balancing	1	LS	10,000.00	10,000

1,521,742

Power & Lighting for Basement

Power & Lighting for Lobby

Fire Alarm System Class"C"

Telephone Raceway System

House Intercom/Video System

Lighting & Power at Units

Cable TV Raceways

PROJECT: 11 AVENUE C LOCATION: NEW YORK, NY DATE:

5/23/14

REV .:

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	PROPOSED RESIDENTIAL				
16000	ELECTRIC				
	Equipment	1	LS	100,000.00	100,000
	Meters	48	SET	750.00	36,000
	Panelboards & Risers	49	EA	3,200.00	156,800

5,874

270

SF

SF

49,304 SF 12.00 591,648 55,448 SF 1.50 83.172

8.00

20.00

55,448 SF 1.50 83,172 47 EA 650.00 30,550

14 RIS 3,000.00 42,000 14 RIS 3,000.00 42,000

1,134,562

46,992

5,400

CQUILKIN .								DATE:	5/23/14
ROJECT: 1				T. T. T.				REV.:	
OCATION:	NEW YOR	K, NY		PROPOS	ED RESIDE	NTIAL			
				BASIC AI	REA SHEET				
	SOG	STRUCT	GROSS	ROOF	TERRACE	BALC	LINEAR	FL to FL	GROSS
FLOOR	AREA	AREA	ENCLOS'D AREA	AREA		AREA	FOOT PERIM	HEIGHT	EXTERIOR
Cellar	5,874		5,874				341	12.00	1,023
1st		5,874	5,656		218		360	15.00	5,400
2nd		5,887	5,600			287	364	10.00	3,640
3rd		5,831	5,600			231	376	10.00	3,760
4th		5,765	5,600			165	376	10.00	3,760
5th		5,765	5,600			165	376	10.00	3,760
6th	1	5,765	5,600			165	376	10.00	3,760
7th		5,765	5,600			165	376	10.00	3,760
8th		5,765	5,600			165	376	10.00	3,760
9th		5,600	2,302		3,298		205	10.00	2,050
10th		2,342	2,284			40	205	10.00	2,050
Roof		2,284	132	2,152			56	7.00	392
		132		132					1
	5,874	56,775	55,448	2,284	3,516	1,383	3,787	124	37,115

McQUILKIN ASSOCIATES, LLC PROJECT: 11 AVENUE C

5/23/14

DATE: REV.:

LOCATION: NEW YORK, NY

**UNIT MATRIX** 

# PROPOSED RESIDENTIAL

TOTALS	•	30	16	•	46	46	62	62	232
10		-	1		2	2	3	3	11
တ		-	-		2	2	3	3	11
8		4	2		9	9	8	8	30
7		4	2		9	9	8	8	30
9		4	2	+	9	9	8	8	30
2		4	2		9	9	8	8	30
4		4	2		9	9	8	8	30
8		4	2		9	9	8	8	30
2		4	2		9	9	8	8	30
Type/Floor		1BR 1BTH	2BR 2BTH		TOTALS	Kitchens	Beds	Baths	Plumbing Fixture



# McQuilkin Associates, LLC

# Construction Consultants

en and district

May 23, 2014

2011 JULI = 5 A HE FT

# 11 AVENUE C - AS OF RIGHT RESIDENTIAL

CAL. NO.

This document explains the cost premiums associated with constructing our As of Right residential building at the 11 Avenue C site with a Typical As of Right residential building site unencumbered by the construction cost hardships associated with the 11 Avenue C site. These construction cost premiums are caused by two factors.

Soil Conditions
 Due to the poor soil conditions, we are required to construct a driven steel H pile foundation system to refusal onto bedrock to support our structure. As opposed to a more conventional spread footing foundation system.

2. Site Configuration Because of the long, narrow, and tapered shape of the site, including street frontages on both sides of the site, the comparative costs of several items are adversely affected. The first being the exterior façade. Due to the site shape and the dual frontages, we have a considerably larger area of exterior façade than would be encountered in a typical residential scenario. The second affected area is the efficiency of the residential layouts.

In order to calculate the construction cost premium, we offer the following:

Actual AOR Residential Building Cost Actual AOR Residential Building Area Actual AOR Residential Building Cost/SF	S	18,106,660 45,986 SF \$394/SF
Typical AOR Residential Building Cost Typical AOR Residential Building Area Typical AOR Residential Building Cost/SF	S	18,927,838 55,019 SF \$344/SE

By multiplying the Actual AOR area (45,986 SF) by the Cost/SF of the Typical AOR (\$344/SF), we ascertain the non-premium construction cost of our Actual AOR building to be (\$15,819,184).

To calculate the construction cost premium associated with our Actual AOR building. We deduct the non-premium construction cost (\$15,819,184) from the Actual AOR construction cost (\$18,106,660) resulting in a construction cost premium of \$2,287,476.



125-14-B7-

2016 1200 + G (\$ 11:11) CAL: NO

July 15, 2013

Mr. Kevin Tartaglione BLDG Management Co., Inc. 417 Fifth Avenue, 4th Floor New York, New York 10016

Re: Limited Soil Investigation Report

11 Avenue C New York, NY 10009 Block 384, Lot 33

Emteque Project No. 13-6299

Dear Mr. Tartaglione:

At the request of BLDG Management Co., Inc. (BLDG), Emteque LLC conducted a Limited Soil Investigation of the property located at 11 Avenue C (Block 384, Lot 33) in Manhattan, New York 10009 (hereafter referred to as the "Site"). Figure 1 presents a Site Location Map.

The Site encompasses an area of approximately 5,246 square feet improved with a one-story slab on grade service garage encompassing an approximate 1,500-square foot footprint. The Site operates as an active gasoline filling station and automobile repair facility.

Emteque understands that a BLDG entity purchased the property and the planned development includes the construction of a nine-story mixed use building, with basement, encompassing the entire property.

This Limited Soil Investigation was performed to evaluate the environmental condition of subsurface soils during installation of four (4) geotechnical borings at the Site. The purpose of the investigation was to determine the nature and extent of petroleum-related and/or historic fill impacts to soil on the property that require special considerations during redevelopment. The analytical data collected during this study will also assist in preliminarily characterizing the soil anticipated to be excavated for construction of the new building. To accomplish these objectives, four (4) soil borings were advanced on the Site, and eight (8) soil samples were collected and submitted for laboratory analysis.

#### BACKGROUND

The New York State Department of Environmental Conservation (NYSDEC) was notified of a release on May 17, 1990 as a result of an underground storage tank (UST) tank test failure and Spill Case Number 9-001894 was assigned to the Site. The NYSDEC Spill Case No. 9-001894 is currently listed as open. The NYSDEC has assigned Petroleum Bulk Storage No. 2-157872 to the Site for the registration of twenty-one (21) active USTs. In addition, the Site was assigned E-designation (E-216) for noise attenuation. During the Limited Soil Investigation Emteque observed a large number of groundwater monitoring wells on the Site.

# **DESCRIPTION OF SITE INVESTIGATION ACTIVITIES**

The Limited Soil Investigation field activities were performed from June 17 to 20, 2013 and consisted of the following:

Advancement of four (4) geotechnical soil borings; continuous soil sampling to 15 feet bgs, collection of a soil sample every five feet from 15 to 50 feet bgs, collection of a soil sample every ten feet from 50 to a maximum depth of 100.5 bgs, and selection for laboratory analysis of an aggregate total of eight (8) discrete soil samples from the borings.

A Site Plan showing all the sampling locations, Site features, tax block and lot number, and anticipated groundwater flow direction is provided as *Figure 2*. Representative photographs of the field investigation activities are included in *Attachment B*.

The scope of the field activities and methods are described below.

#### Subsurface Soil Investigation

A soil sampling program was conducted as part of the Limited Soil Investigation. Soil samples were collected to assess the current environmental conditions and to preliminarily characterize subsurface soil at the Site. Figure 2 shows the locations of the geotechnical soil borings advanced at the Site. Four (4) soil borings were completed and eight (8) soil samples were selected and submitted for laboratory analysis. Soil sampling was conducted in accordance with the procedures set forth in the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010 (DER-10).

The subsurface soil sampling was completed from July 17 to 20, 2013. Allied Drilling of Orangeburg, NY was retained as a subcontractor by JZN Engineering, PC for drilling services. Direct push and mud-rotary drilling methods, utilizing a truck-mounted drill rig, were used to retrieve soil samples from the four (4) boring locations. Soil samples were collected continuously from the ground surface to 15 feet bgs, every five feet from 15 to 50 feet bgs, and every ten feet from 50 to a maximum depth of 100.5 bgs in 2-foot long, 2-inch diameter split spoon samplers. A description of the soils retained in each sample core was logged by Emteque's on-site environmental scientist and the soils were screened in the field for the presence of VOCs with a PID. The soil boring logs are presented in *Attachment C*. Upon completion of each boring, each borehole was backfilled with drill cuttings, well sand and hydrated bentonite and then the ground surface was restored to its original condition (i.e., concrete or asphalt).

Indications of petroleum contaminated material including elevated PID readings (max reading of 1,289 ppm) and petroleum-like odor was observed in soil collected from the interval immediately above the groundwater or in saturated soil from soil boring locations B-2 from 9 to 14 feet bgs, B-3 from 11 to 13 feet bgs and B-4 from 9 to 15 feet bgs. In general, fill material consisting of red/brown sand, silts with fine gravel, red brick, asphalt, concrete, wood fragments and ash was encountered from ground surface to a depth of approximately 11 feet bgs at the borings advanced on-site. Below 11 feet bgs, native material consisting of sand, silts and clay was encountered to the bedrock surface encountered from 90 to 100.5 feet bgs. Groundwater was encountered at approximately 11 feet bgs at each soil boring location.

The procedure Emteque followed for the selection of discrete soil samples for analysis was as follows:

- At each boring location installed on-site two (2) discrete grab samples were selected for laboratory analysis as follows.
  - If no impacted soils were identified a discrete soil sample representing the depth interval most likely to be affected by historic fill and surface spills and a second sample from the interval directly below the UST invert was selected.



o If impacted soils were identified, a discrete soil sample representing the depth interval exhibiting the highest potential for contamination (based on field observations and PID readings) was submitted for laboratory analysis. A second discrete sample was collected from the first underlying apparent clean interval.

Discrete grab samples selected at borings installed on-site were analyzed for NYSDEC CP-51 Table 3 and Target Compound List (CP-51/TCL) listed VOCs, CP-51/TCL listed semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals (cyanide and hexavalent chromium), TCL Pesticides, TCL polychlorinated biphenyls (PCBs).

The samples were collected and containerized in accordance with NYSDEC/USEPA protocols. Each container was properly labeled, preserved, and placed in a cooler for transport via courier to York Laboratories of Stratford, CT. York is a NYSDOH ELAP-certified analytical laboratory. Standard chain-of-custody procedures were followed. Summaries of the analytical results are included in Table 1 through Table 5, and copy of the analytical report is attached in *Attachment D*.

### SITE DESCRIPTION AND PHYSICAL CHARACTERISTICS

The Site encompasses an area of approximately 5,246 square feet and is improved with a one-story slab on grade service garage encompassing an approximate 1,500-square foot footprint. According to available records the Site has operated as a gasoline filling station and automobile repair facility since at least 1961.

The Site is located in an area primarily characterized by residential, commercial, and institutional buildings. The Site is bordered by East Second Street and mid-rise residential buildings to the north, East Houston Street followed by low- and mid-rise residential and commercial buildings to the south, Avenue C followed by Gustave Hartman Square to the east, and low-rise commercial and residential buildings to the west. A site location map is shown on *Figure 1* and a sampling location plan is shown on *Figure 2*.

#### Topography

Based on field observations, the topography of the immediate Site area is relatively flat. The topography of the surrounding area generally slopes downward to the east. According to the United States Geological Survey (USGS) 7.5-Minute Quadrangle Map (Brooklyn, NY 1995), the elevation of the Site property ranges from approximately 17 to 20 feet above mean sea level (amsl). A copy of the topographic map is presented in *Figure 1*.

#### Geology

According to the "Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey", by Charles A. Baskerville, 1994, the Site is underlain by glacial till that consists of a mixture of clay, silt, sand, gravel, and boulders followed by bedrock consisting of white calcite-dolomite marble (Inwood Marble) and lenses in the Heartland Formation, and coarse-grained siliceous dolomite. It is likely that the soil underlying the Site consists of urban fill due to New York City's long history of urban development. Urban fill typically consists of brick, loose granular soils, construction and demolition debris, wood, and cinders often containing detectable levels of metals and poly-cyclic aromatic hydrocarbons (PAHs). Based on a review of the 1994 Charles A. Baskerville map, "Bedrock and Engineering Geologic Maps of Bronx County and Parts of New York and Queens Counties, New York", the depth to bedrock on the Site ranges from approximately 78 to 98 feet bgs. Bedrock was encountered during installation of soil borings at the Site at depths ranging from 90 to 100.5 feet bgs. Fill material consisting of red/brown sand, silts with fine gravel, brick, asphalt, concrete, wood fragments and ash was encountered at the Site to a depth of approximately 11 feet bgs. Below 11 feet bgs, native material consisting of sand, silts and clay was



encountered to bedrock.

#### Hydrology

The Site is located approximately 0.45 miles west of the East River. Based on a review of the United States Geological Survey (USGS) 7.5-Minute Topographic Quadrangle Map (Brooklyn, New York, 1995), the assumed hydraulic gradient direction is east (towards the East River). Estimated groundwater levels and/or flow directions may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, and dewatering operations. During the Limited Soil Investigation, groundwater was encountered from approximately 9 to 11 feet bgs at the Site.

## DISCUSSION OF FINDINGS

This section presents a discussion of the findings of the Limited Soil Investigation. Tabulated results of laboratory analyses are presented in the Tables section of this report. Laboratory quality control (QC) issues for specific media, if present, are discussed in the appropriate sections below. The complete laboratory analytical data packages are included in *Attachment D*.

## **Applicable Regulatory Standards**

This subsection identifies the NYSDEC regulatory standards and guidelines used to evaluate the soil sample analytical results.

### Soil Cleanup Objectives (SCOs)

The Unrestricted Use SCOs found in 6 NYCRR 375-6, Remedial Program Soil Cleanup Objectives are the appropriate standards for use in evaluating the results of the analyses of the soil samples. Soil which is free of contaminants above these standards is suitable for "unrestricted use" which is the land use category without imposed restrictions, such as environmental easements or other land use controls.

In addition, the Soil Cleanup Levels (SCLs) for Fuel Oil Contaminated Soil found in Table 3 of Commissioner Policy 51 (CP-51), "Soil Cleanup Guidance", dated October 21, 2010 were used to evaluate the VOC and SVOC soils data. CP-51 replaces the Technical and Administrative Guidance Memorandum (TAGM) 4046: Determination of Soil Cleanup Objectives and Cleanup Levels (January 24, 1994); the Petroleum Site Inactivation and Closure Memorandum (February 23, 1998); and Sections III and IV of Spill Technology and Remediation Series (STARS) Memo #1 (August 1992).

#### Subsurface Soil Sampling Findings

The laboratory reported that the laboratory blank recoveries were outside of the control limits for certain analytes for soil samples analyzed via USEPA Method 8260. Based on a review of these qualifications, the usability of the data for its intended use is not affected.

#### Volatile Organic Compounds (VOCs) in Soil

The results of the analysis of the soil samples indicate that two (2) VOCs analyzed for were detected in one or more samples above the Unrestricted Use SCOs and/or SCLs. A summary of the compounds and concentrations which exceed Unrestricted Use SCOs and/or SCLs is provided below:



# VOCs Detected in Soil at Concentrations Greater than Unrestricted Use SCOs and/or SCLs

Sample ID Date Sampled Collected Sample Depth	B-3 6/19/13 11 – 13' bgs	B-4 6/20/13 11 – 13' bgs	Unrestricted Use SCO	SCL
Units	mg/kg	mg/kg	mg/kg	mg/kg
Acetone	1.3 U	0.32 J,B, D	0.5	NC
n-Butylbenzene	17 D	1.0 D	12	12

#### Notes:

Bold

= Result exceeds Unrestricted Use SCO and/or SCL

mg/kg = milligrams per kilogram bgs = below ground surface

D = Result is from an analysis that required a dilution.

J = Estimated Value

B = Analyte detected in the method blank

NC = No criterion

As the table indicates acetone and n-butylbenzene were detected in one or more soil samples above their respective Unrestricted Use SCOs and/or SCLs. Emteque attributes the detected concentration of n-butylbenzene exceeding the regulatory criteria to the characteristics of petroleum impacted materials since elevated PID readings and petroleum-like odor were observed in sample B-3 from 11 to 13 feet bgs. The concentration of acetone detected in sample B-4 (11 - 13) is attributed to laboratory contamination since acetone was detected in the method blank. The analytical data is summarized in Table 1. The analytical data package is presented as *Attachment D*.

# Semi-Volatile Organic Compounds (SVOCs) in Soil

The results of the analysis of the soil samples indicate that one (1) SVOC analyzed for was detected in one or more samples above the Unrestricted Use SCOs and/or SCLs. A summary of the compounds and concentrations which exceed Unrestricted Use SCOs and/or SCLs is provided below:

# SVOCs Detected in Soil at Concentrations Greater than Unrestricted Use SCOs and/or SCLs

Sample ID Date Sampled Collected Sample Depth	B-2 6/18/13 11 – 13' bgs	Unrestricted Use SCO	SCL
Units	mg/kg	mg/kg	mg/kg
Naphthalene	28.9 D	12	12

#### Notes:

Bold = Result exceeds Unrestricted Use SCO and/or SCL

mg/kg = milligrams per kilogram bgs = below ground surface

D = Result is from an analysis that required a dilution.

J = Estimated Value

As the table indicates, naphthalene was detected in one soil sample above the respective Unrestricted



Use SCOs and/or SCLs. Emteque attributes the detected SVOC concentration exceeding the regulatory criteria to characteristics of petroleum impacted materials since elevated PID readings and petroleum-like odor were detected observed in sample B-2 from 11 to 13 feet bgs. The analytical data is summarized in Table 2. The analytical data package is presented as *Attachment D*.

### Metals, including Cyanide and Hexavalent Chromium in Soil

The results of the analysis of the subsurface soil sampling indicate that three (3) metals analyzed for were detected at concentrations above corresponding Unrestricted Use SCOs. A summary of the compounds and concentrations which exceed Unrestricted Use SCOs is provided below:

# Metals Detected in Soil at Concentrations Greater than Unrestricted Use SCOs

Sample ID Date Sampled Collected Sample Depth Units	B-1 6/17/13 1 – 4' bgs mg/kg	B-1 6/17/13 11 – 13' bgs mg/kg	Unrestricted Use SCO mg/kg
Copper	155	13.8	50
Lead	104	85.9	63
Zinc	319	42.0	

#### Notes:

Bold

= Result exceeds Unrestricted Use SCO

mg/kg bgs

= milligrams per kilogram = below ground surface

As the table indicates, copper, lead and zinc were detected in one or more soil samples above their respective Unrestricted Use SCOs. Emteque attributes the detected metals concentrations exceeding the regulatory criteria to the characteristics of fill material and naturally occurring concentrations at the Site. The analytical data is summarized in Table 3 and the analytical data package is presented in Attachment D.

#### Polychlorinated biphenyls (PCBs) in Soil

The results of the analysis of the soil samples indicate that PCBs were not detected in any of the soil samples analyzed. The analytical data is summarized in Table 4. The analytical data package is presented in Attachment D.

#### Pesticides in Soil

The results of the analysis of the subsurface soil sampling indicate that three (3) pesticides analyzed for were detected were detected at concentrations above corresponding Unrestricted Use SCOs. A summary of the compounds and concentrations which exceed Unrestricted Use SCOs is provided below:



#### Pesticides Detected in Soil at Concentrations Greater than Unrestricted Use SCOs

Sample ID Date Sampled Collected Sample Depth	B-1 6/17/13 1 – 4' bgs	Unrestricted Use SCO
Units	mg/kg	mg/kg
Chlordane	0.108 D	0.094
4,4'-DDE	0.0276 D	0.0033
4,4'-DDT	0.0847 D	0.0033

#### Notes:

Bold = Result exceeds Unrestricted Use SCO and/or SCL

mg/kg = milligrams per kilogram bgs = below ground surface

D = Result is from an analysis that required a dilution.

As the table indicates, chlordane, 4,4'-DDE and 4,4'-DDT were detected in one soil sample above their respective Unrestricted Use SCOs. Emteque attributes the detected pesticide concentrations exceeding the regulatory criteria to the characteristics of fill material at the Site. The analytical data is summarized in Table 5 and the analytical data package is presented in *Attachment D*.

#### SUMMARY OF FINDINGS

Emteque LLC performed a Limited Soil Investigation consisting of the advancement of soil borings and collection and laboratory analysis soil samples. The results of the Limited Soil Investigation indicate the following:

- Indications of petroleum contaminated material including elevated PID readings (max reading of 1,289 ppm) and petroleum-like odor was observed in soil samples collected from the interval immediately above groundwater or in saturated soil from soil boring locations B-2 from 9 to 14 feet bgs, B-3 from 11 to 13 feet bgs and B-4 from 9 to 15 feet bgs.
- In general, fill material consisting of red/brown sand, silts with fine gravel, red brick, asphalt, concrete, wood fragments and ash was encountered from ground surface to a depth of approximately 11 feet bgs at the borings advanced on-site. Below 11 feet bgs, native material consisting of sand, silts and clay was encountered to the bedrock surface encountered from 90 to 100.5 feet bgs.
- The results of the analyses of soil samples revealed that the VOCs acetone and n-butylbenzene and SVOC naphthalene were detected in one or more soil samples above Unrestricted Use SCOs and/or CP-51 SCLs. In addition, the metals copper, lead and zinc and Pesticides chlordane, 4,4'-DDD and 4,4'-DDT were detected in one or more soil samples above their respective Unrestricted Use SCOs. Emteque attributes the detected VOCs and SVOCs (with the exception of acetone which is attributed to laboratory contamination) to the petroleum impacted material identified at three of the four soil borings advanced on the Site. Emteque attributes the metals and pesticides concentrations exceeding the regulatory criteria to the characteristics of fill material and/or naturally occurring concentrations at the Site. No PCBs were detected in the soil samples at concentrations above Unrestricted Use SCOs.
- Groundwater was encountered at approximately 11 feet bgs at each soil boring location.



# CONCLUSIONS AND RECOMMENDATIONS

Based on the results of Emteque's Limited Soil Investigation, Emteque concludes the following:

- Indications of contamination including elevated PID readings (max reading of 1,289 ppm) and petroleum-like odor observed in soil samples collected from the interval immediately above groundwater or in saturated soil from soil borings location B-2 from 9 to 14 feet bgs, B-3 from 11 to 13 feet bgs and B-4 from 9 to 15 feet bgs.
- In general, fill material consisting of red/brown sand, silts with fine gravel, red brick, asphalt, concrete, wood fragments and ash was encountered from ground surface to a depth of approximately 11 feet bgs at the boring advanced on-site. Below 11 feet bgs, native material consisting of sand, silts and clay was encountered to the bedrock surface encountered from 90 to 100.5 feet bgs.
- The results of the analyses of soil samples revealed that select VOCs, SVOCs, pesticides and metals were detected in soil samples above Unrestricted Use SCOs and/or CP-51 SCLs. Emteque attributes the detected VOCs (with the exception of acetone which is attributed to laboratory contamination) and SVOCs to the petroleum impacted material identified at three of the four soil borings advanced on the Site. Emteque attributes the detected metals and pesticides concentrations exceeding the regulatory criteria to the characteristics of fill material and/or naturally occurring concentrations at the Site. No PCBs were detected in the soil samples at concentrations above Unrestricted Use SCOs.

Based on the results of the Limited Soil Investigation, Emteque recommends implementing the following remediation and environmental control measures during Site redevelopment.

- A records request should be filed with the NYSDEC to obtain files regarding the current status of the NYSDEC Spill Case No. 9-001894 assigned to the Site.
- Site development should involve coordination with the NYSDEC to ensure closure of spill case following completion of development.
- To prevent volatile organic compounds in soil vapor from entering the new building, a soil vapor barrier and active sub-slab depressurization system should be integrated into the building design.
- If soil at the Site is to be excavated during redevelopment, Emteque recommends properly characterizing the soil to identify appropriate material handling, reuse, and/or disposal requirements. Excavated material should be managed in accordance with applicable federal, state, and local laws and regulations and in consideration of the results of the characterization sampling and analysis. Based on the results of the analyses of soil samples collected during the Limited Soil Investigation, a portion of the material excavated from the Site is expected to be non-hazardous petroleum-contaminated and/or regulated material, and should be identified as non-hazardous excavated material for bidding purposes. Additionally, the project construction specifications should require completion of waste characterization sampling (including total petroleum hydrocarbons gasoline range organics) by the contractor.
- USTs, hydraulic lifts, and all associated on-site petroleum impacted soil (to approximately 15 feet below grade or four feet into the water table) should be excavated, decommissioned, and/or disposed of in accordance with all federal, state, and local regulations.



- Dewatering may be necessary during remedial excavation and treatment of dewatering effluent will likely be required prior to discharge to the municipal sewer. Dewatering, groundwater treatment, and disposal should be performed in accordance with applicable local, state and federal regulations. Dewatering required during construction should be minimized to mitigate potential influx of contaminated water from off-site sources toward the Site.
- The potential for buried structures, and debris from former onsite structures, could include asbestos-containing materials (ACM), lead-based paint (LPB) and/or and PCB-containing materials.
- If landscaped areas are incorporated into the development of the Site, a minimum 2-foot thick layer of environmentally clean fill should be placed over existing soil in those areas. Building foundations, pavements and other impervious surface materials would be considered engineering controls for purposes of providing a physical barrier between known contaminated media and building occupants and/or the general public.
- Suspect ACM, LBP, and/or PCB-containing materials should be properly managed during construction or demolition activities.
- Construction of the building will require Site excavation of petroleum-impacted odiferous soils. A
  community air monitoring plan should be implemented during excavation activities. Additionally,
  post-excavation samples should be collected in accordance with DER-10 to confirm the absence
  of petroleum-related VOCs and SVOCs at concentrations above regulatory criteria in unsaturated
  soil samples.

Based on the Limited Soil Investigation results, additional investigation is not recommended for the Site. A detailed description of the recommended engineering controls including a remediation cost estimate is included in *Attachment A*.



Please do not hesitate to contact me at (212) 631-9000 if you have any questions.

Sincerely,

WCD CONSULTANTS

Prepared by:

Wes D. Lindemuth, CHMM, ASP

Project Manager

Wes Lindonth

Reviewed by:

Jim Capritti, CHMM

Principal

cc: File

Enclosures:

Figure 1 - Site Location Map

Figure 2 - Site Plan

Table 1 – Summary of Soil Sampling Results for Volatile Organic Compounds

Table 2 - Summary of Soil Sampling Results for Semi-Volatile Organic Compounds

Table 3 – Summary of Soil Sampling Results for Metals Including Hexavalent Chromium and Cyanide

Table 4 - Summary of Soil Sampling Results for Polychlorinated Biphenyls

Table 5 - Summary of Soil Sampling Results for Pesticides

Attachment A - Recommended Remediation and Cost Estimates

Attachment B - Photograph Log

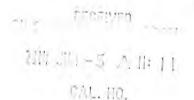
Attachment C - Soil Boring Log

Attachment D - Laboratory Analytical Data Reports



125-14-87





March 24, 2014

Based on the results of the Limited Soil Investigation performed by WCD in June 2013 and a document review performed by WCD in October 2013, implementing the remediation and environmental control measures listed below is recommended for the property located at 11 Avenue C, New York, New York 10009 (Block 384, Lot 33):

- Site development should involve coordination with the NYSDEC to ensure closure of the spill case following completion of development.
- To prevent volatile organic compounds in soil vapor from entering the building, a soil vapor barrier and active sub-slab depressurization system should be integrated into the building design.
- Emteque recommends properly characterizing the soil to identify appropriate material handling, reuse, and/or disposal requirements. Excavated material should be managed in accordance with applicable federal, state, and local laws and regulations and in consideration of the results of the characterization sampling and analysis. Based on the results of the analyses of soil samples collected during the Limited Soil Investigation, material excavated from the Site is expected to be non-hazardous industrial waste, and should be identified as such for bidding purposes. Additionally, the project construction specifications should require completion of waste characterization sampling.
- A minimum of 2 feet of environmentally clean fill should be placed over remaining existing soils in all landscaped or exposed areas.
- USTs, hydraulic lifts, and all associated on-site petroleum impacted soil (to approximately 9 to 15 feet below grade or four feet into the water table) should be excavated, decommissioned, and/or disposed of in accordance with all federal, state, and local regulations.
- Dewatering may be necessary during remedial excavation and treatment of dewatering effluent will be required prior to discharge to the municipal sewer. Dewatering, groundwater treatment, and disposal should be performed in accordance with applicable local, state and federal regulations. Dewatering required during construction should be minimized to mitigate potential influx of contaminated water from off-site sources toward the Site.
- Any asbestos containing materials (ACM), lead-based paint (LBP), or polychlorinated biphenyl (PCB) containing materials (from the on-site structures and/or buried debris) affected by future redevelopment of the Site should be identified and properly managed during such activities.
- Construction of the building will require Site excavation of petroleum-impacted odiferous soils. A community air monitoring plan should be implemented during excavation activities. Additionally, post-excavation samples should be collected in accordance with DER-10 to confirm the absence of petroleum-related VOCs and SVOCs at concentrations above regulatory criteria in unsaturated soil samples.

# Site Remediation – UST, Hydraulic Lift System and Associated Contaminated Soil Removal, Dewatering and Environmental Oversight

The cost estimate for the first remediation measure uses the following assumptions:

- Five (5) gasoline USTs and one (1) waste oil UST are present on Site;
- Two (2) hydraulic lift systems are present on Site;
- The five (5) gasoline USTs are 4,000-gallons in capacity and the waste oil UST is 550-gallons in capacity;
- The USTs and hydraulic lift systems contain a combined total of 10,000 gallons of fuel oil/waste oil/hydraulic oil;
- Approximately 1,450 tons of petroleum-contaminated material (PCM) will be removed from the Site (assumes Site is approximately 5,250 square feet, petroleum contaminated soil will be removed from 5 to 15 feet bgs and one cubic yard weighs 1.5 tons);
- Approximately 2,623 tons of non-hazardous regulated material will be removed from the Site (assumes Site is approximately 5,250 square feet, non-hazardous regulated materials will be removed from grade surface to 9 feet bgs and one cubic yard weighs 1.5 tons);
- Dewatering will be required for excavation into the water table. Dewatering will be performed using sump or "trash" pumps and dewatering fluids will be conveyed to an onsite treatment system consisting of a settling tank (i.e., oil-water separator), bag filters, and activated carbon. Dewatering will be required for a period of 4 weeks; and
- Soil characterization sampling is required by soil disposal facilities prior to acceptance of the material. The Site is approximately 5,250 square feet, the depth of excavation is estimated to extend to 15 feet bgs generating approximately 2,900 cubic yards of material.
- On-site environmental oversight is recommended during the Site remediation activities.

Activity	Units	Rate	Total
Removal and disposal of oil for recycling	10,000 gallons	\$1.00/gallon	\$10,000
Excavation, UST removal, hydraulic lift and tank decommissioning	Lump Sum	\$75,000	\$75,000
Soil Characterization Sampling	Lump Sum	\$17,000	\$17,000
CAMP Air Monitoring During Excavation	4 Weeks	\$5,300/week	\$21,000
Owner Environmental Inspector	4 Weeks	\$4,600/week	\$18,400
Transportation and disposal of 5 feet of overburden Historic Fill material within the building footprint, From 0 to 5 feet bgs.	1,460 tons	\$50/ton	\$73,000
Transportation and disposal of petroleum contaminated soil at a permitted landfill. From 5 to 15 feet bgs.	2,900 tons	\$90/ton	\$261,000
Transportation and disposal of soil generated during foundation installation.	150 tons	\$90/ton	\$13,500
Laboratory analysis of endpoint samples for CP-51 list VOCs/SVOCs	20 samples	\$200/sample	\$4,000
Closure Reporting and Agency Liaison	\$12,500	LS	\$12,500

Activity	Units	Rate	Total
Dewatering	\$100,000	LS	\$100,000
Activity Total Cost (rounded)			\$605,400
Engineering Design, Specifications, Drawings, Data Evalu	uation, and Labor Expenses (1	0%)	\$60,540
Subtotal Project Costs (rounded)			\$666,000
15% Contingency on all Costs (rounded)			\$99,900
	Total System C	ost (rounded):	\$765,900

#### First Engineering Control - Soil Vapor Barrier

The cost estimate for the vapor barrier is based on the following:

- 1. The proposed 9-story building includes a full basement.
- 2. The area of the vapor barrier includes an assumed building footprint of approximately 5,246 square feet with a 14 foot deep basement. Therefore, for cost estimating purposes, Emteque has assumed that the total area to be covered by the vapor barrier is approximately 10,020 square feet to cover any vertical sub-grade foundation elements (including an assumed 14 foot sub-grade wall and 341 foot building perimeter).

#### Vapor Barrier Cost Estimate

Activity	Units	Rate	Total
Install Vapor Barrier (Building footprint and sub-grade walls)	10,020 sf	\$5.50/sf	\$55,110
Activity Total Estimated Cost			\$55,110
Engineering Design, Specifications, Drawings, Data Evaluation, and	nd Reporting Labor E	expenses (20%)	\$11,022
Subtotal Estimated Project Costs			\$66,132
15% Contingency on all Costs (rounded)			\$9,919
	Total System (	Cost (rounded):	\$76,051

#### Second Engineering Control – Sub-Slab Depressurization System (SSDS)

The cost estimate for the installation of an active SSDS is based on the following:

- 1. The building will be a nine-story building with full basement.
- The SSDS would underlie the entire 5,246-square foot footprint of the proposed building.
- The major components of the system will consist of sub-slab pits embedded in a 12-inch thick layer of permeable aggregate, roof-mounted suction fan, and steel pipe risers.
- 4. One (1) sub-slab pit will be required for every 6,000-square feet of building footprint. Therefore, one (1) sub-slab pit will be required. The sub-slab pit will be constructed of masonry block covered with 2-inch thick reinforced concrete planks.
- 5. Operations and maintenance (O&M) costs are not included.

# Sub-Slab Depressurization System Cost Estimate

Activity	Units	Rate	Total Cost
Non-Woven Drainage Geotextile	600 sy	\$3/sy	\$1,800
12 Inches of Gas Permeable Aggregate Backfill and Compaction	200 cy	\$45/cy	\$9,000
Suction Pits and Associated Sub-Slab Piping	1 each	\$3,000/ea	\$3,000
Cast Iron Pipe Risers (four)	120 If	\$95/lf	\$11,400
Roof-Mounted Suction Fans and Accessories	1 ea	\$4,000/ea	\$4,000
Monitoring Points	2 ea	\$800/ea	\$1,600
Testing	1 ea	\$5,000/ea	\$5,000
Activity Total Estimated Cost		X - 1 - 1 - 1 - 1	\$35,800
Engineering Design, Specifications, Drawings, Data Evaluation, and F Sum)	Reporting Labor Ex	openses (Lump	\$15,000
Subtotal Project Costs			\$50,800
15% Contingency on all Costs			\$7,620
Connect grow of page 1 and repaire level	Total Syste	m Cost (rounded):	\$58,420

# Total Engineering and Remediation Cost Estimate (Rounded)

Line Item Description	Cost
First Remediation Measure (UST, Hydraulic Lift System and Associated Contaminated Soil Removal and Groundwater Monitoring)	\$765,900
First Engineering Control (Soil Vapor Barrier)	\$76,051
Second Engineering Control (Active Sub-Slab Depressurization System)	\$58,420
Total (rounded)	\$900,371

Note: The total engineering and remedial cost estimate may change based on remedial measures required by the NYSDEC. In addition, the installation cost of the SSDS may change based on the design need to install an active SSDS below the water table.