CHAPTER 19: CONSTRUCTION IMPACTS

A. INTRODUCTION

Construction impacts, although temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. This chapter provides a discussion of the potential construction associated with the proposed actions and the impacts that could result from any future construction activity. All analyses were undertaken in accordance with the guidelines contained in Section 3S of the *CEQR Technical Manual*.

As detailed below, the proposed actions would have no significant adverse impacts resulting from construction activities on all impact categories, except historic resources. Both direct and indirect construction-related impacts could potentially occur to several eligible historic resources. These significant adverse impacts would be considered unmitigated because development activity on development sites nearby or adjacent to these eligible resources could occur as-of-right within the envelope of the area's proposed zoning.

B. METHODOLOGY

The methodology outlined in the CEQR Technical Manual was used to evaluate potential construction impacts within the rezoning area. This chapter summarizes the proposed actions' likely construction activities and schedule and considers the potential for adverse impacts during the construction. Next, an assessment of potential impacts of construction activity and the methods that may be employed to minimize these potential impacts are discussed. Per the CEQR Technical Manual, construction impact analyses are typically based on the analyses conducted for the different technical areas, and the analysis focuses on the Projected Development Sites. The amount of demolition and excavation debris was estimated and considered, as was the amount of construction and building materials, to assess the potential impacts to the community that could result from construction activities.

C. FUTURE CONDITION WITHOUT THE PROPOSED ACTIONS

Under this scenario, given the current zoning and existing land use trends, it is anticipated that a limited number of new as-of-right development would occur in the rezoning area. Therefore, in the future without the proposed actions it is anticipated that the rezoning area would experience a slight decrease in residential units (from 24 to 22), a 334,854 square foot increase in commercial floor area, an 81,470 square foot increase in community facility floor area and a 78,440 square foot decrease in industrial floor area. These changes, when added to uses currently located within the rezoning area, would result in the rezoning area containing approximately 371,052 square feet of commercial floor area, 183,011 square feet of industrial floor area, 81,470 square feet of community facility floor area and 22 dwelling units.

Depending on construction techniques used for these projects, construction-related impacts could affect the rezoning area. Equipment and machinery for construction of these projects would likely include graders and excavators, cranes and cherry pickers, backhoes and front end loaders, pile drivers and compressors, as well as other heavy construction equipment. The use of this equipment could affect noise receptors and air quality in the vicinity of construction activity. Other potential impacts could include fugitive dust emissions and hazardous materials exposure from building demolition, land clearing and excavation, potential noise and vibration impacts from pile driving and other construction activities,

temporary disruptions to utility provision, and reduced access to public transportation, community facilities, and residential and business entrances.

Five lots were identified within the proposed rezoning area that could potentially experience new inground disturbance and possess the potential for intact archaeological deposits. In the future without the proposed actions, it is anticipated that three of these lots would be developed as-of-right under the current zoning by the analysis year of 2017. This would likely result in new in-ground disturbance, which would constitute an adverse physical impact to potential archaeological resources. The three locations are:

- Block 367, Lot 23 (Part of Projected Development Site 15);
- Block 368, Lot 11 (Projected Development Site 32); and,
- Block 398, Lot 1 (Projected Development Site 24)

If potential archaeological resources exist on these three lots, and they would be excavated as the result of private development (which would not require further discretionary approvals). There are no mechanisms available to require that subsequent private as-of-right development undertake archaeological field tests to determine the presence of archaeological resources or mitigation for any identified significant resources through avoidance or excavation and data recovery.

None of the as-of-right development sites are located on or in close proximity of the identified architectural resources. Therefore, there would be no potential adverse impacts to historic architectural resources under the future condition without the proposed actions.

It is anticipated that projects under construction in this scenario would comply with current building code requirements and state and city environmental regulations. In instances where impacts result from construction, mitigation efforts would be implemented. Such efforts could include, but are not limited to, noise barriers, maintenance and protection of traffic plans, the use of ultra-low sulfur diesel (ULSD) fuel and pollution control devices on construction equipment, schedule restrictions on construction activities, and dust suppression techniques.

D. FUTURE CONDITION WITH THE PROPOSED ACTIONS

All construction is expected to be completed over a 10-year period. As a result of the proposed actions, the total build out expected to occur by 2017 on the development sites includes approximately 1,577 dwelling units (of which 187 would be affordable units provided through the proposed Inclusionary Housing program); 173,582 square feet of commercial floor area; 2,475 square feet of industrial floor area and 39,773 square feet of community facility floor area. These figures represent a net increase of 1,555 dwelling units, a net decrease of 197,470 square feet of commercial floor area; a net decrease of 180,536 square feet of industrial floor area; and a net decrease of 41,697 square feet of community facility floor area when compared to the future conditions without the proposed actions. Details of the type and size of development anticipated on each of the development sites can be found in Chapter 1, "Project Description."

CONSTRUCTION ACTIVITIES AND SCHEDULE

The reasonable worst case development scenario presented in Chapter 1, "Project Description", does not establish the order in which the development sites would be developed nor does it assume a particular sequence of development. However, it is assumed that construction on all projected development sites would likely be completed by 2017. Although future commercial and residential market conditions would

drive the demand for new development, it is reasonable to assume that more than one of the projected development sites would be under construction simultaneously. However, given the geographic distribution of these sites, this is not expected to result in a major clustering of construction activity at any given location within the rezoning area at any one time.

Under normal conditions, construction activity would take place Monday through Friday. Work would generally begin at 7 AM, with some workers arriving to prepare work areas between 6 AM and 7 AM. Normally, work would end at 3:30 PM. Under certain circumstances the workday would be extended for specific trades to complete some specific tasks beyond normal work hours. This work could include such tasks as finishing a concrete pour for a floor deck or completing the bolting of a steel frame erected that day. The extended workday would generally last until about 6 PM and would not include all construction workers on the site, just those involved in the specific task. When work is required outside of normal construction hours, the proper approvals would be obtained from the appropriate agencies.

Construction staging would most likely occur on the projected development sites themselves and may, in some cases, extend into portions of sidewalks, and/or the curb and travel lanes of adjacent streets. Any sidewalk or street closures require the approval of the NYCDOT's Office of Construction Management and Coordination.

Contractors would be required to comply with all applicable construction safety measures. In addition, contractors would be required to design and implement noise and dust control mitigation programs and there would also be requirements for street crossing and entrance barriers and protective scaffolding, where needed.

A general outline of construction activity and typical scheduling is presented below. The actual extent and duration of new construction activity would vary according to the type, size and complexity of the individual development project.

BUILDING DEMOLITION AND SITE CLEARANCE/EXCAVATION AND FOUNDATION WORK

Development of most of the development sites would entail the disconnection of existing utilities and the demolition and abatement of all buildings and improvements located on each site. Asbestos abatement would be the first part of demolition. These specialty tasks are strictly regulated in New York City to protect the health and safety of the construction workers, the public, and nearby residents and workers. Depending on the extent of the asbestos, either the whole building or portions of the building would be closed off by containment barriers made of either plastic or wood. The barriers prevent asbestos from leaving the containment area. Specially trained workers in protective clothing would use hand tools to remove the asbestos. These asbestos containing materials would then be sealed in bags and taken to licensed landfills for disposal. It is anticipated that demolition of the types of existing buildings would not require additional special mobilization and could be done during normal working hours.

The next step in the demolition process would be the removal of economically salvageable materials. Much of this task would be done on site and the materials would then be transported to recycling centers. Once demolition is complete, all debris would be removed from the site. Depending upon the size and layout of the building, demolition could require the erection of temporary solid walls and overhead protection around the building to prevent the accidental release of building materials into public areas. Also depending upon the specific site, dust suppression measures, such as wetting of materials, would be used.

Plans and specifications for demolition would specify the complete removal, including the foundations, of all on-site structures. Other necessary site improvements for underground site utilities, soil erosion and sediment control, and preliminary site work would be incorporated into the site clearance activities.

Following initial site preparation, construction of the foundations and any below-grade elements would commence. Excavation typically includes the use of heavy excavation equipment to remove material from the site. Foundation work would include the pouring of concrete footings and the foundation. Ready-mix concrete trucks would deliver concrete to the site and trucks would remove excavated material for off-site disposal at a licensed landfill or recycling facility. This phase is typically up to four months in duration.

CORE AND SHELL CONSTRUCTION

This phase is typically up to six months in duration and would include construction of the structure of the proposed building, which could either be of steel and concrete or of reinforced concrete, the building's facade (exterior walls and cladding), and roof. During this stage of construction, pouring of the building's concrete floors or "decks" would occur. Installation of the building's core – which consists of the elevators, vertical riser systems for mechanical, electrical, and plumbing, as well as the satellite electrical and mechanical equipment rooms and the stairs and restroom facilities – would start during this stage and continue through the interior construction and finishing stage. These activities would require the use of cranes, derricks, exterior hoists, delivery trucks, fork lifts, man lifts, and other heavy equipment.

Cranes would be used to lift structural components, facade elements, large pieces of equipment, etc. on taller buildings. Other construction materials and debris generated as part of the construction would generally be moved via hoists. Trucks would continue to deliver materials and carters would remove construction debris. Construction of the core and shell would be expected to overlap with interior construction and finishing. When the building reaches about 10 stories, three construction activities would occur simultaneously. The superstructure would be erected on the higher floors, cladding would be attached farther down, and the interior would be finished on the lowest floors.

INTERIOR CONSTRUCTION AND FINISHING

Installation of the building's mechanical, electrical, and plumbing systems would continue during this stage and include installation of heating, ventilation, and air conditioning (HVAC) equipment and ductwork, installation of electric lines within the buildings, and interior installation of water supply and wastewater piping. Installation and checking of elevator and life safety systems would also take place at this time. This stage would also include the construction of interior walls, installation of lighting fixtures, and interior finishes (flooring, painting, etc.). This phase is typically up to 10 months in duration.

TYPICAL CONSTRUCTION EQUIPMENT

Typical equipment used for demolition, excavation, and pouring the foundation would include excavators, bulldozers, backhoes, front-end loaders, tractors, hammers, cranes, drills, and concrete pumping trucks. Equipment that would be used for construction activities would include cranes, hoist complexes, dump trucks and loaders, concrete trucks, backhoes, and other pieces of large equipment. Trucks would arrive at the site with pre-mixed concrete and other building materials, and would remove any excavated material and construction debris. Cranes, compressors, hoists, bending machines and welding machines also would be used during construction of the superstructure and framing. During facade and roof construction, hoists and cranes would continue to be used and trucks would remain in use for material supply and construction waste removal.

E. POTENTIAL IMPACTS DURING CONSTRUCTION

LAND USE

Construction activities would affect land use on each of the projected development sites and in the immediately surrounding areas. These effects, however, would be temporary in duration. Although full build-out is not anticipated until 2017, no single projected development site would experience construction activity for this entire time period, and the intensity of construction activity would vary and move throughout the rezoning area.

Construction activities would be disruptive and concentrated in areas surrounding each projected development site for a period of time. No permanent change to land use adjacent to each projected development site is anticipated; consequently no significant adverse impact to land use within the rezoning area or surrounding areas would be expected to result from the proposed actions.

SOCIOECONOMIC CONDITIONS

Construction activities associated with the proposed actions could, in some instances, temporarily affect socioeconomic conditions in the vicinity of the affected projected development site. However, access to any businesses near each site would not be impeded, and none are expected to be significantly affected by a temporary reduction in the amount of pedestrian foot traffic that could occur as a result of construction activities. Construction associated with the proposed actions is not expected to result in any significant adverse impacts to businesses or residences in the rezoning area and may contribute to the local economy due to construction worker spending. Therefore, no significant adverse socioeconomic impacts would be expected to result from the proposed actions.

COMMUNITY FACILITIES AND SERVICES

Construction on any of the projected development sites would not block or restrict access to any community facilities located in the rezoning area or in the surrounding area, and would not significantly affect emergency response times. Consequently, is not anticipated that the proposed actions would result in any significant adverse construction impacts to community facilities.

OPEN SPACE

No existing open space resources would be displaced by construction activity. Dutch Kills Playground, located at the intersection of 37th Avenue and 28th Street, may be temporarily affected by construction activity associated with Projected Development Site No. 8; however, access would not be impeded at any point during the construction period. The playground could experience a temporary impact from construction-related noise, however this would not be considered significantly adverse because construction equipment would adhere to the New York City Noise Control Code. The city's Noise Control Code requires the adoption and implementation of a noise mitigation plan for each construction site, limits construction to weekdays between the hours of 7 AM and 6 PM, and sets noise limits for certain specific types of construction equipment. Overall, significant adverse impacts to open space would not be expected to result from the proposed actions.

HISTORIC RESOURCES

Archaeological Resources

As discussed in Chapter 7, "Historic Resources" five lots were identified within the proposed rezoning area that could potentially experience new in-ground disturbance and possess the potential for intact archaeological deposits. In the future with the proposed actions, it is anticipated that at least four, if not all five, of these lots would be developed as the result of the proposed rezoning. This development would likely result in new in-ground disturbance, which would constitute an adverse physical impacts to potential archaeological resources. The five lots consist of the following Blocks and Lots:

- Block 367, Lot 23
- Block 368, Lot 11
- Block 371, Lot 38
- Block 398, Lot 1
- Block 398, Lot 39

Conclusions regarding the potential for intact archaeological deposits within the five sites were based on the research and background information that is currently available and on previous archaeological studies regarding the nature, location, and depth of prehistoric and historic period resources. As previously noted, soil boring data could not be obtained for any of the lots. In light of the history of filling and grading across the Dutch Kills neighborhood in association with the late nineteenth and early twentieth century urbanization and development of the area, it is possible that each of these lots have experienced some type of past land manipulation and disturbance. The extent to which each lot has been previously filled and/or graded would have direct implications for the potential archaeological sensitivity of these areas. Therefore, if such data becomes available, these borings should be reviewed and the conclusions regarding the sensitivity of each lot for prehistoric and historic period archaeological deposits should be reevaluated. Absent that reevaluation, development due to the proposed actions could result in significant adverse impacts to potential archaeological resources through construction; these potential impacts would be unavoidable adverse impacts. There are no mechanisms available to require that subsequent private as-of-right development undertake archaeological field tests to determine the presence of archaeological resources or mitigation for any identified significant resources through avoidance or excavation and data recovery.

Architectural Resources

Of the S/NR and/or NYCL eligible historic architectural resources located with the study area only four individual structures are located on or in close enough proximity of the proposed actions' development sites which could potentially lead to direct and/or indirect significant adverse historic resources impacts due to the proposed actions. Those structures are:

- New York Consolidated Card Company
- Pierce-Arrow Building (Harrolds Motor Car Company)
- Garside & Sons Shoe Factory
- FDNY Engine Company 261/Hook & Ladder 116

State and National Register eligibility does not provide restrictions to private property as-of-right use and development and private owners of properties eligible for, or even listed on, the Registers using private funds can alter or demolish their properties without further review or approval. Privately owned

properties that are NYCLs, in New York City Historic Districts, or pending designation as Landmarks are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur, regardless of whether the project is publicly or privately funded. As noted previously, Pierce-Arrow Building (Harrolds Motor Car Company) is eligible for NYCL designation. This could potentially afford some protection for this architectural resource pending a decision from LPC. However, it has not been calendared for consideration by LPC; therefore it is assumed that it would not be designated as such for this analysis

These architectural resources could experience accidental damage from adjacent construction and could be offered some limited protection through the New York City Department of Buildings controls governing the protection of adjacent properties from construction activities. Although additional protections could be provided through the implementation of construction protection plans that follow the *New York City Department of Buildings (DOB) Technical Policy and Procedure Notice (TPPN) #10/88* (Procedures for the Avoidance of Damage to Historic Structures) there are no mechanisms for requiring the implementation of such plans for private as-of-right development.

Based on the analysis presented herein, the proposed actions could result in direct and/or indirect significant adverse impacts to the four identified architectural resources noted above and these potential impacts would be unavoidable adverse impacts.

NEIGHBORHOOD CHARACTER

Construction activity could affect the character of the area immediately surrounding each projected development site during portions of the construction period, due to increases in traffic and construction noise. The degree of this temporary impact would depend on the type of construction activity being performed, the construction location and duration, and the land uses found in the immediately adjacent neighborhood. Since these impacts would be localized, sporadic and temporary, they would not cause a significant adverse impact to the overall neighborhood character of the rezoning area.

Measures to minimize noise, vibration, dust, and other construction-related nuisances would be employed where appropriate and practicable. These impacts would be localized to the individual projected development site, would be considered temporary in nature and would not alter the character of the larger rezoning area. Therefore, the proposed actions would not result in significant adverse impacts to neighborhood character during construction.

TRAFFIC AND PARKING

It is expected that the proposed actions would introduce a substantial number of new residents, employees and visitors to the rezoning area by 2017. Construction on the projected development sites would generate trips resulting from arriving and departing construction workers, movement of materials and equipment, and the removal of construction and demolition debris. Construction would likely occur between 7 AM and 4 PM. Construction workers typically would arrive before the AM peak commuter period and depart before the PM peak hour, and therefore would not represent a substantial factor in the area's peak travel periods. Truck movements typically would be spread throughout the day on weekdays and would generally occur between the hours of 7:00 AM and 4:30 PM. Whenever possible; the scheduling of deliveries and other construction activities would take place during off-peak travel hours.

Construction activities may result in short-term disruption to 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 at times would result in temporary closings of sidewalks adjacent to the sites. These conditions would be temporary and not result in significant adverse impacts to traffic conditions. NYCDOT issues permits for any street or sidewalk closures after it completes an evaluation of traffic and pedestrian conditions in the vicinity.

Construction workers would use either public transportation or private automobile to travel to and from the development sites. As with other workers in the area, parking demand likely would be accommodated at public off-street parking facilities available in the area. Overall, significant adverse construction impacts to traffic and/or parking would not be expected to occur as a result of the proposed actions.

AIR QUALITY

Construction activity has the potential to impact air quality due to particulates (largely dust) being generated from land clearing and excavation, as well as emissions emanating from on-site construction equipment and from on-road construction-related vehicles and their potential effects on traffic congestion.

Airborne Particulate Emissions

Airborne particulate emissions (also known as "fugitive dust") could occur from numerous construction activities, including but not limited to, land clearing, excavation, stockpiling of materials, grading, and traffic over unpaved areas. Another major generator of particulate emissions is wind erosion of unprotected soil. The actual quantity of airborne particulates generated depends on the extent and nature of the land clearing operations, the physical characteristics of the soil, weather conditions, the type of construction equipment utilized and the speed at which it is operated, and the type of dust control methods employed on the site. These impacts would be short-term.

Much of the fugitive dust generated at construction sites consists of relatively large-size particles, which typically settle within a short distance from the site without impacting nearby buildings or people. Because fugitive dust is a common impact of construction, it is regulated by the city. Specific dust control measures may include limiting on-site equipment to low operating speeds to minimize dust emanating from tires and brakes; removing uncovered surface materials promptly; covering open-body trucks used to transport material that is likely to generate dust; and using water or other appropriate liquids for dust control during demolition, land clearing, grading, and on material stockpiles.

Mobile Source Emissions

Mobile source emissions result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near a construction site. Localized increases in mobile source emissions would be minimized by following standard traffic maintenance requirements, including prohibiting or limiting vehicle and equipment idling during unloading or other inactive times, maintaining the existing number of traffic lanes, and limiting street closures to off-peak hours whenever possible.

The number of construction-related vehicle trips generated by the proposed actions would be relatively small. In addition, emissions from such vehicles would occur over the 10 year period following the adoption of the proposed rezoning and be dispersed throughout the rezoning area and vicinity. Therefore, the mobile source emissions generated by the proposed actions would not be significant.

NOISE AND VIBRATION

Noise

The operation of construction equipment on the projected development sites, as well as construction vehicles and delivery vehicles traveling to and from the sites, could impact noise and vibration levels in the community during the construction period.

Perceived noise levels at a receptor are a function of the noise level of the generator(s), the distance from the source to the receptor, and the features of the intervening space (e.g., topography, vegetation, structures, noise barriers, etc.). The perceived noise level also would vary according to the phase of construction and the specific task being undertaken within that phase. It is expected that various pieces of construction equipment, including jackhammers, hydraulic excavators, bulldozers, cranes, compressors, trucks, and loaders, etc. would be utilized during various stages of construction (see Table 19-1).

Noise from construction activity and some construction equipment is regulated by the New York City Noise Control Code and by the U.S. Environmental Protection Agency (USEPA). The city's Noise Control Code requires the adoption and implementation of a noise mitigation plan for each construction site, limits construction to weekdays between the hours of 7 AM and 6 PM, and sets noise limits for certain specific types of construction equipment. Construction activities occurring after hours may be authorized by the Commissioner of the NYCDEP under certain exceptional circumstances. The USEPA requirements mandate that certain classifications of construction equipment meet specified noise emissions standards.

Construction noise associated with the projected development sites is expected to be temporary, typical of other similar construction projects in the city. While there may be short periods of time when noise is greater than specified in the Noise Control Code, no significant adverse impacts would be expected to result from the proposed actions.

Vibration

Vibration refers to ground-borne noise and perceptible motion. Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings with foundations in the soil in the vicinity of a construction site respond to these vibrations, with varying results ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels. Ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the audible and perceptible ranges in buildings that are located very close to a construction site. Ground-borne noise vibration generally is not annoying to people who are outdoors; the motion may be discernable but without the effects associated with the shaking of a building, there is less adverse reaction. Vibration source levels are presented in Table 19-2.

Vibration levels would be perceptible in the vicinity of each construction site for limited periods of time, especially during the early phases of construction that would include ground clearing, demolition and excavation activities. Because of their minor intensity and limited duration, these levels would not be considered significant adverse impacts. By using proper construction techniques and standard protective measures, no significant adverse vibration impacts would be expected to result from the proposed actions.

Table 19-1 Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source	
Air Compressor	78	
Asphalt Paver	89	
Asphalt Roller	74	
Backhoe	80	
Bar Bender	80	
Boom Truck	85	
Bulldozer	85	
Cherry Picker	85	
	83	
Compactor Concrete Truck (10 yd. ³)	85	
Crane	85	
Drum Mixer	80	
	84	
Dump Truck	85	
Dumpster Removal (30 yd. ³) Excavator	85 85	
Forklift	85 85	
Front End Loader		
	80 82	
Generator		
Grader	85	
Hand Tools (Hammers, etc.)	70	
Hoe Ram	90	
Hydraulic Truck Crane (125-160 ton)	83	
Impact Wrench	85	
Jack Hammer	85	
Pickup truck	55	
Pneumatic Tools	85	
Roller	85	
Saw (Circular)	76	
Saw (Table)	76	
Scissor Lift	85	
Straight Truck, 6-wheel (fuel, water, rack)	85	
Street Cleaner	85	
Tractor-Trailer	84	
Welder/Torch	73	
Warning Horn	85	
Water Pump	77	

Sources: Federal Transit Administration Transit Noise and Vibration Impact Assessment, May 2006. New York City Noise Code, July 2007.

Table 19-2 Construction Equipment Vibration Source Levels

Equipment	PPV ¹ at 25 feet (inches per second)	Approximate Vibration Level (VdB) ² At 25 feet
Vibratory Roller	0.210	94
Large Bulldozer	0.089	87
Hoe Ram	0.089	87
Loaded Truck	0.076	86
Jack Hammer	0.035	79
Small Bulldozer	0.003	58

Notes: 1 Peak particle velocity of the equipment.

2 Velocity in decibels

Source: Federal Transit Administration Transit Noise and Vibration Impact Assessment, May 2006.

NATURAL RESOURCES

The conclusion reached in Chapter 10, "Natural Resources," indicates that the rezoning area is urbanized and densely developed, does not contain natural features of significance, nor is it located immediately adjacent to any natural resources. Thus, construction activities associated with the proposed actions would not result in significant adverse impacts to natural resources.

INFRASTRUCTURE

According to the CEQR Technical Manual, infrastructure impacts may occur if project construction would affect or disrupt infrastructure service for extended time periods or intermittent periods over a long period of time. Examples include construction disturbing a water main that results in a long-term interruption in service, or an extensive number of construction vehicles degrading the pavement of local streets.

It is possible that water distribution lines and sewer lines would have to be replaced or relocated, and water and sewer service lines would have to be connected to all new buildings. Relocations and replacements would be expected to meet the standards of the New York City Department of Environmental Protection (NYCDEP) and would have to be approved by that agency. DEP regularly repairs, relocates, and replaces water and sewer lines with no disruption to service. Consequently, no significant adverse impacts to infrastructure systems or to users in the rezoning area would be expected to result from the proposed actions.

HAZARDOUS MATERIALS

As described in Chapter 11, "Hazardous Materials," all projected and potential development sites identified in the RWCDS are potentially affected by contamination because they (1) currently comprise uses consistent with *Appendix A, List of Facilities, Activities or Conditions Requiring Assessment (CEQR Technical Manual)*, (2) are adjacent to such land uses, or (3) are within 400 feet of two or more such land uses. As such, each of these sites would be assigned an (E) designation as part of the proposed rezoning.

There are several development sites that are owned by New York City that have been identified as having the potential for hazardous materials contamination. Because these sites are under city ownership, they are not subject to the regulations governing (E) designation. The agencies that own and control these sites would enter into a Memorandum of Understanding (or some other agreement) with NYCDEP to ensure that, prior to any development on these sites, testing and, if necessary, remediation is performed in compliance with NYCDEP regulations.

Building demolition in the city is regulated by the NYCDOB. NYCDOB regulations require the abatement of asbestos prior to any intrusive construction activities, including demolition. In addition, the federal Occupational Safety and Health Administration regulates construction activities to prevent excessive exposure of workers to contaminants in building materials including lead in paint. New York State solid waste regulations control how contaminated demolition debris and contaminated materials associated with construction are handled and disposed. Adherence to these and other applicable regulations, as well as the assignment of an (E) designation to each of the projected and proposed development sites, requiring further analyses, would minimize impacts from the potential presence of contaminated materials.

F. CONCLUSION

Construction-related activities resulting from the proposed actions are not expected to have significant adverse impacts on land use and neighborhood character, socioeconomics conditions, community facilities and services, open space, natural resources, traffic and parking, air quality, noise and vibration, infrastructure, or hazardous materials conditions.

Both direct and indirect construction-related impacts could potentially occur to several eligible historic resources. These significant adverse impacts would be considered unmitigated because development activity on development sites nearby or adjacent to these eligible resources would occur within the limitations of the area's new zoning. Since the resources are not S/NR-listed or NYCL-designated, they would not be afforded special protections under NYCDOB's *Technical Policy and Procedure Notice 10/88*. The resources would be provided a measure of protection from construction under Building Code Section 27-166 (C26-112.4), which requires that all lots, buildings, and service facilities adjacent to foundation and earthwork areas be protected and supported in accordance with the requirements of Building Construction Subchapter 7 and Building Code Subchapters 11 and 19.

In order to ensure that construction period impacts are eliminated or minimized, construction in the city is a highly regulated process that requires consultation and coordination with a number of city and state agencies, including NYCDOT, NYCDOB, and NYCDEP, among others.