EAST MIDTOWN REZONING AND RELATED ACTIONS

FINAL
SCOPE OF WORK FOR AN ENVIRONMENTAL IMPACT STATEMENT

CEQR NO. 13DCP011M
ULURP NOs. N 130247 ZRM and N 130248 ZMM

April 17, 2013

A. INTRODUCTION

This Final Scope of Work (Final Scope) outlines the technical areas to be analyzed in the preparation of an Environmental Impact Statement (EIS) for the East Midtown Rezoning and Related Actions project consisting of zoning map amendments and zoning text amendments (collectively, the "Proposed Action") affecting an approximately 70-block area within East Midtown, in Manhattan Community Districts 5 and 6. The rezoning area is generally bounded by East 39th Street to the south, East 57th Street to the north, Second and Third Avenues to the east and a line 150 feet east of Fifth Avenue to the west (see Figure 1). Currently, the affected area is predominantly comprised of high density commercial zoning districts (C5 and C6). This document provides a description of the Proposed Action and associated development, and includes task categories for all technical areas to be analyzed in the EIS.

The New York City Planning Commission (CPC) has determined that an EIS for the Proposed Action will be prepared in conformance with City Environmental Quality Review (CEQR) guidelines, with the Department of City Planning (DCP) acting on behalf of the CPC as the lead agency. The environmental analyses in the EIS will assume a development period of twenty years for the reasonable worst-case development scenario (RWCDS) for the Proposed Action (i.e., analysis year of 2033), and identify the cumulative impacts of other projects in areas affected by the Proposed Action. DCP will conduct a coordinated review of the Proposed Action with involved and interested agencies.

B. REQUIRED APPROVALS AND REVIEW PROCEDURES

The Proposed Action encompasses discretionary actions that are subject to review under the Uniform Land Use Review Procedure (ULURP), as well pursuant to Section 200 of the City Charter. The discretionary actions include:

(1) Zoning text amendment

The East Midtown Subdistrict will be established within the Special Midtown District, superseding the existing Grand Central Subdistrict

(2) Zoning map amendment

The existing C5-2 designation will be replaced on the block between East 42nd and East 43rd streets, and Second and Third avenues with C5-3 and C5-2.5 districts. The C5-3 and C5-2.5 districts will be mapped within the Special Midtown District.

(3) City Map amendment

The City may in the future amend the City map to reflect a 'Public Place' designation over portions of Vanderbilt Avenue between East 42nd and East 47th streets.

In response to public comments received during the scoping process, the Proposed Action has been modified to remove the midblock areas east of Third Avenue between East 43rd and East 45th streets and to expand the proposed Subdistrict along East 42nd Street.

City Environmental Quality Review (CEQR) and Scoping

The Proposed Action is a Type 1 action, as defined under 6 NYCRR 617.4 and 43 RCNY 6-15, subject to environmental review in accordance with CEQR guidelines. An Environmental Assessment Statement (EAS) was completed on August 27, 2012. A Positive Declaration, issued on August 27, 2012, established that the Proposed Action may have a significant adverse impact on the environment, thus warranting the preparation of an EIS.

The CEQR scoping process is intended to focus the EIS on those issues that are most pertinent to the Proposed Action. The process allows other agencies and the public a voice in framing the scope of the EIS. The scope of work sets forth the analyses and methodologies which will be utilized to prepare the EIS. A Draft Scope of Work (Draft Scope) for the EIS for the Proposed Action was issued on August 27, 2012, and a public scoping meeting on the Proposed Action was held on Thursday, September 27, 2012 in the Manhattan Municipal Building, Mezzanine level, 1 Centre Street, New York, New York, 10007. The meeting was held in two sessions, with the first session starting at 2:00 pm and the second starting at 6:00 pm. Comments received during the Draft Scope's public meeting, and written comments received up to Tuesday, October 9, 2012, have been considered and incorporated as appropriate into this Final Scope of Work to direct the content and preparation of a Draft EIS (DEIS). This Final Scope of Work will be used as a framework for preparing the DEIS for the Proposed Action.

Once the lead agency is satisfied that the DEIS is complete, the document will be made available for public review and comment. A public hearing will be held on the DEIS in conjunction with the CPC hearing on the land use applications to afford all interested parties the opportunity to submit oral and written comments. The record will remain open for 10 days after the public hearing to allow additional written comments on the DEIS. At the close of the public review period, a Final EIS (FEIS) will be prepared that will incorporate all substantive comments made on the DEIS, along with any revisions to the technical analysis necessary to respond to those comments. The FEIS will then be used by the decision makers to evaluate CEQR findings, which address project impacts and proposed mitigation measures, in deciding whether to approve the requested discretionary actions, with or without modifications.

C. DESCRIPTION OF PROPOSED ACTION

Background and Existing Condition

The East Midtown office district is one of the largest job centers in New York City and a premier business address. The rezoning area, generally bounded by East 39th Street to the south, East 57th Street to the north, Second and Third Avenues to the east and a line 150 east of Fifth Avenue to the west (see Figure 1), contains approximately 70 million square feet of office space, approximately 200,000 workers, and numerous Fortune 500 companies.

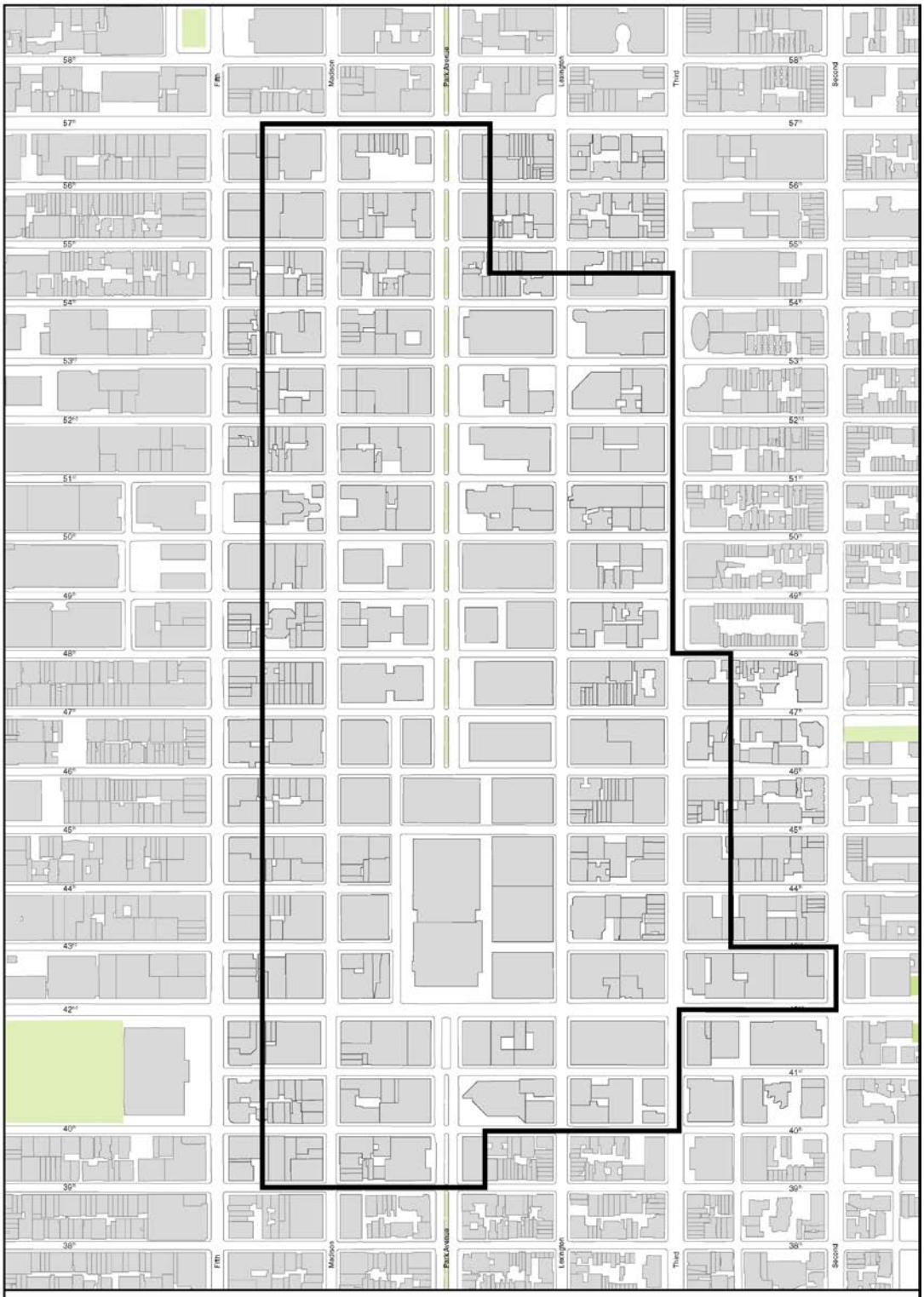

Figure 1 - Site Location

Site Boundary

East Midtown Rezoning and Related Actions

This area is centered on Grand Central Terminal, one of the City's major transportation hubs and civic spaces. Around the Terminal and to the north, are some of the City's best known office buildings, including the Chrysler Building, Seagram Building, and Lever House, along with a mix of other landmarks, civic structures, and hotels.

Transit service in the area is currently being expanded through two major public infrastructure projects: East Side Access and the Second Avenue subway. The East Side Access project would, for the first time, provide Long Island Rail Road service to East Midtown through the construction of a new below-grade station connected to Grand Central. This would also reduce the volume of Long Island Rail Road commuters using the E train to travel to East Midtown employment sites. Construction of the East Side Access is scheduled to be completed in 2019. Additionally, the Second Avenue Subway project, with a first phase (from East 63rd to East 96th streets) currently under construction, would alleviate congestion on the Lexington Avenue subway line which runs through the East Midtown office district. Construction of the first phase of the Second Avenue Subway project is scheduled to be completed in 2016.

Current Status and Recent Trends

East Midtown has historically been one of the most sought-after office markets in the New York region. The area is made up of the large parts of two office submarkets: Grand Central and the Plaza districts. The Grand Central submarket, centered around the Terminal, generally, has an older inventory of office buildings, with a higher vacancy rate and lower rents than the overall Midtown market. The Plaza District, centered on the Plaza Hotel but including the northern portion of the East Midtown area, is one of the most expensive submarkets in the country and has newer office building inventory. One of the key strengths of East Midtown has been the wide range of office space that can be found there, including buildings of different sizes and ages allowing the area to meet the needs of diverse tenants at varying price points.

Overall, East Midtown's office tenants have historically been financial institutions and law firms, with some of the country's largest banks headquartered here. Recent trends have both reinforced and altered this role. The area has become home to the City's hedge fund and private equity cluster because of the area's cachet and easy access to the Metro-North commuter shed. This has lead to a spike in rents for high-quality space in the area's top-tier buildings. At the other end of the office market spectrum, East Midtown has also developed a more-diverse roster of tenants as rents have dropped with the economic downturn, accommodating tenants who were previously priced out of the area. Both these trends have helped the area recover from the 2008 recession, with vacancy rates falling back toward 7 to 8% percent, which is generally considered the structurally healthy vacancy rate. This rate allows tenants to both seek and relocate to different spaces in the area based on lease length, economic conditions, or changing space needs. In response, the office buildings themselves are under near-continuous renovation to maintain their desirability in the area's office market.

Purpose and Need for Proposed Action

While this area has historically performed strongly as an office district and continues to do so, the City has identified a number of long-term challenges that must be addressed in order for East Midtown to remain one of the region's premier job centers. Primarily, this is in relation to the area's aging office building inventory that may not, over time, be able to provide contemporary space and amenities desired by tenants, which are crucial to competing regionally, nationally, and globally. Consequently, the area's importance as a premier office district could diminish, and the substantial investment in transit infrastructure (including the ongoing East Side Access and Second Avenue Subway projects) could fail to

generate its full potential to create jobs and tax revenue for the City and region. Long-term challenges affecting the East Midtown office district include:

- Aging office building stock
- Limited recent office development
- Pedestrian Network Challenges
- Challenges of current zoning
- Modernization of core office areas by competitor cities

These challenges are described below.

Aging office building stock

The East Midtown rezoning area contains approximately 400 buildings, of which more than 300 are over 50 years old. The average age of buildings in the rezoning area is upwards of 70 years. For an office district competing for tenants regionally, nationally, and globally, this is a relatively old age. For example, buildings in London's City district, a comparable historic office core, have an average age of approximately 40 years.

This high average age makes it more likely that the space in the area's office buildings will increasingly become outdated in relation to tenant needs. Today, office buildings older than 50 years have higher vacancy rates and yield lower rents. Reasons for this include constraints in the ability to provide up-to-date technology infrastructure and other amenities through renovation. Some issues, particularly low floor-to-floor heights and interior columns, cannot be addressed at all through renovation. Prior to 1961, when the zoning in the East Midtown area was characterized by a restrictive height and setback control, but no specified floor area ratio, the design strategy for developers to maximize floor area was to build to the limits of the zoning "envelope", while squeezing in as many floors as possible. The buildings that resulted provide low-ceiling spaces both on the ground floor for retail and the upper office floors, as well as a dense column grid. Today, these spaces are increasingly unattractive to the highest rent-paying tenants.

Tenants looking for office space in Midtown today desire large, column-free space to have flexibility in creating office layouts, which are trending toward more open organization. Columns and low floor-to-floor heights do not work well with these open layouts, and thus buildings with these features are increasingly less competitive with the office building inventory in other global business centers. As a result, East Midtown's less marketable office buildings are converting to other uses, especially to residential or hotel use. Recent conversions include hotel conversions such as the Library Hotel at 299 Madison Avenue and the Marriott Courtyard at 866 Third Avenue, and residential conversions such as the condominiums at 5 East 44th Street. Recently, plans have been announced to convert the Sony Building at 550 Madison Avenue from office to a mix of hotel and residential uses.

Given the concentration of regional rail infrastructure in East Midtown, and ongoing expansion of the transit network, a continued trend of office space conversion to other uses, particularly residential, would not result in optimal economic development gains for the City. While the City has undertaken many initiatives over the last decade to accommodate new office construction, including at Hudson Yards, Downtown Brooklyn, and Long Island City, all of these were predicated on the East Midtown area

remaining a center for office jobs and none contemplated the diminution of this area as the City's premier business district.

Limited recent office development

With much of the East Midtown's existing office stock aging, the area has also experienced little new office development. Since 2001, only two office buildings have been constructed in this area, which represents a significant drop from preceding decades. Whereas the area had an overall annual space growth rate of 1% between 1982 and 1991, the area's growth rate began to drop off in the next decade, with an annual growth rate of 0.14%. Over the last decade, this has continued to fall to an annual growth rate of only 0.06% between 2002 and 2011. Since 1982, the area's average age of buildings increased from 52 years to over 70 years.

The area's existing high density, relative to currently allowed zoning floor area, is an impediment to construction of new office stock. As a whole, the area contains approximately 2.3 million square feet more than what is permitted under the current zoning (the area-wide maximum allowable floor area ratio (FAR) is 14.1 and the built FAR is approximately 14.3). This is particularly an issue for buildings which were constructed before 1961, when floor area ratios were first instituted under the Zoning Resolution, and contain more floor area than would be permitted today. As discussed, many of these 'overbuilt' buildings contain obsolete features that make them less marketable, but the lower amount of square footage that could be constructed in a new building on the site presents a significant disincentive to new construction. Under current zoning, up to 75 percent of the floor area could be removed and reconstructed as modern office space, but this would still leave a building with 25 percent of floor space below contemporary standards.

The area also contains few remaining development sites based on DCP's typical criteria, i.e., sites where built FAR is less than half of the permitted base FAR. Of the possible development sites that do exist, few would accommodate a major new office building. Current plans for development in the area bear this out. Of the sites currently cleared for new development, none are planned for office construction as the sites are considered too small to hold a new office building. One assembled site for a new Class A office building (at 317 Madison Avenue) has been reported in the media; however, this site has not yet been cleared. Another announced development site, at 425 Park Avenue, would retain 25 percent of the existing floor area and rebuild the remainder, in order to retain its current density.

Beyond the difficulty of assembling appropriately-sized sites, there are a number of other challenges to new development. These include the need to vacate existing tenants which, depending on existing leases, could be a long, multi-year process that is not economically viable for many property owners. Large existing buildings must then be demolished, further extending the period during which the property produces no revenue. These issues have led to very limited new office construction in the area and many owners attempting instead to renovate their buildings, often on a piecemeal basis, to compete in the overall market.

Pedestrian Network Challenges

East Midtown contains some of the City's best known public and civic spaces, including the Seagram Building Plaza, Park Avenue itself, and Grand Central Terminal's main hall. It also contains a below-grade pedestrian network which connects the Terminal to the Grand Central subway station at 42nd Street, and to surrounding buildings, allowing for a more-efficient distribution of pedestrians in the area. Along with the additional subway stations to the north, East Midtown is one of the most transit-rich locations in the City and the pedestrian network is one of the area's unique assets. However, the area faces a number of

challenges to creating a pedestrian network fully matching the area's role as one of the premier office districts in the world. These include:

- The Grand Central subway station, a transfer point for regional rail and the 4, 5, 6, 7 and 42nd street shuttle subway lines, is one of the busiest in the entire subway system with nearly half a million daily users. However, this station experiences pedestrian circulation constraints including platform crowding and long dwell times for the Lexington Avenue line (4, 5, and 6), which limits train through-put, creating a subway system bottleneck.
- The sidewalks of Madison and Lexington avenues are narrow, approximately 12 to 13 feet wide, given the scale of pedestrian use they handle. The effective widths of these sidewalks are even narrower when subway grates and other sidewalk furniture are included. Side street sidewalks in the area are narrow as well.
- While East Midtown includes a number of privately-owned public spaces, it contains no significant publicly-controlled open spaces. This situation would be somewhat ameliorated by the permanent development of Pershing Square into public open space.
- Vanderbilt Avenue, once the major taxi access point to Grand Central Terminal, has seen its use drop as taxis have been moved away from the building due to security concerns.

Challenges of current zoning

Existing zoning regulations are not appropriate for East Midtown's current needs and may impede the area's continued status as a premier office district.

In 1961, when the current Zoning Resolution was enacted, East Midtown was zoned with a mix of 15.0 FAR districts. Floor area bonuses for public plazas increased the permitted FAR to 18.0, as-of-right. The 1961 zoning removed the incentive to keep ceilings low (although building practices adjusted gradually) and facilitated the development of many signature corporate towers in the area. However, the height and setback control, which permitted a tower covering a maximum of 40 percent of its lot, and required the tower to be set back from the surrounding streets, worked best on large sites (over 40,000 sf) and, as such sites became harder to assemble, the City Planning Commission permitted towers to be built, by special permit, that covered a higher percentage of the lot and were located closer to the street or even at the street line. Planners and civic groups were dissatisfied with some of the buildings that resulted from these waivers and, by the early-1980s, the City decided that better as-of-right height and setback rules were necessary. At the same time, the City concluded that development in Midtown should be encouraged to the west beyond Sixth Avenue. In 1982, the Special Midtown District was created to accomplish these and other goals, which included facilitating an improved pedestrian realm. As part of this project, East Midtown was proposed as an area for 'Stabilization' while the area west of Sixth Avenue was marked for 'Growth.' To accomplish this, parts of East Midtown were downzoned. The FAR for several midblock areas was lowered from 15.0 to 12.0. The area around Lexington Avenue in the vicinity of East 55th Street was rezoned to a mix of 10.0 and 12.0 FAR. Approximately 75% of the new development within the Special Midtown District since 1982 has occurred outside of the East Midtown area, especially around Times Square.

Since 1982, the major change to the zoning regulations of the area was the creation of the Grand Central Subdistrict of the Special Midtown District in 1992 to allow the transfer of development rights from Grand Central and other area landmarks to surrounding development sites in the vicinity of Grand Central and the creation of an improved pedestrian realm in the area. The borders of the Subdistrict

were generally drawn around the area where Grand Central Terminal's below-grade pedestrian network exists. In the Core area of the Subdistrict (between Madison and Lexington avenues, from East 41st to East 48th streets) the maximum permitted FAR by using the transfer is 21.6 and requires a zoning special permit from the City Planning Commission that finds that a significant pedestrian improvement is being provided as part of the project. However, only one building, 383 Madison Avenue, has taken advantage of this provision since its adoption and more than 1.2 million square feet of development rights remains unused on the Grand Central lot. Additionally, 1.0 FAR transfers are permitted through a certification process in the Core and a larger area which includes the western side of Madison and eastern side of Lexington avenues. This provision has been used three times but because of the small size of the transfer, has not resulted in significant utilization of unused development rights. Concerns have been raised about the complexity of the process required to achieve the full 21.6 maximum FAR, which includes lengthy case-by-case negotiation with the Metropolitan Transportation Authority (MTA) over the scope of the pedestrian network improvements. Beyond this transfer mechanism, three methods exist to obtain higher floor area ratios. First, subway station improvement bonuses, of up to 20% more than the permitted base FAR, are permitted for sites directly adjacent to subway entrances. Existing New York City Landmarks Preservation Commission- (LPC-) designated landmarks can transfer their remaining development rights to sites that are adjacent or across streets, with no FAR limits on the receiving site. Both of these bonuses are only permitted through special permits granted by the CPC. In the portions of the area not within the Grand Central Subdistrict, a 1.0 FAR bonus is permitted through the provision of a public plaza.

Overall, however, these bonus mechanisms do not provide enough incentive to replace existing, obsolete buildings with new construction.

Modernization of core office areas by competitor cities

The City has looked at competitor cities with traditional office cores to get a better sense of how East Midtown compares on the world stage. These included London (and its traditional office core in The City), Tokyo (the Marunouchi area around Tokyo Station), and Chicago (the Loop). While East Midtown must also compete against brand new office districts like Pudong in Shanghai, the more relevant comparison is to cities with traditional large office cores that have faced similar challenges of needing to upgrade their office space and meet new market demands.

East Midtown's inventory of contemporary office space lags in comparison to office districts in competing cities. Many competing cities have made it a major policy focus to encourage new office construction in their traditional office cores in order to replace outdated office space and better compete on the world stage. Comparison with The City (London) and Marunouchi (Tokyo) shows that a significant amount of new development has occurred in these two districts over the last decade compared to the relatively lower level of new construction in East Midtown. In both of these peer districts, outdated office buildings—particularly from the 1950s and 1960s—were replaced with new construction.

East Midtown's existing high density poses a unique challenge. Where London has replaced outdated office buildings of less than 10 stories with a mix of similarly-sized buildings with larger footprints and 30 to 40-story skyscrapers, and Tokyo has replaced smaller (10-15 story) office buildings with much larger structures, East Midtown's existing high density makes replacement especially challenging.

Long Term Consequences of Current Challenges

The City believes that the long-term consequences of failing to address the aging of the existing office stock and lack of replacement office development in East Midtown would be a breakdown in the integrated and dynamic office market in East Midtown. The needs of the entire range of tenants East Midtown serves today would be unmet if current challenges are not addressed. In particular, tenants of Class A office space, who have been attracted to the area in the past, would begin to look elsewhere for space. This would likely not only affect the top of the market, but also the Class B and C office space since tenants in these buildings would lose proximity to other important businesses in their cluster. As a result, Class B and C buildings would become ripe for conversion to other uses. In sum, East Midtown would become less desirable as a business district and the significant public investment in the area's transit infrastructure would fail to fulfill its full potential to generate jobs and tax revenues for the City.

The Proposed Action

City's vision for East Midtown

The City's vision for East Midtown is that the area will continue to be a preeminent commercial district. The area would remain largely as is, with most buildings remaining in their current office uses, and only a small amount converting to residential and hotel uses. A handful of major new office buildings would reinforce the area's standing as a premier business district, add to the area's cachet and market dynamism and provide support for the overall continued health of the area. The area's pedestrian network would be improved, befitting its status as one of the world's best business addresses.

Goals of the Proposed Action

Goals of the Proposed Action include:

- Protect and strengthen East Midtown as one of the world's premier business addresses and key job center for the City and region;
- Seed the area with new modern and sustainable office buildings to maintain its preeminence as a premier office district;
- Improve the area's pedestrian and built environments to make East Midtown a better place to work and visit; and
- Complement ongoing office development in Hudson Yards and Lower Manhattan to facilitate the long-term expansion of the City's overall stock of office space.

To accomplish these goals, the City is proposing a zoning text amendment, a zoning map amendment, and a potential City Map amendment. Each of these actions are described separately below. Table 1 summarizes the blocks and lots which would be affected by the Proposed Action.

TABLE 1
List of Blocks and Lots Affected by Proposed Action

Block	Lot
869	16, 20, 22, 24, 25, 26, 27, 34, 49, 54, 58, 61, 64, 66, 74(p), 7501(p)
895	1(p), 7501(p)
1275	6(p), 8, 11, 12, 14, 16, 23, 27, 44, 50, 59, 60, 61, 63, 64, 66(p), 143
1276	1(p), 22, 23, 24, 33, 42, 51, 58, 65, 66, 999
1277	6(p), 8, 14, 20, 27, 46, 52, 67(p)
1278	1(p), 8, 14, 15, 17, 20, 62, 63, 64, 65
1279	6(p), 9, 17, 23, 24, 25, 28, 45, 48, 57, 63, 65, 7501
1280	all lots
1281	1(p), 9, 21, 30, 56, 59, 61, 62, 64, 65, 66(p), 7501
1282	1(p), 17, 21, 30, 34, 64, 7501(p)
1283	7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 21, 58, 61, 62, 63, 64
1284	6(p), 7, 12, 13, 14, 17, 21, 26, 33, 52, 55, 56, 59, 60, 152, 7501(p)
1285	13, 15, 21, 36, 46, 59, 7501(p)
1286	1(p), 21, 30, 35, 43, 53
1287	8, 9, 10, 14, 21, 27, 28, 33, 52, 58, 61, 62, 63, 7501(p)
1288	6(p), 7(p), 10, 11, 21, 24, 27, 33, 51, 56, 57, 59, 61, 62, 63
1289	6(p), 8, 14, 21, 23, 24, 28, 36, 45, 52, 59, 65, 67(p), 107, 149
1290	6(p), 14, 15, 16, 17, 21, 27, 28, 31, 36, 37, 44, 50, 52, 56, 61, 62, 115, 127, 7501, 7502(p)
1291	1(p), 10, 21, 28, 38, 45, 47, 51, 127, 7501(p)
1292	8, 15, 33, 37, 41, 42, 43, 45, 46, 47, 48, 52, 64, 66(p), 7501(p)
1295	all lots
1296	all lots
1297	all lots
1298	all lots
1299	all lots
1300	all lots
1301	all lots
1302	all lots
1303	all lots
1304	all lots
1305	all lots
1306	all lots
1307	all lots
1308	all lots
1309	1, 5, 6, 7, 8, 23, 32(p), 50(p), 66(p), 69, 72, 107, 7502
1310	1(p)
1311	1, 5(p), 65(p)
1316	all lots
1317	1, 7
1318	1, 43, 44, 143
1319	1, 2, 3, 5, 7, 8, 11(p), 47(p), 103, 104
1320	46, 7503, 7506(p)
1321	1(p), 42(p), 47

Note: Lot #(p) indicates that the lot is only partially within the proposed rezoning area.

Proposed Zoning Text Amendment

The proposed zoning text amendment would establish an East Midtown Subdistrict (the "Subdistrict") within the Special Midtown District. This new Subdistrict would supersede and subsume the existing Grand Central Subdistrict. While most existing zoning would remain in place, the amendment would focus new commercial development with the greatest as-of-right densities on large sites with full block frontage on avenues around Grand Central Terminal, with slightly lower densities allowed along the Park Avenue corridor and elsewhere. The amendment would encourage targeted as-of-right commercial development at appropriate locations. The amendment would also generate funding for area-wide pedestrian network improvements and streamline the process for landmark transfers within the Grand Central area.

Main Subdistrict Mechanisms

The Subdistrict would have two new as-of-right zoning mechanisms to permit increases above the base FAR for sites which meet certain site criteria and can accommodate substantial new commercial buildings. Sites within the Subdistrict with full avenue frontage and a minimum site size of 25,000 square feet that provide all their floor area as commercial use and meet certain sustainability standards described below would be considered Qualifying Sites. These Qualifying Sites would be able to utilize the following zoning mechanisms to permit increases above the applicable base maximum FAR:

1) District Improvement Bonus (DIB): Increases in FARs above the as-of-right maximum would be permitted through contribution to a fund dedicated to area-wide pedestrian network improvements. The additional floor area would be granted by CPC Chair ("Chair") certification, similar to the existing Hudson Yards District Improvement Bonus. The District Improvement Bonus is described more fully in the "Public Improvement through the DIB" section below.
2) Landmark Transfer: Increases in FARs above the as-of-right maximum would also be permitted in the Grand Central Subarea through floor area transfers from landmark buildings. The additional floor area would also be granted by Chair certification. The Landmark Transfer is described more fully in the Grand Central Subarea section below.

Subareas in the East Midtown Subdistrict

In order to encourage appropriate development in different areas of the new Subdistrict, it would be divided into three areas (with boundaries as shown in Figure 2), each described more specifically below. These include:

- Grand Central Subarea
- Park Avenue Subarea
- Other areas

Grand Central Subarea

The City believes that, over the long term, most new development and the highest allowances for density in East Midtown should be located around Grand Central Terminal. Given its access to regional rail, the area has the best transportation access in East Midtown and also the largest concentration of its aging office stock.

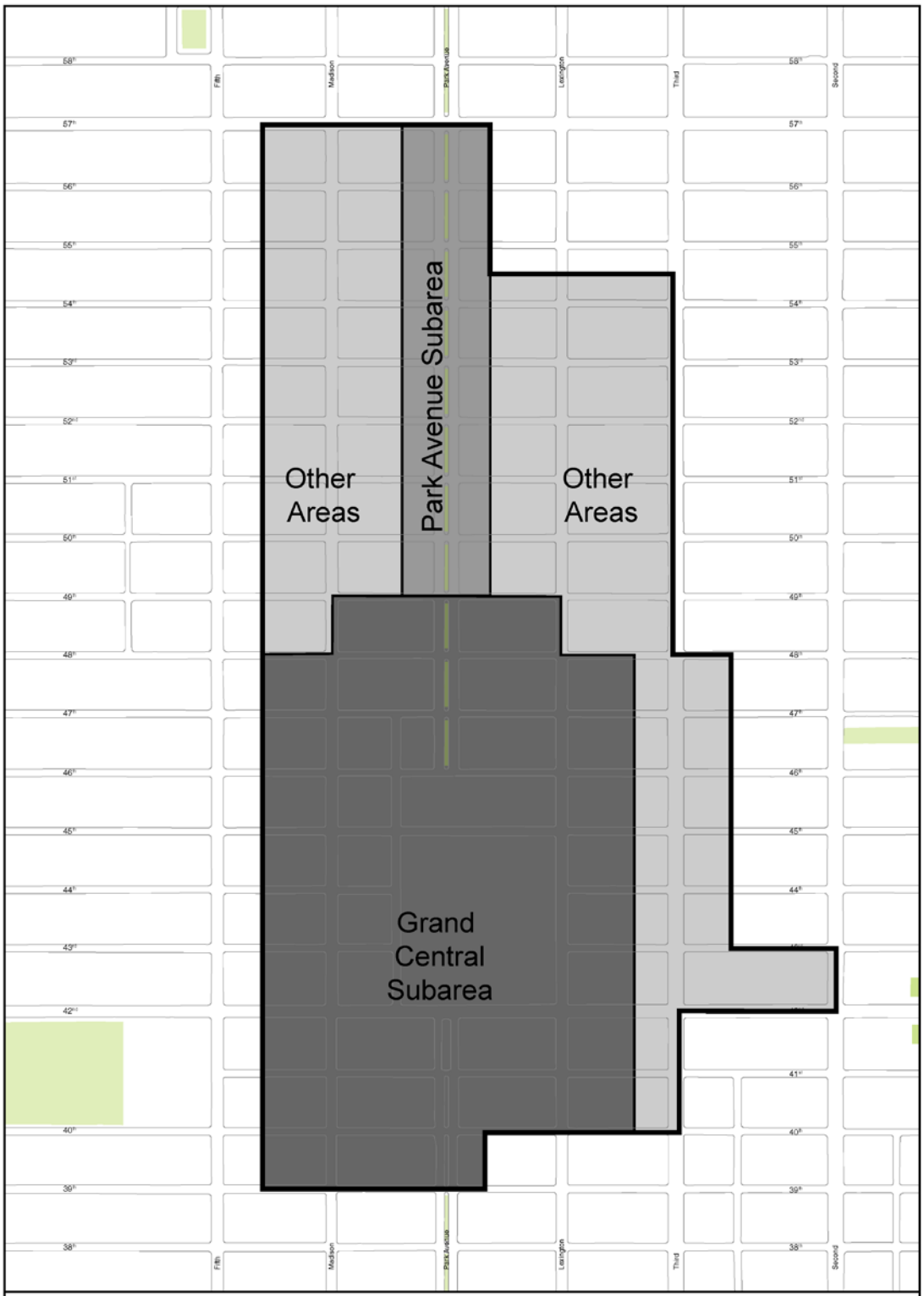

Figure 2 - East Midtown Subdistrict Subareas

Site Boundary
Grand Central Subarea
Park Avenue Subarea
Other Areas

East Midtown Rezoning and Related Actions

To accomplish this, the rezoning would redefine the existing Grand Central Subdistrict as a new Grand Central Subarea within the East Midtown Subdistrict. The boundaries would be expanded to accommodate additional portions of the Grand Central neighborhood which are connected to the Terminal by the existing below-grade transportation network or within a short walking distance. The Subarea would be generally expanded one block north to East 49th Street, fully across Lexington and Madison avenues, and south to East 39th Street. Additionally, a Grand Central Core would be included within the Subarea representing the area directly around the Terminal, bounded by East 42nd and East 46th streets, and Lexington and Madison avenues.

For Qualifying Sites within the Grand Central Core, floor area increases would be permitted up to 24.0 FAR from the existing base maximum FAR of 15.0. Use of the District Improvement Bonus would be required in order to increase FAR from 15.0 to 18.0; contributions to the District Improvement Fund (DIF) would be used to ensure that development in the area is accompanied by pedestrian network improvements. Above 18.0 FAR, Qualifying Sites could reach the maximum 24.0 FAR through utilization of either or both of the District Improvement Bonus and the new Landmark Transfer mechanism.

For Qualifying Sites within the remainder of the Grand Central Subarea, floor area increases would be permitted up to 21.6 FAR from the existing base maximum FAR of 15.0/12.0. To achieve this maximum FAR would require utilization of the District Improvement Bonus for the first 3.0 FAR (from 15.0 to 18.0 FAR or from 12.0 to 15.0 FAR respectively). Above the first 3.0 FAR, Qualifying Sites could reach the maximum 21.6 FAR through additional utilization of either or both of the DIB and the new Landmark Transfer mechanism.

Additional Subarea mechanisms and requirements

The existing Grand Central Subdistrict contains a number of additional zoning mechanisms and requirements, most of which would be maintained or amended in the new Grand Central Subarea. These include:

- FAR as-of-right Landmark Transfer

  The existing Grand Central Subdistrict permits 1.0 FAR as-of-right transfers from the Subdistrict's landmark buildings via Chair certification. This mechanism would be continued within the expanded Subarea to allow opportunity for transfer to sites which are not Qualifying Sites.

- Existing Landmark transfer special permit

  The existing Grand Central Subdistrict permits a transfer of landmark rights within the area bounded by East 41st and East 48th streets, and Madison and Lexington avenues, up to a maximum of 21.6 FAR and modification of height and setback requirements by special permit. The permit would be maintained and could be utilized by all sites within the above boundary.

- Other Zoning Controls

  As in other existing subdistricts within the Special Midtown District, the existing Grand Central Subdistrict contains a series of bulk and urban design requirements tailored to the unique conditions of the Subdistrict. These include special street wall, pedestrian circulation space and loading requirements. These requirements would be modified to ensure appropriate as-of-right development in the area, and would include elements such as the following:

  – Streetwall requirements – In order to match the high-streetwall character of the area, special streetwall requirements would be required along Madison, Lexington and Park Avenues, as well

as along 42nd Street, Vanderbilt Avenue, and the area's side streets. Such streetwall requirements would include provisions for recesses and articulation that allow for greater design flexibility.

- Modifications to height and setback controls – These controls would be modified to allow as-of-right development at the levels permitted through the new mechanisms, taking into account the unique block configurations found in the area and the high-streetwall character found there.

- Sidewalk widening requirement – While existing streetwall requirements for Madison and Lexington Avenues permit sidewalk widenings up to ten feet along these streets, full-frontage sites would now be required to provide sidewalk widenings that would translate into sidewalks with a minimum width of 20 feet along these streets. In addition, developments fronting along side streets between East 43rd and East 47th streets between Vanderbilt and Madison avenues would also be required to provide sidewalk widenings that would translate into sidewalks with a minimum width of 15 feet along these streets.

- Mass transit access – Developments on sites in the Grand Central Core, where the subway bonus is permitted, or which currently have existing mass transit access, would be required to provide easement volumes to provide access between the street and the below-grade network. Additionally, if such easement is improved as part of the development, such access points would be able to count toward the required pedestrian circulation space calculations.

- Retail continuity – Existing retail requirements for Madison and Lexington Avenue would be maintained, however a minimum retail depth of 30 feet would be added to ensure usable retail spaces. In addition, new retail requirements would be included for Vanderbilt Avenue to further activate the new pedestrian space at that location. Additionally, Qualifying Sites would be required to devote a minimum of 50 percent of their side street frontage to retail uses.

- Other modifications – Existing Grand Central Subdistrict provisions for building lobbies would be maintained with maximum lobby widths added for Vanderbilt Avenue and side streets between Vanderbilt and Madison avenues. The current Curb Cut requirements would be maintained, but a process to allow for modification due to subsurface conditions would be established. Finally, lighting standards would be added to the Pedestrian Circulation Space requirements.

- District Improvement Bonus and Landmark Transfer applications

  The current Grand Central Subdistrict regulations require sites that utilize landmark floor area (either through the 1.0 FAR as-of-right transfer or the existing special permit) to demonstrate as part of their application an LPC report concerning the harmonious relationship between the new development and the landmark. Under the proposal, this requirement would be modified to apply to all developments adjacent to Grand Central Terminal utilizing the DIB or the new landmark transfer mechanisms described above.

- Program for Continuing Maintenance

  As under the current Grand Central Subdistrict zoning text, any transfer of development rights under the Proposed Action from a landmark must include a program for continuing maintenance of the landmark structure. For Grand Central Terminal, this requirement has been met through an agreement to set aside five percent of transfer proceeds for continuing maintenance of the Terminal.

Park Avenue Subarea

The proposal recognizes that limited new development on Qualifying Sites that have full block frontage along Park Avenue is appropriate over the long term. The avenue's role as New York's most prestigious business address, as well as its overall width—it is the widest avenue in Midtown—make it an appropriate location for high-density development.

To accomplish this, the East Midtown Subdistrict would include a Park Avenue Subarea, which would encompass the frontage along Park Avenue between East 46th and East 57th streets, for the area within 125 feet of Park Avenue (reflecting the existing 15.0 FAR C5-3 zoning designation).

For Qualifying Sites within the Park Avenue Subarea, floor area increases would be permitted up to 21.6 FAR from the existing base maximum FAR of 15.0. Utilization of the DIB will be required achieve this maximum FAR.

Additional Subarea Zoning Controls

To ensure that as-of-right development takes account of the unique conditions along Park Avenue, the streetwall requirements that apply to Park Avenue in the Grand Central Subarea would also apply along Park Avenue in this Subarea. Other underlying urban design and height and setback controls would continue to apply.

Other Areas

More limited development in East Midtown should occur along the Madison Avenue and Lexington Avenue corridors, north of the Grand Central Subarea, as these areas contain most of East Midtown's more-recent office construction. Because the buildings in these areas are more modern on average, fewer property owners would be willing to undertake the costly multiyear process of emptying, demolishing and reconstructing buildings.

For Qualifying Sites or portions thereof within these areas, floor area increases would be permitted up to 20 percent higher than the existing maximum base FAR of 15.0 or 12.0. To achieve this maximum FAR would require utilization of the DIB.

Underlying urban design and height and setback controls would continue to apply in these areas.

Other Subdistrict-wide mechanisms

Special Permit

The Proposed Action would create a zoning framework which would allow for additional development on an as-of-right basis, but only to the extent that as-of-right bulk regulations can successfully address the orientation and massing of buildings, both at the ground level and above. In this regard, the existing Special Midtown District's bulk regulations—intended to permit design flexibility for high-density development while limiting the impact of buildings on access of light and air to the streets—can, with limited modifications only, reasonably accommodate contemporary office buildings of up to 24.0 FAR for sites around Grand Central and 21.6 FAR along Park Avenue without triggering the need for case-by-case scrutiny by the CPC.

However, given its extraordinarily transit-rich location, East Midtown can accommodate greater densities than the proposed as-of-right maximums and allowing this would further the City's objective of seeding the district with major new buildings that would help retain the area's standing as the City's premier office district. Since densities above the proposed as-of-right maximums cannot be easily

accommodated within the framework of as-of-right bulk regulations, it is appropriate that developers who seek to build more than the Proposed Action's as-of-right maximums FARs be required to undergo a public review process to demonstrate that the building's massing, orientation and other features feasibly accommodate the additional FAR and provide improvements to the public realm, as well as address the potential for significant adverse environmental impacts.

The East Midtown Subdistrict would therefore include a special permit for superior development that would allow an increase in the maximum FAR above that permitted as-of-right in the Grand Central Core (24.0) up to 30.0, and an increase in the maximum FAR above that permitted as-of-right along the Park Avenue frontage north of East 46th Street (21.6) up to 24.0. Additionally, the special permit would allow for the modification of bulk and urban design regulations.

The City believes that the modification of bulk and urban design regulations must not only be done in a way that minimizes negative effects, but that the development must provide significant public benefits. These benefits should take the form of a development that demonstrates superior qualities in terms of: overall design; relationship to the street, and function at street level; the size and caliber of on-site public amenities such as major new public space (indoor and/or outdoor); and, in the case of sites within the Grand Central Core, the size and availability of connections to the underground pedestrian network.

There would also be significant prerequisites to apply for the special permit. Sites would have to meet the Qualifying Site requirements, and, in the Grand Central Core, the minimum site size would be 40,000 square feet (sf). Additionally, all floor area above the maximum permitted as-of-right levels (24.0 / 21.6 respectively) would have to be earned by contributions to the DIF or, for buildings located in the Grand Central Subarea, through either or both of contributions to the DIF and transfers from landmarks.

Public Improvements through the DIB

The DIB mechanism would permit as-of-right higher maximum FARs through contribution to a DIF dedicated to area-wide pedestrian network improvements. The DIF would provide the flexibility to fund improvements, where needed, as development occurs in East Midtown, rather than having improvements be tied to specific development sites. The DIF would be focused on City-priority improvements to the pedestrian network, both above- and below-grade. The zoning text would describe the required contribution rate, initially set at $250 per square foot, which would be adjusted annually. It would also include provisions for the use and governance of the DIF. These would include the creation of a DIF committee, consisting of five Mayoral appointees including the Chair of the City Planning Commission , who would be responsible for maintaining and adjusting a list of priority district improvements in the East Midtown area over time, and dispersing funds for such projects as contributions to the DIB are made. The text would also include provisions for public participation in the prioritization process and standards for what types of projects may be funded through the DIF. The text would also include a 'payment-in-kind' provision that would permit property developers to construct improvements, and receive credit for their expenditure, in lieu of payment into the DIF.

The City has identified certain priority improvements that address the greatest potential needs of the area as well as those created by the new development, and can most benefit office workers, visitors and residents. The City is also encouraging the public to provide additional ideas for improvements in East Midtown for purposes of the future DIF committee process, described above.

Priority improvements which, would be implemented in relation to the pace and the level of future development, include:

- Improvements to the Grand Central subway station

  As described above, the Grand Central subway station is one of the busiest in the entire system and also has numerous pedestrian circulation issues. In this station, the DIF could be used to construct new connections between the commuter rail facilities and the subway station, a reconfigured mezzanine level, and additional, relocated or reconstructed stair, ramp and escalator connections to the subway platforms of the Lexington Avenue line and the Flushing line from the mezzanine, with early priority items focused on the Lexington line.

- Improvements to Vanderbilt Avenue

  Vanderbilt Avenue is a relatively underused and bleak corridor, especially considering its location adjacent to Grand Central Terminal. The DIF could be used to transform Vanderbilt Avenue into a signature pedestrian gateway space while still allowing for uninterrupted cross town traffic, vehicular access to surrounding buildings and the Terminal, and unrestricted movement for emergency vehicles. It is expected that Vanderbilt would be redesigned as a predominantly-hardscape space with high-quality materials and features with ample pedestrian circulation space along its edges. New paving materials would unite the space along its overall length and be chosen to complement its location adjacent to Grand Central Terminal. The new paving would create a level ground plane across the space at the level of the current sidewalks. Permanent design elements in the space would consist of planting, seating and water features interspersed along its five-block length. Generally, the southern portions of Vanderbilt would have fewer elements given the higher pedestrian volumes that would be coming out of the Terminal, while the northern areas would contain more elements with the space becoming more green/planted moving north toward Park Avenue. Permanent seating and opportunities for rotating programming and art installations would be interspersed throughout. The permanent design elements would be designed to be low to the ground to give the overall Vanderbilt space an open feeling and focus views on the iconic adjacent Grand Central Terminal (see Figure 6).

In addition, the City has identified a series of additional possible priority improvements which could be implemented in the area as additional funding is generated through the DIF. These include:

- Above-Grade Improvements

  The City has identified a series of other areas above-grade for which the DIF could be used to make comprehensive improvements. These include key streets including Madison and Lexington avenues, as well as East 53rd Street. The DIF could be used to develop improvements to the streetscape on these streets to improve the pedestrian experience, including sidewalk widenings and bumpouts. In addition, the City has identified opportunities for expanding upon the initial Vanderbilt Avenue improvements to create a public space network around Grand Central Terminal which could be funded through the DIF. Specific plans for both types of improvements would be developed in the future as funding is generated through the DIF. The City would continue studying the remainder of the sidewalk and open space network in the area to identify opportunities for other improvement projects.

- Improvements to other East Midtown subway stations

  Over the longer term, improvements to the other subway stations in the area, i.e., 53rd and Fifth Avenue, and 53rd and Lexington Avenue / Lexington and 51st street, could be funded by the DIF to improve transfers between lines, and connections between platforms and street level.

Existing Non-complying buildings
As discussed above, there are a number of pre- and post-1961 office buildings in East Midtown that do not comply with current zoning regulations, particularly in regard to the amount of floor area permitted. As these buildings age and become outdated, their 'overbuilt' floor area presents a challenge as current zoning offers a strong disincentive to the replacement of the outdated building.

To address this, for pre-1961 non-complying buildings that are part of a Qualifying Site, the East Midtown Subdistrict would permit the amount of floor area that exceeds the as-of-right maximum base FAR to be utilized, in new development on the site, subject to a discounted DIB contribution, set at 50 percent of the base rate. As part of a Qualifying Site all the floor area in the building would have to be fully commercial. The retention of this non-complying floor area in the new development would be permitted by Chair certification. Additional floor area could be added to the site through the DIB and, in the Grand Central Subarea, the new landmark transfer mechanism.

To permit limited redevelopment for non-complying buildings that are not part of a Qualifying Site, the Subdistrict would permit all non-complying buildings with avenue frontage and minimum site size of 20,000 sf to utilize their existing floor area in new development, subject to the discounted DIB contribution mechanism. However, such sites would not be able to obtain additional floor area through the DIB or, in the Grand Central Subarea, the new Landmark Transfer mechanism. The retention of the non-complying floor area in such new development would be granted by Chair certification. To utilize this mechanism, the building would have to be fully commercial and meet the sustainability requirements described below as well as comply with as-of-right height and setback requirements.

Sustainability Requirement
The zoning text would require buildings that utilize the District Improvement Bonus to comply with a higher performance-oriented energy standard than is currently required for such buildings under the New York City Energy Conservation Code .

"Sunrise" provision
The Hudson Yards Plan, approved in 2005 and 2009, will achieve an important implementation milestone in 2014 with the completion of the extension of the #7 subway line extension, and opening of the Hudson Park and Boulevard, both of which would facilitate the development of the area's first major office buildings. In order to allow sequencing of development consistent with planning objectives in the entirety of Midtown, including Hudson Yards, the East Midtown Subdistrict would include a "sunrise" provision under which building permits will not be issued under the new zoning mechanisms (DIB, new Landmark Transfer, and new Special Permit) until July 1, 2017. Until that point, permits could be issued under the existing zoning mechanisms, which would remain in place. The "sunrise" provision would allow developers to begin the long process of assembling sites, emptying buildings, and plan for new construction.

Existing zoning provisions
Existing zoning provisions, such as the subway bonus, plaza bonus (except in the Grand Central Subarea, where it is currently not permitted), and the special permit landmark transfer available via zoning section 74-79 would continue to apply. As described above, the current Landmark transfer special permit in the Grand Central Subarea would also continue to apply.

Proposed Zoning Map Changes

The rezoning area, as seen in Figure 3, is currently zoned predominantly as high density commercial (zoning districts C5 and C6) within the Special Midtown District. The area between Second and Third Avenues along East 42nd Street, is entirely commercial in character, with a number of existing office buildings. The Special Midtown District generally follows the boundary of Midtown's commercial areas and thus this area would more appropriately be located in the Midtown District, and additionally as part of the East Midtown Subdistrict. By incorporating the area into Midtown, the Special District regulations, including height and setback and streetscape requirements, would become applicable. These are more tailored to the needs of the area than the generic 1961 high-density commercial zoning provisions that now apply.

In order to do this, the rezoning would replace the existing C5-2 designations for the block located between East 42nd and East 43rd streets, and Second and Third avenues with C5-3 and C5-2.5 districts. The C5-3 and C5-2.5 districts will be mapped within the Special Midtown District, and be incorporated into the East Midtown Subdistrict (see Figure 4).

The C5-3 designation would be mapped along the East 42nd Street and Second Avenue frontages, which are both wide streets and reflect the typical wide street zoning pattern in Midtown. Midblock areas along East 43rdstreet would be mapped to C5-2.5, reflecting the typical midblock Midtown zoning pattern.

Proposed City Map Changes

The City may in the future amend the City map to reflect a 'Public Place' designation over portions of Vanderbilt Avenue. Such action would provide one of several options for the permanent development of a partially-pedestrianized Vanderbilt Avenue.

These portions could include the non-intersection portions of Vanderbilt Avenue between East 42nd and East 47th streets. Any City Map amendment or other method for designation of Vanderbilt Avenue for pedestrian use would be structured to allow for phased development of improvements as funding is made available from the DIF, and as surrounding conditions permit.

D. ANALYSIS FRAMEWORK

Reasonable Worst-Case Development Scenario (RWCDS)

In order to assess the possible effects of the Proposed Action, a reasonable worst-case development scenario (RWCDS) was established for conditions under both the current zoning (No-Action) and proposed zoning (With-Action) projected to the 2033 analysis year. As described below, the level of development projected for the 2033 analysis year is based on long-term projections of the area's potential to capture a proportionate share of the City's new office development over the next 30 years taking into account the area's existing built character. Development likely to occur beyond 2033 will be conservatively assessed in the EIS as occurring by 2033. The incremental difference between the future No-Action and future With-Action conditions will be the basis of the impact category analyses conducted for the EIS. To determine the With-Action and No-Action conditions, standard methodologies have been used following the *CEQR Technical Manual* guidelines employing reasonable assumptions. These methodologies have been used to identify the amount and location of future development, as discussed below.

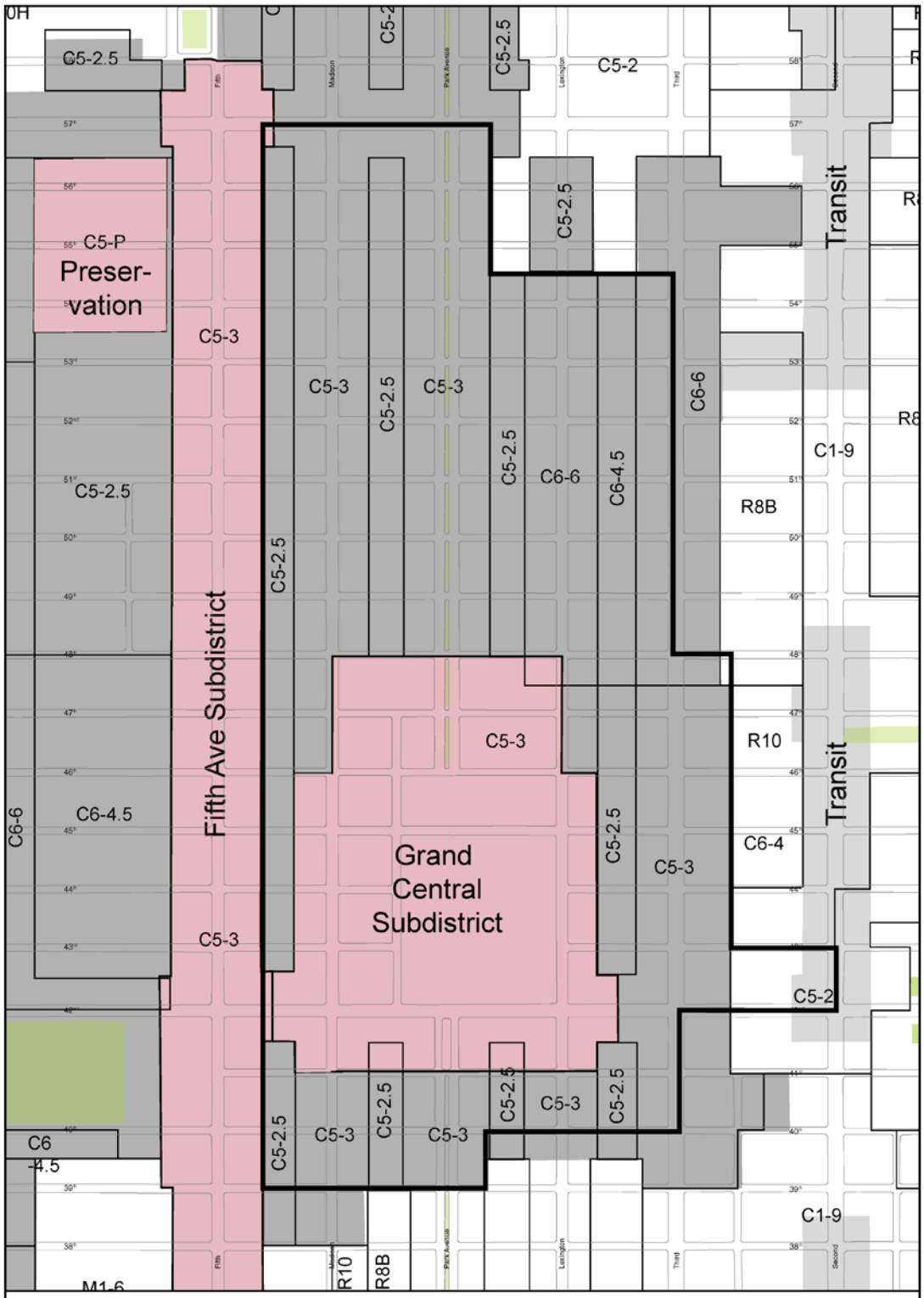

Figure 3 - Existing Zoning

Site Boundary
Special Midtown District
Subdistrict of Special Midtown District
Other Special District

East Midtown Rezoning and Related Actions

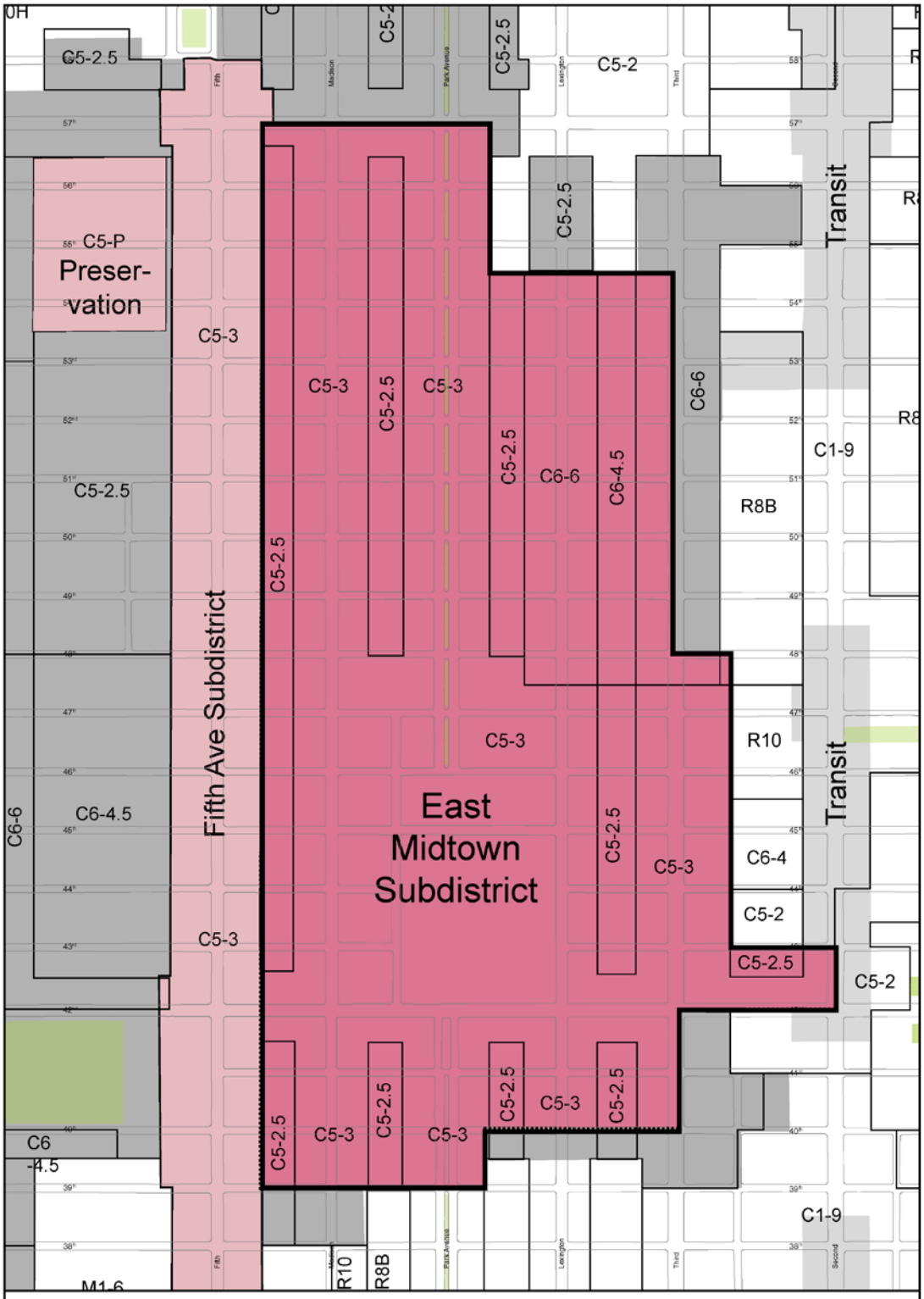

Figure 4 - Proposed Zoning

Site Boundary
Special Midtown District
Other Subdistrict of Midtown District
Other Special District
East Midtown Subdistrict

East Midtown Rezoning and Related Actions

Development Site Criteria

In projecting the amount and location of new development, several factors have been considered in identifying likely development sites. These include known development proposals, past development trends, and the development site criteria described below. Generally, for area-wide rezonings, new development can be expected to occur on selected, rather than all, sites within the rezoning area. The first step in establishing the development scenario was to identify those sites where new development or conversion could reasonably occur. The following site criteria were used to assess different aspects of the proposal and long-term trends in the area.

Qualifying Site Identification

Given the challenges for new development in East Midtown, considering its existing density and built-character, the typical development site criteria utilized for development scenarios in other contexts would not be practical in East Midtown. For example, limiting the assessment of development sites to only those which are built to less than 50 percent of permitted FAR would produce few development sites in East Midtown given its already built-up character. Instead, site criteria more reflective of existing area conditions and development history were developed. To identify sites within the East Midtown rezoning area that could utilize the new zoning mechanisms of the Proposed Action, an assessment of all existing buildings in the area was undertaken. All the following were then excluded from the analysis:

- LPC-designated landmarks
- Condominiums, co-ops, or residential buildings that contain six or more rent-stabilized units
- Post-1982 buildings (given their recent construction)
- All other buildings over one million square feet, or towers with 35 stories or more (given their size and the difficulties inherent in emptying and demolishing the structure)

Remaining properties were then assessed to see if, on their own or through merger with other adjacent remaining properties, they could meet the Qualifying Site requirements, i.e., full avenue frontage and minimum site size of 25,000 sf.

The sites were also assessed, conservatively, to see whether the existing built FAR was less than 85 percent of what could be constructed based on the proposed maximum as-of-right FAR permitted under the proposed East Midtown Subdistrict. Sites with existing built FAR greater than 85 percent were removed from consideration as potential Qualifying Sites.

Non-Complying Building Rebuild Identification

The Proposed Action would permit non-complying pre-1961 buildings that meet certain site criteria (avenue frontage and 20,000 sf site size) to maintain their non-complying floor area in new development through a discounted DIB contribution. Sites where such a mechanism could be utilized were identified. All of the following were excluded from the analysis:

- Post-1961 buildings
- All pre-1961 buildings that contain less than their permitted as-of-right FAR
- LPC-designated Landmarks
- Buildings with more than one million sf of floor area, or 35 or more stories (given the difficulties in emptying and demolishing such a large building)

Other Possible Site Identification

Given contemporary development patterns in East Midtown, where most recent construction has been on smaller underbuilt sites (particularly in midblock areas), it was expected that some of this development would continue to occur both with and without the action. To identify possible locations for this development, which would occur under the existing as-of-right zoning in the area, an assessment of all existing buildings in the area was again undertaken. In this case, the following were excluded from the analysis:

- LPC-designated landmarks
- Condominiums, co-ops, or residential buildings that contain six or more rent-stabilized units
- Sites built to more than 75 percent of the existing as-of-right maximum FAR, with the 1.0 FAR plaza bonus or existing Grand Central Subdistrict transfer assumed, according to location. (While typical soft-site analyses look at site with less than 50 percent of maximum as-of-right FAR, recent area practice shows that sites with higher built-to-maximum FAR ratios are viable development sites in the East Midtown area.)
- Known merged lots (where floor area has already been distributed to an adjacent development site)
- Lots that on their own or aggregated with other lots would not achieve a development site size of at least 5,000 sf.

Additionally, given the difficulty of site assemblage in the area, it was assumed that individual development sites would be made up of a maximum of six existing lots. Once sites were identified, each was assessed as to whether they could meet the requirements to provide a public plaza and achieve an as-of-right 1.0 FAR bonus.

New Construction Development Assumptions

To produce a reasonable conservative estimate of future growth with and without the Proposed Action (With-Action and No-Action conditions, respectively) and based on recent trends, the RWCDS assumes that sites would develop to the maximum developable square footage pursuant to zoning in the future with the Proposed Action. The development sites are distributed throughout the rezoning area.

Retail – New developments and conversions would provide 1.0 FAR as ground-floor retail. Further, for office building development on Qualifying Sites, the retail component is conservatively assumed to be a mix of 50 percent neighborhood-level retail and 50 percent destination retail. For all other sites, the retail is all assumed to be neighborhood-level retail. This pattern is in keeping with the existing retail pattern in the area where most retail is focused on serving area workers or visitors.

Parking – It is conservatively assumed that Qualifying Sites and other large development sites that are not located atop rail infrastructure would provide parking up to the maximum permitted by the underlying Manhattan core parking regulations. Based on recent survey work as part of the City's Manhattan Core Parking Study, this parking is conservatively assumed to be used by the general public as well as by building tenants and visitors.

Mechanical Space – All numbers used in the RWCDS are in gross square feet. For all non-office uses, this number is arrived at by increasing the permitted zoning square footage by 5 percent. For office uses, this number is arrived at by increasing the permitted zoning square feet by 15 percent, to account for the larger amount of mechanical space in contemporary office buildings. Since this additional 10 percent

office mechanical space would be unusable by building occupants, the density-related impact analyses would not reflect this additional space.

Height and Massing – All buildings would be developed pursuant to Special Midtown District height and setback regulations, as amended by the Proposed Action. It is assumed that developments would attempt to maximize floorplate size, as has been the practice for recent office construction in the City.

Definition of Projected and Potential Development

To produce a reasonable, conservative estimate of future growth, the development sites were further divided into two categories, i.e., projected development sites and potential development sites. The projected development sites are considered more likely to be developed within the analysis period for the Proposed Action, while potential sites are considered less likely to be developed over the same period. The process utilized to determine which development sites were projected versus potential is discussed below.

Qualifying Sites

For Qualifying Sites, where most new development in East Midtown would be concentrated, sites were assessed and ranked based on a variety of criteria in order to determine which would be most likely to develop, and hence be classified as projected development sites. These were:

- Age of existing buildings (older buildings were considered more likely to be development sites)
- Ratio of existing built FAR to proposed new maximum as-of-right FAR (sites with lower built-to-max ratios were considered more likely development sites)
- Number of lots required for assemblage (sites made up of fewer lots were considered more likely development sites)

Sites that exhibited the strongest combination of these factors were considered those most likely to utilize the new proposed new zoning mechanisms.

To assess how many of the development sites would be developed within the analysis period, the City reviewed projections prepared by Cushman and Wakefield with regard to the 2011 Hudson Yards bond financing. The study projects a need for more than 70 million square feet of new office space in Midtown Manhattan over the next 30 years (The definition of Midtown used in the analysis includes Manhattan Community District 2, 3, 4, 5 and 6)[1]. The main source of this demand is growth in the number of people working in office space in Manhattan, most of whom would be New York City residents, as the City's population is expected to grow to approximately 9 million during this timeframe. The study estimates that 25 million sf of this new construction would occur in Hudson Yards. Even with other expected projects outside of East Midtown, the study projects a long-term shortfall of more than 36 million square feet of new office space construction in Midtown Manhattan over that period, with no areas or sites identified in the study for development of this space.

[1] The Cushman and Wakefield study projects the gross square footage of new office construction. It does not take into account the possible conversion of existing office buildings to other uses in the long term, or identify the increment between existing office space on development sites and future development on those sites. The square footage of future construction expected in East Midtown as described in this section similarly represents the gross square footage of new construction. Consistent with SEQRA/CEQR, the environmental analysis of the Proposed Action will analyze the increment between the No-Action and With-Action conditions, as described more fully in the Future With the Proposed Action section below.

The City has identified a number of challenges facing new development in East Midtown including the area's built-up character, difficulties of site assemblage, and the cost of emptying existing buildings and demolition. The RWCDS nevertheless conservatively assumes that the Proposed Action would result in East Midtown accommodating a significant share of the identified unmet demand for new office construction in Midtown Manhattan, as described in the Cushman and Wakefield study. While East Midtown currently has less than a quarter of all the office space in Midtown Manhattan, and less than 15 percent of Midtown Manhattan's new office construction over the last 20 years has occurred in East Midtown, the RWCDS assumes that approximately 30 percent of the total identified unmet demand for new office construction would occur in East Midtown, i.e., approximately 11 million gross square feet of new office construction. The RWCDS further conservatively assumes that this development will occur over the next 20 years, instead of the 30-year timeframe of the Cushman and Wakefield study. During that 20-year timeframe, the Cushman and Wakefield study identifies an unmet demand for approximately 21 million square feet of the 36 million square feet needed over the 30-year period. In those two decades, East Midtown's assumed 11 million square feet of new office construction would represent more than half the identified unmet demand for new office space.

The RWCDS assumes that 12 Qualifying Sites would be projected development sites and be developed to their full allowable FAR. Ten of the sites would be developed as office buildings, with two being constructed as hotels given their location adjacent to other hotels along Lexington Avenue. The ten projected office sites, together with the two non-complying office buildings that are expected to be rebuilt as new office buildings as described below, would, in total, add up to the 11 million gross square feet of new office construction. Remaining Qualifying Sites were considered potential development sites.

In response to public comments received during the scoping process, the reasonable worst case development assessment of Qualifying Sites was modified to account for buildings constructed between 1961 and 1982. This change has led to the inclusion of two new potential development sites. In addition, the modification to the eastern boundary of the proposed Subdistrict resulted in the elimination of a projected development site.

Non-complying Building Rebuild Identification

To analyze the provisions of the Proposed Action which would permit non-complying pre-1961 buildings to be rebuilt to their existing FAR as long as they meet certain site criteria (avenue frontage and 20,000 sf minimum site size), the City assessed the buildings which meet these criteria to ascertain the likelihood of their redevelopment. The City expects this provision to be used infrequently given the difficulties of emptying and replacing an existing office building in order to replace it with the same FAR. In the area, 320 Park Avenue was rebuilt (maintaining 25 percent of the existing building) nearly 20 years ago and recently 425 Park Avenue has been announced as a possible rebuild site.

Given this history, the RWCDS assumes that two non-complying buildings would be projected development sites that would utilize this provision and be rebuilt to their existing FAR as new office buildings. The remaining possible non-complying buildings were included as potential development sites. Since development on these sites would build back the same square footage that existed in the earlier building, these sites would produce no increase in density, although the utilization of the rebuilt space would likely be higher.

Other Possible Sites

To analyze other provisions of the Proposed Action, specifically the zoning map change and the expansion of the 1.0 FAR as-of-right Landmark Transfer, the City assessed a limited amount of development to occur in those areas that could take advantage of these changes, commensurate with recent development patterns. The RWCDS identifies five projected development sites would be affected by the Proposed Action in the Grand Central Subarea by a change in overall development size with the 1.0 FAR transfer, with the increase in some cases accompanied by a change in use.

Summary

In total, 39 development sites (19 projected and 20 potential) have been identified in the rezoning area. Figure 5 shows these projected and potential development sites, and Tables A1-1 and A1-2 in Appendix A identify the uses expected to occur on each of those sites under future No-Action and future With-Action conditions. Table 2 below provides a summary of the RWCDS for projected development sites.

The EIS will assess both density-related and site specific potential impacts from development on all projected development sites. Density-related impacts are dependent on the amount and type of development projected on a site and the resulting impacts on traffic, air quality, community facilities, and open space.

Site specific impacts relate to individual site conditions and are not dependent on the density of projected development. Site specific impacts include potential noise impacts from development, effects on historic resources, and the possible presence of hazardous materials. Development is not anticipated on the potential development sites within the foreseeable future; therefore, these sites have not been included in the density-related impact assessments. However, a number of potential development sites could be developed under the Proposed Action in lieu of one or more of the projected development sites in accommodating the development anticipated during the foreseeable future as the result of the Proposed Action. The potential development sites are therefore addressed in the EIS for site-specific effects in order to ensure a conservative analysis.

The Future Without the Proposed Action (No-Action Condition)

In the future without the Proposed Action (No-Action), given the existing zoning and land use trends in the area, it is anticipated that the rezoning area would experience limited overall growth over the analysis period, most of it being in non-office uses including hotels and residential buildings .

Additionally, as office space in the area becomes less economically viable, it is possible that a number of existing office buildings would convert to other uses, predominantly residential. It is not possible to identify specifically which buildings might experience conversion, but achievable office rents, greater age, small floorplate size, relatively low floor-to-ceiling heights, and a larger number of facades with windows will all influence property owners' decisions to convert. Other portions of development sites would remain in their current, predominantly office uses, but would likely be of lower quality as the overall area would become less desirable as an office district. When coupled with the predominantly, non-office development expected in East Midtown, these conversions would lead to there being less office space in the future than the area has today.

Figure 5 - Projected and Potential Development Sites

Projected Site
Potential Site
Office Construction
Hotel Construction
Residential Construction

East Midtown Rezoning and Related Actions

As shown in Table 2 below, it is anticipated that, in the future without the Proposed Action, there would be a total of approximately 6.5 million gsf of office space, 0.5 million gsf of retail, 2.0 million gsf of hotel space, and 776 residential units on the 19 projected development sites. Qualitatively, this office space is expected to be of lesser quality than the office space in the With-Action Condition since much of it is aging and would have smaller floorplate sizes and relatively low floor-to-ceiling height than new construction.

The Future With the Proposed Action (With-Action Condition)

In the future with the Proposed Action, new commercial development is expected to occur in the rezoning area on Qualifying Sites, particularly concentrated around Grand Central Terminal and along Park Avenue.

Development under the No-Action condition on the sites which do not meet the Qualifying Site criteria (described as Other Possible Sites above) will be considered in the With-Action condition with slight modification since sites in the Grand Central Subarea would be able to utilize the 1.0 FAR as-of-right landmark transfer, increasing their developed FAR. Also, because the overall area would contain new office development that maintains the area as a premier office district, it is expected that some of this development would change from residential to hotel use. Additionally, a limited number of existing buildings would utilize the provisions for non-complying buildings and construct replacement office space that would be of newer and higher quality than the existing buildings.

The total development expected to occur on the 19 projected development sites under the With-Action conditions would consist of approximately 10.3 million gross square feet of office space, 0.65 million gsf of retail, 2.1 million gsf of hotel, and approximately 208 dwelling units. The projected incremental (net) change between the No-Action and With-Action conditions that would result from the Proposed Action would be an increase of approximately 3.8 million gsf of office space, 0.1 million gsf of retail, 0.1 million gsf of hotel space, and a decrease of residential space (568 units). The total difference between the built square footage in the No Action and With Action conditions is approximately 4.4 million gsf. Qualitatively, this office space is expected to be of higher quality than the office space in the No-Action Condition since the new development would be more in keeping with current office trends – including higher floor-to-ceiling heights and larger floorplate sizes.

The projected development sites, with projected no-build and build development, are summarized in Table 2, and also presented in Appendix A.

A total of 20 sites were considered less likely to be developed within the foreseeable future, and were thus considered potential development sites (see Table A1-2 in Appendix A). The potential sites are deemed less likely to be developed because they do not meet the criteria noted above. However, as discussed above, the analysis recognizes that a number of potential sites could be developed under the Proposed Action in lieu of one or more of the projected development sites in accommodating the development anticipated in the RWCDS. The potential sites are therefore also analyzed in the EIS for site-specific effects.

As such, the EIS will analyze the projected developments for all technical areas of concern and also evaluate the effects of the potential developments for site-specific effects such as archaeology, shadows, hazardous materials, stationary air quality, and noise.

TABLE 2
RWCDS and Population Summary for Projected Development Sites

Use	Existing Conditions (GSF)	Future No-Action Condition (GSF)	Future with Action Condition (GSF)	No-Action to With-Action Increment (GSF)
Office	6,617,617	6,519,633	10,340,972	3,821,339
Retail	469,964	529,328	648,990	119,662
Hotel	1,750,258	2,010,947	2,134,234	123,286
Hotel Rooms	*2,693*	*3,094*	*3,285*	*190*
Residential	10,725	772,705	207,029	(565,675)
Residential Units	*22*	*776*	*208*	*(568)*
Parking	113,940	29,400	140,200	110,800
Parking Spaces	*570*	*147*	*701*	*554*
POPULATION/EMPLOYMENT (1)	**Existing Conditions (GSF)**	**Future No-Action Condition (GSF)**	**Future with Action Condition (GSF)**	**No-Action to With-Action Increment**
Residents	35	1,234	331	(903)
Workers	28,901	28,860	44,563	15,703

(1) Assumes 1.59 persons per residential unit (based on 2010 census data for rezoning area), 200 SF per parking space, 650 SF per hotel room, 1 employee per 250 SF of office, 3 employees per 1000 SF of retail, 1 employee per 2.67 hotel rooms, 1 employee per 25 residential unit, and 1 employee per 10,000 SF of parking floor area.

Public Improvement through the DIB

The DIB mechanism would generate funding for City-priority improvements to the pedestrian network, both above and below grade. The With-Action analysis will take the priority improvements to the Grand Central subway station and Vanderbilt Avenue into account.

Further, the DEIS will evaluate how and to what extent the priority DIB-funded public improvements in Grand Central Subway Station avoid pedestrian and transit impacts resulting from the development. This analysis approach will provide the decision-makers with important information concerning the benefits of the improvements, and allow for adjustments to improve their use as project components related to the environment.

Conceptual Analysis of the Special Permit

The Proposed Action, as discussed above, would include a provision for a special permit that would allow an increase in the maximum FAR above that permitted as-of-right in the Grand Central Core (24.0) up to 30.0, and an increase in the maximum FAR above that permitted as-of-right along the Park Avenue frontage (21.6) up to 24.0. Because it is not possible to predict whether a Special Permit would be pursued on any one site in the future, the RWCDS does not include specific development sites that would achieve the higher maximum FAR above that permitted as-of-right under the With-Action condition. Instead, a conceptual analysis will be provided to generically assess the potential environmental impacts that could result from development at higher FARs pursuant to the Special Permit. The conceptual analysis will consider the potential environmental effects of the use of this new special permit, and include a comparison of those effects with those found under the RWCDS for the Proposed Action.

Figure 6A – Illustrative View of Improvements to Vanderbilt Avenue looking north from East 42nd Street

Figure 6B – Illustrative view of Improvements to Vanderbilt Avenue looking north from East 44th Street

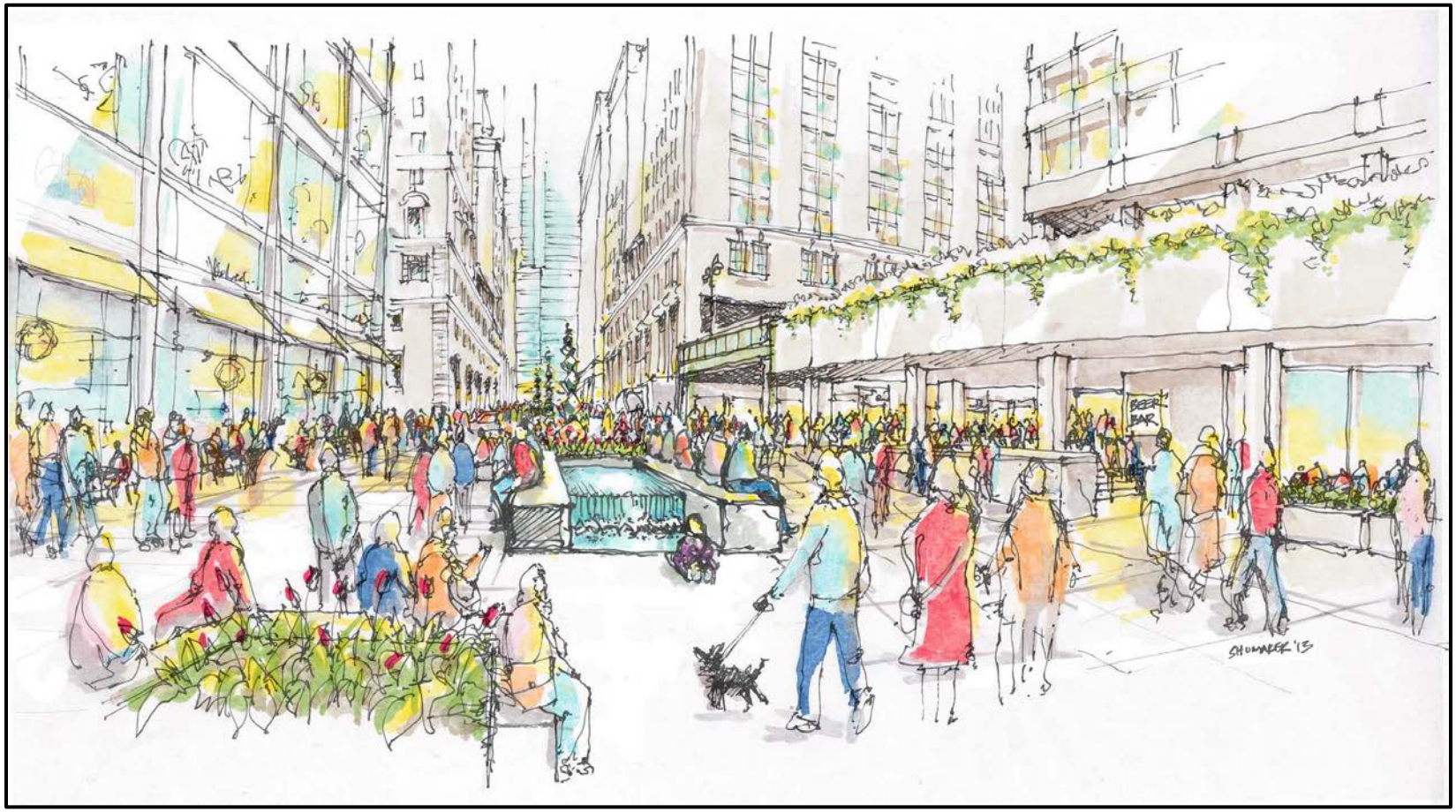

Figure 6C – Illustrative view of Improvements to Vanderbilt Avenue looking north from East 45th Street

E. PROPOSED SCOPE OF WORK FOR THE EIS

As the Proposed Action would affect various areas of environmental concern and has been found to have the potential to result in significant adverse impacts, an EIS will be prepared in conformance with all applicable laws and regulations, including SEQRA (Article 8 of the New York State Environmental Conservation Law) and its implementing regulations found at 6 NYCRR Part 617, New York City Executive Order No. 91 of 1977, as amended, and the Rules of Procedure for CEQR, found at Title 62, Chapter 5 of the Rules of the City of New York.

The EIS, following the guidance of the *CEQR Technical Manual*, will contain:

- A description of the Proposed Action and its environmental setting;
- A statement of the environmental impacts of the Proposed Action, including its short- and long-term effects and typical associated environmental effects;
- An identification of any adverse environmental effects that cannot be avoided if the Proposed Action is implemented;
- A discussion of reasonable alternatives to the Proposed Action;
- An identification of irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented; and
- A description of mitigation proposed to eliminate or minimize any significant adverse environmental impacts.

The EIS will analyze the projected development sites for technical areas of concern and also evaluate the effects of the potential development sites for site-specific effects such as archaeology, shadows, hazardous materials, air quality, and noise. Based on the EAS prepared for the Proposed Action, there would be no significant adverse impacts on Community Facilities and Services, and Natural Resources, due to the Proposed Action and, as the result, analysis for these environmental areas would not be required in the EIS. The specific technical areas to be included in the EIS, as well as their respective tasks and methodologies, are described below.

Task 1. Project Description

The first chapter of the EIS introduces the reader to the Proposed Action and sets the context in which to assess impacts. The chapter will contain a description of the Proposed Action; its location; the background of the project; a statement of the purpose and need; key planning considerations that have shaped the current proposal; and discussion of the approvals required, procedures to be followed, and the role of the EIS in the process. This chapter is the key to understanding the Proposed Action and its impact, and will provide the public and decision-makers with a base from which to evaluate the Proposed Action.

In addition, the project description chapter will present the rationale for the actions being proposed and summarize the reasonable worst-case development scenario for analysis in the EIS. The section on approval procedures will explain the Uniform Land Use Review Procedure (ULURP), zoning text amendment and City map amendment processes, their timing, and hearings before the Community Board, the Borough President's Office, the New York City Planning Commission (CPC), and the New York

City Council. The role of the EIS as a full-disclosure document to aid in decision-making will be identified and its relationship to the discretionary approvals and the public hearings described.

Task 2. Land Use, Zoning, and Public Policy

A land use analysis characterizes the uses and development trends in the area that may be affected by a proposed action, and determines whether a proposed action is either compatible with those conditions or whether it may affect them. Similarly, the analysis considers the action's compliance with, and effect on, the area's zoning and other applicable public policies. This chapter will analyze the potential impacts of the Proposed Action on land use, zoning, and public policy, pursuant to the methodologies presented in the *CEQR Technical Manual*. The primary land use study area will consist of the rezoning area, where the potential effects of the Proposed Action will be directly experienced. The secondary land use study area will include neighboring areas within a ¼-mile distance from the rezoning area, which could experience indirect impacts. Subtasks will include the following:

- Provide a brief development history of the primary (i.e., rezoning area) and secondary study areas.
- Provide a description of land use, zoning, and public policy in the study areas discussed above. A more detailed analysis will be conducted for the rezoning area. This task will be closely coordinated with Task 3, "Socioeconomic Conditions," which will provide an analysis of the Proposed Action's effect on businesses and employment within the rezoning area. Recent trends in the rezoning area will be noted. Public policies that apply to the study area will be described, including the City's sustainability/PlaNYC policies. The directly affected area is not located within the boundaries of the City's Coastal Zone. Therefore, an assessment of the Proposed Action's consistency with the City's Waterfront Revitalization Program is not required.
- Based on field surveys and prior studies, identify, describe, and graphically portray predominant land use patterns for the study areas. Describe recent land use trends in the study areas and identify major factors influencing land use trends.
- Describe and map existing zoning and recent zoning actions in the study areas.
- Prepare a list of future development projects in the study areas that are expected to be constructed by the 2033 analysis year and may influence future land use trends. Also, identify pending zoning actions or other public policy actions that could affect land use patterns and trends in the study areas. Based on these planned projects and initiatives, assess future land use and zoning conditions without the Proposed Action (No-Action condition).
- Describe proposed zoning changes, and the potential land use changes based on the Proposed Action's RWCDS (With-Action condition).
- Discuss the Proposed Action's potential effects related to issues of compatibility with surrounding land use, the consistency with zoning and other public policies, and the effect of the Proposed Action on ongoing development trends and conditions in the study areas.

Task 3. Socioeconomic Conditions

The socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic

investment in a way that changes the socioeconomic character of the area. This chapter will assess the Proposed Action's potential effects on the socioeconomic character of the study area. Pursuant to Section 310 of Chapter 5 of the *CEQR Technical Manual,* the socioeconomic study area boundaries will be similar to those of the land use study area. Therefore, the study area for this analysis would include the areas within a ¼-mile boundary from the rezoning area.

As the Proposed Action would affect a large area comprising approximately 70 blocks of East Midtown, it may be appropriate to create subareas for analysis if the action affects different portions of the study area in different ways. For example, if an action concentrates development opportunities in one portion of the study area, and would result in higher increases in population in that portion, it may be appropriate to analyze the Subarea most likely to be affected by the concentrated development. Distinct sub-areas will be based on recognizable neighborhoods or communities in an effort to disclose whether the Proposed Action may have disparate effects on distinct populations that would otherwise be masked or overlooked within the larger study area.

Pursuant to the *CEQR Technical Manual*, the five principal issues of concern with respect to socioeconomic conditions are whether a proposed action would result in significant adverse impacts due to: (1) direct residential displacement; (2) direct business and institutional displacement; (3) indirect residential displacement; (4) indirect business and institutional displacement; and (5) adverse effects on specific industries. As detailed below, the Proposed Action warrants an assessment of socioeconomic conditions with respect to the principal issues of concern related to businesses and institutions, but not to those related to residential displacement (direct or indirect). According to the *CEQR Technical Manual*, direct displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic characteristics of a neighborhood. No direct residential displacement would occur under the Proposed Action, and, therefore, the Proposed Action would not result in significant adverse impacts due to direct residential displacement. As to indirect residential displacement, the Proposed Action would forestall conversion of office to residential space resulting in a net reduction of residential units compared to No-Action conditions, and would therefore not introduce a trend that could potentially result in changing socioeconomic conditions for the residents within the rezoning area. Therefore, an assessment of indirect residential displacement would not be warranted for the Proposed Action.

In conformance with the *CEQR Technical Manual* guidelines, the assessment of the three remaining areas of concern will begin with a preliminary assessment to determine whether a detailed analysis is necessary. Detailed analyses will be conducted for those areas in which the preliminary assessment cannot definitively rule out the potential for significant adverse impacts. The detailed assessments will be framed in the context of existing conditions and evaluations of the future No-Action and With-Action conditions in 2033, including any population and employment changes anticipated to take place by the analysis year of the Proposed Action.

Direct Business Displacement

For direct business displacement, the type and extent of businesses and workers to be directly displaced by the RWCDS associated with the Proposed Action will be disclosed. According to the *CEQR Technical Manual*, if a project would directly displace more than 100 employees, a preliminary assessment of direct business displacement is appropriate. It is expected that the Proposed Action would exceed the *CEQR Technical Manual* analysis threshold of 100 displaced employees, and therefore, a preliminary assessment pursuant to CEQR guidelines will be provided in the EIS.

The analysis of direct business and institutional displacement will estimate the number of employees and the number and types of businesses that would be displaced by the Proposed Action, and characterize the economic profile of the study area using current available employment and business data from the New York State Department of Labor or U.S. Census Bureau. This information will be used in addressing the following CEQR criteria for determining the potential for significant adverse impacts: (1) whether the businesses to be displaced provide products or services essential to the local economy that would no longer be available in its "trade area" to local residents or businesses due to the difficulty of either relocating the businesses or establishing new, comparable businesses; and (2) whether a category of businesses is the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it.

Indirect Business Displacement

The indirect business displacement analysis is to determine whether the Proposed Action may introduce trends that make it difficult for those businesses that provide products or services essential to the local economy or those subject to regulations or publicly adopted plans to preserve, enhance, or otherwise protect them to remain in the area. The purpose of the preliminary assessment is to determine whether a proposed action has potential to introduce such a trend. The Proposed Action would introduce over 200,000 square feet of new commercial uses to the area, which is the CEQR threshold for "substantial" new development warranting a preliminary assessment. The preliminary assessment will entail the following subtasks:

- Identify and characterize conditions and trends in employment and businesses within the study area. This analysis will be based on field surveys, employment data from the New York State Department of Labor and/or Census, and information from real estate brokers.
- Determine whether the Proposed Action would introduce enough of a new economic activity to alter existing economic patterns.
- Determine whether the Proposed Action would add to the concentration of a particular sector of the local economy enough to alter or accelerate an ongoing trend to modify existing economic patterns.
- Determine whether the Proposed Action would directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses.
- Determine whether the Proposed Action would directly or indirect displace residents, workers, or visitors who form the customer base of existing businesses in the area.

If the preliminary assessment determines that the Proposed Action could introduce trends that make it difficult for businesses that are essential to the local economy to remain in the area, a detailed analysis will be conducted. The detailed analysis would follow the *CEQR Technical Manual* guidelines to determine whether the Proposed Action would increase property values and thus increase rents for a potentially vulnerable category of business, and whether relocation opportunities exist for those businesses.

Adverse Effects on Specific Industries

The analyses of direct business displacement will provide sufficient information to determine whether the Proposed Action could have any adverse effects on a specific industry, compared with the future without the Proposed Action. The analysis will determine:

- Whether the Proposed Action would significantly affect business conditions in any industry or category of businesses within or outside the study area.
- Whether the Proposed Action would substantially reduce employment or impair viability in a specific industry or category of businesses.

Task 4. Open Space

Open space is defined as publicly or privately owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. An analysis of open space is conducted to determine whether or not a proposed action would have direct effects resulting from the elimination or alteration of open space, and/or an indirect effects resulting from overtaxing available open space.

The analysis will assess the potential direct and indirect effects of the Proposed Action. The Proposed Action's directly affected area is not located within an underserved or well-served area and, as such, the threshold for when an open space assessment is required is when an action would generate more than 200 residents and 500 employees. The Proposed Action would generate more than 500 employees; therefore, a non-residential open space assessment would be warranted. The increment between the future without the Proposed Action and the future with the Proposed Action would be a net decrease of approximately 903 residents within the directly affected area. Therefore, a residential open space assessment is not warranted.

As the Proposed Action would introduce workers in excess of the CEQR threshold, the open space analysis will assess open space resources and calculate open space ratios within a non-residential (¼-mile radius) study area. As recommended in the *CEQR Technical Manual*, the study area comprises all census tracts that have 50 percent of their area located within a ¼- mile radius of the rezoning area. The detailed open space analysis in the EIS will include the following sub-tasks.

- Determine characteristics of the open space user group. The number of workers and other daytime users in the study area will be calculated based on reverse journey-to-work census data and other appropriate data sources. If warranted for the analysis, the number of residents in the study area will be based on 2010 census data compiled for census tracts comprising the open space study area.
- Inventory existing open spaces within the open space study area. The condition and usage of existing facilities will be described based on the inventory and field visits. Jurisdiction, features, user groups, quality/condition, factors affecting usage, hours of operation, and access will be included in the description of facilities. Acreage of these facilities will be determined and total study area acreage will be calculated. The percentage of active and passive open space will also be calculated. A map showing the locations of open spaces keyed to the inventory will be provided.
- Based on the inventory of facilities and study area population, open space ratios will be calculated for the daytime populations, and compared to City guidelines to assess adequacy. As per the *CEQR Technical Manual*, open space ratios are expressed as the amount of open space acreage per 1,000 users.
- Assess expected changes in future levels of open space supply and demand in the 2033 analysis year, based on other planned development projects within the open space study area. Any new open space or recreational facilities that are anticipated to be operational by the analysis year will

also be accounted for. Open space ratios will be calculated for the future No-Action condition and compared with existing ratios to determine changes in future levels of adequacy.

- Assess the effects on open space supply and demand resulting from increased worker populations added by the RWCDS. The assessment of the Proposed Action's impacts will be based on a comparison of open space ratios for the future No-Action versus future With-Action conditions. According to the *CEQR Technical Manual*, projects that may result in significant quantitative impacts on open space resources, or projects that would exacerbate an existing underserved area in relation to open space, are typically further assessed in a qualitative assessment to determine the overall significance of the impact. Therefore, a qualitative assessment will be prepared if warranted.

Task 5. Shadows

A shadows analysis assesses whether new structures resulting from a proposed action would cast shadows on sunlight sensitive publicly accessible resources or other resources of concern such as natural resources, and to assess the significance of their impact. This chapter will examine the Proposed Action's potential for significant and adverse shadow impacts pursuant to *CEQR Technical Manual* criteria. Generally, the potential for shadow impacts exists if an action would result in new structures, or additions to buildings resulting in structures, over 50 feet in height that could cast shadows on important natural features, publicly accessible open space, or on historic features that are dependent on sunlight. In addition, new construction or building additions resulting in incremental height changes of less than 50 feet can also potentially result in shadow impacts if they are located adjacent to, or across the street from, a sunlight-sensitive resource.

The Proposed Action would permit development of buildings of greater than 50 feet in height, and therefore has the potential to result in shadow impacts in the areas to be rezoned. The EIS will assess the RWCDS on a site-specific basis for potential shadowing effects of new developments or enlargements at both the projected and potential development sites on sunlight-sensitive features, and disclose the range of shadow impacts that are likely to result from the Proposed Action. The shadows analysis in the EIS will include the following sub-tasks:

- The EIS will provide a preliminary shadows screening assessment to ascertain whether the projected and potential developments' shadows may potentially reach any sunlight-sensitive features at any time of year.
  - Pursuant to CEQR, a Tier 1 Screening Assessment will be conducted to determine the longest shadow study area for the projected and potential developments, which is defined as 4.3 times the height of any new structures including building enlargements (the longest shadow that would occur on December 21, the winter solstice). A base map that illustrates the locations of the projected and potential developments in relation to the sunlight-sensitive resources will be developed.
  - A Tier 2 Screening Assessment will be conducted if any portion of a sunlight-sensitive resource lies within the longest shadow study area. The Tier 2 assessment will determine the triangular area that cannot be shaded by the projected and potential developments, which in New York City is the area that lies between -108 and +108 degrees from true north.
  - If any portion of a sunlight-sensitive resource is within the area that could be potentially shaded by the projected or potential developments, a Tier 3 Screening Assessment will be conducted. The Tier 3 Screening Assessment will determine if shadows resulting from the projected and

potential developments can reach a sunlight-sensitive feature through the use of three-dimensional computer modeling software with the capacity to accurately calculate shadow patterns. The model will include a three-dimensional representation of the sunlight-sensitive resource(s), a three dimensional representation of the projected and potential development sites identified in the RWCDS, and a three-dimensional representation of the topographical information within the area being analyzed. Shadow analyses will be conducted for four representative days of the year to determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the Proposed Action.

- If the screening analysis does not rule out the possibility that Proposed Action-generated shadows would reach any sunlight-sensitive features, a detailed analysis of potential shadow impacts on sunlight-sensitive features of publicly-accessible open spaces or historic resources resulting from new construction or enlargement identified in the RWCDS (both projected and potential development sites) will be provided in the EIS. The detailed shadow analysis will establish a baseline condition (No-Action) which will be compared to the future condition resulting from the Proposed Action (With-Action) to illustrate the shadows cast by existing or future buildings and distinguish the additional (incremental) shadow cast by the projected and potential developments. The detailed analysis will include the following tasks:
  - Document the analysis with graphics comparing shadows resulting from the No-Action condition with shadows resulting from the Proposed Action, with incremental shadow highlighted in a contrasting color.
  - Provide a summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource.
  - Assess the significance of any shadow impacts on sunlight-sensitive features.

Task 6. Historic and Cultural Resources

The *CEQR Technical Manual* identifies historic resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes LPC-designated landmarks; properties calendared for consideration as landmarks by LPC; properties listed on the State/National Register of Historic Places (S/NR) or contained within a district listed on or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks; and properties not identified by one of the programs listed above, but that meet their eligibility requirements. Because the Proposed Action would induce development that could result in new in-ground disturbance and construction of a building type(s) that could compromise the historic context of the affected area, it has the potential to result in impacts to archaeological and architectural resources.

Impacts on historic resources are considered on the affected sites and in the area surrounding identified development sites. The historic resources study area is therefore defined as the directly affected area plus a 400-foot radius, as per the guidance provided in the *CEQR Technical Manual*. Archaeological resources are considered only in those areas where new in-ground disturbance is likely to occur; these are limited to sites that may be developed in the rezoning area, and include projected as well as potential development sites that would entail additional in-ground disturbance compared to No-Action conditions. This chapter will include an overview of the study area's history and land development. Subtasks will include:

- Research and describe history of land use.
- In consultation with LPC, identify those areas thought to be potentially archaeologically sensitive.
- Identify projected and potential development sites where new in-ground disturbance is expected to occur as a result of the Proposed Action.
- If there are projected or potential development sites identified as archaeologically sensitive, prepare a Phase IA Archaeological Documentary Report.
  - The Phase 1A will document the site history both horizontally and vertically, its development and uses, and the potential for the site to host significant archaeological resources. The EIS will summarize the results of the Phase IA analyses. The full Phase IA report will be submitted to LPC for review.
- In consultation with LPC, identify, map, and describe known and eligible architectural resources.
- In coordination with the land use task, assess probable impacts of development resulting from the Proposed Action on architectural resources. The assessment would address the following:
  - Would there be a physical change to the property?
  - Would there be a physical change to its setting, such as context or visual prominence (also known as indirect impacts)?
  - If so, is the change likely to alter or eliminate the significant characteristics of the resource that make it important?

Task 7. Urban Design and Visual Resources

Urban design is the totality of components that may affect a pedestrian's experience of public space. An assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. When an action would potentially obstruct view corridors, compete with icons in the skyline, or would result in substantial alterations to the streetscape of the neighborhood by noticeably changing the scale of buildings, a more detailed analysis of urban design and visual resources would be appropriate.

As the Proposed Action would rezone some areas to allow higher density and create new zoning districts to be mapped with the study area, a preliminary assessment of urban design and visual resources will be provided in the EIS. In addition, an assessment of whether a pedestrian wind analysis would be warranted will be provided in the EIS as channelized wind pressure from between tall buildings and/or parallel tall buildings may cause winds that jeopardize pedestrian safety. If an analysis is found to be warranted, it will be conducted in accordance with *CEQR Technical Manual* guidelines.

As defined in the *CEQR Technical Manual*, the urban design study area will be the same as that used for the land use analysis (delineated by a ¼-mile radius from the proposed rezoning area boundary). For visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified. The preliminary assessment will be based on *CEQR Technical Manual* methodologies and include the following:

- Based on field visits, describe the urban design and visual resources of the directly affected area and adjacent study area, using text, photographs and other graphic material as necessary to identify critical features, use, bulk, form, and scale.
- Discuss specific relationships between the directly affected area and adjacent areas regarding light, air, and views.
- In coordination with the land use task, describe the changes expected in the urban design and visual character of the study area due to known development projects in the future without the Proposed Action (No-Action condition).
- Describe the potential changes that could occur in the urban design character of the study area as a result of the Proposed Action (With-Action condition).
  - For the projected and potential development sites, the analysis will focus on general building types for the sites that are assumed for development as well as elements such as street wall height, setback, and building envelope. Photographs and/or other graphic material will be utilized, where applicable, to assess the potential effects on urban design and visual resources, including views of/to resources of visual or historic significance (landmark structures, historic districts, parks, etc.).
- A detailed analysis will be prepared, if warranted, based on the preliminary assessment. As described in the *CEQR Technical Manual*, examples of actions that may require a detailed analysis are those that would make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings, potentially obstruct view corridors, or compete with icons in the skyline.
  - The detailed analysis would describe, in both narrative and graphical form, the projected and potential development sites and the urban design and visual resources of the surrounding area.
  - The analysis would describe, in both narrative and graphical form, the potential changes that could occur to urban design and visual resources in the future with the proposed action condition, in comparison to the future without the proposed action condition, focusing on the changes that could negatively affect a pedestrian's experience of the area.

As noted above, a screening assessment for the Proposed Action on pedestrian wind conditions will be conducted as part of the EIS. Construction of large buildings at locations that experience high wind conditions may result in an exacerbation of wind conditions due to 'channelization' or 'downwash' effects that may affect pedestrian safety. Factors that may be considered in making this determination include, but are not necessarily limited to: locations that could experience high wind conditions, such as along the waterfront, or other locations where winds from the waterfront are not attenuated by buildings or natural features; size, orientation, and number of buildings that may be constructed as the result of the Proposed Action; and, the surrounding pedestrian context of the affected area. A detailed pedestrian wind analysis will be prepared if warranted as a result of the screening assessment.

Task 8. Hazardous Materials

A hazardous materials assessment determines whether a proposed action may increase the exposure of people or the environment to hazardous materials, and, if so, whether this increased exposure would result in potential significant public health or environmental impacts. The potential for significant impacts related to hazardous materials can occur when: a) elevated levels of hazardous materials exist on a site and the project would increase pathways to human or environmental exposure; b) a project

would introduce new activities or processes using hazardous materials and the risk of human or environmental exposure is increased; or c) the project would introduce a population to potential human or environmental exposure from off-site sources.

The hazardous materials assessment will determine which, if any, of the Proposed Action's projected and potential development sites may have been adversely affected by present or historical uses at or adjacent to the sites. As per the *CEQR Technical Manual*, for some proposed projects (e.g., area-wide rezonings), portions of the typical scope for a Phase I Environmental Site Assessment, such as site inspections, may not be possible. The Proposed Action is an area-wide rezoning, and none of the identified projected and potential development sites are in City ownership. As such, pursuant to the *CEQR Technical Manual*, Section 11-15 (Environmental Requirements) of the Zoning Resolution of the City of New York, and Chapter 24 of Title 15 of the Rules of the City of New York governing the placement of (E) designations[2], a preliminary screening assessment will be conducted for the projected and potential development sites to determine which sites warrant an (E) designation.

The hazardous materials assessment will include the following tasks:

- Review existing information sources such as Sanborn Fire Insurance Maps and City directories for the projected and potential development sites, adjacent properties, and properties within 400 feet of each projected and potential development site, to develop a profile on the historical uses of properties.
- In conjunction with the historic resources assessment, identify projected and potential development sites where new in-ground disturbance is expected to occur as a result of the Proposed Action.
- Review and evaluate relevant existing data to assess the potential for environmental concerns at the subject sites.
- A summary of findings and conclusions will be prepared for inclusion in the EIS to determine where (E) designations may be appropriate.
  - Coordinate with the New York City Department of Environmental Protection (DEP) to confirm the appropriateness of placing (E) designations on the Proposed Action's development sites.

Task 9. Water and Sewer Infrastructure

A water and sewer infrastructure assessment determines whether a proposed action may adversely affect the City's water distribution or sewer system and, if so, assess the effects of such actions to determine whether their impact is significant. The *CEQR Technical Manual* outlines thresholds for analysis of an action's water demand and its generation of wastewater and stormwater. For the Proposed Action, an analysis of water supply is warranted as the RWCDS associated with the Proposed Action is expected to result in a demand of more than one million gallons per day (gpd) compared to No-Action conditions. A preliminary assessment of the Proposed Action's effects on wastewater and stormwater infrastructure is also warranted because the RWCDS for the Proposed Action would result in the development of more than 250,000 gsf of commercial space in Manhattan. Therefore, this chapter

[2] As described in the *CEQR Technical Manual*, a hazardous materials (E) designation is an institutional control that can be placed as a result of the CEQR review of a zoning map or text amendment or action pursuant to the Zoning Resolution. It provides a mechanism to ensure that testing for and mitigation and/or remediation of hazardous materials, if necessary, are completed prior to, or as part of, future development of an affected site, thereby eliminating the potential for a hazardous materials impact

will analyze the Proposed Action's potential effects on the water, wastewater and stormwater infrastructure. The water and sewer infrastructure analysis will consider the potential for significant adverse impacts resulting from the RWCDS for the Proposed Action. DEP will be consulted during the preparation of the assessment.

Water Supply

- The existing water distribution system serving the rezoning area will be described based on information obtained from the DEP's Bureau of Water Supply and Wastewater Collection.
- Water demand generated by the projected development sites identified in the RWCDS will be projected.
- The effects of the incremental demand on the City's water supply system will be assessed to determine if there would be impacts to water supply or pressure. The incremental water demand will be the difference between the water demand of the projected development sites in the With-Action condition and the demand in the No-Action condition.

Wastewater and Stormwater Infrastructure

The Proposed Action's directly affected area is mostly located within the service area of the Newtown Creek Wastewater Treatment Plant (WWTP) along with a portion of North River WWTP service area. As such, the analysis will be conducted separately for each WWTP service area.

- Establish an appropriate study area for the assessment in accordance with the guidance of the *CEQR Technical Manual* and in consultation with DEP.
- The existing stormwater drainage system and surfaces (pervious or impervious) on the projected development sites will be described, and the amount of stormwater generated on those sites will be estimated using DEP's volume calculation worksheet. Drainage areas with direct discharges and overland flow will be presented.
- The existing sewer system serving the rezoning area will be described based on records obtained from DEP. Records obtained will include sewer network maps, drainage plans, capacity information for sewer infrastructure components, and other information, as warranted. The existing flows to the Newtown Creek and North River WWTPs that serve the directed affected area will be obtained for the latest available 12-month period, and the average dry weather monthly flow will be presented.
- Any changes to the stormwater drainage system and surface area expected in the future without the Proposed Action will be described. Any changes to the sewer system that are expected to occur in the future without the Proposed Action will be described based on information provided by DEP.
- Assess future stormwater generation from the projected development sites and assess the Proposed Action's potential to create impacts. Changes to the projected development sites' proposed surface area (pervious or impervious) will be described, and runoff coefficients and runoff for each surface type/area will be presented. Volume and peak discharge rates of stormwater from the sites will be determined based on the DEP volume calculation worksheet.
- Sanitary sewage generation for the projected development sites identified in the RWCDS will be estimated. The effects of the incremental demand on the system will be assessed to determine if there will be any impact on operations of the two WWTPs.

- Based on the assessment of future stormwater and wastewater generation, the change in flows and volumes to the combined sewer system and/or waterbodies due to the Proposed Action will be determined.

A more detailed assessment may be required if increased sanitary or stormwater discharges from the Proposed Action are predicted to affect the capacity of the existing sewer system, exacerbate Combined Sewer Overflow (CSO) volumes/frequencies or contribute greater pollutant loadings in stormwater discharged to receiving water bodies. The scope of a more detailed analysis, if necessary, will be developed based on conclusions from the preliminary infrastructure assessment and coordination with DEP.

Task 10. Solid Waste and Sanitation Services

A solid waste assessment determines whether an action has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan or with state policy related to the City's integrated solid waste management system. The Proposed Action would induce new development that would require sanitation services. According to the *CEQR Technical Manual*, if a project's generation of solid waste in the With-Action condition would not exceed 50 tons per week, it may be assumed that there would be sufficient public or private carting and transfer station capacity in the metropolitan area to absorb the increment, and further analysis generally would not be required. As the Proposed Action is expected to result in a net increase of more than 50 tons per week, compared to No-Action conditions, an assessment of solid waste and sanitation services is warranted. This chapter will provide an estimate of the additional solid waste expected to be generated by the projected developments and assess its effects on the City's solid waste and sanitation services. This assessment will:

- Describe existing and future New York City solid waste disposal practices.
- Estimate solid waste generation under existing conditions and in the Future No-Action condition.
- Forecast solid waste generation by the projected developments induced by the Proposed Action based on CEQR guidelines.
- Assess the impacts of the Proposed Action's solid waste generation (projected developments) on the City's collection needs and disposal capacity. The Proposed Action's consistency with the City's Solid Waste Management Plan will also be assessed.

Task 11. Energy

According to the *CEQR Technical Manual*, an EIS must include a discussion of the effects of the proposed action on the use and conservation of energy, if applicable and significant. In most cases, an action does not need a detailed energy assessment, but its operational energy is projected. A detailed energy assessment is limited to actions that may significantly affect the transmission or generation of energy. For other actions, in lieu of a detailed assessment, the *CEQR Technical Manual* recommends disclosure of the estimated amount of energy that would be consumed annually as a result of the day-to-day operation of the buildings and uses resulting from an action.

Although significant adverse energy impacts are not anticipated for the Proposed Action, the EIS will disclose the projected amount of energy consumption during long-term operation resulting from the Proposed Action. The projected amount of energy consumption during long-term operation will be

estimated based on the average annual whole-building energy use rates for New York City (per Table 15-1 of the *CEQR Technical Manual*). The assessment will also describe any planned "green measures" to reduce energy consumption that may be realized with the Proposed Action.

Task 12. Transportation

The objective of a transportation analysis is to determine whether a proposed action may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists and vehicles), on- and off-street parking, or goods movement. The Proposed Action is expected to induce primarily new commercial (office, retail, and hotel) development plus a relatively small amount of residential development which would generate additional vehicular travel as well as additional subway and bus riders and pedestrian traffic. These new trips have the potential to affect the area's transportation systems. Therefore, the transportation analyses will be a critical focus of the EIS.

A Transportation Planning Factors (TPF) memorandum has been prepared and is enclosed as Appendix B to this Final Scope. The TPF memo summarizes the transportation planning factors to be used for the analyses of traffic, parking, transit and pedestrian conditions for the EIS, including trip generation rates, temporal distributions, modal splits, plus estimates of the projected travel demand of the proposed action for the weekday AM, midday and PM peak hours. As discussed in the TPF memo, the Proposed Action is anticipated to generate a net increase of 8,345, 12,377 and 10,647 person trips in the AM, midday and PM peak hours, respectively, primarily reflecting commuter trips in the AM and PM commuter peak hours and trips to local eateries and other retail establishments in the midday peak hour.

Traffic

The EIS will provide a detailed traffic analysis focusing on those peak hours and street network intersections where the highest concentrations of action-generated demand would occur. The peak hours for analysis standard for this area of Manhattan and found to suitable for the Proposed Action's detailed traffic analysis per the TPF memo are 8-9 AM, 12-1 PM and 5-6 PM.

Through coordination with New York City Department of Transportation (DOT), a traffic study area was selected to include the intersections most likely to be used by concentrations of project-generated vehicles traveling to and from the RWCDS projected development sites. As shown in Figure 2 of the TPF memo, the study area includes intersections adjacent to projected development sites and along major routes leading to and from the area, where incremental trips generated by the proposed rezoning would be most heavily concentrated. The study area also includes key intersections along corridors providing access to or from regional access routes such as the FDR Drive and Henry Hudson Parkway and river crossings such as the Ed Koch Queensboro Bridge, Lincoln Tunnel and Queens-Midtown Tunnel. In addition, locations where traffic would be rerouted due to the closure of segments of Vanderbilt Avenue to vehicular traffic will be included.

The following outlines the anticipated scope of work for conducting a detailed traffic impact analysis for the EIS:

- Conduct a count program for traffic analysis locations that includes a mix of automatic traffic recorder (ATR) machine counts and manual intersection turning movement counts, along with vehicle classification counts and travel time studies (speed runs) as support data for air quality and

noise analyses. The manual turning movement counts will be supplemented by nine days of automatic traffic recorder (ATR) counts, and vehicle classification counts that will be conducted on one weekday. The manual turning movement, vehicle classification counts and travel time studies will be conducted concurrently with the ATR counts. Where applicable, available information from recent studies in the vicinity of the study area will be compiled, including data from such agencies as DOT and DCP.

- Inventory physical data at each of the analysis intersections, including street widths, number of traffic lanes and lane widths, pavement markings, turn prohibitions, bicycle routes and parking regulations. Signal phasing and timing data for each signalized intersection included in the analysis will be obtained from DOT.
- Determine existing traffic operating characteristics at each analysis intersection, including capacities, volume-to-capacity (v/c) ratios, average vehicle delays, and levels of service (LOS) per traffic movement, per intersection approach, and per overall intersection. This analysis will be conducted using the 2000 Highway Capacity Manual (HCM) methodology with the latest approved Highway Capacity Software (HCS).
- Based on available sources, Census data and standard references including the *CEQR Technical Manual*, estimate the travel demand for projected development sites in the future without the Proposed Action (the No-Action condition), as well as the demand from other significant development sites planned in the vicinity of the study area by the 2033 analysis year. This will include daily and hourly person trips, and a modal distribution to estimate trips by auto, taxi, and other modes. A truck trip generation forecast will also be prepared based on data from the *CEQR Technical Manual* and previous studies conducted in this area of Manhattan. Mitigation measures accepted for all No-Action projects and other DOT initiatives will be included in the future No-Action network, as applicable.
- Compute the future 2033 No-Build traffic volumes based on an approved background traffic growth rate for the study area (0.25 percent per year for years one through five, and 0.125 percent for subsequent years) and demand from any other significant development projects expected to be completed in the future without the Proposed Action. Incorporate any planned changes to the roadway system anticipated by 2033, and determine the No-Action intersection v/c ratios, delays and levels of service.
- Based on available sources, Census data, and standard references including the *CEQR Technical Manual*, develop a travel demand forecast for projected development sites based on the net change in uses compared to the No-Action condition as defined in the RWCDS. Determine the net change in vehicle trips expected to be generated by projected development sites under the Proposed Action as described in the Transportation Planning Factors (TPF) technical memorandum and approved by DCP in consultation with DOT, assign that volume of traffic in each analysis period to the approach and departure routes likely to be used, and prepare traffic volume networks for the 2033 future with the Proposed Action condition for each analyzed peak hour. Determine the resulting v/c ratios, delays, and LOS at analyzed intersections for the With-Action condition, and identify significant adverse traffic impacts in accordance with *CEQR Technical Manual* criteria.

Transit

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, detailed transit analyses are generally not required if a Proposed Action is projected to result in fewer than 200 peak hour rail or bus transit trips. If a proposed

action would result in 50 or more bus trips being assigned to a single bus line (in one direction), or if it would result in an increase of 200 or more trips at a single subway station or on a single subway line, a detailed bus or subway analysis would be warranted. As stated in the TPF memo, the Proposed Action's RWCDS is expected to exceed those threshold levels for both subway trips and bus trips. Therefore, a detailed transit analyses is warranted.

Subway

There are a total of eight subway stations located in the rezoning area or within close proximity. Transit analyses typically focus on the weekday AM and PM commuter peak hours of 8-9 AM and 5-6 PM when overall demand on the subway and bus systems is usually highest. Assignments of trips to individual subway stations were prepared in cooperation with MTA's New York City Transit. Based on that information and as seen in the TPF memo, four subway stations/station complexes would have demand exceeding the 200-trip analysis threshold and require detailed analysis – 42nd St-Bryant Park/5th Avenue, 47-50 Streets-Rockefeller Center, 42nd Street-Grand Central, and Lexington Avenue-53rd Street/51st Street. The detailed transit analysis for the EIS will include the following subtasks:

- Analysis of subway station stairways and entrance control areas will be conducted at the affected stations in the weekday AM and PM peak hours.
- The analysis will be based on counts conducted at those control areas and/or pedestrian circulation elements that would be traversed by significant concentrations of project-generated trips.
- Conditions and volumes in the future without the Proposed Action will be determined using background growth rates obtained from the MTA Regional Transit Forecasting Model (RTFM)and accounting for any trips expected to be generated by No-Build developments. The RTFM also accounts for the effects of overall regional growth and MTA capital improvements anticipated to be completed by 2033, which include the Long Island Rail Road East Side Access, Second Avenue Subway (Phase 1), and No. 7 Subway Line Extension projects.
- Conditions and volumes in the future with the Proposed Action will be determined based on the assignment of project-generated subway trips.
- Any potential significant adverse impacts at station stairways and entrance control areas will be identified using *CEQR Technical Manual* impact criteria.

In addition, as the Proposed Action may potentially generate 200 or more new subway trips in one direction on one or more of the 13 subway routes serving the rezoning area, subway line haul conditions will be assessed in the EIS.

Bus

The area of the Proposed Action is served by approximately 15 New York City Transit local bus routes, and Select Bus Service on the 34th Street and Second Avenue corridors, that connect the area with other parts of Manhattan, as well as over 50 express bus routes connecting the area with New York City's outer boroughs and Westchester County.

According to the general thresholds used by the MTA and specified in the *CEQR Technical Manual*, a detailed analysis of bus conditions is generally not required if a Proposed Action is projected to result in fewer than 50 peak hour trips being assigned to a single bus line (in one direction). However, as noted in the TPF memo, the Proposed Action would exceed that threshold and given the volume of new demand, one or more of the local bus routes may potentially experience 50 or more new peak hour trips in one

direction; therefore, the EIS will therefore include a quantitative analysis of local bus conditions. For that analysis, trips will be assigned to each route based on proximity to individual projected development sites and current ridership patterns.

Other Public Transit Systems

As appropriate, the EIS will evaluate potential impacts of the Proposed Action to Long Island Rail Road and Metro-North commuter rail service at Grand Central Terminal. Commuter rail trips to Penn Station via New Jersey Transit would be expected to take secondary modes to access the study area (e.g., subway or walk) and will be accounted for in those respective analyses.

The MTA East Side Access project is currently scheduled for completion in 2019 and will be included in the future without the Proposed Action analyses. In contrast, since Phase 3 of the Second Avenue Subway and a direct connection of Amtrak between Penn Station and Grand Central Terminal are not anticipated to occur by the 2033 analysis year for the Proposed Action, they will not be considered in the future without the Proposed Action analyses.

Pedestrians

Pedestrian Level of Service Analyses

According to *CEQR Technical Manual* criteria, projected pedestrian volume increases of less than 200 persons per hour at any pedestrian element (sidewalks, corner areas and crosswalks) would not typically be considered a significant impact, since that level of increase would not generally be noticeable and therefore would not require further analysis. Based on the level of new pedestrian demand generated by the RWCDS, it is anticipated that project-generated pedestrian trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold at one or more locations along the corridors in one or more peak hours.

In the weekday AM and PM peak hours, new pedestrian trips would be most concentrated on sidewalks and crosswalks adjacent to projected development sites as well as along corridors connecting these sites to area subway and commuter rail station entrances. In the midday, pedestrian trips would tend to be more dispersed, as people travel throughout the area for lunch, shopping or errands. Given the relatively large numbers of pedestrian trips that would be generated by the proposed action, a quantitative pedestrian analysis will be provided in the EIS. The analysis will focus on sidewalks, corner areas and crosswalks where new pedestrian demand would be most concentrated and most likely to exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or more peak hours. Pedestrian counts will be conducted at each of these locations, and levels of service determined for the existing, No-Action and With-Action conditions.

Analysis locations are likely to include, as noted in the TPF memo, pedestrian elements at intersections along Madison and Fifth avenues from East 40th Street to East 47th Street, Park Avenue from East 46th Street to East 49th Street, Lexington Avenue at East 42nd Street and from East 45th to East 50th streets, Third Avenue at East 42nd, East 43rd, East 49th and East 50th streets, and Second Avenue at East 42nd and East 43rd streets. The specific pedestrian facilities to be analyzed will be determined once the assignment of project-generated pedestrian trips has been completed.

The EIS will also include an analysis of project-generated pedestrian flows within Grand Central Terminal.

Vehicular and Pedestrian Safety

This assessment, per *CEQR Technical Manual* guidelines, would principally focus on the effect of the Proposed Action's generated demand at existing high-crash locations or at locations that may become unsafe due to the Proposed Action. Traffic accidents involving pedestrians as well as bicycles at key study area intersections will be researched and documented. The EIS will also describe existing bicycle facilities and bicycle-related regulations plus any potential modifications that may take place to those by the 2033 analysis year. The potential for the Proposed Action to have significant pedestrian and/or bicycle impacts will be identified and possible remedies and/or improvements will be proposed for DOT consideration.

Parking

Parking demand from commercial uses typically peaks in the midday period and declines during the afternoon and evening. By contrast, residential demand typically peaks in the overnight period. The parking analyses will document changes in off-street parking utilization in the No-Action and With-Action conditions within ¼-mile of projected development sites during the weekday midday period. On-street parking conditions (existing curbside regulations and parking utilization) in the vicinity of projected development sites will also be documented for this period.

Parking demand generated by new residential development will be forecast based on the most recently available Census auto ownership data by income group for the proposed rezoning area. Parking demand from retail and other commercial uses will be derived from the forecasts of daily auto trips from these uses. The forecast of new parking supply will be based on the net change in parking spaces on projected sites, consistent with the RWCDS.

Based on the above assumptions, an assessment will be provided to determine whether there would be excess parking demand, and whether there are a sufficient number of other parking spaces available in the study area to accommodate that excess demand.

Task 13. Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. An air quality assessment determines both a proposed action's effects on ambient air quality as well as the effects of ambient air quality on the action. Air quality analyses will be conducted, following the procedures outlined in the *CEQR Technical Manual*, to determine whether the Proposed Action would result in exceedances of ambient air quality standards or health-related guideline values. The air quality studies for the Proposed Action will include both mobile and stationary source analyses. The methodologies and procedures utilized in these analyses are described below.

The key issues that would be addressed are:

- The potential for changes in vehicular travel associated with Proposed Action to result in significant mobile source (vehicle-related) air quality impacts;
- The potential impact from the exhaust of parking garages associated with the RWCDS development sites;

- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the RWCDS development sites to significantly impact other RWCDS development sites (project-on-project impacts);
- The potential for emissions from the HVAC systems of the RWCDS development sites to significantly impact existing land uses (project-on-existing impacts);
- The potential combined impacts from clusters of HVAC emissions (i.e., HVAC emissions from RWCDS development sites of approximately the same height that are located in close proximity to one another) to significantly impact existing land uses and other RWCDS development sites;
- The potential for significant air quality impacts from the HVAC systems of existing "major" emission sources with 20 or more million Btu/hr heat input or any "large" combustion source (e.g., power plants) on the RWCDS development sites; and
- The potential for significant air quality impacts on the RWCDS development sites from air toxic emissions generated by nearby existing industrial/commercial sources.

Mobile Source Analysis

The increased traffic associated with the RWCDS projected development sites as well as the diversion of traffic would have the potential to affect local air quality levels. Emissions generated by the increased traffic at congested intersections have the potential to significantly increase air quality levels at nearby sensitive land uses. The primary air quality issue related to the Proposed Action that will need to be addressed in the EIS is whether the traffic associated with the RWCDS during peak traffic periods will cause or exacerbate a violation of the 8-hour ambient air quality standard for carbon monoxide (CO) or exceed the DEP *de minimis* criteria near any of these locations. A determination would also be made as to whether the number of project-generated vehicles exceeds the DEP Interim $PM_{2.5}$ Guidance criteria.

Screening Analysis

If the number of project-generated vehicle trips exceeds the *CEQR Technical Manual* screening thresholds, detailed analyses of mobile source emissions of CO and particulate matter (PM) on ambient pollutant levels in the study will be performed. For the Proposed Action, the threshold for conducting an analysis of CO emissions corresponds to 140 project-generated vehicles at a given intersection in the peak hour. The need for conducting an analysis of PM emissions is based on the number of project-generated peak hour vehicles including heavy-duty diesel vehicles (or its equivalent in vehicular $PM_{2.5}$ emissions) as determined using the worksheet provided in the *CEQR Technical Manual*.

Detailed Analysis

For those intersections where the CEQR volume threshold would be exceeded, a detailed CO and/or $PM_{2.5}$ analysis will be conducted as detailed below.

CO Dispersion Analysis

A detailed microscale mobile source analysis using CEQR procedures will be conducted to estimate potential impacts near congested locations. This analysis will employ the US Environmental Protection Agency (EPA) CAL3QHC (Version 2) dispersion model and the latest EPA emission factor algorithm (currently MOBILE 6). Intersection geometries will be developed for each analysis site. Worst-case meteorological conditions will be utilized and modeling inputs appropriate for the study area, as well as background levels, will be obtained from the New York State Department of Environmental Conservation (NYSDEC) and DEP. CO levels will be estimated at each of the analysis sites. No-Action and

With-Action conditions will be considered for the 2033 analysis year. Maximum one- and eight-hour CO concentrations will be calculated for each condition.

Estimated eight-hour CO levels will be compared with federal National Ambient Air Quality Standards (NAAQS) and project-generated impacts will be compared with the DEP *de minimis* levels. The possibility of attaining ambient air quality standards at sites where exceedances are estimated by incorporating mitigation measures will be examined. Should this occur, the possibility of using the CAL3QHR program with actual, as opposed to worst-case, meteorological data will be considered. Analyses will be conducted, where necessary, using mitigation measures to identify the potential effectiveness of ameliorative measures designed to minimize any potential significant adverse impacts of the proposed project.

$PM_{2.5}$ Dispersion Modeling Analysis

Following DEP's Interim $PM_{2.5}$ Guidance as detailed in the *CEQR Technical Manual*, a $PM_{2.5}$ equivalency analysis would be conducted at the affected intersections in the study area.

Garage Analysis

Analyses will be conducted to estimate potential air quality impacts of proposed or expanded garages if the incremental increase in the number of spaces (i.e., the difference in the number of spaces between With-Action and No-Action conditions) in a garage is more than 60.

Because the garages would be used almost exclusively by gasoline-powered automobiles and not diesel-fueled trucks, CO will be the only pollutant considered for this analysis. The analysis will follow CEQR Technical Manual guidelines for a mechanically ventilated, enclosed garage. CO concentrations will be estimated near the exhaust vents of the facilities at receptors located at 5 and 50 feet from the exhaust vents as well as at nearby windows, if applicable. Contributions from emissions generated by street traffic will be added to project-generated impacts and appropriate background levels to estimate the total concentration. The maximum total 8-hour CO concentration (i.e., including garage impact, street traffic contributions, and background concentration) will be estimated and compared to the CO NAAQS of 9.0 ppm.

Stationary Source Analysis

HVAC Analysis

Emissions from the HVAC systems of the projected and potential developments may affect air quality levels at nearby existing land uses as well as the other affected developments. The impacts of these emissions would be a function of fuel type, stack height, building size (gross floor area), and location of each emission source relative to a nearby sensitive receptor site. The *CEQR Technical Manual* includes a screening methodology to estimate the potential impacts of HVAC system emissions from a single building that is at least 30 feet from the nearest building of similar or greater height.

While the analyses of the potential impacts of the Proposed Action will, in general, follow the 2012 *CEQR Technical Manual* procedures as well as methodologies followed in previous rezoning EASs/EISs, the proposed approach for estimating potential project-on-project and project-on-existing land use impacts will be modified to account for recently promulgated National Ambient Air Quality Standards (NAAQS), in particular the 1-hour standards for nitrogen dioxide (NO_2) and sulfur dioxide (SO_2), and the 24-hour and annual standards for PM2.5. The proposed approach for determining the potential for project-on-project and project-on-existing impacts was modified based on a protocol approved by DEP and DCP as described below.

Screening-Level Analysis

A screening analysis will be conducted using *CEQR Technical Manual* nomographs to determine whether the HVAC emissions of any of the projected and potential development sites would have the potential to significantly affect air quality levels at any of the other nearby projected and potential development sites (i.e., project-on-project impacts). Each projected and potential development site will be evaluated and all nearby projected or potential developments of similar or greater height will be considered as potential sensitive receptor sites. If more than one taller building is located near a shorter building, the potential impacts from the HVAC emissions of the shorter building on the closest taller building will be considered. If the distance from a projected and/or potential development to the nearest development of similar or greater height is less than the threshold distance provided in the *CEQR Technical Manual* nomographs, the potential exists for significant air quality impacts, and a detailed dispersion modeling analysis will be conducted. Otherwise, the development site passes the screening, and no further analysis is required.

The same screening-level analysis will also be conducted, using *CEQR Technical Manual* nomographs, to determine the potential impacts of the HVAC emissions of any of the projected and potential development sites on existing sensitive land uses. A survey of existing land uses within 400 feet of the proposed development sites will be conducted using the New York City Open Accessible Space Information System (OASIS) and GIS shape files to identify residential land uses and other sensitive receptor sites and determine the heights of the existing buildings.

Generic or Prototypical Analysis

Many buildings in the study area currently use steam for their HVAC needs, and the steam utility system is readily available throughout the study area. As a consequence, there would be no local HVAC impacts from buildings utilizing steam because no stack is needed for space heating and/or heat water systems. However, for this analysis, it is initially assumed that Proposed Action's development sites would have their own heating systems that would burn natural gas. Therefore, a generic or prototypical building analysis will be conducted specific for determining the potential for project-on-project and project-on-existing impacts. The protocol for this prototypical building analysis was developed by DCP in conjunction with DEP.

It will be conservatively assumed that buildings of the same floor area ratio (FAR) would be the same height and that the HVAC emissions from each building can affect nearby same height buildings. This prototypical dispersion analysis, therefore, will consider impacts at receptors on buildings located in all directions around each building and, as such, is more conservative than estimating impacts only on actual nearby taller buildings because actual taller building may not exist under all wind angles.

This analysis will estimate the minimum distance (e.g., threshold distance) that each building should be from the nearest building of the same height to avoid a potential significant impact from HVAC emissions. The distance at which an estimated 24-hour $PM_{2.5}$ impact reached 5 $\mu g/m^3$ will be considered as the threshold distance between that building and any building that is the same height or taller. A distance between buildings that is greater than this threshold distance would therefore preclude a significant impact. A similar analysis process will then be conducted for the RWCDS development sites that passed the 24-hour $PM_{2.5}$ analysis to determine the potential for significant 1-hour NO_2 impacts.

Pollutant emission rates will be estimated based on emission factors and energy usage rates for prototypical boiler sizes for both heating and domestic hot water demands. A DCP's template (matrix) developed in conjunction with DEP will be used for estimating emission rates based on annual energy

use per building square foot (Btu/square foot/year). Estimated 1-hour NO_2 and 24-hour $PM_{2.5}$ emission rates for all development sites will be presented in the EIS.

For those RWCDS development sites that pass for both $PM_{2.5}$ and NO_2, detailed dispersion analysis will be required as described below to determine whether the HVAC emissions of any of these sites would have the potential to significantly affect air quality levels at nearby sites. For those sites that fail one or both $PM_{2.5}$ and NO_2, restrictions may be proposed as part of the Proposed Action to require the use of steam utility for their HVAC needs so that there would be no local HVAC-related emissions and therefore no further analysis would be required.

Detailed Dispersion Analyses

Detailed analysis will be conducted for those locations that did not pass the screening-level analysis and pass the prototypical building analysis as described above. The analysis will examine whether the HVAC emissions of any of the projected and potential development sites would have the potential to significantly affect air quality levels at any of the other nearby projected and potential development sites (i.e., project-on-project impacts) and on other existing or planned sensitive uses within the surrounding area. Nitrogen dioxide (NO2), sulfur dioxide (SO2) and particulate matter (PM_{10} and $PM_{2.5}$) emissions will be analyzed. The analysis will be performed using the EPA-developed AERMOD model, based on the latest appropriate EPA guidance, and will consider plume impingement conditions (i.e., when the wind blows from the stacks toward buildings) and wake effects (i.e., when the wind blows from buildings toward the stacks). The recent five years of meteorological data will be used for these simulation analyses. Project-on-existing and project-on-project impacts will be determined. Predicted values will be compared with NAAQS for NO_2, SO_2, $PM_{2.5}$ and PM_{10}, and the City's interim guidance criteria for $PM_{2.5}$.

Cluster Analysis

The Proposed Action could result in developments that are located in close proximity to one another and have the same (or approximately the same) heights. Therefore, in addition to estimating the potential impacts of the HVAC emissions of these development sites individually, detailed dispersion analyses of the HVAC emissions from the identified clusters would be conducted to estimate the potential impacts of these emissions on the other development sites as well as on nearby existing land uses. Clusters will be selected based on the sizes of the buildings that comprise the cluster, proximity of the cluster buildings to each other, and the difference in stack heights no more than 10 to 15 feet with no city street in between.

To estimate maximum concentrations, receptors would be located on all facades of each nearby affected building, at heights most likely to be affected by the HVAC emissions. This analysis would be performed in the same manner for estimating the potential impacts of each individual building, except that analysis will be conducted using a single representative stack located in the approximate geographic center of each cluster as the emission source with EPA AERSCREEN model.

Impacts from "Major" Existing Emission Sources

Following *CEQR Technical Manual* guidelines, a survey of land uses and building heights will be conducted to determine whether there are any existing "major" sources of boiler emissions (i.e., emissions from boiler facilities with heat inputs of 20 million Btu per hour or greater) located within 400 feet of the proposed development sites, or any "large" combustion emission source (e.g., power plant, co-generation facility, etc) located within 1,000 feet of the proposed development sites. Potential impacts of emissions from these emission sources would be estimated. If such sources are identified, a

detailed analysis would be conducted using EPA's AERMOD dispersion model in accordance with *CEQR Technical Manual* guidelines. Predicted pollutant concentrations will be compared with NAAQS for NO_2, SO_2 and PM_{10}, and the City's interim guidance criteria for $PM_{2.5}$.

Industrial Source (Air Toxics) Analysis

An analysis of uses within and in proximity of the Proposed Action's directly affected area will be conducted to determine the potential for impacts from industrial/commercial emissions. A field survey will be performed to determine if there are any manufacturing/commercial processing facilities within 400 feet of the RWCDS development sites. In addition, a search of federal and state air permits, and the DEP's Bureau of Environmental Compliance (BEC) files will be performed to determine if there are permits for any sources of toxic air compounds from industrial/commercial processes. Based on this information, a determination will be made as to whether a detailed analysis of air toxics stationary source is necessary.

If processing facilities are identified within 400 feet of any of the development sites, or if any emissions from processing or manufacturing facilities within 400 feet of the development projects site are on file with DEP, NYSDEC or EPA, an industrial stationary source air quality analysis will be performed, in accordance with the *CEQR Technical Manual*. The *CEQR Technical Manual's* industrial source screening procedures will be used to estimate the short-term and annual concentrations of critical pollutants at sensitive receptor sites. Predicted worst-case impacts on the development sites will be compared with the short-term guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in NYSDEC's DAR-1 AGC/SGC Tables guidance document to determine the potential for significant impacts. In the event that exceedances of guidance concentrations are predicted, more refined dispersion modeling (using EPA's AERMOD dispersion model) may be employed as a separate task, or measures to reduce pollutants to within guidance levels will be examined.

Task 14. Greenhouse Gas Emissions

Increased greenhouse gas (GHG) emissions are changing the global climate, which is predicted to lead to wide-ranging effects on the environment, including rising sea levels, increases in temperature, and changes in precipitation levels. Although this is occurring on a global scale, the environmental effects of climate change are also likely to be felt at the local level. As the Proposed Action has development sites that exceed the 350,000 sf development threshold, and in accordance with the *CEQR Technical Manual*, GHG emissions generated by the Proposed Action will be quantified and an assessment of consistency with the City's established GHG reduction goal will be performed as part of the EIS. The assessment will examine GHG emissions from the Proposed Action's operations, mobile source, and construction as outlined below.

- Sources of GHG emissions from the development projected as part of the Proposed Action will be identified. The pollutants for analysis will be discussed, as well as the various City, State, and federal goals, policy, regulations, standards and benchmarks for GHG emissions.
- Fuel consumption from buildings will be estimated based on the calculations of estimated energy use due to the Proposed Action.
- GHG emissions associated with Proposed Action-related traffic will be estimated for the Proposed Action using data from the transportation analysis. A calculation of Vehicle Miles Traveled (VMT) will be prepared.

- The types of construction materials and equipment proposed will be discussed along with opportunities for alternative approaches that may serve to reduce GHG emissions associated with construction.
- A qualitative discussion of stationary and mobile sources of GHG emissions will be provided in conjunction with a discussion of goals for reducing GHG emissions to determine if the Proposed Action is consistent with GHG reduction goals, including building efficient buildings, use of clean power, transit-oriented development and sustainable transportation, reduction of construction operations emissions, and use of building materials with low carbon intensity.

Task 15. Noise

Relative to noise, the goal of CEQR is to determine both a proposed action's potential effects on sensitive noise receptors, including the effects on the level of noise inside residential, commercial, and institutional facilities (if applicable); and, the effects of ambient noise levels on new sensitive uses introduced by a proposed action. If significant adverse impacts are identified, CEQR requires such impacts to be mitigated or avoided to the greatest extent practicable. The Proposed Action would result in primarily new commercial (office, retail, and hotel) development plus a relatively small amount of residential development, and also alter transportation conditions in the rezoning area. Noise, which is a general term used to describe unwanted sound, will likely be affected by these development changes.

Given the background conditions and the anticipated Proposed Action-generated traffic, it is not expected that project-generated traffic would be likely to result in significant noise impacts. It is assumed that outdoor mechanical equipment would be designed to meet applicable regulations and no detailed analysis of potential noise impacts due to outdoor mechanical equipment will be performed. Consequently, the noise analysis will examine the level of building attenuation necessary to meet CEQR interior noise levels requirements. The building attenuation study will be an assessment of noise levels in the surrounding area associated primarily with traffic and nearby uses and their potential effect on the proposed project.

Specifically, the noise analysis program will include the following subtasks:

- Noise measurement sites will be selected at representative noise locations (estimated at no more than ten sites). Sites will be selected to provide adequate geographic coverage within the rezoning area and to ensure enough locations are selected to determine ambient noise levels over the large and diverse study area.
- Appropriate noise descriptors to describe the existing noise environment will be selected in accordance with the *CEQR Technical Manual*. The Leq and L10 levels will be the primary noise descriptors used for the EIS analysis.
- Based on the traffic studies, perform a screening analysis to determine whether there are any locations where there is the potential for the Proposed Action to result in significant noise impacts (doubling of traffic volume) due to action-generated traffic.
- Noise measurements will coincide with weekday peak traffic hour AM, Midday, and PM time periods. Noise measurements will be recorded in conformance with procedures contained in the *CEQR Technical Manual*.

- At each noise measurement site, noise levels will be measured in units of "A" weighted decibel scale (dBA), for duration of 20 minutes per time period and include noise descriptors such as equivalent noise level (Leq) and statistical percentile levels Lmax, Lmin, L1, L10, L50, L90.
- A summary table of existing measured noise levels for all time periods will be provided as part of the EIS.
- At each of the noise measurement sites a PCE noise analysis, in accordance with CEQR requirements, will be completed to determine noise levels under future No Action and Proposed Action conditions. All projections will be made with Leq noise descriptor.
- Estimated window-wall attenuation requirements under future Proposed Action conditions will be determined based on the highest L10 noise level estimated at each monitoring site.
- Window wall attenuation requirements will be based on the proposed use of each of the potential and projected development site based on CEQR interior noise exposure level limits.
- A summary of the noise measurement findings and window wall attenuation requirements will be summarized in a tabular format in the EIS.
- If the results of the screening analysis indicate that a doubling of traffic would occur, a mobile source noise analysis would be performed using either proportional modeling or the Traffic Noise Model (TNM), where appropriate.
- If appropriate, an assessment for reduction of noise levels based on building heights may be conducted for certain development sites due to high street level noise values (i.e., noise adjustment due to height).

Task 16. Public Health

According to the *CEQR Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on public health may occur as a result of a proposed project, and if so, to identify measures to mitigate such effects.

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, hazardous materials, or noise. If unmitigated significant adverse impacts are identified in any of these technical areas and the lead agency determines that a public health assessment is warranted, an analysis will be provided for the specific technical area or areas.

Task 17. Neighborhood Character

The character of a neighborhood is established by numerous factors, including land use patterns, the scale of its development, the design of its buildings, the presence of notable landmarks, and a variety of other physical features that include traffic and pedestrian patterns, noise etc. The Proposed Action has the potential to alter certain elements contributing to the affected area's neighborhood character. Therefore a neighborhood character analysis will be provided in the EIS. As suggested by the *CEQR*

Technical Manual, the study area for neighborhood character will be coterminous with the ¼-mile land use study area.

A preliminary assessment of neighborhood character will be provided in the EIS to determine whether changes expected in other technical analysis areas—land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; transportation; and noise—may affect a defining feature of neighborhood character. The preliminary assessment will:

- Identify the defining features of the existing neighborhood character.
- Summarize changes in the character of the neighborhood that can be expected in the future With-Action condition, based on the RWCDS, and compare to the future No-Action condition.
- Evaluate whether the Proposed Action has the potential to affect these defining features, either through the potential for a significant adverse impact or a combination of moderate effects in the relevant technical areas.

If the preliminary assessment determines that the Proposed Action could affect the defining features of neighborhood character, a detailed analysis will be conducted in accordance with the *CEQR Technical Manual* guidelines.

Task 18. Construction

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. At this time, there are no specific construction plans for any development that is projected to result from the Proposed Action. For the purposes of assessing potential construction impacts, a conceptual construction phasing and schedule for the RWCDS will be developed for the EIS to illustrate how development of the rezoning area could occur. It will conservatively assume that construction of all projected development sites would be completed by the end of the 2033 analysis year.

Construction impacts are usually important when construction activity has the potential to affect transportation conditions, archaeological resources and the integrity of historic resources, community noise patterns, air quality conditions, or disturb hazardous materials. According to the *CEQR Technical Manual*, multi-site projects with overall construction periods lasting longer than two years, and located near sensitive receptors, should undergo a preliminary impact assessment. This chapter of the EIS will provide a preliminary impact assessment following the guidelines in the *CEQR Technical Manual*. The preliminary assessment will evaluate the duration and severity of the disruption or inconvenience to nearby sensitive receptors. If the preliminary assessment indicates the potential for a significant impact during construction, a detailed construction impact analysis will be undertaken in accordance with guidelines contained in the *CEQR Technical Manual*. Technical areas to be assessed include the following:

- Transportation Systems. This assessment will qualitatively consider losses in lanes, sidewalks, and other transportation services on the adjacent streets during the various phases of construction, and identify the increase in vehicle trips from construction workers and equipment. If warranted under CEQR guidelines, a travel demand forecast for the RWCDS' construction period will be prepared and, if the applicable threshold levels are exceeded, a quantitative analysis will be conducted.

- Air Quality. The construction air quality impact section will consider and evaluate mobile air source emissions from construction equipment and worker and delivery vehicles, and fugitive dust emissions. If warranted by the results of the preliminary assessment, the effects of particulate matter emissions from the construction site and earthmoving equipment will be analyzed. This analysis will assume emission control measures required by law or regulation and will consider additional measures to reduce emissions if necessary.
- Noise. The construction noise section will assess noise from construction activity, both mobile and stationary. If a detailed analysis is warranted, it will look at the specific activities, types of equipment, and duration of activities planned for specific locations and the combined effects of mobile and stationary noise on nearby sensitive receptors.
- Hazardous Materials. In coordination with the work performed for hazardous materials, above, summarize actions to be taken during construction to limit exposure of construction workers to potential contaminants.
- Historic and Cultural Resources: In coordination with the work performed for historic resources above, identify the potential for construction-period impacts, and summarize actions to be taken during construction to protect adjacent historic resources from potential construction impacts.
- Other Technical Areas. As appropriate, the assessment will discuss the other areas of environmental concern, including Land Use, Zoning and Public Policy, Open Space, Socioeconomic Conditions, Community Facilities, and Infrastructure, for potential construction-related impacts.

Note that at this time there is no timetable for the completion of the segment of the Second Avenue Subway extending between East 63rd Street and Houston Street (Phase 3), which is in the vicinity of the Proposed Action, and therefore, it is not anticipated that would be completed by the proposed action's Analysis Year of 2033. Therefore, the EIS will not study the overlap of construction under the proposed action and the Second Avenue Subway. The EIS will consider if any potential overlaps of construction activities would exist between East Side Access and the Proposed Action and, if warranted, conduct the necessary assessment.

Task 19. Mitigation

Where significant adverse project impacts have been identified in Tasks 2 through 17, measures to mitigate those impacts will be described. This chapter will also consider when mitigation measures will need to be implemented. These measures will be developed and coordinated with the responsible City/State agencies, as necessary, including LPC, DOT, and DEP. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

As noted earlier in this document, the District Improvement Bonus mechanism would generate funding for City-priority improvements to the pedestrian realm network, both above- and below-grade. The EIS will evaluate how and to what extent the priority public improvements avoid pedestrian and transit impacts resulting from the development by treating them as mitigation measures for analysis purposes. This analysis approach will provide the decision-makers with important information concerning the environmental benefits of the improvements and allow for adjustments to be made in order to improve their use as project components related to the environment. By identifying the ability of improvements to address the effects of development in the area based on capacity measures, the analysis will also support the potential for future implementation of other alternative improvements which have the

same mitigation and improvement potential, creating future flexibility to adapt and adjust the menu of improvements as development proceeds in East Midtown.

Task 20. Alternatives

The purpose of an alternatives section in an EIS is to examine development options that would tend to reduce action-related impacts. The alternatives will be defined once the full extent of the Proposed Action's impacts has been identified. Typically for area-wide actions such as the Proposed Action, the alternatives will include a No Build Alternative, a no impact or no significant impact alternative, and a lesser density alternative. In response to public comments received during the scoping process, an alternative has been defined to represent a lower density alternative. Under this alternative, known as the Smaller Rezoning Area / Lower Density Alternative, the action would only include the area of the proposed Grand Central Subarea.

The alternatives analysis will be qualitative, except where significant adverse impacts of the Proposed Action have been identified. The level of analysis provided will depend on an assessment of project impacts determined by the analysis connected with the appropriate tasks.

Task 21. Conceptual Analysis

As noted above, the Proposed Action could result in the development on sites within areas where a special permit would allow an increase in the maximum FAR above that permitted as-of-right in the Grand Central Core (24.0) up to 30.0, and an increase in the maximum FAR above that permitted as-of-right along the Park Avenue frontage (21.6) up to 24.0. Because it is not possible to predict with certainty whether a special permit would be pursued on any one site in the future, the RWCDS does not include specific development sites that would achieve the higher maximum FAR above that permitted as-of-right under the With-Action condition.

A conceptual analysis will instead be provided to generically assess the potential environmental impacts that could result from the development of such higher maximum FARs within the rezoning area. The conceptual analysis will consider a development scenario that includes the development of two office buildings in the Grand Central Core to the special permit's maximum permitted FAR (30.0); and the development of an office building on Park Avenue to the special permit's maximum permitted FAR (24.0). The conceptual analysis will consider the potential effects of the use of this new special permit and the potential environmental effects as compared to those described for the Proposed Action.

Task 22. Summary EIS Chapters

In accordance with CEQR guidelines, the EIS will include the following three summary chapters, where appropriate to the Proposed Action:

- **Unavoidable Adverse Impacts** - which summarizes any significant adverse impacts that are unavoidable if the Proposed Action is implemented regardless of the mitigation employed (or if mitigation is not feasible).
- **Growth-Inducing Aspects of the Proposed Action** - which generally refer to "secondary" impacts of a Proposed Action that trigger further development.

- **Irreversible and Irretrievable Commitments of Resources** - which summarizes the Proposed Action and its impacts in terms of the loss of environmental resources (loss of vegetation, use of fossil fuels and materials for construction, etc.), both in the immediate future and in the long term.

Task 23. Executive Summary

The executive summary will utilize relevant material from the body of the EIS to describe the Proposed Action, its environmental impacts, measures to mitigate those impacts, and alternatives to the Proposed Action. The executive summary will be written in enough detail to facilitate drafting of a notice of completion by the lead agency.

Appendix A
RWCDS Tables for Projected and Potential Development Sites

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES

Site Data				Existing Conditions						
Site	Block	Lot(s)	Lot Area	Building Area (gsf)	Commercial Area (gsf): Office, Retail and Hotel areas	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Site 1	869	16	14,220	217,317	217,317	-	205,317	12,000	-	-
	869	58	5,370	91,212	91,212	-	85,212	6,000	-	-
	869	61	6,480	74,186	74,186	-	68,186	6,000	-	-
	869	64	7,400	89,423	89,423	-	82,423	7,000	-	-
	TOTAL		**33,470**	**472,138**	**472,138**	**-**	**441,138**	**31,000**	**-**	**-**
Site 2	869	25	2,469	8,755	7,755	1,000	7,755	-	-	7
	869	26	2,472	12,200	12,200	-	12,200	-	-	-
	869	27	4,937	15,000	15,000	-	15,000	-	-	-
	TOTAL		**9,878**	**35,955**	**34,955**	**1,000**	**34,955**	**-**	**-**	**7**
Site 3	1275	23	21,825	407,127	407,127	-	386,052	21,075	-	-
	TOTAL		**21,825**	**407,127**	**407,127**	**-**	**386,052**	**21,075**	**-**	**-**
Site 4	1277	20	23,025	417,659	417,659	-	397,659	20,000	-	-
	1277	27	10,250	160,482	160,482	-	143,882	16,600	-	-
	1277	46	3,350	22,502	22,502	-	14,400	3,215	4,887	-
	1277	52	6,666	87,845	87,845	-	83,170	4,675	-	-
	TOTAL		43,291	**688,488**	**688,488**	**-**	**639,111**	**44,490**	**4,887**	**-**
Site 5	1278	8	5,690	36,616	36,616	-	36,616	-	-	-
	1278	14	27,750	486,874	486,874	-	466,874	20,000	-	-
	1278	15	2,375	35,625	35,625	-	33,325	2,300	-	-
	1278	17	2,375	35,625	35,625	-	33,325	2,300	-	-
	1278	62	2,513	11,550	11,550	-	5,400	4,750	-	-
	1278	63	2,513	17,668	17,668	-	12,868	4,800	-	-
	1278	64	2,513	16,629	16,629	-	13,329	3,300	-	-
	1278	65	5,020	62,918	62,918	-	-	-	62,918	-
	TOTAL		**50,749**	**703,505**	**703,505**	**-**	**601,737**	**37,450**	**62,918**	**-**
Site 6	1279	9	8,133	110,999	110,999	-	104,999	6,000	-	-
	1279	17	13,125	122,600	122,600	-	50,325	72,275	-	-
	1279	57	18,800	380,766	380,766	-	344,482	36,284	-	-
	1279	63	4,522	15,023	15,023	-	-	15,023	-	-
	1279	65	5,020	79,280	79,280	-	74,280	5,000	-	-
	TOTAL		**49,600**	**708,668**	**708,668**	**-**	**574,086**	**134,582**	**-**	**-**

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Existing Conditions						
Site	Block	Lot(s)	Lot Area	Building Area (gsf)	Commercial Area (gsf): Office, Retail and Hotel areas	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Site 7	1279	23	5,000	69,086	69,086	-	65,386	3,700	-	-
	1279	24	2,541	50,840	50,840	-	50,840	-	-	-
	1279	25	2,510	11,250	11,250	-	9,000	2,250	-	-
	1279	48	15,000	231,945	231,945	-	226,945	5,000	-	-
	1279	28	9,105	174,895	174,895	-	-	8,824	166,071	-
	1279	45	9,105	162,330	162,330	-	152,830	9,500	-	-
	TOTAL		**43,261**	**700,346**	**700,346**	**-**	**505,001**	**29,274**	**166,071**	**-**
Site 8	1281	62	5,020	37,265	37,265	-	33,265	4,000	-	-
	1281	64	2,445	11,738	11,738	-	11,738	-	-	-
	1281	65	4,083	22,350	22,350	-	18,750	3,600	-	-
	TOTAL		**11,548**	**71,353**	**71,353**	**-**	**63,753**	**7,600**	**-**	**-**
Site 9	1281	21	43,313	598,248	598,248	-	-	-	598,248	-
	TOTAL		**43,313**	**598,248**	**598,248**	**-**	**-**	**-**	**598,248**	**-**
Site 10	1282	17	38,150	698,996	698,996	-	677,674	21,322	-	-
	1282	64	8,033	29,000	29,000	-	16,800	12,200	-	-
	TOTAL		46,183	**727,996**	**727,996**	**-**	**694,474**	**33,522**	**-**	**-**
Site 11	1283	8	2,510	12,000	12,000	-	8,000	4,000	-	-
	1283	9	2,510	8,458	8,458	-	6,766	1,692	-	-
	1283	10	2,510	12,660	12,660	-	10,550	2,110	-	-
	1283	11	2,510	9,398	9,398	-	7,518	1,880	-	-
	1283	12	2,500	12,600	12,600	-	12,600	-	-	-
	1283	13	2,500	17,131	17,131	-	-	-	17,131	-
	TOTAL		**15,040**	**72,247**	**72,247**	**-**	**45,434**	**9,682**	**17,131**	**-**
Site 12	1285	36	34,050	645,483	645,483	-	613,397	32,086	-	-
	TOTAL		**34,050**	**645,483**	**645,483**	**-**	**613,397**	**32,086**	**-**	**-**
Site 13	1292	52	20,075	385,347	385,347	-	371,081	14,266	-	-
	TOTAL		**20,075**	**385,347**	**385,347**	**-**	**371,081**	**14,266**	**-**	**-**
Site 14	1300	42	3,314	6,632	6,632	-	-	6,632	-	-
	1300	44	3,213	18,810	18,810	-	18,810	-	-	-
	TOTAL		**6,527**	**25,442**	**25,442**	**-**	**18,810**	**6,632**	**-**	**-**

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Existing Conditions						
Site	Block	Lot(s)	Lot Area	Building Area (gsf)	Commercial Area (gsf): Office, Retail and Hotel areas	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Site 15	1302	25	5,522	55,940	55,940	-	-	-	-	-
	1302	27	1,674	3,526	1,326	2,200	-	1,326	-	4
	1302	127	1,688	3,526	2,646	880	880	1,766	-	1
	1302	28	1,688	3,500	2,000	1,500	-	1,000	1,000	2
	1302	29	1,688	3,576	3,576	-	1,576	2,000	-	-
	TOTAL		**12,260**	**70,068**	**65,488**	**4,580**	**2,456**	**6,092**	**1,000**	**7**
Site 16	1303	14	41,170	427,611	427,611	-	-	-	427,611	-
	TOTAL		41,170	427,611	427,611	-	-	-	427,611	-
Site 17	1304	20	24,725	317,496	317,496	-	-	1,940	315,556	-
	1304	25	1,882	4,875	2,775	2,100	-	2,775	-	2
	1304	26	5,682	37,371	37,371	-	-	-	37,371	-
	1304	28	1,840	5,685	2,640	3,045	1,015	1,115	-	6
	1304	45	10,041	58,300	58,300	-	300	-	-	-
	1304	41	10,041	119,465	119,465	-	-	-	119,465	-
	TOTAL		**54,211**	**543,192**	**538,047**	**5,145**	**1,315**	**5,830**	**472,392**	**8**
Site 18	1310	1	27,950	567,330	567,330	-	541,667	25,663	-	-
	TOTAL		**27,950**	**567,330**	**567,330**	**-**	**541,667**	**25,663**	**-**	**-**
Site 19	1316	12	31,130	300,000	300,000	-	300,000	-	-	-
	1316	23	37,657	672,462	672,462	-	648,702	23,760	-	-
	1316	30	7,531	141,408	141,408	-	134,448	6,960	-	-
	TOTAL		**76,318**	**1,113,870**	**1,113,870**	**-**	**1,083,150**	**30,720**	**-**	**-**
TOTALS				**8,964,414**	**8,953,689**	**10,725**	**6,617,617**	**469,964**	**1,750,258**	**22**

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Future Without the Proposed Action (No-Action) Scenario							
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units	Office Mechanical [2] (gsf)
Site 1	869	16	14,220	217,317	217,317	-	205,317	12,000	-	-	-
	869	58	5,370	91,212	91,212	-	85,212	6,000	-	-	-
	869	61	6,480	74,186	74,186	-	68,186	6,000	-	-	-
	869	64	7,400	89,423	89,423	-	82,423	7,000	-	-	-
	TOTAL		**33,470**	**472,138**	**472,138**	**-**	**441,138**	**31,000**	**-**	**-**	**-**
Site 2	869	25	2,469								
	869	26	2,472								
	869	27	4,937	132,240	9,87	122,362	-	9,878	-	12	-
	TOTAL		**9,878**	**132,240**	**9,878**	**122,362**	**-**	**9,878**	**-**	**123**	**-**
Site 3	1275	23	21,825	407,127	407,127	-	386,052	21,075	-	-	-
	TOTAL		**21,825**	**407,127**	**407,127**	**-**	**386,052**	**21,075**	**-**	**-**	**-**
Site 4	1277	20	23,025								
	1277	27	10,250								
	1277	46	3,350								
	1277	52	6,666	796,554	727,289	-	683,998	43,291	-	-	69,266
	TOTAL		43,291	**796,554**	**727,289**	**-**	**683,998**	**43,291**	**-**	**-**	**69,266**
Site 5	1278	8	5,690	36,616	36,616	-	36,616	-	-	-	-
	1278	14	27,750	486,874	486,874	-	466,874	20,000	-	-	-
	1278	15	2,375	35,625	35,625	-	33,325	2,300	-	-	-
	1278	17	2,375	35,625	35,625	-	33,325	2,300	-	-	-
	1278	62	2,513								
	1278	63	2,513								
	1278	64	2,513	94,991	7,539	87,452	-	7,539	-	88	-
	1278	65	5,020	62,918	62,918	-	-	-	62,918	-	-
	TOTAL		**50,749**	**752,649**	**665,197**	**87,452**	**570,140**	**32,139**	**62,918**	**88**	**-**
Site 6	1279	9	8,133	110,999	110,999	-	104,999	6,000	-	-	-
	1279	17	13,125	122,600	122,600	-	50,325	72,275	-	-	-
	1279	57	18,800	380,766	380,766	-	344,482	36,284	-	-	-
	1279	63	4,522	15,023	15,023	-	-	15,023	-	-	-
	1279	65	5,020	79,280	79,280	-	74,280	5,000	-	-	-
	TOTAL		**49,600**	**708,668**	**708,668**	**-**	**574,086**	**134,582**	**-**	**-**	**-**

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Future Without the Proposed Action (No-Action) Scenario							
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units	Office Mechanical [2] (gsf)
Site 7	1279	23	5,000								
	1279	24	2,541								
	1279	25	2,510								
	1279	48	15,000	460,938	420,857	-	409,907	10,950	-	-	40,082
	1279	28	9,105	174,895	174,895	-	-	8,824	166,071	-	-
	1279	45	9,105	162,330	162,330	-	152,830	9,500	-	-	-
	TOTAL		**43,261**	**798,163**	**758,082**	**-**	**562,737**	**29,274**	**166,071**	**-**	**40,082**
Site 8	1281	62	5,020								
	1281	64	2,445								
	1281	65	4,083	145,505	11,548	133,957	-	11,548	-	134	-
	TOTAL		**11,548**	**145,505**	**11,548**	**133,957**	**-**	**11,548**	**-**	**134**	**-**
Site 9	1281	21	43,313	598,248	598,248	-	-	-	598,248	-	-
	TOTAL		**43,313**	**598,248**	**598,248**	**-**	**-**	**-**	**598,248**	**-**	**-**
Site 10	1282	17	38,150	698,996	698,996	-	677,674	21,322	-	-	-
	1282	64	8,033	29,000	29,000	-	16,800	12,200	-	-	-
	TOTAL		46,183	**727,996**	**727,996**	**-**	**694,474**	**33,522**	**-**	**-**	**-**
Site 11	1283	8	2,510								
	1283	9	2,510								
	1283	10	2,510								
	1283	11	2,510								
	1283	12	2,500								
	1283	13	2,500	213,171	15,040	198,131	-	15,040	-	199	-
	TOTAL		**15,040**	213,171	15,040	198,131	-	15,040	-	199	-
Site 12	1285	36	34,050	645,483	645,483	-	613,397	32,086	-	-	-
	TOTAL		**34,050**	**645,483**	**645,483**	**-**	**613,397**	**32,086**	**-**	**-**	**-**
Site 13	1292	52	20,075	385,347	385,347	-	371,081	14,266	-	-	-
	TOTAL		**20,075**	**385,347**	**385,347**	**-**	**371,081**	**14,266**	**-**	**-**	**-**
Site 14	1300	42	3,314								
	1300	44	3,213	82,240	6,527	75,713	-	6,527	-	76	-
	TOTAL		**6,527**	**82,240**	**6,527**	**75,713**	**-**	**6,527**	**-**	**76**	**-**

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Future Without the Proposed Action (No-Action) Scenario							
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units	Office Mechanical [2] (gsf)
Site 15	1302	25	5,522								
	1302	27	1,674								
	1302	127	1,688								
	1302	28	1,688								
	1302	29	1,688	167,349	12,260	155,089	-	12,260	-	156	-
	TOTAL		**12,260**	**167,349**	**12,260**	**155,089**	**-**	**12,260**	**-**	**156**	**-**
Site 16	1303	14	41,170	427,611	427,611	-	-	-	427,611	-	-
	TOTAL		41,170	**427,611**	**427,611**	**-**	**-**	**-**	**427,611**	**-**	**-**
Site 17	1304	20	24,725								
	1304	25	1,882								
	1304	26	5,682								
	1304	28	1,840								
	1304	45	10,041	680,804	680,804	-	-	44,170	636,634	-	-
	1304	41	10,041	119,465	119,465	-	-	-	119,465	-	-
	TOTAL		**54,211**	**800,269**	**800,269**	**-**	**-**	**44,170**	**756,099**	**-**	**-**
Site 18	1310	1	27,950	621,361	567,330	-	539,380	27,950	-	-	54,031
	TOTAL		**27,950**	**621,361**	**567,330**	**-**	**539,380**	**27,950**	**-**	**-**	**54,031**
Site 19	1316	12	31,130	300,000	300,000	-	300,000	-	-	-	-
	1316	23	37,657	672,462	672,462	-	648,702	23,760	-	-	-
	1316	30	7,531	141,408	141,408	-	134,448	6,960	-	-	-
	TOTAL		**76,318**	**1,113,870**	**1,113,870**	**-**	**1,083,150**	**30,720**	**-**	**-**	**-**
TOTALS				**9,995,991**	**9,059,908**	**772,705**	**6,519,633**	**529,328**	**2,010,947**	**776**	**163,379**

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Future With the Proposed Action (With-Action) Scenario										
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	No of Dwelling Units	Parking Spaces: New Construction	Office Mechanical [2] (gsf)	Neighborhood Retail Area (gsf)	Destination Retail Area (gsf)
Site 1	869	16	14,220											
	869	58	5,370											
	869	61	6,480											
	869	64	7,400	831,395	759,100	-	725,630	33,470	-	-	100	72,295	33,470	-
	TOTAL		**33,470**	**831,395**	**759,100**	**-**	**725,630**	**33,470**	**-**	**-**	**100**	**72,295**	**33,470**	**-**
Site 2	869	25	2,469											
	869	26	2,472											
	869	27	4,937	142,612	18,149	124,463	-	18,149	-	125	-	-	18,149	-
	TOTAL		**9,878**	142,612	18,149	124,463	-	18,149	-	125	-	-	18,149	-
Site 3	1275	23	21,825	445,901	407,127	-	385,302	21,825	-	-	-	38,774	21,825	
	TOTAL		**21,825**	**445,901**	**407,127**	**-**	**385,302**	**21,825**	**-**	**-**	**-**	**38,774**	**21,825**	**-**
Site 4	1277	20	23,025											
	1277	27	10,250											
	1277	46	3,350											
	1277	52	6,666	1,194,832	1,090,933	-	1,047,642	43,291	-	-	-	103,898	21,646	21,646
	TOTAL		43,291	**1,194,832**	**1,090,933**	**-**	**1,047,642**	**43,291**	**-**	**-**	**-**	**103,898**	**21,646**	**21,646**
Site 5	1278	8	5,690											
	1278	14	27,750											
	1278	15	2,375											
	1278	17	2,375											
	1278	62	2,513											
	1278	63	2,513											
	1278	64	2,513											
	1278	65	5,020	1,260,605	1,150,987	-	1,100,238	50,749	-	-	100	109,618	25,375	25,375
	TOTAL		**50,749**	**1,260,605**	**1,150,987**	**-**	**1,100,238**	**50,749**	**-**	**-**	**100**	**109,618**	**25,375**	**25,375**
Site 6	1279	9	8,133											
	1279	17	13,125											
	1279	57	18,800											
	1279	63	4,522											
	1279	65	5,020	1,232,064	1,124,928	-	1,075,328	49,600	-	-	100	107,136	24,800	24,800
	TOTAL		**49,600**	**1,232,064**	**1,124,928**	**-**	**1,075,328**	**49,600**	**-**	**-**	**100**	**107,136**	**24,800**	**24,800**

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Future With the Proposed Action (With-Action) Scenario										
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	No of Dwelling Units	Parking Spaces: New Construction	Office Mechanical [2] (gsf)	Neighborhood Retail Area (gsf)	Destination Retail Area (gsf)
Site 7	1279	23	5,000											
	1279	24	2,541											
	1279	25	2,510											
	1279	48	15,000											
	1279	28	9,105											
	1279	45	9,105	1,194,004	1,090,177	-	1,046,916	43,261	-	-	-	103,826	21,631	21,631
	TOTAL		**43,261**	**1,194,004**	**1,090,177**	**-**	**1,046,916**	**43,261**	**-**	**-**	**-**	**103,826**	**21,631**	**21,631**
Site 8	1281	62	5,020											
	1281	64	2,445											
	1281	65	4,083	157,630	157,630	-	-	11,548	146,082	-	-	-	11,548	-
	TOTAL		**11,548**	**157,630**	**157,630**	**-**	**-**	**11,548**	**146,082**	**-**	**-**	**-**	**11,548**	**-**
Site 9	1281	21	43,313	1,195,439	1,091,488	-	1,048,175	43,313	-	-	-	103,951	21,657	21,657
	TOTAL		**43,313**	**1,195,439**	**1,091,488**	**-**	**1,048,175**	**43,313**	**-**	**-**	**-**	**103,951**	**21,657**	**21,657**
Site 10	1282	17	38,150											
	1282	64	8,033	1,147,186	1,047,430	-	1,001,247	46,183	-	-	100	99,755	23,092	23,092
	TOTAL		46,183	**1,147,186**	**1,047,430**	**-**	**1,001,247**	**46,183**	**-**	**-**	**100**	**99,755**	**23,092**	**23,092**
Site 11	1283	8	2,510											
	1283	9	2,510											
	1283	10	2,510											
	1283	11	2,510											
	1283	12	2,500											
	1283	13	2,500	213,171	213,171	-	-	15,040	198,131	-	-	-	15,040	-
	TOTAL		**15,040**	**213,171**	**213,171**	**-**	**-**	**15,040**	**198,131**	**-**	**-**	**-**	**15,040**	**-**
Site 12	1285	36	34,050	791,982	723,114	-	689,064	34,050	-	-	-	68,868	34,050	-
	TOTAL		**34,050**	**791,982**	**723,114**	**-**	**689,064**	**34,050**	**-**	**-**	**-**	**68,868**	**34,050**	**-**
Site 13	1292	52	20,075	422,047	385,347	-	365,272	20,075	-	-	-	36,700	20,075	-
	TOTAL		**20,075**	**422,047**	**385,347**	**-**	**365,272**	**20,075**	**-**	**-**	**-**	**36,700**	**20,075**	**-**
Site 14	1300	42	3,314											
	1300	44	3,213	89,094	6,527	82,567	-	6,527	-	83	-	-	6,527	
	TOTAL		**6,527**	**89,094**	**6,527**	**82,567**	**-**	**6,527**	**-**	**83**	**-**	**-**	**6,527**	**-**

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Future With the Proposed Action (With-Action) Scenario										
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	No of Dwelling Units	Parking Spaces: New Construction	Office Mechanical [2] (gsf)	Neighborhood Retail Area (gsf)	Destination Retail Area (gsf)
Site 15	1302	25	5,522											
	1302	27	1,674											
	1302	127	1,688											
	1302	28	1,688											
	1302	29	1,688	167,349	167,349	-	-	12,260	155,089	-	-	-	12,260	
	TOTAL		**12,260**	**167,349**	**167,349**	**-**	**-**	**12,260**	**155,089**	**-**	**-**	**-**	**12,260**	**-**
Site 16	1303	14	41,170	805,419	805,419	-	-	41,170	764,249	-	-	-	41,170	-
	TOTAL		41,170	**805,419**	**805,419**	**-**	**-**	**41,170**	**764,249**	**-**	**-**	**-**	**41,170**	**-**
Site 17	1304	20	24,725											
	1304	25	1,882											
	1304	26	5,682											
	1304	28	1,840											
	1304	45	10,041											
	1304	41	10,041	924,893	924,893	-	-	54,211	870,682	-	201	-	54,211	-
	TOTAL		**54,211**	**924,893**	**924,893**	**-**	**-**	**54,211**	**870,682**	**-**	**201**	**-**	**54,211**	**-**
Site 18	1310	1	27,950	694,278	633,906	-	605,956	27,950	-	-	-	60,372	27,950	-
	TOTAL		**27,950**	**694,278**	**633,906**	**-**	**605,956**	**27,950**	**-**	**-**	**-**	**60,372**	**27,950**	**-**
Site 19	1316	12	31,130											
	1316	23	37,657											
	1316	30	7,531	1,452,854	1,326,519	-	1,250,201	76,318	-	-	100	126,335	76,318	-
	TOTAL		**76,318**	**1,452,854**	**1,326,519**	**-**	**1,250,201**	**76,318**	**-**	**-**	**100**	**126,335**	**76,318**	**-**
TOTALS				**14,362,754**	**13,124,196**	**207,029**	**10,340,972**	**648,990**	**2,134,234**	**208**	**701**	**1,031,529**	**510,792**	**138,199**

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Increment						
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Site 1	869	16	14,220							
	869	58	5,370							
	869	61	6,480							
	869	64	7,400							
	TOTAL		33,470	359,257	286,962	-	284,492	2,470	-	-
Site 2	869	25	2,469							
	869	26	2,472							
	869	27	4,937							
	TOTAL		9,878	10,372	8,271	2,101	-	8,271	-	2
Site 3	1275	23	21,825							
	TOTAL		21,825	38,774	-	-	(750)	750	-	-
Site 4	1277	20	23,025							
	1277	27	10,250							
	1277	46	3,350							
	1277	52	6,666							
	TOTAL		43,291	398,277	363,644	-	363,644	-	-	-
Site 5	1278	8	5,690							
	1278	14	27,750							
	1278	15	2,375							
	1278	17	2,375							
	1278	62	2,513							
	1278	63	2,513							
	1278	64	2,513							
	1278	65	5,020							
	TOTAL		50,749	507,956	485,790	(87,452)	530,098	18,610	(62,918)	(88)
Site 6	1279	9	8,133							
	1279	17	13,125							
	1279	57	18,800							
	1279	63	4,522							
	1279	65	5,020							
	TOTAL		49,600	523,396	416,260	-	501,242	(84,982)	-	-

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Increment						
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Site 7	1279	23	5,000							
	1279	24	2,541							
	1279	25	2,510							
	1279	48	15,000							
	1279	28	9,105							
	1279	45	9,105							
	TOTAL		**43,261**	**395,840**	**332,095**	**-**	**484,179**	**13,987**	**(166,071)**	**-**
Site 8	1281	62	5,020							
	1281	64	2,445							
	1281	65	4,083							
	TOTAL		**11,548**	**12,125**	**146,082**	**(133,957)**	**-**	**-**	**146,082**	**(134)**
Site 9	1281	21	43,313							
	TOTAL		**43,313**	**597,191**	**493,240**	**-**	**1,048,175**	**43,313**	**(598,248)**	**-**
Site 10	1282	17	38,150							
	1282	64	8,033							
	TOTAL		46,183	**419,190**	**319,434**	**-**	**306,773**	**12,661**	**-**	**-**
Site 11	1283	8	2,510							
	1283	9	2,510							
	1283	10	2,510							
	1283	11	2,510							
	1283	12	2,500							
	1283	13	2,500							
	TOTAL		**15,040**	**-**	**198,131**	**(198,131)**	**-**	**-**	**198,131**	**(199)**
Site 12	1285	36	34,050							
	TOTAL		**34,050**	**146,499**	**77,631**	**-**	**75,667**	**1,964**	**-**	**-**
Site 13	1292	52	20,075							
	TOTAL		**20,075**	**36,700**	**-**	**-**	**(5,809)**	**5,809**	**-**	**-**
Site 14	1300	42	3,314							
	1300	44	3,213							
	TOTAL		**6,527**	**6,853**	**-**	**6,853**	**-**	**-**	**-**	**7**

TABLE A1-1: RWCDS PROJECTED DEVELOPMENT SITES (CONTINUED)

Site Data				Increment						
Site	Block	Lot(s)	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Site 15	1302	25	5,522							
	1302	27	1,674							
	1302	127	1,688							
	1302	28	1,688							
	1302	29	1,688							
	TOTAL		**12,260**	-	155,089	(155,089)	-	-	155,089	(156)
Site 16	1303	14	41,170							
	TOTAL		41,170	**377,808**	**377,808**	**-**	**-**	**41,170**	**336,638**	**-**
Site 17	1304	20	24,725							
	1304	25	1,882							
	1304	26	5,682							
	1304	28	1,840							
	1304	45	10,041							
	1304	41	10,041							
	TOTAL		**54,211**	**124,624**	**124,624**	**-**	**-**	**10,041**	**114,583**	**-**
Site 18	1310	1	27,950							
	TOTAL		**27,950**	**72,917**	**66,576**	**-**	**66,576**	**-**	**-**	**-**
Site 19	1316	12	31,130							
	1316	23	37,657							
	1316	30	7,531							
	TOTAL		**76,318**	**338,984**	**212,649**	**-**	**167,051**	**45,598**	**-**	**-**
TOTALS				**4,366,763**	**4,064,288**	**(565,675)**	**3,821,339**	**119,662**	**123,286**	**(568)**

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES

Site Data				Existing Condition						
Site	Block	Lot	Lot Area	Building Area (gsf)	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Potential Site 1	895	1	25675	530,900	530,900	-	488,245	20,525	-	-
	TOTAL		**25,675**	**530,900**	**530,900**	**-**	**488,245**	**20,525**	**-**	**-**
Potential Site 2	1275	8	7,406	79,738	79,738	-	73,188	6,550	-	-
	1275	11	2,450	11,951	11,951	-	11,951	-	-	-
	1275	12	5,100	57,643	57,643	-	51,292	6,351	-	-
	1275	14	4,735	102,079	102,079	-	102,079	-	-	-
	1275	16	4,750	36,681	36,681	-	30,111	6,570	-	-
	1275	59	9,250	170,230	170,230	-	164,420	5,810	-	-
	1275	60	2,479	7,255	7,255	-	3,855	3,400	-	-
	1275	61	4,950	92,939	92,939	-	89,439	3,500	-	-
	1275	63	2,469	9,200	9,200	-	7,200	2,000	-	-
	1275	64	6,325	83,247	83,247	-	72,149	11,098	-	-
	TOTAL		**49,914**	**650,963**	**650,963**	**-**	**605,684**	**45,279**	**-**	**-**
Potential Site 3	1278	20	43,313	874,734	874,734	-	850,729	24,005	-	-
	TOTAL		**43,313**	**874,734**	**874,734**	**-**	**850,729**	**24,005**	**-**	**-**
Potential Site 4	1281	9	2,513	18,933	18,933	-	14,833	4,100	-	-
	1281	56	6,025	84,518	84,518	-	78,589	5,929	-	-
	1281	59	6,025	87,016	87,016	-	77,716	9,300	-	-
	1281	7501	19,581	323,029	323,029	-	318,943	-	4,086	-
	TOTAL		**34,144**	**513,496**	**513,496**	**-**	**490,081**	**19,329**	**4,086**	**-**
Potential Site 5	1282	34	24970	444,628	444,628	-	434,628	10,000	-	-
	TOTAL		**24,970**	**444,628**	**444,628**	**-**	**434,628**	**10,000**	**-**	**-**
Potential Site 6	1287	33	27,925	535,700	535,700	-	517,700	18,000	-	-
	TOTAL		**27,925**	**535,700**	**535,700**	**-**	**517,700**	**18,000**	**-**	**-**
Potential Site 7	1290	37	11,715	236,665	236,665	-	228,665	8,000	-	-
	1290	36	12,552	214,392	214,392	-	147,007	67,385	-	-
	1290	31	2,109	7,929	1,586	6,343	-	1,586	-	6
	TOTAL		**26,376**	**458,986**	**452,643**	**6,343**	**375,672**	**76,971**	**-**	**6**

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Existing Condition						
Site	Block	Lot	Lot Area	Building Area (gsf)	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Potential Site 8	1295	17	12,359	238,274	238,274	-	228,274	10,000	-	-
	1295	58	14,812	246,585	246,585	-	233,287	13,298	-	-
	TOTAL		**27,171**	**484,859**	**484,859**	**-**	**461,561**	**23,298**	**-**	**-**
Potential Site 9	1296	1	24786	518,582	518,582	-	497,582	21,000	-	-
	TOTAL		**24,786**	**518,582**	**518,582**	**-**	**497,582**	**21,000**	**-**	**-**
Potential Site 10	1300	33	38,168	596,500	596,500	-	567,000	29,500	-	-
	TOTAL		**38,168**	**596,500**	**596,500**	**-**	**567,000**	**29,500**	**-**	**-**
Potential Site 11	1301	23	46,125	743,779	743,779	-	674,979	25,632	-	-
	1301	33	38,225	761,057	761,057	-	734,837	26,220	-	-
	TOTAL		**84,350**	**1,504,836**	**1,504,836**	**-**	**1,409,816**	**51,852**	**-**	**-**
Potential Site 12	1302	123	1,280	3,600	3,600	-	-	900	2,700	-
	1302	51	17,522	314,568	314,568	-	-	16,974	297,594	-
	1302	21	6,050	92,501	92,501	-	-	-	92,501	-
	1302	22	1,360	3,864	1,200	2,664	-	1,200	-	3
	1302	23	1,360	3,813	1,938	1,875	938	1,000	-	2
	1302	24	2,010	7,121	4,747	2,374	1,187	3,560	-	4
	TOTAL		**29,582**	**425,467**	**418,554**	**6,913**	**2,125**	**23,634**	**392,795**	**9**
Potential Site 13	1303	53	22425	406,261	406,261				406,261	
	TOTAL		**22,425**	**406,261**	**406,261**	**-**	**-**	**-**	**406,261**	**-**
Potential Site 14	1306	23	32625	584,429	584,429		564,429	20,000	-	-
	TOTAL		**32,625**	**584,429**	**584,429**	**-**	**564,429**	**20,000**	**-**	**-**
Potential Site 15	1306	33	31,625	488,366	488,366	-	472,366	16,000	-	-
	TOTAL		**31,625**	**488,366**	**488,366**	**-**	**472,366**	**16,000**	**-**	**-**
Potential Site 16	1317	1	31,129	559,755	559,755	-	533,565	26,190	-	-
	TOTAL		**31,129**	**559,755**	**559,755**	**-**	**533,565**	**26,190**	**-**	**-**

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Existing Condition						
Site	Block	Lot	Lot Area	Building Area (gsf)	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Potential Site 17	1318	43	1,674	1,674	1,674	-	-	1,674	-	-
	1318	1	38,666	544,150	544,150	-	478,500	23,853	-	-
	1318	44	1,672	-	-	-	-	-	-	-
	1318	143	1,672	3,028	758	2,270	-	758	-	6
	TOTAL		**43,684**	**548,852**	**546,582**	**2,270**	**478,500**	**26,285**	**-**	**6**
Potential Site 18	1319	47	25768	405399	405399		378170	27229	-	-
	TOTAL		**25,768**	**405,399**	**405,399**	**-**	**378,170**	**27,229**	**-**	**-**
Potential Site 19	1305	33	10,744	159,582	159,582	-	-	-	159,582	-
	1305	40	10,041	135,000	135,000	-	128,150	6,850	-	-
	1305	32	5,322	47,938	47,938	-	-	10,912	37,026	-
	TOTAL		**26,107**	**342,520**	**342,520**	**-**	**128,150**	**17,762**	**196,608**	**-**
Potential Site 20	1307	43	25,100	373,078	373,078	-	132,909	24,953	209,612	-
	1307	7501	5,020	38,602	38,602	-	-	-	-	-
	TOTAL		**30,120**	**411,680**	**411,680**	**-**	**132,909**	**24,953**	**209,612**	**-**

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Future Without the Proposed Action (No-Action) Scenario							
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Num of Res Units	Office Mechanical (gsf)
Potential Site 1	895	1	25675	530,900	530,900	-	488,245	20,525	-	-	-
	TOTAL		**25,675**	**530,900**	**530,900**	**-**	**488,245**	**20,525**	**-**	**-**	**-**
Potential Site 2	1275	8	7,406	79,738	79,738	-	73,188	6,550	-	-	-
	1275	11	2,450	11,951	11,951	-	11,951	-	-	-	-
	1275	12	5,100	57,643	57,643	-	51,292	6,351	-	-	-
	1275	14	4,735	102,079	102,079	-	102,079	-	-	-	-
	1275	16	4,750	36,681	36,681	-	30,111	6,570	-	-	-
	1275	59	9,250	170,230	170,230	-	164,420	5,810	-	-	-
	1275	60	2,479	7,255	7,255	-	3,855	3,400	-	-	-
	1275	61	4,950	92,939	92,939	-	89,439	3,500	-	-	-
	1275	63	2,469	9,200	9,200	-	7,200	2,000	-	-	-
	1275	64	6,325	83,247	83,247	-	72,149	11,098	-	-	-
	TOTAL		**49,914**	**650,963**	**650,963**	**-**	**605,684**	**45,279**	**-**	**-**	**-**
Potential Site 3	1278	20	43,313	874,734	874,734	-	850,729	24,005	-	-	-
	TOTAL		**43,313**	**874,734**	**874,734**	**-**	**850,729**	**24,005**	**-**	**-**	**-**
Potential Site 4	1281	9	2,513	18,933	18,933	-	14,833	4,100	-	-	-
	1281	56	6,025	84,518	84,518	-	78,589	5,929	-	-	-
	1281	59	6,025	87,016	87,016	-	77,716	9,300	-	-	-
	1281	7501	19,581	323,029	323,029	-	318,943	-	4,086	-	-
	TOTAL		**34,144**	**513,496**	**513,496**	**-**	**490,081**	**19,329**	**4,086**	**-**	**-**
Potential Site 5	1282	34	24970	444,628	444,628	-	434,628	10,000	-	-	-
	TOTAL		**24,970**	**444,628**	**444,628**	**-**	**434,628**	**10,000**	**-**	**-**	**-**
Potential Site 6	1287	33	27,925	535,700	535,700	-	517,700	18,000	-	-	-
	TOTAL		**27,925**	**535,700**	**535,700**	**-**	**517,700**	**18,000**	**-**	**-**	**-**
Potential Site 7	1290	37	11,715	236,665	236,665	-	228,665	8,000	-	-	-
	1290	36	12,552	214,392	214,392	-	147,007	67,385	-	-	-
	1290	31	2,109	7,929	1,586	6,343	-	1,586	-	6	-
	TOTAL		**26,376**	**458,986**	**452,643**	**6,343**	**375,672**	**76,971**	**-**	**6**	**-**

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Future Without the Proposed Action (No-Action) Scenario							
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Num of Res Units	Office Mechanical (gsf)
Potential Site 8	1295	17	12,359	238,274	238,274	-	228,274	10,000	-	-	-
	1295	58	14,812	246,585	246,585	-	233,287	13,298	-	-	-
	TOTAL		**27,171**	**484,859**	**484,859**	**-**	**461,561**	**23,298**	**-**	**-**	**-**
Potential Site 9	1296	1	24786	518,582	518,582	-	497,582	21,000	-	-	-
	TOTAL		**24,786**	**518,582**	**518,582**	**-**	**497,582**	**21,000**	**-**	**-**	**-**
Potential Site 10	1300	33	38,168	596,500	596,500	-	567,000	29,500	-	-	-
	TOTAL		**38,168**	**596,500**	**596,500**	**-**	**567,000**	**29,500**	**-**	**-**	**-**
Potential Site 11	1301	23	46,125	743,779	743,779	-	674,979	25,632	-	-	-
	1301	33	38,225	761,057	761,057	-	734,837	26,220	-	-	-
	TOTAL		**84,350**	**1,504,836**	**1,504,836**	**-**	**1,409,816**	**51,852**	**-**	**-**	**-**
Potential Site 12	1302	123	1,280	3,600	3,600	-	-	900	2,700	-	-
	1302	51	17,522	314,568	314,568	-	-	16,974	297,594	-	-
	1302	21	6,050	92,501	92,501	-	-	-	92,501	-	-
	1302	22	1,360	3,864	1,200	2,664	-	1,200	-	3	-
	1302	23	1,360	3,813	1,938	1,875	938	1,000	-	2	-
	1302	24	2,010	7,121	4,747	2,374	1,187	3,560	-	4	-
	TOTAL		**29,582**	**425,467**	**418,554**	**6,913**	**2,125**	**23,634**	**392,795**	**9**	**-**
Potential Site 13	1303	53	22425	406,261	406,261	-	-	-	406,261	-	-
	TOTAL		**22,425**	**406,261**	**406,261**	**-**	**-**	**-**	**406,261**	**-**	**-**
Potential Site 14	1306	23	32625	584,429	584,429	-	564,429	20,000	-	-	-
	TOTAL		**32,625**	**584,429**	**584,429**	**-**	**564,429**	**20,000**	**-**	**-**	**-**
Potential Site 15	1306	33	31,625	488,366	488,366	-	472,366	16,000	-	-	-
	TOTAL		**31,625**	**488,366**	**488,366**	**-**	**472,366**	**16,000**	**-**	**-**	**-**
Potential Site 16	1317	1	31,129	559,755	559,755	-	533,565	26,190	-	-	-
	TOTAL		**31,129**	**559,755**	**559,755**	**-**	**533,565**	**26,190**	**-**	**-**	**-**

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Future Without the Proposed Action (No-Action) Scenario							
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Num of Res Units	Office Mechanical (gsf)
Potential Site 17	1318	43	1,674	1,674	1,674	-	-	1,674	-	-	-
	1318	1	38,666	544,150	544,150	-	478,500	23,853	-	-	-
	1318	44	1,672	-	-	-	-	-	-	-	-
	1318	143	1,672	3,028	758	2,270	-	758	-	6	-
	TOTAL		**43,684**	**548,852**	**546,582**	**2,270**	**478,500**	**26,285**	**-**	**6**	**-**
Potential Site 18	1319	47	25768	405,399	405,399	-	378,170	27,229	-	-	-
	TOTAL		**25,768**	**405,399**	**405,399**	**-**	**378,170**	**27,229**	**-**	**-**	**-**
Potential Site 19	1305	33	10,744	159,582	159,582	-	-	-	159,582	-	-
	1305	40	10,041	135,000	135,000	-	128,150	6,850	-	-	-
	1305	32	5,322	47,938	47,938	-	-	10,912	37,026	-	-
	TOTAL		**26,107**	**342,520**	**342,520**	**-**	**128,150**	**17,762**	**196,608**	**-**	**-**
Potential Site 20	1307	43	25,100	373,078	373,078	-	132,909	24,953	209,612	-	-
	1307	7501	5,020	38,602	38,602	-	-	-	-	**-**	**-**
	TOTAL		**30,120**	**411,680**	**411,680**	**-**	**132,909**	**24,953**	**209,612**	**-**	**-**

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Future With the Proposed Action (With-Action) Scenario											
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	No of Dwelling Units	Parking Spaces: New Construction	Office Mechanical [2] (gsf)	Neighborhood Retail Area (gsf)	Destination Retail Area (gsf)
Potential Site 1	895	1	25675	581,462	530,900		505,225	25,675				50,562	25,675	
	TOTAL		**25,675**	**581,462**	**530,900**	**-**	**505,225**	**25,675**	**-**	**-**	**-**	**50,562**	**25,675**	**-**
Potential Site 2	1275	8	7,406											
	1275	11	2,450											
	1275	12	5,100											
	1275	14	4,735											
	1275	16	4,750											
	1275	59	9,250											
	1275	60	2,479											
	1275	61	4,950											
	1275	63	2,469											
	1275	64	6,325	1,239,864	1,132,050	-	1,082,136	49,914	-	-	100	107,814	24,957	24,957
	TOTAL		**49,914**	**1,239,864**	**1,132,050**	**-**	**1,082,136**	**49,914**	**-**	**-**	**100**	**107,814**	**24,957**	**24,957**
Potential Site 3	1278	20	43,313	1,195,439	1,091,488	-	1,048,175	43,313	-	-	-	103,951	21,657	21,657
	TOTAL		**43,313**	**1,195,439**	**1,091,488**	**-**	**1,048,175**	**43,313**	**-**	**-**	**-**	**103,951**	**21,657**	**21,657**
Potential Site 4	1281	9	2,513											
	1281	56	6,025											
	1281	59	6,025											
	1281	7501	19,581	848,137	774,386	-	740,242	34,144	-	-	100	73,751	34,144	-
	TOTAL		**34,144**	848,137	774,386	-	740,242	34,144	-	-	100	73,751	34,144	-
Potential Site 5	1282	34	24970	486,974	444,628		419,658	24,970				42,346	24,970	
	TOTAL		**24,970**	**486,974**	**444,628**	**-**	**419,658**	**24,970**	**-**	**-**	**-**	**42,346**	**24,970**	**-**
Potential Site 6	1287	33	27,925	693,657	633,339	-	605,414	27,925	-	-	-	60,318	27,925	-
	TOTAL		**27,925**	**693,657**	**633,339**	**-**	**605,414**	**27,925**	**-**	**-**	**-**	**60,318**	**27,925**	**-**
Potential Site 7	1290	37	11,715											
	1290	36	12,552											
	1290	31	2,109	655,180	598,208	-	571,832	26,376	-	-	-	56,972	26,376	-
	TOTAL		**26,376**	**655,180**	**598,208**	**-**	**571,832**	**26,376**	**-**	**-**	**-**	**56,972**	**26,376**	**-**

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Future With the Proposed Action (With-Action) Scenario											
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	No of Dwelling Units	Parking Spaces: New Construction	Office Mechanical [2] (gsf)	Neighborhood Retail Area (gsf)	Destination Retail Area (gsf)
Potential Site 8	1295	17	12,359											
	1295	58	14,812	674,928	616,238	-	589,067	27,171	-	-	-	58,689	27,171	-
	TOTAL		27,171	674,928	616,238	-	589,067	27,171	-	-	-	58,689	27,171	-
Potential Site 9	1296	1	24786	567,971	518,582		493,796	24,786				49,389	24,786	
	TOTAL		24,786	567,971	518,582	-	493,796	24,786	-	-	-	49,389	24,786	-
Potential Site 10	1300	33	38,168	735,562	671,600	-	633,432	38,168	-	-	100	63,962	38,168	-
	TOTAL		38,168	735,562	671,600	-	633,432	38,168	-	-	100	63,962	38,168	-
Potential Site 11	1301	23	46,125											
	1301	33	38,225	1,991,324	1,818,166	-	1,733,816	84,350	-	-	100	173,159	42,175	42,175
	TOTAL		84,350	1,991,324	1,818,166	-	1,733,816	84,350	-	-	100	173,159	42,175	42,175
Potential Site 12	1302	123	1,280											
	1302	51	17,522											
	1302	21	6,050											
	1302	22	1,360											
	1302	23	1,360											
	1302	24	2,010	670,920	670,920	-	-	29,582	641,338	-	148	-	29,582	-
	TOTAL		29,582	670,920	670,920	-	-	29,582	641,338	-	148	-	29,582	-
Potential Site 13	1303	53	22425	406,261	406,261			22,425	383,836		89		22,425	
	TOTAL		22,425	406,261	406,261	-	-	22,425	383,836	-	89	-	22,425	-
Potential Site 14	1306	23	32625	640,089	584,429		551,804	32,625				55,660	32,625	
	TOTAL		32,625	640,089	584,429	-	551,804	32,625	-	-	-	55,660	32,625	-
Potential Site 15	1306	33	31,625	627,210	572,670	-	541,045	31,625	-	-	-	54,540	31,625	-
	TOTAL		31,625	627,210	572,670	-	541,045	31,625	-	-	-	54,540	31,625	-
Potential Site 16	1317	1	31,129	644,370	588,338	-	557,209	31,129	-	-	-	56,032	31,129	-
	TOTAL		31,129	644,370	588,338	-	557,209	31,129	-	-	-	56,032	31,129	-

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Future With the Proposed Action (With-Action) Scenario										
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	No of Dwelling Units	Parking Spaces: New Construction	Office Mechanical [2] (gsf)	Neighborhood Retail Area (gsf)	Destination Retail Area (gsf)
Potential Site 17	1318	43	1,674											
	1318	1	38,666											
	1318	44	1,672											
	1318	143	1,672	889,007	889,007	-	845,323	43,684	-	-	100	77,305	43,684	-
	TOTAL		**43,684**	**889,007**	**889,007**	**-**	**845,323**	**43,684**	**-**	**-**	**100**	**77,305**	**43,684**	**-**
Potential Site 18	1319	47	25768	444,008	405,399		379,631	25,768				38,609	25,768	
	TOTAL		**25,768**	**444,008**	**405,399**	**-**	**379,631**	**25,768**	**-**	**-**	**-**	**38,609**	**25,768**	**-**
Potential Site 19	1305	33	10,744											
	1305	40	10,041											
	1305	32	5,322	479,788	479,788	-	-	26,107	453,681	-	100	-	26,107	-
	TOTAL		**26,107**	**479,788**	**479,788**	**-**	**-**	**26,107**	**453,681**	**-**	**100**	**-**	**26,107**	**-**
Potential Site 20	1307	43	25,100											
	1307	7501	5,020	592,434	540,918		510,798	30,120	-	-		51,516	15,060	15,060
	TOTAL		**30,120**	**592,434**	**540,918**	**-**	**510,798**	**30,120**	**-**	**-**	**-**	**51,516**	**15,060**	**15,060**

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Increment						
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Potential Site 1	895	1	25675							
	TOTAL		**25,675**	**50,562**	**-**	**-**	**16,980**	**5,150**	**-**	**-**
Potential Site 2	1275	8	7,406							
	1275	11	2,450							
	1275	12	5,100							
	1275	14	4,735							
	1275	16	4,750							
	1275	59	9,250							
	1275	60	2,479							
	1275	61	4,950							
	1275	63	2,469							
	1275	64	6,325							
	TOTAL		**49,914**	588,901	481,087	-	476,452	4,635	-	-
Potential Site 3	1278	20	43,313							
	TOTAL		**43,313**	**320,705**	**216,754**	**-**	**197,446**	**19,308**	**-**	**-**
Potential Site 4	1281	9	2,513							
	1281	56	6,025							
	1281	59	6,025							
	1281	7501	19,581							
	TOTAL		**34,144**	**334,641**	**260,890**	**-**	**250,161**	**14,815**	**(4,086)**	**-**
Potential Site 5	1282	34	24970							
	TOTAL		**24,970**	**42,346**	**-**	**-**	**(14,970)**	**14,970**	**-**	**-**
Potential Site 6	1287	33	27,925							
	TOTAL		**27,925**	**157,957**	**97,639**	**-**	**87,714**	**9,925**	**-**	**-**
Potential Site 7	1290	37	11,715							
	1290	36	12,552							
	1290	31	2,109							
	TOTAL		**26,376**	**196,194**	**145,565**	**(6,343)**	**196,160**	**(50,595)**	**-**	**(6)**

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Increment						
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Potential Site 8	1295	17	12,359							
	1295	58	14,812							
	TOTAL		27,171	190,069	131,379	-	127,506	3,873	-	-
Potential Site 9	1296	1	24786							
	TOTAL		24,786	49,389	-	-	(3,786)	3,786	-	-
Potential Site 10	1300	33	38,168							
	TOTAL		38,168	139,062	75,100	-	66,432	8,668	-	-
Potential Site 11	1301	23	46,125							
	1301	33	38,225							
	TOTAL		84,350	486,488	313,330	-	324,000	32,498	-	-
Potential Site 12	1302	123	1,280							
	1302	51	17,522							
	1302	21	6,050							
	1302	22	1,360							
	1302	23	1,360							
	1302	24	2,010							
	TOTAL		29,582	245,453	252,366	(6,913)	(2,125)	5,948	248,543	(9)
Potential Site 13	1303	53	22425							
	TOTAL		22,425	-	-	-	-	22,425	(22,425)	-
Potential Site 14	1306	23	32625							
	TOTAL		32,625	55,660	-	-	(12,625)	12,625	-	-
Potential Site 15	1306	33	31,625							
	TOTAL		31,625	138,844	84,304	-	68,679	15,625	-	-
Potential Site 16	1317	1	31,129							
	TOTAL		31,129	84,615	28,583	-	23,644	4,939	-	-

TABLE A1-2: RWCDS POTENTIAL DEVELOPMENT SITES (CONTINUED)

Site Data				Increment						
Site	Block	Lot	Lot Area	Building Area (gsf) including Office Mechanical	Commercial Area: Office, Retail and Hotel Areas (gsf)	Residential Area (gsf)	Office Area Usable [2] (gsf)	Retail Area (gsf)	Hotel Area (gsf)	Number of Dwelling Units
Potential Site 17	1318	43	1,674							
	1318	1	38,666							
	1318	44	1,672							
	1318	143	1,672							
	TOTAL		43,684	340,155	342,425	(2,270)	366,823	17,399	-	(6)
Potential Site 18	1319	47	25768							
	TOTAL		25,768	38,609	-	-	1,461	(1,461)	-	-
Potential Site 19	1305	33	10,744							
	1305	40	10,041							
	1305	32	5,322							
	TOTAL		26,107	137,268	137,268	-	(128,150)	8,345	257,073	-
Potential Site 20	1307	43	25,100							
	1307	7501	5,020							
	TOTAL		30,120	180,754	129,238	-	377,889	5,167	(209,612)	-

Notes

1) For residential buildings and hotels, per standard practice, the building gross square footage is derived from zoning floor area plus five percent mechanical space.

2) For large high-end office buildings, as the result of the Proposed Action it is assumed that these buildings would utilize a much larger allocation of mechanical space than found in typical office use; therefore the total mechanical space are set at fifteen percent over their zoning floor area. The environmental density analyses are based on the values shown in OfficeArea (usable) column.

Appendix B
Transportation Planning Factors Memorandum

Prepared for the Lead Agency by Parsons Brinckerhoff, Inc.

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Memorandum

TO: Files

FROM: Erik Metzger

DATE: December 17, 2012

SUBJECT: East Midtown Rezoning and Related Actions EIS
Transportation Planning Factors

This memorandum summarizes the transportation planning factors to be used for the analyses of traffic, parking, transit and pedestrian conditions for the East Midtown Rezoning and Related Actions EIS, including trip generation rates, temporal distributions, modal splits, plus estimates of the projected travel demand of the proposed action for the weekday AM, midday and PM peak hours.

PROPOSED ACTION

The New York City Department of City Planning (NYCDCP) is proposing to undertake zoning map changes and zoning text amendments within the East Midtown neighborhood in an area generally bounded by East 57th Street to the north, East 39th Street to the south, Second Avenue to the east and Fifth Avenue to the west. The proposed rezoning would allow for the addition of modern and sustainable office space to ensure the area remains a key job center for the city and region, capitalizing on the area's existing and expanding transportation network.

NYCDCP has developed a Reasonable Worst-Case Development Scenario (RWCDS) identifying 19 projected sites likely to be developed by 2033, the analysis year for the proposed action, and 20 potential development sites which are considered less likely to be developed. The transportation chapter of the EIS will analyze only projected development sites. Figure 1 shows the boundaries of the proposed rezoning area and the locations of projected and potential development sites.

The proposed rezoning action would result in a change in permitted development floor areas for commercial land uses. If approved, the rezoning could result in a net increase of approximately 3.5 million gross square feet (gsf) of new development on projected sites. Although there would be a net increase of approximately 3.8 million gsf of office space, there would also be a net decrease of approximately 566,000 gsf of residential space between the Future With the Proposed Action and the Future Without the Proposed Action scenarios, mostly representing a conversion of existing office space to residential space that would not be expected to occur if the rezoning is approved. Table 1 summarizes the incremental net change of component sizes by land use for the RWCDS.

TRANSPORTATION PLANNING FACTORS

The transportation planning factors proposed to forecast weekday travel demand for the proposed land uses are summarized in Table 2 and discussed below. The trip generation rates, temporal distributions and mode splits for the office, residential, local retail, destination retail and hotel land uses were primarily based on accepted *CEQR Technical Manual* factors, rates that were developed for the *No. 7 Subway Extension—Hudson Yards Rezoning and Development Program FGEIS* and *Western Rail Yard FEIS*, 2000 US Census and 2006-2010 American Community Survey journey-to-work data for census tracts in the rezoning area and other standard professional references.

Figure 1 – Rezoning Area

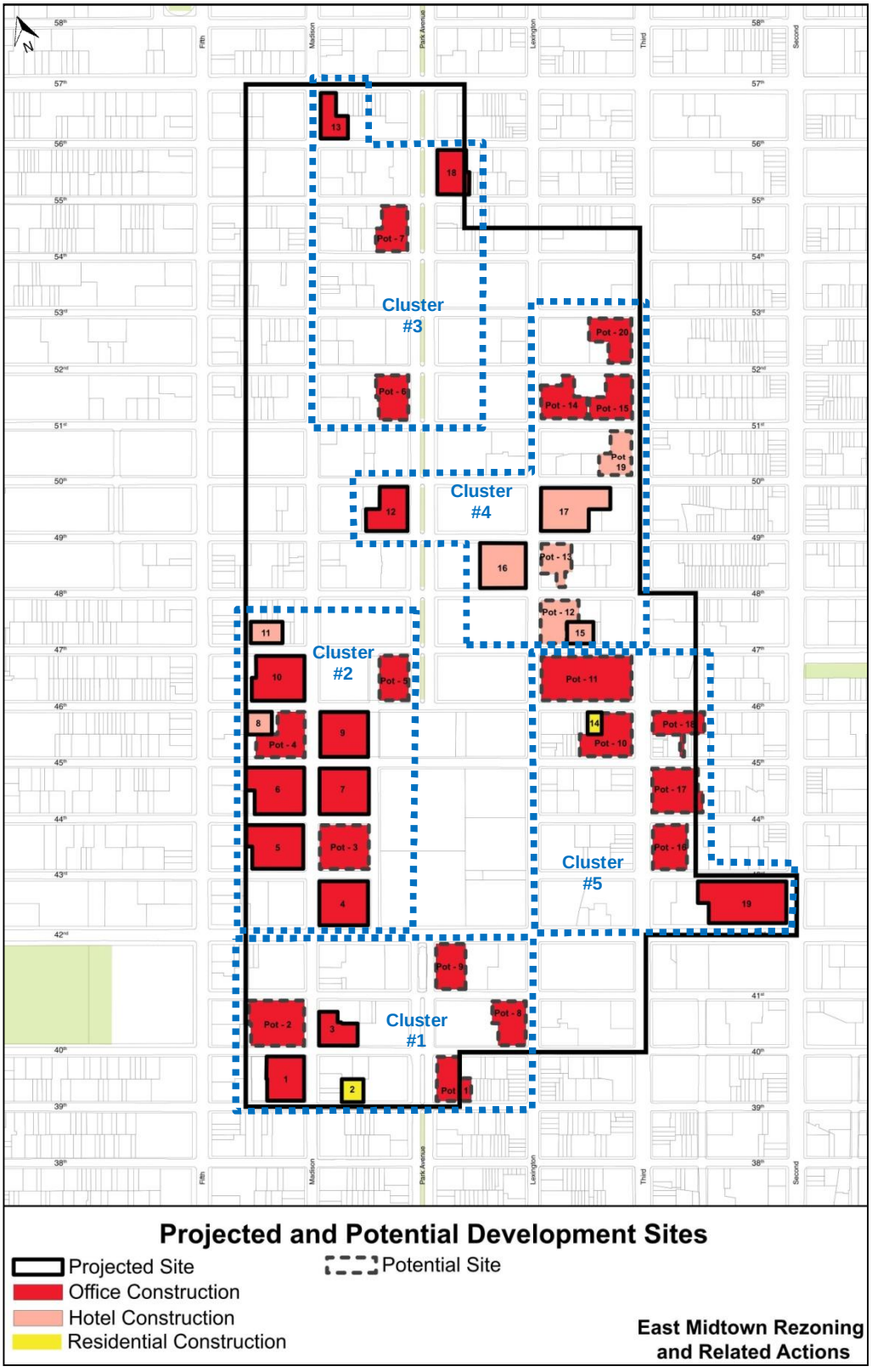

Table 1 – Net Change of Land Uses on Projected Development Sites

Land Use	Incremental Net Change
Office	+3,821,339 gsf
Residential	-565,675 gsf (-568 dwelling units)
Local Retail	+53,739 gsf
Destination Retail	+65,924 gsf
Hotel	+123,286 gsf (+190 rooms)
Total	+3,498,613 gsf

Office

The forecast of weekday travel demand from projected office development will be based on the trip generation rates and temporal distributions cited in the *CEQR Technical Manual*. In/out splits were obtained from the *Western Rail Yard FEIS* and *Urban Space for Pedestrians* (Pushakrev & Zupan). Weekday AM and PM peak hour modal splits were adapted from 2000 US Census reverse journey-to-work data for workers arriving between 7:30 am and 9:30 am to census tracts in the study area by NYCDCP, New York City Department of Transportation (NYCDOT) and MTA New York City Transit (NYCT) to account for future changes in travel patterns due to the East Side Access project and other changes in travel patterns based on 2006-2010 American Community Survey reverse journey-to-work data. Weekday midday modal splits were obtained from the *Western Rail Yard FEIS*. Vehicle occupancies for autos were derived based on the 2000 US Census reverse journey-to-work data and vehicle occupancy rates for taxis were based on the factors cited in the *CEQR Technical Manual*. Trips made by taxi were assumed to be evenly distributed between yellow cabs and black cars. Truck trip generation assumptions were based on the rates cited in the *CEQR Technical Manual*.

Residential

The forecast of weekday travel demand from projected residential development will be based on the trip generation rates and temporal distributions cited in the *CEQR Technical Manual*. In/out splits were obtained from the *Western Rail Yard FEIS*. Modal splits were derived from 2006-2010 American Community Survey journey-to-work data for workers residing in census tracts in the study area. Although residential-based trips in the midday would likely be more local in nature than in the peak commuter hours (and therefore have a higher walk share, for example), the residential modal split based on journey-to work data is conservatively assumed for all periods. Vehicle occupancies for autos were derived based on the 2006-2010 American Community Survey data and vehicle occupancy rates for taxis were based on the factors cited in the *CEQR Technical Manual*. Truck trip generation assumptions were based on the rates cited in the *CEQR Technical Manual*.

Local Retail

Local retail would primarily attract trips from worker populations at new office development and other land uses in the surrounding area. It is therefore anticipated that the majority of these trips would be via the walk mode and that many would be “linked” trips (e.g., a trip with multiple purposes, such as stopping at a retail store while commuting to or from work or at lunchtime) and would therefore not represent the addition of new discrete trips. The proportion of “linked” trips assumed is 25 percent based on the *CEQR Technical Manual*. Weekday travel demand forecasts for local retail will be based on the trip generation rates and temporal distributions cited in the *CEQR Technical Manual*. In/out splits and modal splits were obtained from the *Western Rail Yard FEIS*. Vehicle occupancy rates will be based on the factors in the *CEQR Technical Manual* and *Western Rail Yard FEIS*. Truck trip generation assumptions were based on the rates cited in the *CEQR Technical Manual*.

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Table 2 – Transportation Planning Factors

Land Use:	Office		Residential		Local Retail		Destination Retail		Hotel	
Trip Generation:	(1)		(1)		(1)		(1)		(1)	
	Weekday		Weekday		Weekday		Weekday		Weekday	
Daily Person Trips	18.0		8.075		205		78.2		9.4	
Net Daily Person Trips*	18.0		8.075		154		78.2		9.4	
	per 1,000 gsf		per dwelling unit		per 1,000 gsf		per 1,000 gsf		per room	
Temporal Distribution:	(1)		(1)		(1)		(1)		(1)	
AM	12%		10%		3%		3%		8%	
MD	15%		5%		19%		9%		14%	
PM	14%		11%		10%		9%		13%	
In/Out Splits:	(2,3)		(2)		(2)		(2)		(2)	
	In	Out	In	Out	In	Out	In	Out	In	Out
AM	96%	4%	15%	85%	50%	50%	61%	39%	39%	61%
MD	48%	52%	50%	50%	50%	50%	55%	45%	54%	46%
PM	5%	95%	70%	30%	50%	50%	47%	53%	65%	35%
Modal Splits:	(4)	(2)	(5)		(2)		(2)	(2)	(2)	(2)
	AM/PM	MD	All		All		AM/PM	MD	AM/PM	MD
Auto	6.0%	2.0%	7.0%		2%		9.0%	9%	9%	8%
Taxi (Yellow Cab)	1.5%	1.5%	5.4%		3%		4.0%	4%	18%	15%
Taxi (Black Car)	1.5%	1.5%	-		-		-	-	-	-
Bus	14.6%	6.0%	6.3%		6%		8.0%	8%	3%	3%
Subway	47.9%	6.0%	26.3%		6%		26.5%	20%	24%	13%
Railroad	19.0%	0.0%	3.3%		0%		2.0%	0%	0%	0%
Walk	8.4%	83.0%	50.6%		83%		50.5%	59%	46%	61%
Other	1.1%	0.0%	1.1%		0%		0.0%	0%	0%	0%
	100.0%	100%	100.0%		100%		100.0%	100%	100%	100%
Vehicle Occupancy:	(1,2,4)		(1,2,5)		(1,2)		(2)		(2)	
Auto	1.20		1.23		1.65		2.00		1.40	
Taxi (Yellow Cab)	1.40		1.40		1.40		2.00		1.80	
Taxi (Black Car)	1.40		-		-		-		-	
Truck Trip Generation:	(1)		(1)		(1)		(1,2)		(2,6)	
	Weekday		Weekday		Weekday		Weekday		Weekday	
	0.32		0.06		0.35		0.35		0.06	
	per 1,000 gsf		per dwelling unit		per 1,000 gsf		per 1,000 gsf		per room	
	(1)		(1)		(1)		(1,2)		(2,6)	
AM	10%		12%		8%		8%		12.0%	
MD	11%		9%		11%		11%		9.0%	
PM	2%		2%		2%		2%		1.0%	
	In	Out	In	Out	In	Out	In	Out	In	Out
AM/MD/PM	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%

Note:

* Includes 25% credit for linked trips to local retail

Sources:

1 CEQR Technical Manual (2012)

2 Western Rail Yard FEIS (2009)

3 Pushkarev & Zupan, Urban Space for Pedestrians (1975)

4 Adapted by MTA-NYCT, NYCDCP and NYCDOT from 2000 US Census Reverse Journey-to-Work Data for Tracts 80, 82, 88, 90, 92, 94, 100, 102, 112.02 and 112.03 for workers arriving between 7:30-9:30 am

5 2006-2010 American Community Survey Journey-to-Work Data for Tracts 80, 82, 88, 90, 92, 94, 100, 102, 112.02 and 112.03

6 Curbside Pickup and Delivery Operations and Arterial Traffic Impacts, FHWA (1981)

Destination Retail

Destination retail differs from local retail in that it more often represents a primary trip purpose to the study area, as is reflected in the mode split. Weekday travel demand forecasts for destination retail will be based on the trip generation rates and temporal distributions cited in the *CEQR Technical Manual*. In/out splits, modal splits and vehicle occupancy rates were obtained from the *Western Rail Yard FEIS*. Truck trip generation rates were assumed to be the same as local retail.

Hotel

Travel demand forecasts for hotel land uses will be based on the trip generation rates and temporal distributions cited in the *CEQR Technical Manual* and the in/out splits, modal splits and vehicle occupancies presented in the *Western Rail Yard FEIS*. Truck trip generation assumptions were based on the rates cited in the *Western Rail Yard FEIS* and the Federal Highway Administration's *Curbside Pickup and Delivery Operations and Arterial Traffic Impacts*.

TRIP GENERATION

The incremental difference in person and vehicle trips expected to result from the proposed rezoning by the projected 2033 development completion study year were derived based on the land use component sizes in Table 1 and the transportation planning factors in Table 2. Table 3 provides an estimate of the incremental net change of peak hour person trips (versus the No-Action condition) that would occur in 2033 with implementation of the proposed rezoning.[1]

As shown in Table 3, the proposed rezoning would generate an increase of approximately 8,345 total person trips in the AM peak hour, 12,377 total person trips in the midday peak hour and 10,647 total person trips in the PM peak hour. Person trips by auto and taxi modes would increase by a net total of approximately 756, 685 and 967 during the AM, midday and PM peak hours, respectively. Peak hour bus trips would increase by a net total of approximately 1,208, 743 and 1,468 during the AM, midday and PM peak hours, respectively. Peak hour subway trips would increase by a net total of approximately 3,922, 779 and 4,708 during the AM, midday and PM peak hours, respectively. Peak hour railroad trips would increase by approximately 1,557 and 1,821 during the AM and PM peak hours, respectively, and would decrease by approximately 8 during the midday peak hour. Trips solely made by the walk mode would increase by approximately 812, 10,180 and 1,578 during the AM, midday and PM peak hours, respectively.

[1] The sum of the trip generation from all sites may differ slightly from the numbers shown in Table 3 due to rounding and the balancing of taxi trips on a site-by-site basis. Trip generation calculations for each projected development site are provided in Appendix A.

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Table 3 – Travel Demand Forecast

Project Components:		Office		Residential		Local Retail		Destination Retail		Hotel				
Peak Hour Trips:														
	AM	8,260		-459		246		154		144				
	MD	10,318		-228		1,574		464		249				
	PM	9,633		-507		826		464		231				
													Total	
Person Trips By Mode:		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
AM	Auto	475	20	-5	-27	2	2	8	5	5	8	485	8	493
	Taxi	238	10	-4	-21	4	4	4	2	10	16	252	11	263
	Bus	1,157	48	-4	-25	7	7	8	5	2	3	1,170	38	1,208
	Subway	3,796	158	-18	-103	7	7	25	16	13	21	3,823	99	3,922
	Railroad	1,506	63	-2	-13	0	0	2	1	0	0	1,506	51	1,557
	Walk	666	28	-35	-197	103	103	48	30	26	40	808	4	812
	Other	91	4	-1	-4	0	0	0	0	0	0	90	0	90
	Total	7,929	331	-69	-390	123	123	95	59	56	88	8,134	211	8,345
MD	Auto	99	107	-8	-8	16	16	23	19	11	9	141	143	284
	Taxi	149	161	-6	-6	24	24	10	8	20	17	197	204	401
	Bus	297	322	-7	-7	47	47	20	17	4	3	361	382	743
	Subway	297	322	-30	-30	47	47	51	42	18	15	383	396	779
	Railroad	0	0	-4	-4	0	0	0	0	0	0	-4	-4	-8
	Walk	4,111	4,453	-58	-58	653	653	151	123	82	70	4,939	5,241	10,180
	Other	0	0	-1	-1	0	0	0	0	0	0	-1	-1	-2
	Total	4,953	5,365	-114	-114	787	787	255	209	135	114	6,016	6,361	12,377
PM	Auto	29	549	-25	-11	8	8	20	22	14	7	46	575	621
	Taxi	14	274	-19	-8	12	12	9	10	27	15	43	303	346
	Bus	70	1,336	-22	-10	25	25	17	20	5	2	95	1,373	1,468
	Subway	231	4,382	-93	-40	25	25	58	65	36	19	257	4,451	4,708
	Railroad	91	1,738	-12	-5	0	0	4	5	0	0	83	1,738	1,821
	Walk	40	768	-179	-77	343	343	110	124	69	37	383	1,195	1,578
	Other	6	105	-4	-2	0	0	0	0	0	0	2	103	105
	Total	481	9,152	-354	-153	413	413	218	246	151	80	909	9,738	10,647
													Total Balanced	
Vehicle Trips:		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
AM	Auto	396	17	-4	-22	2	2	4	3	4	6	402	6	408
	Taxi	170	8	-3	-15	3	3	2	1	6	9	203	203	406
	Truck	61	61	-2	-2	1	1	1	1	1	1	62	62	124
	Total	627	86	-9	-39	6	6	7	5	11	16	667	271	938
MD	Auto	83	89	-7	-7	10	10	11	9	8	7	105	108	213
	Taxi	106	114	-4	-4	17	17	5	4	11	10	178	178	356
	Truck	67	67	-2	-2	1	1	1	1	1	1	68	68	136
	Total	256	270	-13	-13	28	28	17	14	20	18	351	354	705
PM	Auto	24	457	-20	-9	5	5	10	11	10	5	29	469	498
	Taxi	10	196	-14	-6	9	9	4	5	15	8	225	225	450
	Truck	12	12	0	0	0	0	0	0	0	0	12	12	24
	Total	46	665	-34	-15	14	14	14	16	25	13	266	706	972

Table 3 also provides an estimate of the incremental net change in peak hour vehicle trips (auto, taxi and truck) that would occur in 2033 with implementation of the proposed action for each peak hour. Inbound and outbound taxi (yellow cab and black car) trips were balanced to reflect that they consist of two trip ends (one in, one out) and that some taxis arrive or depart empty. As the rezoning area is located within the vicinity of Grand Central Terminal, 75 percent of inbound full yellow cabs were assumed to be available for outbound demand given the presence of the intermodal facility (e.g., taxis dropping off passengers at adjacent office buildings in the AM peak period could pick up passengers arriving at the train station). This assumption is based on guidance in the *CEQR Technical Manual*. For livery cabs, 90 percent of inbound full black cars were assumed to be available for outbound demand since these vehicles are dispatched and do not pick up passengers via street hails. As shown in Table 3, total vehicle trips generated by the proposed action would increase by approximately 938 in the AM peak hour, 705 in the midday peak hour and 972 in the PM peak hour.

ANALYSIS PERIODS

According to the *CEQR Technical Manual*, a quantified traffic analysis is typically required if a proposed action would result in more than 50 peak hour vehicle trip ends. As shown in Table 3, the proposed rezoning is expected to result in more than 50 total vehicle trips during the AM, midday and PM peak hours. These peak hours, therefore, will be selected for the quantitative analysis of traffic conditions. The standard peak hours for this area of Manhattan are 8-9 AM, 12-1 PM and 5-6 PM.

The analysis of subway and bus transit conditions typically focuses on the AM and PM commuter peak hours, as these are the time periods when the incremental transit demand from the proposed rezoning are highest and there is also the greatest potential for significant impacts. Therefore, quantitative analyses of subway and bus transit conditions will focus on the 8-9 AM and 5-6 PM peak hours.

As shown in Table 3, the proposed rezoning will generate a net increase of 8,345, 12,377 and 10,647 person trips in the AM, midday and PM peak hours, respectively, primarily reflecting commuter trips in the AM and PM commuter peak hours and trips to local eateries and other retail establishments in the midday peak hour. Many of these trips would represent additional pedestrian demand on the rezoning area's sidewalks and crosswalks.[2] For this reason, quantitative analyses of pedestrian conditions will focus on the 8-9 AM, 12-1 PM and 5-6 PM peak hours.

TRAFFIC

Trip Distribution

A geographical distribution of vehicle trips to and from the projected development sites was developed based upon various sources of New York metropolitan area travel pattern data as the first step in the auto, taxi and truck vehicle assignment process.

Auto

For the projected office development, auto trip distributions were based upon 2000 US Census reverse journey-to-work data for commuters driving to workplaces in the study area. Similarly, auto trip distributions for the projected residential development were based on 2000 US Census journey-to-work

[2] It is important to note that pedestrian trips refer not only to trips made solely by the walk mode, but also to the pedestrian component associated with walking between projected development sites and other modes of travel, such as subway or rail stations, bus stops and parking facilities.

data for commuters driving from residences in the study area. Trip origins and destinations were defined based on the area highway system and included six geographic areas of Manhattan, the other four New York City boroughs, Long Island, New York counties east of the Hudson River (e.g., Westchester and Putnam), New York counties west of the Hudson River (e.g.., Rockland and Orange), Connecticut, Bergen County in New Jersey and all of the remaining counties in New Jersey. The distributions of auto trips that would be generated by retail and hotel land uses were adopted from the *Western Rail Yard FEIS*.

Table 4 summarizes the projected distribution of auto trips to and from the north, east, south and west for office, residential, retail and hotel land uses. Most of the auto trips for commercial land uses are expected to depart and approach the study area from the north since the Franklin D. Roosevelt (FDR) Drive and Henry Hudson Parkway (Route 9A) provide access to northern Manhattan, the Bronx, Lower Hudson Valley, Connecticut and Northern New Jersey (via the George Washington Bridge). A large percentage of auto trips would also depart and approach the study area from the east due to the projected amount of vehicles from Long Island and Queens.

Taxi

Table 5 summarizes the projected distribution of taxis traveling to and from the study area for office, residential, retail and hotel land uses. These distributions were based upon 2000 US Census reverse journey-to-work data for commuters taking taxis to workplaces in the study area, 2000 US Census journey-to-work data for commuters taking taxis from residences in the study area, the *Western Rail Yard FEIS* and the *2006 NYC Taxicab Fact Book*. The high amount of projected taxi trips to and from the north for office land uses is attributable to the high density of residential development in Manhattan's Upper East Side and Upper West Side.

Table 4 – Auto Trip Distribution

Land Use	North	South	East	West	Total
Office[1]	37%	12%	31%	20%	100%
Residential[1]	12%	47%	34%	7%	100%
Retail[2]	40%	25%	15%	20%	100%
Hotel[2]	40%	20%	15%	25%	100%

Sources:
1. 2000 US Census Journey-to-Work Data for Tracts 80, 82, 88, 90, 92, 94, 100, 102, 112.02 and 112.03.
2. Adapted from *Western Rail Yard FEIS*.

Truck

The distribution of truck trips to and from the study area was developed based on the *2006 NYMTC Vehicle Classification and Occupancy Survey Report* and is summarized in Table 6 below.

Trip Assignment and Study Area

The *CEQR Technical Manual* suggests that intersections through which 50 or more project-generated vehicles may be expected to travel during peak periods should be analyzed as the basis for determining project impacts. To identify the scale of the traffic study area and proposed traffic analysis locations, project-generated vehicle trips were assigned to the Manhattan roadway network to determine the amount of incremental traffic that would travel through each intersection.

Table 5 – Taxi Trip Distribution

Land Use	North	South	East	West	Total
Office[1,2]	55%	24%	7%	14%	100%
Residential[1,2]	9%	37%	25%	29%	100%
Retail[2]	35%	25%	10%	30%	100%
Hotel[2]	40%	10%	25%	25%	100%

Sources:
1. 2000 US Census Journey-to-Work Data for Tracts 80, 82, 88, 90, 92, 94, 100, 102, 112.02 and 112.03.
2. Adapted from *Western Rail Yard FEIS* and *2006 NYC Taxicab Fact Book*.

Table 6 – Truck Trip Distribution

Direction	North	South	East	West	Total
In/Out	48%	25%	20%	7%	100%

Source:
2006 NYMTC Vehicle Classification and Occupancy Survey Report.

To develop preliminary traffic assignments, the projected development sites shown in Figure 1 were grouped into the following five clusters based on their geographic areas and the locations of existing and proposed off-street parking facilities:

- Cluster #1 – Projected Sites #1, #2 and #3
- Cluster #2 – Projected Sites #4, #5, #6, #7, #8, #9, #10 and #11
- Cluster #3 – Projected Sites #13 and #18
- Cluster #4 – Projected Sites #12, #15, #16 and #17
- Cluster #5 – Projected Sites #14 and #19

Table 7 shows the total number of vehicle trips (auto, taxi and truck) that would be generated by each cluster during the AM, weekday midday and PM peak hours. As shown in Table 7, Cluster #2 would account for approximately 60 to 70 percent of the total vehicle trips generated by the proposed rezoning action during the weekday AM and PM peak hours due to its large amount of office space. Clusters #3 and #4 would generate the highest amount of vehicle trips during the midday peak hour.

Project-generated auto trips for each cluster were assigned to the most direct routes to approach and depart off-street parking facilities in the vicinity of the projected development sites from the trip origins and destinations shown in Table 4. Taxi trips were assigned to approach, pass by and depart projected development sites based on the trip origins and destinations shown in Table 5. Truck trips were assigned between projected development sites and the trip origins and destinations shown in Table 6 based on the use of designated truck routes as per NYCDOT truck route regulations. Truck routes in the vicinity of the proposed rezoning area include First, Second, Third and Lexington avenues and East 34th, East 42nd, East 57th and East 59th streets.

Table 7 – Net Incremental Peak Hour Vehicle Trips by Cluster

Cluster #	Weekday Peak Hour		
	AM	Midday	PM
1	64	57	72
2	647	272	584
3	12	21	21
4	165	268	226
5	44	82	67
Total	932	700	970

Note:
Totals may differ slightly from the numbers shown in Table 3 due to rounding.

Through the coordination of NYCDCP and NYCDOT, a traffic study area was selected to include the intersections most likely to be used by concentrations of project-generated vehicles traveling to and from the proposed development sites. A total of 90 intersections have been identified for analysis. As shown in Figure 2, this study area includes most of the intersections proximate the rezoning area, where incremental trips generated by the proposed rezoning would be most heavily concentrated. The study area also includes key intersections along corridors providing access to or from regional access routes such as the FDR Drive and Henry Hudson Parkway and river crossings such as the Ed Koch Queensboro Bridge, Lincoln Tunnel and Queens-Midtown Tunnel. Given the numerous north-south avenues and east-west cross streets providing access to the proposed rezoning area, project-generated traffic is expected to be widely dispersed to the north, south, east and west, and is expected to become rapidly less concentrated with increasing distance from the project site and traffic-related impacts would be unlikely to occur.

TRANSIT

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, detailed transit analyses are generally not required if a Proposed Action is projected to result in fewer than 200 peak hour rail or bus transit riders. If a proposed action would result in 50 or more bus passengers being assigned to a single bus line (in one direction), or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus or subway analysis would be warranted.

Subway Stations

There are a total of eight MTA-NYCT subway stations or station complexes located in proximity to projected development sites. These stations and station complexes are listed in Table 8 along with the subway routes serving each facility. Notable among these is the Grand Central station complex served by Nos. 4, 5 and 6 trains on the Lexington Avenue Line, No. 7 trains on the Flushing Line and the Times Square Shuttle.

As shown in Table 3, projected development sites are expected to generate a net total of approximately 3,922 and 4,705 new subway trips during the AM and PM peak hours, respectively. Assignments of these trips to individual subway stations and station pedestrian elements (entrance stairs, fare arrays, etc.) were prepared by MTA-NYCT. Table 8 shows the total net incremental subway trips generated by the proposed rezoning during the AM and PM peak hours at each of the subway station and station complexes serving the rezoning area.

Figure 2 – Traffic Study Area

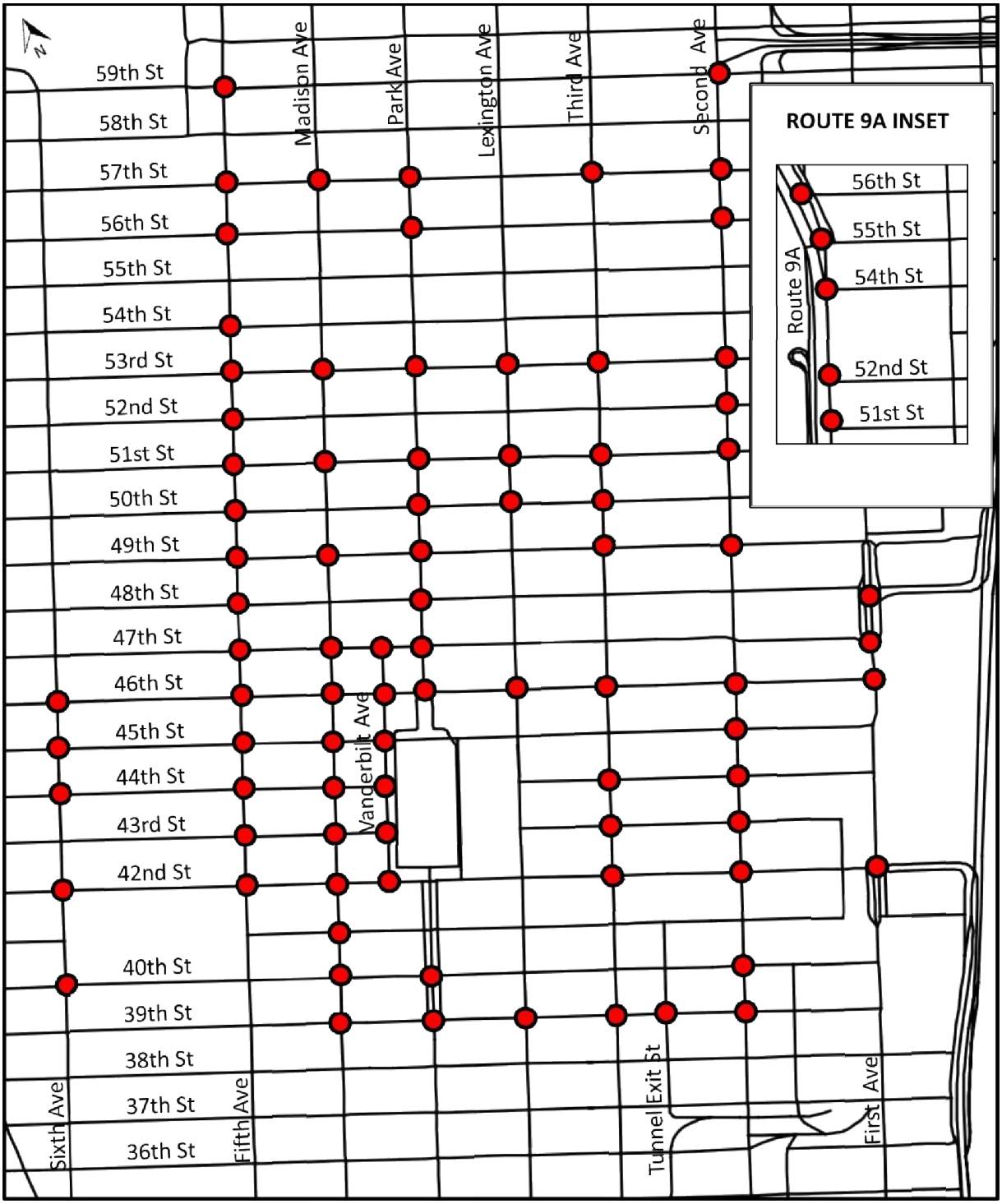

Table 8 – Net Incremental Peak Hour Subway Trips by Station/Station Complex

Subway Station	Route(s) Served	Weekday Peak Hour	
		AM	PM
42nd St-Bryant Park/5th Ave	B/D/F/M/7	1,403	1,624
47-50th Sts-Rockefeller Center	B/D/F/M	392	463
57th St	F	1	2
5th Ave-53rd St	E/M	61	53
5th Ave-59th St	N/Q/R	-2	-2
42nd St-Grand Central	S/4/5/6/7	1,822	2,158
Lexington Ave-53rd St/51st St	E/M/6	200	354
Lexington Ave/59th St	N/Q/R/4/5/6	45	53
Totals		3,922	4,705

Source: *MTA-NYCT*
Note: *Totals may differ from the numbers shown in Table 3 due to the exclusion of PATH trips and rounding.*

As shown in Table 8, the highest number of new peak hour subway trips would occur at the Grand Central-42nd Street station complex, which would experience approximately 1,822 new trips in the AM peak hour and 2,158 in the PM peak hour. The 42nd Street-Bryant Park/Fifth Avenue station complex would experience the second highest number of new peak hour subway trips with 1,403 and 1,624 in the AM and PM peak hours, respectively. By contrast, the Fifth Avenue-59th Street (N, Q, R) station would experience a net decrease of two subway trips in each peak hour subway due in part to the displacement of residential demand under the proposed action.

The analysis of subway station conditions will focus on the four subway stations/station complexes at which. new subway demand from the proposed action would exceed the 200-trip *CEQR Technical Manual* analysis threshold. As shown in Table 8, these include:

- 42nd St-Bryant Park/5th Avenue
- 47-50 Streets-Rockefeller Center
- 42nd Street-Grand Central
- Lexington Avenue-53rd Street/51st Street

At each of these four facilities, key circulation elements (e.g., street stairs, fare arrays, etc.) expected to be used by concentrations of new demand from the proposed rezoning will be analyzed.

Subway Line Haul

The proposed rezoning area is served by a total of 13 MTA-NYCT subway routes, including the:

- Nos. 4, 5 and 6 trains on the Lexington Avenue Line
- N, Q and R trains on the Broadway Line
- B, D, F and M trains on the Sixth Avenue Line
- E train on the Eighth Avenue Line
- No. 7 train on the Flushing Line
- Times Square Shuttle

As the proposed action may potentially generate 200 or more new subway trips in one direction on one or more of these routes, subway line haul conditions will be assessed.

Bus Routes

The proposed rezoning area is served by a total of approximately 15 MTA-NYCT local bus routes that operate exclusively within Manhattan, and one local route—the Q32–that connects midtown Manhattan to Jackson Heights, Queens via the Ed Koch Queensboro Bridge. In addition, a total of 54 MTA-NYCT, MTA Bus and Bee-Line Bus express routes connecting Manhattan to New York City's outer boroughs and Westchester County also operate through the rezoning area, many along Madison and Fifth avenues which are major north-south bus corridors. As shown in Table 3, projected development sites are expected to generate a net total of approximately 1,208 and 1,468 new bus trips during the weekday AM and PM peak hours, respectively. Based on 2000 US Census reverse journey-to-work data for commuters using buses to travel to workplaces in the study area, it is estimated that approximately 58 percent of these bus trips would be intra-Manhattan and would therefore occur on local bus routes, and approximately 42 percent would be en route to or from the outer boroughs or Westchester County and are therefore expected to primarily utilize express bus routes. Overall, the numbers of new bus trips using the 15 MTA-NYCT local bus routes operating within Manhattan are expected to total approximately 701 in the AM peak hour and 851 during the PM peak hour (not including trips on the MTA-NYCT Q32 local bus route to/from Queens). Given this volume of new demand, one or more of these local bus routes may potentially experience 50 or more new peak hour trips in one direction, and the EIS will therefore include a quantitative analysis of local bus conditions. For the analysis, trips will be assigned to each route based on proximity to individual projected development sites and current ridership patterns.

By contrast, the numbers of new trips using express bus services are expected to be somewhat fewer—totaling 507 and 617 in the AM and PM peak hours, respectively—and these trips would be distributed among a total of 54 express routes operated by MTA-NYCT, MTA Bus and Bee-Line Bus. Table 9 shows the numbers of rezoning area express bus routes by borough/county served and the estimated distribution of new incremental demand based on 2000 US Census reverse journey-to-work data. For example, as shown in Table 9, in the AM peak hour there would be a total of approximately 109 new express bus trips using the 11 bus routes serving the Bronx, and 133 trips in the PM peak hour. There are 18 express bus routes available to serve the estimated 205 new AM peak hour trips and 250 PM peak hour trips that would be en route between the rezoning area and Queens; although it should be noted that some of these trips en route to/from Queens are likely to utilize the MTA-NYCT Q32 local bus route.

Although the proposed action would generate up to 617 peak hour express bus trips, these trips would be widely distributed among a total of 54 express bus routes. It is therefore unlikely that any one express bus route would experience 50 or more new trips in one direction in any one peak hour. Consequently, the proposed action is not expected to result in any significant adverse impacts to express bus services based on *CEQR Technical Manual* criteria, and a detailed analysis of express bus conditions is not warranted. Express bus services operating in proximity to the rezoning area will be discussed qualitatively in the EIS.

Table 9 –Number of Rezoning Area Express Bus Routes and Estimated Distribution of Incremental Peak Hour Express Bus Trips

Borough/County Served	No. of Express Bus Routes	Percent Distribution	Estimated Project Increment Trips	
			AM Peak Hour	PM Peak Hour
Bronx	11	21.5%	109	133
Brooklyn	9	13.6%	69	84
Queens	18	40.6%	205	250
Staten Island	15	22.2%	113	137
Westchester	1	2.1%	11	13
Total	54	100%	507	617

Source: *2000 US Census reverse journey-to-work data.*
Note: *Trip totals reflect inbound and outbound combined. Totals for Queens include some trips likely to occur on the MTA-NYCT Q32 local bus route.*

PEDESTRIANS

Under *CEQR Technical Manual* criteria, detailed pedestrian analyses are generally warranted if a proposed action is projected to result in 200 or more peak hour pedestrians at any sidewalk, corner reservoir area or crosswalk. As shown in Table 3, the proposed rezoning is expected to generate approximately 812 walk-only trips in the weekday AM peak hour, 10,180 in the midday peak hour and 1,578 in the PM peak hour. Persons en route to and from subway and commuter rail station entrances, bus stops and parking facilities would add an additional 7,180 pedestrian trips to rezoning area sidewalks and crosswalks in the AM peak hour, 1,798 in the midday peak hour and 8,618 in the PM peak hour. In the weekday AM and PM peak hours, new pedestrian trips would be most concentrated on sidewalks and crosswalks adjacent to projected development sites as well as along corridors connecting these sites to area subway and commuter rail station entrances. In the midday, pedestrian trips would tend to be more dispersed, as people travel throughout the area for lunch, shopping or errands.

Given the relatively large numbers of pedestrian trips that would be generated by the proposed action, a quantitative pedestrian analysis will be provided in the EIS. The analysis will focus on sidewalks, corner areas and crosswalks where new pedestrian demand would be most concentrated and most likely to exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or more peak hours. Analysis locations are likely to include pedestrian elements at intersections along Madison and Fifth avenues from East 40th Street to East 47th Street, Park Avenue from East 46th Street to East 49th Street, Lexington Avenue at East 42nd Street and from East 45th to East 50th streets, Third Avenue at East 42nd, East 43rd, East 49th and East 50th streets, and Second Avenue at East 42nd and East 43rd streets. While substantial numbers of new pedestrian trips are also expected along the Vanderbilt Avenue corridor, it is important to note that the block of Vanderbilt Avenue between East 42nd and East 43rd streets is expected to be converted to a pedestrian plaza in the No-Action condition, and the blocks from East 44th Street to East 47th Street would be similarly pedestrianized under the proposed action. As a result, much of the existing vehicular traffic along this corridor would not be present in the future with the proposed action, and a substantial amount of new pedestrian space would be created. Significant adverse pedestrian impacts along this corridor would therefore be unlikely as many of the conflicting vehicular movements would be eliminated and there would be substantial increases in pedestrian space.

PARKING

Parking demand generated by the office, residential, retail and hotel land use components will be forecasted using the transportation planning factors summarized in Table 2 and the 24-hour temporal distributions and in/out splits provided in Appendix S-1 of the *No. 7 Subway Extension—Hudson Yards Rezoning and Development Program FGEIS*. Overnight parking demand generated by projected residential developments will be forecast assuming a rate of 0.21 spaces per dwelling unit based on 2006-2010 American Community Survey vehicle ownership data for census tracts in the rezoning area. Weekday midday parking demand for the residential development component will be forecast using the transportation planning factors discussed above and the 24 hour temporal distributions from Appendix S-1 of the *No. 7 Subway Extension—Hudson Yards Rezoning and Development Program FGEIS*.

Peak parking demand from the new office and retail development would occur during the weekday midday peak period and peak parking demand from the residential and hotel development would occur during the overnight period. Based on the development program defined in Table 1, the proposed project is expected to generate a net incremental parking demand of approximately 591 spaces during the weekday midday peak period and a net decrease in parking demand of approximately 107 spaces during the weekday overnight period.

To accommodate the projected parking demand, it is expected that approximately 700 spaces would be provided in parking garages on projected development sites. Table 10 provides a summary of the number of off-street parking spaces on projected development sites.

Table 10 – New Parking Spaces on Projected Development Sites

Development Site	Number of Spaces
Projected Site #1	100
Projected Site #5	100
Projected Site #6	100
Projected Site #10	100
Projected Site #17	201
Projected Site #19	100
Total	701

Study Area and Analysis Periods

The analysis of parking conditions will account for projected changes in parking utilization (supply and demand) in the vicinity of the proposed rezoning area. Since a ¼-mile walk is generally considered the maximum distance from off-site parking facilities to development sites, the parking study area will include an analysis of on- and off-street parking facilities within a ¼-mile radius of the rezoning area.

On-street parking utilization levels will be quantitatively assessed during the weekday midday period, which is the time of maximum parking demand for the new office and retail components. The weekday overnight period will not be analyzed in the EIS since the proposed rezoning is expected to result in a net decrease in parking demand during this time period (due to the net decrease in residential space) .

The weekday supply of legal on-street auto parking spaces in the project area is very limited due to the allocation of curbside lanes for commercial vehicle deliveries or additional traffic capacity. For this reason, the analysis of on-street parking conditions will be limited to a qualitative description of general

on-street parking utilization levels and the provision of a map showing existing curbside parking regulations within the study area.