E-116

DEPARTMENT OF CITY PLANNING
CITY OF NEW YORK

ENVIRONMENTAL ASSESSMENT AND REVIEW DIVISION

Amanda M Burden, A.I.C.P., *Director*
Department of City Planning

June 4, 2003

NOTICE OF COMPLETION OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT

Hudson Square Rezoning:

Project Identification
CEQR No. 03DCP014M
ULURP No. 030237ZMM, C030236ZRM
SEQRA Classification: Type I

Lead Agency
City Planning Commission
22 Reade Street, 1W
New York, NY 10007

Contact Persons
Robert Dobruskin, Director, Environmental Assessment and Review Division (212) 720-3423
Glen A. Price III, Director Studies Implementation Division (212) 720-3491
New York City Department of City Planning

Pursuant to City Environmental Quality Review (CEQR), Mayoral Executive Order No. 91 of 1977, and the regulations of Article 8 of the State Environmental Conservation Law, State Environmental Quality Review Act (SEQRA) as found in 6 NYCRR Part 617, a Final Environmental Impact Statement (FEIS) has been prepared for the action described below. Copies of the FEIS are available for public inspection at the office of the undersigned. The proposal involves actions by the City Planning Commission and Council of the City of New York pursuant to Uniform Land Use Review Procedures (ULURP). A public hearing on the Draft Environmental Impact Statement (DEIS) was held on May 7, 2003. Written comments on the DEIS were requested and were received by the Lead Agency until the 10th calendar day following the close of the public hearing. This FEIS incorporates responses to the public comments received on the DEIS and additional analysis conducted subsequent to the completion of the DEIS.

Hudson Square Rezoning
CEQR No. 03DCP014M

A. INTRODUCTION

DESCRIPTION OF THE PROPOSED ACTION

The NYC Department of City Planning (DCP) is proposing an amendment to the zoning map to change M1-5, M1-6, and M2-4 zoning districts to a C6-2A district and a special mixed use M1-5/R7X district in two non-contiguous areas in Hudson Square in Manhattan Community District 2. DCP is also proposing a zoning text amendment to Zoning Resolution Section 123-90, which is needed to formally establish a new special mixed use district.

Two separate areas, one covering five and a half blocks in the northern portion of Hudson Square and one covering three blocks in the southern portion, which are separated by five blocks, are proposed to be rezoned. The northern area is generally bounded by Barrow Street to the north, West, Washington and Greenwich streets to the west, Clarkson Street to the south and Hudson Street to the east. The southern portion of the rezoning area is generally bounded by Spring Street to the north, Washington Street to the west, Canal Street to the south and Hudson Street to the east. With the proposed zoning map amendment, the five and a half block northern area would be changed from an M1-5 district to an M1-5/R7X Special Mixed Use District, and the three block southern area would be changed from an M2-4 and an M1-6 district to a C6-2A district.

The proposed rezoning would result in projected development on 12 sites in the rezoning area; 5 in the northern portion and 7 in the southern portion. As detailed below, the reasonable worst case development scenario (RWCDS) for the proposed action would result in a net change in uses on the 12 sites over a ten-year period as follows: increased residential and retail uses totaling 1,018 dwelling units, and 92,532 square feet (sf) of retail; and decreased office, industrial, and parking uses totaling approximately 507,696 sf other commercial uses, 55,128 sf industrial, and 334 parking spaces. Nine potential development sites have also been identified, including 4 in the northern rezoning area and 5 in the southern rezoning area.

(E) Designations

As described in greater detail in the Hazardous Materials and Noise chapters of the FEIS, the proposed rezoning includes the mapping of an (E) designation for hazardous materials remediation or noise abatement on several of the identified development sites within the proposed rezoning areas. The (E) designation is a mitigation technique which ensures that no significant adverse impacts would result from a proposed action. The (E) designation would ensure that these identified sites would not be developed unless necessary remedial measures are implemented.

Purpose and Need

In October 2002, the DCP Manhattan Office issued a study called *Hudson Square Rezoning Study* which presented an investigation into land use conditions and trends in Hudson Square and made recommendations for zoning changes in the area. The report recommended rezoning

Hudson Square's northern and southern edges while retaining the existing manufacturing zoning in the center of the report's 34-block study area.

During the last several years, there has been considerable reinvestment in the Hudson Square area and its buildings, and a steady shift in employment and land uses from printing and manufacturing toward commercial, office-based, and residential uses. With the ongoing development of the Hudson River Park to the west, the larger area is confronting increasing development pressures for new residential development as evidenced by the recent granting of several BSA variances for residential use at the northern and southern edges of the area. Recognizing the need for both commercial space and housing, the goal of the rezoning is to provide a comprehensive and balanced strategy to preserve the existing built character and conforming uses in Hudson Square, while providing adequate opportunities for new commercial and residential development.

Required Approvals

The proposed zoning map amendment and zoning text amendment require approvals by the City Planning Commission and City Council pursuant to Section 200, Section 201, and Section 197-d of the New York City Charter. Both actions are subject to CEQR. The zoning map amendment is subject to the City's ULURP. The zoning text amendment is a non-ULURP action, but is subject to review by the City Planning Commission and City Council as noted above.

DEVELOPMENT SCENARIO

In order to assess the potential effects of the proposed action, a reasonable worst case development scenario for both "future no-action" (No-Build) and "future with-action" (Build) conditions is analyzed for build year 2013. The development scenario identified 12 projected development sites and 9 potential development sites. The projected sites are more likely to be developed in the 10-year period following the rezoning action. Potential sites are considered less likely to be developed over this 10-year period, but are considered potential sites for future development. Under the No-build conditions, the projected and potential development sites are assumed to remain unchanged from existing conditions. The incremental difference between the build and no-build uses to be replaced serves as the basis for the impact analysis.

Future No-Action Conditions (No-Build Scenario)

In the future without the proposed action, existing zoning would stay in place. In this scenario it is expected that the present trend of declining industrial uses being replaced by as-of-right commercial uses, and residential uses by BSA special permit, would likely continue. Four new residential buildings have recently been approved by the BSA and are currently under construction within the rezoning areas. These sites will produce a total of approximately 578 dwelling units and 19,540 square feet of ground floor commercial or retail space in the rezoning areas.

Future With-Action Conditions (Build Scenario)

DCP has identified 21 projected and potential development sites, of which 12 are projected development sites likely to be developed by 2013. These 12 sites would generate approximately 1,031 new dwelling units. Six sites are projected for new construction generating approximately 710 new residential units. The other six sites are anticipated to be building conversions from existing commercial or manufacturing uses to residential use (with ground floor local retail) generating an additional 321 residential units. There are 9 potential development sites which are considered less likely to be developed over the 10-year analysis period, but which are considered potential sites for future development.

The 12 projected development sites currently have 92 DUs, 22,501 sf ground-floor retail, 532,733 sf other commercial (including ground-floor spaces, office, live-work space, a hotel that functions as a dormitory), 55,128 sf industrial, and 214 parking spaces. With the redevelopment of these sites, it is expected that most of the existing uses would be replaced, although in a few cases some existing uses would remain while development rights would be used for the rest of the site to maximize permitted as-of-right development. The new development induced by the proposed action would consist of 1,031 DUs and 100,355 sf ground floor local retail. The incremental (net) change that would result from the proposed action at these 12 sites is 1,018 DUs, 92,532 sf ground-floor retail, -507,696 sf other commercial, -55,128 sf industrial, and -334 parking spaces.

The 9 potential development sites include 4 in the northern rezoning area and 5 in the southern rezoning area. These sites currently have 21 DUs,37,224 sf ground-floor retail, 530,009 sf other commercial, 6,457 sf industrial, and 28 parking spaces. If development were to occur on these sites in the future, it is projected that it would consist of 491 DUs and 64,017 sf ground floor local retail. The incremental change that would result is 487 DUs, 28,668 sf ground-floor retail, -530,009 sf other commercial, -6,457 sf industrial, and -31 parking spaces.

B. PROBABLE IMPACTS OF THE PROPOSED ACTION

Land Use, Zoning, and Public Policy

The proposed action would not result in significant adverse impacts to land use, zoning, or public policy. Overall, the proposed action is expected to result in changes that would have beneficial effects with respect to these issues.

Land Use

The land use study area consists of both a primary study area, which is coterminous with the northern and southern rezoning areas, where the land use effects of the proposed action are direct, and a secondary study area consisting of the properties within a quarter-mile radius of the

boundaries of the rezoning area.

It is anticipated that the proposed action would change land uses in the primary study area, but would not result in significant adverse land use impacts. The proposed Hudson Square rezoning would expand housing supply in an area that has been experiencing a rise in residences and housing demand and that is adjacent to residential areas where demand exceeds supply, by providing options to property owners in their development of vacant and underutilized land and buildings. A new mixed-use district in the northern rezoning area would permit new residential development without burdening industrial uses with non-conforming status.

The proposed action is not expected to result in any adverse land use impacts on the secondary study area, which would not be rezoned. The industrial and commercial uses in this area are not expected to be significantly affected by the proposed action given the existing uses and building types present in this area. With Hudson Square's existing proximity to residential and mixed use development, the changes resulting from the proposed action are not expected to significantly affect land use in the secondary study area, where current trends toward as-of-right commercial uses are expected to continue independent of the proposed action.

Zoning

The proposed C6-2A and M1-5/R7X zoning in both the northern and southern rezoning areas is compatible with the surrounding districts, including the residential and commercial districts north of the northern rezoning area and the manufacturing districts that would be retained in the rest of Hudson Square and TriBeCa to the south. Except for one block along its western edge at West Street which will be occupied by one of the planned developments, the new mixed use M1-5/R7X district would not be adjacent to any M2 or M3 districts (the sole M2 area adjacent to the northern rezoning area is now part of Hudson River Park). The southern portion of the northern rezoning area would be adjacent to the existing M1-5 district, which is subject to stringent performance standards suitable for adjacency to residential uses, as is the mixed use zone itself. With the proposed action, existing residential uses would become conforming uses. Furthermore, no existing uses would be made non-conforming and no significant adverse zoning impacts would be expected to occur as a result of the proposed action.

Public Policy

The DCP *Hudson Square Rezoning Study,* which identified two key land use issues in Hudson Square: 1) a major portion of the existing medium and high density manufacturing districts have been developed as a significant commercial office center, and 2) the northern and southern edges of the study area have an existing residential presence and are also experiencing increased pressures for new residential uses. In response to these findings, the report recommended rezoning the northern and southern edges while retaining the existing manufacturing zoning in the central area of Hudson Square.

In addition to consideration of the *Hudson Square Rezoning* study, all discretionary land use actions and projects involving the use of federal or state funds within the mapped coastal zone boundary must be found consistent with the policies and intent of the Local Waterfront Revitalization Program. Only one block of the areas being rezoned is located within the designated NYC coastal zone boundary. This block, which is bounded by Morton, Leroy, Washington and West streets (block 602, lot 1), is identified as a No-build project, expected to be developed in the future without the proposed action.

Thus, as the proposed DCP action would have no effects on the coastal zone, is consistent with the recommendations of the *Hudson Square Rezoning* study, and has no other public policies applicable to it, it would not result in any significant adverse public policy impacts.

Socioeconomic Analysis

Under CEQR, the principal issues of concern with respect to socioeconomic conditions are: direct (or primary) residential displacement; direct (or primary) business or institutional displacement; indirect (or secondary) residential displacement; indirect (or secondary) business and institutional displacement; and effects on specific industries.

The proposed rezoning action is not expected to result in significant direct residential displacement impacts. Most of the projected development in the rezoning areas is anticipated to take place on vacant or underutilized parcels. Of approximately 92 DUs on projected development sites, only 13 are expected to be displaced over a 10-year period, affecting an estimated 22 residents. The effects of such minimal displacement would not substantially alter the socioeconomic profile of the neighborhood, displace a population that represents a significant portion of the population within the study area, nor result in a loss of a population group within the neighborhood.

The proposed action is also not expected to result in significant indirect residential displacement impacts. Action-induced development is expected to introduce a net increase of approximately 1,018 DUs. As development is expected to occur gradually over the 10 year build out period and the rezoning areas already have a considerable amount of residential development, the proposed action is not expected to introduce new, incompatible uses ,or substantially alter the existing neighborhood character. Moreover, housing costs are expected to reflect rather than alter the existing market trends within the surrounding neighborhood.

It is anticipated that the proposed action will directly displace approximately 53 businesses (63 percent of businesses on the projected development sites) and 463 jobs (73 percent of the jobs on the projected development sites) within the rezoning areas. As both the primary and secondary study areas have been experiencing overall declines in industrial uses and increases of retail, office, and residential uses, the proposed action would not initiate any new trends or significantly alter existing trends. Thus, the impact of this displacement is not expected to be significant.

The proposed action is also not expected to result in significant indirect business displacement impacts. The trend in the area toward higher-cost renovated commercial space and conversion of underperforming commercial space to residential use by special permit is likely to continue with or without the proposed action. It is possible that some increase in commercial rents and property values could result, but property values and tax rates in the area have been increasing since the early 1980s and the proposed action by itself is not expected to accelerate existing trends or lead to such substantial increases as to force industrial businesses to relocate.

The proposed action is expected to result in beneficial socioeconomic effects. The majority of the Hudson Square study area will continue to maintain existing uses and foster opportunities for new office and commercial development. The rezoning areas would be consistent with the prevailing market conditions and trends in the area and would provide opportunities for new residential development. They would also bring existing non-conforming residential uses into conformance and allow for their enlargement. In addition, by redeveloping many of the area's vacant underutilized sites, the proposed action could help strengthen socioeconomic conditions in the area and stabilize the mixed residential, commercial, and industrial character of the proposed mixed-used districts.

Community Facilities & Services

The proposed action is not expected to have any significant adverse impacts on community facilities and services. A preliminary screening indicated that health care facilities, day care centers, and fire and police protection services did not exceed thresholds requiring detailed analyses and thus would not be affected by the proposed action. However, libraries and schools were analyzed in detail per CEQR guidelines.

The addition of 123 elementary and intermediate school students generated under the Build condition by 2013 is not expected to have a significant adverse effect on the zoned public and intermediate schools near the proposed Hudson Square Rezoning Area or in Community School District 2. The utilization rate for zoned elementary schools near the proposed Hudson Square Rezoning Area is expected to increase to 86 percent and the utilization rate for intermediate schools is expected to increase to 93 percent with the proposed action.

In addition, the proposed residential population is expected to be adequately served by existing and projected library facilities including, the Hudson Park local neighborhood branch at 66 Leroy Street and the Jefferson Market regional branch at 425 Avenue of the Americas, as well as the planned SoHo branch to be located at 273 Mulberry Street in early 2005. The proposed action would not result in a 5 percent increase in the number of dwelling units served by local library branches or impair the delivery of library services in the area.

Open Space

Using a half-mile radius study area, existing open space ratios (expressed as the amount of public

open space acreage per 1,000 user population), as well as the open space ratios in the future without and with the proposed action in place were analyzed for consistency with DCP open space guidelines. Preliminary screening analyses indicated that the day-time worker population generated by the proposed action did not exceed thresholds requiring detailed analyses. However, open space resources for the residential population were examined.

No significant adverse impacts on open space resources in the study area are expected due to the proposed action. With the construction of Hudson River Park and Canal Park, 23.13 acres of open space will be added to the area -- a 52 percent increase (from 44.77 acres to 67.90 acres) in the future with the proposed action relative to current conditions. The proposed rezoning would not result in any direct displacement or alteration of existing open space resources in the study area. It would decrease the open space ratio by 0.04 acres per 1,000 residents from future no-build conditions, however, this reduction is not considered to be substantial given new park construction, the open space provisions of the Quality Housing Program, and the recreational needs of the adult population.

Shadows

A shadow analysis was conducted for all potential and projected development sites where new buildings 50 feet high or taller could be constructed, or where shorter structures would be located adjacent to important features. A preliminary screening indicated that none of the historic districts or structures in the study area feature sunlight-sensitive characteristics that might be obscured or rendered irrelevant by shadows. Detailed shadow assessments for Carmine Street Gymnasium and St. Luke's grounds indicated that there would be no new shadows on those sites as a result of the proposed action, and that the June 21st shadows on James J. Walker Park would be for such a short period as to not be significant. As there would be no substantial reduction in sunlight to sunlight-sensitive uses or features and no substantial reduction in the usability of open space, the projected and potential development sites have no significant shadow impacts.

Historic Resources

Architectural Resources

The southern rezoning area contains one notable historic resource, 326 Spring Street, a.k.a. the James Brown House, which is designated by the New York City Landmarks Preservation Commission and listed on the State and National Registers of Historic Places. In addition, the Holland Tunnel Ventilator Structure, a designated National Historic Landmark; 502 Canal Street and 504-508 Canal Street and the Fleming Smith Warehouse all designated by LPC; the United States Appraisers' Store, which is designated as a NYC landmark by LPC and is also listed on the State and National Registers of Historic Places; the Greenwich Village Historic District, which is a designated New York City Landmark and listed on the State and National Registers of Historic Places; and the Tribeca North Historic District, which is also designated by the NYC Landmarks Preservation Commission, are all within the 400-foot radius historic resources study

area.

Several structures appear eligible for LPC designation and/or listing on the State and National Registers. These include: 78 Morton Street, 486 and 488 Greenwich Street, 508 and 510 Greenwich Street, 310 Spring Street, and 302 Spring Street. In addition, the LPC is currently considering a new historic district, the Graphic Arts District, a small portion of which would fall within the southern rezoning area.

The proposed rezoning and subsequent developments are not expected to have any direct physical impacts on any existing designated architectural resources, as they would not result in any physical destruction, demolition, damage or alteration to any identified historic property. One of the projected development sites (Site 6) encompasses the James Brown House, which is a significant historic resource. However, the reasonable worst-case development scenario does not envision any alterations to this building, although unused development air rights are likely to be transferred.

The buildings at 78 Morton Street, 302 and 310 Spring Street, which appear eligible for S/NR listing, would likely be demolished to facilitate new development on projected development Sites 10 and 1, and potential development Site 14, respectively. As these buildings are privately owned, such demolition can be carried out as long as no federal, state, or City governmental discretionary permits or funding are involved, and can occur in the absence of the proposed rezoning as well. Should future redevelopment on those sites (Block 594, Lots 34 and 76) involve federal, state, or City governmental discretionary permits or funding, measures to preserve the eligible structures may be required. As per the *CEQR Technical Manual*, such measures may include redesign, adaptive reuse of the structures, construction protection plan, data recovery, or relocation of the resource.

As neither the visual context nor publicly accessible views of any historic resources in the area would be altered or eliminated, and no incompatible visual, audible or atmospheric elements would be introduced, the proposed action is not expected to result in any significant adverse impacts on historic architectural resources.

Archaeological Resources

Undisturbed nineteenth-century remains may exist on two of the projected development sites: Site 2 in the southern rezoning area and Site 10 in the northern rezoning area. Resources within portions of the development sites would likely be destroyed by action-induced development, which would constitute a significant adverse impact. No mitigation measures are feasible, however, because the area to be rezoned is privately owned.

Urban Design/Visual Resources

The proposed action would primarily replace non-contextual zoning districts with contextual

zoning districts that require streetwalls and limit heights for new buildings, thereby keeping the scale and bulk of new development induced by the proposed action compatible with the loft buildings and walk-up buildings prevalent in the rezoning areas and adjoining areas of Hudson Square. The proposed action would therefore result in a built form which would complement the existing buildings in the rezoning areas, and would reinforce a strong streetwall character. The proposed action would not result in changes in block form, the demapping of streets or the mapping of new streets, nor would it affect the street hierarchy. The proposed action would not produce buildings which would affect any significant visual resources. The proposed contextual zones would ensure that new development would be of an appropriate scale that more closely conforms to the built context. Therefore, the proposed action would not result in any significant adverse urban design impacts.

Neighborhood Character

The contextual zoning would result in new buildings that have a streetwall and are limited to approximately 12 stories, and therefore would be generally similar to existing buildings in the area. Several existing parking/vehicle storage facilities would be replaced by new buildings, which would improve the visual character and urban design qualities of the area and would be more compatible with existing buildings in the rezoning area.

Traffic conditions in the area would not be substantially altered and there would not be any significant adverse traffic impacts. Similarly, noise levels would remain typical of a busy urban area and no adverse noise impacts would occur with the implementation of (E) designations at certain sites requiring noise abatement measures. Socioeconomic conditions would change as the area receives increased residential population on sites currently occupied by commercial and industrial uses, which in some cases are lower density. New residents would have average incomes generally comparable to existing residents in Community District 2.

Overall, the proposed action would alter neighborhood character in beneficial ways, by permitting new moderate-density development. This would improve the area's visual character and permit the creation of a more vibrant mixed use community with increased private investment in the area. Accordingly, there would be no significant adverse impacts on neighborhood character as a result of the proposed action.

Hazardous Materials

The proposed action would not result in significant adverse hazardous materials impacts. The analysis has identified 19 of the 21 projected and potential development sites, encompassing 57 tax lots, whose past or present use suggest that they may contain hazardous materials contamination. To ensure that the proposed action would not result in significant, adverse hazardous materials impacts, (E) designations would be mapped on these sites as part of the proposed action.

The (E) designation status of the project sites is as follows:

(E) Designation Status of Projected and Potential Development Sites					
Site	Tax Block: Lots	(E) designation	Site	Tax Block: Lots	(E) designation
1	594: 74, 76, 77, 79	No	11	601: 52	Yes
2	594: 56, 62, 65, 69, 71, 72, 81, 82, 83, 87, 94, 99, 104, 105, 113, 114, 115	Yes	12	601: 72	Yes
			13	594: 108, 111, 112	Yes
3	594: 8	Yes	14	594: 32, 33, 34, 35, 36	Yes
4	594: 41, 44, 47	Yes	15	595: 61, 62	Yes
5	594: 15, 17	Yes	16	595: 82, 83, 84	Yes
6	595: 66, 68, 71-76	Yes	17	595: 52	Yes
7	595: 59	Yes	18	602: 28	Yes
8	603: 46	Yes	19	602: 58	Yes
9	603: 51, 53	No	20	602: 68	Yes
10	602: 55, 64, 83, 85	Yes	21	601: 47	Yes

The text for the (E) designation would be as follows:

Task 1 - The applicant must submit to the NYCDEP Office of Environmental Planning and Assessment (OEPA), for review and approval, a soil and groundwater testing protocol including a description of methods and a site map with all sampling locations clearly and precisely represented.

No sampling program should begin until written approval of a protocol is received from DEP. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for choosing sampling sites and performing sampling will be provided by DEP upon request.

Task 2 - A written report with findings and a summary of the data must be submitted to DEP after completion of the testing phase and laboratory analysis for review and approval. After receiving such tests results, a determination will be

made by DEP if the results indicate that remediation is necessary.

If DEP determines that no remediation is necessary written notice shall be given by DEP.

If remediation is indicated from the test results, a proposed remediation plan must be submitted to DEP for review and approval. The applicant must perform such remediation as determined necessary by DEP. The applicant should then provide proof that the work has been satisfactorily completed.

A DEP-approved construction-related health and safety plan would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This Plan would be submitted to NYCDEP for review and approval prior to implementation.

The (E) designation would require that the fee owner of such a site conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designation also includes a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Infrastructure

The proposed action would generate water demand well below the general threshold of 1 million gallons per day for requiring detailed analysis of impacts on the water supply system. Similarly for wastewater flows, the proposed action is not expected to have any potential impacts on wastewater treatment at the water pollution control plant given the scale of the projected development. However, the public scoping process identified potential problems with sewers in the rezoning areas and vicinity which result in sewer back-ups into area buildings and catch basins, particularly during major storm events.

As sewer problems have been identified as a problem in the area, a discussion of sewer problems in the area and their relation to the proposed action is included in the EIS for informational purposes. The impact of the projected net increase in sewage of 169,618 gallons per day on local sewer infrastructure would vary from day to day and from location to location. Based on the impact criteria specified in the *CEQR Technical Manual*, the proposed action would not result in a significant adverse impact.

Solid Waste & Sanitation Services

The proposed action is not anticipated to result in significant adverse impacts to solid waste and sanitation services. Residential solid waste generation would increase by 28,730 pounds per week. As the area is currently served by DOS residential trash and recycling pick-ups and the resulting increase is relatively small, the proposed action would not affect the delivery of these services, or place a significant burden on the City's solid waste management system. Commercial and industrial solid waste generation would actually decrease by 13,066 (net) pounds per week and would be serviced by private carters.

Traffic and Parking

The effects of the proposed actions' added travel demand were analyzed for potential significant impacts to vehicular traffic and parking.

Vehicular Traffic

As the redevelopment of the projected development sites would replace a number of existing land uses, credit was taken in the trip generation analysis for trips generated by No Build land uses that would be displaced. Taking this into account, a preliminary screening indicated that there would be an increase of 8 vehicle trips during the AM (8-9 am) peak hour, an increase of 107 vehicle trips during the midday (1-2 pm) peak hour, and an increase of 25 trips during the PM (5-6 pm) peak hour as a result of the proposed action. As the AM and PM peak hours are not expected to exceed the 50 peak hour vehicle trip threshold established in the *CEQR Technical Manual*, only the midday peak hour was analyzed in detail for vehicular traffic. The analysis indicated that three intersections (those most likely to be used by trips traveling to and from the area) would continue to operate at LOS C or better, thus the proposed action would not cause significant impacts at any of these intersections in the midday period.

Parking

As a result of the proposed action, the number of available public off-street parking spaces is expected to decline by 241. However, it was assumed that 50 percent of the non-conversion projected development sites would provide parking, which would increase the accessory parking supply by approximately 143 spaces. In addition, credit was taken for parking demand created by land uses that would be displaced as a result of the proposed project, including midday parking demand from the office, light industrial, and live-work office, and residential uses, and overnight parking demand from the residential uses.

Taking these credits and the new accessory parking spaces into account, the incremental parking demand from the project would total a net increase of 11 spaces during the weekday midday period and a net increase of 315 spaces during the overnight period. During the midday period, utilization of public off-street parking facilities within a quarter-mile radius of the rezoning areas would grow from 102 to 107 percent and the shortfall of available spaces would increase from 111 to 362. During the overnight period, utilization rates would increase from 81 to 91 percent

under Build conditions, with available parking spaces decreasing from 1,013 to 457.

This shortfall of parking during the midday period would not constitute a significant impact as defined by the criteria in the *CEQR Technical Manual,* as vehicles could park outside the study area with motorists walking greater distances to their destination. In addition, in response to increased residential parking demand overnight, existing public off-street parking facilities that are currently closed overnight would be expected to remain open 24 hours a day, thus alleviating any shortfall during that period.

Transit and Pedestrians
The effects of the proposed actions' added travel demand were analyzed for potential significant impacts to public transportation and pedestrian conditions.

Public Transportation
The proposed action would generate a net increase of 93 AM peak hour subway trips, 368 midday peak hour subway trips, and 188 PM peak hour subway trips. A net increase of 8, 190, and 81 local bus trips in the AM, midday, and PM peak hours, respectively, would also be generated. As the increase in transit trips in each peak period is below the CEQR threshold of 200 trips and/or the trips would be distributed among seven subway stations and six bus lines resulting in a demand well under 200, the proposed action is unlikely to result in significant impacts to public transportation.

Pedestrians
The proposed action would generate a net increase of 183; 2,721; and 1,447 walk trips (includes auto, taxi, subway, bus, and walk trips) during the AM, midday, and PM peak hours respectively. Nine sidewalks were analyzed for potential impacts at midblock locations where pedestrian activity would be most heavily concentrated. The results indicated that while a substantial number of new pedestrian trips would be generated, they would be distributed among pedestrian facilities with minimal demand in the No Build condition, and as such no significant adverse impacts would be anticipated as a result of the proposed action.

Air Quality
The proposed action was analyzed for potential significant impact on air quality resulting from changes in vehicular traffic; emissions from the heating systems of action-induced development; air toxic emissions generated by existing nearby industrial and commercial uses; and emissions released through the ventilation system of the Holland Tunnel.

Mobile Source Analysis
The total action is projected to generate 8 vehicles per hour in the AM peak period, 107 in the midday peak, and 25 in the PM peak, and will not generate 100 vehicles per hour through any affected intersection – the threshold for changes in vehicle volume that requires a detailed mobile

source air quality analysis per the *CEQR Technical Manual*. Therefore, the proposed action is not anticipated to cause a significant mobile source impact, and no further analysis is required.

Analysis of Project-Generated Heating System Emissions
A dispersion analysis was conducted to measure the effects of the heating systems of projected developments on air quality at nearby existing land uses. As the conversion of existing buildings are not anticipated to significantly affect air quality levels (the buildings already exist and changes in emissions would be minor), only the potential impacts of the heating systems of new buildings were assessed in detail. No exceedances of the National Ambient Air Quality Standards (NAAQS) are predicted as a result of new residential development or project-on-project impacts.

Analysis of Air Toxics
Potential air quality impacts of existing manufacturing and industrial zones on future residential developments were considered. Of the approximately 600 permits issued for facilities located in the study area, 60 were identified as potentially significant sources of air toxics. Detailed analysis, using actual emission rates, predicted that there would be no exceedances of the NYSDEC acceptable limits. No exceedances of the NAAQS for particles smaller than or equal to 10 microns (PM_{10}, the size particles that are of particular health concern) were predicted. Finally, the results of cancer risk and hazard index evaluation were below the level that is considered by the EPA to be significant.

Analysis of Emissions Released through the Ventilation System of the Holland Tunnel
A dispersion modeling analysis was conducted to determine whether the releases from the ventilation system of the Holland Tunnel would adversely affect air quality levels at the upper floors of projected and potential development sites 6 and 7 along Washington Street, across from the ventilation system. The maximum estimated eight-hour total CO concentrations at any of the receptor sites considered is 5 ppm, which is below the eight-hour NAAQS standard of 9 ppm. Therefore, emissions from the ventilation building are not expected to significantly impact air quality levels at the nearby conversion sites.

Noise
Ten monitoring sites were analyzed to determine the existing noise levels in the area, the project's noise generation characteristics from project-induced traffic, and the inherent sensitivity of residences in the rezoned area to existing and future noise levels.

The existing noise levels range from marginally acceptable to clearly unacceptable at the proposed residential sites. There are no perceptible increases in traffic noise levels at the residential sites as a result of increases in traffic associated with the rezoning. At the three monitoring sites S1, S2, and S5 where the highest increase in traffic volumes is expected, the increase in build condition noise levels is predicted to be less than 0.1 dBA. At the remaining

seven sites the increase in future traffic volumes is expected to be lower, with the result that the increase in build noise levels would also be less than 0.1 dBA, which is insignificant and imperceptible.

The existing and the future noise levels at the ten representative residential sites would be suitable for residential uses only by providing window-wall attenuation ranging from 25 dBA to 40 dBA for the exterior facade of the affected residences in order to achieve a 45 dBA interior noise level, required by the New York City Department of Environmental Protection. Those areas where noise attenuation requirements are greater than 35 dBA would be subject to special consideration in terms of mitigation through (E) designation. This (E) designation for noise would be placed on projected and potential development sites located on Canal Street and would preclude the potential for significant adverse noise impacts. The affected sites are as follows:

Projected and Potential Development Sites Receiving (E) Designations for Noise Abatement	
Site	**Tax Block: Lots**
Projected Development Sites	
2	594: 113, 114, 115
3	594: 8
5	594: 15, 17
7	595: 59
Potential Development Sites	
13	594: 108, 111, 112
17	595: 52

The text of the (E) designation would be as follows:

In order to ensure an acceptable interior noise environment, new residential development must provide a closed window condition with a minimum of 40dB(A) window/wall attenuation in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners.

The (E) designation would preclude the potential for significant adverse noise impacts.

Construction Impacts

Development induced by the proposed action would be gradual, taking place over a ten-year period, thus potential impacts would be minimal. Construction could be temporarily disruptive to the surrounding area as follows:

Traffic

Given typical construction hours (weekdays, 7:00 a.m. to 6:00 p.m.), worker trips to and from construction sites and in relation to the movement of materials and equipment would be concentrated in off-peak hours and would likely be made via auto and public transit modes. Construction activities may result in short-term disruption of both traffic and pedestrian movements at the development sites. This would occur primarily due to the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the site. Additionally, construction would at times result in temporary closings of sidewalks adjacent to the sites. These conditions would not result in significant adverse impacts on traffic and transportation conditions.

Air Quality

Much of the fugitive dust emissions from land clearing operations and demolition should be of a short-term duration and relatively contained within a project site, not significantly impacting nearby buildings or residents. The number of construction-related vehicle trips generated by the proposed action would be relatively small and the emissions from such vehicles as well as construction equipment would occur over a 10-year period and be dispersed throughout the rezoning area and vicinity. Thus, the mobile source emissions generated by the proposed action would not have the potential to result in significant adverse air quality impacts.

Noise

Noise and vibration from construction equipment operation, construction workers' vehicles, and delivery vehicles traveling to and from the construction sites is expected to be similar to noise generated by other residential construction projects in the city. Increased noise levels caused by construction activities can be expected to be most significant during early phases of construction and would be of relatively short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. Federal and city regulations would be carefully followed, and appropriate low-noise emission level equipment and operational procedures would be used.

Archaeological Resources

Projected development sites 2 and 10 include lots which may contain nineteenth century archaeological resources. New construction on these sites would likely destroy any remains, which would constitute a significant adverse impact. No mitigation measures are feasible, however, because the area to be rezoned is privately-owned. Private ownership of the land would prevent the City from conducting or requiring an archaeological testing program to test for

potential archaeological remains, or from mandating the preservation or documentation of such remains, should they exist.

Historic Resources
New construction taking place adjacent to the James Brown House, the only designated historic resource located within the rezoning areas, has the potential to cause damage to this building from ground-borne construction vibrations. Although any future development on this site pursuant to the proposed zoning would be as-of-right, the city has procedures for avoidance of damage to historic structures from adjacent construction. Thus, any adjacent development projected as a result of the proposed rezoning would adhere to all applicable construction guidelines and follow the applicable laws and regulations.

Hazardous Materials
(E) designations would be mapped for 19 of the 21 projected and potential development sites. As it pertains to hazardous materials concerns, an E designation would be placed on the amended zoning map to denote certain parcels where the proposed rezoning could result in new development which has the potential for significant adverse impacts. The (E) designation would ensure that these identified sites would not be developed unless necessary remedial measures are implemented in order to avoid anticipated impacts. These measures would require NYC Department of Environmental Protection (DEP) review and approval before construction is permitted to begin. As applicable, developers would be required to incorporate any such measures into project construction. Thus, adverse hazardous materials impacts during construction are not anticipated.

C. MITIGATION

Because development could potentially occur on any of the identified 12 projected and 9 potential development sites subsequent to the proposed action, there is a potential for disturbance of archaeological resources where such resources exist. Two projected development sites (Sites 2 and 10) include lots which have been determined to be sensitive for nineteenth century archaeological resources. Resources within portions of the development sites where new construction could occur, absent prior disturbance, would likely be destroyed by action-induced development. This would constitute a significant adverse impact.

Based on mitigation options identified by the *CEQR Technical Manual*, no mitigation measures are feasible and practicable for the proposed action, because the area to be rezoned is privately-owned. In the future, if the sites are developed as-of-right in accordance with the new zoning, private ownership of the land prevents the City from requiring an archaeological testing program to test for potential archaeological remains, or from mandating the preservation or documentation of such remains, should they exist. As such, the archaeological impact is considered to be an unmitigated impact of the proposed action.

D. ALTERNATIVES TO THE PROPOSED ACTION

No Action Alternative

In the no action scenario, the primary study area would maintain its existing manufacturing zoning. The present trend of declining industrial uses being replaced by as-of-right commercial uses, and residential uses by BSA special permit, would likely continue. Land use in the area would become increasingly inconsistent with the underlying zoning designations. The required streetwalls and height limits associated with the proposed contextual district would not occur.

Under the no action alternative, land use would continue to shift from printing and manufacturing toward commercial and residential uses, but the production of new housing would be more difficult than under the proposed action. Many industrial firms would relocate to other areas of Manhattan or the outer boroughs, for cheaper rental rates and more readily available industrial space. Under the no action alternative, the redevelopment of vacant and underutilized sites that could help stabilize the mixed-use district and the improvement of housing and job conditions would not occur.

In the no action scenario, the residential population in the study area would experience minor increases primarily as a result of the BSA-approved variances. Existing community facilities would not be overburdened. Open space resources would increase as a result of the construction of Hudson River Park and Canal Park and the total open space ratio in the area would improve under the no action alternative. As projected and potential development sites would continue their current uses under this alternative, no new shadows would be cast. 600 Washington Street, a development previously-approved by the BSA, has the potential to cast new shadows on sunlight-sensitive resources.

Under the no action alternative, the projected and potential development sites would continue with existing uses, and thus would have no effect on any potential archaeological resources. Although 499 Greenwich Street, a previously-approved BSA development, would entail in-ground disturbance, the NYC Landmarks Preservation Commission has indicated that there are no further archaeological concerns for 499 Greenwich Street. James Brown House, the only designated landmark structure within the proposed rezoning areas, would remain in its current state. Some or all of the buildings identified as eligible for LPC and/or S/NR designation in the study area could become listed. The NYC Landmarks Preservation Commission could designate the Graphic Arts Historic District, which would include a small part of the southern rezoning area.

In the no action scenario, zoning would not require consistent street walls or height limits. BSA-approved variances would alter the urban design and visual character of the rezoning areas by adding two noticeably taller structures to the area. Street-level retail included with these planned developments would enhance and enliven the pedestrian environment. Under this alternative,

neighborhood character would continue to change gradually. Urban design elements would change as new construction replaces existing buildings and lots and as existing buildings are converted to new uses. Traffic volumes and noise levels would be expected to change and pedestrian activity would likely increase. The trend of declining industrial activity would continue.

Under the no action alternative, the current manufacturing zone designations would remain, and hazardous materials issues similar to those identified in the existing conditions analysis would also remain. However, unlike the proposed action, this alternative would not result in the placement of (E) designations for hazardous materials on the zoning map.

Under the no action alternative, increases in water consumption and sewage generation associated with the proposed action would not occur. There would be no changes to the local streets, sewers and water infrastructure systems. The periodic backups during storm events would likely continue. The minor effects on solid waste and sanitation services generated by the proposed action would not occur under this alternative.

In the no action scenario, transportation demands in the study area would increase due to planned development projects and general background growth in the City. All analyzed intersections would continue to operate at LOS C or better in the weekday midday peak hour. Improvements recommended in the on-going Canal Street Transportation Study would likely be implemented. Off-street parking utilization levels are expected to increase form 80 to 102 percent during the midday period, and from 76 to 81 percent during the overnight period.

Under the no action alternative, demand for subway and bus service is expected to increase. In addition, pedestrian volumes will increase slightly, but will continue to operate at LOS B or better.

In the no action scenario, there would be no changes in mobile source air quality emissions in the study area, nor would there be any changes in stationary sources of emissions. Noise levels in the study area would continue to range from marginally acceptable to clearly unacceptable under this alternative. The (E) designation would not be placed on any of the projected and potential development sites, and the required window/wall attenuation would not apply.

In the no build scenario, construction associated with the proposed action would not occur. Some residential development would take place as a result of previously-approved BSA zoning variances.

No Impact Alternative
It is the City's practice to include whenever feasible, a "No-Impact" alternative that avoids, without the need for mitigation, all significant environmental impacts of the proposed action.

Eliminating Sites 2 and 10 identified for potential archaeological sensitivity would slightly reduce the anticipated development. Therefore the environmental effects would be somewhat less than those resulting from the proposed action and the archaeological resources impact would be eliminated. However, such an alternative would result in a highly irregular and impractical zoning map that would not be a feasible option for the City. As such, this alternative would not meet the goals and objectives of the proposed action.

Mixed Use/Lower Density (MULD) Alternative

This alternative considers the mapping of mixed use districts in both the northern and southern rezoning areas at a lower density than that of the proposed action. Under this alternative, the northern rezoning area would be zoned M1-5/R7A (compared to M1-5/R7X under the proposed action), and the southern rezoning area would be zoned M1-5/R7X (compared to C6-2A under the proposed action).

Under the MULD alternative, the northern rezoning area would experience a reduction in development density and height limits. The maximum allowable FAR in an R7X district is 5.0, whereas the FAR in R7A districts is 4.0 (a 20 percent reduction in density). In both districts, the streetwall of a new building must be located within a mandated front wall setback area of 10 feet on a wide street or 15 feet on a narrow street. The building height limit would be decreased from 125 feet to 80 feet, a 64 percent reduction. Commercial density would remain unchanged.

The southern rezoning area would likewise experience a reduction in development density under the MULD Alternative. The M1-5/R7X designation under the MULD Alternative would allow for the continuation of manufacturing uses, while limiting community facility uses. Whereas the proposed action would allow a maximum FAR of 6.0 to 6.5, the FAR in the M1-5/R7X district would be limited to 5.0, thereby reducing the allowable commercial development by approximately 16.6 percent, and reducing the allowable residential development by 16.9 percent. Streetwall and building heights would be similar under the proposed action and the MULD Alternative, with the latter allowing 5 additional feet of maximum building height.

In order to estimate projected development under the MULD Alternative, the reductions outlined above were applied to the same development sites. The projected development program under the MULD Alternative is estimated at a net total of 893 dwelling units and approximately 85,203 sf of ground-floor retail, compared with 1,018 dwelling units and 92,532 sf of ground-floor retail in the proposed action alternative. As with the proposed action, no new industrial developments are assumed under this alternative. The residential population associated with the MULD Alternative is estimated at 1,482 (versus 1,690 for the proposed action), and the retail component of this alternative is estimated to generate 256 employees (versus 278 for the proposed action).

The MULD alternative would have similar effects as the proposed action on land use, zoning, and public policy, however this alternative would lead to the production of fewer housing units,

and might result in greater pressure for increased rezoning and BSA variance requests. Thus, the beneficial effects of the proposed action would not be as great.

The MULD Alternative would result in the same general socioeconomic effects as the proposed action, although the effects would be somewhat diminished due to the lesser amount of projected residential development (125 fewer new housing units) and the small reduction in ground floor retail development (approximately 7,329 sf less). The beneficial socioeconomic effects that an increased housing supply could produce would therefore be less compared to the effects of the proposed action.

The projected population increase in the study area under the MULD Alternative would be lower than under the proposed action, and would therefore place a lesser demand on community facilities. Similar to the proposed action, there would be no impacts. Likewise, the additional demand on available open spaces would not significantly reduce the open space ratio in the area, and would therefore not result in significant adverse open space impacts.

Under the MULD alternative, building heights would be limited to 80 feet in the northern rezoning area and to 125 feet in the southern rezoning area. As such, the shadow effects of projected and potential developments in the northern area would be less than those occurring under the proposed action, and those in the southern rezoning area would remain essentially the same. As with the proposed action, the MULD Alternative would not result in any significant adverse shadow impacts.

Under the MULD alternative, development could potentially occur on the same 12 projected and 9 potential development sites identified for the proposed action. Therefore, there is the same potential for disturbance of archaeological resources on Sites 2 and 10 and the same significant adverse unmitigated impacts could occur. Neither the MULD alternative nor the proposed action would have an adverse effect on designated architectural resources in the area. As with the proposed action, this alternative could induce the demolition of two structures deemed to be eligible for S/NR designation.

Changes to the visual character of the rezoning area and its relationship to the study area that would occur with the proposed action would also occur under this alternative. In the northern rezoning area, the MULD alternative would result in somewhat shorter structures than those currently prevailing in the northern rezoning area. In the southern rezoning area, maximum building heights would increase by five feet and so would be almost identical to those with the proposed action. As with the proposed action, the MULD alternative would reinforce the urban design characteristics of the rezoning areas by replacing vacant lots and open uses with new medium-density residential development, and the strengthening of uniform street walls.

Effects on neighborhood character would be similar under this alternative to those of the

proposed action. As with the proposed action, the area would become a more vibrant mixed-use community with a larger residential and neighborhood retail presence leading to increased pedestrian traffic and street activity under the MULD alternative.

The effects of the MULD alternative with respect to hazardous materials issues is expected to be identical to those of the proposed action. As with the proposed action, 57 lots identified as having conditions that could pose a significant adverse impact would receive an (E) designation under the MULD Alternative.

Under the MULD alternative, demand on the City's water and sewer infrastructure would be somewhat less than that of the action-induced development, but like the proposed action, would not result in significant adverse impacts on infrastructure. The demand on the City's solid waste and sanitation services under this alternative would be somewhat less than that of the action-induced development, but like the proposed action, would not result in significant adverse impacts on solid waste and sanitation services.

The MULD alternative would generate 18, 18 and 20 fewer vehicle trips in the AM, midday and PM peak hour, respectively, and would therefore have similar, but lesser, traffic effects than the proposed action. The MULD alternative would also generate proportionally less demand for public parking spaces. The incremental parking demand from the MULD alternative would total a net decrease of 17 spaces during the weekday midday period and a net increase of 283 spaces during the overnight period. During the midday period, utilization of public off-street parking facilities within a quarter-mile radius of the rezoning areas would grow from 102 to 106 percent under the MULD alternative and the shortfall of available spaces would increase from 111 to 335. This shortfall would be slightly less than would occur with the proposed action, in which utilization would be at 107 percent and the shortfall of available spaces would increase to 363 spaces. Neither this alternative nor the proposed action would result in any significant adverse impacts to the traffic or parking systems.

The MULD alternative would generate 61, 248, and 146 fewer walk trips in the AM, midday and PM peak hours, compared with the proposed action. This alternative would also generate 53, 42, and 68 fewer subway trips and 9, 20, and 15 fewer bus trips, in the AM, midday and PM peak hours, compared to the proposed action. Neither this alternative nor the proposed action would result in any significant adverse impacts to the subway, bus, or pedestrian systems.

Like the proposed action, the MULD alternative would not result in significant adverse mobile source air quality impacts. With respect to stationary source emissions, the effects of the MULD alternative would be slightly different due to the reduced density and lower buildings heights, but like the proposed action would not result in significant adverse impacts. Finally, with respect to industrial source stationary air quality, no impact is expected from manufacturing facilities on any of the identified development sites in either the MULD alternative or the proposed action.

The noise effects of the MULD alternative would be slightly less than those of the proposed action. Unlike the proposed action, (E) designations would not be necessary in the southern rezoning area. Neither the MULD alternative nor the proposed action would result in noise impacts.

Potential traffic, noise, and air quality impacts during construction on projected and potential development sites would occur with either the proposed action or the MULD alternative, but in neither case would they be considered significant.

Higher Density Southern (HDS) Alternative
This alternative considers the mapping of a C6-4A district in the southern area instead of the C6-2A district which is being considered for the proposed action. For the northern rezoning area, this alternative incorporates the same zoning change considered for the proposed action, an M1-5/R7X special mixed use district.

In comparison to C6-2A zoning, C6-4A zoning allows a higher FAR, has higher streetwall height requirements, and allows a higher maximum building height. Whereas the proposed action would allow a maximum FAR of 6.0 to 6.5, the FAR in the C6-4A district would allow a 10.0 FAR, with a bonus to 12.0 for residential developments built under the Inclusionary Housing program. This would increase the allowable commercial development by 67 percent and the allowable residential development by 66 percent under the 10.0 FAR, or by 99 percent for residential development with the Inclusionary Housing program, as compared to the proposed action. The streetwall height for the HDS Alternative would be 125 to 150 feet and the maximum building height would be 210 feet, as compared to 60 to 85 feet for streetwall height and 120 feet for maximum building height under the proposed action. The minimum streetwall height would increase by 108 percent, the maximum streetwall height by 76 percent, and the maximum building height by 75 percent.

In order to estimate projected development under the HDS Alternative, the increase outlined above with the Inclusionary Housing program (12.0 FAR), (99 percent increase in residential FAR development) was applied to the development program described above, under "Development Scenario" and in Chapter I, "Project Description," of the FEIS.

Based on this methodology, the projected development program under the HDS Alternative in the southern rezoning area is estimated at a net total of 1,404 DUs and approximately 59,627 sf of ground-floor retail, compared with 633 DUs and 59,627 sf of ground-floor retail under the proposed action. This increase of 771 DUs represents a 122 percent increase over the number of DUs generated by the proposed action. Overall, with the same zoning change considered in the northern rezoning area for the HDS Alternative as for the proposed action, the total projected development program for both rezoning areas would be a net total of 1,789 DUs and 92,532 sf of ground-floor retail, compared to 1,018 DUs and 92,532 sf of ground-floor retail under the

proposed action. For the two rezoning areas combined, this represents a 76 percent increase in the number of DUs compared to the proposed action. As with the proposed action, no new industrial or other commercial developments are assumed under this alternative. The residential population associated with the HDS Alternative is estimated at 2,970, compared to 1,690 for the proposed action, while the retail component of this alternative would not change, as it is calculated based on site size and therefore the estimated number of employees generated by this alternative would be the same as the proposed action. As with the proposed action, this alternative is expected to result in development on seven projected development sites in the southern rezoning area, with new construction on 4 of those sites. However, two of the three projected developments expected to undergo conversion (from commercial) to residential use under the proposed action would be converted and enlarged under this alternative. The types and amounts of uses that would be replaced by the HDS Alternative would be the same as with the proposed action.

The *Hudson Square Rezoning* report identified that the objectives of the southern rezoning are to foster new opportunities for residential development and to strengthen the existing mixed-use character. The prevailing existing character does not reflect 10 to 12 FAR zones, as approximately 72 percent of the lots have FARs of 6.02 FAR or below and approximately 80 percent of the buildings are less than 90 feet in height. A 10.0 FAR zoning district would not further the report's stated objectives. This area exhibits characteristics which are appropriate for residential use, including significant small lots of irregular size and shallow depth, and a concentrated core of residential buildings. The entire area has a total of 112 dwelling units, almost exclusively of large loft developments. The Department notes that the City Planning Commission has presented testimony in opposition to recent BSA variance applications which proposed residential development at a 10.0 FAR. An FAR of this magnitude would result in a density and building form out of context with the surroundings such that the essential character of the neighborhood would be impaired.

The HDS Alternative would result in the same general socioeconomic effects as the proposed action. Under this alternative, the same amount of existing uses would be directly displaced and the indirect effects of the proposed action would be generally similar.

The HDS Alternative would have a greater effect on community facilities than the proposed action. Indirect effects on school and libraries would increase as a result of the HDS Alternative, as the projected population increase in the study area would be greater, with 76 percent more residents expected than under the proposed action. This increase of 2,970 residents is equivalent to approximately 3 percent of the current population of Manhattan Community District 2. Under the HDS alternative, it is expected that elementary school utilization would reach 102 percent at nearby schools and a deficiency of approximately 56 school seats would occur. In CSD 2 as a whole, utilization would climb to higher but remain at approximately 94 percent. Intermediate school utilization rates would be higher under this alternative, but would still be expected to

increase modestly over No-Build levels and a deficiency in school seats is not expected. Specifically, utilization of nearby schools would increase from 80 to 81 percent of seat capacity and utilization of all CSD 2 school would rise from 87 to 88 percent of seat capacity. The HDS Alternative's shortfall of 56 seats over the No-Build is less than 2 percent of the collective capacity of the group of elementary schools near the rezoning area. Therefore the proposed HDS Alternative is not expected to create a significant adverse impact for the group of elementary schools near the rezoning area.

As is the case for the proposed action, the HDS Alternative is not expected to result in significant impacts on libraries. The projected residential units would be adequately distributed between two local library branches, the Hudson Park branch and the planned SoHo branch. In addition, the Jefferson Market regional library branch in CD2 could also be expected to accommodate some of the expected residents. As there would be no direct effects on any community facilities and all or most generated units would be market-rate, there would be no impacts on hospitals, day care centers, police and fire protection in the area under the HDS Alternative.

Under the HDS Alternative, the overall effect of projected development on open space resources would be generally similar to the effects of the proposed action, though the number of new residents would be somewhat higher, 2,970 as compared to 1,690, a difference of 1,280 residents. Although this alternative would lower the open space ratio more than the proposed action, the decrease would be less than 5 percent, which is generally considered to be a substantial change, warranting more detailed analysis. As open space resources are being added to the area in the future without the proposed action and the open space ratio would decrease by less than 5 percent from the No-Build level, the HDS Alternative, like the proposed action, would not result in significant adverse open space impacts.

Under the HDS Alternative, building heights would be limited to 210 feet in the southern rezoning area, as compared to 120 feet with the proposed action, while the limit would be 125 feet in the northern area for both this alternative and the proposed action. The effects of the HDS Alternative would be the same as the proposed action in the northern rezoning area and as such would not result in significant adverse shadow impacts. In the southern rezoning area, the taller buildings allowed by the HDS Alternative would result in longer shadows than with the proposed action. Although the HDS Alternative would result in longer shadows, it is unlikely to result in significant shadows impacts as there are no sunlight-sensitive resources that would be affected by this alternative.

Under the HDS Alternative, development could potentially occur on the same 12 projected and 9 potential development sites identified for the proposed action and would result in the same building footprints, excavation, and in-ground disturbance as would the proposed action. Therefore, there is the same potential for disturbance of archaeological resources on Sites 2 and 10 and the same significant adverse unmitigated impacts could occur.

Neither the HDS Alternative nor the proposed action would have an adverse effect on designated architectural resources in the area. As with the proposed action, this alternative could induce the demolition of two structures deemed to be eligible for S/NR designation.

In the southern rezoning area, as compared with the proposed action streetwall heights would be 65 to 90 feet higher, with minimum streetwall height increasing by 108 percent and the maximum streetwall height by 76 percent. Base heights would be 40 to 90 feet taller than with the proposed action, whereas maximum building height would be 90 feet taller, with a maximum height of 210 feet. As with the proposed action, the HDS Alternative would reinforce the urban design characteristics of the rezoning areas by replacing vacant lots and open uses with new higher-density residential development and strengthening of uniformity of street walls, although streetwalls with this alternative would be approximately twice as high as with the proposed action. It would create a somewhat higher density and higher-rise character in the southern rezoning area than would occur with the proposed action. Buildings of this height and scale would be less compatible with the surrounding urban design context as opposed to buildings that would be allowed under the proposed action. The southern rezoning area and vicinity does not contain any significant visual resources, i.e. unique or important public view corridors, vistas, or natural or built features. Accordingly, the HDS Alternative would not affect any visual resources of concern. Neither this alternative nor the proposed action would result in significant adverse impacts related to urban design or visual resources in the area.

Effects on neighborhood character would be similar under the HDS alternative as compared to those of the proposed action. As with the proposed action, the area would become a more vibrant mixed-use community with a larger residential and neighborhood retail presence leading to increased pedestrian traffic and street activity under the HDS Alternative. However, as noted in the assessment of urban design, this alternative would result in a density and building form out of context with its surroundings. While this is not considered a significant adverse impact, this alternative would not be as consistent with the objectives of the Hudson Square Rezoning report as would the proposed action. Overall, neither this alternative nor the proposed action would result in significant adverse impacts on neighborhood character.

The effects of the HDS Alternative with respect to hazardous materials issues is expected to be identical to those of the proposed action. As with the proposed action, 10 of the 12 projected development sites and all 9 potential development sites, encompassing a total of 57 lots, have identified conditions that may pose a significant adverse impact under the HDS Alternative. As with the proposed action, these 57 lots would receive an (E) designation under the HDS Alternative.

The demand on the City's water and sewer infrastructure generated by the HDS Alternative would be somewhat greater than that of the action-induced development. However, as only very large developments or actions having exceptionally large water demands (e.g., more than 1

million gallons per day) would warrant a detailed water supply assessment, this alternative would not result in significant impacts on water supply. Similarly, only unusual actions with very large flows could have potential impacts on wastewater treatment. The HDS Alternative would not result in such large flows, and as with the proposed action, it would not result in significant adverse impacts on infrastructure.

Under the HDS Alternative, the demand on the City's solid waste and sanitation services would be somewhat more than that of the action-induced development. However, the resulting increase in solid waste generated by the proposed action is relatively small (about 1.12 tons per day) when compared to the estimated 18,500 tons of residential and institutional refuse and recyclables collected by DOS per day. Accordingly, as with the proposed action, the HDS Alternative would not result in significant adverse impacts on solid waste and sanitation services.

The HDS Alternative would generate 104, 153, and 118 vehicle trips per hour in the AM, midday, and PM peak hours, respectively. Compared with the proposed action, the HDS Alternative would generate 96, 46, and 93 more vehicle trips in the AM, Midday, and PM peak hours, respectively. As this alternative would generate more vehicular trips than the proposed action, it would have similar, but greater, traffic effects compared to those with the proposed action.

A detailed analysis of traffic conditions at the intersections which would receive the heaviest demand in the midday peak hour from this alternative was conducted. This analysis determined that these intersections would operate within a satisfactory range, specifically at level of service C or better, and that no significant impacts would occur. These results are considered indicative of the effects of this alternative generally. As there would be no impacts at this location, further analysis was not conducted and it is assumed that the HDS Alternative would not result in significant traffic impacts.

The HDS Alternative would also generate proportionally more demand for public parking spaces. during the midday period, utilization of public off-street parking facilities within a quarter-mile radius of the rezoning areas would grow from 102 to 110 percent and the shortfall of available spaces would increase from 111 to 529. This shortfall would be greater than would occur with the proposed action, in which utilization would be at 107 percent and the shortfall of available spaces would increase to 363 spaces. During the overnight period, under the HDS Alternative utilization rates would increase from 81 to 95 percent under Build conditions, with available parking spaces decreasing from 1,013 to 262. The number of available spaces would be somewhat less than would occur with the proposed action, in which 457 spaces would be available. According to the *CEQR Technical Manual*, for proposed actions within the Manhattan Central Business District (defined as the area south of 61st Street), the inability of the proposed action or the surrounding area to accommodate projected future parking demands generally would be considered a parking shortfall, but is not deemed to be a significant impact. The

unsatisfied demand for parking spaces would result in vehicles parking outside the study area and motorists walking greater distances to their destinations.

Compared with the proposed action, in the AM and PM peak hours, respectively, the HDS Alternative would generate 306 and 360 more subway trips and 38 and 45 more bus trips. As with the increment generated by the proposed action, the bus and subway trips generated by the HDS Alternative would be distributed among various stations and routes and is not expected to exceed screening thresholds of 200 or more passengers at any station or route and therefore significant impacts are not expected.

The HDS Alternative would also generate more walk trips than the proposed action, with 137, 72, and 160 more walk trips in the AM, midday, and PM peak hours, respectively. As pedestrian volumes are presently relatively low in the project area and pedestrian facilities operate at good levels of service, the walk trips generated by this alternative, which would be distributed spatially and temporally, are not expected to result in significant impacts on local pedestrian conditions.

Although the HDS Alternative would generate more vehicle trips than the proposed action, it is not expected to add more than 100 vehicles to any intersection in the study area, and therefore would not exceed any screening thresholds for detailed analysis of mobile source air quality. In terms of stationary sources, the HDS Alternative is not expected to impact any other existing or future buildings. The industrial source stationary air quality analysis conducted for the proposed action is also applicable to the HDS Alternative, as it analyzed elevated receptors and emissions released through the ventilation system of the Holland Tunnel. As with the proposed action, no stationary source impact is expected from manufacturing facilities on any of the identified development sites. Therefore, like the proposed action, the HDS Alternative would not result in significant adverse stationary or industrial source air quality impacts.

Ths noise effects of this alternative would be similar to those of the proposed action. Although the HDS Alternative would generate more vehicle trips than the proposed action, it would not exceed the screening threshold for mobile source noise analysis, i.e., a doubling of passenger car equivalent (PCE) values between existing and action conditions. Therefore, as with the proposed action, it would not result in significant impacts. The effects of the HDS Alternative in terms of stationary source noise conditions would be the same as for the proposed action as this is a site-specific potential impact. As with the proposed action, under the HDS Alternative several sites would receive (E) designations requiring noise abatement measures needed to avoid significant adverse impacts related to high-levels of ambient noise.

Potential traffic, noise, and air quality impacts during construction on projected and potential development sites would occur with either the proposed action or the HDS alternative, but in neither case would they be considered significant.

E. AVOIDABLE ADVERSE IMPACTS

The proposed action is expected to result in an adverse impact on potential archaeological resources on two sites within the rezoning areas. No practicable mitigation measures were identified which would reduce or eliminate this impact. Therefore, the proposed action is expected to result in an unavoidable adverse impact on archaeological resources which cannot be mitigated.

Robert Dobruskin

Robert Dobruskin, Director
Environmental Assessment and Review Division
New York City Department of City Planning

cc. Hon. C. Virginia Fields, Manhattan Borough President
Amanda M. Burden, AICP — City Planning Commissioners

Robert Kulikowski	Gail Benjamin	Erin Crotty
Tom Kunkel	Angela Licata	Naim Rasheed
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