TECHNICAL MEMORANDUM 001
550 WASHINGTON STREET
SPECIAL HUDSON RIVER PARK DISTRICT
CEQR No. 16DCP031M

ULURP Nos. N 160308 ZRM, C 160309 ZMM, C 160310 ZSM, C 160311 ZSM, C 160312 ZSM, C 160313 ZSM, N 160314 ZAM, N 160315 ZAM, N 160316 ZAM, N 160317 ZCM

October 17, 2016

A. INTRODUCTION

The 550 Washington Street/Special Hudson River Park District is the subject of a Uniform Land Use Review Procedure (ULURP) application currently under consideration by the New York City Planning Commission (CPC).On October 6, 2016, a Final Environmental Impact Statement (FEIS) was completed for 550 Washington Street/Special Hudson River Park District, and a Notice of Completion was issued. The FEIS analyzed development of the entire zoning lot, including the North, Center and South Sites, pursuant to a proposed special permit, for an assumed 2024 build year. The development program included residential units (including affordable units and affordable senior units), retail uses, an office or hotel use, event space, publicly-accessible open space, and below-grade parking.

Shortly before the completion of the FEIS, the private applicant agreed, in a letter submitted to CPC on September 30, 2016, to revise the project to include certain commitments, which were considered in the alternatives chapter of the FEIS under the Revised Proposed Project Alternative.

On October 14, 2016, the private applicant filed a revised ULURP application incorporating these project revisions. The project described in the filed application is consistent with the project analyzed in the Revised Proposed Project Alternative in the FEIS.

In addition, since the issuance of the FEIS, technical modifications have been made to the proposed zoning text Sections 89-10 and 89-21(d) to include the word “conversions” which was previously omitted (see Attachment A).

As described below, this Technical Memorandum also considers a Hybrid Scenario that assumes as-of-right development of a commercial building on the South and Center Sites prior to construction of the North Site pursuant to the special permit. This memorandum has been prepared to assess whether the changes in the ULURP application and the development of the Hybrid Scenario would result in any significant adverse environmental impacts not previously identified and addressed. This memorandum concludes that there would not be any new or different significant adverse environmental impacts not already identified in the FEIS.

B. CHANGES SINCE THE ISSUANCE OF THE FEIS

REVISED ULURP APPLICATION

Revisions to the proposed project incorporated in the revised ULURP application include the following:

- A multi-purpose indoor active recreation space at the ground level of the Center Site. The space would be fitted out for recreation uses and will be suitable for activities such as various ball sports, martial arts, or fitness classes. In addition to the main space, support space would include toilets and storage areas for a total of approximately 10,000 square feet. This shared amenity space would be used by building tenants and would also be available to the public for 50 percent of its operating hours. The private applicant would either operate the facility in-house or engage a third-party partner to handle the management, scheduling, and programming of the space. The private applicant would have the ability to charge fees for use of the space to cover overhead and maintenance and would apply standard contractual arrangements for users related to security, insurance, liability, and responsibility for cleaning the space.
- A requirement that there be a minimum of four retail establishments at the ground-floor level on each of the north and south sides of West Houston Street and three retail establishments at the ground-floor level on Clarkson Street.
- A limitation of 15,000 gross square feet per establishment for cellar-level retail uses. This limitation would not apply to a supermarket.
- A modification of the design of the through-block driveway between the Center and South Sites to make the driveway more pedestrian-friendly, including:
  - Replacing the separated vehicle drop-off area and island in front of the South Site commercial building with a lay-by lane for vehicle drop-offs.
  - Adding seating, planting, paving, and building transparency within the through-block driveway.
  - Requiring the driveway to be open to the public for pedestrian passage 24 hours.
- Complete removal of the structure over West Houston Street, and, thus, elimination of the elevated open space, to alleviate the concern about insufficient lighting and lack of activation along West Houston Street. (Accordingly, the design requirements related to lighting will no longer be necessary when the rail beds are removed.) The private applicant would instead provide at-grade public open space in the through-block driveway, as well as some combination of open space in the Center Site courtyard and/or the South Site (19,820 square feet in total).
- Redesign of the West Houston Street streetscape to be more pedestrian-friendly by adding retail frontage and depth requirements, a limitation on the width of building lobbies, street wall transparency requirement (including streetwall transparency of 70 percent on West Houston Street and a minimum retail depth of 30 feet), and tenant storefront guidelines.
- Design guidelines for the proposed buildings relating to façade materials, window types, recesses, and sustainability.

The project revisions described above and reflected in the revised ULURP application filed on October 14, 2016 are consistent with the Revised Proposed Project Alternative that was analyzed

in the FEIS. The ULURP application sets a limitation of 15,000 gross square feet per establishment for cellar level retail uses, which effectively precludes the inclusion of any big box retail establishments, as was analyzed for the Revised Proposed Project Alternative in the FEIS. Therefore, as analyzed for the Revised Proposed Project Alternative in the FEIS, these changes would be expected to result in the same significant adverse impacts and would require the same mitigation measures.

REVISED PROPOSED ZONING TEXT

Changes have been made in the proposed zoning text amendment to Sections 89-10 and 89-21(d) to include the word "conversions" which was previously inadvertently omitted. The purpose of this change is to clarify that the regulations for the C6-4, C6-3 and M1-5 districts would apply to conversions, as well as to developments and enlargements. These are technical modifications correcting an oversight and are consistent with the intent of the proposed zoning text. It does not have any practical effect on the proposed project.

The revisions to the proposed zoning text as described above, are intended to clarify the zoning text and do not represent a substantive change or any practical effect on the project. Therefore, these revisions to the proposed zoning text would not result in any changes to the analyses or conclusions of the FEIS.

C. HYBRID SCENARIO

Since the issuance of the FEIS, the private applicant has indicated that it is possible that it might proceed with a Hybrid Scenario, as described below. Therefore, this Technical Memorandum considers a Hybrid Scenario to assess whether it may result in new or different impacts than those disclosed in the FEIS. This scenario analyzes a development wherein a portion of the zoning lot is developed under the zoning regulations in effect prior to adoption of the Zoning Map Amendment (the Former Zoning), while the remaining portion of the zoning lot is developed in accordance with special permit pursuant to Section 89-21 under the new C6-3, C6-4 and M1-5 Zoning districts.[1] Development under the Former Zoning pursuant to this scenario could include a commercial building that could also be constructed without any discretionary approvals.

For analysis purposes, this Technical Memorandum assumes that under the Hybrid Scenario, by the 2024 build year, the development site would be partially occupied with a building developed under the Former Zoning, with the remaining portions of the development site built out under the Special Permit.

Development under the Hybrid Scenario in accordance with the use and bulk regulations of existing zoning, prior to a special permit election, is permitted under the proposed Zoning Text Amendment. This Technical Memorandum has been prepared to consider whether the increase in office space under the Hybrid Scenario may have the potential to result in new or different impacts than those disclosed in the FEIS.

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[1] Proposed Section 89-10 provides that the use and bulk regulations applicable to the zoning lot are modified such that the use and bulk regulations of the newly mapped C6-3, C6-4 and M1-5 zoning districts shall not apply, and the regulations of the existing M1-5 and M2-4 districts shall remain in effect, until exercise of the special permit granted pursuant to Section 89-21, and that the use and bulk regulations of the C6-3, C6-4 and M1-5 districts shall only apply to development or enlargement under the special permit.

DESCRIPTION OF HYBRID SCENARIO

The Hybrid Scenario would occur if the private applicant builds as-of-right on the zoning lot under current use and bulk regulations prior to electing to build the first building pursuant to the special permit. For purposes of analysis, this scenario is assumed to include a commercial building on the Center and South Sites (predominantly office, with some retail and event space, and as-of-right parking), and the proposed special permit building on the North Site, which contains the same number of residential units and the same amount of parking and retail as analyzed in the FEIS. The North Site would provide senior affordable housing. The Hybrid Scenario would retain the existing building on the Center/South Sites and construct a vertical enlargement.[1] The through-block driveway and the on-site open space provided in the Revised Proposed Project Alternative, to be located on the Center and South Sites, would not be provided in the Hybrid Scenario. As with the Revised Proposed Project Alternative, the Hybrid Scenario would include a transfer of development rights from Pier 40 to the development site.

Table 1 shows the illustrative development program assumed for the Hybrid Scenario in this memorandum, including the components on the North Site and the Center/South Sites. **Figure 1** is an illustrative site plan and **Figure 2** shows the illustrative massing.

Table 1
Hybrid Scenario Development Program (Approximate gsf)

Use	North Site	Center/South Sites	Total
Total Retail[1]:	100,000	55,382	155,382
Local Retail	*29,000*	*7,384*	*36,384*
Destination Retail	*71,000*	*47,998*	*118,998*
Residential	579,600 (593 units)	—	579,600 (593 units)
Office[2]	—	740,000	740,000
Event Space	—	22,750	22,750
Parking	55,000 (236 parking spaces)	97,700 (150 parking spaces)	152,700 (386 parking spaces)

Notes:
[1]The breakdown between local and destination uses is assumed for analysis purposes only. Retail includes Market Hall and Additional Retail. Destination/Local retail split based on the proposed retail split for the Center and South Sites.
[2]Office includes 4,300 gsf of office lobbies and 30,468 gsf of Porte Cochere/Core/Egress/Loading/ Mechanical space.
Sources: CookFox Architects, SJC 33 Owner 2015 LLC

Table 2 provides a comparison of the FEIS program with the Hybrid Scenario.

[1] Because retrofitting and reusing the existing structure would be less expensive than building a new building, it would still be possible to construct the Special Permit buildings on the South and Center Sites at a later date. For analysis purposes, the No Action condition conservatively assumed less office use than the Hybrid Scenario would include.

Table 2
Comparison of FEIS Program and Hybrid Scenario (gsf)

Uses	FEIS Program	Hybrid Scenario	Difference
Retail[1]	160,000	155,382	-4,618
Local Retail	*37,000*	*36,384*	*-616*
Destination Retail	*123,000*	*118,998*	*-4,002*
Residential	1,334,100 (1,586 units)	579,600 (593 units)	-754,500 (-993 units)
Hotel[2]	229,700 (353 rooms)	—	-229,700 (-353 rooms)
Office	—	740,000	+740,000
Event Space	41,400	22,750	-18,650
Parking	772 spaces	386 spaces	-386 spaces

Notes: [1]The breakdown between local and destination retail uses is assumed for analysis purposes only.
[2]The South Site may include either hotel or office space.

Compared to the program analyzed in the FEIS, the Hybrid Scenario is expected to result in less retail space, event space, and parking; fewer residential units; and no hotel use. However, there would be substantially more office use under the Hybrid Scenario. As a result, the number of residents introduced would be less, but the number of workers introduced would be greater. **Table 3** provides a comparison of estimated population changes associated with the Hybrid Scenario in comparison to the No Action condition and the Revised Proposed Project Alternative analyzed in the FEIS.

Table 3
Population Comparison for the FEIS Scenarios and the Hybrid Scenario

Scenario	Workers[1]	Residents[2]
No Action Scenario	2,788	0
Revised Proposed Project Alternative	702	2,649
Hybrid Scenario	3,437	990

Notes: [1]Assumes 1 worker per: 250 gsf office use, 400 gsf retail use, 400 gsf event space use, 3 hotel rooms, 25 residential units, 50 parking spaces
[2]Based on 1.67 residents per unit (average household size for Community District 2, 2010 US Census)

As shown in **Table 3**, the Hybrid Scenario would result in 990 residents, which is fewer than the Revised Proposed Project Alternative (but more than the No Action scenario, which would not result in any residents). Due to the substantial number of workers introduced by the office uses associated with the Hybrid Scenario, 3,437 workers would be generated, which—unlike the Revised Proposed Project Alternative—would exceed the number generated by the No Action scenario.

D. POTENTIAL ENVIRONMENTAL EFFECTS OF THE HYBRID SCENARIO

This section includes a discussion of the probable impacts of the Hybrid Scenario, compared to the Revised Proposed Project Alternative analyzed in the FEIS.

LAND USE, ZONING, AND PUBLIC POLICY

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not be expected to result in significant adverse impacts related to land use, zoning, and public policy. The FEIS determined that the mix of uses with the Revised Proposed Project Alternative would be consistent with the mixed-use character of the surrounding study area and would reflect the

ongoing trend towards residential use. With residential, retail, office, and parking, the uses proposed for the Hybrid Scenario would be within the range of uses considered in the FEIS. Under this scenario residential land uses would not extend as far south and there would be more commercial use on the South/Center Site that would provide a buffer between residential uses and industrial uses to the south. This approach is consistent with what was analyzed in the FEIS, which assumed commercial uses on the South Site. As with the Revised Proposed Project Alternative, the Hybrid Scenario would be consistent with the study area's land use and would enliven the development site. Compared to the Revised Proposed Project Alternative, the amount of density on the development site would be less, but this change would not be considered adverse.

The Hybrid Scenario would provide new housing, including affordable housing, which would be supportive of the City's *Housing New York* plan. However, since the Hybrid Scenario would contain fewer affordable housing units, it would contribute less to the City's affordable housing goals than the Revised Proposed Project Alternative. As with the Revised Proposed Project Alternative, the Hybrid Scenario would be consistent with the city's sustainability goals, including those outlined in OneNYC. The Hybrid Scenario would support OneNYC's land use goals of creating substantial new housing opportunities at a range of incomes, including permanently affordable senior housing (although there would be fewer new units than with the Revised Proposed Project Alternative); redeveloping underutilized sites along the waterfront with active uses; focusing development in areas that are served by mass transit; and fostering walkable retail destinations. The Hybrid Scenario would also incorporate measures to increase the resiliency of the development site to future storm events, which would be consistent with the City's resiliency goals. As with the Revised Proposed Project Alternative, the Hybrid Scenario would not result in new development within or adjacent to any New York City Landmarks Preservation Commission (LPC)-designated historic district. Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would be consistent with applicable Waterfront Revitalization Program (WRP) policies. The Hybrid Scenario would be substantially the same as the Revised Proposed Project Alternative with regard to WRP policies, except that the Hybrid Scenario would retain and reuse the existing building on the Center and South Sites and would therefore have fewer opportunities to incorporate resiliency measures than new structures that would be constructed with the Revised Proposed Project Alternative. For example, the Center/South Building could not be dry flood-proofed, and while the Center/South Building's critical mechanical infrastructure would be raised above flood levels, there would not be an opportunity to raise the ground floor of the building. Overall, the Hybrid Scenario would meet all applicable regulations regarding resiliency, including the New York City Building Code.

Overall, similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in any land use compatibility issues or zoning/public policy impacts.

SOCIOECONOMIC CONDITIONS

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in any significant adverse impacts due to changes in socioeconomic conditions. Under *CEQR Technical Manual* guidelines, there are six specific elements that can result in significant adverse socioeconomic impacts: (1) direct displacement of residential population on a project site; (2) direct displacement of existing businesses or institutions on a project site; (3) indirect displacement of residential population in a study area; (4) indirect displacement of businesses or institutions in a study area; (5) indirect displacement of businesses due to retail market saturation; and (6) adverse effects on specific industries.

The development site does not contain any residents and existing commercial tenants are expected to relocate from the development site irrespective of the status of the Hybrid Scenario. Therefore, the Hybrid Scenario would not result in direct residential or commercial displacement. With fewer residential units, there would be less potential for the Hybrid Scenario to cause indirect residential displacement; however, the FEIS found that the Revised Proposed Project Alternative would not result in any such impacts. Since the Hybrid Scenario would not result in an addition of more than 200,000 square feet of commercial space compared to the No Action condition[1], an assessment of potential indirect business displacement is not warranted. Since the Hybrid Scenario would not result in development warranting an assessment of direct or indirect business displacement, an assessment of adverse effects on specific industries is not warranted. Therefore, similar to the Revised Proposed Project Scenario, the Hybrid Scenario would not result in any significant adverse socioeconomic impacts.

COMMUNITY FACILITIES AND SERVICES

The Hybrid Scenario would contain 993 fewer residential units than the Revised Proposed Project Alternative. Thus, the Hybrid Scenario would result in less incremental demand on publicly-funded schools, libraries, child care facilities, health care facilities, and fire/police protection services. The FEIS did not identify any significant adverse impacts on those facilities and services as a result of the Revised Proposed Project Alternative. Therefore, the Hybrid Scenario, which would place even less demand on community facilities and services, would also not result in any such impacts. The FEIS contained detailed assessments of elementary/intermediate schools, child care facilities, and libraries; each of these is considered further below.

ELEMENTARY AND INTERMEDIATE SCHOOLS

The FEIS estimated that the Revised Proposed Project Alternative would result in 169 new elementary students and 56 new intermediate students, which would increase elementary school utilization by 4.86 percent (resulting in 121.3 percent utilization), and would increase intermediate school utilization by 3.05 percent (resulting in 92.4 percent utilization). With the Hybrid Scenario, residential uses would only be developed on the North Site, totaling 593 residential units (this includes 178 permanently affordable senior units,[2] which, following *CEQR Technical Manual* guidelines, are not included in the schools analysis). Based on *CEQR Technical Manual* multipliers for projects in Manhattan, the 415 units would be expected to result in 50 new elementary school students and 17 new intermediate school students. As shown in **Table 5**, the increase in elementary school utilization with the Hybrid Scenario is estimated to be 1.36 percentage points (resulting in 118.1 percent utilization) and the increase in intermediate school utilization is estimated to be 0.93 percentage points (resulting in 90.3 percent utilization).

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[1] As described in the FEIS, the No Action condition would include approximately 1,084,000 gsf of commercial uses, including retail, office, hotel, and event space. As shown in Table 1, the Hybrid Scenario would include approximately 918,132 gsf of commercial uses, including retail, office, and event space.

[2] If more of the 593 units are designated for senior affordable housing, there would be fewer school children generated by development on the North Site. Therefore, this analysis conservatively assumes 178 affordable senior units.

Table 4
Estimated Public School Enrollment, Capacity, and Utilization: Hybrid Scenario

Study Area	No Action Enrollment	Students Introduced by the Hybrid Scenario	Total With Action Enrollment	Capacity	Available Seats	Utilization	Change in Utilization Compared with No Action
Elementary Schools							
Sub-district 2 of CSD 2	4,289	50	4,339	3,675	-664	118.1%	1.36%
Intermediate Schools							
Sub-district 2 of CSD 2	1,641	17	1,658	1,837	179	90.3%	0.93%

Sources: DOE *Enrollment Projections (Actual 2014, Projected 2015-2024) by the Grier Partnership*; DOE, *Utilization Profiles: Enrollment/Capacity/Utilization, 2014-2015*, DOE *2015-2019 Proposed Five-Year Capital Plan,* Amended March 2016; School Construction Authority.

As stated in the *CEQR Technical Manual*, a significant adverse impact may occur if a project would result in both of the following conditions: (1) a utilization rate of the elementary or intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the future with the proposed actions; and (2) an increase of five percentage points or more in the collective utilization rate between the future without and the future with the proposed actions conditions.

While elementary school utilization would be above 100 percent, the increase in attributable to the Hybrid Scenario would be less than the 5 percentage point *CEQR Technical Manual* guideline indicating a significant adverse impact may occur. For intermediate schools, utilization would be less than 100 percent and the change in utilization attributable to the Hybrid Scenario would also be less than 5 percentage points. Therefore, consistent with the conclusions of the FEIS, the Hybrid Scenario would not result in any significant adverse impacts to elementary or intermediate schools in the study area.

CHILD CARE

The FEIS assumed that the Revised Proposed Project Alternative would result in 298 affordable units, requiring a detailed assessment of child care facilities. With the Hybrid Scenario, residential uses would only be developed on the North Site, including 415 market-rate residential units, and an additional 178 permanently affordable senior units. Following *CEQR Technical Manual* guidelines, market-rate units and senior housing are not included in a child care assessment, as it is not expected that these units would include children who are eligible for publicly funded child care services. Therefore, the Hybrid Scenario would not result in any incremental demand on public child care services and, consistent with the conclusions of the FEIS, would not result in a significant adverse impact.

LIBRARIES

As stated above, the Hybrid Scenario would contain 993 fewer residential units than the Revised Proposed Project Alternative, and would therefore result in less incremental demand on study area libraries, including the Hudson Park Library and Jefferson Market Library. Since the FEIS determined that the Revised Proposed Project Alternative would not result in a noticeable change in the delivery of library services, the Hybrid Scenario would not affect this conclusion.

OPEN SPACE

Since it contains fewer residential units than the Revised Proposed Project Alternative, the Hybrid Scenario would result in lower demand on open space resources in the residential study

area. The FEIS found that the Revised Proposed Project Alternative would result in a decrease of the residential study area's total open space ratio of 5.66 percent, a decrease in the active open space ratio of 6.96 percent, and a decrease in the passive open space ratio of 4.91 percent. Since the decreases in the total and active open space ratios would exceed the 5 percentage point guideline prescribed by the *CEQR Technical Manual*, the FEIS determined that the Revised Proposed Project Alternative would result in a significant adverse open space impact.

The Hybrid Scenario would result in 990 new residents on the development site (based on the 2010 US Census average household size of 1.67 persons for Community District 2). As shown in **Table 5**, with Hybrid Scenario, the total open space ratio in the study area would be 0.94 acres per 1,000 residents (compared to 0.91 for the Revised Proposed Project Alternative in the FEIS). The active open space ratio would be 0.34 acres per 1,000 residents (compared to 0.33 for the Revised Proposed Project Alternative in the FEIS), and the passive open space ratio would be 0.60 acres per 1,000 residents (compared to 0.58 for the Revised Proposed Project Alternative in the FEIS).

With the smaller number of residents introduced by the Hybrid Scenario, the residential study area's total open space ratio, passive open space ratio, and active open space ratio would all decrease by 2.72 percent, compared to the No Action condition. These decreases are below the 5 percent *CEQR Technical Manual* guideline indicating a potential significant adverse impact. Therefore, the Hybrid Scenario would avoid the significant adverse open space impact in the residential study area that would result from the Revised Proposed Project Alternative.

Table 5
Adequacy of Open Space Resources with the Hybrid Scenario

		Open Space Acreage			Open Space Ratios			Open Space Goals		
Total Population		**Total**	**Active**	**Passive**	**Total**	**Active**	**Passive**	**Total**	**Active**	**Passive**
Residential (1/2-Mile) Study Area										
Residents	36,392	34.20	12.45	21.75	0.94	0.34	0.60	2.5	2.0	0.5
Note:	Ratios in acres per 1,000 people									
Sources:	2010 U.S. Census; NYC Parks; Hudson Square Connection; *Hudson Square Rezoning FEIS*; AKRF field visits, August 2015; DOB; *Tribeca North FEIS*.									

The Hybrid Scenario would result in a greater increment of workers than the Revised Proposed Project Alternative, which could place additional demands on open space resources in the non-residential study area. An assessment of a non-residential (1/4-mile) study area (see **Figure 3**) was not included in the FEIS, since there would be a negative worker increment with the Revised Proposed Project Alternative compared to the No Action scenario (see **Table 3**, above). With the Hybrid Scenario, the incremental increase in workers compared to the No Action scenario would be 649, which is above the *CEQR Technical Manual* threshold of 500 workers requiring a non-residential analysis. The 649 incremental workers would result in a 1.71 percentage point decrease in the ratio of 1,000 workers per acre of passive open space in the ¼-mile study area. This small decrease would be below the 5 percentage point *CEQR Technical Manual* guideline indicating that a significant adverse impact may occur. Therefore, the Hybrid Scenario would not result in a significant adverse open space impact in the non-residential study area.

As described above, the Hybrid Scenario would avoid the significant adverse open space impact that would result from the Revised Proposed Project Alternative, and would not result in any new significant adverse impacts. Therefore, the potential open space mitigation measures discussed in the FEIS would not be warranted.

SHADOWS

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would create new shadows on Hudson River Park, its facilities on Pier 40, and on the Hudson River. The Hybrid Scenario would include a lower structure on the Center/South Sites (approximately 158 feet) than the buildings created by the Revised Proposed Project Alternative, which would reach up to 320 feet. The extent, duration, and effects of shadows cast by the Hybrid Scenario development would be less than those from the Revised Proposed Project Alternative. Compared to the Revised Proposed Project Alternative, there would be less incremental shadow with the Hybrid Scenario. As shown on **Figures 4 through 11**, the Hybrid Scenario would result in very small shadow increments on March/September 21 at 8:45 AM, May/August 6 at 6:30 and 7:30 AM, and June 21 at 6:30 and 7:30 AM. However, the Hybrid Scenario would result in substantial decreases in shadow on all analysis days, as compared to the Revised Proposed Project Alternative. Therefore, minimal increases in shadow with the Hybrid Scenario would be offset by larger decreases in shadow, compared to the Revised Proposed Project Alternative.

Similar to the Revised Proposed Project Alternative, incremental shadows from the Hybrid Scenario development would not substantially alter the usability of any open space resources or their ability to sustain vegetation and would not significantly alter the condition of the affected natural resource. Therefore, as with the Revised Proposed Project Alternative, the Hybrid Scenario would not result in any significant adverse shadows impacts.

HISTORIC AND CULTURAL RESOURCES

Neither the Hybrid Scenario nor the Revised Proposed Project Alternative would affect archaeological resources. The New York City Landmarks Preservation Commission (LPC) has indicated that the 550 Washington Street site has no archaeological significance.

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in any significant adverse impacts to architectural resources, as no historic architectural resources are located on the development site, and no architectural resources in the study area would be directly affected. Both the Revised Proposed Project Alternative and Hybrid Scenario development would not result in any significant adverse indirect impacts to historic architectural resources in the study area because of distance, intervening buildings, and the lack of meaningful contextual relationships between the development site and study area architectural resources. In addition, because none of the historic architectural resources in the study area have sunlight-sensitive features, incremental shadow would not adversely affect any study area architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in significant adverse impacts to urban design and visual resources. The North Site buildings would remain substantially the same as the Revised Proposed Project Alternative analyzed in the FEIS. South of West Houston Street, the Hybrid Scenario building would cover most of the Center/South Sites, except for the alley adjacent to the New York City Department of Sanitation (DSNY) facility. The office building would have a three-story, approximately 116-foot tall base (the existing building). Rising from this base, an additional seven-story portion of the building would be set back from Washington, West Houston, and West Streets, reaching approximately 158 feet tall. Overall, the height of the Hybrid Scenario's office building would be substantially lower than the Revised Proposed Project Alternative's Center and South Site buildings, which would extend up to 320 feet.

As with the Revised Proposed Project Alternative, the Hybrid Scenario buildings would be built to the sidewalk, maintaining a consistent streetwall. This is because the South and Center Sites would reuse the existing structure.

As with the Revised Proposed Project Alternative, the Hybrid Scenario would have beneficial streetscape effects, as it would open up the view corridor on West Houston Street and contribute active ground floor uses to the surrounding area. Street trees would be added to the sidewalks adjacent to the development site (consistent with zoning regulations), and the sidewalks on Washington Street adjacent to the development site would be widened. Unlike the Revised Proposed Project Alternative but similar to the No Action condition, the Hybrid Scenario development would not include public open space or a through-block driveway between the Center and South Sites.

As with the Revised Proposed Project Alternative, the Hybrid Scenario would not obstruct any existing view corridors in the study area, including the view corridors on Route 9A/West Street and Washington Street. The other view corridors and visual resources in the study area do not have a meaningful visual or contextual relationship with the development site and, therefore, would not be affected. Overall, as with the Revised Proposed Project Alternative, the Hybrid Scenario would result in substantial changes to the development site that would alter the context of nearby study area buildings, but these changes would not constitute a significant adverse urban design or visual resources impact.

NATURAL RESOURCES

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in significant adverse impacts to natural resources. As described above, incremental shadows from the Hybrid Scenario development would not be expected to result in a significant adverse shadows impact on the Hudson River.

HAZARDOUS MATERIALS

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in significant adverse impacts to hazardous materials. Any demolition and excavation for the Hybrid Scenario development on the Center/South site would require the measures described below to avoid significant adverse impacts due to the potential presence of hazardous materials:

- Dewatering with water discharged to sewers in accordance with DEP requirements,
- Removal and disposal of any asbestos in accordance with local, state and federal requirements,
- Demolition in accordance with applicable lead paint exposure rules,
- Any excavated soil would be disposed of in accordance with applicable requirements, and
- Disposal of any suspect PCB-containing electrical equipment and fluorescent lighting fixtures in accordance with applicable federal, state and local requirements.

For the building on the North Site, in addition to the measures described above, the New York City Department of Environmental Protection (DEP)-approved Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) would be implemented.

The as-of-right development on the Center/South Site would not include implementation of the RAP and CHASP.

WATER AND SEWER INFRASTRUCTURE

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in significant adverse impacts to water and sewer infrastructure. With the Hybrid Scenario, water demand and sewage generation would be lower than with the Revised Proposed Project Alternative. Water demand is estimated to be 470,367 gallons per day (gpd) (compared to 736,990 gpd with the Revised Proposed Project Alternative) and sewage generation is estimated to be 215,752 gpd (compared to 420,756 gpd with the Revised Proposed Project Alternative).

With the Hybrid Scenario, the incremental increase in sewage generation would be negligible compared to the existing average daily flow at the Newtown Creek Wastewater Treatment Plant and would not result in an exceedance of the plant's permitted capacity. In addition, in accordance with the New York City Plumbing Code (Local Law 33 of 2007), the Hybrid Scenario development would be required to utilize low-flow plumbing fixtures, which would reduce sanitary flows to the plant.

With the Hybrid Scenario, rainfall volume flow to Combined Sewer Outfall (CSO) NCM-076 would be expected to increase compared to existing conditions (because the site is underutilized) and compared to the Revised Proposed Project Alternative (since the Hybrid Scenario would likely include less planted area). However, as with the Revised Proposed Project Alternative, Best Management Practices (BMPs) to reduce sanitary flow and stormwater runoff volumes to the combined sewer system would be implemented, including low-flow plumbing fixtures and stormwater BMPs that would be required as part of the DEP site connection approval process.

For both the Revised Proposed Project Alternative and the Hybrid Scenario, the incorporation of appropriate sanitary flow and stormwater source control BMPs as part of the DEP site connection approval process would reduce the overall volume of sanitary sewer discharge and stormwater runoff as well as the peak stormwater runoff rate from the development site. Sewer conveyance near the development site and the treatment capacity at the Newtown Creek WWTP is sufficient to handle wastewater flow resulting from both the Revised Proposed Project Alternative and the Hybrid Scenario; therefore, there would be no significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure.

ENERGY

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in a significant adverse energy impact. Using *CEQR Technical Manual* guidelines, the Hybrid Scenario would be expected to consume 272,027 million British Thermal Units (BTU) per year. This incremental demand would not create a significant impact on energy capacity and would be negligible when compared to the overall demand within Con Edison's New York City and Westchester County service area.

TRANSPORTATION

As described in greater detail below, the Hybrid Scenario would not result in any new significant adverse transportation impacts.

For traffic, the Hybrid Scenario would not result in the potential for any new significant adverse impacts during the weekday AM, midday, PM, and Saturday afternoon peak hours that were not previously disclosed in the FEIS.

For transit, the AM peak subway increment associated with the Hybrid Scenario is projected at 542; based on the distribution patterns that were developed for the No Action scenario and the

Revised Proposed Project Alternative (trips dispersed to the Houston Street (1), Spring Street (C, E), and West 4th Street (A, B, C, D) subway stations), detailed analyses of station circulation elements and control areas were conducted for the Houston Street (1) Station for the weekday AM and PM peak hours. The subway station analyses showed that the Revised Proposed Project Alternative would not result in the potential for a significant adverse subway station impact.

In terms of pedestrian conditions, the Hybrid Scenario would result in higher incremental pedestrian trips than the Revised Proposed Project Alternative. As outlined in the FEIS, as part of the Revised Proposed Project Alternative, the northern segment of the sidewalk along Washington Street between Spring Street and West Houston Street would be widened to 13.5 feet. Extending this widening to the sidewalk's southern segment to Spring Street along the DSNY facility property would be necessary to avoid any significant adverse pedestrian impacts under the Hybrid Scenario.

In addition, the Hybrid Scenario would not result in a parking shortfall in the study area.

TRAVEL DEMAND ESTIMATES AND SCREENING ASSESSMENT

Following the procedures detailed in the FEIS, travel demand estimates were developed for the Hybrid Scenario to identify relative differences in trip-making as compared to the Revised Proposed Project Alternative and additional analyses that may be warranted to assess potential transportation-related impacts.

Level 1 Screening Assessment

A Level 1 trip generation screening assessment was conducted to estimate the numbers of person and vehicle trips by mode expected to be generated by the Hybrid Scenario development program during the weekday AM, midday, PM, and Saturday peak hours. These estimates were then compared to the *CEQR Technical Manual* thresholds to determine if a Level 2 screening and/or quantified operational analyses would be warranted.

Transportation Planning Assumptions

Trip generation factors for the Hybrid Scenario development program were developed based on information from the *CEQR Technical Manual*, 2013 *Hudson Square Rezoning FEIS*, U.S. Census Data, and other approved EASs and EISs. The travel demand assumptions and trip generation sources are summarized in Chapter 14, "Transportation," of the FEIS in Table 14-5.

Travel Demand Projection Summary

As summarized in **Table 6,** with the Hybrid Scenario, the development would generate 2,526, 4,140, 4,373, and 2,812 person trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Approximately 357, 286, 501, and 216 vehicle trips would be generated during the same respective peak hours.

Table 6
Trip Generation Summary: Hybrid Scenario

Peak Hour	In/Out	Person Trip						Vehicle Trip			
		Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	220	46	1,128	170	267	1,831	189	45	17	251
	Out	56	43	312	26	258	695	44	45	17	106
	Total	276	89	1,440	196	525	2,526	233	90	34	357
Midday	In	81	73	248	128	1,543	2,073	54	72	18	144
	Out	76	72	235	125	1,559	2,067	52	72	18	142
	Total	157	145	483	253	3,102	4,140	106	144	36	286
PM	In	158	83	483	98	751	1,573	93	77	2	172
	Out	314	83	1,465	244	694	2,800	250	77	2	329
	Total	472	166	1,948	342	1,445	4,373	343	154	4	501
Saturday	In	88	61	288	89	939	1,465	54	55	1	110
	Out	81	57	274	81	854	1,347	50	55	1	106
	Total	169	118	562	170	1,793	2,812	104	110	2	216

The net incremental trips (subtracting out trips generated by the No Action development, as presented in Table 14-6 in the FEIS) generated in the future with the Hybrid Scenario are shown in **Table 7**.

Compared to the net incremental trips presented on Table 14-11 in the FEIS, the Hybrid Scenario would yield fewer vehicle trips but more transit trips overall, and more person trips in general on a weekday and fewer person trips on a weekend day. A comparison of the projected trip increments between these two development scenarios is presented in **Table 8**.

Table 7
Trip Generation Summary: Hybrid Scenario Net Incremental Trips

Peak Hour	In/Out	Person Trip						Vehicle Trip			
		Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	62	-11	399	44	-126	368	62	-2	3	63
	Out	2	-10	143	-17	-109	9	11	-2	3	12
	Total	64	-21	542	27	-235	377	73	-4	6	75
Midday	In	-64	-58	-81	-49	-447	-699	-31	-37	3	-65
	Out	-49	-46	-54	-39	-334	-522	-22	-37	3	-56
	Total	-113	-104	-135	-88	-781	-1,221	-53	-74	6	-121
PM	In	-135	-91	-104	-95	-701	-1,126	-55	-40	0	-95
	Out	12	-45	356	3	-501	-175	46	-40	0	6
	Total	-123	-136	252	-92	-1,202	-1,301	-9	-80	0	-89
Saturday	In	-69	-53	-81	-70	-562	-835	-32	-34	0	-66
	Out	-62	-44	-59	-66	-532	-763	-28	-34	0	-62
	Total	-131	-97	-140	-136	-1,094	-1,598	-60	-68	0	-128

Table 8
Comparison of Net Incremental Trips: Hybrid Scenario vs. FEIS

Peak Hour	Development Scenario	Person Trip						Vehicle Trip			
		Auto	Taxi	Subway	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	Hybrid	64	-21	542	27	-235	377	73	-4	6	75
	FEIS	43	58	-37	-114	9	-41	49	98	-8	139
	Difference	21	-79	579	141	-244	418	24	-102	14	-64
Midday	Hybrid	-113	-104	-135	-88	-781	-1,221	-53	-74	6	-121
	FEIS	-37	-60	32	-188	-2,011	-2,264	7	-46	-14	-53
	Difference	-76	-44	-167	100	1,230	1,043	-60	-28	20	-68
PM	Hybrid	-123	-136	252	-92	-1,202	-1,301	-9	-80	0	-89
	FEIS	-83	8	-325	-214	-637	-1,251	-18	8	-2	-12
	Difference	-40	-144	577	122	-565	-50	9	-88	2	-77
Saturday	Hybrid	-131	-97	-140	-136	-1,094	-1,598	-60	-68	0	-128
	FEIS	25	7	330	-145	-1,118	-901	70	28	0	98
	Difference	-156	-104	-470	9	24	-697	-130	-96	0	-226

Level 2 Screening Assessment

A Level 2 screening assessment involves the distribution and assignment of projected trips to the transportation network and the determination of whether specific locations are expected to experience incremental trips exceeding *CEQR Technical Manual* thresholds. Typically, if the results of this analysis show that a proposed project would result in 50 or more peak hour vehicle trips through an intersection, 50 or more peak hour bus riders on a bus route in a single direction, 200 or more peak hour subway passengers per station, or 200 or more peak hour pedestrian trips per pedestrian element, further quantified analyses may be warranted to evaluate the potential for significant adverse traffic, transit, pedestrian, and parking impacts. Based on consultation with the New York City Department of Transportation (DOT) for the FEIS and in consideration of congested conditions currently experienced in the area, numerous locations that are expected to incur fewer trips than these thresholds were also included in the analyses.

Traffic

Because the Hybrid Scenario would generate fewer vehicle trips than the No Action condition during the weekday midday, PM, and Saturday afternoon peak hours, it would not result in the potential for any significant adverse impacts during these analysis peak periods. During the weekday AM peak hour, since the incremental trips associated with the Hybrid Scenario would be fewer than those generated by the Revised Proposed Project Alternative, any significant adverse impacts that may result from the development of the Hybrid Scenario are expected to be within the envelope of impacts disclosed in the FEIS. Nonetheless, due to the different uses and related travel patterns associated with the Center/South Sites between the Hybrid Scenario and the Revised Proposed Project Alternative, Hybrid Scenario-generated traffic volumes for the weekday AM peak hour were assigned to the traffic network in the same manner as described in FEIS Chapter 14, "Transportation." As summarized in **Table 9**, the incremental vehicle trips at all study area intersections would be below the *CEQR Technical Manual*'s 50 vehicle-trip analysis threshold.

Table 9
Traffic Level 2 Screening Analysis Results
Hybrid Scenario

Intersection	Weekday AM Peak Hour Vehicle-Trip Increments
West Street and Clarkson Street	35
West Street and West Houston Street	-44
West Street and Spring Street	14
West Street and Canal Street (North)	9
West Street and Canal Street (South)	0
Washington Street and Clarkson Street	32
Washington Street and West Houston Street	37
Washington Street and Spring Street	-5
Greenwich Street and Clarkson Street	16
Greenwich Street and West Houston Street	21
Greenwich Street and Canal Street	9
Hudson Street and Clarkson Street	5
Hudson Street and West Houston Street	18
Hudson Street and Canal Street	-1
Varick Street and Clarkson Street/Carmine Street	15
Varick Street and West Houston Street	28
Sixth Avenue and West Houston Street	16
Tenth Avenue and West Street	36

However, the above intersections were analyzed for the weekday AM peak hour to determine if there would be any differences in potential traffic impacts and required mitigation measures as compared to those disclosed for the Revised Proposed Project Alternative.

2015 Existing Conditions and 2024 No Action Condition

Results of the 2015 Existing Conditions and 2024 Future Without the Proposed Actions analyses can be found in FEIS Chapter 14, "Transportation."

Probable Impacts of the Hybrid Scenario

With fewer total incremental vehicle trips, conditions at the study area intersections during the weekday AM peak hour were found to be more favorable generally under the Hybrid Scenario than under the Revised Proposed Project Alternative. As with the Revised Proposed Project Alternative, seven study area intersections were projected to incur significant adverse traffic impacts during the weekday AM peak hour. Among these, most of the impacted lane groups are common among both development scenarios, except for those at the intersections of West Street and Canal Street (North), Varick Street and Clarkson Street, and Varick Street and West Houston Street, as summarized in **Table 10**.

Table 10
Comparison of Significant Adverse Traffic Impacts
Revised Proposed Project Alternative vs. Hybrid Scenario

Intersection		Weekday AM	
EB/WB Street	**NB/SB Street**	**Revised Proposed Project Alternative**	**Hybrid Scenario**
Clarkson Street	Washington Street	SB-LT	SB-LT
West Houston Street	Washington Street	SB-TR	SB-TR
West Houston Street	Varick Street		SB-R
Clarkson Street	West Street	SB-L	SB-L
West Houston Street	West Street	EB-L	EB-L
Canal Street (North)	West Street	WB-L	WB-LR, WB-R
Clarkson Street	Hudson Street	EB-LT	EB-LT
Clarkson Street	Varick Street	EB-TR	
Total Impacted Intersections/Lane Groups		**7/7**	**7/8**

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound.

Mitigation measures necessary to address the impacts associated with the Hybrid Scenario would be the same as those identified for the Revised Proposed Project Alternative, except for the following:

- West Street and Clarkson Street—Shifting an additional second of green time from the northbound/southbound phase to the southbound left-turn phase would mitigate the projected impact under the Hybrid Scenario.
- Washington Street and West Houston Street—Instead of restriping and daylighting the southbound Washington Street approach, a 3-second shift of green time from the westbound phase to the southbound phase would mitigate the projected impact under the Hybrid Scenario.
- Hudson Street and Clarkson Street—Shifting two fewer seconds of green time from the northbound phase to the eastbound phase would be adequate in mitigating the projected impact under the Hybrid Scenario.
- Varick Street and Clarkson Street—No mitigation would be needed.

In addition, the Hybrid Scenario identifies an unmitigated significant adverse impact at the intersection of Varick Street and West Houston Street similar to that identified in the FEIS for the proposed project with big box scenario. Therefore, the Hybrid Scenario would not result in any new significant adverse traffic impacts that were not already disclosed in the FEIS.

Transit

Incremental bus trips would be fewer than 50 peak hour bus riders in a single direction. Therefore, based on *CEQR Technical Manual* guidelines a detailed analysis of buses is not warranted and, as with the Revised Proposed Project Alternative, the Hybrid Scenario is not expected to result in any significant adverse bus line-haul impacts. An assignment of the projected subway trips was undertaken to determine if the varying directionality of the projected subway trips and/or the varying distribution patterns associated with the No Action and Hybrid Scenario land uses would result in the need to prepare a detailed analysis of subway station elements and line-haul conditions. The development site is served by multiple subway stations/lines, including the Houston Street Station (No. 1 train), the Spring Street Station (C and E trains), and the West 4th Street Station (A, B, C, and D trains). In the Hybrid Scenario, with the incremental subway trips dispersed among these subway stations/lines (see **Table 11**) based on the distribution of subway trips to each of the three stations (see Table 14-15 in the FEIS), it

was determined that detailed analyses of station circulation elements and control areas were warranted for the Houston Street (1) Station for the weekday AM and PM peak hours.

Table 11
Transit Level 2 Screening Analysis Results
Hybrid Scenario

Transit Elements	In/Out (to/from site)	Incremental Trips - Weekday	
		AM	PM
Houston Street Subway Station (1)	In - Via North Side of West Houston Street	124	-32
	In - Via South Side of West Houston Street	35	-9
	Out - Via North Side of West Houston Street	45	111
	Out - Via South Side of West Houston Street	13	31
	Total - North Side of West Houston Street	169	79
	Total - South Side of West Houston Street	48	22
Spring Street Subway Station (C,E)	In - Via North Side of Spring Street	140	-36
	Out - Via North Side of Spring Street	50	125
	Total - North Side of Spring Street	190	89
West 4th Street Subway Station (A,B,C,D)	In - Via North Side of Clarkson Street	78	-20
	In - Via South Side of Clarkson Street	22	-6
	Out - Via North Side of Clarkson Street	28	69
	Out - Via South Side of Clarkson Street	8	20
	Total - North Side of Clarkson Street	106	49
	Total - South Side of Clarkson Street	30	14

Pedestrians

An assignment of the projected pedestrian trips in the Hybrid Scenario was undertaken to determine if the varying directionality of the projected pedestrian trips and/or the varying distribution patterns associated with the No Action and Hybrid Scenario land uses would result in the need to prepare a detailed analysis of area sidewalks, corner reservoirs, and crosswalks. Level 2 pedestrian trip assignments were individually developed for all the Hybrid Scenario components. As shown in **Table 12**, It was determined that the same pedestrian elements analyzed in the FEIS would warrant detailed analysis in the Hybrid Scenario; no new elements exceeded the *CEQR* threshold for pedestrian analysis.

Table 12
Pedestrian Level 2 Screening Analysis Results—Selected Analysis Locations
Hybrid Scenario

Pedestrian Elements	Weekday			Saturday	Selected Analysis Location
	AM	Midday	PM		
Clarkson Street and West Street					
East Crosswalk	18	80	56	84	
West Houston Street and West Street					
East Sidewalk along West Street between Clarkson Street and West Houston Street	-11	25	-4	42	
East Sidewalk along West Street between West Houston Street and Spring Street: Northern Segment	-219	-933	-1388	-984	
East Sidewalk along West Street between West Houston Street and Spring Street: Southern Segment	2	4	-271	4	
North Crosswalk	14	-41	13	1	✓
East Crosswalk	16	65	43	67	
Washington Street and Clarkson Street					
South Sidewalk along Clarkson Street between Washington Street and West Street: Eastern Segment	5	-372	-163	-66	
South Sidewalk along Clarkson Street between Washington Street and West Street: Western Segment	-50	-83	-83	-49	
South Crosswalk	0	-358	-286	-320	
West Crosswalk	-61	-429	-284	-331	
Washington Street and West Houston Street					
East Sidewalk along Washington Street between West Houston Street and Clarkson Street	0	0	0	0	
North Sidewalk along West Houston Street between Washington Street and Greenwich Street	-41	158	-423	-150	
East Sidewalk along Washington Street between West Houston Street and Spring Street	0	0	0	0	
South Sidewalk along West Houston Street between Washington Street and Greenwich Street	89	-304	-43	-229	
West Sidewalk along Washington Street between West Houston Street and Spring Street: Northern Segment	522	1146	855	375	✓
West Sidewalk along Washington Street between West Houston Street and Spring Street: Southern Segment	341	-212	177	-459	✓
South Sidewalk along West Houston Street between Washington Street and West Street: Eastern Segment	-630	-1813	-1939	-1311	
South Sidewalk along West Houston Street between Washington Street and West Street: Western Segment	-189	-784	-1277	-802	
West Sidewalk along Washington Street between West Houston Street and Clarkson Street: Northern Segment	-436	-953	-451	-549	
West Sidewalk along Washington Street between West Houston Street and Clarkson Street: Southern Segment	-484	-826	-472	-352	
North Sidewalk along West Houston Street between Washington Street and West Street: Eastern Segment	18	137	58	86	
North Sidewalk along West Houston Street between Washington Street and West Street: Western Segment	-4	12	-11	1	
Northeast Corner	-38	162	-419	-147	
Northwest Corner	24	17	-1141	-674	
Southeast Corner	89	-304	-41	-229	
Southwest Corner	79	-462	-816	-713	
North Crosswalk	-38	162	-419	-147	
East Crosswalk	0	0	0	0	
South Crosswalk	89	-304	-41	-229	
West Crosswalk	67	-108	-710	-516	
Greenwich Street and West Houston Street					
North Crosswalk	-39	178	-409	-131	
South Crosswalk	82	-309	-47	-233	
Hudson Street and West Houston Street					
North Sidewalk along West Houston Street between Hudson Street and Varick Street	177	115	-120	-148	
South Sidewalk along West Houston Street between Hudson Street and Varick Street	-137	-197	-281	-169	
South Sidewalk along West Houston Street between Hudson Street and Greenwich Street	73	-268	-73	-223	
North Sidewalk along West Houston Street between Hudson Street and Greenwich Street	-31	140	-387	-143	
North Crosswalk	-14	144	-374	-149	
South Crosswalk	97	-241	-20	-207	
Varick Street and West Houston Street					
North Crosswalk	63	87	44	-97	
East Crosswalk	0	0	0	0	
South Crosswalk	-33	-68	-248	-118	
West Crosswalk	-49	-35	-83	-69	

Note: ✓ denotes pedestrian elements selected for detailed analysis.

TRANSPORTATION ANALYSIS METHODOLOGIES

Transportation analysis methodologies for traffic and pedestrian operations are described in FEIS Chapter 14, "Transportation."

Transit Operations

Subway Station Elements

The methodology for assessing station circulation (stairs, escalators, and passageways) and fare control (regular turnstiles, high entry/exit turnstiles, and high exit turnstiles) elements compares the user volume with the analyzed element's design capacity, resulting in a v/c ratio. For stairs, the design capacity considers the effective width of a tread, which accounts for railings or other obstructions, the friction or counter-flow between upward and downward pedestrians (up to 10 percent capacity reduction is applied to account for counter-flow friction), surging of entering and exiting pedestrians (up to 25 percent capacity reduction is applied to account for surged flows off of platforms and onto platforms), and the average area required for circulation. For passageways, similar considerations are made. For escalators and turnstiles, capacities are measured by the number and width of an element and the New York City Transit (NYCT) optimum capacity per element, also account for the potential for surging of entering and exiting pedestrians. In the analysis for each of these elements, volumes and capacities are presented for 15-minute intervals. The estimated v/c ratio is compared with NYCT criteria to determine a LOS for the operation of an element, as summarized in **Table 13**.

Table 13
Level of Service Criteria for Subway Station Elements

LOS	V/C Ratio
A	0.00 to 0.45
B	0.45 to 0.70
C	0.70 to 1.00
D	1.00 to 1.33
E	1.33 to 1.67
F	Above 1.67

Source: New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*.

At LOS A ("free flow") and B ("fluid flow"), there is sufficient area to allow pedestrians to freely select their walking speed and bypass slower pedestrians. When cross and reverse flow movement exists, only minor conflicts may occur. At LOS C ("fluid, somewhat restricted"), movement is fluid although somewhat restricted. While there is sufficient room for standing without personal contact, circulation through queuing areas may require adjustments to walking speed. At LOS D ("crowded, walking speed restricted"), walking speed is restricted and reduced. Reverse and cross flow movement is severely restricted because of congestion and the difficult passage of slower moving pedestrians. At LOS E ("congested, some shuffling and queuing") and F ("severely congested, queued"), walking speed is restricted. There is also insufficient area to bypass others, and opposing movement is difficult. Often, forward progress is achievable only through shuffling, with queues forming.

Significant Impact Criteria

The determination of significant impacts for station elements varies based on their type and use. For stairs and passageways, significant impacts are defined in term of width increment threshold (WIT) based on the minimum amount of additional capacity that would be required either to

mitigate the location to its service conditions (LOS) under the No-Action levels, or to bring it to a v/c ratio of 1.00 (LOS C/D), whichever is greater. Significant impacts are typically considered to occur once the WITs in **Table 14** are reached or exceeded.

Table 14
Significant Impact Guidance for Stairs and Passageways

With-Action V/C Ratio	WIT for Significant Impact (inches)	
	Stairway	Passageway
1.00 to 1.09	8.0	13.0
1.10 to 1.19	7.0	11.5
1.20 to 1.29	6.0	10.0
1.30 to 1.39	5.0	8.5
1.40 to 1.49	4.0	6.0
1.50 to 1.59	3.0	4.5
1.60 and up	2.0	3.0

Notes: WIT = Width Increment Threshold
Sources: New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*.

For escalators and control area elements, impacts are significant if a project causes a v/c ratio to increase from below 1.00 to 1.00 or greater. Where a facility is already at or above its capacity (a v/c of 1.00 or greater) in the No Action condition, a 0.01 increase in v/c ratio is also significant.

DETAILED TRANSIT ANALYSIS

As described above, the Houston Street Station (No. 1 line) has been selected for station analysis for the weekday AM and PM peak hours.

2016 Existing Conditions

Subway station data collection was conducted on October 5, 2016 during the hours of 7:00 to 10:00 AM and 4:00 to 7:00 PM to establish the baseline volumes for the subway station analysis. As shown in **Tables 15 and 16**, all analyzed stairways and control areas currently operate at acceptable levels during the weekday AM and PM peak periods.

No Action Condition

As shown in **Tables 17 and 18**, the Houston Street (1) subway station stairways and control areas will continue to operate at acceptable levels during the weekday AM and PM peak periods in the No Action Condition.

Table 15
2016 Existing Conditions Subway Stairway Analysis
Houston Street Station

Stair	Location	Effective Width (ft)	Peak Hour Volumes		Peak 15-Minute Volumes		Friction Factor	Surge Factor		V/C Ratio	LOS
			Entry (Down)	Exit (Up)	Entry (Down)	Exit (Up)		Up	Down		
AM Peak Hour											
Northwest Stairs (S7) - Downtown	Street Level	3.75	94	673	29	210	0.9	0.80	1.00	0.58	B
Southwest Stairs (S5) - Downtown	Street Level	4.00	99	242	31	76	0.9	0.80	1.00	0.23	A
Northeast Stairs (S8) - Uptown	Street Level	4.00	57	876	18	274	0.9	0.80	1.00	0.67	B
Southeast Stairs (S6) - Uptown	Street Level	5.00	136	181	43	57	0.9	0.80	1.00	0.17	A
PM Peak Hour											
Northwest Stairs (S7) - Downtown	Street Level	3.75	169	324	53	101	0.9	0.80	1.00	0.35	A
Southwest Stairs (S5) - Downtown	Street Level	4.00	571	67	178	21	0.9	0.80	1.00	0.38	A
Northeast Stairs (S8) - Uptown	Street Level	4.00	118	199	37	62	0.9	0.80	1.00	0.21	A
Southeast Stairs (S6) - Uptown	Street Level	5.00	499	133	156	42	0.9	0.80	1.00	0.31	A

Table 16
2016 Existing Conditions Fare Array Analysis
Houston Street Station

Control Element	Quantity	Peak Hour Pedestrian Volume		15 Minute		Surging Factor	Friction Factor	v/c Ratio	LOS
		Entry	Exit	Entry	Exit				
AM Peak hour									
Downtown									
Two-way Turnstiles	4	193	915	60	286	0.8	0.9	0.19	A
Uptown									
Two-way Turnstiles	3	193	1,057	60	330	0.8	0.9	0.24	A
PM Peak Hour									
Downtown									
Two-way Turnstiles	4	740	391	231	122	0.8	0.9	0.22	A
Uptown									
Two-way Turnstiles	3	617	332	193	104	0.8	0.9	0.07	A

Table 17
2024 No Action Condition Subway Stairway Analysis
Houston Street Station

Stair	Location	Effective Width (ft)	Peak Hour Volumes		Peak 15-Minute Volumes		Friction Factor	Surge Factor		V/C Ratio	LOS
			Entry (Down)	Exit (Up)	Entry (Down)	Exit (Up)		Up	Down		
AM Peak Hour											
Northwest Stairs (S7) - Downtown	Street Level	3.75	123	857	38	268	0.9	0.80	1.00	0.74	C
Southwest Stairs (S5) - Downtown	Street Level	4.00	105	294	33	92	0.9	0.80	1.00	0.27	A
Northeast Stairs (S8) - Uptown	Street Level	4.00	112	949	35	297	0.9	0.80	1.00	0.75	C
Southeast Stairs (S6) - Uptown	Street Level	5.00	149	200	47	63	0.9	0.80	1.00	0.19	A
PM Peak Hour											
Northwest Stairs (S7) - Downtown	Street Level	3.75	264	479	83	150	0.9	0.80	1.00	0.53	B
Southwest Stairs (S5) - Downtown	Street Level	4.00	604	109	189	34	0.9	0.80	1.00	0.43	A
Northeast Stairs (S8) - Uptown	Street Level	4.00	386	261	121	82	0.9	0.80	1.00	0.41	A
Southeast Stairs (S6) - Uptown	Street Level	5.00	581	146	182	46	0.9	0.80	1.00	0.35	A

Table 18
2024 No Action Conditions Fare Array Analysis
Houston Street Station

Control Element	Quantity	Peak Hour Pedestrian Volume		15 Minute		Surging Factor	Friction Factor	v/c Ratio	LOS
		Entry	Exit	Entry	Exit				
AM Peak hour									
Downtown									
Two-way Turnstiles	4	227	1,151	71	360	0.8	0.9	0.24	A
Uptown									
Two-way Turnstiles	3	261	1,149	82	359	0.8	0.9	0.26	A
PM Peak Hour									
Downtown									
Two-way Turnstiles	4	868	588	271	184	0.8	0.9	0.28	A
Uptown									
Two-way Turnstiles	3	967	407	302	127	0.8	0.9	0.08	A

Probable Impacts of the Hybrid Scenario

As shown in **Tables 19 and 20**, the Houston Street (1) subway station stairways and control areas will continue to operate at acceptable levels during the weekday AM and PM peak periods with the Hybrid Scenario.

Table 19
2024 With Action Condition Subway Stairway Analysis – Hybrid Scenario
Houston Street Station

Stair	Location	Effective Width (ft)	Peak Hour Volumes		Peak 15-Minute Volumes		Friction Factor	Surge Factor		V/C Ratio	LOS
			Entry (Down)	Exit (Up)	Entry (Down)	Exit (Up)		Up	Down		
AM Peak Hour											
Northwest Stairs (S7) - Downtown	Street Level	3.75	134	950	42	297	0.9	0.80	1.00	0.82	C
Southwest Stairs (S5) - Downtown	Street Level	4.00	108	320	34	100	0.9	0.80	1.00	0.29	A
Northeast Stairs (S8) - Uptown	Street Level	4.00	146	980	46	306	0.9	0.80	1.00	0.79	C
Southeast Stairs (S6) - Uptown	Street Level	5.00	159	209	50	65	0.9	0.80	1.00	0.19	A
PM Peak Hour											
Northwest Stairs (S7) - Downtown	Street Level	3.75	292	455	91	142	0.9	0.80	1.00	0.53	B
Southwest Stairs (S5) - Downtown	Street Level	4.00	612	102	191	32	0.9	0.80	1.00	0.43	A
Northeast Stairs (S8) - Uptown	Street Level	4.00	469	253	147	79	0.9	0.80	1.00	0.46	B
Southeast Stairs (S6) - Uptown	Street Level	5.00	604	144	189	45	0.9	0.80	1.00	0.36	A

Table 20
2024 With Action Conditions Fare Array Analysis – Hybrid Scenario
Houston Street Station

Control Element	Quantity	Peak Hour Pedestrian Volume		15 Minute		Surging Factor	Friction Factor	v/c Ratio	LOS
		Entry	Exit	Entry	Exit				
AM Peak hour									
Downtown									
Two-way Turnstiles	4	241	1,270	75	397	0.8	0.9	0.26	A
Uptown									
Two-way Turnstiles	3	305	1,189	95	372	0.8	0.9	0.27	A
PM Peak Hour									
Downtown									
Two-way Turnstiles	4	904	557	283	174	0.8	0.9	0.28	A
Uptown									
Two-way Turnstiles	3	1,073	397	335	124	0.8	0.9	0.08	A

DETAILED PEDESTRIAN ANALYSIS

As described above, Level 1 and Level 2 screening analyses were prepared to identify the pedestrian elements warranting a detailed analysis. Based on the assignment of pedestrian trips

and in consultation with DOT, two sidewalks and one crosswalk were selected for analysis for all peak hours.

2015 Existing Conditions and 2024 No Action Condition

Results of the 2015 Existing Conditions and 2024 Future Without the Proposed Actions analyses can be found in FEIS Chapter 14, "Transportation."

Probable Impacts of the Hybrid Scenario

Hybrid Scenario-generated pedestrian volumes were assigned to the pedestrian network considering current land uses in the area, population distribution, nearby parking locations, available transit services, and surrounding pedestrian facilities. The hourly incremental pedestrian volumes presented above in "Level 2 Screening Assessment" were added to the projected 2024 No Action volumes to generate the 2024 With Action – Hybrid Scenario pedestrian volumes for analysis.

As part of the proposed actions, the northern segment of the sidewalk along Washington Street between Spring Street and West Houston Street would be widened to 13.5 feet (from an existing width of 5 feet). This sidewalk widening has been incorporated into this analysis. The narrowest effective sidewalk widths used for analysis account for obstructions that currently exist or are expected to be in place with the Revised Proposed Project Alternative or Hybrid Scenario.

The incremental trips at the north crosswalk of West Street and West Houston Street would remain the same as those in the FEIS. Therefore, only sidewalk analysis results are presented for the Hybrid Scenario. As described in the FEIS, the northern segment of the sidewalk along Washington Street between Spring Street and West Houston Street would be widened to 13.5 feet. Extending this widening to the sidewalk's southern segment would be necessary to accommodate the higher incremental pedestrian trips under the Hybrid Scenario. With this project improvement, the Hybrid Scenario would also not result in any significant adverse pedestrian impacts, as demonstrated in **Table 21.**

Table 21
2024 Hybrid Scenario Condition: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
Washington Street between West Houston Street and Spring Street (North Section)	West	10.5	1,712	0.80	77.0	C
Washington Street between West Houston Street and Spring Street (South Section)	West	8.5	992	0.80	108.1	B
Weekday Midday Peak Hour						
Washington Street between West Houston Street and Spring Street (North Section)	West	10.5	2,814	0.90	52.2	C
Washington Street between West Houston Street and Spring Street (South Section)	West	8.5	1,530	0.90	78.5	C
Weekday PM Peak Hour						
Washington Street between West Houston Street and Spring Street (North Section)	West	10.5	2,772	0.90	53.0	C
Washington Street between West Houston Street and Spring Street (South Section)	West	8.5	1,597	0.90	75.2	C
Saturday Peak Hour						
Washington Street between West Houston Street and Spring Street (North Section)	West	10.5	1,317	0.80	100.5	B
Washington Street between West Houston Street and Spring Street (South Section)	West	8.5	996	0.80	107.6	B

Note: SFP = square feet per pedestrian.

PARKING

The Hybrid Scenario would include 386 parking spaces on the development site. Following the procedures detailed in the FEIS, parking demand estimates were developed for the Hybrid Scenario based on the travel demand assumptions and the parking assessment summarized in FEIS Chapter 14, "Transportation," on Table 14-5 and Section G, "Parking Assessment."

Accounting for the parking supply and parking demand generated by the Hybrid Scenario, the With Action public parking utilization is expected to increase to a maximum of 97 percent during the weekday midday peak period. This parking utilization level is within the area's parking capacity. Therefore, the Hybrid Scenario is not expected to result in parking shortfalls or significant adverse parking impacts.

AIR QUALITY

As discussed in the Transportation section of this Technical Memorandum, the Hybrid Scenario would not result in any new or additional impacts due to traffic. Therefore, like the Revised Proposed Project Alternative, the Hybrid Scenario would not result in any significant adverse air quality impacts due to mobile source emissions at intersections or associated with parking facilities.

The FEIS analyses concluded that stationary sources of emissions would not result in any significant adverse air quality impacts and included placement of an (E) designation (E-384) on the project site to enforce the assumptions that support the finding. The (E) designation (E-384) requirements for the North Site building would remain unchanged with the Hybrid Scenario. For the Center/South Site building, the Hybrid Scenario would be anticipated to include similar heating, ventilation and air conditioning systems (HVAC) that were assumed for the analysis in the FEIS. Assuming a single heating and hot water system that would serve the Center and South Sites, with a stack height on the roof of the 10th floor at a height of 161 feet above grade (approximately 3 feet above the roof), the estimated minimum stack set back distance is 194 feet from buildings of a similar or greater height, following the screening procedures outlined in the *CEQR Technical Manual* for analysis of fossil fuel-fired heating systems. Based on the minimum distance to buildings of a similar or greater height, a setback would be required from the northern lot line to avoid the potential for a significant adverse air quality impact due to HVAC systems under the Hybrid Scenario, however, a stack setback would not be required with respect to the east, west or south lot lines.

Therefore, under the Hybrid Scenario, the requirements of the (E) designation (E-384) would be as follows:

Any new development on the Center and South Sites must utilize only natural gas in any fossil fuel-fired HVAC equipment, and HVAC stacks must be at least 161 feet above grade and located at least 129 feet away from the northern lot line facing West Houston Street to avoid any potential significant air quality impacts.

GREENHOUSE GAS EMISSIONS

As with the Revised Proposed Project Alternative, the Hybrid Scenario would incorporate measures to reduce greenhouse gas emissions (GHG) and to plan for sea level rise. The private applicant is currently evaluating the specific energy efficiency measures and design elements that may be implemented for all the buildings on the development site. The special permit development would be designed to accommodate projected flood levels projected for the year 2100 for all critical infrastructure and residential uses, and for the 2050s or higher for

commercial uses (applying the higher 2100 levels where practicable). Therefore, as with the Revised Proposed Project Alternative, the Hybrid Scenario would be consistent with the City's GHG reduction goals and policies regarding adaptation to climate change.

NOISE

The FEIS analyses concluded that the Revised Proposed Project Alternative would not result in any significant adverse noise impacts and included placement of an (E) designation (E-384) on the project site to enforce the noise attenuation measures associated with that finding. With adherence to the requirements of the (E) designation (E-384), the Hybrid Scenario would not result in any significant adverse noise impacts.

PUBLIC HEALTH

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in significant adverse impacts to public health, as neither would result in unmitigated significant adverse impacts in technical areas related to public health, including air quality, water quality, hazardous materials, and noise. As with the Revised Proposed Project Alternative, during some periods of construction, the Hybrid Scenario development could result in significant adverse impacts related to noise as defined by *CEQR Technical Manual* thresholds, but the predicted overall changes in noise levels would not be large enough to significantly affect public health. Overall, as with the Revised Proposed Project Alternative, the Hybrid Scenario would not result in significant adverse public health impacts.

NEIGHBORHOOD CHARACTER

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario would not result in significant adverse impacts to neighborhood character. As described in the FEIS, the neighborhood character of the study area is defined by a few key components, including its mix of land uses and ongoing trend towards residential use, its location in a busy urban area with major roadways including Route 9A and arterial streets connecting to the Holland Tunnel, and its proximity to Hudson River Park and the waterfront. Since the neighborhood character of the study area is partly defined by existing relatively high traffic volumes, the increased traffic resulting from either the Revised Proposed Project Alternative or the Hybrid Scenario would not represent a significant change to the existing neighborhood character. Compared to the proposed project, the Hybrid Scenario would avoid a significant adverse open space impact and would not include new public open space. Both the Revised Proposed Project Alternative and the Hybrid Scenario would also support a defining feature of the character of the neighborhood—Hudson River Park—through the transfer of floor area from Pier 40 to the development site under the Special Hudson River Park District, which would provide critical funding for repairs to Pier 40. While both the Revised Proposed Project Alternative and the Hybrid Scenario would result in moderate effects in one technical area related to neighborhood character—shadows—even taken together with other categories, the moderate shadows effects would not result in a cumulative significant adverse impact to the area's neighborhood character. Overall, as with the Revised Proposed Project Alternative, the Hybrid Scenario would be consistent with the study area's mixed-use neighborhood character, and would enliven the development site.

CONSTRUCTION

Impacts associated with the construction of the Hybrid Scenario would be expected to be similar to, or less than, those identified for the Revised Proposed Project Alternative. The reuse of the existing building on the Center/South Sites would result in less intense construction activities

compared to the construction of new buildings, as was analyzed in the FEIS. Demolition, excavation, and foundation work on the Center/South Site would be limited compared to the Revised Proposed Project Alternative, due to reuse of the existing structure.

Under the Hybrid Scenario, development south of West Houston Street would be completed/occupied while construction would be occurring on the North Site; the occupied building would have the potential to experience noise generated by construction on the North Site. The maximum noise exposure at the Center/South Site would be the same as the maximum predicted noise exposure at the Center Site building during construction as described in the FEIS. However, the Center/South building would be commercial rather than residential. The duration of the noise exposure would be the same as that predicted for the Center Site in the FEIS, because the North Site development would be the same as the Revised Proposed Project Alternative. Therefore, as was disclosed in the FEIS, there is the potential for a temporary significant adverse noise impact on the Center/South Site building due to noise from construction of the North Site building.

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario has the potential to result in construction noise levels that exceed *CEQR Technical Manual* noise impact criteria at the future 354-361 West Street development site. However, because 354-361 West Street is mapped with a Noise (E) designation (E-218) requiring between 26 and 39 dBA of window/wall attenuation, which would be achieved by means of installing acoustically rated insulated glass windows, and an alternate means of ventilation (i.e., air conditioning that does not degrade the acoustical performance of the façade) to allow for the maintenance of a closed-window condition, there are no feasible and practicable mitigation measures that would be able to reduce or eliminate this potential significant adverse noise impacts.

Under the Revised Proposed Project Alternative, project-generated open space would be closed during demolition, excavation, and foundation activities, thus avoiding the potential for a significant adverse public health impact. However, the Hybrid Scenario would not include any new public open space, and, therefore, there would not be any potential for construction-related impacts on public open space.

MITIGATION

The FEIS described potential mitigation measures for open space and transportation.

OPEN SPACE

As described above, the Hybrid Scenario would not result in the significant adverse open space impacts identified for the Revised Proposed Project Alternative. In addition, the Hybrid Scenario would not result in any new significant adverse open space impacts. Therefore, no mitigation would be required.

TRANSPORTATION

The Hybrid Scenario would not result in potential traffic impacts during the weekday midday, PM, and Saturday peak hours. Therefore, mitigation measures identified for the Revised Proposed Project Alternative during these time periods would not need to be implemented until such time as the development of the Revised Proposed Project Alternative proceeds for the South block (Center and South Sites). For the weekday AM peak hour, the anticipated impacts would be largely the same as those identified for the Revised Proposed Project Alternative. As described above, mitigation measures necessary to address the impacts associated with the Hybrid Scenario would be the same as those identified for the Revised Proposed Project

Alternative, with a few exceptions. In addition, the Hybrid Scenario identifies an unmitigated significant adverse impact at the intersection of Varick Street and West Houston Street similar to that identified in the FEIS for the proposed project with big box scenario. Therefore, the Hybrid Scenario would not result in any new significant adverse traffic impacts that were not already disclosed in the FEIS. As with the Revised Proposed Project Alternative, the development of the North Site would not result in the potential for any significant adverse traffic impacts. Therefore, implementation of mitigation measures would be required with the completion of the Center/South Sites.

UNAVOIDABLE ADVERSE IMPACTS

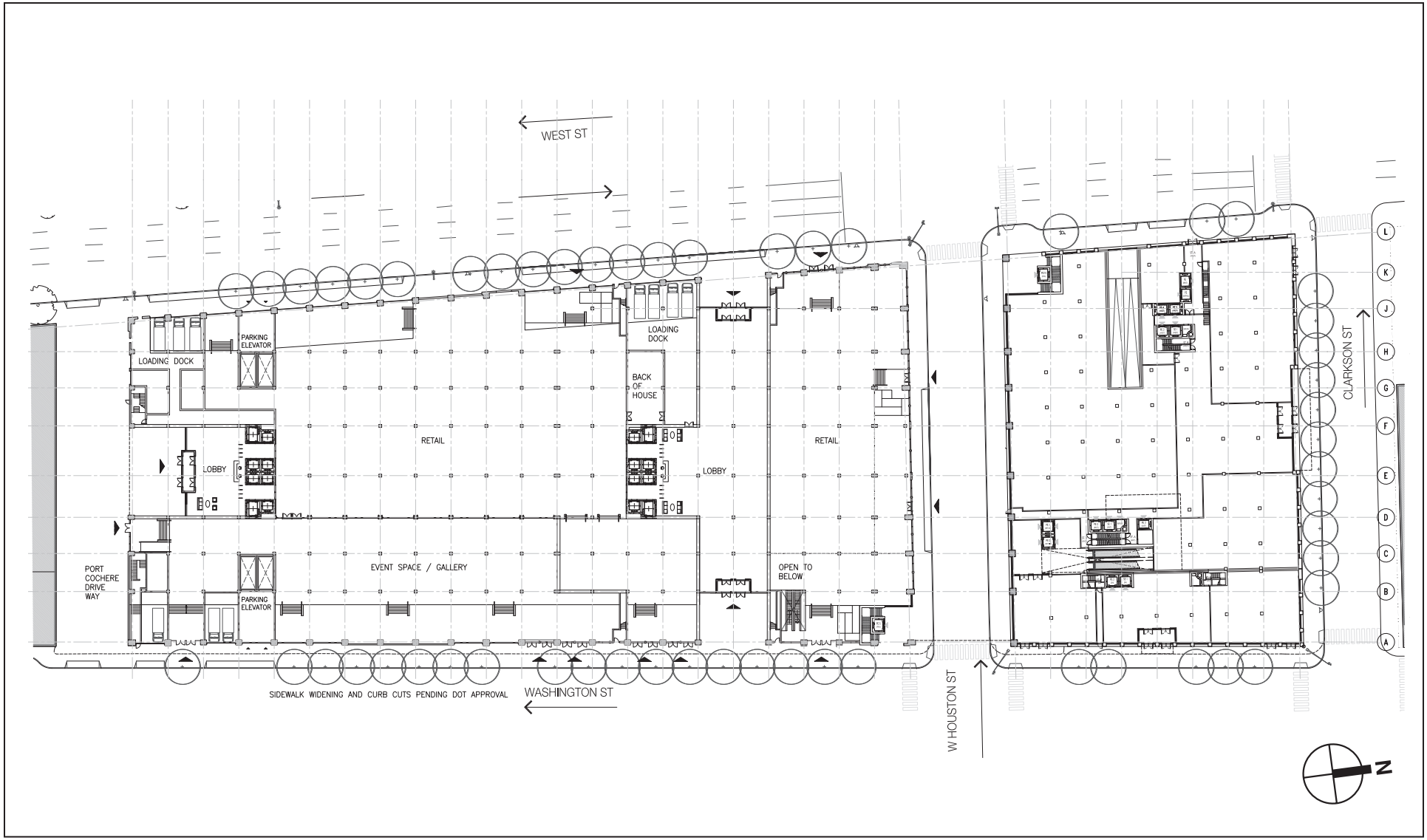
TRANSPORTATION

The Hybrid Scenario identifies an unmitigated significant adverse impact at the intersection of Varick Street and West Houston Street similar to that identified in the FEIS for the proposed project with big box scenario.

CONSTRUCTION NOISE

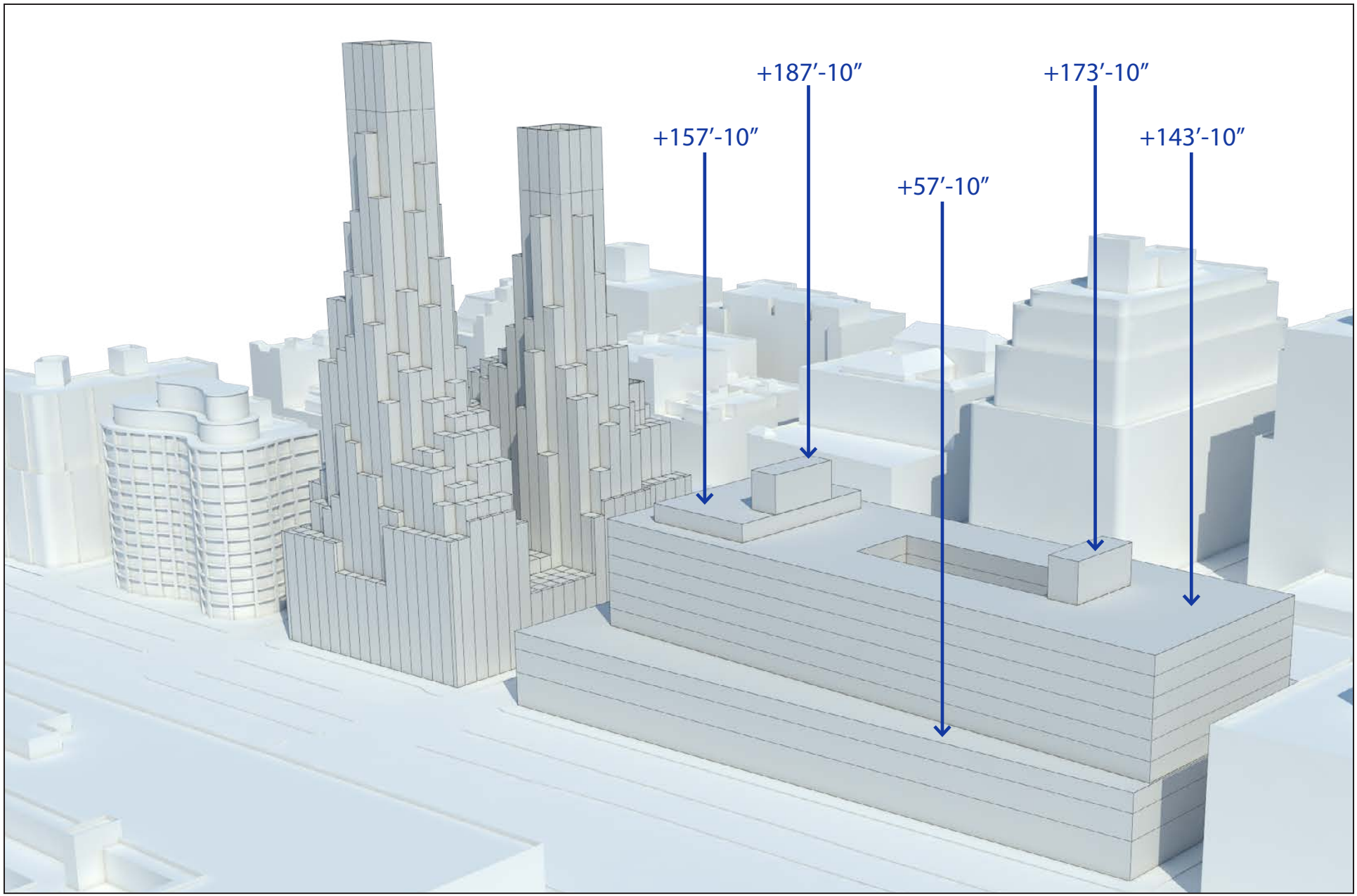
Under the Hybrid Scenario, development south of West Houston Street would be completed/occupied while construction would be occurring on the North Site; the occupied building would have the potential to experience noise generated by construction on the North Site. The maximum noise exposure at the Center/South Site would be the same as the maximum predicted noise exposure at the Center Site building during construction as described in the FEIS. However, the Center/South building would be commercial rather than residential. The duration of the noise exposure would be the same as that predicted for the Center Site in the FEIS, because the North Site development would be the same as the Revised Proposed Project Alternative. Therefore, as was disclosed in the FEIS, there is the potential for a temporary significant adverse noise impact on the Center/South Site building due to noise from construction of the North Site building. There are no feasible and practicable mitigation measures that would be able to reduce or eliminate this potential significant adverse noise impact.

Similar to the Revised Proposed Project Alternative, the Hybrid Scenario has the potential to result in construction noise levels that exceed *CEQR Technical Manual* noise impact criteria at the future 354-361 West Street development site. However, because 354-361 West Street is mapped with a Noise (E) designation (E-218) requiring between 26 and 39 dBA of window/wall attenuation, which would be achieved by means of installing acoustically rated insulated glass windows, and an alternate means of ventilation (i.e., air conditioning that does not degrade the acoustical performance of the façade) to allow for the maintenance of a closed-window condition, there are no feasible and practicable mitigation measures that would be able to reduce or eliminate this potential significant adverse noise impact. ✷



NOTE: CENTER/SOUTH SITES SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
NORTH SITE TO BE DEVELOPED PURSUANT TO SPECIAL PERMIT.

Site Plan
Figure 1



NOTE: CENTER/SOUTH SITES SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. NORTH SITE TO BE DEVELOPED PURSUANT TO SPECIAL PERMIT.

Illustrative Massing
Figure 2

Development Site

Quarter-mile boundary

Study Area Boundary

Census Tracts

2010 Census Tracts

550 WASHINGTON STREET

Open Space

Figure 3

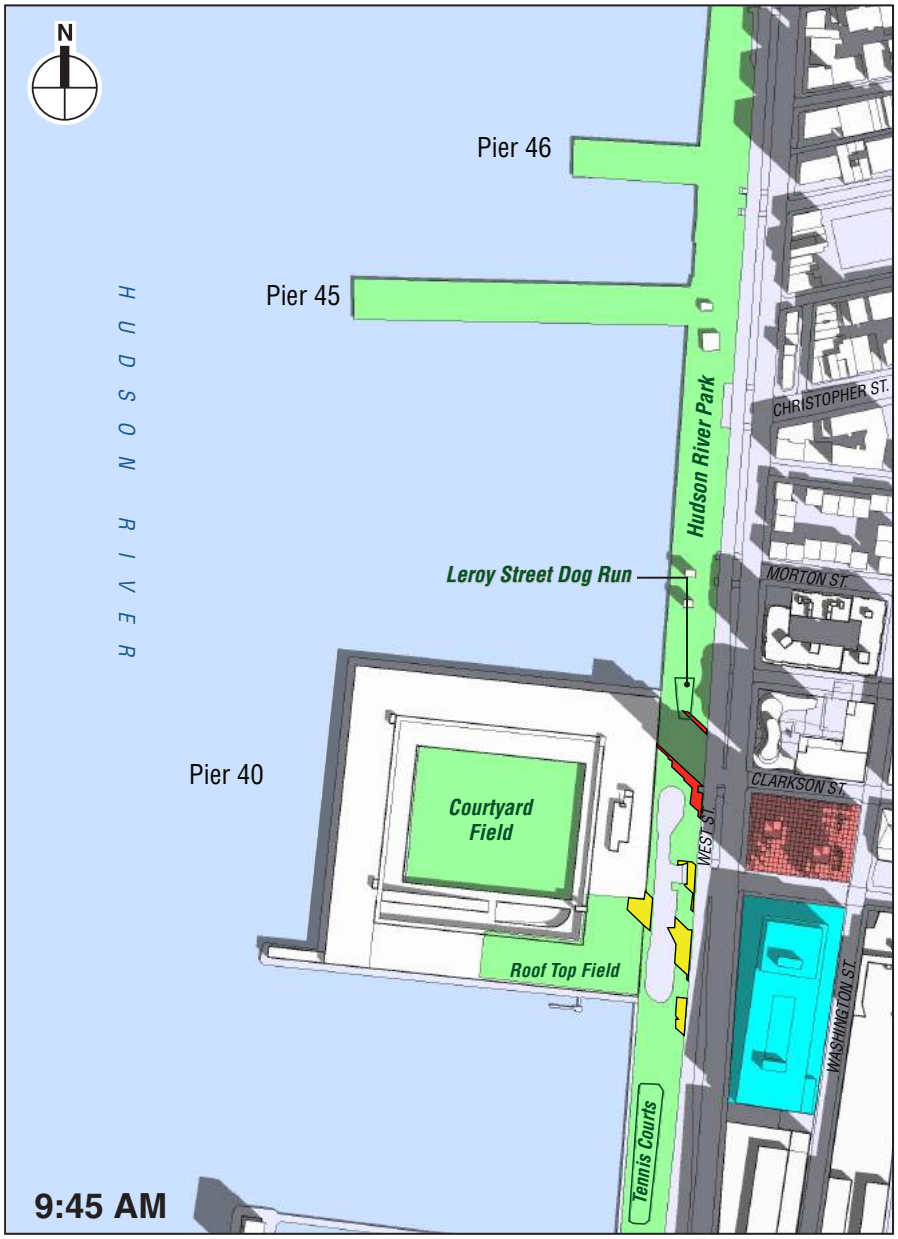
10.10.16

Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

March/September 21
Hybrid Shadow Comparison
Figure 4

10.10.16



Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

March/September 21
Hybrid Shadow Comparison
Figure 5

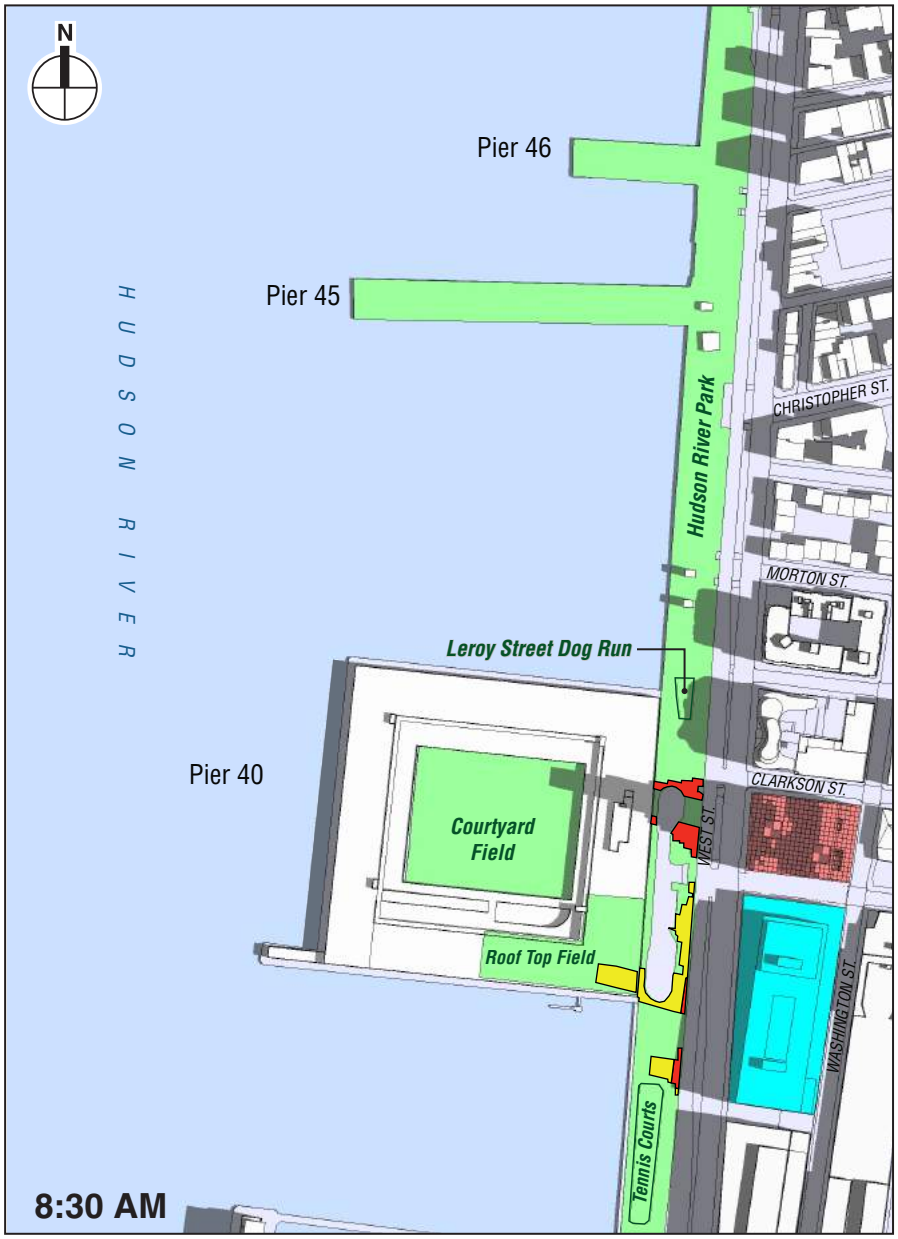
10.10.16

Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

May/August 6
Hybrid Shadow Comparison
Figure 6

10.10.16

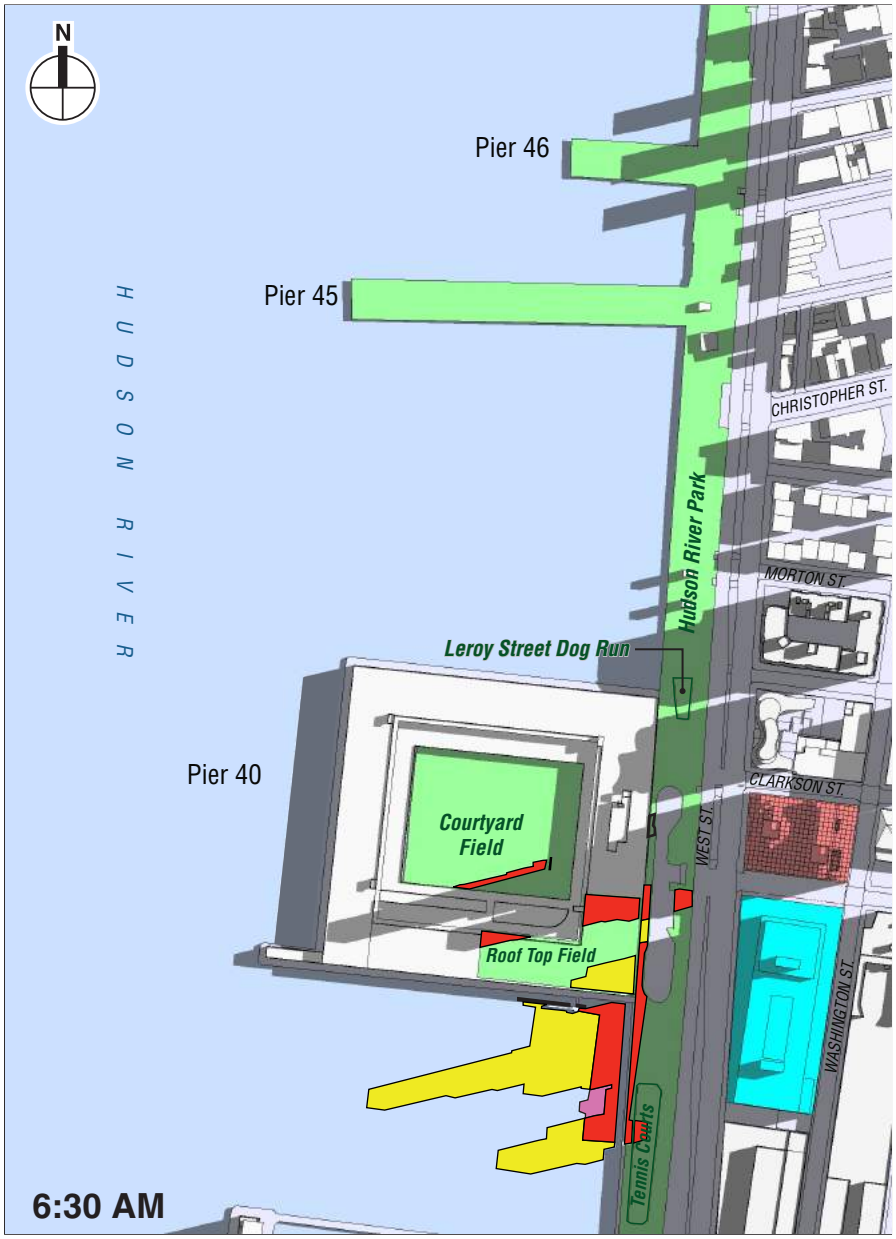


Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

May/August 6
Hybrid Shadow Comparison
Figure 7

10.10.16

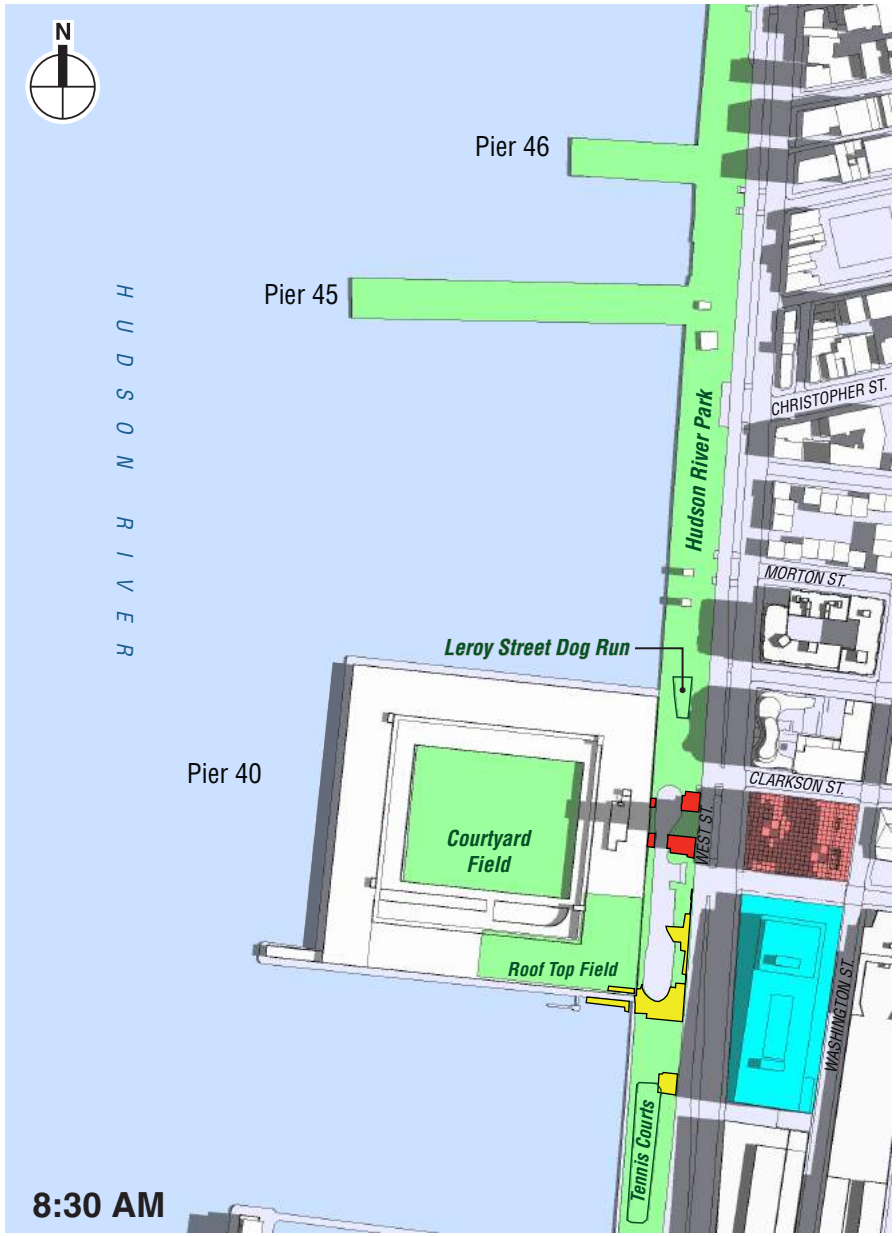


Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

June 21
Hybrid Shadow Comparison
Figure 8

10.10.16

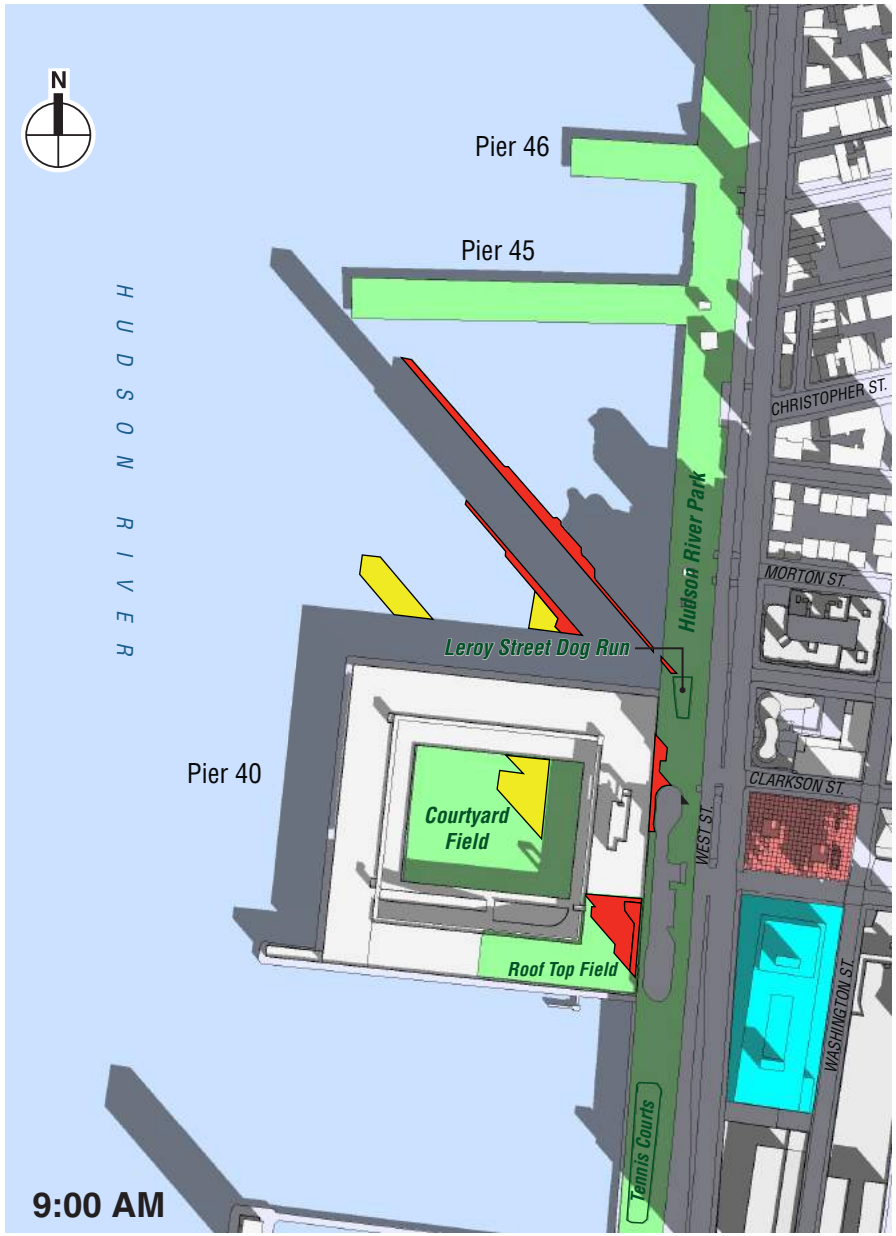


Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

June 21
Detailed Shadow Analysis
Figure 9

10.10.16

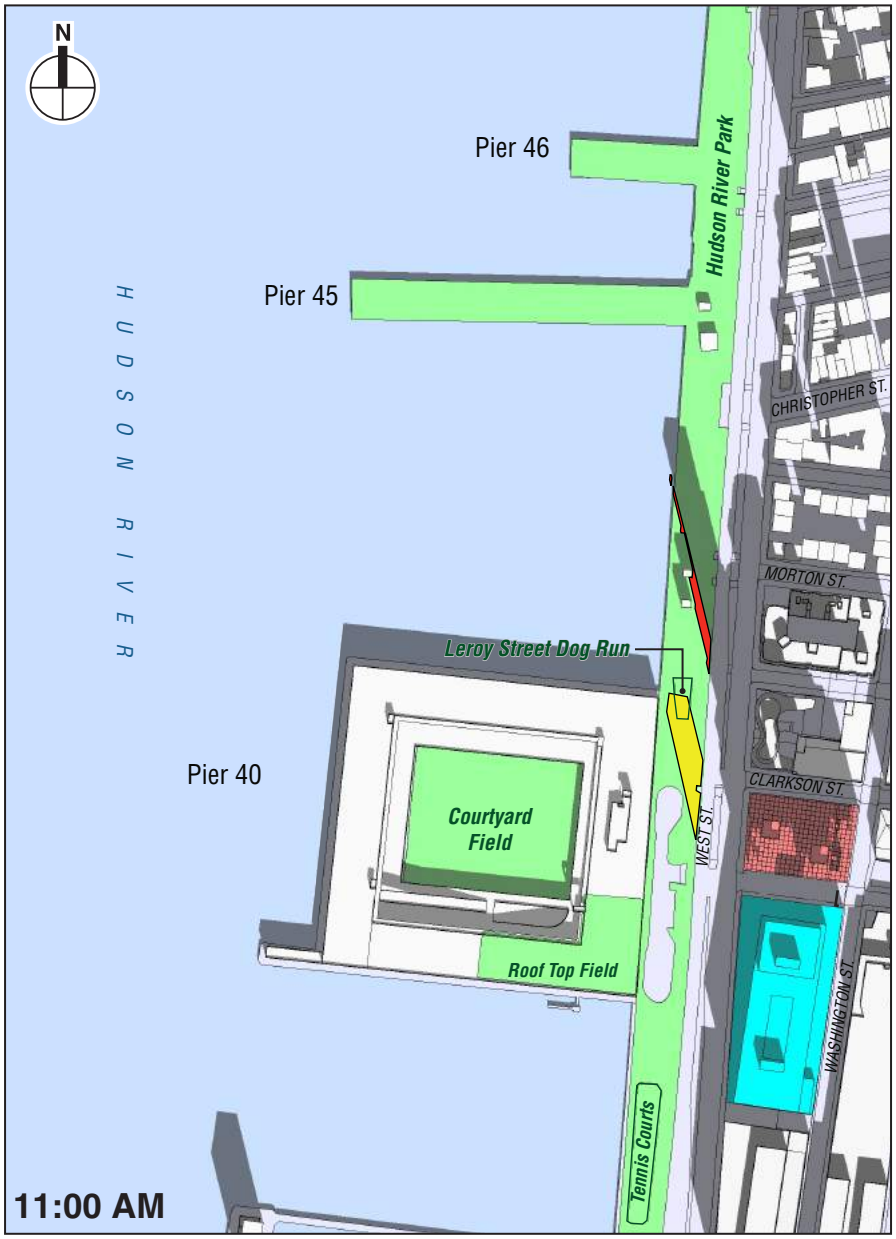


Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

December 21
Hybrid Shadow Comparison
Figure 10

10.10.16



Proposed Development
Hybrid Building
Publicly Accessible Open Space
Unchanged Incremental Shadow on Sunlight-Sensitive Resource
Reduced Incremental Shadow on Sunlight-Sensitive Resource
Additional Incremental Shadow on Sunlight-Sensitive Resource

550 WASHINGTON STREET

December 21
Hybrid Shadow Comparison
Figure 11

ATTACHMENT A

OCTOBER 17, 2016

I. REPORTS

BOROUGH OF MANHATTAN

Nos. 1-9

550 WASHINGTON STREET / SPECIAL HUDSON RIVER PARK DISTRICT

No. 1

CD 2 **N 160308 ZRM**

IN THE MATTER OF an application submitted by the Department of City Planning pursuant to Section 201 of the New York City Charter, for an amendment of the Zoning Resolution of the City of New York, relating to Article VIII, Chapter 9 (Special Hudson River Park District) to establish the Special Hudson River Park District within Community District 2, Borough of Manhattan.

Matter in underline is new, to be added;
Matter in ~~strikeout~~ is old, to be deleted;
Matter within # # is defined in Section 12-10;
* * * indicates where unchanged text appears in the Zoning Resolution

Article I: GENERAL PROVISIONS

Chapter 1 - Title, Establishment of Controls and Interpretation of Regulations

* * *

11-122
Districts established

* * *

Special Purpose Districts

* * *

Establishment of the Special Hillsides Preservation District

In order to carry out the special purposes of this Resolution as set forth in Article XI, Chapter 9, the #Special Hillsides Preservation District# is hereby established.

Establishment of the Special Hudson River Park District

In order to carry out the special purposes of this Resolution as set forth in Article VIII, Chapter 9, the #Special Hudson River Park District# is hereby established.

Establishment of the Special Hudson Square District

In order to carry out the special purposes of this Resolution as set forth in Article VIII, Chapter 8, the #Special Hudson Square District# is hereby established.

* * *

Chapter 2 – Construction of Language and Definitions

12-10
DEFINITIONS

* * *

Special Hillsides Preservation District

The "Special Hillsides Preservation District" is a Special Purpose District mapped in Staten Island designated by the letters "HS" in which special regulations set forth in Article XI, Chapter 9, apply.

Special Hudson River Park District

The "Special Hudson River Park District" is a Special Purpose District designated by the letters "HRP" in which special regulations set forth in Article VIII, Chapter 9, apply.

Special Hudson Square District

The "Special Hudson Square District" is a Special Purpose District designated by the letters "HSQ" in which special regulations set forth in Article VIII, Chapter 8, apply.

* * *

Article VIII: SPECIAL PURPOSE DISTRICTS

Chapter 9: Special Hudson River Park District

89-00
GENERAL PURPOSES

The "Special Hudson River Park District" established in this Resolution is designed to promote and protect public health, safety, general welfare and amenity. These general goals include, among others, the following specific purposes:

(a) facilitate the repair and rehabilitation of piers, bulkheads and infrastructure within Hudson River Park, and to facilitate their maintenance and development, through the transfer of development rights within the Special Hudson River Park District;

(b) promote an appropriate range of uses that complements Hudson River Park and, to the extent housing is included, to serve residents of varied income levels; and

(c) promote the most desirable use of land and development in this area and thus to conserve the value of land and buildings and thereby protect the City's tax revenues.

89-01
General Provisions

The provisions of this Chapter shall apply within the #Special Hudson River Park District#. The regulations of all other Chapters of this Resolution are applicable, except as superseded, supplemented or modified by the provisions of this Chapter. In the event of a conflict between the provisions of this Chapter and other regulations of this Resolution, the provisions of this Chapter shall control. However, in #flood zones#, in the event of a conflict between the provisions of this Chapter and the provisions of Article VI, Chapter 4 (Special Regulations Applying in Flood Hazard Areas), the provisions of Article VI, Chapter 4, shall control.

89-02
Definitions

For the purposes of this Section, matter in italics is defined in Section 12-10 (DEFINITIONS) or within this Section.

Granting site

Within the #Special Hudson River Park District#, the "granting site" is a #zoning lot#, within the area identified as "A1" on the map in the Appendix to this Chapter, upon which development is regulated by contract, lease, covenant, declaration or otherwise to assure compliance with the purposes of this Special District and from which #floor area# may be transferred.

Receiving site

Within the #Special Hudson River Park District#, the "receiving site" is a #zoning lot#, within the area identified as "A2" on the map in the Appendix to this Chapter, to which #floor area# of the #granting site# may be transferred.

89-03
District Plan and Maps

The regulations of this Chapter are designed to implement the #Special Hudson River Park District# Plan. The District Plan includes the map, "Special Hudson River Park District" in the Appendix to this Chapter which is hereby incorporated and made part of this Resolution for the purpose of specifying locations where special regulations and requirements set forth in this Chapter apply.

89-10
USE AND BULK REGULATIONS

The #use# and #bulk# regulations applicable to the #receiving site# shall be modified as follows:

(a) C6-4 Districts

The #use# and #bulk# regulations of the C6-4 District shall not apply. In lieu thereof, the #use# and #bulk# regulations of an M1-5 District shall apply.

(b) C6-3 and M1-5 Districts

The #use# and #bulk# regulations of the C6-3 and M1-5 Districts shall not apply. In lieu thereof, the #use# and #bulk# regulations of an M2-4 District shall apply.

However, on a #receiving site#, for any #development#, #enlargement# or #conversion# that is the subject of a special permit granted by the City Planning Commission pursuant to Section 89-21 (Transfer of Floor Area from Hudson River Park), the #use# and #bulk# regulations of the

underlying C6-3, C6-4 or M1-5 District shall only apply to such approved #development#, #enlargement# or #conversion#.

89-20
SPECIAL PERMITS

89-21
Transfer of Floor Area from Hudson River Park

The City Planning Commission may permit a transfer of #floor area# from a #granting site# to a #receiving site#, may permit distribution of total allowable #floor area# of a #receiving site# without regard for zoning district boundaries, may permit that such #receiving site# be treated as a single #zoning lot# for all purposes of this Resolution, and may modify #bulk# regulations for a #development#, #enlargement# or #conversion# located on such #receiving site#.

(a) Application requirements

All applications for a special permit pursuant to this Section shall include the following:

(1) a survey of the #granting site# illustrating existing #buildings# to remain on the #granting site# and zoning calculations indicating the #floor area# on the #granting site# and within such #buildings#;

(2) a survey of the #receiving site# and a site plan illustrating the proposed #development#, #enlargement# or #conversion# on such lot, and associated zoning calculations demonstrating compliance with the conditions and limitations set forth in this special permit;

(3) drawings that illustrate any proposed #bulk# modifications for the proposed #development#, #enlargement# or #conversion# on the #receiving site#; and

(4) a statement from the Hudson River Park Trust identifying improvements to be made to Hudson River Park, and indicating that the transfer of #floor area# pursuant to this Section, in combination with any other available funding, would be sufficient, according to the Trust's estimate, to complete such identified improvements.

(b) Conditions and limitations

All applications for a special permit pursuant to this Section shall comply with the following conditions:

(1) the maximum #floor area# that may be transferred from the #granting site# shall be the maximum #floor area# permitted for the #granting site# under the applicable district regulations if it were undeveloped, less the #floor area# of all #buildings# on such #granting site#;

(2) the increase in #floor area# on the #receiving site# allowed by the transfer of #floor area# to such #receiving site# shall in no event exceed 20 percent of the maximum #floor area# permitted on such #receiving site# by the underlying district;

(3) the transfer, once completed, shall irrevocably reduce the amount of #floor area# that can be utilized by the #granting site# by the amount of #floor area# transferred;

(4) the #granting site# and location of identified improvements to be made to the Hudson River Park in connection with the proposed transfer of #floor area# are located in the same Community District as the #receiving site#, or within one-half mile of the #receiving site#;

(5) if the proposed #development#, #enlargement# or #conversion# on the #receiving site# includes #residential floor area#, it shall provide #affordable housing# in accordance with Section 23-90 (Inclusionary Housing);

(6) the portion of the #receiving site# located over West Houston Street shall not generate #floor area#, and no #floor area# shall be located directly above West Houston Street; and

(7) the height and setback requirements of the applicable district shall apply to the portions of the #receiving site# located on each side of the mapped #street lines# of West Houston Street.

(c) Findings

The Commission may grant the transfer of #floor area# and any associated #bulk# modifications, provided that:

(1) such transfer of #floor area# will facilitate the repair, rehabilitation, maintenance and development of Hudson River Park, including its piers, bulkheads and infrastructure; and

(2) the transfer of #floor area# will support the completion of improvements to Hudson River Park as identified in the statement submitted to the Commission by the Trust as part of this application; and

(3) for the #receiving site#:

(i) the proposed configuration and design of #buildings#, including any associated structures and open areas, will result in a superior site plan, and such #buildings# and open areas will relate harmoniously with one another and with adjacent #buildings# and open areas;

(ii) the location and quantity of the proposed mix of #uses# will complement the site plan;

(iii) the proposed transfer of #floor area# and any modification to #bulk# regulations will not unduly increase the #bulk# of any #building# on the #receiving site# or unduly obstruct access of adequate light and air to the detriment of the occupants or users of #buildings# on the #block# or nearby #blocks#, or of people using the public #streets# and other public spaces;

(iv) such transferred #floor area# and any proposed modifications to #bulk# are appropriate in relation to the identified improvements to Hudson River Park; and

(v) any #affordable housing#, as defined in Section 23-90 (Inclusionary Housing), that is provided as part of the project will support the objectives of the Inclusionary Housing Program.

(d) Additional requirements

The City Planning Commission shall receive a copy of a transfer instrument legally sufficient in both form and content to effect such a transfer of #floor area#. Notices of the restriction upon further #development#, #enlargement# or #conversion# of the #granting site# and the #receiving site# shall be filed by the owners of the respective #zoning lots# in the Office of the Register of the City of New York (County of New York). Proof of

recordation of the notices shall be submitted to the Chairperson of the City Planning Commission, in a form acceptable to the Chairperson.

Both the transfer instrument and the notices of restriction shall specify the total amount of #floor area# transferred and shall specify, by lot and block numbers, the #granting site# and the #receiving site# that are a party to such transfer.

On a #receiving site#, for any #development#, #enlargement# or #conversion# that is the subject of a special permit granted by the Commission pursuant to Section 89-21 (Transfer of Floor Area from Hudson River Park), the Department of Buildings shall not:

(1) issue a building permit until the Chairperson of the Commission has certified that the owner of the #receiving site# and the Hudson River Park Trust have jointly executed documents sufficient to facilitate a payment schedule associated with the transfer of #floor area#; or

(2) issue a temporary certificate of occupancy until the Chairperson of the Commission has certified that the Hudson River Park Trust has submitted a letter to the Chairperson confirming that payment of all required funds has been made by the owner of such #receiving site# to the Hudson River Park Trust, and that all required funding tools and/or payments are in satisfactory compliance with the executed payment schedule.

The Commission may prescribe additional appropriate conditions and safeguards to improve the quality of the #development#, #enlargement# or #conversion# and minimize adverse effects on the character of the surrounding area.

APPENDIX

Special Hudson River Park District Plan

Transfer of Floor Area - Granting and Receiving Sites

(On August 10, 2016, Cal. No. 2, the Commission scheduled August 24, 2016 for a public hearing. On August 24, 2016, Cal. No. 22, the hearing was closed.)

For consideration.