POLICE ACADEMY
COLLEGE POINT, QUEENS

DRAFT ENVIRONMENTAL IMPACT STATEMENT

CEQR NO.: 07NYP003Q

ULURP NO.: PENDING

CEQR LEAD AGENCY:
NEW YORK CITY POLICE DEPARTMENT (NYPD)

April 20, 2009

POLICE ACADEMY
COLLEGE POINT, QUEENS

Draft Environmental Impact Statement

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CEQR No.: 07NYP003Q

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Project Location: Queens, New York

Lead Agency: The New York City Police Department

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A public hearing on the Draft Environmental Impact Statement (DEIS) will be held at a later date to be announced. Advance notice will be given of the time and place of the hearing. Written comments on the DEIS are requested and will be received and considered by the Lead Agency until the 10th calendar day following the close of the public hearing.

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A. INTRODUCTION

The New York City Police Department (NYPD or "the Department") is proposing to construct a new Police Academy to incorporate many of the NYPD's existing training facilities throughout the City of New York ("the City") into one consolidated campus, which would be located on approximately 35 acres of City-owned land in College Point, Queens. The proposed action would allow for the development of a modern academic and physical training complex, to be operated by the NYPD, which would consolidate in a single campus facilities for recruits, civilians, and active police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet (gsf) of built space and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer lodging facility and an above-grade parking facility of approximately 1,800 spaces ("proposed Academy" or "proposed development").

The Project Site, the majority of which is the Department's College Point vehicle impoundment ("Tow Pound") site is identified by several different addresses, including: 26-02 Ulmer Street and 28-11 28th Avenue[1]. Located in the College Point, Queens neighborhood of Community District 7, the proposed development would be located on a portion of the block bounded by 28th Avenue to the north, Ulmer Street and the Southbound Whitestone Expressway Service Road to the east, 31st Avenue to the South, and College Point Boulevard to the west (see Figure S-1 for the proposed Site boundaries). The site consists of the following parcels: Block 4321, Lot 48; Block 4323, Lot 19; Block 4324 Lot 1; Block 4325 Lot 1, Block 4326 Lot 1, Block 4327 Lot 1, Block 4328 part of Lot 1, Block 4329 Lots 1 and 7, the southern portion of Block 4301 Lot 1 (south of 28th Avenue), Block 4359 part of Lot 1, Block 4358 part of Lot 1, Block 4357 part of Lot 1, Block 4356 part of Lot 30, and Block 4354 Lot 50 ("Project Site" or "proposed Academy site"). The entire Project Site is City-owned.

As mentioned above, the proposed Academy site consists primarily of the NYPD's College Point Tow Pound. Also included are a vehicle service station (the City owns the land and leases the property to the service station on a month-to-month basis), and a City-owned strip of vacant land that is located between the Tow Pound and College Point Boulevard. On a daily basis, the Tow Pound contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts on a paved asphalt lot. All of the vehicles, motorcycles and parts are being relocated to other City-owned sites as the City consolidates its vehicle impound facilities and reorganizes its citywide operations.

Current buildings at the College Point Tow Pound include the two-story, approximately 17,000 square-foot main administrative building/garage at the 31st Avenue entrance and an outlying building, a one-story, approximately 1,125 square-foot structure which is located near its secondary access along Ulmer Street at the northeastern edge of the property. The southern five acres of the existing Tow Pound, including the main administrative building/garage, is located to the south of the proposed Academy's southern property line. As such, the main building is not located within the limits of the proposed Academy site.

Currently, the NYPD has 61 (47 uniformed and 14 civilian) employees staffing the Tow Pound in three tours (10 in the first platoon, 33 in the second platoon, and 18 in the third platoon). It should be

[1] According to the NYC Open Accessible Space Information System Cooperative (OASIS): www.oasisnyc.net

noted that the current staffing levels at the College Point Tow Pound are below typical staffing levels at this facility as a consequence of attrition through retirements, transfers, and promotions. According to the NYPD, these staffing levels are a deviation from the optimal personnel staffing levels of the 2001 calendar year when 57 uniformed members and 21 civilian members were employed. On a typical day, 30 people arrive at the Tow Pound to pick up their property (vehicle, motorcycle, auto parts) during the second platoon (8 AM to 4 PM), and 20 people arrive during the third platoon (4 PM to 12 midnight). The facility is not open to the public for property retrieval during the first platoon (overnight, 12 midnight to 8 AM).

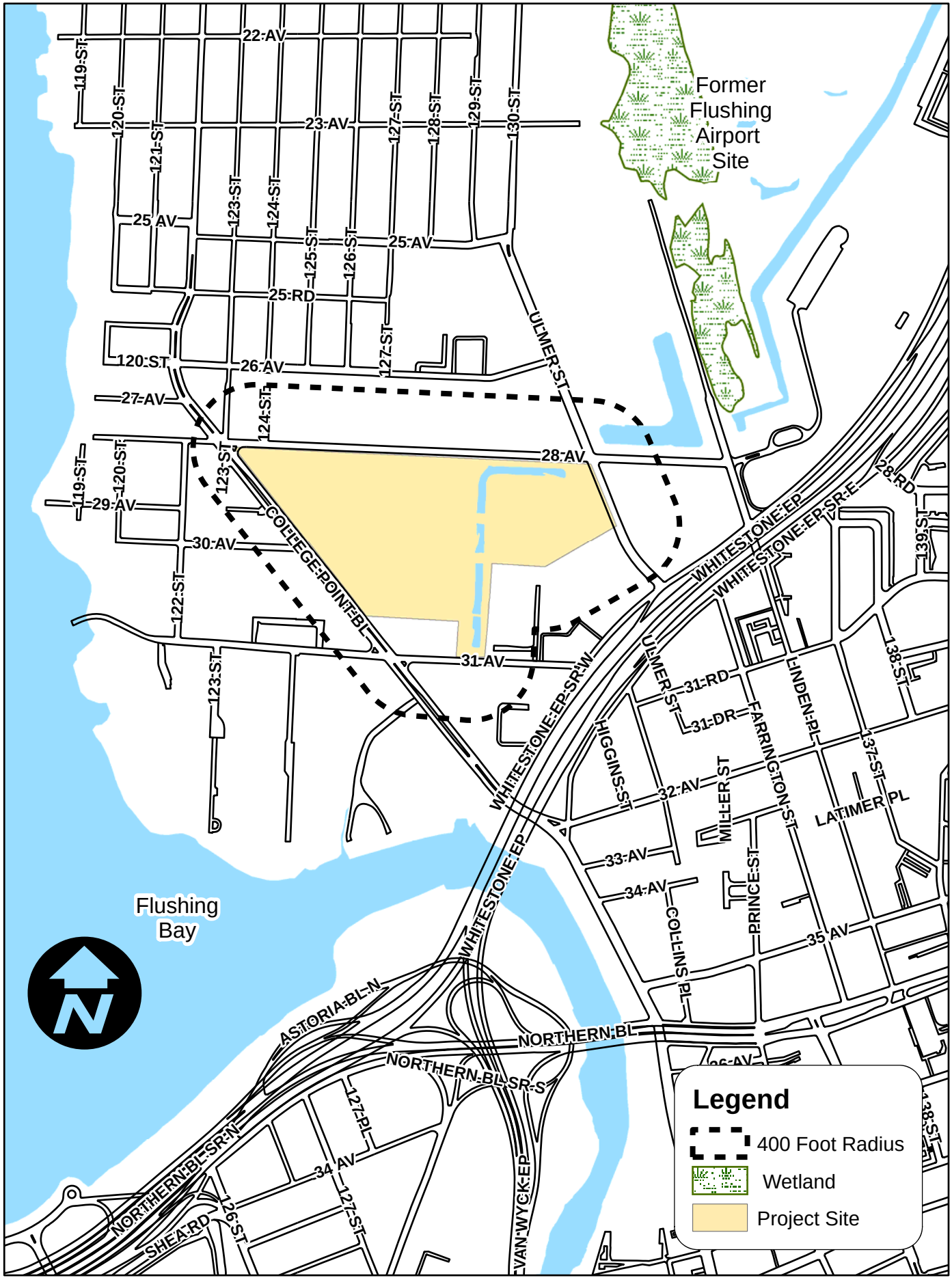
An exposed drainage ditch (part tidal and part freshwater) in the shape of an inverted "L" bisects the proposed Academy site, separating the eastern third from the western two thirds of the site. The long leg of the "L" runs north-south while the short leg runs east at the northern end of the inverted "L" to the intersection of 28th Avenue and Ulmer Street. The detention ditch contains open water with upland vegetation along its edges. Two internal road bridges, referred to as the northern bridge and southern bridge, cross over the ditch separating it into a northern section, central section, and southern section. Corrugated metal stormwater outfalls discharge stormwater runoff from the proposed Academy site at several locations throughout the drainage ditch. The detention ditch originates in the northeastern section of the proposed Academy site where twin 84-inch storm sewers discharge drainage from offsite. The northern and central sections of the ditch are connected via two 84-inch culverts beneath the northern bridge. These culverts have tide gates constructed on the downstream end, limiting tidal flow to the central and southern sections of the ditch. The central and southern sections are connected via two 84-inch culverts beneath the southern bridge. The ditch ultimately drains offsite to the south via three 72-inch pipes located at the southern boundary at 31st Avenue. The structure provides drainage for upland areas of College Point via culverts to Flushing Bay to the south, emptying near the Whitestone Expressway (approximately 700 feet south of the Project Site). The drainage structure was constructed by the New York City Economic Development Corporation (NYCEDC) in the early 1980's. The tide gates were recently replaced by NYCEDC.

The proposal for the Police Academy includes the following discretionary action that requires approval through the Uniform Land Use Review Procedure (ULURP) under City Charter Section 197(c), including:

- Site selection for a public facility to locate a new Police Academy and training facility for the NYPD at the proposed Academy site in the College Point neighborhood of Queens, which would consolidate many training facilities throughout the City into one centralized location.

Although the proposed public facility is still in conceptual design, the reasonable worst-case development scenario (RWCDS) for the proposed Academy consists of approximately 2.4 million gsf, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training course, a police museum, and a paid student/guest lecturer lodging facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site.

The proposed Academy would comply with all applicable laws and ordinances, including the recently enacted Green Buildings Law (Local Law 86) governing sustainable design. Green building design, or sustainable design, strives to reduce a building's impact on its occupants and the environment. Sustainable design integrates architectural elements and engineering systems to optimize performance of proposed buildings and their interaction with the environment. As part of the effort to obtain this certification, the proposed Academy will be using a variety of sustainable design features and best management practices that would increase the quality and decrease the quantity of stormwater that leaves the Project Site and flows into Flushing River/Flushing Bay. These features would complement each other and provide numerous levels of stormwater treatment prior to discharge. For example, as


Former Flushing Airport Site
Flushing Bay
22 AV
23 AV
25 AV
25 RD
26 AV
27 AV
28 AV
29 AV
30 AV
31 AV
31 RD
31 DR
32 AV
33 AV
34 AV
35 AV
119 ST
120 ST
121 ST
122 ST
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127 ST
128 ST
129 ST
130 ST
127 PL
129 ST
137 ST
138 ST
139 ST
COLLEGE POINT BL
ULMER ST
WHITESTONE EP
WHITESTONE EP SR W
WHITESTONE EP SR E
28 RD
HIGGINS ST
FARRINGTON ST
LINDEN PL
MILLER ST
LATIMER PL
PRINCE ST
COLLINS PL
ASTORIA BL N
NORTHERN BL
NORTHERN BL SR S
NORTHERN BL SR N
SHEA RD
VAN WYCK EP
Legend
400 Foot Radius
Wetland
Project Site

the majority of the stormwater would fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable. The proposed Academy would also use a green roof system (vegetated) to collect and utilize rainwater. The system would retain rainwater, promote evapotranspiration, decrease the amount of runoff from the Project Site, and provide treatment through biological means. A bio-retention system is also proposed and would be located on the north side of the Project Site, along 28th Avenue. It would include a shallow stormwater basin with underdrainage that utilizes engineered soils and vegetation to collect, convey and treat runoff. The system would slow the discharge of runoff from the site, promote infiltration, increase landscape aesthetics and provide stormwater treatment through biological means. Finally, a bio-swale is proposed on the east side of the Project Site. The bio-swale would consist of an open channel system with underdrainage that utilizes engineered soils and vegetation to collect, convey, and treat runoff. The bio-swale would also slow the discharge of runoff from the site, promote infiltration, and provide stormwater treatment through biological means.

Based on the currently proposed development program, in addition to the site selection action, the proposed Academy will likely require several overrides from the deputy mayor. Overrides are being sought for various height, setback, and yard requirements; an override is being sought for two proposed uses (the proposed police museum and visiting officer/guest lecturer facility); and an override is being sought to reduce the required accessory parking requirements. All of the requested overrides, described in greater detail below, are deemed necessary.The Project Site is located within the College Point II Industrial Urban Renewal Area (URA), which the City of New York designated in 1969 pursuant to §504 of Article 15 ("Urban Renewal Law") of the General Municipal Law. The URA is located in Queens Community District 7 and is generally bounded by Fourteenth Road and Fifteenth Avenue on the north, the Whitestone Expressway on the east, 31st Road on the south, and 130th Street, 127th Street, 120th Street, and 122nd Street on the west. The Urban Renewal Plan for this URA is set to expire in April 2009. With construction of the proposed Academy commencing after April 2009, it would not be bound to the controls of the Urban Renewal Plan. However, the site planning and campus-wide design will be sensitive to the underlying goals of the Urban Renewal Plan.

Upon selection of the project site for the proposed Academy, site planning and schematic design began for the Proposed Project based upon the Site's existing M1-1 and M3-1 zoning. Subsequently, the City issued a rezoning proposal for College Point that includes the Project Site, in an effort to continue the intent of the College Point II Industrial Urban Renewal Area beyond the April 2009 expiration date. These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and a zoning map amendment (090319ZMQ). The College Point rezoning application likely would be voted on by the City Council in July and it is subject to modification until it is formally adopted. As the proposed zoning changes will be finalized after the Police Academy project application is certified into ULURP and the DEIS is issued, the project design, the zoning override letter, the EIS and the ULURP application were prepared based on the existing zoning. Therefore, while the proposed Academy site is within the boundaries of the possible future Special College Point District, it was not possible for the Police Academy EIS and ULURP application to incorporate and fully evaluate the pending future zoning.

The master plan for the Police Academy represents the total build out of the project site. It has been designed using the existing zoning regulations, and will require the zoning overrides enumerated below. Upon adoption of the pending "Special College Point District" and the related map change by City Council, additional zoning overrides may be required for the Police Academy. The EIS, ULURP application, and zoning override letter will be updated to reflect the new zoning when and if it is adopted by the City.

If all necessary approvals are granted, construction of the proposed Academy is expected to commence in late 2009. It is expected that the proposed development would be constructed in several consecutive stages with the recruit-centric facilities completed and operational by 2012 during the first construction sequence and full build out of the program anticipated by the end of 2014.

This DEIS has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, and follows the guidance of the *CEQR Technical Manual*, October 2001. The DEIS includes review and analysis of all relevant impact categories identified in the *CEQR Technical Manual*. The EIS contains a description and analysis of the Proposed Action and its environmental setting; the environmental impacts of the Proposed Action, including its short and long term effects, and typical associated environmental effects; identification of any significant adverse environmental effects that can be avoided through incorporation of corrective measures into the Action; a discussion of alternatives to the Proposed Action; the identification of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented; and a description of any necessary mitigation measures proposed to minimize significant adverse environmental impacts.

B. PURPOSE AND NEED

The proposed NYPD Police Academy would incorporate all of NYPD's existing training facilities throughout the City into one consolidated campus in College Point. The total size of the proposed development is approximately 2.4 million gross square feet. The discretionary action requiring environmental review includes site selection for the proposed public facility.

Currently, the Department's training facilities are located throughout the City. NYC EDC and NYPD conducted a joint survey during January and February 2006 to assess the existing conditions at the various training facilities throughout Manhattan, Brooklyn, the Bronx and Queens. Each facility surveyed had significant and immediate space needs in almost every category, and, to varying degrees, each was found to be deficient in terms of infrastructure, life safety, and environmental condition. The following comprises a list of the existing training or training-related facility locations:

Manhattan
- NYPD Academy, 235 East 20th Street
- NYPD Museum, 100 Old Slip

Brooklyn
- Floyd Bennett Field: Driver Training, Emergency Services Unit, Highway Patrol
- 300 Gold Street: LEAD and Detective Training
- Brooklyn Tech High School: School Safety Enforcement
- Avenue X Range, 2556 MacDonald Avenue: COBRA Training
- Counter-terrorism Facility

Bronx
- Rodman's Neck: Firearms and Tactics, Bomb Squad
- 1278 Sedgwick Avenue: Disorder Control Unit

Queens
- 28-11 Queens Plaza North: Traffic Enforcement

The February 2006 survey identified many deficiencies in the existing training facilities. Focus group studies conducted by the NYPD among former police recruits have indicated that recruit training

facilities are in a dire state and sited the following examples: lack of modern equipment; inadequate learning spaces; inadequate tactical training spaces and amenities; and the difficulty of the nighttime training tour. The survey found the existing classroom facilities to be inefficient and outdated. Many classrooms can fit a maximum of 40 students, or roughly one recruit company. Much of the standard academic curriculum could be taught in much larger groups of three or more companies to maximize space and instructor efficiencies. Further, there is a general lack of space and modern equipment to adequately accommodate the NYPD's scenario-based training methods.

The current movement to improve the state and effectiveness of the NYPD's training facilities began with five Departmental goals:

1. Eliminate the 4-12 nighttime tour for recruit training; train recruit classes in a single daytime tour to conform to national uniform training standards.
2. Mitigate noise and environmental issues at the existing Rodman's Neck firearms facility by relocating pistol firing ranges offsite into interior ranges.
3. Graduate a maximum of 4,000 recruits per year in two, six-month recruit classes.
4. Consolidate entry-level, in-service, and civilian training facilities to gain efficiencies in training delivery and operation.
5. Ensure that NYPD's training facilities serve to enhance the delivery of the ideal training curriculum, a curriculum that places increased emphasis on scenario-based and tactical training, as well as computer training.

There are many items that can be listed as justification for the proposed Police Academy, including: the current facilities are overcrowded, outdated, decentralized, inaccessible, and many of the satellite facilities are leased at a great cost to the City. According to recent NYPD studies, approximately 42 percent of the total training occurs at the East 20th Street Police Academy, while the remainder is conducted at leased facilities throughout the City and some training is even conducted out-of-state. While the current arrangement of satellite facilities has met the immediate space needs, a number of redundancies and inefficiencies result, including: staff redundancy; instructional space and equipment redundancy; wasted time traveling between facilities for staff and trainees; as well as hindered communications between units. Further, as many of the leased spaces are modular units and trailers, there is no flexibility for the type of instruction that is increasingly required. Consolidating the appropriate facilities would maximize economies in facility, staff, and recruit resources, allowing resources to be allocated towards more advanced instructional environments.

Over the past 15 years, the overall scope of the Department has expanded to include the NYC Transit Police, the NYC Housing Authority, the School Safety Division, and Traffic Enforcement. New technology has also required the Department to change methodologies in many different areas of recruit training and in-service training. Additionally, the increased terror threat has changed expanded the focus of the police to also include international counter-terrorism and intelligence gathering. As such, the quantity and frequency of entry-level and in-service training has expended dramatically, and has become increasingly specialized. The Department's modern training methodologies now emphasize scenario-based, simulated training techniques, including fundamental coursework and hands-on, scenario-based training.

As such, the proposed Police Academy is a critical component of the NYPD as it aims to improve its services to the City.

While the fate of the NYPD's current training facilities is unknown, the NYPD will re-evaluate its inventory of properties on a case-by-case basis once the Academy is constructed and ready to be occupied.

C. PROJECT SITE AND ITS CONTEXT

The land in this area of College Point generally slopes towards the Flushing Bay which is located approximately a quarter of a mile to the west of the proposed Academy site. The proposed Academy site is located within the New York City Waterfront Revitalization Program boundaries. As described previously, the Proposed Academy site is bisected by an exposed drainage ditch (part tidal and part freshwater), which runs in a north-south orientation from 31st Avenue to 28th Avenue, with a leg running parallel to 28th Avenue, terminating at the northeast corner of the proposed Academy site (see Figure S-2, "Aerial View of Proposed Academy Site"). The detention ditch contains open water with upland vegetation along its edges. Two internal road bridges cross over the ditch separating it into a northern section, central section, and southern section. Stormwater outfalls discharge stormwater runoff from the Project Site at several locations throughout the ditch. The detention ditch originates in the northeastern section of the proposed Academy site where twin culverts/storm sewers discharge drainage from offsite. The northern and central sections of the ditch are connected via two culverts beneath the northern bridge. Tide gates limit tidal flow to the central and southern sections of the ditch. The central and southern sections are connected via two culverts beneath the southern bridge. The ditch ultimately drains offsite via three pipes located at the southern boundary of the site, near 31st Avenue. The structure provides drainage for upland areas of College Point and travels via culverts to Flushing Bay to the south, emptying adjacent to where the Whitestone Expressway crosses from Willets Point to Flushing (approximately 700 feet south of the Project Site). The drainage structure was constructed by NYCEDC in the early 1980's.

Under existing conditions, the Project Site is located within M3-1 and M1-1 zoning districts. These districts primarily contain commercial, manufacturing, and industrial uses. Permitted uses within the M3-1 zone include use groups 6 through 11 (commercial and retail), 12 through 14 (recreation), 16 (general services), and 17 through 18 (manufacturing). Use groups permitted within the M1-1 zone include 4 (community facility), 5 through 11 (retail and commercial), 12 through 14 (recreation), 16 (general services), and 17 (manufacturing). All of the proposed programmatic elements except for the Police Museum and the paid student/guest lecturer lodging facility (both use group 3) would be permitted on an as-of-right basis. As use group 3 is not permitted in either an M3-1 or M1-1 zoning district, a zoning override will be required to permit these two proposed uses. Other zoning classifications in the area include: M1-1, R2A, R4, R4A, R4-1, and R5B to the north; M1-1, M2-1, R2, and R5 to the east; M3-1 to the south; and M1-1 and M3-1 to the west.

The Project Site is located in the area of College Point, Queens that has become known as the College Point Corporate Park. Set on 550 acres in northern Queens, this area of College Point has been the focus of a City redevelopment effort for many years. Industries represented include office, light manufacturing, printing, distribution, and retail. Adding to the park's diversity are major retailers and consumer service operations including Home Depot, Staples, BJ's Wholesale Club, Target, the United States Postal Service, a multiplex theater, and the New York Times printing plant. An MTA Bus Depot is located just north of the Project Site, and Coastal Oil is located southwest of the Project Site. Other local uses include a cement manufacturer, a heavy equipment rental company, and a cable storage company. Municipal uses include a Department of Sanitation site and transfer station and a Con Edison facility, both located to the west of the Project Site. The 78-acre former Flushing Airport, opened in 1927 and used until the early 1980s, is located approximately 0.3 miles northeast of the Project Site, at 25th Avenue and Linden place. LaGuardia Airport is located approximately 0.6 miles west of the Project Site.

The Project Site is located within the College Point II Industrial Urban Renewal Area (URA), which the City of New York designated in 1969 pursuant to §504 of Article 15 ("Urban Renewal Law") of the General Municipal Law. The URA is located in Queens Community District 7 and is generally bounded by Fourteenth Road and Fifteenth Avenue on the north, the Whitestone Expressway on the

Figure S-2

Aerial View of the Proposed Academy Site

Site boundaries are approximate

east, Thirty-first Road on the south, and 130th Street, 127th Street, 120th Street, and 122nd Street on the west. The Urban Renewal Plan for this URA is set to expire in April 2009. With construction of the proposed Academy commencing after April 2009, it would not be bound to the controls of the Urban Renewal Plan. However, the site planning and campus-wide design will be sensitive to the underlying goals of the Urban Renewal Plan.

Upon selection of the project site for the proposed Academy, site planning and schematic design began for the Proposed Project based upon the Site's existing M1-1 and M3-1 zoning. Subsequently, the City issued a rezoning proposal for College Point that includes the Project Site, in an effort to continue the intent of the College Point II Industrial Urban Renewal Area beyond the April 2009 expiration date. These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and a zoning map amendment (090319ZMQ). The College Point rezoning application likely would be voted on by the City Council in July and it is subject to modification until it is formally adopted. As the proposed zoning changes will be finalized after the Police Academy project application is certified into ULURP and the DEIS is issued, the project design, the zoning override letter, the EIS and the ULURP application were prepared based on the existing zoning. Therefore, while the proposed Academy site is within the boundaries of the possible future Special College Point District, it was not possible for the Police Academy EIS and ULURP application to incorporate and fully evaluate the pending future zoning.

The master plan for the Police Academy represents the total build out of the project site. It has been designed using the existing zoning regulations, and will require the zoning overrides enumerated below. Upon adoption of the pending "Special College Point District" and the related map change by City Council, additional zoning overrides may be required for the Police Academy. The EIS, ULURP application, and zoning override letter will be updated to reflect the new zoning when and if it is adopted by the City.

D. DESCRIPTION OF PROPOSED ACTION

The proposal for the Police Academy includes the following discretionary action that requires approval through the Uniform Land Use Review Procedure (ULURP) under City Charter Section 197(c), including:

- Site selection for a public facility to locate a new Police Academy and training facility for the NYPD at the proposed Academy site in the College Point neighborhood of Queens, which would consolidate many training facilities throughout the City into one centralized location.

Although the proposed public facility is still in conceptual design, the reasonable worst-case development scenario (RWCDS) for the proposed Academy consists of approximately 2.4 million gsf, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training course, a police museum, and a paid student/guest lecturer lodging facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site.

Based on the currently proposed development program, in addition to the site selection action, the proposed development will likely require the following overrides from the deputy mayor:

1. 42-00 Permitted Uses:
    - An override of ZR 42-00 to permit the NYPD Museum and a guest lecturer lodging facility (dormitory), both use group 3A, within the M3-1 district.

2. 43-23 Permitted Obstructions in Required Yards or Rear Yard Equivalents; 43-261 Beyond 100 Feet of a Street Line; and 43-28 Special Provisions for Through Lots:
    - An override of ZR 43-23, "Permitted Obstructions in Required Yards or Rear Yard Equivalent" to allow a structure in excess of 23-feet tall to be constructed in a 20-foot deep rear yard and a 20-foot deep rear yard equivalent along College Point Boulevard and the southern lot line. The constraints of the site require the parking structure to be situated in portions of the rear yard and rear yard equivalent.

3. 43-43 Height and Setback Regulations in the M1-1 and M3-1 Zoning Districts:
    - An override of ZR 43-43 for to permit a minor encroachment of the parking structure, as well as the stair bulkheads to project into the initial setback and sky exposure plane along College Point Boulevard and 28th Avenue. The physical constraints of the site to accommodate the entire program require the parking structure to be situated in the rear yard equivalent and to extend above the permitted height.

      Additionally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the proposed police museum into the initial setback and sky exposure plane along 28th Avenue. The physical constraints of the site to accommodate the entire program require the police museum to exceed the maximum height at the street line.

      Finally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the police museum into the initial setback and sky exposure plane along Ulmer Street. The physical constraints of the site to accommodate the entire program require the museum to exceed the maximum height at the street line.

4. 44-21 Required Accessory Off-Street Parking Spaces:
    - An override of ZR 44-21 for a modification of accessory parking requirements to allow fewer on-site accessory parking spaces than required by zoning in the M1-1 and M3-1 zoning districts. Approximately 1,800 accessory parking spaces would be provided within the on-site parking garage. Approximately 5,600 parking spaces are required per zoning for the proposed on-site uses. As the proposed development would operate 24-hours per day, 7-days a week with a variety of overlapping shifts, the required accessory parking is not warranted and the proposed development will require a zoning override to modify the accessory parking requirements.

The master plan for the Police Academy represents the total build out of the project. It has been designed using the existing zoning regulations, and will require the overrides described above. As the proposed special purpose district and related map change are still in ULURP and subject to modification, the DEIS and requested overrides reflect the existing M1-1 and M3-1 zoning. Upon approval of the Special College Point District, additional zoning overrides will be required to allow for construction of the Academy as it is currently proposed.

If all necessary approvals are granted, construction of the proposed development is expected to commence in late 2009. It is expected that the proposed development would be constructed in several consecutive stages with the recruit-centric facilities completed and operational by 2012 during the first construction sequence and full build out of the program anticipated by the end of 2014.

Development Program

The components of the proposed Academy have been carefully selected based on guiding principles established by the NYPD for the construction of a new Police Academy, which must meet the current, and future training needs of the Police Department. The proposed Academy would be unique public

facility that would operate on a schedule that is similar to prevailing police shifts. Operationally, the typical first platoon (overnight, 12 midnight to 8 AM) would have the smallest population at the proposed Academy, the second platoon (8 AM to 4 PM) would have the bulk of the daily population, and the third shift (4 PM to 12 midnight) would have moderate activity.

As mentioned above, the proposed Academy would comply with all applicable laws and ordinances, including the recently enacted Green Buildings Law (Local Law 86) governing sustainable design. As part of the effort to obtain this certification, the proposed Academy will incorporate a variety of sustainable design features and best management practices to increase the quality and decrease the quantity of stormwater that leaves the Project Site and flows into Flushing River/Flushing Bay. These features would complement each other and provide numerous levels of stormwater treatment prior to discharge. For example, as the majority of the stormwater would fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable. The proposed Academy would incorporate a green roof system (vegetated) on several buildings to collect and utilize rainwater. The system would retain rainwater, promote evapotranspiration, decrease the amount of runoff from the Project Site, and provide treatment through biological means. A bio-retention system is also proposed and would be located on the north side of the Project Site, along 28th Avenue. It would include a shallow stormwater basin with underdrainage that utilizes engineered soils and vegetation to collect, convey and treat runoff. The system would slow the discharge of runoff from the site, promote infiltration, increase landscape aesthetics and provide stormwater treatment through biological means. Finally, a bio-swale is proposed on the east side of the Project Site. The bio-swale consists of an open channel system with underdrainage which utilizes engineered soils and vegetation to collect, convey, and treat runoff. The bio-swale will also slow the discharge of runoff from the site, promote infiltration, and provide stormwater treatment through biological means.

As shown in the preliminary conceptual site plan ("Illustrative Site Plan and Sections 1" Figure S-3 [this figure is schematic and is for illustrative purposes only]), the master plan for the proposed Academy was developed around the idea of an enclosed courtyard on the eastern half of the Project Site surrounded by the academic, administration, paid student lodging, assembly space and dining functions. The proposed academic/administrative building is a long, relatively tall structure, which is proposed along the north side of the courtyard overlooking the lower assembly space and dining functions on the south side. The proposed field house is a freestanding structure to be constructed west of the drainage ditch, creating a powerful focal point at the end of the courtyard. Tactical gyms are proposed under the field house. The tactical village would be located to the south of the field house, and the firearms and tactics building, a linear structure proposed along the northern property line, would be located to the west of the field house. The proposed EVOC course, to be located above two levels of parking, would be located west of the tactical village and field house and borders College Point Boulevard.

As shown in Figure S-4 and Figure S-5, "Illustrative Sections," (these figures are schematic and are for illustrative purposes only), the tallest proposed buildings would be the 155-foot tall field house and the 135-foot tall academic building. Mechanical systems and other communications equipment may rise above the roofline on some buildings, but would remain under the applicable height restrictions for new developments near LaGuardia Airport.

The campus would have one main pedestrian entrance for day-to-day use, which is proposed on 28th Avenue near Ulmer Street. Additionally the proposed Academy would have a ceremonial pedestrian entrance on 28th Avenue that would be located mid-block. This access would be primarily used for commencement and other ceremonial occasions.

The accessory parking structure would be constructed at the western edge of the proposed Academy site. The proposed garage would accommodate approximately 1,800 vehicles. The accessory garage would have a height of approximately 35 feet (an elevation of approximately 45 feet) containing two levels of parking. A small security control office would be located on the ground floor of the new garage structure at each access point to house security and screening operations for incoming vehicles.

The proposed accessory parking garage would be accessible from College Point Boulevard through two gated security entrances to the Project Site. As shown in Figure S-3, the primary garage access is proposed at the intersection of College Point Boulevard and 30th Avenue. This intersection would be signalized to accommodate the new volumes of traffic at the garage. A second garage entry is proposed on College Point Boulevard to the north of the primary garage entrance, approximately 400 feet to the south of 28th Avenue. This secondary access would accommodate right turns into and out of the garage. A third driveway, limited to service vehicles only, is proposed at the southern limit of the proposed Academy site on College Point Boulevard. All deliveries would use this entry and then circulate through the campus on internal service roads as required and permitted by NYPD. The fourth and final vehicle access is proposed on Ulmer Street. This access, which leads to a proposed 20-space accessory parking lot, would be restricted to high-ranking officers.

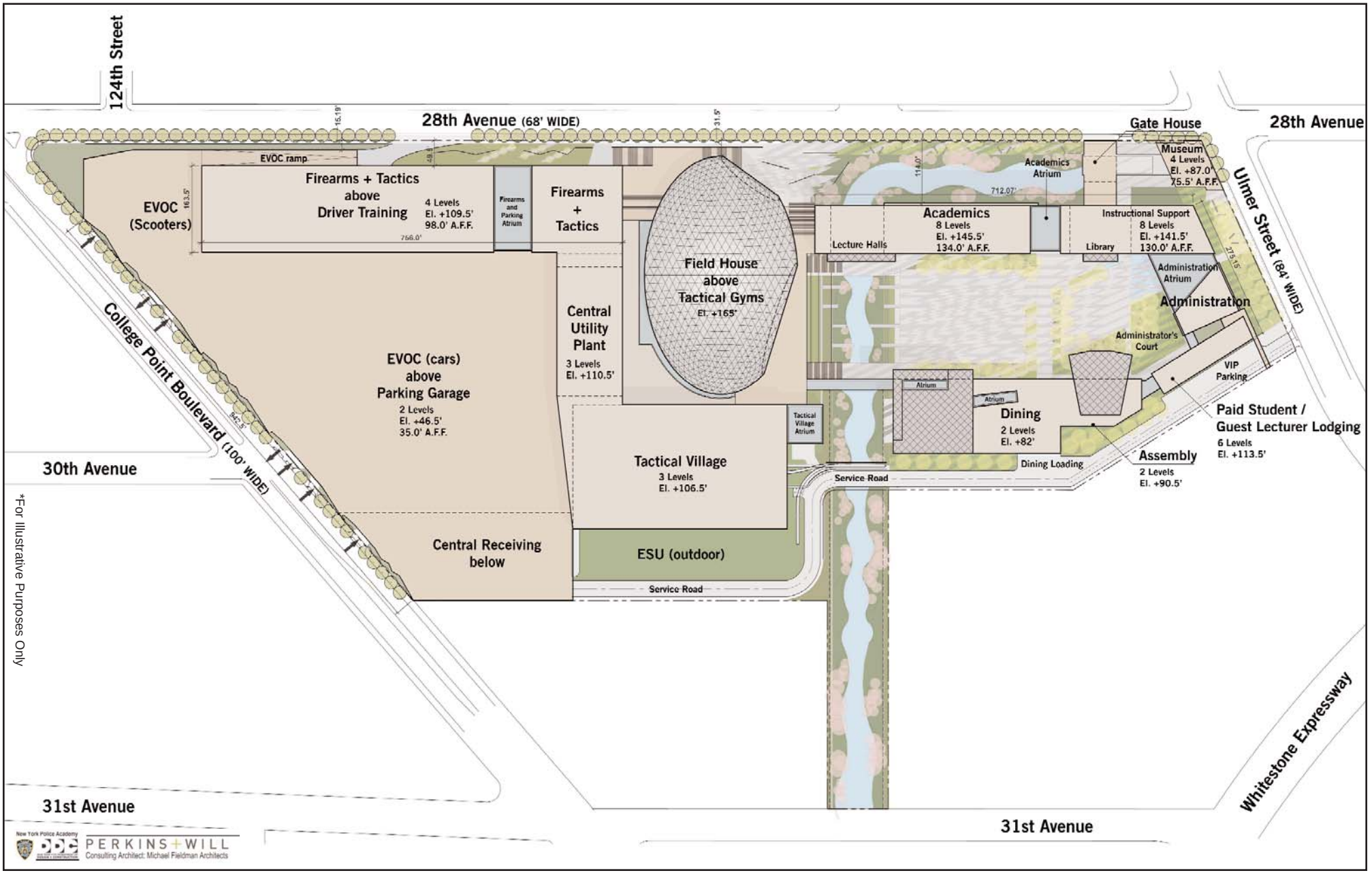
While a bulk of the training would occur between 7:00 AM and midnight, the facility would be staffed 24 hours a day and 7 days per week. Once completed, the Academy would be able to accommodate up to 1,980 recruits in one graduating class, with up to 3,960 recruits graduating per year. The recruits would be on a 7 AM to 3 PM schedule. The Academy would also train approximately 650 Traffic Enforcement and School Safety personnel per class and an additional 230 Cadets/School Crossing/EPCS personnel on an 8 AM to 4 PM schedule. The Academy, in its capacity as the primary in-service training facility, would accommodate two daily shifts of 500 officers for re-qualification. The first re-qualification tour would be on-site from 10 AM to 6 PM and the second shift would be on-site from 2 PM to 10 PM. Additional in-service training would occur on a daily basis with approximately 543 officers from 9 PM to 5 PM. Approximately 1,000 staff would be on-site throughout the day, staggered to correspond with their student / trainee population. Additionally, up to approximately 100 visiting lecturers and/or visiting police officers (extended stay, paid students) and 35 museum and facility visitors (daily-visitors in excess of police recruits) are also expected at the Academy. It is expected that the visiting lecturers and visiting police officers that would stay in the on-site dorm facility would participate in training programs that last between two to four weeks.

Based on the guiding principles established for a new Police Academy, the proposed project combines a mix of police uses, including the consolidation of many of the NYPD's existing training facilities, into one central location. The NYPD is pursuing an *Integrated Facility Program*, a strategy that would require all uses to be located on the proposed Academy site. All program elements would be physically integrated or connected so as to minimize site coverage while maximizing program proximities.

E. FRAMEWORK FOR ANALYSIS

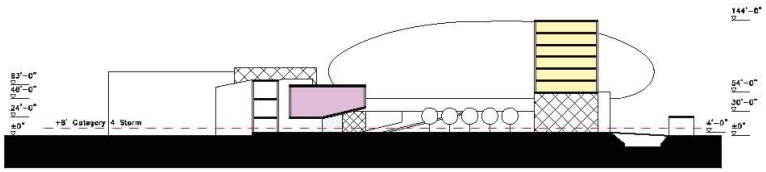
Scope of Environmental Analysis

As set forth in the Positive Declaration, the lead agency has determined that the Proposed Action may result in one or more significant adverse environmental impacts and thus requires the preparation of an EIS. The EIS has been prepared in accordance with the guidelines set forth in the *CEQR Technical Manual*.

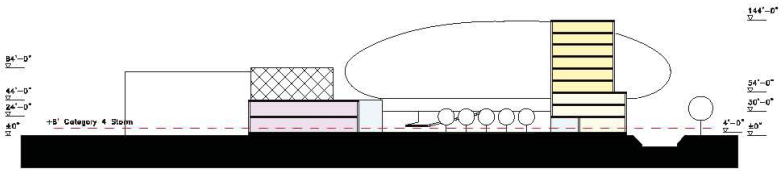


Police Academy - College Point, Queens

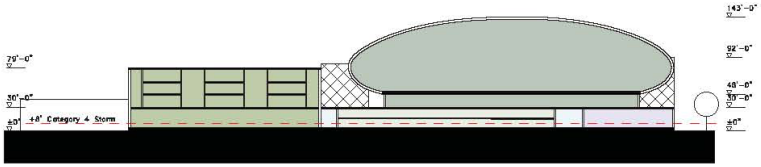
Figure S-3
Illustrative Site Plan



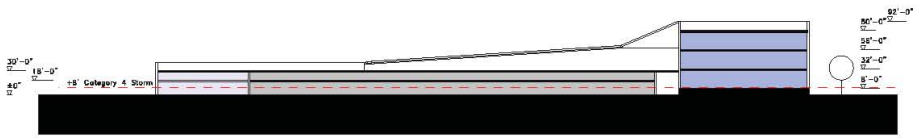
Section A - Thru Assembly and Academic



Section B - Thru Dining and Academic



Section C - Thru Fieldhouse and Tactical Village



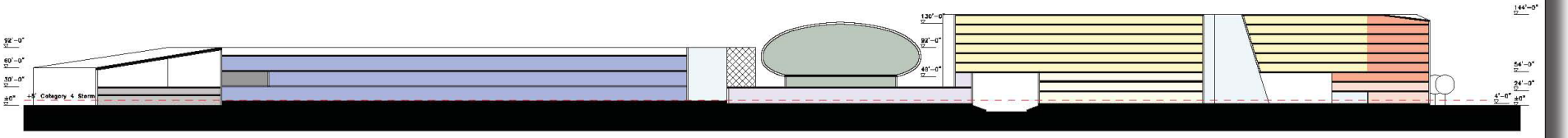
Section D - Thru Parking and Firearms & Tactics

FIREARMS & TACTICS
DRIVER TRAINING
FIELDHOUSE
TACTICAL VILLAGE
TACTICAL GYMS

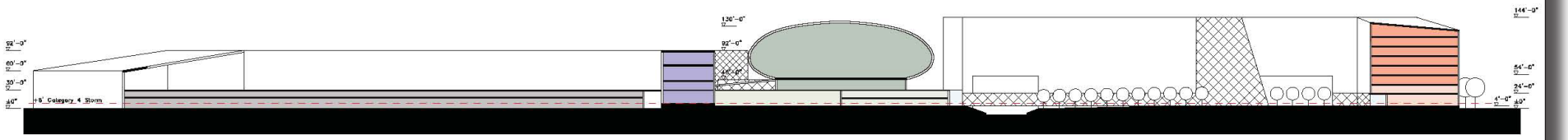
CIRCULATION
PARKING
CENTRAL PLANT
SERVICE & LOADING

ADMINISTRATION
LIBRARY
ACADEMIC
STUDENT SUPPORT SERVICES
ASSEMBLY
DINING

*For Illustrative Purposes



Section E



Section F

FIREARMS & TACTICS
DRIVER TRAINING
FIELDHOUSE
TACTICAL VILLAGE
TACTICAL GYMS
CIRCULATION
PARKING
CENTRAL PLANT
SERVICE & LOADING
ADMINISTRATION
LIBRARY
ACADEMIC
STUDENT SUPPORT SERVICES
ASSEMBLY
DINING

*For Illustrative Purposes

Police Academy - College Point, Queens

Figure S-5
Illustrative Sections

For all technical analyses in the EIS, the assessment includes a description of existing conditions, an assessment of conditions in the future without the Proposed Action for the year that the proposed development would be completed (i.e., No-Build condition), and an assessment of conditions for the same year with the completion of the proposed development in the future (i.e., Build condition). Identification and evaluation of impacts of the proposed development are based on the change from the future without the Proposed Action to the Future with the Proposed Action (i.e., the incremental difference between the Build and No-Build scenarios serves as the basis for the impact analyses).

Analysis Year

An EIS analyzes the effects of a Proposed Action on its environmental setting. Since typically a Proposed Action, if approved, would take place in the future, the action's environmental setting is not the current environment but the environment as it would exist at the proposed development's completion and occupation, in the future. Therefore, future conditions must be projected. This projection is made for a particular year, generally known as the "analysis year" or "build year," which is the year when the action would be substantially operational. As previously described, the proposed Police Academy is expected to be completed and fully operational by 2014.

Definition of Study Areas

For each technical area in which impacts may occur, a study area is defined for analysis. This is the geographic area likely to be affected by the proposed development for a given technical area, or the area in which impacts of that type could occur. Appropriate study areas differ depending on the type of impact being analyzed. It is anticipated that the direct principal effects of the proposed development would occur within the boundaries of the Project Site. The methods and study areas for addressing impacts are discussed in the individual technical analysis sections.

Defining Baseline Conditions

Existing Conditions

For each technical area being assessed in the EIS, the current conditions must first be described. The assessment of existing conditions establishes a baseline, not against which the Proposed Action is measured, but from which future conditions can be projected. The prediction of future conditions begins with an assessment of existing conditions because these can be measured and observed. Studies of existing conditions are generally selected for the reasonable worst-case conditions. For example, the times when the greatest number of new vehicular, pedestrian and transit trips to and from a Project Site would occur are measured for the traffic analysis. The project impacts are then assessed for those same traffic peak periods.

Definition of 2014 Future Without the Proposed Action (No-Build Condition)

The "Future without the Proposed Action," or "No-Build Condition," describes a baseline condition, which is evaluated and compared to the incremental changes due to the proposed development. The No-Build condition is assessed for the same 2014 analysis year as the proposed development.

For conservative CEQR analysis purposes, it is assumed that, in absence of the Proposed Action, the NYPD would continue to use their overcrowded training facilities, which are located throughout the City. The NYPD would relocate all of the current Tow Pound operations to other City facilities. No other on-site development is expected in the future without the Proposed Action.

The City has commissioned a study to examine, document and evaluate the existing operations of the NYPD Vehicle Impoundment system, including the following locations: the College Point Auto Pound, the Gowanus Auto Pound, the South Brooklyn Marine Terminal, and the Erie Basin. The goal

of the study is to provide operational recommendations regarding how the existing operations may be consolidated, ideally to one site. The report describes and documents the changes in operations that would be required and includes recommendations for how best to consolidate the current operations, including potential site acquisition, construction of new facilities, and operational changes. Therefore, it is expected that the abovementioned vehicle impoundment facilities, including the College Point facility, would be reorganized and/or consolidated in the future without the proposed project. As such, the No-Build conditions assume that the College Point Auto Pound will be relocated in the Future Without the Proposed Action.

The No-Build condition uses existing conditions as a baseline and adds to it changes known or expected to be in place by 2014. For many technical areas, the No-Build condition incorporates known development projects that are likely to be built by the analysis year. This includes development currently under construction or which can be reasonably anticipated due to the current level of planning and public approvals. The No-Build analyses for some technical areas, such as traffic, use a background growth factor to account for a general increase expected in the future. Such growth factors may also be used in the absence of known development projects. The No-Build analyses must also consider other future changes that will affect the environmental setting. These could include technology changes, such as advances in vehicle pollution control and roadway improvements, and changes to City policies, such as zoning regulations.

The No-Build conditions will also consider planned developments in the area that are likely to occur by the 2014 build year, including any changes to the local street network. In the future without the Proposed Action, it is expected that the immediate area would experience nominal growth in commercial and light manufacturing uses. Most of the projected growth in the immediate area is expected to include new commercial and light manufacturing uses, with additional developments near the edge of the study area including also including residential, community facility, and parking uses, consistent with existing trends in this area of Queens. Several large projects which are planned in Willets Point and Flushing will be evaluated for their potential to impact the project area.

As described in Chapter 2, “Land Use, Zoning and Public Policy,” the list of projects proposed, under construction, or those projects expected to be completed by 2014, are divided into those within the land use study area (approximate quarter-mile radius) and those within the larger area used for assessment of transportation impacts (see Table 2-2).

2014 Future With the Proposed Action (Build Condition)

The approvals currently sought would facilitate the site selection of a public facility by the City of New York, to permit the construction of a Police Academy for the City in the College Point neighborhood of Queens (“proposed development”).

The Project Site would allow for the development of a modern training complex that would consolidate in one-campus training facilities for civilians, recruits, and active police officers, which are currently spread across the City. The total development size would total approximately 2.4 million gsf and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, and a visiting police/lecturer lodging facility. The Police Academy would have an above-grade parking facility on-site of approximately 1,800 spaces.

The abovementioned project components are assumed to be the worst-case for the purpose of environmental analysis. For analysis purposes, the Project Site would be able to accommodate the entire building program on-site.

F. REQUIRED APPROVALS

The proposed action requires City Planning Commission (CPC) and City Council approvals through the Uniform Land Use Review Procedure (ULURP), and includes the following:

- Site selection for a public facility to locate a new Police Academy at the proposed development site in the College Point neighborhood of Queens.

G. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

Land Use, Zoning, and Public Policy

As the Proposed Action is expected to result in substantial changes to land use on the proposed development site, and the proposed development would require a mayoral override of applicable zoning regulations for the abovementioned conditions, a detailed assessment of the Proposed Action's effects on land use, zoning, and public policy is warranted. Overall, it is concluded that the Proposed Action would not have any significant adverse impacts on land use, zoning, and public policy.

The Proposed Action would represent a change in land use and an increase in density on the proposed Academy site, replacing largely unimproved land (comprised predominantly of the paved NYPD tow pound site) with a new NYPD Police Academy consisting of approximately 2.4 million gross square feet. Given the variety of uses within the quarter-mile study area, the introduction of the proposed development at this location is not expected to adversely affect land uses in the area. The proposed Academy would be consistent with prevailing land uses in the surrounding area, including major commercial, light manufacturing, industrial, residential, and institutional uses, and would complement current on-going development trends.

No zoning changes are proposed for the site in conjunction with the proposed Academy. The proposed development would be consistent with the site's M1-1 and M3-1 zoning. The proposed project would generally conform to the New York City Zoning Resolution's bulk requirements regarding floor area. However, as described above, multiple overrides are required for the proposed Academy. Overrides are being sought for various height, setback, and yard requirements; an override is being sought for two proposed uses (the proposed police museum and visiting officer/guest lecturer facility); and an override is being sought to reduce the required accessory parking requirements. All of the requested overrides are deemed necessary. With the abovementioned overrides, no significant adverse zoning impacts are expected to result from the Proposed Action.

The Proposed Action is consistent with the Waterfront Revitalization Program (WRP), the College Point II Industrial Urban Renewal Area, and PlaNYC 2030 and is not expected to have any effects on any applicable public policies. A 204(g) letter was written by the NYPD to the Queens Borough President and to Community Board 7 and no response has been received.

Open Space

The Proposed Action would not directly displace any existing open space resources. It would facilitate the construction of a new Police Academy that would allow the NYPD to consolidate their training facilities, which are currently spread throughout the City, into one central location.

Under the typical operating conditions, a maximum of 5,500 trainees (including recruits), employees, and visitors would be on-site during the peak shift in the future with the Proposed Action. The projected worker population within the study area would therefore increase to 10,489 people. As a

result, the study area would have a total open space ratio of 0.61 acres of passive open space per 1,000 workers, a decrease of 0.67 acres as compared to future without the Proposed Action. However, the study area would continue to be above the City's guideline of 0.15 acres per 1,000 workers.

The combined passive open space ratio for the study area would also continue to be higher than the recommended weighted average of 0.5 acres per 1,000 residents and workers, at 0.53 acres per 1,000 residents and workers. Therefore, with respect to the *CEQR* guidelines it is expected that the study area would continue to be adequately served by its passive open space resources in the future with the Proposed Action under the typical day-to-day operation of the proposed development.

According to *CEQR* criteria, the Proposed Action has the potential to result in a significant open space impact as it would result in the open space ratio by more than five percent. When the proposed development is operating under typical conditions, the Proposed Action would result in a five percent or greater decrease in the combined passive open space ratio. While *CEQR* criteria indicate that the combined passive open space ratio would reduce from 0.99 under No-Build conditions to 0.53 under Build conditions, it is unlikely that the open space ratio would experience significant adverse impacts as a result of the proposed Police Academy.

While the new Academy would result in a significant new daytime population in this area, it must be noted that the Academy is a one-of-a-kind institution that would introduce a unique population to the study area. The purpose of the proposed Academy is to provide academic and physical training for recruits and in-service personnel. The proposed Academy itself would feature a variety of passive and active open space resources on-site. Active uses would include physical training components for recruit and in-service use, such as an approximately 283,000 sq. ft. physical training and tactics (field house) which would feature an indoor track, fitness facility space, several tactics gymnasiums (various sizes), and a pool. These proposed training facilities would accommodate the NYPD's physical training requirements on-site and would significantly reduce the Academy's demand on active open space resources in the area.

The proposed Academy would have a variety of landscaped areas and benches throughout the campus that recruits, in-service trainees, instructors, and staff could utilize during lunch breaks or other down time. Landscaped areas are currently proposed along the drainage ditch, which would help to transform this challenging site element into a unique water feature. An interior courtyard is proposed on the eastern half of the Academy site near the academic buildings, which would feature trees and also include sitting areas. Other prominent landscaping is proposed along 28th Avenue and Ulmer Street where the buildings would be set back from the streets. In addition to the abovementioned interior courtyard, the Academy would have a commencement entry on 28th Avenue in front of the proposed field house. This ceremonial entry and the area around the field house are envisioned to be open plazas, which could be utilized as on-site passive open space resources.

Additionally, as there would be an on-site dining facility available for the entire Academy population and as each population segment would have a limited lunch period, it is expected that most users would take advantage of the on-site cafeteria. Further, due to the currently proposed scheduling of the recruit and in-service populations (and the related instructor populations), it is anticipated that a majority of the on-site population would not have the opportunity to utilize the local open space resources, but are instead expected to stay on the Police Academy campus during their breaks.

Finally, the proposed development site is located within close proximity to College Point Park. This open space is lightly used during the early afternoon when the proposed Academy's population would be highest. As the Academy would not be used on the weekends, the local open spaces would not be impacted during the neighborhood's peak usage. While it is expected that the new population resulting from the proposed Academy may use College Point Sports Park as their primary passive open space

resource due to its close proximity, the Academy's population is not expected to heavily utilize any public open spaces. As explained above, the grounds of the Academy would be landscaped and would feature passive open space amenities such as seating areas and tables that would be for the use of the NYPD trainees and employees at the Academy. Such on-site amenities are expected to further ameliorate the potential effects that the anticipated population could have on the open space resources in the study area. Any project-related reduction of the combined passive open space ratio is not expected to noticeably diminish the ability of the study area's open spaces to serve its user populations in the future with the Proposed Action.

As the new Academy would provide a variety of active and passive recreation features and provide on-site dining facilities, the anticipated peak population is not expected to create significant new demands on local open space resources.

Shadows

According to *CEQR Technical Manual* criteria, shadow impacts generally occur if an action would result in new structures, or additions to buildings that would exceed 50 feet in height that could cast shadows on natural features, publicly accessible open space, or on historic features that are dependent on sunlight. While the planned development would consist of buildings that would be taller than 50 feet in height, there are no existing sunlight-sensitive open space or historic resources that would be affected by the proposed development. Per *CEQR Technical Manual* guidelines, the longest shadow that a building can cast in New York City would be 4.3 times the total height of the building. For CEQR purposes, only new buildings or additions in excess of 50 feet in height warrant a closer look.

As the 155-foot tall fieldhouse would be the tallest proposed structure on the Police Academy campus, it was evaluated for its potential to cast shadows on the nearby College Point Sports Park. Additionally, the academic and administrative portions of the Academy (with a maximum height of 135 feet) were evaluated for their potential to cast shadows on the open space due to their closer proximity to the College Point Sports Park. At a height of 155 feet, the fieldhouse would cast a worst-case shadow of approximately 670 feet in length. As the southwestern boundary of the College Point Sports Park is approximately 850 feet from the field house (this measurement was taken from the property line to be conservative), no project-generated shadows would be cast onto the open space. Similarly, the proposed academic and administrative portions of the proposed Academy, at a height of approximately 135 feet, would cast a worst-case shadow of approximately 580 feet, which would fall well short of the open space, which is located over 640 feet to the north. As such, the proposed Academy does not have the potential to result in significant adverse shadows impacts.

Urban Design and Visual Resources

The Proposed Action would dramatically alter the urban design and general appearance of the proposed development site by replacing a largely un-built, approximately 35-acre site with a new public facility (the proposed Police Academy). The proposed Academy would consist of approximately 2.4 million gross square feet of academic, physical and tactical training facilities for police recruits and in-service training. An approximately 1,800-space accessory parking garage structure would also be constructed at the western edge of the Academy campus.

The proposed Police Academy would be a modern, architecturally distinctive campus that would consist of many interconnected buildings. The Academy campus would be comprised of several different components, including: academic, student support, administration, library, central plant, service and screening, circulation, dining, tactical village, field house, tactical gyms, and parking. The master plan for the proposed Academy was developed around the idea of an enclosed courtyard on the

eastern half of the Project Site surrounded by the academic, administration, paid student lodging, auditorium and dining functions.

Building elevations range up to approximately 165 feet (a height of approximately 155 feet) at the fieldhouse, with the academic building rising to an elevation of approximately 145 feet (approximately 135 feet tall).[2] Along College Point Boulevard, the parking garage would rise to an elevation of approximately 45 feet (a height of approximately 35 feet). Along 28th Avenue, the Firearms and Tactics structure would consist of four levels and rise to an elevation of approximately 115 feet (a height of approximately 105 feet). The proposed EVOC course, to be located along the College Point frontage above two levels of parking, would be west of the tactical village and field house. To the east of the drainage ditch, the proposed police museum would consist of 4 levels at the intersection of 28th Avenue and Ulmer Street with an elevation of approximately 70 feet (a height of approximately 60 feet). Buildings along the southern property line to the east of the drainage ditch would range from approximately 75 feet (dining halls, assembly hall, and central services) to approximately 115 feet in elevation (paid student/guest lecturer facility), or approximately 65 feet to 105 feet in height.[3]

With the tallest of the proposed buildings expected to rise to a height of approximately 155 feet, the proposed Academy would introduce buildings that would be taller than many buildings within the study area. The Academy would have a strong presence near the Whitestone Expressway, which is located a short distance to the southeast. Existing buildings that are located between the Whitestone Expressway and the project site would serve as a transition to the Academy's taller buildings. Additionally, the Academy would be setback from Ulmer Street to the east and 28th Avenue to the north, with abundant greenery and landscaping proposed between the proposed Academy and the adjacent roadways. Along College Point Boulevard, the proposed accessory parking garage would be set back approximately ten feet from the lot line, with exceptions for the stairways that will protrude out from the main structure.

Similar to many buildings within the immediately surrounding area, the proposed Police Academy would occupy a relatively large site and would be setback slightly from the street by various landscaping treatments. The Proposed Action would not result in new or different building arrangements than currently existing in the study area. Buildings in the vicinity of the proposed Academy site are arranged on expansive properties and generally setback from public streets with variously shaped footprints; therefore, there is not a continuous streetwall.

The Proposed Action would not have significant adverse impacts on the block forms, street pattern, or street hierarchy. The Proposed Action would not substantially alter the block shapes found in the study area or create new block forms, and would therefore maintain these existing urban design features.

The introduction of the Proposed Academy at this location would change views within the study area, but would not block significant public view corridors, vistas, or natural or built features. No adverse impacts upon visual resources are anticipated as a result of the proposed Academy.

Natural Resources

The *CEQR Technical Manual* defines a natural resource as a plant or animal species and any area that is "capable of providing habitat for plant and animal species or capable of functioning to support environmental systems and maintain the City's environmental balance." Included in these resources are surface and groundwaters, soils, wetlands, landscaped areas, gardens, parks, and built structures

[2] Elevations describe level above mean sea level. For comparison purposes, adjacent sidewalk levels are also noted on the site plan.

[3] As noted on the site plan, all elevations refer to the Queens highway datum, which is 2.725 feet above sea level at Sandy Hook, NJ, as established by the US Coast and Geodetic Survey.

that are used by wildlife. This chapter characterizes existing terrestrial and marine ecology and other important natural features on and around the Project Site, based on field surveys, published information and agency consultation, and describes how these natural resources would change in the future, both with and without the Proposed Action.

The analysis in this chapter concludes that the proposed Academy would not result in significant adverse impacts on natural resources. Further, development under the proposed Academy would offer benefits to natural resources, including improved habitat for birds and other wildlife and improve stormwater management within the Project Site and adjacent areas. In addition, the proposed Academy will be required to achieve a Leadership in Energy and Environmental Design Silver-rating certificate for New Construction (LEED-NC) as outlined by the United States Green Building Council (USGBC), under the provisions of Local Law 86[4]. As a Silver-rated LEED-NC project, the proposed Academy would incorporate sustainable energy and water use systems and design elements including green roofs, onsite storage and treatment facilities, graywater recycling, and bioswales and other sustainable features to provide additional benefits to natural resources in and around the Project Site.

Waterfront Revitalization Program (WRP)

The Proposed Action would redevelop an underutilized, largely unimproved, non-waterfront site in an M1-1 and M3-1 zoning district with an essential public facility that would enhance police training capabilities in NYC. It is expected to be consistent with applicable policies of the WRP.

Although portions of the Project Site are within the 100-year floodplain, the proposed Academy site is not subject to critical erosion. The existing topography is primarily flat, ranging from elevation +7.0 feet to +11.0 feet, per Queens Highway Datum. The 100-year floodplain, or Special Flood Hazard Area, has a one percent or greater chance of experiencing a flood in any signal year. No portion of the proposed Academy site is subject to critical erosion. Portions of the proposed Academy would be located within the existing 100-year floodplain boundary, though all new structures would comply with local laws (e.g., ground floors are to be constructed a minimum of one foot above the flood level).

All construction activities that would occur on the proposed Academy site as a result of the Proposed Action, as with other locations in the surrounding area and throughout the City, would be in compliance with New York City Building Code requirements regulating construction within flood hazard areas. The lowest floor elevation of the proposed buildings would be at or above the base flood elevation (BFE), and the site would be graded to bring the proposed buildings above the flood elevation. All new habitable spaces, as per New York City Department of Buildings (NYCDOB) requirements, would also be located above the flood level. The Proposed Action would not increase any current flooding conditions, as it would increase the permeable surfaces on the Site as compared to existing conditions. In addition, sustainable design features and stormwater management practices, including stormwater detention, would improve the overall stormwater management.

Stormwater management strategies would be employed under the Proposed Action, which are anticipated to improve water quality in the drainage ditch. The majority of the stormwater will fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means to satisfy the water quality requirements stipulated in the SPDES Statewide General Permit. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable. Although this stormwater post-treatment may

[4] Under New York City Local Law 86 (2005), which took effect in January 2007, persons who seek capital funds from New York City valued at either $10 million or 50% of the cost of the building construction or reconstruction must ensure the construction or reconstruction meets the Leadership in Energy and Environmental Design (LEED) green building guidelines of the United States Green Building Council (USGBC). In addition, new buildings and additions constructed by the City that cost more than $2 million must also be energy efficient and adhere to the LEED green building guidelines.

still discharge into the drainage ditch, the runoff is expected to be considerably cleaner than existing conditions.

Additionally, the proposed Academy would result in the remediation of a site that has several recognized environmental concerns. A comprehensive RAP has been prepared for the site to address the site-specific environmental issues. Upon completion of the proposed remediation, the site would be ready for redevelopment. As described above, the Proposed Academy, in conjunction with the effort to obtain LEED Silver certification, incorporates a variety of sustainable design features and best management practices that would increase the quality and decrease the quantity of stormwater. As such, the proposed project would be consistent with the applicable WRP policies would comply with the City's Waterfront Revitalization Program

Hazardous Materials

There is a potential for adverse impacts during construction activities resulting from the presence of possible subsurface contamination due to historic and existing uses at the Project Site. The ESA reports prepared for the Project Site, referenced above under existing conditions, have identified *recognized environmental conditions* (e.g., hazardous materials and/or petroleum product contamination) that could have the potential to impact the proposed development. Excavation and construction activities on the Project Site could disturb potential hazardous materials and increase pathways for human exposure. However, it is anticipated that impacts would be avoided by performing construction activities in accordance with all applicable regulations related to the removal and/or containment of contaminated soil.

The Phase II ESI results indicated fill soil throughout the Project Site has elevated levels of various VOCs and SVOCs, which are characteristic of urban fill. The elevated concentrations of SVOCs are common constituents of urban fill material. Metals were detected above TAGM RSCO in most of the soil samples collected. The metals detected are commonly found in New York City fill material. Elevated metal levels are mainly attributed to contaminants historic filling activities on-site and may be partially attributed to spills in the local area.

PCBs were detected above TAGM RSCO in two (2) of the 49 soil samples collected. The specific compounds detected above TAGM RSCO include aroclor 1016, aroclor 1254 and aroclor 1260. Analytical sampling of the soil showed that residual PCBs were present at numerous locations across the site. Based on the widespread distribution of PCBs at the site, observations of the physical characteristics of the fill that is present, and the absence in the site historical records of any features that might be associated PCB-bearing equipment use, storage or disposal, it is expected that the PCB residuals are a component of the existing fill. There is no evidence of any point source or "PCB spill" at the site.

The Phase II ESI results also indicated VOCs were detected above NYSDEC TOGS in five (5) of the eight (8) groundwater samples collected. Additionally, SVOCs were detected above NYSDEC TOGS in seven (7) of the eight (8) groundwater samples collected. The contaminants are likely attributable to a combination of suspended sediment, historic fill material used at the site and nearby historic fuel spills.

Metals were detected above NYSDEC TOGS in both of the groundwater samples collected. PCBs were detected above NYSDEC TOGS for total PCBs in three (3) of the eight (8) groundwater samples collected. Pesticides were detected above NYSDEC TOGS in four (4) of the eight (8) groundwater samples collected. The contaminants are likely attributable to suspended sediment and historic fill material used at the site.

At areas of the Project Site where contaminants are found in excess of groundwater quality standards, the groundwater must be addressed prior to or during redevelopment. Human exposure pathways can be reduced or eliminated during construction and for the future with the Proposed Action by the use of engineering controls and by prohibiting groundwater use for potable purposes in the future; however, at areas with significant concentrations of contaminants in groundwater, remediation may be required prior to construction.

As discussed in Section H, "Mitigation," a Construction Health and Safety Plan (CHASP) and Remedial Action Plan (RAP) have been prepared in accordance with the applicable requirements set forth by the Occupational, Safety and Health Administration (OSHA), New York State Department of Health (NYSDOH), New York City Department of Environmental Protection (NYCDEP), and any other applicable regulations to address the recognized environmental concerns on-site. The CHASP identifies the possible locations and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that would be utilized to mitigate concerns. The RAP addresses the implementation of remedial measures that would be required to safely construct the proposed project on-site. NYCDEP has reviewed and approved the CHASP and RAP for the proposed project. These measures would ensure that no significant adverse impacts related to hazardous materials would occur.

Infrastructure

The Proposed Action would not result in significant adverse impacts on existing infrastructure systems. The existing City infrastructure has sufficient capacity to accommodate the proposed Police Academy without having a significant adverse impact on other users.

The proposed Academy is expected to generate a maximum demand of 567,000 gpd of water when it is operating at full capacity. As this is well below the CEQR impact threshold of one million gallons of water per day, the proposed Academy is not expected to overburden the city's water supply system, and would not result in a significant adverse impact to the city's water supply or water pressure.

When the proposed development is operating at full capacity, the Tallman Island WPCP would receive up to approximately 347,000 gpd of additional sanitary sewage, which represents less than one tenth of one percent of the plant's treatment capacity. Consequently, there would be adequate treatment capacity at the Tallman Island WPCP to handle the increased sanitary flows from the proposed Academy, and the Proposed Action would not result in a significant adverse impact to the City's sanitary sewer system.

To reduce stormwater generation and/or provide increased water quality treatment, green roof and bioswale features would be provided on-site. This would reduce the amount of stormwater that the proposed Academy would discharge into the on-site drainage ditch. The stormwater discharges are not expected to have a significant adverse impact on the sewer system or on the water quality of the Flushing Creek. As compared to existing and No-Build conditions, the proposed project would represent significant stormwater management improvements.

Solid Waste and Sanitation Services

The Proposed Action is not expected to result in significant adverse solid waste impacts. Development pursuant to the Proposed Action would occur in an area that is currently served by New York City Department of Sanitation (DSNY) trash and recycling pick-ups. The proposed action would not affect the delivery of these services, or place a significant burden on the City's solid waste management system. The proposed development would normally generate approximately 16.45 tons of solid waste per week under typical day-to-day operations. Therefore, the increase in solid waste to be picked up

by the DSNY is relatively small (a maximum of 2.35 tons per day assuming a 7-day week) when compared to the estimated 12,000 tons of residential and institutional refuse and recyclables collected by the DSNY per day. Therefore, it is concluded that in the future with the Proposed Action in 2014, there would be no significant adverse impacts on residential or commercial solid waste collection and disposal services, nor would the Proposed Action conflict with, or require any amendments to, the City's solid waste management objectives as stated in the Solid Waste Management Plan (SWMP).

Energy

The proposed Police Academy would create new energy demands at the Project Site. All new structures would be required to comply with the New York State Conservation Construction Code. The proposed development would also incorporate measures to achieve Leadership in Energy and Environmental Design (LEED) certification, with a goal of a higher LEED Silver certification where feasible and practicable. The LEED rating system, developed by the non-profit U.S. Green Building Council, is a standard ensuring a high degree of environmental stewardship, considering energy efficiency, minimization of waste sent to landfills, and other sustainability best practices in building design and operation.

The New York Power Authority (NYPA) would supply electricity for the site. Consolidated Edison would supply gas, which would be used to provide heating, cooling, and lighting to the proposed Academy. Long-term operation of the proposed development is expected to consume about 138,680 million British Thermal Units (BTUs) per year. Consolidated Edison and NYPA could supply this energy without disruption to the main distribution system.

The improvements in local connections that are necessary to provide these services to the proposed Academy would not adversely impact the local energy system. In addition, the Proposed Action would include a number of energy conservation measures, which would decrease overall energy demand on the Academy site. Therefore, there would not be any significant adverse energy impacts from the proposed development.

Traffic and Parking

Traffic analyses were undertaken to determine potential impacts of the added traffic and parking demand from the construction of the proposed Police Academy on the street network. The study area selected for the traffic analysis was selected to encompass the principal roadways most likely to be used by the majority of persons and goods traveling by vehicle to and from the site. The traffic study area is generally bounded on the north by 20th Avenue, on the east by Ulmer Street, and on the west by College Point Boulevard. Fourteen intersections are analyzed for vehicular traffic for the weekday 6:00 to 7:00 AM and 3:00 to 4:00 PM peak hours, the periods when project-generated demand is expected to be heaviest. It should be noted that the transportation demand at the Academy has an early start, with turnover in the mid-afternoon for in-service training. Of the 14 study area intersections, 11 are signalized and three are unsignalized. It should be noted that the intersection of Linden Place and 28th Avenue currently has no stop control, however in the 2014 No-Build condition it is expected to become stop controlled in conjunction with the Linden Place reconstruction project.

The Proposed Action would create new travel demand by NYPD recruits, in-service officers, training staff, security and other staff. The analysis conservatively assumes that in the future without the proposed action, the Project Site would remain vacant. This serves as the baseline for comparing the effects of the No-Build and Build conditions. Overall, the proposed Academy is expected to generate an estimated 514 and 573 new vehicle trips in the weekday AM and PM peak hours, respectively. This increased travel demand would result in significant adverse traffic impacts at five analyzed intersections during one or both of the analyzed peak hours (see Table S-1, "Summary of Impacted

Intersections"). Section H "Mitigation" describes mitigation measures that would be implemented to address the anticipated traffic impacts.

Table S-1: Summary of Impacted Intersections

	Impacted Movement	
Signalized Intersections	**AM**	**PM**
College Point Boulevard @ 31st Avenue	WB – LTR	-
College Point Boulevard @ Roosevelt Avenue	-	NB – L SB – T
Linden Place @ Northbound Whitestone Expressway Service Road	-	EB – LT
Ulmer Street @ Southbound Whitestone Expressway Service Road	WB – TR (U-Turn)	SB – R
20th Avenue @ Southbound Whitestone Expressway Service Road	SB – LTR SB – R	-

The parking analysis found that the proposed project would generate parking demand in excess of the accessory parking spaces that would be provided on-site during the hour of overlap between the recruit and in-service populations. However, there would be sufficient on-street public parking spaces available within a quarter-mile radius of the project site to accommodate the project-generated parking demand not otherwise accommodated on-site. Additionally, mitigation has been proposed to alleviate the parking shortfall. As such, no parking impacts would be expected as a result of the proposed project.

Transit and Pedestrians

In the future with the proposed project, the proposed Academy would generate approximately 766 new bus trips in the AM peak hour and 799 new trips in the PM peak hour. These project-generated trips would include approximately 668 subway to bus trips and 98 bus-only trips in the AM peak hour, and 694 and 105, respectively in the PM. These trips would be all inbound to the project site (toward College Point) in the AM and outbound (towards Flushing) in the PM. These are contra-flow movements as compared to the typical travel patterns of commuters in the area. Most public-transit users traveling to the site are expected to favor the Q25 due to the close proximity to the primary pedestrian entrance to the Academy; however, the Q65 would also be heavily utilized as it has a bus stop within a 10-minute walk of the main entrance. While some people would elect to use the first bus that arrives, the existing Q25 bus stop is located much closer to the Academy's proposed entrance, so it was assumed that more people would elect to use this bus route, as it is more convenient. These two routes are operated by MTA Bus, which has indicated that maximum load point data is currently unavailable.

Field observations indicate that the peak direction on these routes is typically southbound en route to the Flushing-Main Street subway station in the AM peak hour and northbound from the Flushing-Main Street station in the PM. Therefore, the majority of project-generated demand would typically occur in the non-peak direction as most trips would be en route northbound (from the Flushing-Main Street station) in the AM peak hour and southbound (to the subway) in the PM. The Q25 line operates approximately 5 and 4 buses in each direction during AM and PM peak periods, respectively, while the Q65 operates approximately 6 buses in each direction during the both the AM and PM peak periods. The proposed action would generate an average of approximately 70 and 89 new trips per bus in the AM and PM peak hours, respectively, on the two routes combined. As a standard practice, MTA Bus routinely conducts periodic ridership counts and increases service where operationally warranted and fiscally feasible. It is therefore anticipated that in the future conditions with the

proposed action, MTA Bus would increase frequency, where necessary, to address any capacity shortfalls.

The proposed project would potentially add approximately 848 and 847 pedestrian trips to the study area during the 6-7 AM and 3-4 PM peak hours, respectively. Project-generated subway and bus trips, together with "walk only" trips would increase pedestrian volumes on nearby sidewalks. The greatest concentration on project-generated pedestrian demand would be on the sidewalks, street corners, and crosswalks between the main pedestrian entrance on 28th Avenue and the Q25 bus stop (east of Ulmer Street on 28th Avenue). A detailed analysis found that the proposed project would not result in any significant adverse impacts on pedestrian conditions. As such, the proposed project would not have any significant adverse impacts on transit and pedestrian conditions in the study area.

Air Quality

Air quality analyses were undertaken to determine the potential for impacts under the Proposed Action. These impacts can be either direct or indirect. Direct impacts come from stationary sources at the development site, such as emissions from heating systems. Indirect impacts are defined as the potential for emissions due to mobile source/vehicles generated by the proposed development. Pollutants that are examined for mobile sources are carbon monoxide (CO) and respirable particulate matter (PM_{10} and $PM_{2.5}$). An analysis of the potential accessory parking garage impacts was also prepared for the proposed 1,800 space accessory garage.

The air quality analysis evaluated the potential for impacts from the following:

1. Impacts associated with mobile (vehicular-related) sources, including project-generated vehicles and emissions from the proposed approximately 1,800-space parking facility;
2. Impacts from emissions of the proposed central utility plant (i.e. cogeneration unit and supplemental boilers) in existing and proposed sensitive uses;
3. Impacts from "major" existing emission sources (i.e., heating, ventilation, and air conditioning [HVAC] systems with 20 million or more BTU/hr heat input) on the proposed sensitive land uses;
4. Impacts of the air toxic emissions generated by nearby existing industrial sources on the proposed sensitive land uses.

The maximum predicted pollutant concentrations from mobile sources with the Proposed Action would be in compliance with the applicable guidance thresholds and ambient air quality standards. Two key intersection locations (with multiple receptors) were selected for CO microscale analysis, and one location was selected for a PM microscale analysis. CO modeling was conducted for both peak periods (6 to 7 AM and 3 to 4 PM) for the intersection of 30th Avenue and College Point Boulevard as well as Ulmer Street and the Whitestone Expressway, which would experience the highest project-generated increment of traffic. The results of the analysis show that the proposed development would not result in any significant adverse air quality impacts. The accessory parking garage associated with the proposed Academy would also not result in any significant adverse air quality impacts.

Based on a stationary source screening analysis, there would be no potential for significant adverse air quality impacts from the central utility plant of the proposed Academy. In addition, there would be no significant adverse air quality impacts from nearby industrial facilities on the proposed development. Additionally, analysis of industrial facilities within the 400 or 1,000-foot search radius indicated that no air quality impacts are anticipated to the proposed facility from existing land uses.

Therefore, the Proposed Action would not result in a violation of the applicable air quality standards or cause an exceedance of the significant threshold values. As such, the potential air quality impacts associated with the proposed Academy are not considered to be significant.

Noise

To assess the potential for vehicular traffic to cause a noise impact at intersections within the study area, a preliminary evaluation of key intersections was carried out. Based on the NYC *CEQR Technical Manual* and subsequent revisions to its procedures, if the Proposed Action would increase traffic volumes by 100 percent or more, resulting in an increase of 3 dBA or more, then the affected intersections may warrant further analysis.

No intersection would experience a 100 percent increase in traffic volume due to the project-generated vehicles. Therefore, none of the intersections required additional study. The remaining analysis focused on the noise levels at the site as experienced by nearby sensitive receptors. Based on the projected noise levels for No-Build Conditions, an impact would occur if noise levels were to increase by 3.0 dBA. As all of the project-generated vehicles would be passenger cars, the relative increases in noise level are low. In comparison to No-Build Conditions, the noise levels at the monitored sites range from 0.0 dBA to 2.8 dBA. These increases would not be perceptible. In addition, the sites would fall into the same CEPO-CEQR noise categories as for No-Build Conditions. Thus no noise impacts due to increased traffic are anticipated.

The noise analysis determined that the Proposed Action has the potential to create a significant noise level impact to on-site activities and nearby sensitive receptors. With regard to the potential impacts of the surrounding neighborhood on the Proposed Action, the L_{10} noise levels for the office, academic, and lodging areas would fall within 75 to 80 dBA, which would place them in the Marginally Unacceptable II CEQR category. Therefore, the window-wall attenuation to be provided by the structure would be adjusted to provide the appropriate attenuation for the specific use. Further, the proposed Academy would be built and operated in compliance with the New York City Noise Code. There would be no stationary sources introduced by the Proposed Action that would generate significant noise. As sensitive uses are located adjacent to the proposed EVOC course, there is a potential to create an unmitigable adverse impact during EVOC training due to intermittent siren use and tire squeal. This would be a temporary condition and would last for short intervals during specific training scenarios, with the potential to affect a nearby hotel, church facility and local offices.

Construction Impacts

The Construction chapter discusses the potential impacts resulting from the construction of the proposed Police Academy on the approximately 35-acre site. If all necessary approvals are granted, construction of the proposed development is expected to commence in late 2009. It is expected that the proposed development would be constructed in several consecutive stages with the recruit-centric facilities completed and operational by 2012 during the first construction sequence and full build out of the program anticipated by the end of 2014.

As is typical with large construction projects, the proposed development would cause some disruptions to activities in the surrounding area, particularly during periods of peak construction activity. These disruptions would be temporary in nature. The adjacent roadways (College Point Boulevard, 28th Avenue and Ulmer Street) generally sever the proposed development site from adjacent uses. Additionally, residential areas are not located within close proximity to the proposed Academy site, and therefore, the area of the proposed construction is largely separated from the community, and such disruptions would not be significant. Uses on the project block are buffered from the proposed development site by either the on-site drainage ditch or the accessory parking lots that serve the various adjacent uses. The adjacent church facility, hotel and office uses would not be adversely affected as construction activities would be temporary in nature. Additionally, construction activities (7 AM to 3 PM) would generally not occur during peak church hours. Further, in the latter stages of construction, when work would take place primarily within building shells, effects on surrounding

uses would be substantially reduced. Vehicular access on adjacent roadways would be maintained at all times when the proposed Academy is being built.

An appropriate protective barrier (construction fence) would be installed on the perimeter of the proposed development site to protect the public. This fencing would reduce potentially undesirable views of the construction site and buffer noise emitted from construction activities. All construction-staging activities, including the storage of materials and equipment would occur within the Academy site, therefore disruptions to the surrounding area would be minimized and would not alter surrounding land uses or intrude on neighborhood character. The construction of the proposed development would be similar to construction at any other site in the city, and the NYCDOB would regulate the hours of construction operation.

There would be a temporary increase in noise levels in the immediate vicinity of the site due to the operation of the on-site construction equipment and construction trucks and construction workers coming to and from the site, and loading and unloading, but this would not result in a significant change in neighborhood character given the current nature of the manufacturing, commercial, light-industrial/warehousing and transportation uses in the immediate vicinity of the proposed development site.

A Stormwater Pollution Prevention Plan (SWPPP), which would be required by the New York State Department of Environmental Conservation (NYSDEC) due to the size of the Project Site, would minimize any potential construction period impacts to water quality associated with stormwater runoff during land disturbing activities on upland areas.

Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized. The construction process requires consultation and coordination with a number of City and/or State agencies, including NYCDOB, NYCDOT, NYCDEP, and, where applicable, NYSDEC, among others. Accordingly, with its compliance to applicable regulations and construction management practices, the Proposed Action would not result in significant adverse impacts during project construction.

Public Health

Based on a preliminary screening analysis in accordance with the *CEQR Technical Manual* guidelines, it was determined that a full assessment of the Proposed Action's potential impacts on public health is not necessary and that no significant adverse impacts on public health are expected as a result of the Proposed Action. The Proposed Action would not result in significant adverse impacts related to air quality, odors, noise, solid waste, or hazardous materials, and would not exceed accepted City, State, or Federal standards with respect to public health.

H. MITIGATION

Hazardous Materials

As described above in the discussion of Hazardous Materials, the Project Site contains identified *recognized environmental conditions* (e.g., hazardous materials and/or petroleum product contamination) that have the potential to impact the proposed development. Excavation and construction activities on the Project Site could disturb potential hazardous materials and increase pathways for human exposure. Intrusive activities would involve mitigation in the form of proper soil handling and management, preparation and adherence to a site-specific CHASP and RAP that consider

the presence of contaminants, and implementation of a CAMP in accordance with NYSDEC DER-10 Regulations to minimize the creation and dispersion of fugitive airborne dust.

The following measures would ensure that no significant adverse impact related to hazardous material would occur. Impacted soils in the area of proposed excavation should be removed and disposed of in accordance with all applicable local, state and federal laws. Application of engineering controls, including the use of an impervious medium (i.e., concrete slab foundation, impermeable bituminous asphalt pavement, concrete sidewalks and curbs) and/or a 24-inch soil cover media consisting of clean fill and vegetative topsoil to cap the entire site. The project would include installation of a 20-mil vapor barrier underneath the floor slab and underlain by a sub-slab vapor venting system (that will have that ability to be retrofitted to an active system) to prevent the migration and intrusion of methane gas and potential volatile organic compounds (VOCs) from soils and groundwater at the site and/or the surrounding area into the constructed buildings. Finally, implementation of institutional controls such as a deed restriction may be required to prevent accidental exposure to contaminants.

With these precautions in place, construction of the proposed Academy would not result in significant adverse impacts to Hazardous Materials.

Traffic and Parking

The Proposed Action would result in significant adverse traffic impacts at a total of five intersections (three intersections which would be impacted in the AM, and three intersections that would be impacted in the PM) when the Academy is fully staffed and training classes are at their maximum. A traffic mitigation plan was therefore developed to address these impacts. This mitigation plan consists of minor geometric improvements, changes to signal timing and phasing, and changes to curbside parking regulations at impacted intersections.

Application and implementation of the traffic engineering improvements would require the approval of the NYCDOT and coordination with the NYCDOT would be undertaken in order to implement the proposed mitigation measures. Approval of each proposed mitigation measure would depend upon the applicable agency. In the absence of the implementation of the proposed mitigation plans, a total of up to five signalized intersections (three in the AM and three in the PM) would remain unmitigated. In addition, as discussed above, the significant adverse impact at the intersection of 20th Avenue and the Southbound Whitestone Expressway Service Road is unmitigable and efforts to develop a potential mitigation plan with the NYCDOT between the DEIS and FEIS will be undertaken.

As noted in Chapter 11, “Traffic and Parking,” the peak demand at a fully utilized Police Academy with an HOV-restriction of 3-persons per vehicle on recruits would exceed supply by approximately 97 spaces between 2-3 PM. In order to address this potential exceedance, it is proposed to modify the curbside parking regulations on the periphery of the Project Site along 28th Avenue between College Point Boulevard and Ulmer Street to read “No Standing Except Authorized Vehicles 7 AM to 4 PM Monday thru Friday”. This new regulation would increase supply by approximately 86 spaces (1,900 sq. ft. frontage divided by 22). The intent of this proposed change is to satisfy the anticipated parking demand on a street that is immediately adjacent to the proposed Academy, reducing the anticipated parking shortfall to approximately 11 spaces. It is proposed that this measure be implemented only after the campus becomes fully occupied and the parking garage demand begins to exceed 1,800 spaces. This would minimize the potential demand for on street parking within the quarter-mile study area.

Noise

Significant adverse noise impacts are projected for the Fairfield Inn west of the site and the All Nations Church and Christian Gospel School southeast of the site. These impacts are solely due to the brief periods of up to half an hour when EVOC activities would be in progress. During these periods, noise level increases would range from 9.8 dBA at the church/school to 13.2 dBA for the Fairfield Inn. These projections of impacts are conservative, as the walls along the EVOC area on the roof of the parking area would provide partial shielding. It is unlikely that these temporary noise impacts could be mitigated.

Due to the configuration of building heights and segments, the office, academic, and lodging components of the Proposed Action would be protected from the EVOC noise levels. This is due to their distances of at least 100 feet from the EVOC location as well as the barrier effects of the Central Service and Tactical Village structures that would be higher than the EVOC rooftop by approximately 34 to 60 feet.

L_{10} noise levels on the streets around the site would range from 74.9 dBA on Ulmer Street to 81.3 dBA on 31st Avenue. Since the site buildings would be approximately 400 feet from 31st Avenue, the traffic noise levels on the southern side of the site would be lower and similar to noise levels for the rear of the All Nations Church, as discussed in Chapter 14. Based on this information, noise levels at the exterior of the project buildings would generally fall into the 75.0 to 80.0 dBA range, which would place them in the Marginally Unacceptable II CEQR category. The recommended building attenuation would be 35 dBA. This attenuation can be achieved through installing double-glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass. The *CEQR Technical Manual* states that when maximum L_{10} levels are greater than 70 dBA, alternate means of ventilation should be incorporated into building, and building attenuation is required. All buildings will be serviced by central HVAC systems. Since some of the buildings would be used for office purposes, more refined analyses during final design may indicate that a lower building attenuation value of 30 dBA may be suitable.

I. ALTERNATIVES

Eight alternatives to the Proposed Action were considered in this EIS, to examine reasonable and practicable options that avoid or reduce Action-related significant adverse impacts and may still allow for the achievement of the stated goals and objectives of the Proposed Action. The environmental effects of the alternatives are summarized below.

No Action Alternative

The No Action Alternative assumes that the proposed site selection would not be implemented. While the No Action Alternative would not result in any of the impacts associated with the Proposed Action and resulting Police Academy, the benefits expected from the Proposed Action relative to land use, urban design, natural resources, and WRP consistency, would not be realized under this alternative. The No Action Alternative would not improve the City's police training capabilities and would result in continued use of the NYPD's current overcrowded facilities. This alternative would fall short of the objectives of the NYPD to overhaul the police training facilities throughout the City and the current facilities would have to be supplemented to continue to meet the NYPD's increasing training demands.

No Impacts Alternative

The No Impacts Alternative would avoid the Proposed Action's identified significant adverse impacts. However, a No Impacts Alternative is not a feasible alternative in the case of the Police Academy as it would not meet the NYPD's key objectives for a new Police Academy (namely consolidating entry-level, in-service, and civilian training facilities into one central location). As described above, there are traffic and hazardous materials impacts related to the development of the site that could not be avoided by making minor modifications or reductions to the building program. Any new on-site construction would result in hazardous materials impacts that would require mitigation. Further, several intersections would experience significant delays during the AM and PM peak hours as a result of increased vehicular traffic. No practical reduction in the building program would eliminate new traffic impacts at these congested intersections. As such, this alternative would not meet the goals and objectives of the Proposed Action, and accordingly, it is not considered for purposes of further analysis.

Alternative Site Alternative

This alternative assumes that the proposed public facility, the Police Academy, would be located at an alternative location within the City.

The programmatic requirements for a new Police Academy necessitate a large development site to accommodate approximately 2.4 million gsf of new development and accessory parking for approximately 1,800 vehicles. The proposed development would accommodate a comprehensive Police Academy facility for recruit and in-service training and would consolidate training facilities that are currently spread across the City into one central location. Given the variety of uses that comprise the Academy program and the sensitive nature of the proposed facility, a large site is required to accommodate the entire building program and the various security measures (including a setback from adjacent roadways). According to preliminary NYPD specifications for the individual program elements, the selected site would need to exceed 30 acres in order to accommodate all training components at optimal layouts.

As part of the current planning process, several other alternative sites have been considered for the proposed Police Academy development, many of which are located outside of Queens. The proposed site (the NYPD's College Point Vehicle Impoundment facility) was among seven locations considered by representatives of the City's site selection committee for the proposed Academy. Other sites included (1) Oak Point, a privately-owned parcel in the Bronx; (2) the City-owned former Flushing Airport site (also in Queens Community Board 7); (3) a portion of the Aqueduct Racetrack site in Queens; (4) the City-owned Ridgewood Reservoir site in Queens; (5) the City-owned Rossville Prison site in Staten Island; (6) the City-owned Seaview Hospital site and Farm Colony in Staten Island. These sites consisted of both private and publicly owned property.

Each of these six alternative locations for the proposed Police Academy was found to be unsuitable, as each site failed to meet one or more of the selection criteria for siting the proposed public facility. These criteria include:

- Size of the site and ability to accommodate the entire development program;
- Accessibility by mass transit and vicinity to main arterial roadways;
- Community context; and
- Feasibility.

As none of the alternate sites listed above met all of the necessary selection criteria, the Alternate Location Alternative would fall short of the objectives of the Proposed Action. Moreover, the

Alternate Location Alternative may result in the same or additional significant adverse impacts as the Proposed Action.

J. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts occur when a proposed action would result in significant adverse impacts for which there are no reasonably practicable mitigation measures, and for which there are no reasonable alternatives.

As mentioned in Chapter 11, "Traffic and Parking" and Chapter 17, "Mitigation," at the intersection of 20th Avenue and the southbound Whitestone Expressway service road, the proposed Academy would result in the addition of 20 vehicles in the AM peak hour. As shown in Table 11-6, several movements at this intersection operate at LOS E and F under No-Build and Build conditions. Between the DEIS and FEIS, alternate mitigation concepts will be reviewed with NYCDOT for feasibility. Alternative measures that could potentially mitigate the intersection include:

- Widening of the Southbound Service Road from 30 feet (three 10 foot lanes) to 33 feet (three 11 foot lanes).

- Introducing an additional phase that permits the westbound left-turn movement along with the southbound right-turn movement. The green time for this phase would be taken from the existing westbound only phase that permits both the thru and left-turn movements.

Should no feasible mitigation plan be developed, this impact would remain non-mitigable.

To analyze noise levels at the Fairfield Inn and the church/school site, the maximum siren noise levels were placed in the center of the EVOC site. Without any barriers to mitigate the noise, the Inn could experience a noise level of 85.8 dBA, and the rear of the church could experience a noise level of 74.2 dBA.

Significant adverse impacts are projected for the Fairfield Inn west of the site and the All Nations Church and Christian Gospel School southeast of the site. These impacts are solely due to the brief periods of up to half an hour when EVOC activities would be in progress. During these periods, noise level increases would range from 9.8 dBA at the church/school to 13.2 dBA for the Fairfield Inn. These projections of impacts are conservative, as the walls along the EVOC area on the roof of the parking area would provide partial shielding. The potential noise impacts would represent a temporary condition during the EVOC activities approximately a half hour per day. This is seen as an unmitigable noise impact.

As described in previous chapters of this EIS, it is anticipated that all other potential significant adverse impacts of the Proposed Action could be avoided or mitigated by implementing a broad range of measures.

K. GROWTH INDUCING ASPECTS OF THE PROPOSED ACTION

The proposed action would allow for the development of a modern complex, to be operated by the NYPD, which would consolidate in one-campus facilities for civilians, recruits, and active police officers that are currently spread across the City. Although the Proposed Action would introduce a new land use and an increase in density on the proposed development site (generating new workers and visitors), it is not anticipated that it would have significant spillover or secondary effects resulting

in substantial new development in nearby areas. The Proposed Action would retain manufacturing zoning on the proposed development site and would not introduce new development that is markedly different from existing uses, development and activities within the surrounding neighborhood. The ability of the Proposed Action to alter land use patterns in the study area would be minimal, given the site's isolation, existing land use patterns and trends, and zoning district regulations.

While the Proposed Action would improve existing infrastructure on and immediately adjacent to the Project Site, the infrastructure in the study area is already well-developed, such that improvements associated with the Proposed Action would not induce additional growth. Therefore, the Proposed Action is not expected to induce notable growth outside of the proposed development site.

L. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

There are a number of resources, both natural and man-made, that would be expended in the construction and operation of the proposed public facility. These resources include the materials (including concrete, wood, metal, glass and asphalt) used in construction of the proposed Police Academy; energy in the form of gas and electricity consumed during construction and operation of the proposed development by various mechanical and processing systems; and the human effort (time and labor) required to develop, construct, and operate various components of the proposed development. They are considered irretrievably committed because their reuse for some purpose would be highly unlikely.

The land use changes associated with the development of the proposed Academy site may also be considered a resource loss. The proposed development constitutes an irreversible and irretrievable commitment of the development site for a public facility use, thereby rendering the use of this land for other purposes infeasible. Further, funds committed to the design, construction, and operations of the proposed development are not available for other projects.

The public services provided in connection with the proposed development under the Proposed Action (e.g., police training and community protection) also constitute resource commitments that might otherwise be used for other programs or projects.

Despite the commitments identified above, the proposed Police Academy would result in a public benefit, due to the expansion of recruit and in-service training capabilities within the City.

A. INTRODUCTION

The New York City Police Department (NYPD or "the Department") is proposing to construct a new Police Academy to incorporate many of the NYPD's existing training facilities throughout the City of New York ("the City") into one consolidated campus, which would be located on approximately 35 acres of City-owned land in College Point, Queens (see Figure 1-1, "Project Site Location Map"). The proposed action would allow for the development of a modern academic and physical training complex, to be operated by the NYPD, which would consolidate in a single campus facilities for recruits, civilians, and active (in service) police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet (gsf) of built space and would include indoor training facilities, classrooms, and related support space, an indoor firearms training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer lodging facility and an above-grade parking facility to accommodate on-site parking demand ("proposed Academy" or "proposed development").

The proposed Academy site the majority of which is the Department's College Point vehicle impoundment ("Tow Pound") site is identified by several different addresses, including: 26-02 Ulmer Street, and 28-11 28th Avenue[1]. Located in the College Point, Queens section of Community District 7, the proposed development would be located on a portion of the block bounded by 28th Avenue to the north, Ulmer Street and the Southbound Whitestone Expressway Service Road to the east, 31st Avenue to the South, and College Point Boulevard to the west (see Figure 1-1 for the proposed Site boundaries). The site consists of the following parcels: Block 4321, Lot 48; Block 4323, Lot 19; Block 4324 Lot 1; Block 4325 Lot 1, Block 4326 Lot 1, Block 4327 Lot 1, Block 4328 part of Lot 1, Block 4329 Lots 1 and 7, the southern portion of Block 4301 Lot 1 (south of 28th Avenue), Block 4359 part of Lot 1, Block 4358 part of Lot 1, Block 4357 part of Lot 1, Block 4356 part of Lot 30, and Block 4354 Lot 50 ("Project Site" or "proposed Academy site"). The Tax Lots mentioned above which comprise the proposed Academy site have a total area of approximately 35 acres. The entire Project Site is City-owned, as described below.

As mentioned above, the proposed Academy site consists primarily of the NYPD's College Point Tow Pound. Also included are a vehicle service station (the City owns the land and leases the property to the operator of the service station on a month-to-month basis), and a City-owned strip of vacant land that is located between the Tow Pound and College Point Boulevard. On a daily basis, the Tow Pound contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts on a paved asphalt lot. All of the vehicles, motorcycles and parts are being relocated to other City-owned sites as the City consolidates several vehicle impound facilities and reorganizes its citywide operations.

Current buildings at the College Point Tow Pound include the two-story, approximately 17,000 square-foot main administrative building/garage at the 31st Avenue entrance and an outlying building, a one-story, approximately 1,125 square-foot structure which is located near its secondary access along Ulmer Street at the northeastern edge of the property. The southern five acres of the existing Tow Pound, including the main administrative building/garage, is located to the south of the proposed Academy's southern property line. As such, the main building is not located within the limits of the proposed Academy site.

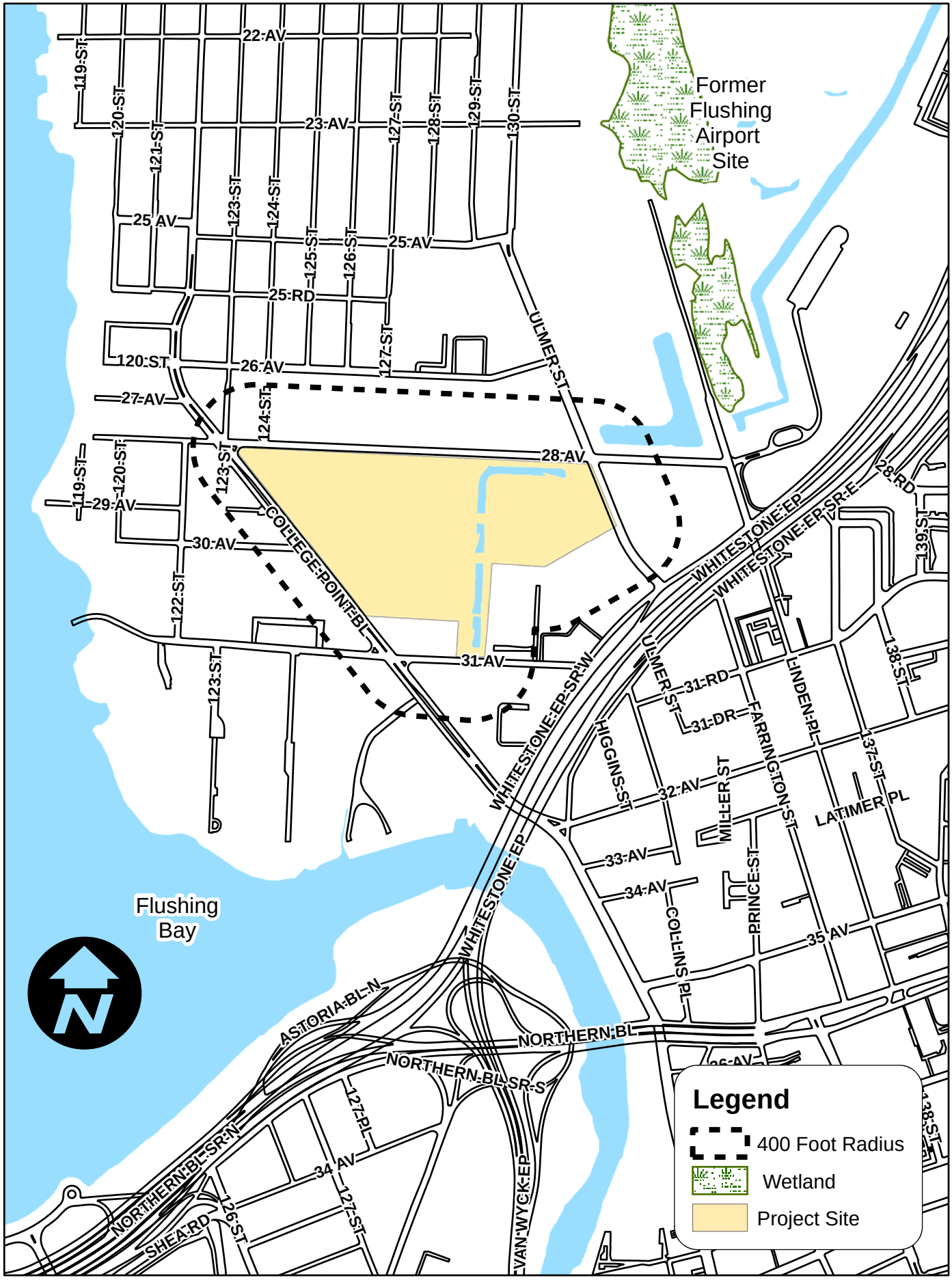
[1] According to the NYC Open Accessible Space Information System Cooperative (OASIS): www.oasisnyc.net

Currently, the NYPD has 61 (47 uniformed and 14 civilian) employees staffing the Tow Pound in three tours (10 in the first platoon, 33 in the second platoon, and 18 in the third platoon). It should be noted that the current staffing levels at the College Point Tow Pound are below typical staffing levels at this facility as a consequence of attrition through retirements, transfers, and promotions. According to the NYPD, these staffing levels are a deviation from the optimal personnel staffing levels of the 2001 calendar year when 57 uniformed members and 21 civilian members were employed. On a typical day, 30 people arrive at the Tow Pound to pick up their property (vehicle, motorcycle, auto parts) during the second platoon (8 AM to 4 PM), and 20 people arrive during the third platoon (4 PM to 12 midnight). The facility is not open to the public for property retrieval during the first platoon (overnight, 12 midnight to 8 AM).

An exposed drainage ditch (part tidal and part freshwater) in the shape of an inverted "L" bisects the proposed Academy site, separating the eastern third from the western two thirds of the site. The long leg of the "L" runs north-south while the short leg runs east at the northern end of the inverted "L" to the intersection of 28th Avenue and Ulmer Street. The detention ditch contains open water with upland vegetation along its edges. Two internal road bridges, referred to as the northern bridge and southern bridge, cross over the ditch separating it into a northern section, central section, and southern section. Corrugated metal stormwater outfalls discharge stormwater runoff from the proposed Academy site at several locations throughout the drainage ditch. The detention ditch originates in the northeastern section of the proposed Academy site where twin 84-inch storm sewers discharge drainage from offsite. The northern and central sections of the ditch are connected via two 84-inch culverts beneath the northern bridge. These culverts have tide gates constructed on the downstream end, limiting tidal flow to the central and southern sections of the ditch. The central and southern sections are connected via two 84-inch culverts beneath the southern bridge. The ditch ultimately drains offsite to the south via three 72-inch pipes located at the southern boundary at 31st Avenue. The structure provides drainage for upland areas of College Point via culverts to Flushing Bay to the south, emptying near the Whitestone Expressway (approximately 700 feet south of the Project Site). The drainage structure was constructed by the New York City Economic Development Corporation (NYC EDC) in the early 1980's. The tide gates were recently replaced by NYC EDC.

This proposed project involves one discretionary action, consisting of site selection for a public facility ("the Proposed Action"). Approximately 2.4 million gsf of total program would be constructed on-site, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training (EVOC) course, a police museum, and a paid student/guest lecturer lodging facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site. Landscaping on-site would include an interior courtyard and muster area, landscaped buffers along 28th Avenue and Ulmer Street, and a planted buffer adjacent to the on-site drainage ditch.

The proposed Academy would comply with all applicable laws and ordinances, including the recently enacted Green Buildings Law (Local Law 86) governing sustainable design. Green building design, or sustainable design, strives to reduce a building's impact on its occupants and the environment. Sustainable design integrates architectural elements and engineering systems to optimize performance of proposed buildings and their interaction with the environment. As part of the effort to obtain this certification, the proposed Academy will be using a variety of sustainable design features and best management practices that would increase the quality and decrease the quantity of stormwater that leaves the Project Site and flows into Flushing River/Flushing Bay. These features would complement each other and provide numerous levels of stormwater treatment prior to discharge. For example, as the majority of the stormwater would fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable. The


Former Flushing Airport Site
Flushing Bay
22 AV
23 AV
25 AV
25 RD
26 AV
27 AV
28 AV
29 AV
30 AV
31 AV
31 RD
31 DR
32 AV
33 AV
34 AV
35 AV
119 ST
120 ST
121 ST
122 ST
123 ST
124 ST
125 ST
126 ST
127 ST
128 ST
129 ST
130 ST
137 ST
138 ST
139 ST
COLLEGE POINT BL
ULMER ST
WHITESTONE EP
WHITESTONE EP SR W
WHITESTONE EP SR E
28 RD
HIGGINS ST
LINDEN PL
FARRINGTON ST
MILLER ST
LATIMER PL
PRINCE ST
COLLINS PL
ASTORIA BL N
NORTHERN BL
NORTHERN BL SR S
NORTHERN BL SR N
SHEA RD
VAN WYCK EP
Legend
400 Foot Radius
Wetland
Project Site

proposed Academy would also use a green roof system (vegetated) to collect and utilize rainwater. The system would retain rainwater, promote evapotranspiration, decrease the amount of runoff from the Project Site, and provide treatment through biological means. A bio-retention system is also proposed and would be located on the north side of the Project Site, along 28th Avenue. It would include a shallow stormwater basin with underdrainage that utilizes engineered soils and vegetation to collect, convey and treat runoff. The system would slow the discharge of runoff from the site, promote infiltration, increase landscape aesthetics and provide stormwater treatment through biological means. Finally, a bio-swale is proposed on the east side of the Project Site. The bio-swale would consist of an open channel system with underdrainage that utilizes engineered soils and vegetation to collect, convey, and treat runoff. The bio-swale would also slow the discharge of runoff from the site, promote infiltration, and provide stormwater treatment through biological means.

The Project Site is located within the College Point II Industrial Urban Renewal Area (URA), which the City of New York designated in 1969 pursuant to §504 of Article 15 ("Urban Renewal Law") of the General Municipal Law. The URA is located in Queens Community District 7 and is generally bounded by Fourteenth Road and Fifteenth Avenue on the north, the Whitestone Expressway on the east, Thirty-first Road on the south, and 130th Street, 127th Street, 120th Street, and 122nd Street on the west. The Urban Renewal Plan for this URA is set to expire in April 2009. With construction of the proposed Academy commencing after April 2009, it would not be bound to the controls of the Urban Renewal Plan. However, the site planning and campus-wide design will be sensitive to the underlying goals of the Urban Renewal Plan.

Upon selection of the project site for the proposed Academy, site planning and schematic design began for the Proposed Project based upon the Site's existing M1-1 and M3-1 zoning. Subsequently, the City issued a rezoning proposal for College Point that includes the Project Site, in an effort to continue the intent of the College Point II Industrial Urban Renewal Area beyond the April 2009 expiration date. These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and a zoning map amendment (090319ZMQ). The College Point rezoning application likely would be voted on by the City Council in July and it is subject to modification until it is formally adopted. As the proposed zoning changes will be finalized after the Police Academy project application is certified into ULURP and the DEIS is issued, the project design, the zoning override letter, the EIS and the ULURP application were prepared based on the existing zoning. Therefore, while the proposed Academy site is within the boundaries of the possible future Special College Point District, it was not possible for the Police Academy EIS and ULURP application to incorporate and fully evaluate the pending future zoning.

The master plan for the Police Academy represents the total build out of the project site. It has been designed using the existing zoning regulations, and will require the zoning overrides enumerated below. Upon adoption of the pending "Special College Point District" and the related map change by City Council, additional zoning overrides may be required for the Police Academy. The EIS, ULURP application, and zoning override letter will be updated to reflect the new zoning when and if it is adopted by the City.

Based on the currently proposed development program, in addition to the site selection action, the proposed development will require several overrides from the deputy mayor, as mentioned above. The required overrides are described in detail below under Section D, "Description of the Proposed Action."

If all necessary approvals are granted, construction of the proposed development is expected to commence in late 2009. It is expected that the proposed development would be constructed in several consecutive stages with the recruit-centric facilities completed and operational by 2012 during the first

construction sequence and full build out of the program anticipated by the end of 2014. Therefore 2014 is the analysis year used throughout this Environmental Impact Statement (EIS).

This EIS has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, and follows the guidance of the *CEQR Technical Manual*, October 2001. The EIS includes review and analysis of all relevant impact categories identified in the *CEQR Technical Manual*. The EIS contains a description and analysis of the Proposed Action and its environmental setting; the environmental impacts of the Proposed Action, including its short and long term effects, and typical associated environmental effects; identification of any significant adverse environmental effects that can be avoided through incorporation of corrective measures; a discussion of alternatives to the Proposed Action; the identification of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented; and a description of any necessary mitigation measures proposed to minimize significant adverse environmental impacts.

B. PURPOSE AND NEED

The proposed NYPD Police Academy would incorporate all of NYPD's existing training facilities throughout the City into one consolidated campus in College Point. The total size of the proposed development is approximately 2.4 million gsf. The discretionary action requiring environmental review includes site selection for the proposed public facility.

Currently, the Department's training facilities are located throughout the City. NYC EDC and NYPD conducted a joint survey during January and February 2006 to assess the existing conditions at the various training facilities throughout Manhattan, Brooklyn, the Bronx and Queens. As described in the report, each facility surveyed had significant and immediate space needs in almost every category, and, to varying degrees, each was found to be deficient in terms of infrastructure, life safety, and environmental condition. The following comprises a list of the existing training or training-related facility locations:

Manhattan
- NYPD Academy, 235 East 20th Street
- NYPD Museum, 100 Old Slip

Brooklyn
- Floyd Bennett Field: Driver Training, Emergency Services Unit, Highway Patrol
- 300 Gold Street: LEAD and Detective Training
- Brooklyn Tech High School: School Safety Enforcement
- Avenue X Range, 2556 MacDonald Avenue: COBRA Training
- Counter-terrorism Facility

Bronx
- Rodman's Neck: Firearms and Tactics, Bomb Squad
- 1278 Sedgwick Avenue: Disorder Control Unit

Queens
- 28-11 Queens Plaza North: Traffic Enforcement

The February 2006 survey identified many deficiencies in the existing training facilities. Focus group studies conducted by the NYPD among former police recruits have indicated that recruit training facilities are in a dire state and sited the following examples: lack of modern equipment; inadequate

learning spaces; inadequate tactical training spaces and amenities; and the difficulty of the nighttime training tour. The survey found the existing classroom facilities to be inefficient and outdated. Many classrooms can fit a maximum of 40 students, or roughly one recruit company. Much of the standard academic curriculum could be taught in much larger groups of three or more companies to maximize space and instructor efficiencies. Further, there is a general lack of space and modern equipment to adequately accommodate the NYPD's scenario-based training methods.

As indicated above, the NYPD currently conducts training in numerous facilities, which are scattered throughout the City. Each facility is described briefly below.

Police Academy, Manhattan

The primary recruit training facility, the eight-story, 289,000 square-foot Police Academy, is located on East 20th Street in the Gramercy Park neighborhood of Manhattan. This facility handles the bulk of recruit training activities, particularly the academic phase of a recruit's six month training cycle. The Department estimates that 42 percent of all NYPD training currently occurs at the Academy, including entry-level, in-service, executive, civilian, and cadet training courses. Floors 1 through 5 are primarily devoted to the training of new police recruits and include: general classrooms; computer classrooms; offices; a gym and locker rooms; and an assembly space. Recruits muster at either the Campus Deck outside the East 20th Street lobby or on the third floor Muster Deck. Floors 6 through 8 include the library, lecture rooms, computer rooms, classrooms, offices and support spaces, primarily for in-service use.

Today, the recruit curriculum is often compromised as a result of the lack of space at the facility. This is true for classroom space as well as for physical training and tactics spaces, which must deliver the daily staple of the recruit curriculum. Because there is no running track at the facility, 250 recruits at a time are forced to run around the gym for a warm-up portion of the class, forcing the average running pace down to the slowest common denominator. Tactical spaces are also scarce; excessive recruit time is wasted standing around waiting for an opponent once they have been shown a given tactical technique.

In spite of space constraints, many in-service training programs are still held at the Academy, most notably Promotional Training courses, Executive Training, and Computer Training. The eighth floor of the Academy is dedicated specifically to in-service training administration and classes. In the sub-basement, the pool and firing range are used for specialized in-service training.

State-of-the-art when it opened in 1965, this facility was originally intended for a police department of 27,000, or roughly half the size of the current force. The Police Academy is operating well over capacity and is unequipped to meet the needs of any 21st century police force, much less the largest police force in the U.S. While lack of space is the most pressing issue as far as immediate training needs, the poor quality of those spaces is also a major concern: classroom sizes are not matched to curriculum delivery, instructional environments lack basic multi-media and instructional systems; equipment and furnishings are inoperable and out of date; storage is hard to come by; and HVAC systems are outdated and/or otherwise impaired.

Rodman's Neck, the Bronx

The Rodman's Neck facility, located in the northeast section of the Bronx adjacent to Pelham Bay Park, is operated by NYPD's Firearms and Tactics Section (FATS) and is comprised of a series of modular trailers housing classrooms, offices, storage, bathroom, and locker facilities. The facilities are used for firearms training for new police recruits, basic in-service firearms re-qualifications, special operations training, counter-terrorism, disorder control, bomb squad, and OCCB training. For the most part, temporary trailers and modular units comprise the bulk of the buildings. The grounds include two 54-point fixed target ranges and three 27-point moving target ranges used by both recruits and in-

service officers. A 25,800 square-foot Tactical Village, coined "simmunitions," was recently constructed for urban training scenarios using detergent-based ammunition. This Tactical Village includes two, four-story mock apartment buildings, streetscape and related tactical classrooms and offices.

A separate "Tac House" was built to accommodate scenario-based training courses for new recruits. Most firearms training classes occur in trailers and modular structures, as do gun cleaning and FATS firearm simulation classes. Ammunitions and gun storage is housed in trailers while bulk storage for the site is housed in a series of shipping containers. The Bomb Squad uses the southernmost part of the island, known as the "Pit", for destroying unexploded bombs. The area also has a helipad and docks for Harbor Patrol launches.

The NYPD notes that there are several issues with the current facility condition, including: training courses and tactical programs have had to conform to the size and systems afforded by temporary modular structures; gun cleaning facilities are inadequate and do not permit sufficient space per trainee; storage is highly inadequate and substandard; the Tactical Village is sufficient for certain types of training, but it cannot be tailor-fit for specialized programs such as those required by the Emergency Services Unit; and flooding is a constant problem throughout the entire site, and is a severe problem on the firing ranges where lead mitigation measures have hindered proper drainage patterns.

The proposed Police Academy would include indoor pistol training ranges, which would be well insulated to ensure that noise from the firing range is not audible outside. An expanded number of fixed and moving targets would be provided to accommodate both in-service and recruit needs. The new facility would also provide state-of-the-art learning environments for specialized, scenario-based training activities.

Floyd Bennett Field, Brooklyn

The NYPD occupies a portion of the old Floyd Bennett Field airport, New York's first municipal airport that was dedicated by Mayor Walker in 1930. Located on the Barren Island landfill at the eastern end of Flatbush Avenue in Brooklyn, this facility is currently preserved by the National Park Service as part of the Gateway National Recreation Area. The NYPD uses a portion of the historic airfield that until 1998 was occupied by the U.S. Coast Guard. The Department currently leases approximately 18 acres from the National Parks Service.

NYPD's Driver Training Unit (DTU) and Emergency Services Unit (ESU) occupy all floors of the former Coast Guard building and use the attached aviation hangar for its helicopter fleet. The Department also occupies portions of the "Hotel", a former two-story hotel once used by Coast Guard employees. A number of smaller sheds surrounding the Coast Guard building house storage and repair shops related to NYPD training and operations. ESU has also constructed a number of its own specialized training courses throughout the grounds. Some of these include: 1) ropes training tower constructed from shipping containers; 2) a confined spaces course located around a crashed bus; 3) a subway training course located above-ground, and 4) a "Tac House" with apartments for "simmunations" firearms training.

In addition to classroom and administration space in the former Coast Guard administration building, DTU uses approximately 474,000 square feet (10 acres) of the abandoned airfield as an Emergency Vehicle Operations Course (EVOC) for both recruit and in-service driver training. Driver training includes automobile, van, large vehicle, motorcycle, scooter, and bike training. The EVOC course is configured with cones in a "U" shape around the field, surrounding large vehicle training in the center.

A training fleet of all the above vehicles is stored on-site while the bulk of repairs are done off-site. DTU also repairs the Department's fleet of bicycles in the bike repair shop. This repair shop is located adjacent to the Highway Patrol's vehicle shed.

Both DTU and ESU have considerable storage needs (related to both training and departmental operations), which are not being adequately met at the facility. Most storage is provided outside in shipping containers that have no climate controls and are often vulnerable to the elements.

Both DTU and SOD have kept their respective facilities in excellent states of cleanliness and, to the extent possible, repair. In spite of this, however, the general condition of the facilities is poor. More specific facility issues include: insufficient classroom space for driver training programs; the EVOC field is inadequate in size and design to meet training needs within one tour; classrooms lack basic equipment and IT systems; the makeshift tactical environments are insufficient; the administrative space is inadequate; there is no potable water on-site; there are no cafeteria or food services on-site other than vending machines, a problem given the site's remote location; the records storage space is inadequate; the bathroom and locker room space is inadequate; and equipment storage is provided in shipping containers that have no climate control.

A new Police Academy offers the Department an opportunity to re-design the EVOC field and to provide more space in general to meet both in-service and recruit training demands. This includes all-weather training courses. Additionally, the new facility would be able to co-locate the driver training classrooms and the EVOC field, with state-of-the-art training environments for specialized, scenario-based training activities. The Academy would also provide state-of-the-art facilities for the growing COBRA program. Further, the Academy would provide a central location with a cafeteria and potable water as well as the other requisite services for all of its users.

Brooklyn Technical High School

The Brooklyn Technical High School facility is the largest high school in New York City, with over 4,200 students. The school has been generous enough to lend space to the Department during evenings and school vacations for the purpose of conducting both entry-level and in-service courses for its School Safety Agents. Facilities used by the School Safety Training Unit include five to six classrooms, the gym, and the assembly space. The 24 instructors, all of whom work the 4 PM-12 AM tour, have a small locker room attached to a small administrative area. Currently, recruit training consists of a 14-week, entry-level School Safety Agent Academy. In-service training at this location consists of approximately 336 in-service school safety agents.

The high school, while over 60 years old, is kept in good repair. Issues include: no dedicated spaces for NYPD training; limited access to certain spaces because of nighttime and vacation-time high school programs; classrooms are not designed with adult learning needs in mind; instructors must leave no trace of training activities for the morning high school classes; there is a large drop out rate due to the inflexible training hours; and the Departmental hiring needs exceed the ability to train due to space constraints.

A new Police Academy would allow the Department to co-locate training of the School Safety Officers within a consolidated facility. This would enable the Department to offer a day tour, which is expected to attract and retain qualified recruits for this expanding field. A new facility would also allow for expanded administrative areas.

300 Gold Street, Brooklyn

Located at 300 Gold Street in Downtown Brooklyn, this leased facility has multiple NYPD users. It is located across the street from the 84th Precinct and administrative offices at 301 Gold Street, lending a campus feel to the complex of buildings. A semi-enclosed 0.27-acre yard forms the approach to the

building where small "Tac" houses, including a simulated neighborhood grocery store, subway, and apartment line the eastern edge of the yard. Limited parking is available at this location.

The Management Training Units and the Detective Bureau's training programs are the only training-related programs housed in the facility. The Management Training Unit has four classrooms on the second, third, and fifth floors, including a large mock testimony room for scenario-based training courses. Storage is located on the fourth floor.

The Detective Bureau's Training Unit has administrative offices on the fifth floor as well as two classrooms and a 20-seat computer classroom, which is dedicated to detective training. Due to the limited space at the facility, the Detective Bureau conducts a number of inter-departmental courses off-site, including a homicide course at the Department of Health, and a hostage negotiation course at New York University. Demand for these one-week courses is very high.

In-service training for sergeants, lieutenants, and civilian supervisors is provided through the Management Training Unit. This unit produces the Civilian and Uniformed LEAD Programs, which uses simulation and situational training models. The Professional Seminar Series, which is comprised of single-topic, full-day seminars, workshops, and symposia, augments the LEAD Programs.

All civilian and uniformed supervisors in bureaus other than the OCCB and Detective Bureaus attend at least one seminar of their choice each calendar year; twice, if they are assigned to units not under the Patrol Services, Housing, and Transit Bureaus. Those in the Patrol Services, Housing, and Transit Bureaus also attend LEAD once per calendar year.

The Detective Bureau currently has approximately 3,500 uniformed investigators working in precinct detective squads or specialized units and requires a number of highly specialized course offerings. The Detective Bureaus' Training Unit, which does not fall within the Training Bureau's command, conducts daily courses for NYPD detectives, as well as week-long seminars which are open to outside agencies in subjects such as homicide, hostage negotiation, fraudulent documents, interview and interrogation, real-time crime, as well as a tri-agency bio-terrorism investigation course. Demand from both within and outside the Department is very high for these courses, many of which have to be conducted off-site due to the lack of adequate space.

The facilities dedicated to training are in fair condition although they are inadequate in terms of size and flexibility to properly serve the Management Training Unit and the Detective Bureaus' training needs. The Detective Bureau specifically requires large lecture areas, in excess of 150-seats for its featured courses, which are currently offered at rented space off-site. The Management Training Unit does not have adequate space for its scenario-based training courses, some of which involve tactical training and firearms.

A new Police Academy would allow the Department to move out of these leased facilities, would maximize functional adjacencies within units, would expand the number of large lecture rooms, would provide specialized "Tac" houses for leadership development, and would provide expanded records storage areas.

Queens Plaza North

Located in Long Island City, Queens, the Traffic Enforcement Training occupies leased space on the third floor of an office building that has multiple agency users. The elevator lobby serves as the muster area for the recruit program, an area much too small for that use. There are three classrooms under 750 square feet and two classrooms that each fit approximately 35 recruits and two classrooms over 1,100 square feet located along Queens Plaza North. Clerical and administrative space is configured along

the 29th Street side of the building. Lockers are provided for both male and female instructors. Storage is inadequate with respect to archives and recruit coats and bags.

In 2005, the NYPD trained over 1,250 civilian members of the force in Traffic Enforcement: 338 Traffic Enforcement Recruits in the fifty-day recruit training course and 176 training Coordinators for Command-level training, and 763 members of the PED in parking ticket device training.

The building is in fair condition but building systems are old and outdated. The third floor specifically is not sufficiently sized to meet the ongoing needs of the civilian Traffic Enforcement Curriculum. A new Police Academy would allow the Department to move out of this leased facility. A new facility would also provide larger classrooms to respond to variations in civilian recruit classes (up to 200), provide adequate muster space for a class of up to 200 civilian recruits, and would also provide storage for coats and bags.

NYPD Museum, Manhattan

Located at 100 Old Slip in Lower Manhattan, the museum building was constructed from 1909-1911 and designed by the notable architectural firm of Hunt and Hunt. The building was constructed as the new home for the First Precinct. It was considered a model police facility when built and chiefs of police throughout the country visited the new stationhouse looking to copy some of its features in their own new police buildings.

The First Precinct was housed here until 1973, at which time the First and Fourth Precincts were merged. As a result of the merger, the First precinct name was kept, but the personnel were moved to the larger Fourth precinct's stationhouse further uptown. In December 2001, the building was re-opened as the home of The New York City Police Museum.

This City-owned facility consists of an array of uses within 19,568 square feet. The ground floor and mezzanine of the facility contain the reception lobby and ticketing, museum store, and exhibit space. The second and third floors are largely dedicated to exhibit space with a mix of exhibit, event, and classroom space on the third floor. The fourth floor is devoted to administrative offices collections and general storage.

While the facility is old, it is generally in good condition as upgrades in 2001-2002 have improved the building systems and general condition. However, the Department notes that there are several issues with the current Police Museum, including: the functional distance from the current Police Academy; the insufficient space for research and expanding collections; the lack of adequate exterior signage to identify this building as housing the NYPD Museum.

While no police training occurs there today, the Police Museum has traditionally been co-located with the Academy; understanding the Department's heritage is considered a crucial component of police officer training. To reinforce this tradition, the NYPD Museum should be considered a component of the proposed Police Academy.

Overall Purpose and Need – Department-Wide

The current movement to improve the state and effectiveness of the NYPD's training facilities began with five Departmental goals:

1. Eliminate the 4-12 nighttime tour for recruit training; train recruit classes in a single daytime tour to conform to national uniform training standards.
2. Mitigate noise and environmental issues at the existing Rodman's Neck firearms facility by relocating pistol firing ranges offsite into interior ranges.
3. Graduate a maximum of 4,000 recruits per year in two, six-month recruit classes.

4. Consolidate entry-level, in-service, and civilian training facilities to gain efficiencies in training delivery and operation.
5. Ensure that NYPD's training facilities serve to enhance the delivery of the ideal training curriculum, a curriculum that places increased emphasis on scenario-based and tactical training, as well as computer training.

There are many items that can be listed as justification for the proposed Police Academy, including: the current facilities are overcrowded, outdated, decentralized, inaccessible, and many of the satellite facilities are leased at a great cost to the City. According to recent NYPD studies, approximately 42 percent of the total training occurs at the East 20th Street Police Academy, while the remainder is conducted at leased facilities throughout the City and some training is even conducted out-of-state. While the current arrangement of satellite facilities has met the immediate space needs, a number of redundancies and inefficiencies result, including: staff redundancy; instructional space and equipment redundancy; wasted time traveling between facilities for staff and trainees; as well as hindered communications between units. Further, as many of the leased spaces are modular units and trailers, there is no flexibility for the type of instruction that is increasingly required. Consolidating the appropriate facilities would maximize economies in facility, staff, and recruit resources, allowing resources to be allocated towards more advanced instructional environments.

Today, the Department trains over 54,800 officer and civilian employees, a number that is approximately two times the size of the 1965 force, the year the current Academy opened. Due to the space constraints, less than half of the training can occur at the East 20th Street Academy. Lack of space has forced the Department to implement a day shift and a night shift to accommodate the current police training. The balance of the training occurs within leased facilities scattered across the five boroughs. As opposed to 1965, the graduating class of 2006 had a total of 1,450 people; 21.5 percent, or 313 of these people were women.

In addition to its New York City training facilities, the NYPD sends a considerable number of officers each year out-of-state to receive specialized certification and training. The out-of-state facilities include: Louisiana State University, Texas A&M University, New Mexico Institute of Mining and Technology, the Department of Energy's Nevada Test Site, and OJP's Center for Domestic Preparedness in Anniston, Alabama. The cost for sending NYPD officers for out-of-state training is an increasingly costly practice. Much of this training would now be provided at the proposed College Point Police Academy.

Over the past 15 years, the overall scope of the Department has expanded to include the NYC Transit Police, the NYC Housing Authority, the School Safety Division, and Traffic Enforcement. New technology has also required the Department to change methodologies in many different areas of recruit training and in-service training. Additionally, the increased terror threat has changed expanded the focus of the police to also include international counter-terrorism and intelligence gathering. As such, the quantity and frequency of entry-level and in-service training has expended dramatically, and has become increasingly specialized. The Department's modern training methodologies now emphasize scenario-based, simulated training techniques, including fundamental coursework and hands-on, scenario-based training.

As such, the proposed Police Academy is a critical component of the NYPD as it aims to improve its services to the City.

While the fate of the NYPD's current training facilities is unknown, the NYPD will re-evaluate its inventory of properties on a case-by-case basis once the Academy is constructed and ready to be occupied.

C. PROJECT SITE AND ITS CONTEXT

The land in this area of College Point generally slopes towards the Flushing Bay which is located approximately a quarter of a mile to the west of the proposed Academy site. The proposed Academy site is located within the New York City Waterfront Revitalization Program boundaries. As described previously, the Proposed Academy site is bisected by an exposed drainage ditch (part tidal and part freshwater), which runs in a north-south orientation from 31st Avenue to 28th Avenue, with a leg running parallel to 28th Avenue, terminating at the northeast corner of the proposed Academy site (see Figure 1-2, "Aerial View of Proposed Academy Site"). The detention ditch contains open water with upland vegetation along its edges. Two internal road bridges, referred to as the northern bridge and southern bridge, cross over the ditch separating it into a northern section, central section, and southern section. Corrugated metal stormwater outfalls discharge stormwater runoff from the Project Site at several locations throughout the ditch. The detention ditch originates in the northeastern section of the proposed Academy site where twin 84-inch culverts/storm sewers discharge drainage from offsite. The northern and central sections of the ditch are connected via two 84-inch culverts beneath the northern bridge. These culverts have tide gates constructed on the downstream end, limiting tidal flow to the central and southern sections of the ditch. The central and southern sections are connected via two 84-inch culverts beneath the southern bridge. The ditch ultimately drains offsite via three 72-inch pipes located at the southern boundary at 31st Avenue. The structure provides drainage for upland areas of College Point and travels via culverts to Flushing Bay to the south, emptying adjacent to where the Whitestone Expressway crosses from Willets Point to Flushing (approximately 700 feet south of the Project Site). The drainage structure was constructed by NYC EDC in the early 1980's.

Under existing conditions, the Project Site is located within M3-1 and M1-1 zoning districts. These districts primarily contain commercial, manufacturing, and industrial uses. Permitted uses within the M3-1 zone include use groups 6 through 11 (commercial and retail), 12 through 14 (recreation), 16 (general services), and 17 through 18 (manufacturing). Use groups permitted within the M1-1 zone include 4 (community facility), 5 through 11 (retail and commercial), 12 through 14 (recreation), 16 (general services), and 17 (manufacturing). All of the proposed programmatic elements except for the Police Museum and the paid student/guest lecturer lodging facility (both use group 3) would be permitted on an as-of-right basis. As use group 3 is not permitted in either an M3-1 or M1-1 zoning district, a zoning override will be required to permit these two proposed uses. Other zoning classifications in the area include: M1-1, R2A, R4, R4A, R4-1, and R5B to the north; M1-1, M2-1, R2, and R5 to the east; M3-1 to the south; and M1-1 and M3-1 to the west.

The Project Site is located in the area of College Point, Queens that has become known as the College Point Corporate Park. Set on 550 acres in northern Queens, this area of College Point has been the focus of a City redevelopment effort for many years. Industries represented include office, light manufacturing, printing, distribution, and retail. Adding to the park's diversity are major retailers and consumer service operations including Home Depot, Staples, BJ's Wholesale Club, Target, the United States Postal Service, a multiplex theater, and the New York Times printing plant. An MTA Bus Depot is located just north of the Project Site, and Coastal Oil is located southwest of the Project Site. Other local uses include a cement manufacturer, a heavy equipment rental company, and a cable storage company. Municipal uses include a Department of Sanitation site and transfer station and a Con Edison facility, both located to the west of the Project Site. The 78-acre former Flushing Airport, opened in 1927 and used until the early 1980s, is located approximately 0.3 miles northeast of the Project Site, at 25th Avenue and Linden place. LaGuardia Airport is located approximately 0.6 miles west of the Project Site.

The Project Site is located within the College Point II Industrial Urban Renewal Area (URA), which the City of New York designated in 1969 pursuant to §504 of Article 15 ("Urban Renewal Law") of the General Municipal Law. The URA is located in Queens Community District 7 and is generally

Figure 1-2

Aerial View of the Proposed Academy Site

Site boundaries are approximate

bounded by Fourteenth Road and Fifteenth Avenue on the north, the Whitestone Expressway on the east, Thirty-first Road on the south, and 130th Street, 127th Street, 120th Street, and 122nd Street on the west. The Urban Renewal Plan for this URA is set to expire in April 2009. With construction of the proposed Academy commencing after April 2009, it would not be bound to the controls of the Urban Renewal Plan. However, the site planning and campus-wide design will be sensitive to the underlying goals of the Urban Renewal Plan.

Upon selection of the project site for the proposed Academy, site planning and schematic design began for the Proposed Project based upon the Site's existing M1-1 and M3-1 zoning. Subsequently, the City issued a rezoning proposal for College Point that includes the Project Site, in an effort to continue the intent of the College Point II Industrial Urban Renewal Area beyond the April 2009 expiration date. These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and a zoning map amendment (090319ZMQ). The College Point rezoning application likely would be voted on by the City Council in July and it is subject to modification until it is formally adopted. As the proposed zoning changes will be finalized after the Police Academy project application is certified into ULURP and the DEIS is issued, the project design, the zoning override letter, the EIS and the ULURP application were prepared based on the existing zoning. Therefore, while the proposed Academy site is within the boundaries of the possible future Special College Point District, it was not possible for the Police Academy EIS and ULURP application to incorporate and fully evaluate the pending future zoning.

The master plan for the Police Academy represents the total build out of the project site. It has been designed using the existing zoning regulations, and will require the zoning overrides enumerated below. Upon adoption of the pending "Special College Point District" and the related map change by City Council, additional zoning overrides may be required for the Police Academy. The EIS, ULURP application, and zoning override letter will be updated to reflect the new zoning when and if it is adopted by the City.

If all necessary approvals are granted, construction of the proposed Academy is expected to commence in late 2009. It is expected that the proposed development would be constructed in several consecutive stages with the recruit-centric facilities completed and operational by 2012 during the first construction sequence and full build out of the program anticipated by the end of 2014.

D. DESCRIPTION OF PROPOSED ACTION

The proposal for the Police Academy includes the following discretionary action that requires approval through the Uniform Land Use Review Procedure (ULURP) under City Charter Section 197(c):

- Site selection for a public facility to locate a new Police Academy and training facility for the NYPD at the proposed Academy site in the College Point neighborhood of Queens, which would consolidate many training facilities throughout the City into one centralized location.

Although the proposed public facility is still in schematic design, the reasonable worst-case development scenario (RWCDS) for the proposed Academy consists of approximately 2.4 million gsf, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training course, a police museum, and a paid student/guest lecturer lodging facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site.

Based on the currently proposed development program, in addition to the site selection action, the proposed development will require the following overrides from the deputy mayor:

1. 42-00 Permitted Uses:
    - An override of ZR 42-00 to permit the NYPD Museum and a guest lecturer lodging facility (dormitory), both use group 3A, within the M3-1 district.

2. 43-23 Permitted Obstructions in Required Yards or Rear Yard Equivalents; 43-261 Beyond 100 Feet of a Street Line; and 43-28 Special Provisions for Through Lots:
    - An override of ZR 43-23, "Permitted Obstructions in Required Yards or Rear Yard Equivalent" to allow a structure in excess of 23-feet tall to be constructed in a 20-foot deep rear yard and a 20-foot deep rear yard equivalent along College Point Boulevard and the southern lot line. The constraints of the site require the parking structure to be situated in portions of the rear yard and rear yard equivalent.

3. 43-43 Height and Setback Regulations in the M1-1 and M3-1 Zoning Districts:
    - An override of ZR 43-43 for to permit a minor encroachment of the parking structure, as well as the stair bulkheads to project into the initial setback and sky exposure plane along College Point Boulevard and 28th Avenue. The physical constraints of the site to accommodate the entire program require the parking structure to be situated in the rear yard equivalent and to extend above the permitted height.

      Additionally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the proposed police museum into the initial setback and sky exposure plane along 28th Avenue. The physical constraints of the site to accommodate the entire program require the police museum to exceed the maximum height at the street line.

      Finally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the police museum into the initial setback and sky exposure plane along Ulmer Street. The physical constraints of the site to accommodate the entire program require the museum to exceed the maximum height at the street line.

4. 44-21 Required Accessory Off-Street Parking Spaces:
    - An override of ZR 44-21 for a modification of accessory parking requirements to allow fewer on-site accessory parking spaces than required by zoning in the M1-1 and M3-1 zoning districts. Approximately 1,800 accessory parking spaces would be provided within the on-site parking garage. Approximately 5,600 parking spaces are required per zoning for the proposed on-site uses. As the proposed development would operate 24-hours per day, 7-days a week with a variety of overlapping shifts, the required accessory parking is not warranted and the proposed development will require a zoning override to modify the accessory parking requirements.

The master plan for the Police Academy represents the total build out of the project. It has been designed using the existing zoning regulations, and will require the overrides enumerated above. As the proposed special purpose district and related map change are still in ULURP and subject to modification, the DEIS and zoning overrides reflect the existing M1-1 and M3-1 zoning. Upon approval of the Special College Point District, additional zoning overrides will be required to allow for construction of the Academy as it is currently proposed.

If all necessary approvals are granted, construction of the proposed development is expected to commence in late 2009. It is expected that the proposed development would be constructed in several

consecutive stages with the recruit-centric facilities completed and operational by 2012 during the first construction sequence and full build out of the program anticipated by the end of 2014.

Development Program

Based on the guiding principles established for the proposed Academy site, the RWCDS combines a mix of police uses, including the consolidation of many of the NYPD's existing training facilities, into one central location. The NYPD is pursuing an *Integrated Facility Program*, a strategy that would require all uses to be located on the proposed Academy site. All program elements would be physically integrated or connected so as to minimize site coverage while maximizing program proximities. The components of the proposed Academy have been carefully selected based on certain guiding principles for the construction of a new Police Academy, which must meet the current, and future training needs of the Police Department.

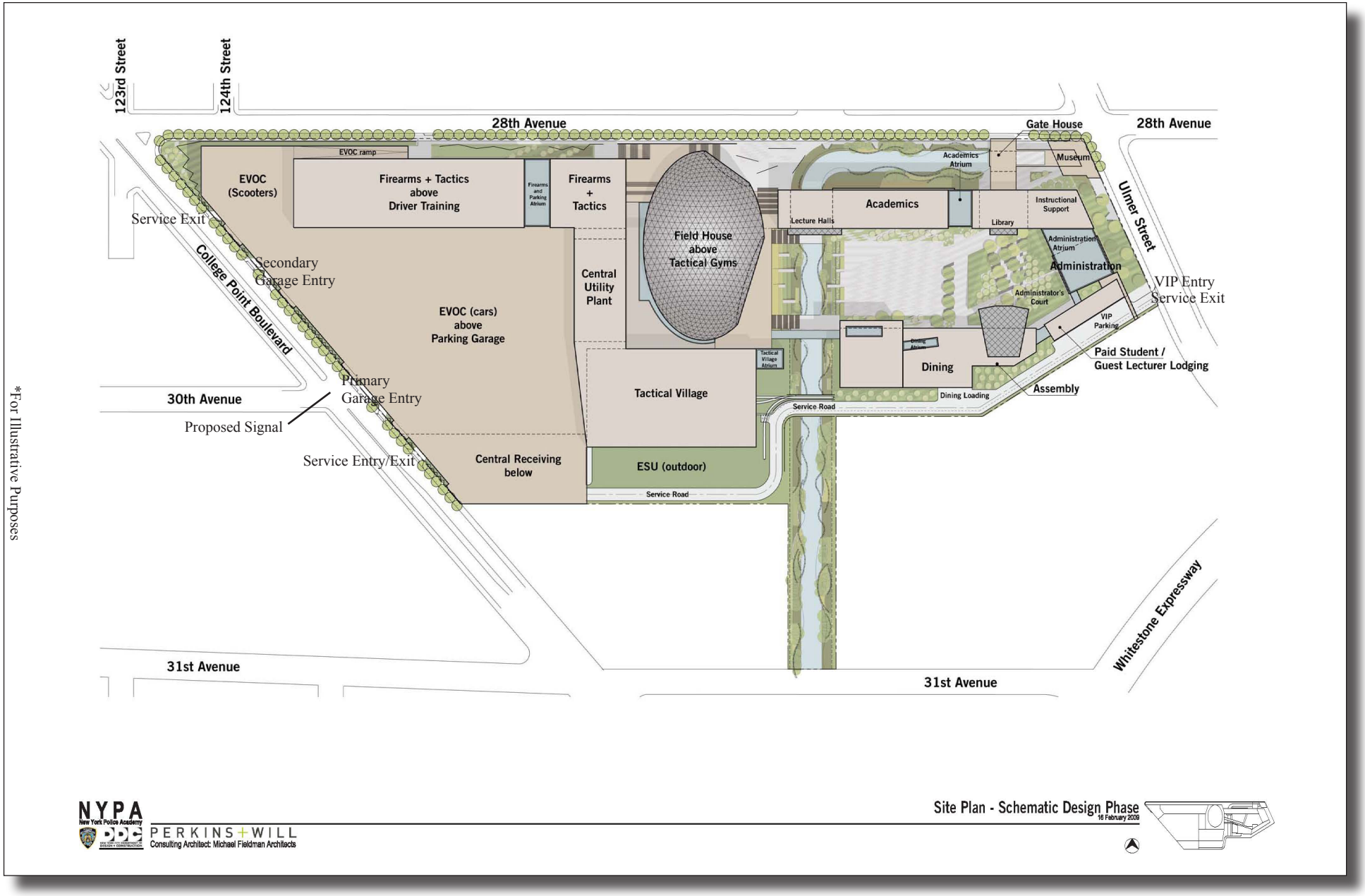
As shown in the preliminary conceptual site plan ("Illustrative Site Plan and Sections 1" Figure 1-3 [this figure is schematic and is for illustrative purposes only as the facility's design has not yet been finalized]), the proposed Academy would consist of approximately 2.4 million gsf of indoor training facilities, classrooms, and related administrative and support space, a new police museum, a paid student/guest lecturer lodging facility, plus a variety of outdoor training components and an above-grade accessory parking facility. The outdoor component would include a new Tactical Village Complex (including COBRA training areas), a rope rescue/confined space rescue-training tower, EVOC fields, and an outdoor muster area.

The master plan for the proposed Academy was developed around the idea of an enclosed courtyard on the eastern half of the Project Site surrounded by the academic, administration, paid student lodging, assembly space and dining functions. The proposed academic/administrative building is a long, relatively tall structure, which is proposed along the north side of the courtyard overlooking the lower assembly space and dining functions on the south side (See Figure 1-3). The proposed field house is a freestanding structure to be constructed west of the drainage ditch, creating a powerful focal point at the end of the courtyard. Tactical gyms are proposed under the field house. The tactical village would be located to the south of the field house, and the firearms and tactics building, a linear structure proposed along the northern property line, would be located to the west of the field house. The proposed EVOC course, to be located above two levels of parking, would be located west of the tactical village and field house and borders College Point Boulevard.

As shown in Figure 1-4 and Figure 1-5, "Illustrative Sections," (these figures are schematic and are for illustrative purposes only), the tallest proposed buildings would be the 155-foot tall field house and the 135-foot tall academic building. Mechanical systems and other communications equipment may rise above the roofline on some buildings, but would remain under the applicable height restrictions for new developments near LaGuardia Airport. The campus would have one main pedestrian entrance for day-to-day use, which is proposed on 28th Avenue near Ulmer Street. Additionally the proposed Academy would have a ceremonial pedestrian entrance on 28th Avenue that would be located mid-block. This access would be primarily used for commencement and other ceremonial occasions.

The accessory parking structure would be constructed at the western edge of the proposed Academy site. The proposed garage would accommodate approximately 1,800 vehicles. The accessory garage would have an elevation of approximately 45 feet (a height of approximately 35 feet) containing two levels of parking. A small security control office would be located on the ground floor of the new garage structure at each access point to house security and screening operations for incoming vehicles.

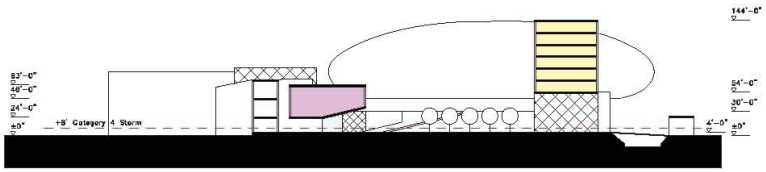
The proposed accessory parking garage would be accessible from College Point Boulevard through two gated security entrances to the Project Site. As shown in Figure 1-3, the primary garage access is



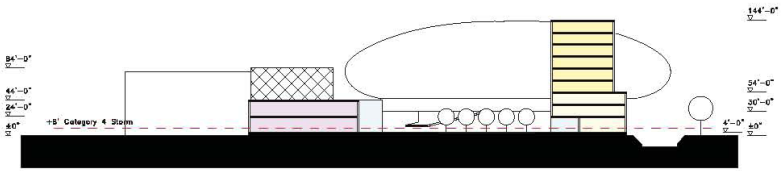
*For Illustrative Purposes

Police Academy - College Point, Queens

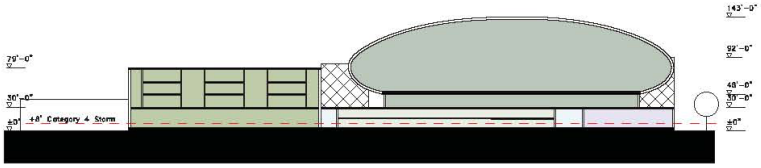
Figure 1-3
Illustrative Site Plan



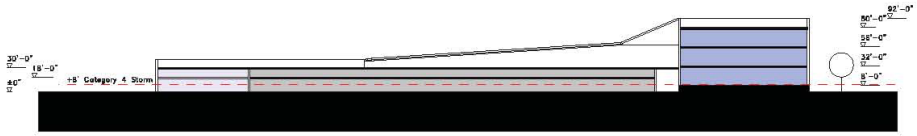
Section A - Thru Assembly and Academic



Section B - Thru Dining and Academic



Section C - Thru Fieldhouse and Tactical Village



Section D - Thru Parking and Firearms & Tactics

FIREARMS & TACTICS
DRIVER TRAINING
FIELDHOUSE
TACTICAL VILLAGE
TACTICAL GYMS

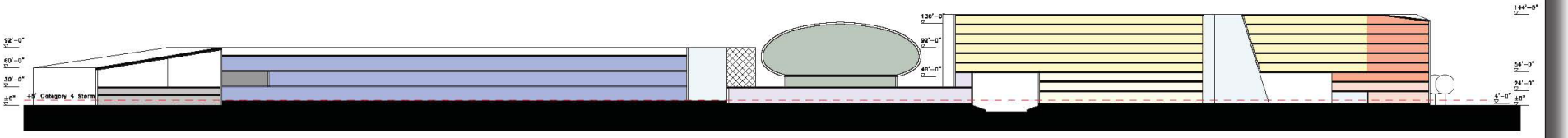
CIRCULATION
PARKING
CENTRAL PLANT
SERVICE & LOADING

ADMINISTRATION
LIBRARY
ACADEMIC
STUDENT SUPPORT SERVICES
ASSEMBLY
DINING

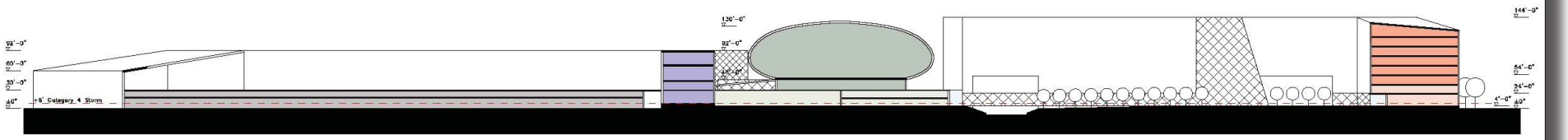
*For Illustrative Purposes

Police Academy - College Point, Queens

Figure 1-4
Illustrative Sections



Section E



Section F

FIREARMS & TACTICS
DRIVER TRAINING
FIELDHOUSE
TACTICAL VILLAGE
TACTICAL GYMS
CIRCULATION
PARKING
CENTRAL PLANT
SERVICE & LOADING
ADMINISTRATION
LIBRARY
ACADEMIC
STUDENT SUPPORT SERVICES
ASSEMBLY
DINING

*For Illustrative Purposes

Police Academy - College Point, Queens

Figure 1-5
Illustrative Sections

proposed at the intersection of College Point Boulevard and 30th Avenue. This intersection would be signalized to accommodate the new volumes of traffic at the garage. A second garage entry is proposed on College Point Boulevard to the north of the primary garage entrance, approximately 400 feet to the south of 28th Avenue. This secondary access would accommodate right turns into and out of the garage. A third driveway, limited to service vehicles only, is proposed at the southern limit of the proposed Academy site on College Point Boulevard. All deliveries would use this entry and then circulate through the campus on internal service roads as required and permitted by NYPD. The fourth and final vehicle access is proposed on Ulmer Street. This access, which leads to a proposed 20-space accessory parking lot, would be restricted to high-ranking officers.

As mentioned above, and described in detail in Chapter 5, "Natural Resources," the proposed Academy would comply with all applicable laws and ordinances, including the recently enacted Green Buildings Law (Local Law 86) governing sustainable design. As part of the effort to obtain this certification, the proposed Academy will be using a variety of sustainable design features and best management practices that would increase the quality and decrease the quantity of stormwater that leaves the Project Site and flows into Flushing River/Flushing Bay. These features would complement each other and provide numerous levels of stormwater treatment prior to discharge. For example, as the majority of the stormwater would fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable. The proposed Academy would also use a green roof system (vegetated) to collect and utilize rainwater. The system would retain rainwater, promote evapotranspiration, decrease the amount of runoff from the Project Site, and provide treatment through biological means. A bio-retention system is also proposed and would be located on the north side of the Project Site, along 28th Avenue. It would include a shallow stormwater basin with underdrainage that utilizes engineered soils and vegetation to collect, convey and treat runoff. The system would slow the discharge of runoff from the site, promote infiltration, increase landscape aesthetics and provide stormwater treatment through biological means. Finally, a bio-swale is proposed on the east side of the Project Site. The bio-swale consists of an open channel system with underdrainage which utilizes engineered soils and vegetation to collect, convey, and treat runoff. The bio-swale will also slow the discharge of runoff from the site, promote infiltration, and provide stormwater treatment through biological means.

The proposed Academy would be a unique public facility that would operate on a schedule that is similar to prevailing police shifts: the typical first shift is 12 midnight to 8 AM; the second shift is 8 AM to 4 PM; and the third shift is 4 PM to 12 midnight. While a bulk of the training at the proposed Academy would occur between 7:00 AM and midnight, the facility would be staffed 24 hours a day and 7 days per week. Once completed, the Academy would be able to accommodate up to 1,980 recruits in one graduating class, with up to 3,960 recruits graduating per year. The recruits would be on a 7 AM to 3 PM schedule. The Academy would also train approximately 650 Traffic Enforcement and School Safety personnel per class and an additional 230 Cadets/School Crossing/EPCS personnel on an 8 AM to 4 PM schedule. The Academy, in its capacity as the primary in-service training facility, would accommodate two daily shifts of 500 officers for re-qualification. The first re-qualification tour would be on-site from 10 AM to 6 PM and the second shift would be on-site from 2 PM to 10 PM. Additional in-service training would occur on a daily basis with approximately 543 officers from 9 PM to 5 PM. Approximately 1,000 staff would be on-site throughout the day, staggered to correspond with their student / trainee population. Additionally, up to approximately 100 visiting lecturers and/or visiting police officers (extended stay, paid students) and 35 museum and facility visitors (daily-visitors in excess of police recruits) are also expected at the Academy. It is expected that the visiting lecturers and visiting police officers that would stay in the on-site dorm facility would participate in training programs that last between two to four weeks. Overall, at maximum occupancy, a daily peak

population of nearly 5,500 people could be expected on-site between 1 PM and 2 PM, as shown in Table 1-1.

E. FRAMEWORK FOR ANALYSIS

Scope of Environmental Analysis

As set forth in the Positive Declaration, the lead agency has determined that the Proposed Action may result in one or more significant adverse environmental impacts and thus requires the preparation of an EIS. The EIS has been prepared in accordance with the guidelines set forth in the *CEQR Technical Manual*.

For all technical analyses in the EIS, the assessment includes a description of existing conditions, an assessment of conditions in the future without the Proposed Action for the year that the proposed development would be completed (i.e., No-Build condition), and an assessment of conditions for the same year with the completion of the proposed development in the future (i.e., Build condition). Identification and evaluation of impacts of the proposed development are based on the change from the future without the Proposed Action to the Future with the Proposed Action (i.e., the incremental difference between the Build and No-Build scenarios serves as the basis for the impact analyses).

Analysis Year

An EIS analyzes the effects of a Proposed Action on its environmental setting. Since typically a Proposed Action, if approved, would take place in the future, the action's environmental setting is not the current environment but the environment as it would exist at the proposed development's completion and occupation, in the future. Therefore, future conditions must be projected. This projection is made for a particular year, generally known as the "analysis year" or "build year," which is the year when the action would be substantially operational. As previously described, the proposed Police Academy is expected to be completed and fully operational by 2014.

Definition of Study Areas

For each technical area in which impacts may occur, a study area is defined for analysis. This is the geographic area likely to be affected by the proposed development for a given technical area, or the area in which impacts of that type could occur. Appropriate study areas differ depending on the type of impact being analyzed. It is anticipated that the direct principal effects of the proposed development would occur within the boundaries of the Project Site. The methods and study areas for addressing impacts are discussed in the individual technical analysis sections.

Defining Baseline Conditions

Existing Conditions

For each technical area being assessed in the EIS, the current conditions must first be described. The assessment of existing conditions establishes a baseline, not against which the Proposed Action is measured, but from which future conditions can be projected. The prediction of future conditions begins with an assessment of existing conditions because these can be measured and observed. Studies of existing conditions are generally selected for the reasonable worst-case conditions. For example, the times when the greatest number of new vehicular, pedestrian and transit trips to and from a Project Site would occur are measured for the traffic analysis. The project impacts are then assessed for those same traffic peak periods.

Table 1-1: Approximate Maximum Weekday Population at the Proposed Police Academy[1]

Population Group	One Hour Periods Throughout the Typical Weekday[2]																							
	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Police Recruits	0	0	0	0	0	99	1,881	1,980	1,980	1,980	1,980	1,980	1,980	1,980	1,980	198	0	0	0	0	0	0	0	0
Other Police Trainees	0	0	0	0	0	0	0	221	880	880	880	880	880	880	880	880	313	0	0	0	0	0	0	0
Visiting Police / Lecturer	0	0	0	0	0	0	0	0	0	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
In-Service Training	0	0	0	0	0	0	0	0	136	543	543	543	543	543	543	543	543	53	0	0	0	0	0	0
In-Service Re-Qualification A	0	0	0	0	0	0	0	0	0	126	499	499	499	499	499	499	499	499	51	0	0	0	0	0
In-Service Re-Qualification B	0	0	0	0	0	0	0	0	0	0	0	0	0	126	500	500	500	500	500	500	500	500	51	0
Staff	2	2	2	2	2	2	84	282	495	823	964	964	964	924	924	810	645	444	387	312	304	304	32	2
Central Services / Plant Maintenance	80	80	80	80	80	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60	80	80	80
Academy Visitors	0	0	0	0	0	0	0	10	25	25	25	25	25	25	25	25	10	0	0	0	0	0	0	0
Museum Visitors[3]	0	0	0	0	0	0	0	0	0	0	5	10	10	10	10	10	5	0	0	0	0	0	0	0
Total	82	82	82	82	82	131	1,995	2,523	3,546	4,507	5,026	5,031	5,031	5,117	5,491	3,595	2,645	1,526	968	842	864	884	163	82

Notes:

[1] Based on NYPD's anticipated peak populations at the proposed Academy.

[2] Times listed represent the hour ending.

[3] Includes only the public visitors to the proposed museum.

Definition of 2014 Future Without the Proposed Action (No-Build Condition)

The "Future without the Proposed Action," or "No-Build Condition," describes a baseline condition, which is evaluated and compared to the incremental changes due to the proposed development. The No-Build condition is assessed for the same 2014 analysis year as the proposed development.

For conservative CEQR analysis purposes, it is assumed that, in absence of the Proposed Action, the NYPD would continue to use their overcrowded training facilities, which are located throughout the City. The NYPD would relocate all of the current Tow Pound operations to other City facilities. No other on-site development is expected in the future without the Proposed Action.

The City has commissioned a study to examine, document and evaluate the existing operations of the NYPD Vehicle Impoundment system, including the following locations: the College Point Auto Pound, the Gowanus Auto Pound, the South Brooklyn Marine Terminal, and the Erie Basin. The goal of the study is to provide operational recommendations regarding how the existing operations may be consolidated, ideally to one site. The report describes and documents the changes in operations that would be required and includes recommendations for how best to consolidate the current operations, including potential site acquisition, construction of new facilities, and operational changes. Therefore, it is expected that the abovementioned vehicle impoundment facilities, including the College Point facility, would be reorganized and/or consolidated in the future without the proposed project. As such, the No-Build conditions assume that the College Point Auto Pound will be relocated in the Future Without the Proposed Action.

The No-Build condition uses existing conditions as a baseline and adds to it changes known or expected to be in place by 2014. For many technical areas, the No-Build condition incorporates known development projects that are likely to be built by the analysis year. This includes development currently under construction or which can be reasonably anticipated due to the current level of planning and public approvals. The No-Build analyses for some technical areas, such as traffic, use a background growth factor to account for a general increase expected in the future. Such growth factors may also be used in the absence of known development projects. The No-Build analyses must also consider other future changes that will affect the environmental setting. These could include technology changes, such as advances in vehicle pollution control and roadway improvements, and changes to City policies, such as zoning regulations.

The No-Build conditions will also consider planned developments in the area that are likely to occur by the 2014 build year, including any changes to the local street network. In the future without the Proposed Action, it is expected that the immediate area would experience nominal growth in commercial and light manufacturing uses. Most of the projected growth in the immediate area is expected to include new commercial and light manufacturing uses, with additional developments near the edge of the study area including also including residential, community facility, and parking uses, consistent with existing trends in this area of Queens. Several large projects which are planned in Willets Point and Flushing will be evaluated for their potential to impact the project area.

As described in Chapter 2, "Land Use, Zoning and Public Policy," the list of projects proposed, under construction, or those projects expected to be completed by 2014, are divided into those within the land use study area (approximate quarter-mile radius) and those within the larger area used for assessment of transportation impacts (see Table 2-2).

2014 Future With the Proposed Action (Build Condition)

The approvals currently sought would facilitate the site selection of a public facility by the City of New York, to permit the construction of a Police Academy for the City in the College Point neighborhood of Queens ("proposed development").

The Project Site would allow for the development of a modern training complex that would consolidate in one-campus training facilities for civilians, recruits, and active police officers, which are currently spread across the City. The total development size would total approximately 2.4 million gsf and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, and a visiting police/lecturer lodging facility. The Police Academy would have an above-grade parking facility on-site of approximately 1,800 spaces.

The abovementioned project components are assumed to be the worst-case for the purpose of environmental analysis. For analysis purposes, the Project Site would be able to accommodate the entire building program on-site, as shown in Table 1-1.

Identifying Significant Adverse Environmental Impacts

Identification of significant adverse environmental impacts is based on the comparison of future conditions without and with the Proposed Action. In certain technical areas (e.g., traffic, air quality, and noise) this comparison can be quantified and the severity of impact rated in accordance with the *CEQR Technical Manual*. In other technical areas, (e.g., urban design) the analysis is more qualitative. The methodology for each technical analysis is presented at the start of each technical chapter.

Mitigation

Mitigation measures for all significant adverse impacts identified in this EIS are described in Chapter 17, "Mitigation." CEQR requires that any significant adverse impacts identified in the EIS be minimized or avoided to the fullest extent practicable, given costs and other factors. In the DEIS, options for mitigation can be presented for public review and discussion, without the lead agency having selected one for implementation. Where no mitigation is available, the EIS must disclose the potential for unmitigated significant adverse impacts.

Alternatives

Chapter 18, "Alternatives," assesses a range of alternatives to the Proposed Action. CEQR requires that a description and evaluation of the range of reasonable alternatives to the action be included in an EIS at a level of detail sufficient to allow a comparative assessment of the alternatives to a Proposed Action. Alternatives and the rationale behind their selection are important in the disclosure of environmental effects of a Proposed Action. Alternatives provide options to the Proposed Action and a framework for comparison of potential impacts and project objectives. If the environmental assessment and consideration of alternatives identify a feasible alternative that eliminates or minimizes significant adverse impacts, the lead agency may want to consider adopting that alternative as the Proposed Action. CEQR also requires consideration of a "no action alternative" that evaluates environmental conditions that are likely to occur in the future without the Proposed Action.

F. REVIEW PROCEDURES

The SEQRA/CEQR process provides a mechanism for decision-makers to understand the environmental consequences, the alternatives, and the need for mitigating significant impacts. SEQRA/CEQR rules guide environmental review through the following steps:

- Establish a Lead Agency. Under SEQRA/CEQR, the "lead agency" is the public entity responsible for conducting environmental review. The lead agency is typically the agency with primary

responsibility for the Proposed Action. The New York City Police Department (NYPD) is the lead agency for the Proposed Action.

- Determine Significance. The lead agency's first decision is to determine whether the Proposed Action may have a significant impact on the environment. After review of the Environmental Assessment Statement (EAS), it was determined that this proposal could have a significant adverse effect on the environment, requiring that an EIS be prepared. NYPD issued a Positive Declaration on February 21, 2008.

- Scoping. The lead agency issued a Positive Declaration on February 21, 2008 and issued a draft scope of analysis for the EIS. "Scoping" is the process of establishing the type and extent of the environmental impact analyses to be studied in the EIS. CEQR requires all scoping meetings to be public. A public scoping meeting was held for the Proposed Action on April 3, 2008, and a final scope of work, reflecting comments made during scoping, was issued on April 16, 2009.

- DEIS. In accordance with the final scope of work, this Draft Environmental Impact Statement (DEIS) has been prepared. The lead agency reviews all aspects of the document, calling on other City agencies to participate. Once the lead agency is satisfied that the DEIS is complete, it issues a Notice of Completion and circulates the DEIS for public review.

- Public Review. Publication of the Notice of Completion of the DEIS starts public review. During this period, which must extend for a minimum of 30 days, the public may review and comment on the DEIS either in writing or at a public hearing. Because the CEQR process is coordinated with land use review, the hearings are held jointly. All substantive comments become part of the CEQR record and are summarized and responded to in the FEIS.

- FEIS. The lead agency will prepare a Final Environmental Impact Statement (FEIS). The FEIS will include a summary restatement of each substantive comment made about the DEIS with a response to each comment.

- Findings. The lead agency and each involved agency will adopt a formal set of written findings, reflecting its conclusions about the potential for significant adverse environmental impacts of the Proposed Action, potential alternatives, and mitigation measures. The findings may not be adopted until 10 days after the Notice of Completion has been issued for the FEIS. Once findings are adopted, the lead and involved agencies may take their actions.

A. INTRODUCTION

A detailed assessment of land use, zoning, and public policy is appropriate if a Proposed Action would result in a significant change in land use or would substantially affect regulations or policies governing land use. Under *City Environmental Quality Review (CEQR) Technical Manual* guidelines, an assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use. Similar to zoning, some assessment of public policy typically accompanies an assessment of land use. Under CEQR, a land use analysis characterizes the uses and development trends in the study area, and assesses whether a Proposed Action is compatible with or may affect those conditions.

The Proposed Action involves a site selection of a public facility to facilitate the construction of a new Police Academy. A new Academy would allow the NYPD to consolidate many of their current training facilities, which are currently spread throughout the City, into one central location. The directly affected area ("site" or "proposed development site"), located in the College Point neighborhood of Queens, encompasses approximately 35 acres and consists of the following parcels: Block 4321, Lot 48; Block 4323, Lot 19; Block 4324 Lot 1; Block 4325 Lot 1, Block 4326 Lot 1, Block 4327 Lot 1, Block 4328 part of Lot 1, Block 4329 Lots 1 and 7, the southern portion of Block 4301 Lot 1 (south of 28th Avenue), Block 4359 part of Lot 1, Block 4358 part of Lot 1, Block 4357 part of Lot 1, Block 4356 part of Lot 30, and Block 4354 Lot 50.

As discussed in Chapter 1, "Project Description," the proposed Academy consists of approximately 2.4 million gsf, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training course, a police museum, and a visiting housing/lecture housing facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site.

Based on the currently proposed development program, in addition to the site selection action, the proposed development will require the following overrides from the deputy mayor:

1. 42-00 Permitted Uses:

- An override of ZR 42-00 to permit the NYPD Museum and a guest lecturer lodging facility (dormitory), both use group 3A, within the M3-1 district.

2. 43-23 Permitted Obstructions in Required Yards or Rear Yard Equivalents; 43-261 Beyond 100 Feet of a Street Line; and 43-28 Special Provisions for Through Lots:

- An override of ZR 43-23, "Permitted Obstructions in Required Yards or Rear Yard Equivalent" to allow a structure in excess of 23-feet tall to be constructed in a 20-foot deep rear yard and a 20-foot deep rear yard equivalent along College Point Boulevard and the southern lot line. The constraints of the site require the parking structure to be situated in portions of the rear yard and rear yard equivalent.

3. 43-43 Height and Setback Regulations in the M1-1 and M3-1 Zoning Districts:

- An override of ZR 43-43 for to permit a minor encroachment of the parking structure, as well as the stair bulkheads to project into the initial setback and sky exposure plane along College Point Boulevard and 28th Avenue. The physical constraints of the site to accommodate the entire

program require the parking structure to be situated in the rear yard equivalent and to extend above the permitted height.

Additionally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the proposed police museum into the initial setback and sky exposure plane along 28th Avenue. The physical constraints of the site to accommodate the entire program require the police museum to exceed the maximum height at the street line.

Finally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the police museum into the initial setback and sky exposure plane along Ulmer Street. The physical constraints of the site to accommodate the entire program require the museum to exceed the maximum height at the street line.

4. 44-21 Required Accessory Off-Street Parking Spaces:

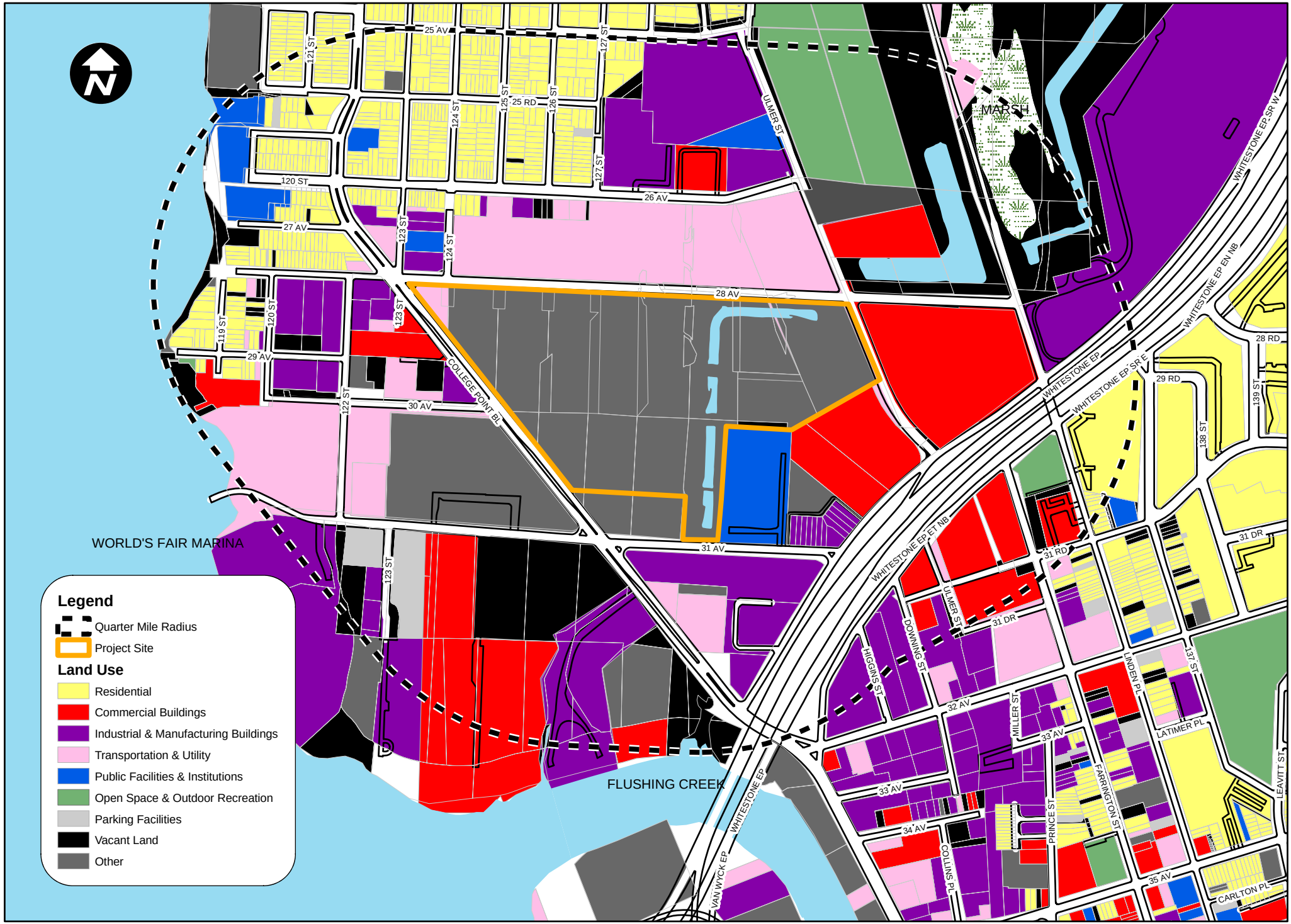
- An override of ZR 44-21 for a modification of accessory parking requirements to allow fewer on-site accessory parking spaces than required by zoning in the M1-1 and M3-1 zoning districts. Approximately 1,800 accessory parking spaces would be provided within the on-site parking garage. Approximately 5,600 parking spaces are required per zoning for the proposed on-site uses. As the proposed development would operate 24-hours per day, 7-days a week with a variety of overlapping shifts, the required accessory parking is not warranted and the proposed development will require a zoning override to modify the accessory parking requirements.

The master plan for the Police Academy represents the total build out of the project. It has been designed using the existing zoning regulations, and will require the overrides enumerated above. If all necessary approvals are received, construction of the proposed development is expected to commence in late 2009. It is expected that the proposed development would be constructed in several consecutive stages with the recruit-centric facilities completed and operational by 2012 during the first construction sequence and full build out of the program anticipated by the end of 2014.

As the Proposed Action is expected to result in substantial changes to land use on the proposed development site, and the proposed development would require a mayoral override of applicable zoning regulations for the abovementioned conditions, a detailed assessment of the Proposed Action's effects on land use, zoning, and public policy is warranted.

To determine existing conditions and assess the potential for action-related impacts, the land use study area has been defined as an approximate quarter-mile radius from the proposed development site which is the area in which the Proposed Action has the greatest potential to affect land use or land use trends (see Figure 2-1, "Land Uses Within the Quarter-Mile Study Area"). As shown in Figure 2-1, the study area is generally bounded by 25th Avenue to the north, the Flushing River inlet/Whitestone Expressway to the south, Flushing Bay to the west, and a point east of Linden Place at the east. Various sources were utilized to prepare a comprehensive analysis of land use, zoning, and public policy characteristics of the study area, including field surveys and land use and zoning maps, as well as public policy documents.

Overall, as described in detail below, it is concluded that the Proposed Action would not have any significant adverse impacts on land use, zoning, and public policy. The Proposed Action would represent a change in land use and an increase in density on the proposed Academy site, replacing largely unimproved land (comprised predominantly of the paved NYPD tow pound site) with a new NYPD Police Academy consisting of approximately 2.4 million gross square feet. Given the variety of uses within the quarter-mile study area, the introduction of the proposed development at this location is not expected to adversely affect land uses in the area. Therefore, the proposed Academy would be consistent with prevailing land uses in the surrounding area, including major commercial, light



Police Academy - College Point, Queens

Figure 2-1

Land Uses Within the Quarter Mile Study Area

manufacturing, industrial, residential, and institutional uses, and would complement current on-going development trends.

As described in Chapter 1, and as described in greater detail below, the Project Site is located within the College Point II Industrial URA, which the City of New York designated in 1969 pursuant to §504 of Article 15 ("Urban Renewal Law") of the General Municipal Law. The URA is located in Queens Community District 7 and is generally bounded by Fourteenth Road and Fifteenth Avenue on the north, the Whitestone Expressway on the east, Thirty-first Road on the south, and 130th Street, 127th Street, 120th Street, and 122nd Street on the west. The Urban Renewal Plan for this URA is set to expire in April 2009. With construction of the proposed Academy commencing after April 2009, it would not be bound to the controls of the Urban Renewal Plan. However, the site planning and campus-wide design will be sensitive to the underlying goals of the Urban Renewal Plan.

Upon selection of the project site for the proposed Academy, site planning and schematic design began for the Proposed Project based upon the Site's existing M1-1 and M3-1 zoning. Subsequently, the City issued a rezoning proposal for College Point that includes the Project Site, in an effort to continue the intent of the College Point II Industrial Urban Renewal Area beyond the April 2009 expiration date. These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and a zoning map amendment (090319ZMQ). The College Point rezoning application likely would be voted on by the City Council in July and it is subject to modification until it is formally adopted. As the proposed zoning changes will be finalized after the Police Academy project application is certified into ULURP and the DEIS is issued, the project design, the zoning override letter, the EIS and the ULURP application were prepared based on the existing zoning. Therefore, while the proposed Academy site is within the boundaries of the possible future Special College Point District, it was not possible for the Police Academy EIS and ULURP application to incorporate and fully evaluate the pending future zoning.

The master plan for the Police Academy represents the total build out of the project site. It has been designed using the existing zoning regulations, and will require the zoning overrides enumerated below. Upon adoption of the pending "Special College Point District" and the related map change by City Council, additional zoning overrides may be required for the Police Academy. The EIS, ULURP application, and zoning override letter will be updated to reflect the new zoning when and if it is adopted by the City.

Except for the overrides mentioned above, the proposed Academy would comply with the applicable height and setback regulations. As the proposed development would not comply with the applicable accessory parking requirements, and would introduce uses which are not permitted as-of-right within a manufacturing zone (a museum and short-term residence for visiting police officers and lecturers), a mayoral override is being sought to allow modifications.

The Proposed Action is consistent with the City's Waterfront Revitalization Program (WRP) as described in detail in Chapter 6, "Waterfront Revitalization Program." Further, the Proposed Action is not expected to have any effects on any additional public policies.

A 204(g) letter was written by the NYPD and sent to the Queens Borough President and the local Community Board and the NYPD has received no response to the letter. As stated in the 204(g) letter, the proposed Police Academy is an essential public facility that would help to upgrade and consolidate essential police training facilities. While the current arrangement of satellite facilities has met the immediate training needs, a number of redundancies and inefficiencies result, including: staff redundancy; instructional space and equipment redundancy; wasted time traveling between facilities for staff and trainees; as well as hindered communications between units. Further, as many of the leased spaces are modular units and trailers, there is no flexibility for the type of instruction that is

increasingly required. Consolidating the appropriate facilities will maximize economies in facility, staff, and recruit resources, allowing resources to be allocated towards more advanced instructional environments.

B. EXISTING CONDITION

Land Use

The following discussion describes existing land use on the proposed development site, as well as the land use patterns and trends in the surrounding quarter-mile study area. As described in Chapter 1, "Project Description," the proposed development site encompasses a total of approximately 35 acres, and includes a City-owned vehicle service station (the City owns the land and leases the property to the operator of the service station on a month-to-month basis), a City-owned strip of vacant land which is located between the Tow Pound and College Point Boulevard, and the balance of the site is comprised of the northern portion of the NYPD's College Point Tow Pound.

Proposed Development Site

The proposed development site consists of the following parcels: Block 4321, Lot 48; Block 4323, Lot 19; Block 4324 Lot 1; Block 4325 Lot 1, Block 4326 Lot 1, Block 4327 Lot 1, Block 4328 part of Lot 1, Block 4329 Lots 1 and 7, the southern portion of Block 4301 Lot 1 (south of 28th Avenue), Block 4359 part of Lot 1, Block 4358 part of Lot 1, Block 4357 part of Lot 1, Block 4356 part of Lot 30, and Block 4354 Lot 50.

The proposed development site has frontage on College Point Boulevard, 28th Avenue, and Ulmer Street, and is located within Queens Community Board 7. The approximately 35-acre property is entirely City-owned, consisting primarily of the NYPD's College Point Tow Pound. Also included are a vehicle service station (the City owns the land and leases the property to the operator of the service station on a month-to-month basis), and a City-owned strip of vacant land that is located between the Tow Pound and College Point Boulevard (see Figure 1-2, Aerial View of Proposed Development Site in Chapter 1, "Project Description").

Historical information about the proposed development site was obtained from aerial photographs (1954, 1966, 1975, 1984, and 1994) and topographic maps (1897, 1947, 1955, 1966, 1979, and 1995), and the Property Clerk's Division. According to these sources, the proposed development site was located within a tidal marsh from 1897 up until at least 1947. Topographic maps from 1947 continue to show wetlands, however, the presence of structures to the south of the proposed development site suggest that some marsh filling was underway. The 1954 aerial photo and 1955 topographic map suggest that the marsh had been at least partially filled. According to previous investigations, the proposed development site was filled prior to 1972 to an elevation near its current grade. The depth of fill in the immediate area was found to be as much as 20 feet. Subsequent filling of the site occurred in the 1980s based on the appearance of the drainage basin at the eastern edge of the site in the 1984 aerial photo. According to the NYPD, the College Point Tow Pound was established in 1991 when the site was filled further and paved.

As described in Chapter 1, "Project Description," an exposed drainage ditch (part tidal and part freshwater) in the shape of an inverted "L" bisects the proposed Academy site, separating the eastern third from the western two thirds of the site. The drainage ditch originates in the northeastern section of the proposed Academy site where two 84-inch storm sewers discharge drainage from offsite. The northern and central sections of the ditch are connected via two 84-inch culverts beneath the northern bridge. These culverts have tide gates constructed on the downstream end, limiting tidal flow to the central and southern sections of the ditch. The ditch ultimately drains offsite to the south via three 72-

inch pipes located at the southern boundary at 31st Avenue. The structure provides drainage for upland areas of College Point via culverts to Flushing Bay to the south, emptying near the Whitestone Expressway (approximately 700 feet south of the proposed Academy site). The drainage structure was constructed by the New York City Economic Development Corporation (NYCEDC) in the early 1980's. The tide gates were recently replaced by NYCEDC.

The proposed development site consists predominantly of paved parking areas and two small buildings. A one-story, approximately 1,820 sq. ft. service station occupies the 20,315 sq. ft. parcel (Block 4321, Lot 48) located at the northwestern corner of the proposed development site at the southeastern corner of the College Point Boulevard and 28th Avenue intersection. This service station is City-owned and currently leased to a private party on a month-to-month basis. A second building is located on the proposed development site at the northeastern corner of the Tow Pound property. This 1,125 sq. ft., 1-story building is located at the Tow Pound's secondary access along Ulmer Street (this access point is closed except for on-site auction activities) on Block 4301, Lot 1. This parcel is part of the NYPD Tow Pound property.

A third building, the main administrative building for the College Point Tow Pound, is located on the Tow Pound property. The approximately 17,000 sq. ft. main building, is located at the Tow Pound's primary entrance on 31st Avenue, to the east of College Point Boulevard. As the College Point Tow Pound property would be divided into two parcels as part of the Proposed Project, this building would not be located on the Academy Site.

The approximately 35-acre northern parcel, consisting of the service station parcel, the strip of land between the College Point Tow Pound and College Point Boulevard, would be developed as the Police Academy.

Currently, a majority of the Site is an impoundment area used by the NYPD, which contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts on a paved asphalt lot. All of the vehicles, motorcycles and auto parts will be relocated to other City-owned sites as the NYPD reorganizes its city-wide operations.

Study Area

The land use study area has been defined as an approximate quarter-mile radius from the proposed development site, which is the area in which the Proposed Action has the greatest potential to affect land use or land use trends. In terms of local land use, the Whitestone Expressway separates the Site and College Point to the north from Flushing to the southeast. As described in greater detail below, the area immediately to the north of the Whitestone Expressway, including the Site, is a mixed commercial and industrial zone which consists of mostly manufacturing and industrial uses, with various commercial uses mixed in. Further from the proposed development site, commercial and residential uses become more prevalent. The local area is an urban setting with limited vegetation.

As mentioned above, the MTA Bus College Point Depot is located directly to the north of the Site located at 128-15 28th Avenue within the 400-foot study area. The College Point Depot, located on 28th Avenue near 124th Street in the College Point neighborhood of Queens, is a bus garage owned by the NYCDOT and leased to MTA Bus, and formerly leased to Queens Surface Corporation before it was taken over by MTA Bus in February 2005. The facility comprises the majority of the block bounded by 28th Avenue, Ulmer Street, 26th Avenue, and 124th Street.

A number of residential units are located at the intersection of 124th Street and 26th Avenue. Several assisted care facilities are located along the waterfront to the northwest of the Site. College Point Boulevard, as it proceeds north, changes character, with low intensity commercial giving way to

mixed commercial and residential, which culminates in the commercial district of College Point and the charming town center.

The 78-acre former Flushing Airport is located approximately 0.3 miles northeast, at 25th Avenue and Linden Place. Flushing Airport opened in 1927 and was used until 1984. A frequent flooding problem on the airport site lead to the close of this facility in 1984. The former airport property is overgrown and is comprised of a freshwater wetland. The Flushing Airport was one of the busiest airports in New York City before the emergence of the larger LaGuardia Airport. LaGuardia Airport is located approximately 0.6 miles west of the Site, across Flushing Bay.

A variety of commercial uses are located to the east/southeast of the Site, within the Study Area. A commercial complex, which includes a multiplex cinema and two big-box retailers, is located to the east of Ulmer Street on the block bounded by Ulmer Street, 28th Avenue, Linden Place, and the southbound Whitestone Expressway Service Road. To the northeast of Ulmer Street and 28th Avenue, is home to a construction company. Immediately to the north of this building, is a satellite/overflow parking lot for the multiplex cinema. A local open space resource, the College Point Sports Park, is located to the north of this parking lot.

To the south of the Site, on the project block, to the east of the exposed drainage channel, are several commercial uses and a church. The Department of Motor Vehicles has an office located within this plaza.

Crystal Windows, a window and door manufacturer is located on the block immediately to the south of 31st Avenue. A self-storage facility, a car wash, and several other manufacturing uses are also located on this block. Uses further to the south, west of College Point Boulevard and south of 31st Avenue, include a Home Depot, a concrete plant, and several other light-manufacturing and industrial uses. Additionally, construction has begun on the property to at the southwest intersection of 31st Avenue and College Point Boulevard for a new 82,000 sq. ft. building for Ares Printing and Packaging.

A hotel is located immediately to the west of the proposed development site. Other predominant uses to the southwest/west of the Site include a New York City Department of Sanitation facility, including a marine transfer station, a ConEdison facility, a Daily News Printing plant, an asphalt plant, a heavy equipment/machine rental company and a variety of other manufacturing and industrial uses.

The waterfront in the vicinity of the Site is industrial and largely inaccessible; however, the Williamsburgh Marina is located on Flushing Bay, to the north of the Department of Sanitation marine transfer facility.

College Point Corporate Park

The proposed development site is also located in the area of College Point, Queens that has become known by many as the College Point Corporate Park. Set on 550 acres in northern Queens, this area of College Point has been the focus of a City redevelopment effort for many years (see Figure 2-2, "College Point Corporate Park Boundaries"). The corporate park includes over 175 companies, which employ approximately 6,000 workers. Industries represented include office operations, light manufacturing, printing, distribution, and retail. Adding to the park's diversity are major retailers and consumer service operations including Home Depot, Staples, BJ's Wholesale Club, Target, the United States Postal Service, a multiplex cinema, and the New York Times printing plant.

College Point

A majority of the Study Area, including the proposed development site, is located in the College Point neighborhood of Queens, north of Flushing on Flushing Bay and the East River. Willets Point Boulevard and the Whitestone Expressway are often considered as the neighborhood's approximate boundaries with Flushing and Whitestone. The original settler of this area was Captain William Lawrence. A German-American industrialist, Conrad Poppenhusen, who made his fortune in manufacturing hard rubber combs, later expanded the town. He founded the community primarily for

Police Academy - College Point, Queens

Figure 2-2

College Point Corporate Park Boundaries

his workers. He connected College Point to Flushing by the Flushing and North Side Railroad, later called Whitestone Branch. College Point was named for St. Paul's College, a seminary founded in 1835 by the Reverend Augustus Muhlenberg. The college closed circa 1850, but the name remains. Today, College Point is a mildly industrial (at its southern limits) but predominantly residential community featuring mostly one and two family homes and condominiums.

Flushing

Flushing, located to the south, was founded in 1645. It is an expansive neighborhood in the north central part of the Queens. Flushing is bounded by Flushing Meadows-Corona Park and Citi Field on the West, Francis Lewis Boulevard on the East, Jewel Avenue on the South and Willets Point Boulevard on the North. The area is serviced by five railroad stations on the Long Island Rail Road Port Washington Branch and the New York City Subway Number 7 subway line has its terminus at Main Street in Flushing. This area is characterized by low-to mid-density residential development comprised of large one-and two-family detached homes and some larger apartment buildings near the downtown Flushing area. Only a small section of Flushing is within the Study Area, including the area from the Whitestone Expressway along 32nd Avenue, to a point just west of 137th Street.

Other Major Land Uses Extending Beyond the Study Area

Flushing Meadows-Corona Park

Flushing Meadows-Corona Park, consisting of approximately 1,255 acres of parkland, is located to the southwest of the Site. Flushing Meadows Corona Park features athletic fields, landscaped meadows, lakes, fountains, playgrounds, stadia, museums and a zoo. The park contains baseball diamonds, soccer fields, tennis courts and cricket fields, all available by permit. Basketball and handball courts are also located in the park. The park is home to six modern playgrounds: Dinosaur Playground, Jurassic Playground, Triassic Playground--each with a dinosaur theme, along with Laurence Playground, Mauro Playground and Saturn Playground. Meadow Lake is an 84-acre man-made lake with boating, fishing, barbecuing, picnicking, a model airplane field, and the Jurassic and Triassic Playgrounds. The American Small Craft Association is located within the park and offers sailing lessons. Willow Lake is the park's designated natural area. Flushing Bay Promenade extends from LaGuardia Airport to Citi Field.

Flushing Meadows-Corona Park also includes the abovementioned Citi Field and the National Tennis Center. The National Tennis Center is a state of the art sporting complex, which consists of both the Louis Armstrong Stadium and the Arthur Ashe Stadium. The National Tennis Center is home to the United States Open, one of the World's most prestigious grand slam tennis tournaments. During the rest of the year, courts are available for public play, instructional programs and tournaments.

Flushing Meadows-Corona Park also contains several cultural attractions. The New York Hall of Science, built for the 1964 World's Fair, is New York City's only hands-on science and technology museum. The Queens Museum of Art, a visual arts center, is located in the New York City Building. It is home to the Panorama of New York City, the World's largest architectural scale model of an urban area. The Queens Wildlife Conservation Center exhibits North American animals on naturalistic grounds, allowing an unusual intimacy between visitor and wildlife. The Children's Farm offers exhibitions of domestic animals. The Queens Botanical Garden is a 39-acre botanical garden filled with garden displays and tree and flower collections. Queens Theatre in the Park presents a variety of professional performing artists and serves as a showcase for local arts groups. The facility accommodates a 500- seat main auditorium and a 100 seat lower level theatre.

Willets Point

Willets Point, also known locally as the Iron Triangle, is an industrial neighborhood of Flushing with no sidewalks or sewers, and as of 2007 only one resident. It is bounded by Northern Boulevard to the north, 126th Street and Citi Field to the west, Roosevelt Avenue to the south and the Flushing River to

the east. The IRT 7 Train stops near the southwest corner of the "Triangle", at Roosevelt Avenue and 126 Street, near Corona Yard.

The area is very industrial and is filled with auto repair shops, scrap yards, waste processing sites, and similar small businesses. In times of severe rain, flooding is common. Plans are underway to replace the scrap yards and industrial sites with a sustainable and affordable mixed-use development. The Willets Point Redevelopment Plan has been designed to include retail and entertainment uses, a hotel and convention center, thousands of mixed-income residential units and new public open spaces and other community amenities. The mixed-use program, as planned, would create thousands of new permanent jobs and construction jobs. The Willets Point Redevelopment is expected to become a major engine for economic growth for Queens, create local employment and business opportunities and improve the overall quality of life for local residents. The plans include environmental clean-up and business relocation. Additionally, a new baseball stadium for the New York Mets, Citi Field, has recently opened immediately to the east of the former Shea Stadium.

Zoning

Proposed Development Site

The proposed development site is a split lot located primarily in the M3-1 zoning district, with an area 160 feet deep on a portion of its frontage along College Point Boulevard in the M1-1 zoning district (see Figure 2-3, "Existing Zoning").

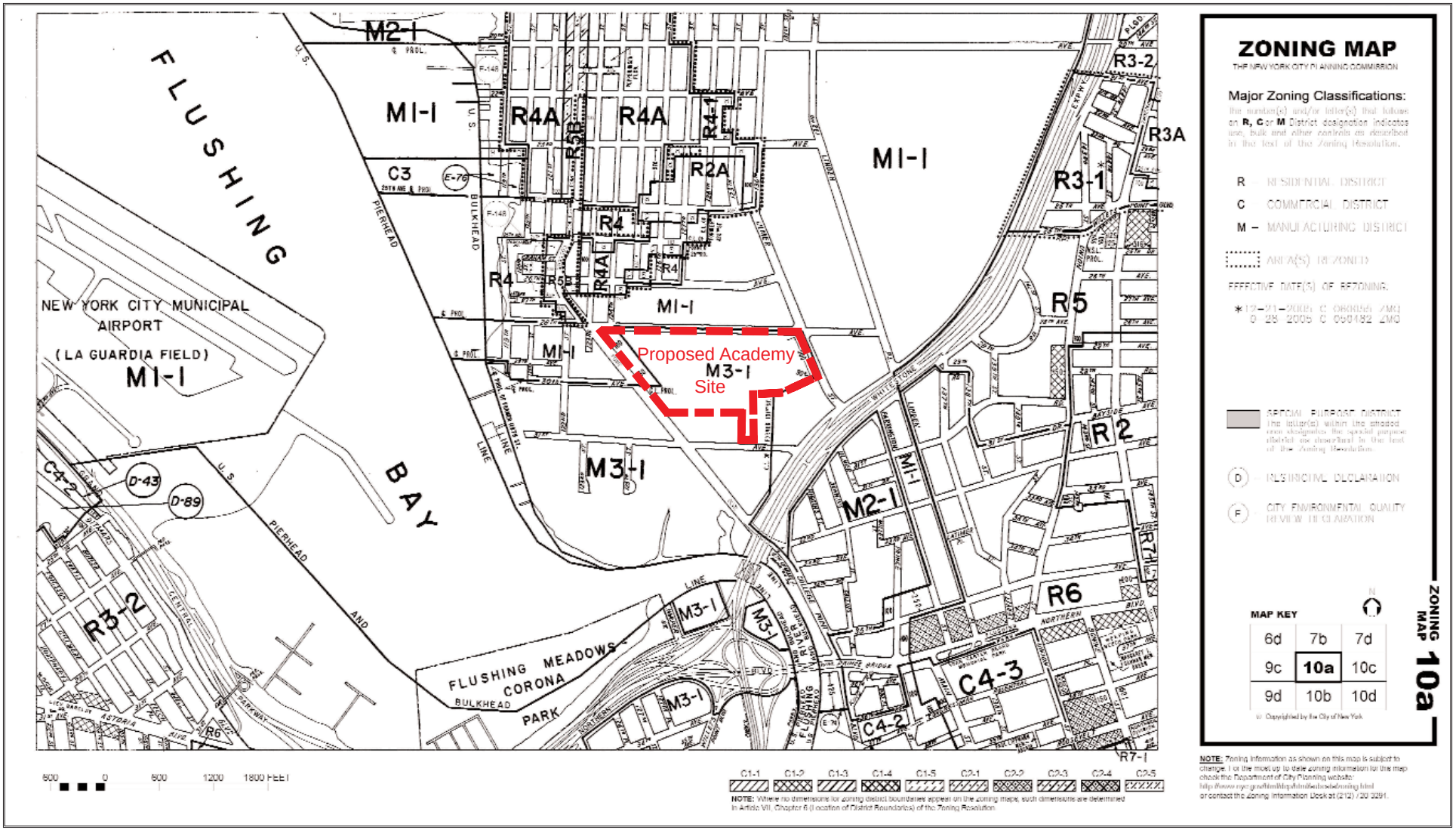
M1-1 districts are light manufacturing/industrial districts, which have strict performance standards, and often serve as industrial front yards or buffers to adjacent residential or commercial districts. M1-1 districts permit use groups 4 (community facility); 5-11 (retail and commercial); 12-14 (recreation); 16 (general services); and 17 (manufacturing). The maximum Floor Area Ratio (FAR) for commercial and manufacturing uses in an M1-1 district is 1.0. M1-1 district require office uses (Use Group 6, parking requirement 1b) to provide one parking space per 300 zoning square feet (zsf).

M3 districts are for heavy industries that generate significant noise, traffic, or pollutants. Typical uses include power plants, solid waste transfer facilities and recycling plants, and fuel supply depots. Uses with potential nuisance effects are required to conform to only minimum performance standards. M3 districts are typically located near the waterfront and buffered from residential areas. M3-1 districts are heavy manufacturing zones, which also permit use groups 6-11 (retail and commercial); 12-14 (recreation); 16 (general service) and 17-18 (manufacturing). This M3-1 zoning district has a maximum FAR of 2.0 and a maximum base height before setback of 60 feet. M3-1 districts are also subject to the parking requirements of Section 44-21 of the Zoning Resolution.

As mentioned above, the City is currently in the process of amending the zoning regulations and zoning map for the area. These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and zoning map amendment (090319ZMQ). An M2-1 zone would be superimposed over the existing M1-1 and M3-1 districts and its regulations would supplement or supersede those of the underlying zoning district. As the details of the proposed special purpose district have not yet been finalized, the proposed Academy has been planned according to the current zoning controls.

Study Area

Table 2-1 provides a summary of zoning regulations for each of the existing zoning districts within the quarter-mile study area, including maximum FAR, and permitted uses/zone type. Figure 2-3, "Existing Zoning" shows the current zoning districts in the study area. As shown in Figure 2-3, the area surrounding the proposed development site is largely zoned for low-to moderate-density residential or light industrial uses. In terms of existing zoning, the site is adjacent to the following zoning districts:



Approximate Site Boundary

M1-1, R2A, R4, R4A, and R5B to the north; M1-1, M2-1, and R5 to the east; M3-1 to the south; and M1-1 and M3-1 to the west.

The M3-1 district, which includes a majority of the proposed development site, encompasses the bulk of the land to the immediate south and southwest of the Site, including all of the land along Flushing Bay, from to the Whitestone Expressway to the south side of 30th Avenue. In addition, the M1-1 district includes the approximately 160-foot wide swath of land on western portion of the Site, parallel to College Point Boulevard. The M1-1 zone extends to the west, north, and east of the Site, and includes the former Flushing Airport property.

M2 districts occupy the middle ground between the light and heavy industrial areas of the City. The M2-1 district mapped to the southeast of the Whitestone Expressway has lower performance standards than a M1 district. Specifically, more noise and vibration are permitted, smoke is also allowed, and industrial activities are not required to be entirely enclosed. M2-1 districts have a maximum FAR of 2.0 and a maximum base height before setback of 60 feet. Parking requirements of Section 44-21 of the Zoning Resolution are applicable and vary according to use. Loading berth requirements also differ according to type of use and size of establishment.

R2A districts allow single-family detached homes at a maximum residential FAR of 0.5. The minimum lot width in this district is 40 feet. A sky exposure plane limits maximum building height. As in other low-density residential districts, one off-street parking space is required for each dwelling unit.

Table 2-1: Existing Zoning Districts and Regulations in the Study Area

District	Maximum FAR [1, 2]	Uses/Zone Type
Manufacturing Districts		
M1-1	M: 1.0 C: 1.0 CF: 2.4	Light manufacturing and most commercial uses; located adjacent to low-density residential areas
M2-1	M: 2.0 C: 2.0	Medium manufacturing and most commercial uses, moderate manufacturing performance standards
M3-1	M: 2.0 C: 2.0	Heavy manufacturing and most commercial areas, minimum manufacturing performance standards
Residential Districts		
R2A	R: 0.5 with a maximum lot coverage of 30%	General residence district, low-density housing
R4A	R: 0.75 plus a 0.2 attic allowance [3]	General residence district, low-density housing
R4	R: 0.75 plus a 0.2 attic allowance	General residence district, low-density housing
R5B	R: 1.35 CF: 2.0	General residence district, low-density housing
R5	R: 1.25 CF: 2.0	General residence district, low-density housing
R6	R: 0.78 to 2.43 QH: 3.0 CF: 4.8	General residence district, medium-density housing

Notes:
[1] FAR is a measure of density establishing the amount of development allowed in proportion to the base lot area. For example, a lot of 10,000 sq. ft. with a FAR of 1 has an allowable building area of 10,000 sq. ft. The same lot with an FAR of 10 has an allowable building area of 100,000 sq. ft.
[2] CF = community facility, R = residential, QH = quality housing, C = commercial, M = manufacturing
[3] The maximum FAR is increased by the attic allowance which provides up to 20 percent additional FAR for space beneath a pitched roof that has structural headroom of between five and eight feet.

Source: New York City Zoning Resolution, New York City Department of City Planning Zoning Handbook, January 2006.

R4 districts allow all types housing at a maximum residential FAR of 0.75, plus an attic allowance of up to 20 percent. Typical buildings in this district are 3-stories. Community facility development in R4 districts has a maximum FAR of 2.0. R4A districts have the same FAR restrictions, though development is restricted to only one- and two-family detached residences. Houses in this district are typically two stories and an attic beneath a pitched roof.

R5 districts permit a variety of housing types. The FAR of 1.25 typically produces three-story attached houses and small apartment houses. With a height limit of 40 feet, R5 districts can provide transition between lower and higher-density neighborhoods. Although the R5B district permits detached and semi-detached buildings, it is primarily a three-story row-house district. The FAR of 1.35 typically produces three-story rowhouses with a maximum street wall height of 30 feet, above which the building slopes or is set back to a maximum building height of 33 feet. Front yards in this district must be at least five feet deep and must be at least as deep as one adjacent front yard, but no deeper than the other, to a maximum depth of 20 feet. Attached row houses do not require side yards, but there must be at least eight feet between the end buildings in a row and buildings on adjacent zoning lots. Parking is waived for one- and two-family homes and curb cuts are prohibited on zoning lots less than 40 feet wide. Where parking is required, on-site spaces must be provided for two-thirds of the dwelling units.

R6 districts are widely mapped in built-up medium density areas of Queens and allow all housing types. The standard bulk regulations, or height factor regulations for R6 districts encourage small apartment buildings on small zoning lots and, on larger lots, tall, narrow buildings that are set back from the street with a maximum FAR of 2.43. There is no height limit, but height is regulated by a sky exposure plane and setback regulations. The optional Quality Housing program regulations produce lower buildings with a higher lot coverage, which typically allow for more apartments that might be achievable under height factor regulations. In Queens, the R6 optional regulations for buildings on or within 100 feet of a wide street allow residences with a maximum FAR of 3.0 and a maximum base height of 60 feet before setback with a maximum building height of 70 feet. On a narrow street, the maximum FAR is 2.2; the base height before setback is 30 to 45 feet with a maximum building height of 55 feet. Community facility development in R6 districts has a maximum FAR of 4.8.

Recent Rezoning Actions

In recent years there have been a number of rezoning actions adopted within and in the vicinity of the study area to encourage and guide new development so that it better reflects the existing scale and character of the area, including the College Point Rezoning and the Willets Point Redevelopment. Each of these rezonings is described briefly below:

College Point Rezoning

In 2005, 161 blocks within the College Point area to the north of the proposed development site underwent a rezoning to address the community's concerns about recent development that was out-of-character with the neighborhood context of one-and two-family detached residences. The new zoning preserves neighborhood scale and character with lower density contextual districts. These districts ensure that new development would be more consistent with traditional, predominantly detached building types. Also, several blocks that were zoned for manufacturing were changed to residential districts to residential districts to reflect their predominant character. Additionally, the new zoning along College point Boulevard encourages mixed-use buildings and reinforces its "Main Street role" in the community. Parking requirements for commercial overlay areas were slightly modified to require less parking in order to match the existing development patterns on the boulevard. Additionally, commercial overlays were removed from two block fronts on 18th Avenue that have mainly residential uses and an overlay was added to one block front on 14th Avenue to reflect existing commercial uses.

Willets Point Redevelopment

As mentioned above, the proposed Willets Point redevelopment could result in a large new development within close proximity to the proposed Academy site. The proposed Willets Point redevelopment plan is intended to stimulate the redevelopment of the Willets Point area in accordance with the zoning Special District and Willets Point Urban Renewal Plan (URP). The proposal envisions residential and retail uses as the core uses within the Special District. Other proposed uses include: office, hotel, convention center, community facilities and open space. Although no developer or specific development plan is in place at this time, the URP prescribes a maximum permitted floor area of 8.94 million gross square feet in the Special District, and allows flexibility in the combination of uses to be developed in the Special District.

Special College Point District

As indicated above, the City has advanced a rezoning proposal for the area surrounding the Proposed Academy site. At the time of this submission, the Special College Point District had not been formally adopted. However, it must be noted that the rezoning is currently going through the public review process.

The intent of this Special Purpose District is to encourage and retain high performance manufacturing establishments in New York City; maintain the high quality business campus environment with landscaped yards within the area known as the College Point Corporate Park; and to promote the most desirable use of land and thus conserve and enhance the value of land and buildings, and thereby protect the City's tax revenues. The Special Purpose District would, in effect, replace the existing Urban Renewal Plan, which expires in April 2009. While the urban renewal plan would not be renewed, the Special Purpose District formalizes and builds upon many of the same objectives and design standards that were a fundamental part of the College Point II Urban Renewal Plan, including: enclosure regulations, screening requirements, sign regulations, street tree planting requirements, planting requirements in front yards, storage of materials within yards, and parking and loading regulations.

Public Policy

The College Point area has been the focus of policy initiatives for decades. As described in detail below, the Site is located within the College Point Corporate Park, a 550-acre section of northern Queens that is home to approximately 175 companies and employs approximately 5,500 people. This land was once considered a blight on the surrounding community. In 1969, the City planning Commission approved the College Point I Urban Renewal Plan, an action that paved the way for the City of New York to condemn the neglected and underutilized properties and bring them under the City's control. By improving the land and attracting investment from national and local companies, the City has been able to create an extraordinarily successful industrial, commercial, and retail center.

Additional public policies that apply either to the Site or the study area are also described below. The Proposed Action involves the siting of a public facility, a new Police Academy that would require a Fair Share analysis as part of the ULURP application. The proposed Police Academy is not listed in the *Citywide Statement of Needs*, but a 204(g) letter was submitted by the NYPD to the Queens Borough President and the local Community Board. No written response has been received. As stated in the 204(g) letter, the proposed Police Academy is an essential public facility that would help to upgrade and consolidate the police training facilities.

College Point II Industrial Urban Renewal Area

The Site lies within the College Point Corporate Park. As described above, the 1969 City Planning Commission approval of the College Point I Urban Renewal Plan enable the City to acquire more than 100 abandoned, vacant, underutilized or substandard parcels within the 500-acre College Point

Corporate Park. The City set out to redevelop the area in a comprehensive manner, removing blight and maximizing appropriate use. The City also made available a variety of economic benefit programs to qualified companies, providing them with valuable energy and real property tax benefits.

Between 1971 and 1990 more than two million square feet was developed, primarily for office and manufacturing facilities, and more than 3,000 jobs were created. Companies like Edward Fields, a high-end custom carpet manufacturer located on Ulmer Street, and the Octagon office building, located on the Whitestone Service Drive, were two of the first developments in the park. Beginning in 1990, NYCEDC made great strides in developing the Corporate Park, spurred by increased interest from Fortune 500 companies. The New York Times Company recognized the potential of the park, and in 1994 decided to build a state-of-the-art color printing facility on a parcel of City-owned land in the Park with over 600 jobs.

The construction of a major multiplex cinema and national retailer within the Corporate Park also spurred interest from a diverse group of companies that were mainly involved in retail and service activities. Between 1990 and 2003, more than $4400 million in private money was invested in the park, resulting in the creation of more than 1.5 million square feet of development and more than 2,500 jobs.

In 2002, NYCEDC opened a satellite office in the Park, enabling their staff to more effectively and efficiently manage the Park and ensure the timely completion of all improvement projects, maintenance, and land sales. The Park's on-site management and maintenance program is financed by small quarterly contributions from member businesses. This "improvement fund" provides tenants with benefits that include marketing support and business assistance training, and also pays for capital improvements and beautification projects at the park. All College Point Corporate Park businesses are encouraged to support the fund to help ensure a well-maintained and successful environment for all tenants. To date, more than $110 million in new roadways, water mains, sewer systems, and drainage systems in the Corporate Park have been completed under NYCEDC's guidance.

Waterfront Revitalization Program (WRP) / Coastal Zone Management

The federal Coastal Zone Management Act of 1972 established to support and protect the nation's coastal areas set forth standard policies for the review of new projects along coastlines. As part of the Federal Coastal Zone Management Program, New York State has adopted a state Coastal Zone Management Program, designed to achieve a balance between economic development and preservation that will promote waterfront revitalization and water-dependent uses; protect fish, wildlife, open space, scenic areas, public access to the shoreline, and farmland. The program is also designed to minimize adverse changes to ecological systems, including limiting erosion and flood hazards.

The state program contains provisions for local governments to develop their own local waterfront revitalization programs (WRPs). New York City has adopted such a program (*New York City Waterfront Revitalization Program*, New York City Department of City Planning, revised 1999). The Local WRP establishes the City's Coastal Zone, and includes policies that address the waterfront's economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives.

As the proposed development site falls within the City's designated coastal zone (refer to Figure 6-1 in Chapter 6, "Waterfront Revitalization Program"), the Proposed Action is assessed for its consistency with the policies of the City's Local Waterfront Revitalization Program (LWRP). LWRP policies that particularly apply to the proposed action include encouraging commercial and residential development in appropriate coastal zone areas, and minimizing loss of life, structures and natural resources caused

by flooding and erosion. Chapter 6, "Waterfront Revitalization Program," reviews the New York City coastal zone policies and assesses the consistency of the Proposed Project with these policies.

PlaNYC 2030 (2007)

Released by the City in April 2007, this 128-point plan was prepared to create an environmentally sustainable city over the next two decades. PlaNYC focuses on the many facets of New York's environment, including its transportation network, housing stock, land and park system, energy network, water supply, and air quality, and sets a course to achieve 10 goals to create a more sustainable New York by the year 2030. Specific goals of the plan include:

- Create enough housing for almost a million more people, and find ways to make housing more affordable;
- Ensure that every New Yorker lives within a 10-minute walk of a park;
- Add to the capacity of New York City's regional mass transit system;
- Develop critical back-up for New York City's water network, ensuring a dependable source of water;
- Reach a full "state of good repair" for New York City's roads, subways, and rail;
- Provide cleaner, more reliable power by upgrading New York City's energy infrastructure;
- Reduce New York City's global-warming emissions by more than 30 percent by 2030;
- Achieve the cleanest air quality of any big city in America;
- Clean up all contaminated land in New York City; and,
- Open 90 percent of New York City's rivers, harbors, and bays for recreation by reducing water pollution and preserving natural areas.

The proposed Academy would comply with all applicable laws and ordinances, including the recently enacted Green Buildings Law (Local Law 86) governing sustainable design. Green building design, or sustainable design, strives to reduce a building's impact on its occupants and the environment. Sustainable design integrates architectural elements and engineering systems to optimize performance of a proposed buildings and their interaction with the environment. It is expected that the proposed Academy would meet, at minimum, LEED Silver requirements.

"Fair Share" Criteria

The proposed Police Academy is subject to the *Criteria for Location of City Facilities* (the "Fair Share" Criteria) and requires a Site Selection approval by the New York City Planning Commission (CPC). The new NYPD Police Academy would incorporate all of NYPD's existing training facilities throughout the City into one consolidated campus in College Point. The total size of the proposed development is approximately 2.4 million gross square feet consisting of both academic and indoor and outdoor physical training facilities, the police museum, drivers training, visiting officers' dorms and accessory parking. The discretionary action requiring environmental review includes site selection for the proposed public facility. As a regional/citywide facility, Articles 4 and 6 of the *Criteria* must be applied to the proposed facility, and the findings for these criteria included in the ULURP application for the proposed development. Applicants are required to explain how each of the criteria was applied, justify any inconsistencies with the criteria, and attach appropriate documentation. These considerations must be taken into account by City agencies when they select sites for new facilities or substantially change existing facilities. No ULURP application will be certified unless the "fair share" submission is complete.

C. FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITION)

Land Use

Proposed Development Site

Although the proposed development site could be developed as-of-right under the existing M1-1 and M3-1 zoning, and under the planned M2-1 zoning that would result from the Special College Point District, the analysis conservatively assumes that in the future without the Proposed Action the proposed development site would be vacant as the tow pound operations would be consolidated and relocated to other City-owned sites as the City reorganizes its citywide operations. The exposed drainage ditch that bisects the property would remain unimproved under future No-Build conditions. No changes are anticipated to the drainage ditch in the future without the Proposed Action. This will serve as the baseline for comparing the effects of the future without and with the Proposed Action.

The southern five acres of the Site, currently part of the NYPD's College Point Tow Pound, is not included in the 35-acre Police Academy site.

Primary Study Area

Separate from the proposed development, it is expected that the current land use trends and general development patterns would continue in the study area in the future without the Proposed Action. These trends and patterns are characterized by anticipated increases in the development of as-of-right commercial, manufacturing, and light industrial uses.

In the 2014 future without the Proposed Action, several new developments are expected to be completed within and immediately adjacent to the land use study area. Information on major known "No-Build" developments is provided in Table 2-2 and the location of these developments is shown in Figure 2-4 "No-Build Project Locations." These include projects recently completed, currently under construction, as well as planned developments. Most of the No-Build projects are new developments or expansions. No-Build developments were identified from a variety of sources, including recent environmental assessment documents, and information provided by the Queens Office of NYC Department of City Planning (NYCDCP), NYCEDC and the Mayor's Office of Environmental Coordination (MOEC).

As mentioned above, the approximately five-acre property directly south of the proposed development site will not be included within the approximately 35-acre Police Academy development site. The City acknowledges that the property could be developed by the 2014 build year. Three No-Build developments could be constructed on this five-acre parcel as part of the Willets Point to College Point relocation efforts. An auto parts distributor would construct a new 17,000 sq. ft. building and an additional 23,000 sq. ft. of enclosed storage space (in Figure 2-4, Map No. 1, as well as Table 2-2). A plumbing supply distributor would construct a new 10,000 sq. ft. building and an additional 45,600 sq. ft. of storage space (in Figure 2-4, Map No. 2, as well as Table 2-2). An iron fabricator would construct a new 60,000 sq. ft. building (in Figure 2-4, Map No. 3, as well as Table 2-2). It is thought that these projects could be completed and occupied by 2011.

The New York Times has recently completed an expansion of its 500,386 sq ft printing facility in College Point, Queens (see Figure 2-4, Map No. 4). The 70,613 gsf expansion resulted in the relocation of approximately 190 employees to the College Point Facility (bringing the total from 640 to 830 employees), and the operation of approximately 20 additional (from a range of approximately 70 to 80 to approximately 90 to 100) truck deliveries. While this expansion has already been completed, it is a development of note in the study area.

A transportation project is planned for the study area. NYCEDC proposes to construct Linden Place in two phases. As described in Table 2-2, the first phase would consist of surcharge work – installation of vertical drain layers, sand layers and sediment/erosion control measures; placement of surcharge materials; compaction operations; demolition of surcharge and rough-grading operations; and maintenance of sediment and erosion control measures. The second phase would consist of roadway work – ground stabilization; drainage facilities construction; sub-base installation; flexible pavement construction; and final grading and landscaping. Ultimately the project would extend Linden Place approximately between 28th and 23rd Avenues; extend 23rd Avenue approximately between Linden Place and 130th Street; and extend 130th Street approximately between 25th and 23rd Avenue (see Figure 2-4, Map No. 5 and No. 6). Construction is expected to end in Spring 2011.

The North Shore Marine Transfer Station is proposed at the western limits of the Study Area on 31st Avenue at 122nd Street (see Figure 2-4, Map No. 7). The converted marine transfer station is included in DSNY's Solid Waste Management Plan for long-term waste export, and would receive and containerize waste from Queens Community Districts 7 through 14, exporting waste by barge. The facility is expected to begin operating in 2011.

Two developments are planned for the vacant property located at the southwest corner of 31st Avenue and College Point Boulevard. Ares Printing and Packaging is currently constructing a 107,000 sq ft printing and packaging facility on a 41,250 sq ft site (in Figure 2-4, Map No. 8). A second proposal from GGC Printing is planning to construct a new 97,000 sq ft printing facility at 125-12 31st Avenue by 2010. The facility would provide 120 accessory parking spaces for employees and visitors (in Figure 2-4, Map No. 9).

Two new developments are anticipated at 29th Avenue and 122nd Street. Both new developments would consist of new construction companies. The first development would consist of an approximately 5,000 sq. ft. building and 9,400 sq. ft. of either open or enclosed storage (in Figure 2-4, Map No. 10). The second development would consist of an approximately 7,500 sq. ft. building and approximately 5,500 sq. ft. of either open or enclosed storage (in Figure 2-4, Map No. 11). Both developments are expected to be completed and operational by 2011.

The final development within the quarter-mile study area is located at Ulmer Street and 26th Avenue. As no formal plans have been established for the site, the City considers commercial and industrial uses to be feasible at this location (in Figure 2-4, Map No. 12). The maximum development size would be approximately 121,200 sq. ft. This development would be completed and operational by 2011.

There are also a number of other development proposals and possible future developments which at the time this EIS was prepared, were in preliminary stages or for which detailed information is not yet available. These developments are not formally considered as part of the 2014 No-Build conditions as there are not specific development proposals for these sites or it is considered unlikely to result in a completed development by 2014 and in any event would be subject to its own environmental review. Smaller projects were evaluated as part of the area's background growth.

Large Projects Beyond the Study Area Boundaries

As described above in Table 2-2, several large developments are expected to be constructed and occupied by 2014 beyond the study area boundaries. These No-Build projects, while they are located beyond the quarter-mile radius, represent noteworthy land use changes and, as such, are worth documenting.

Table 2-2: No-Build Developments

Map No.	Project Name / Address	Build Year	Development Program
Notable Developments Within Quarter-Mile Land Use Study Area			
1	Auto Parts Distributor Southern portion of Blocks 4356, 4357, 4358, 4359, 4360	2011	17,000 sq ft building and 23,000 sq ft of enclosed storage
2	Plumbing Supply Distributor Southern portion of Blocks 4356, 4357, 4358, 4359, 4360	2011	10,000 sq ft building and 45,600 sq ft of storage (either open or enclosed)
3	Iron Fabricator Southern portion of Blocks 4356, 4357, 4358, 4359, 4360	2011	60,000 sq ft building
4	New York Times Expansion Linden Pl and 20th Ave	2008	Includes a 70,613 sq. ft. expansion to the existing, approximately 500,386 sq. ft. printing facility. Approximately 190 employees relocated to the College Point facility.
5	Linden Place Extension – Phase I	2010	Surcharge work – installation of vertical drain layers, sand layers and sediment/erosion control measures; placement of surcharge materials; compaction operations; demolition of surcharge and rough-grading operations; and maintenance of sediment and erosion control measures.
6	Linden Place Extension – Phase II	2011	Roadway work – ground stabilization; drainage facilities construction; sub-base installation; flexible pavement construction; and final grading and landscaping. Ultimately extend Linden Pl approx. between 28th and 23rd Ave; extend 23rd Ave approximately between Linden Pl and 130th St; and extend 130th St approximately between 25th and 23rd Ave.
7	North Shore Marine Transfer Station – 31st Ave and 122nd St	2011	Converted facility will receive and containerize DSNY-managed waste from Queens Community Districts 7 through 14
8	Ares Printing & Packaging- Block 4382, p/o Lot 1 Block 4383, Lot 5	2009	107,000 sq ft for new printing and packaging facility 57 accessory parking spaces for employees
9	GGC Printing 125-12 31st Avenue	2010	97,000 sq ft printing facility 120 parking spaces
10	Construction Company 29th Ave at 122nd St	2011	5,000 sq ft building and 9,400 sq ft storage (either open or enclosed)
11	Construction Company 29th Ave at 122nd St	2011	7,500 sq ft building and 5,500 sq ft storage (either open or enclosed)
12	Commercial or Industrial Use 29th Ave at 122nd St	2011	121,212 sq ft of new commercial or industrial uses
Notable Developments Beyond the Study Area Boundaries			
13	132nd Street Extension	2011	Construction of 132nd Street (paper street) between 20th and 23rd Ave
14	Industrial Recycling, Wholesaling & Distribution 130th St and 23rd Ave	2011	7,000 sq ft building
15	Auto-Related Business 130th St and 23rd Ave	2011	7,000 sq ft building
16	New Millennium Northern Blvd – 137-61 Northern Blvd	2010	91 residential units, 60 hotel rooms, 35,722 sq ft community facility, 17,167 sq ft retail, 223 parking spaces
17	New Millennium – 134-03 35th Ave	2009	84 residential units, 33,600 sq ft community facility, 3,600 retail, 222 parking spaces
18	RKO Keith Theater – Main St and Northern Blvd	2012	200 residential units, 10,000 sq ft retail, 12,500 sq ft community facility, 229 parking spaces
19	Queens Crossing – Main St and 39th Ave	2008	144,400 sq ft office, 110,000 sq ft retail, 29,600 sq ft community facility, 400 parking spaces
20	Flushing Commons (Municipal Parking Lot 1) – 138th St, 37th Ave, 39th Ave, Union St	2011	500 residential units, 200,000 sq ft retail, 100,000 sq ft office, 100,000 sq ft community facility, 1,600 parking spaces, and either 250 hotel rooms or an additional 120,000 sq ft of office space
21	Downtown Flushing One-Way Pair	2011	Transportation project – Main St to become one-way northbound; Union Street to become one-way southbound
22	Flushing River Center – 39-08 Janet Place (at Roosevelt Ave)	2011	4,475 residential units, 346,500 sq ft commercial, 787 accessory parking spaces
23	Sky View Parc – College Pt Blvd and 40th Rd	2011	750 residential units, 760,000 sq ft retail, 51,800 sq ft restaurant, 3,000 parking spaces (the residential component to be developed in phases)
24	Willets Point Development – Willets Point, Queens	2017	5,500 housing units, 1.7 million sq ft of retail, 500,000 sq ft office space, convention center, hotels

Table 2-2: No-Build Developments, Continued

Map No.	Project Name / Address	Build Year	Development Program
25	Citi Field/Shea Stadium Redevelopment– Flushing, Queens	2009	44,100-seat stadium to replace existing 56,000-seat Shea Stadium Redistribution of 8,800 existing parking spaces
26	Luggage Importer – 18-31 131st Street (Block 4137, Lot 1)	2010	20,000 sq ft expansion of warehouse/office space
27	College Pt Retail & Restaurant Project – 133-11 (aka 132-01) 20th Ave	2010	Conversion of existing 15,000 sq ft warehouse into retail space, and New construction of 5,900 sq ft restaurant in the SW corner of the existing parking lot
28	Commercial or Industrial Use – 15th Ave at 142nd St	2010	Vacant land may be developed with a 60,000 sq ft commercial / industrial building
29	Expansion of Glaceau Facility – Block 4148, Lot 78	2010	Possible expansion of 17,000 sq ft of office space

Sources: Queens Office of the New York City Department of City Planning, NYC EDC, and the Mayor's Office of Environmental Coordination.

As shown in Table 2-2, NYCEDC proposes to construct an extension for 132nd Street by 2011. The project scope involves the construction of 132nd Street between 20th and 23rd Avenues in the College Point Corporate Park (see Figure 2-4, Map No. 13). Currently, the street exists on City maps as a "paper street" and has never been constructed. This new street connection would serve to disburse local traffic in the area, as Linden Place would be a viable alternate route for those who currently travel along Ulmer Street.

The largest of these planned projects is the Willets Point Development. The maximum development expected as a result of the Willets Point project would be 5,500 housing units, 1.7 million sq ft of retail, 500,000 sq ft office space, a convention center, and possibly a few hotels. While there is no established building program, the projects listed in the above table represent the worst-case development scenario as reported in the Willets Point DEIS.

There are fifteen additional No-Build projects that are expected to be completed by the 2014 build year in the secondary study area, and many other notable projects that are also expected to be completed during this time, including: Citi Field, Sky View Parc, Queens Crossing, New Millennium, New Millennium Northern Boulevard, Flushing Commons, RKO Keith Theater, Flushing River Center, an industrial recycling, wholesale and distribution center, and auto-related business, a luggage importer, a new national retailer and restaurant (known as the College Point Retail and Restaurant Project), a new 60,000 commercial or industrial use, and a 17,000 sq. ft. expansion of the Glaceau offices. Additionally, a significant transportation project would be put into effect in Downtown Flushing that would result in Main Street becoming northbound and Union Street becoming southbound between Northern Boulevard and Roosevelt Avenue.

Zoning

Proposed Development Site

No specific actions are proposed for the proposed Academy site. However, as mentioned above, in the future without the Proposed Action, the proposed development site would be included within the area affected by the "Special College Point District" (090318ZQR) and zoning map amendment (090319ZMQ). As a result, the proposed M2-1 zoning would be superimposed on the existing M1-1 and M3-1 districts and its regulations would supplement or supersede those of the districts on which it is superimposed.

Study Area

In the future without the Proposed Action, the Special College Point District would be mapped over a substantial segment of the study area. As described above, this special district intends to maintain the specialized land use controls provided by the College Point II Industrial Urban Renewal Area, which

Site boundaries are approximate

is set to expire in 2009. While the urban renewal plan would not be renewed, the Special Purpose District formalizes and builds upon many of the same objectives and design standards that were a fundamental part of the College Point II Urban Renewal Plan, including: enclosure regulations, screening requirements, sign regulations, street tree planting requirements, planting requirements in front yards, storage of materials within yards, and parking and loading regulations.

These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and zoning map amendment (090319ZMQ). An M2-1 zone would be superimposed over the existing M1-1 and M3-1 districts and its regulations would supplement or supersede those of the underlying zoning district. Section 126-22 of the Zoning Resolution (Floor Area Ratio) indicates that the floor area permitted within the Special College Point District for commercial, community facility, and manufacturing uses shall be 1.0. However, the portion of the Site that is located within the M2-1 District, south of 30th Avenue and its prolongation maintains its maximum permitted FAR in accordance with the underlying zoning for portions of the zoning lot within 600 feet of College Point Boulevard. As such, most of the site would have an FAR of 1.0 while the portion of the site that is south of the 30th Avenue prolongation and within 600 feet of College Point Boulevard would have an FAR of 2.0.[1]

The Special College Point District includes performance standards of an M1 district. The new special district also modifies special bulk regulations of the underlying zoning district. For example, minimum required yards, floor area ratio, street tree requirements, planting requirements within front yards, storage of materials within yards, and height and setback regulations are defined.

The College Point rezoning application likely would be voted on by the City Council in July and it is subject to modification until it is formally adopted. As the proposed zoning changes will be finalized after the Police Academy project application is certified into ULURP and the DEIS is issued, the project design, the zoning override letter, the EIS and the ULURP application were prepared based on the existing zoning. Therefore, while the proposed Academy site is within the boundaries of the possible future Special College Point District, it was not possible for the Police Academy EIS and ULURP application to incorporate and fully evaluate the pending future zoning.

Public Policy

Proposed Development Site

In the future without the Proposed Action, no changes to public policy have been identified specifically for the proposed development site.

Study Area

As mentioned above, the current College Point II Urban Renewal Plan is set to expire. The Special College Point District would encompass the entire project site and much of the surrounding neighborhood. As described above, the proposed special district would incorporate many of the features of the existing Urban Renewal Plan. No other public policy initiatives have been identified in the study area.

D. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

As discussed in Chapter 1, "Project Description," the Proposed Action would facilitate the construction of a new Police Academy and training facility for the NYPD. The proposed development would consist of an approximately 2.4 million gsf and would include indoor training facilities,

[1] The Special College Point District zoning regulations have not yet been formally adopted and are subject to change.

classrooms, and related support space, an indoor pistol training facility, a tactical village, an outdoor track, a police museum, a visiting police/lecturer housing facility and an approximately 1,800-space above-grade parking garage.

Land Use

The *CEQR Technical Manual* states that significant adverse land use impacts may occur if an action would generate a land use that would be incompatible with surrounding uses. It also states that in many cases, land use changes do not result in significant adverse land use impacts, but they can cause significant adverse impacts in other technical areas. Therefore, in addition to making impact determinations, it is also important to identify the land use effects of the Proposed Action to make impact determinations for other technical areas in this EIS.

Proposed Development Site

The Proposed Action would represent a change in land use and an increase in density on the proposed development site, replacing the northern portion of the NYPD's College Point Tow Pound (an automotive or vehicle storage use), an auto repair facility located at the intersection of 28th Avenue and College Point Boulevard, and a City-owned vacant parcel along College Point Boulevard with a new NYPD facility consisting of approximately 2.4 million gsf that would primarily accommodate NYPD training facilities, as well as a police museum and a visiting police/lecturer housing facility (paid student sleeping quarters). Additionally, an 1,800-space accessory parking garage would be provided on site. The proposed Academy is expected to become a world-class police training facility, which would accommodate both recruit and in-service training.

While a bulk of the training would occur on weekdays between 7:00 AM and midnight, the facility would be staffed 24 hours a day and 7 days per week. Weekend use would typically be limited to a small number of maintenance and central services staff. Once completed, the Academy would accommodate up to 1,980 recruits in one graduating class, with up to 3,960 recruits graduating per year. The recruits would be on a 7 AM to 3 PM schedule. The Academy would also train approximately 650 Traffic Enforcement and School Safety personnel per class and an additional 230 Cadets/School Crossing/EPCS personnel. The Academy, in its capacity as the primary in-service training facility, would accommodate two daily shifts of 500 officers for re-qualification. The first re-qualification tour would be on-site from 10 AM to 6 PM and the second shift would be on-site from 2 PM to 10 PM. Additional in-service training would occur on a daily basis with approximately 543 officers from 9 PM to 5 PM. Approximately 1,000 staff would be on-site throughout the day, staggered to correspond with their student / trainee population. Additionally, up to approximately 100 visiting lecturers and/or visiting police officers (extended stay, paid students) and 35 museum and facility visitors (daily-visitors in excess of police recruits) are also expected at the Academy. It is expected that the visiting lecturers and visiting police officers that would stay in the on-site dorm facility would participate in short-term training programs. Overall, at maximum occupancy, a daily peak population of nearly 5,500 people could be expected on-site between 1 PM and 2 PM, as shown in Table 1-1.

The proposed Academy would be an NYPD facility with both physical training and academic uses. The 35-acre campus would be comprised of several different components, including: academic, student support, administration, library, central plant, service and screening, circulation, dining, tactical village, field house, tactical gyms, and parking. The master plan for the Site was developed around the idea of an enclosed courtyard on the eastern half of the Site, surrounded by the academic, administration, paid student lodging, auditorium and dining functions. The proposed academic/administrative building would be a long, relatively tall structure, which would be constructed along the north side of the courtyard overlooking the lower auditorium and dining functions on the south side. The proposed field house is a freestanding structure west of the canal,

creating a powerful focal point at the end of the courtyard. Tactical gyms are proposed under the field house. The tactical village would be located to the south of the field house, and the firearms and tactics building, a linear structure proposed along the northern property line, would be located to the west of the field house. The proposed EVOC course, to be located above the two-story parking garage, would be located west of the tactical village and field house and borders College Point Boulevard.

As shown in Figures 1-3, 1-4 and 1-5, the tallest proposed building would be the 155-foot tall field house. Mechanical systems and other communications equipment may rise above the roofline of some buildings, but would remain under the applicable FAA/Port Authority height limits for buildings within close proximity to LaGuardia Airport.

The campus would have one main pedestrian entrance, which is currently proposed on 28th Avenue near Ulmer Street. A ceremonial pedestrian entrance would be located midblock on 28th Avenue; this entrance would be primarily used for commencement and other ceremonial occasions.

The accessory parking structure, expected to accommodate approximately 1,800 vehicles, would be constructed at the western edge of the development site. The accessory garage would have an elevation of approximately 45 feet (height of approximately 35 feet) in two levels of above-grade parking. Access to the parking garage would be provided on College Point Boulevard through two secured entrances to the site. Primary access is proposed at the intersection of College Point Boulevard and 30th Avenue. This intersection would be signalized to accommodate the anticipated traffic volume at this location. A secondary garage entry is proposed on College Point Boulevard to the north of the primary garage entrance. This secondary access would accommodate right turns into and out of the garage. A third driveway, limited to service vehicles only, is proposed at the southern limit of the Site on College Point Boulevard for access to the central receiving area. All deliveries and sanitation vehicles would use this entry and then circulate through the campus on internal service roads. A fourth and final vehicle access is proposed on Ulmer Street. This access, which leads to a proposed 20-space accessory parking lot, would be a restricted-access lot for high-ranking officers.

The proposed Academy, largely comprised of academic and physical training uses, would not interfere with adjacent uses. The academic and physical training components of the Academy would complement existing and proposed uses in the local area. The proposed Academy, which is expected to achieve a LEED Silver certification at minimum, would replace the NYPD's vehicle impoundment facility with an environmentally friendly development.

The existing land uses that are currently located on the proposed Academy site would not remain in the future with the proposed Academy. The Tow Pound operations would be relocated under No-Build conditions as the City consolidates its tow pound operations. The vehicle service station at the northwest corner of the block is currently leasing the property from the City on a month-to-month basis. As such, while the Proposed Project would utilize this parcel as part of the Proposed Site, the service station's lease would not be renewed and would therefore not be directly displaced by the Police Academy. Additionally, the vacant strip of land along College Point, also owned by the City, would be used for the Proposed Action.

The proposed development would be compatible with existing land use patterns and recent development trends in the area, and would not cause a significant adverse impact to land use. As described in detail above, the area immediately surrounding the proposed Academy site is comprised of a diverse mix of uses. As the proposed Academy would function as an academic and physical training facility, it is expected that it would not represent a significant change as compared to existing uses.

As mentioned above, an on-site drainage ditch bisects the site. The waterway carries drainage from both on-site and upland sources. The water flows off-site via 72-inch pipes, which are located at the southern boundary at 31st Avenue. The structure empties near the Whitestone Expressway (approximately 700 feet south of the Project Site). As described in Chapter 5, "Natural Resources," the project team is currently exploring options to preserve and enhance the waterway. The intent is to improve the aesthetics, reduce the unpleasant odor, improve the viability of landscaping, and improve ecological conditions within the waterway and along the banks. The project team is coordinating with NYSDEC, USACOE, and NYCDEP to secure the appropriate permits for any work that would be done within or along the banks of the drainage ditch.

The proposed site is well suited to accommodate the proposed development in terms of its location, size, configuration, and compatibility with neighboring land uses.

Study Area

The Proposed Action would result in a new use within the surrounding area, but the proposed Academy would be consistent with the prevailing land uses in the surrounding area, including large NYPD and institutional uses. The change in land use and density at the proposed development site would not result in a significant adverse impact on adjacent land uses. Land uses in the study area are generally well established and would not be adversely impacted by the proposed Academy. The surrounding area supports a number of large commercial offices, manufacturing light industrial, and institutional uses on relatively large properties. This area is also experiencing some new development of manufacturing uses to the southwest of the proposed development site, as discussed above. The proposed Academy would be consistent with and reinforce the existing and proposed uses in the immediate area and would add to its mixed-use character.

No incompatible uses would be introduced to the study area as a result of the Proposed Action, nor would the proposed development affect or limit the existing land uses. The area's existing mixture of commercial, community facility, manufacturing, light industrial, transportation-related, residential and open space uses would be preserved.

Zoning

The *CEQR Technical Manual* states that a significant adverse zoning impact may occur if a proposed action would result in land uses or structures that substantially do not conform to or comply with underlying zoning; or an action that would result in significant material changes to zoning regulations.

Proposed Development Site

No zoning changes are being proposed for in conjunction with the Police Academy. As mentioned above, the approximately 35-acre development site is located within M1-1 and M3-1 zoning districts. As mentioned above, the proposed Academy site would be included within the boundaries of the Special College Point District. However, as the proposed Special District has not been formally adopted by the City, the DEIS cannot account for the specific zoning controls that may be introduced.

The existing zoning regulations allow for the training facilities and academy classrooms associated with the proposed Academy; however, as discussed below, the proposed museum and guest lodging uses are not permitted in these zones. Further, because of the large space requirements associated with the building program, certain building elements would result in minor encroachments into the rear yard or rear yard equivalent, or would not comply with height and setback requirements. Therefore, the proposed Academy would require a zoning override from the Mayor's office.

As discussed in the "Existing Conditions" section above, M1-1 districts are light manufacturing/industrial districts, which have strict performance standards, and often serve as buffers

between industrial districts and adjacent residential or commercial districts. M1-1 districts permit use groups 4 (community facility); 5-11 (retail and commercial); 12-14 (recreation); 16 (general services); and 17 (manufacturing). The maximum FAR is 1.0. As approximately 139,595 sq. ft. of the proposed development site is located within the M1-1 zoning district, an FAR of 1.0 would allow up to 139,595 sq. ft. of zoning floor area. Additionally, M1-1 districts require one parking space per 300 zoning square feet (zsf) (Use Group 6, parking requirement 1b).

As described above, M3 districts are for heavy industries that generate noise, traffic, or pollutants. Uses with potential nuisance effects are required to conform to minimum performance standards. M3 districts are typically located near the waterfront and buffered from residential areas. M3-1 districts are heavy manufacturing zones which permit use groups 6-11 (retail and commercial); 12-14 (recreation); 16 (general service) and 17-18 (manufacturing). This zoning district has a maximum FAR of 2.0 and a maximum base height before setback of 60 feet. As approximately 1,417,236 sq. ft. of the lot is located within the M3-1 zoning district, an FAR of 2.0 would allow up to approximately 2,834,472 sq. ft. of zoning floor area. M3-1 districts are also subject to the parking requirements of Section 44-21 of the Zoning Resolution.

Table 2-3: Permitted Floor Area Within the M1-1 and M3-1 Zoning Districts

	M1-1	M3-1	Total
Lot Area[1] (zsf)	139,595	1,417,236	1,556,236
FAR (zsf)	1.0	2.0	--
Max. Permitted Floor Area (zsf)	139,595	2,834,472	2,974,067
Proposed Floor Area[1] (zsf)	138,092	1,903,232	2,041,324

Notes:
[1] Based on available survey information.
[2] Proposed Floor Area refers to the approximate total zoning square feet of proposed enclosed space.

The total combined FAR for the proposed development site is approximately 2.4 million sq. ft., which would be within the allowable bulk (total of 2.8 million sq. ft.). As such, the proposed development would be consistent with the M1-1 and M3-1 zoning of the site and would conform to the New York City Zoning Resolution's bulk requirements regarding floor area in the underlying M1-1 and M3-1 districts.

The existing M1-1 and M3-1 zoning on the proposed development site allows new commercial and light industrial development that meets high performance standards as-of-right, as well as some community facility development. However, as mentioned above, an override is requested to allow two uses that are not permitted on an as-of-right basis within the M1-1 and M3-1 zoning districts. Both the proposed visiting police/guest lecturer facility (to be used as a dormitory for short-term visiting officers and lecturers) and the proposed police museum are classified as use group 3A. The NYPD has indicated that both of these proposed on-site uses are integral components of the Academy. As both of these proposed uses are secondary to the proposed educational, physical and tactical training purpose of the Academy, and not the central uses, they would not represent significant adverse zoning impacts.

Based on the currently proposed development program, in addition to the site selection action, the proposed development will require the following overrides from the deputy mayor:

1. 42-00 Permitted Uses:
- An override of ZR 42-00 to permit the NYPD Museum and a guest lecturer lodging facility (dormitory), both use group 3A, within the M3-1 district.

2. 43-23 Permitted Obstructions in Required Yards or Rear Yard Equivalents; 43-261 Beyond 100 Feet of a Street Line; and 43-28 Special Provisions for Through Lots:

- An override of ZR 43-23, "Permitted Obstructions in Required Yards or Rear Yard Equivalent" to allow a structure in excess of 23-feet tall to be constructed in a 20-foot deep rear yard and a 20-foot deep rear yard equivalent along College Point Boulevard and the southern lot line. The constraints of the site require the parking structure to be situated in portions of the rear yard and rear yard equivalent.

3. 43-43 Height and Setback Regulations in the M1-1 and M3-1 Zoning Districts:

- An override of ZR 43-43 for to permit a minor encroachment of the parking structure, as well as the stair bulkheads to project into the initial setback and sky exposure plane along College Point Boulevard and 28th Avenue. The physical constraints of the site to accommodate the entire program require the parking structure to be situated in the rear yard equivalent and to extend above the permitted height.

  Additionally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the proposed police museum into the initial setback and sky exposure plane along 28th Avenue. The physical constraints of the site to accommodate the entire program require the police museum to exceed the maximum height at the street line.

  Finally, the proposed project seeks an override of ZR 43-43 to permit a minor encroachment of the police museum into the initial setback and sky exposure plane along Ulmer Street. The physical constraints of the site to accommodate the entire program require the museum to exceed the maximum height at the street line.

4. 44-21 Required Accessory Off-Street Parking Spaces:

- An override of ZR 44-21 for a modification of accessory parking requirements to allow fewer on-site accessory parking spaces than required by zoning in the M1-1 and M3-1 zoning districts. Approximately 1,800 accessory parking spaces would be provided within the on-site parking garage. Approximately 5,600 parking spaces are required per zoning for the proposed on-site uses. As the proposed development would operate 24-hours per day, 7-days a week with a variety of overlapping shifts, the required accessory parking is not warranted and the proposed development will require a zoning override to modify the accessory parking requirements.

While approximately 5,600 parking spaces are required for the proposed project, the parking analysis in Chapter 11, "Traffic and Parking" illustrates that the 1,800-space garage, the available on-street parking capacity in the area, and the proposed change in parking regulations on 28th Avenue between Ulmer Street and College Point Boulevard would meet the anticipated parking demand. As such, no significant adverse impacts to parking are anticipated with the requested reduction in parking spaces.

Table 2-4: Required Accessory Parking

Use Group	Use	Quantity	Required Parking-Rate	On-Site Parking Required
16A	Academy / Training	1,690,921 sq. ft.	1 / 300 sq. ft. (a)	5,636
3A	Dorm	100 Beds	1 / 6 beds (b)	17
3A	Museum	29,100	1 / 1,000 sq. ft. (c)	29
Required Parking				**5,682**
Proposed Parking (d)				**1,800**

Notes:
(a) The total required parking could be reduced by a BSA special permit (73-44) to 1 / 600 sq. ft. or 2,818 spaces – though this approach is not being pursued because a Mayoral Override would still be required to waive over 1,000 parking spaces.
(b) As this use is not a permitted use, there is no listed parking requirement; however, in an equivalent FAR commercial district such as C4-1, dormitory-type uses require 1 parking space per 6 beds
(c) As this use is not a permitted use, there is no listed parking requirement; however, in an equivalent FAR commercial district such as C4-1, dormitory-type uses require 1 parking space per 1,000 sq. ft. (exclusive of storage)
(d) Reduced parking will require a Mayoral Override

The master plan for the Police Academy represents the total build out of the project. It has been designed using the existing zoning regulations, and will require the overrides described above. As the proposed special purpose district and related map change are still in ULURP and subject to modification, the DEIS and requested zoning overrides reflect the existing M1-1 and M3-1 zoning. Upon approval of the Special College Point District, additional zoning overrides will be required to allow for construction of the Academy as it is currently proposed (it is expected that the proposed zoning would require additional bulk waivers and may require additional FAR as the proposed FAR for the site would be reduced from 2.0 to 1.0).

With the requested zoning overrides, no significant adverse zoning impacts are expected to result from the Proposed Action.

Study Area

No zoning changes are expected to result in the study area as a result of the proposed development. As described above, plans are in place to rezone a large portion of the study area. Additionally, this area is already well developed and there are plans in place for most of the large parcels of vacant land in the study area. Additionally, the Proposed Action, including the requested zoning overrides, would not conflict with plans for the surrounding area. As such, no direct or indirect zoning impacts are expected as a result of the Proposed Action.

Public Policy

As described above, the proposed Police Academy is not listed in the *Citywide Statement of Needs*; however, a 204(g) letter was written by the NYPD to the Queens Borough President and local Community Board and no response has been received. The proposed Academy is an essential component of the City's police recruit and in-service training. It would provide recruit and in-service training as well as long-term advancement of the NYPD into the 21st Century. Based on the guiding principles established for the Site, the proposed project combines a mix of Police uses, including the consolidation of many of the existing training facilities, into one central location. The NYPD's *Integrated Facility Program* requires the dispersed training facilities to be relocated to the Tow Pound site, where all of the program elements would be physically integrated or connected so as to minimize site coverage while maximizing program proximities. Consolidating the appropriate facilities would maximize economies in facility, staff, and recruit resources, allowing resources to be allocated towards more advanced instructional environments.

Waterfront Revitalization Program

The Proposed Action is consistent with the City's Waterfront Revitalization Program (WRP) as discussed in greater detail in Chapter 6, "Waterfront Revitalization Program." The proposed development site is not located on the waterfront, nor is the site within a designated Special Natural Waterfront Area, or a Significant Maritime and Industrial Area. While the Site contains an exposed drainage ditch that collects runoff from the proposed development site and other nearby areas, it would not impact any unique or significant natural features. Other than the on-site drainage structure, the nearest surface water body is located approximately 700 feet south of the Site. The Proposed Action would redevelop an underutilized City-owned site in a manufacturing zoning district with an essential public facility that would meet LEED-silver certification, at minimum. The project would introduce a variety of design components that result in reduction of the volume and speed of stormwater flow into the local drainage systems and waterways.

College Point II Industrial Urban Renewal Area

The proposed Academy site is located within the College Point II Industrial Urban Renewal Area. The City of New York has designated the College Point II Industrial Urban Renewal Area as an urban renewal area pursuant to §504 of Article 15 ("Urban Renewal Law") of the General Municipal Law.

HPD represents the City in carrying out the provisions of the Urban Renewal Law pursuant to §502(5) of the Urban Renewal Law and §1802(6)(e) of the Charter.

The Urban Renewal Plan seeks to:

- Redevelop the Area in a comprehensive manner, removing blight and maximizing appropriate land use;
- Remove or rehabilitate substandard and insanitary structures;
- Remove impediments to land assemblage and orderly development;
- Strengthen the tax base of the City by encouraging development and employment opportunities in the Area;
- Provide appropriate community facilities, parks and recreational uses, retail shopping, public parking, and private parking; and,
- Provide a stable environment within the Area which will not be a blighting influence on surrounding neighborhoods.

Additionally, the plan includes the following design objectives:

- The Area should be developed in a manner compatible with or beneficial to the surrounding community;
- The project should harmonize in scale, configuration, and materials to the prevailing neighborhood pattern; and,
- In areas with exceptionally strong or uniform street character, the new construction should reinforce the existing urban pattern.

The controls of the urban renewal plan are concurrent with and do not supersede the controls of the Zoning Resolution of the City. If there is any conflict between the controls imposed by the Urban Renewal Plan, the more restrictive of the two governs.

While the proposed Academy site is located within the College Point II Industrial Urban Renewal Area, this Urban Renewal Plan expires in April 2009. With construction of the Police Academy not expected to be complete until 2014, the planned Police Academy would not be bound to the controls of the Urban Renewal Plan. Further, as described above, as the current College Point II Urban Renewal Plan is set to expire in 2009, the Special College Point District has been proposed. This special district would incorporate many of the features of the Urban Renewal Plan.

The Project Site is located within the College Point II Industrial Urban Renewal Area (URA), which the City of New York designated in 1969 pursuant to §504 of Article 15 ("Urban Renewal Law") of the General Municipal Law. The URA is located in Queens Community District 7 and is generally bounded by Fourteenth Road and Fifteenth Avenue on the north, the Whitestone Expressway on the east, Thirty-first Road on the south, and 130th Street, 127th Street, 120th Street, and 122nd Street on the west. The Urban Renewal Plan for this URA is set to expire in April 2009. With construction of the proposed Academy commencing after April 2009, it would not be bound to the controls of the Urban Renewal Plan. However, the site planning and campus-wide design will be sensitive to the underlying goals of the Urban Renewal Plan.

Upon selection of the project site for the proposed Academy, site planning and schematic design began for the Proposed Project based upon the Site's existing M1-1 and M3-1 zoning. Subsequently, the City issued a rezoning proposal for College Point that includes the Project Site, in an effort to continue the intent of the College Point II Industrial Urban Renewal Area beyond the April 2009 expiration date. These zoning changes include the creation of the "Special College Point District" (090318ZRQ) and a zoning map amendment (090319ZMQ). The College Point rezoning application likely would be voted on by the City Council in July and it is subject to modification until it is formally adopted. As the proposed zoning changes will be finalized after the Police Academy project application is certified

into ULURP and the DEIS is issued, the project design, the zoning override letter, the EIS and the ULURP application were prepared based on the existing zoning. Therefore, while the proposed Academy site is within the boundaries of the possible future Special College Point District, it was not possible for the Police Academy EIS and ULURP application to incorporate and fully evaluate the pending future zoning.

The site planning and building design for the proposed Academy is sensitive to the underlying goals of the College Point Urban Renewal Plan, listed above. The proposed use would be compatible with adjacent land uses, would be compatible in scale, configuration and materials to the prevailing neighborhood pattern, and would help to reinforce the existing urban pattern in the area. Further, the Academy would activate a site that has been used as an NYPD tow pound for many years. The proposed Academy is expected to reinforce the redevelopment efforts outlined in the urban renewal plan.

PlaNYC 2030 (2007)

As described above, the proposed Academy would comply with all applicable laws and ordinances, including the recently enacted Green Buildings Law (Local Law 86) governing sustainable design. Green building design, or sustainable design, strives to reduce a building's impact on its occupants and the environment. Sustainable design integrates architectural elements and engineering systems to optimize performance of proposed buildings and their interaction with the environment.

As part of the effort to obtain this certification, the proposed Academy will be using a variety of sustainable design features and best management practices to meet, at minimum, LEED Silver requirements. One goal is to increase the quality and decrease the quantity of stormwater that leaves the Project Site and flows into Flushing River/Flushing Bay. These features would complement each other and provide numerous levels of stormwater treatment prior to discharge. For example, as the majority of the stormwater would fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable.

The proposed Academy would also use a green roof system (vegetated) to collect and utilize rainwater. The system would retain rainwater, promote evapotranspiration, decrease the amount of runoff from the Project Site, and provide treatment through biological means. A bio-retention system is also proposed and would be located on the north side of the Project Site, along 28th Avenue. It would include a shallow stormwater basin with underdrainage that utilizes engineered soils and vegetation to collect, convey and treat runoff. The system would slow the discharge of runoff from the site, promote infiltration, increase landscape aesthetics and provide stormwater treatment through biological means.

Finally, a bio-swale is proposed on the east side of the Project Site. The bio-swale consists of an open channel system with underdrainage which utilizes engineered soils and vegetation to collect, convey, and treat runoff. The bio-swale will also slow the discharge of runoff from the site, promote infiltration, and provide stormwater treatment through biological means.

With all of these sustainable design features incorporated into the proposed Academy, the project will be consistent with the goals of PlaNYC 2030.

"Fair Share" Criteria

The NYPD has initiated a Uniform Land Use Review Procedure (ULURP) action for locating or selecting a site for a public facility on City-owned land. The ULURP application is for an approximately 35-acre area which is predominantly comprised of a NYPD Tow Pound facility in the College Point section of Queens. It is expected to be certified into ULURP by NYCDCP following the

completion of this EIS. The proposed Police Academy is subject to the City's "fair share" criteria and would be approved only if it is found to be consistent with this public policy.

There are no other public policies applicable to the proposed development site or to the proposed development that should be considered under CEQR. Accordingly, the Proposed Action would not result in any adverse impacts to public policy.

E. CONCLUSION

The Proposed Action would not have any significant adverse impacts on land use, zoning and public policy. The Proposed Action would represent a significant change in land use and an increase in density on the proposed development site, replacing largely unimproved site (Tow Pound and an auto repair facility) with a necessary public facility. This change in land use would be substantial and therefore, considered significant. Given the proposed development site's prior use and relative isolation from adjacent development, the introduction of the proposed development at this location is not expected to adversely affect or limit existing and anticipated land uses in the area or alter neighborhood character. The proposed development would be consistent with prevailing land uses in the surrounding area, including major commercial, manufacturing, and institutional uses, and would complement current on-going development trends.

The proposed development would be consistent with the site's existing M1-1 and M3-1 zoning. While the Special College Point District has not been formally adopted, the site planning and design of the proposed Academy would not conflict with the intent of the proposed zoning. The proposed project would generally conform to the New York City Zoning Resolution's bulk requirements regarding floor area. However, as described above, multiple overrides are required for the proposed Academy. Overrides are being sought for various height, setback, and yard requirements; an override is being sought for two proposed uses (the proposed police museum and visiting officer/guest lecturer facility); and an override is being sought to reduce the required accessory parking requirements. All of the requested overrides are deemed necessary. With the abovementioned overrides, no significant adverse zoning impacts are expected to result from the Proposed Action.

The Proposed Action is consistent with the Waterfront Revitalization Program (WRP), the College Point II Industrial Urban Renewal Area, the proposed Special College Point District, and PlaNYC 2030 and is not expected to have any effects on any applicable public policies. A 204(g) letter was written by the NYPD to the Queens Borough President and to Community Board 7 and no response has been received. Therefore, the proposed Academy would not conflict or be inconsistent with public policy or plans for the area.

A. INTRODUCTION

An open space assessment may be necessary if a Proposed Action could potentially have a direct or indirect effect on open space resources in the area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by an action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future populations. According to the guidelines established in the *City Environmental Quality Review (CEQR) Technical Manual*, an action that would add fewer than 200 residents or 500 employees, or a similar number of other users to an area is typically not considered to have indirect effects on open space. The Proposed Action would facilitate the construction of a new Police Academy that would introduce a large worker population in excess of 500 workers, which exceeds the CEQR threshold for analysis, and therefore, has the potential to affect the way residents and daytime populations of the surrounding community use parks, playgrounds and other open spaces in the area. In accordance with the guidelines established in the *CEQR Technical Manual*, this chapter assesses the adequacy of those resources in the area and the Proposed Action's effect on their use.

The Proposed Action would not directly displace any existing open space resources. It would facilitate the construction of a new Police Academy that would allow the NYPD to consolidate many of their training facilities, which are currently spread throughout the City, into one central location. The proposed Police Academy would consist of approximately 2.4 million gross square feet and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking facility on an approximately 35-acre largely unimproved, City-owned site in the College Point area of Queens ("proposed development").

The proposed development would introduce a significant worker/user population to the proposed development site. As discussed in Chapter 1, "Project Description," the proposed Academy would be a unique public facility that is envisioned to consolidate several of the City's disbursed training facilities into one centralized location. Each of the current training facilities has significant and immediate space needs in almost every space category, and, to varying degrees, each was found to be deficient in terms of infrastructure, life safety, and environmental condition. Further, consolidating the appropriate facilities will maximize economies in facility, staff, and recruit resources, allowing resources to be allocated towards more advanced instructional environments.

Over the past 15 years, the overall scope of the Department has expanded to include the NYC Transit Police, the NYC Housing Authority, the School Safety Division, and Traffic Enforcement. New technology has also required the department to change methodologies in many different areas of recruit training and in-service training. Additionally, the increased terror threat has changed expanded the focus of the police to also include international counter-terrorism and intelligence gathering. As such, the quantity and frequency of entry-level and in-service training has expanded dramatically, and has become increasingly specialized. The Department's modern training methodologies now emphasize scenario-based, simulated training techniques, including fundamental coursework and hands-on, scenario-based training. As such, the proposed Police Academy is a critical component of the NYPD as it aims to improve its services to the City.

For conservative CEQR analysis purposes, this chapter analyzes the maximum attendance/staffing conditions at the proposed Academy. The proposed development would have a peak population of approximately 5,500 trainees, employees, and visitors. While a majority of the population would be on-site during the second platoon (generally between 8 AM to 4 PM), the Police Academy would be staffed on a 24-hour basis.

As the proposed development would add more than 500 employees to the proposed Academy site, a detailed quantitative open space assessment was conducted to examine the change in total population relative to the total public open space in the area, in order to determine whether the increase in user population due to the Proposed Action would significantly reduce the amount of open space available for the area's population. This entails the calculation of the existing open space ratio, as well as the open space ratios in the future without and with the proposed Academy in place. The open space ratio is expressed as the amount of public open space acreage per 1,000-user population.

With an inventory of available resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that can affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population.

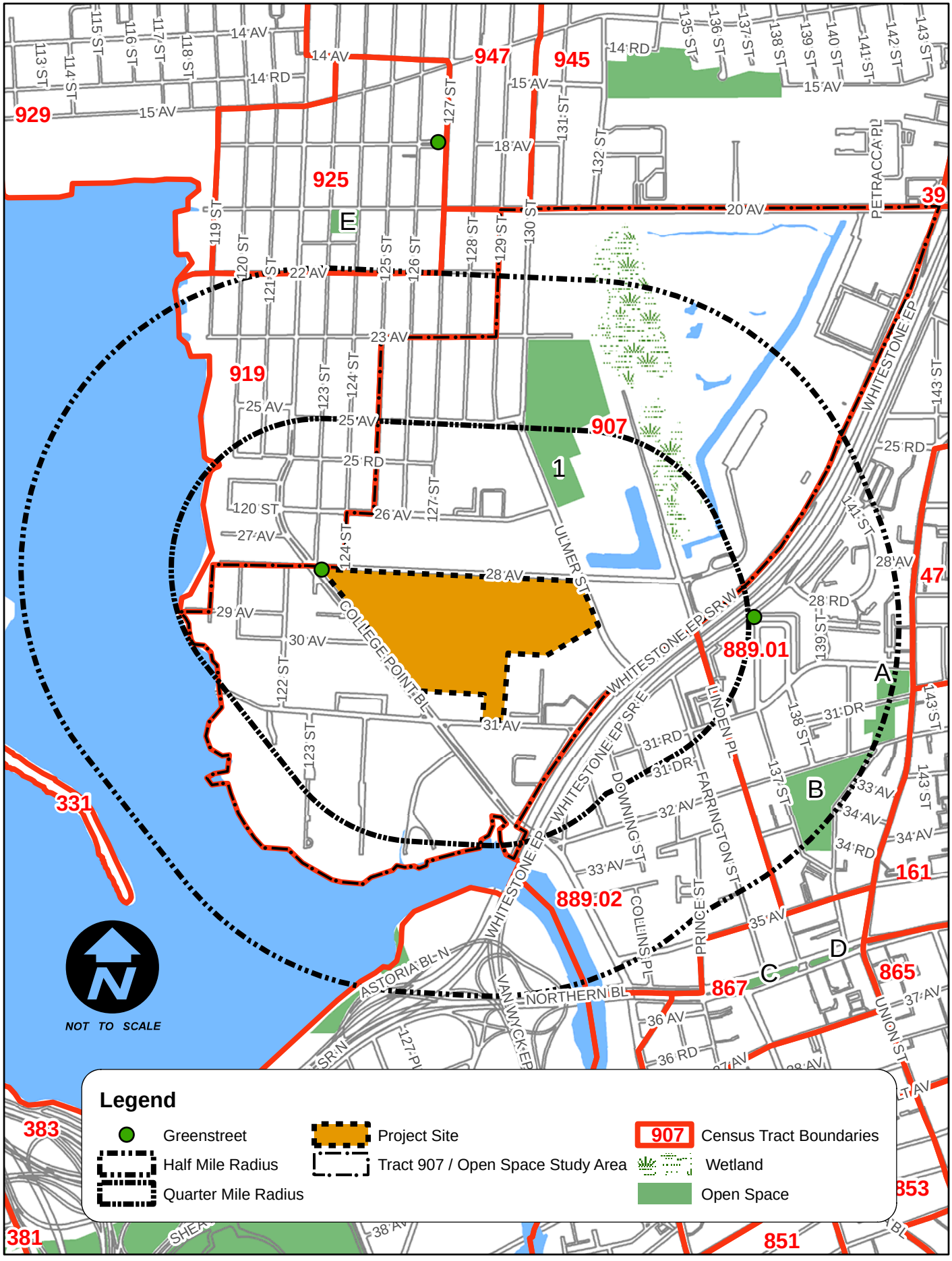
As discussed below, the Proposed Action would not add any new permanent residents to the area, therefore, this analysis focuses exclusively on passive open space and the demands of daytime users (i.e., recruits, workers, etc.). Because the study area also contains a residential population, the passive open space needs of the residential population are considered in this analysis as well.

B. OPEN SPACE STUDY AREA

According to CEQR methodologies, the open space study area is based on the distance a person is assumed to walk to reach a neighborhood open space, as well as the type of open space typically utilized by a particular user. Workers or other daytime populations (non-residents, including commuting recruits) are assumed to walk approximately a quarter-mile distance (about 10 minutes), and typically use passive open spaces within walking distance of their workplaces. Residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces. Residents will typically walk approximately a half-mile distance (up to about 20 minutes) to reach neighborhood open spaces. While they may also visit certain regional flagship parks (like Flushing Meadows-Corona Park), which are located outside of the study area (within approximately one mile of the proposed Academy), such open spaces are not included in the quantitative analysis but will be described qualitatively.

As the Proposed Action involves the siting of a new public facility and no new residential uses are proposed, a non-residential use study area is analyzed in this chapter, based on a quarter-mile distance from the proposed Academy's boundary. Per CEQR criteria, only those census tracts with 50 percent or more of their area located within a quarter-mile distance from the boundaries of the proposed development site are considered in the open space analysis. Therefore, the study area is comprised of one census tract as no other adjacent census tracts have 50 percent or more of their area located within a quarter-mile distance from the boundaries of the proposed development site (see Figure 3-1).

As shown in Figure 3-1, the defined study area extends roughly from the 25th Avenue to the north, to the Whitestone Expressway overpass at College Point Boulevard to the south, and is generally bounded by a point just east of Linden Place to the east, and the waterfront to the west.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Legend
Greenstreet
Half Mile Radius
Quarter Mile Radius
Project Site
Tract 907 / Open Space Study Area
907 Census Tract Boundaries
Wetland
Open Space

C. EXISTING CONDITIONS

Study Area Population

Demographic data were used to determine the non-residential and residential populations served by existing open space resources in the defined study area (see Table 3-1). To determine the number of residents located within the study area, data were compiled from the 2000 Census for the study area (Census Tract 907) and individual census blocks comprising the study area. The number of employees in the study area was determined based on journey to work data from the 2000 Census Transportation Planning Package (CTPP). As noted above, for those individual census tracts falling within the study area, because Census journey to work data is not provided at the census block level, a percentage of the census tract's worker population was used based on an estimate of the geographic proportion of the blocks included within the study area.

Table 3-1: Existing Worker and Residential Population Within the Study Area

Census Tract	Worker Population	Resident Population	Total User Population
907 *(Census 2000)*	4,160	1,354	5,514
Adjusted Total	**4,410** [1]	**1,410** [2]	**5,820**

Notes:

[1] As the NY Times has expanded it facility since the 2000 census (relocating employees from New Jersey), this analysis conservatively assumes that an additional 250 employees now work in the area.

[2] No notable residential population has been added to the study area since the 2000 census; however, a 0.5% annual increase in residential population is assumed from 2000 to the end of 2008 (addition of 56 residents).

Sources: 2000 Census of Population and Housing; Census Transportation Planning Package (CTPP) 2000, Part 2, Table p-1, New York Times Expansion EAS

Table 3-1 provides the estimated population data (workers and residents) for the defined study area based on the available 2000 census data. As shown in the table, approximately 4,410 workers (includes the construction since 2000) and 1,410 residents (adjusted for 0.5 percent annual growth between the 2000 census and 2008) are located within the study area, for a total user population of 5,820. Although the analysis conservatively assumes that residents and employees are separate populations, it is possible that some of the residents live near their workplace. As a result, some double counting of the daily user population is possible when residential and worker populations overlap, resulting in a more conservative analysis.

Inventory of Publicly Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes, or be set aside for the protection and enhancement of the natural environment. Public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under CEQR. Private open space is not accessible to the general public on a regular basis and should only be considered qualitatively.

An open space is determined to be active or passive by the uses that the design of the space allows. Active open spaces are intended for vigorous activities, such as jogging, field sports, and children's active play. Such features might include play equipment, basketball and handball courts, fields, and playgrounds. Passive facilities encourage such activities as strolling, reading, sunbathing, and people watching. Gardens, walkways, and benches/seating areas, as well as game tables (e.g., chess tables), and picnic areas often characterize passive open spaces. However, some passive spaces can be used for both passive and active recreation; for example, a green lawn or a riverfront walkway can also be used for ball playing, jogging or roller blading.

All publicly accessible and open space facilities within the defined study area were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition of available open space. In addition, private open spaces were also inventoried. The information used for this analysis was gathered through a field inventory conducted on day, July 29, 2008 (midday); and from the New York City Department of Parks and Recreation's (DPR) website, the New York City Oasis database and other secondary sources of information.

The condition of each open space facility was categorized as "Excellent," "Good", "Fair", or "Poor." A facility was considered in excellent condition if the area was clean, attractive, and all equipment was present and in good repair. A good facility had minor problems such as litter, or older but operative equipment. A fair facility was one which was poorly maintained, had broken or missing equipment, or other factors which would diminish the facility's attractiveness. A poor facility exhibited characteristics such as serious deficiencies in cleanliness, security, and landscaping. Determinations were made subjectively, based on a visual assessment of the facilities. Judgments as to the intensity of use and conditions of the facilities were qualitative, based on an observed degree of activity or utilization. If a facility seemed to be at or near capacity, i.e., the majority of benches or equipment was in use, then utilization was considered heavy. If the facility or equipment was in use, but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light.

Table 3-2, Open Space Inventory, identifies the name, ownership, features, and acreage of active and passive open spaces in the study area, and their condition and utilization. Figure 3-1 provides a map of their locations. The Map Key number provided in the first column of Table 3-2 indicates the appropriate marker for each open space in Figure 3-1.

Open spaces that are not open to the general public, or which are not open at regular defined hours were excluded from the quantitative analysis. Likewise, significant open space resources that fall outside the study area boundary were excluded from the quantitative analysis. However, public open space resources located beyond the quarter-mile radius but within an approximate half-mile radius from the Project Site (letters A through E) are provided in Table 3-2, and are described in the qualitative assessment below.

As shown in Figure 3-1, one publicly accessible open space resource is located within the study area and is included in the quantitative analysis. As described in detail below, this resource, College Point Sports Park, comprises slightly more than 25 acres, with the majority of the space designed for active use (approximately 19.043 acres, or 75 percent of total). Approximately 6.35 acres (25 percent) of this resource is considered passive recreational space. College Point Sports Park is the only substantial open space within the study area. Identified as Map Key #1 in Figure 3-1 and Table 3-2, College Point Sports Park is an approximately 25.39-acre facility that provides a roller hockey rink, two little league ball fields with bleachers, and floodlights for nighttime use of the facilities, benches, drinking fountains, and a comfort station. Reconstruction of the park began in the late 1990s.

Today, the park is in excellent condition and is heavily used by the neighborhood. At the time of the field visit (midday during a week day in July 2008), it was only lightly used. Peak usage of the College Point Sports Park facility is typically after school hours (3 PM until dusk) during the week, and on weekends when leagues are typically scheduled.

Table 3-2: Open Space Inventory

Map ID	Name	Owner	Features	Size (Acres)	Active Open Space (Acres)	Passive Open Space (Acres)	Condition / Utilization
Open Space Resources Within the Quarter-Mile Study Area							
1	College Point Sports Park	DPR	Ball fields, roller hockey rink, benches, drinking fountain, comfort station	25.39	19.043	6.35	Very Good / Moderate
Open Space Resources Beyond the Quarter-Mile Study Area, but Within a Half-Mile of the Site							
A	PS 214 / Colden Playground	DPR	Swings, jungle gym, basketball, asphalt baseball field, benches, trees	1.48	1.33	0.15	Good / Moderate
B	Leavitts Park	DPR	Tennis courts, handball courts, baseball field, benches, trees	7.30	6.57	0.73	Good / Light
C	Daniel Carter Beard Mem. Sq	DPR	Benches, trees	0.66	0.00	0.66	Fair / Light
D	Flushing Park Center Plots	DPR	Trees	0.42	0.00	0.42	Fair / Light
E	Poppenhusen Playground	DPR	Basketball court, swing set, sprinklers, jungle gym, benches, trees	1.14	1.03	0.11	Good / Moderate
Total				**11.00**	**8.93**	**2.07**	

Adequacy Of Open Spaces

The adequacy of passive open space in the study area was assessed both quantitatively and qualitatively. In the quantitative approach, the amount of useable open space acreage in relation to the study area population - referred to as the open space ratio - is compared with guidelines established by the New York City Department of City Planning (DCP). To determine the adequacy of open space resources for the working (daytime) population of a given area, DCP has established that 0.15 acres of passive open space per 1,000 workers represents a reasonable amount of open space. For a residential population, two sets of guidelines are used. The first guideline is a citywide median open space ratio of 1.5 acres per 1,000 residents. The second is an optimal planning goal established by DCP of 2.5 acres per 1,000 residents - 2.0 acres of active and 0.5 acres of passive open space per 1,000 residents. It is recognized that these goals are not feasible for many areas of the City, and they are not considered impact thresholds. Rather, these are benchmarks indicating how well an area is served by open space.

The needs of workers and residential populations are also considered together because it is assumed that both populations would use the same passive open spaces. Therefore, a weighted average of the amount of passive open space necessary to meet the DCP guideline of 0.15 acres of passive open space per 1,000 workers and 0.5 acres of passive open space per 1,000 residents is considered in this analysis. Because this ratio changes depending on the proportion of residents and workers in the study area, the analysis accounts for the amount of open space needed in each condition in the study area (i.e., Existing, No-Build, and Build Conditions), and calculates the recommended weighted average ratio of passive open space acres per 1,000 workers and residents.

Quantitative Assessment

As described above, the analysis of the study area focuses on passive open spaces that may be used by workers in the area (and shared by residents in the area). To assess the adequacy of the open spaces in the study area, the ratio of workers to acres of open space is compared to DCP's planning guidelines discussed above. In addition, the passive open space ratio for both workers and residents in the area is compared to the recommended weighted average ratio.

As shown in Table 3-2, the study area includes a total of 25.39 acres of open space, of which approximately 6.35 acres are passive space. According to Table 3-3, as of 2008 approximately 1,410 residents live within the study area, and approximately 4,410 people are estimated to work within the study area boundary. The combined residential and worker user population is 5,820.

Based on the *CEQR Technical Manual* guidelines, the study area has a ratio of 1.44 acres of passive open space per 1,000 workers, which is well above the City's guideline of 0.15 acres (see Table 3-3). The combined passive open space ratio of 1.09 acres per 1,000 residents and workers is also higher than the recommended weighted average ratio of 0.5 acres per 1,000 residents and workers. Therefore, with respect to the *CEQR* guidelines, it can be assumed that the study area is relatively well served by its passive open space resources.

Table 3-3: Analysis of Adequacy of Open Space Resources in the Study Area under Existing Conditions

	Existing Conditions
Study Area Population	
Residents [1]	1,410
Workers [1]	4,410
Total User Population	**5,820**
Passive Open Space Acreage [2]	**6.35**
Open Space Ratios	
Passive (Workers Only)	1.44
Recommended Weighted Average Ratio for Passive	0.5 Per 1,000 residents and workers
Combined Passive (Residents and Workers)	1.09 Per 1,000 residents and workers

Sources:
[1] Refer to Table 3-1
[2] Refer to Table 3-2

Qualitative Assessment of Open Space Adequacy

The passive open space resource within the defined study area may be further augmented to some degree by several factors. For example, the proximity of the study area to Poppenhusen Playground (see detailed description below) enables some residents and workers of the defined study area to use the open space resources provided by this public open space (see Figure 3-1). It is likely that occasionally both residents and workers within the study area's boundaries take advantage of the recreational amenities that this open space has to offer.

Similarly, four additional open space resources are listed in Table 3-2 and shown in Figure 3-1, which are located within approximately a half mile of the Site. It is expected that area residents and perhaps some of the local working population would occasionally utilize these open spaces, as they may be located nearer to their residence or place of employment. However, as these open spaces are located beyond the quarter-mile study area boundary, they are included herein for qualitative purposes.

P.S. 214 Playground / Colden (Map Key A in Figure 3-1 and Table 3-2) is an approximately 1.48 acre park that is located approximately a half of a mile to the southeast of the proposed development site. This open space features basketball courts, a handball court, swings and a jungle gym. There are benches and shade trees on the perimeter of the park.

Leavitts Park (Map Key B in Figure 3-1 and Table 3-2) is an approximately 7.3 acre park that is located approximately a half of a mile to the southeast of the proposed development site. This open

space features tennis courts, a multi-purpose playing field, and handball courts. Benches and shade trees are located around the perimeter of the park.

Daniel Carter Beard Memorial Square (Map Key C in Figure 3-1 and Table 3-2) is an open space that is approximately 0.66 acres. This landscaped area is located approximately a half of a mile to the south of the proposed development site. Several benches are located within the square.

Flushing Park Center Plots (Map Key D in Figure 3-1 and Table 3-2) is an open space of approximately 0.42 acres. This landscaped area is located approximately a half of a mile to the south of the proposed development site.

Poppenhusen Playground (Map Key E in Figure 3-1 and Table 3-2) is an approximately 1.14 acre park that is located approximately a half of a mile to the north of the proposed development site. This property, bounded by 20th Avenue, 123rd Street, 21st Avenue, and 124th Street, was sold by Conrad and Caroline Poppenhusen to the Village of College Point for one dollar in 1870. It became the property of the City of New York when the five boroughs were consolidated on January 1, 1898. Originally called College Point Park, it was renamed Poppenhusen Playground in 1971 by the City Council. This open space features basketball hoops, sprinklers, swings and a jungle gym. There are benches and shade trees on the perimeter of the park.

D. FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITIONS)

Open Space Study Area Population

According to the DCP, there are no known or expected major residential development proposals anticipated to be completed in the open space study area by 2014. In order to account for any small residential developments that may occur in the study area on an as-of-right basis, and to reflect any recent developments that may have occurred since the 2008 existing conditions, this analysis conservatively applies a background growth rate to the study area's existing residential population. As recommended by the *CEQR Technical Manual*, an annual growth rate of 0.5 percent was used. Therefore, the study area's residential population is projected to increase by an additional 42 residents from 1,410 (adjusted existing conditions 2008, refer to Table 3-1) to 1,452 residents by 2014 (refer to Table 3-4 in Section E, "Future With the Proposed Action").

As described in Chapter 2, "Land Use, Zoning, and Public Policy," in the future without the Proposed Action, several new manufacturing developments are expected to be completed and fully occupied by 2014 within the quarter-mile study area. Environmental analyses, which included the expected number of new employees, were conducted for each of these planned developments. As such, it is expected that the No-Build projects would introduce approximately 579 workers to the study area (refer to Table 3-4 below), which includes an estimate of 50 new jobs for the planned NYC Department of Sanitation (DSNY) North Shore Marine Transfer Station by 2014.

Therefore, in the future without the Proposed Action, it is estimated that a total of approximately 1,452 residents and 4,989 workers would be expected within the study area by 2014 for a total population of 6,441.

Quantitative Analysis of Open Space Adequacy

For conservative analysis purposes, it was assumed that no new open space will be added to the study area by the build year of 2014 and the amount of open space available will continue to be

approximately 25.39 acres, with approximately 19.043 acres of active open space and 6.35 acres of passive open space.

For the projected total worker population of 4,989 in build year 2014, the passive open space ratio for the study area's workers would decrease from 1.44 acres per 1,000 workers under existing conditions to 1.27 acres per 1,000 workers under the No-Build condition, which would continue to be well above the City's guideline of 0.15 acres (see Table 3-4 in Section E below).

The recommended weighted average ratio for total open space (passive and active) would decrease by approximately 9.6 percent from 4.36 to 3.94 acres per 1,000 residents and workers. The combined passive open space ratio would decrease by approximately 9.6 percent from 1.09 under existing conditions to 0.99 acres per 1,000 residents and workers in the future without the proposed project. In the 2014 future without the Proposed Action, the passive open space ratios would continue to be above NYCDCP's guidelines for adequacy.

Qualitative Analysis of Open Space Adequacy

The open space ratios would remain above the guideline of adequacy in the future without the Proposed Action. Additionally, as noted above, the calculated ratios are somewhat conservative, as there are significant public open space resources that fall just outside the quarter-mile study area radius and are not included in this quantitative analysis (e.g. Poppenhusen Playground and P.S. 214 / Colden Playground, among others). These open spaces represent additional active and passive open space options for the residential and worker populations.

E. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITIONS)

The Proposed Action would facilitate the construction of a new public facility that would accommodate a new Police Academy and serve recruit and in-service training needs for the NYPD. The proposed facility would occupy an approximately 35-acre site and would consist of approximately 2.4 million gsf and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, field house, a police museum, a visiting police/lecturer housing facility and an above-grade accessory parking facility. Additionally, the proposed Academy campus would feature an interior courtyard and a variety of landscaped areas adjacent to the on-site drainage ditch, as described in detail below.

On a typical day, the proposed development would have a peak population of approximately 5,500 trainees, employees, staff, and visitors. While a majority of the population would be on-site between 7 AM to 4 PM, the Academy would be staffed on a 24-hour basis. However, all of the daily training would conclude by 10 PM. Only the central services staff and related support staff (approximately 80 people) would work overnight.

Quantitative Analysis of Open Space Adequacy

As described above, under the typical operating conditions, a maximum of 5,500 trainees (including recruits), employees, and visitors would be on-site during the peak shift in the future with the Proposed Action. The projected worker population within the study area would therefore increase to 10,489 people (refer to Table 3-4 below). As a result, the study area would have a total open space ratio of 0.61 acres of passive open space per 1,000 workers, a decrease of 0.66 acres as compared to future without the Proposed Action. However, the study area would continue to be above the City's guideline of 0.15 acres per 1,000 workers.

The combined passive open space ratio for the study area would also continue to be higher than the recommended weighted average of 0.5 acres per 1,000 residents and workers, at 0.53 acres per 1,000 residents and workers. Therefore, with respect to the *CEQR* guidelines it is expected that the study area would continue to be adequately served by its passive open space resources in the future with the Proposed Action under the typical day-to-day operation of the proposed development.

Table 3-4:
Analysis of Adequacy of Open Space Resources in the Study Area:
2014 No-Build and Build Conditions

	NO-BUILD CONDITION	BUILD CONDITION
Study Area Population		
Residents	1,452	1,452
Workers/Students	4,989	10,489
Total User Population	**6,441**	**11,941**
Passive Open Space Acreage	**6.35**	
Open Space Ratios		
Passive OSR (Workers Only)	1.27	0.61
Recommended Weighted Average Ratio for Passive	**0.15 per 1,000 residents and workers**	
Combined Passive (Residents and Workers)	0.99 per 1,000 residents and workers	0.53 per 1,000 residents and workers

Qualitative Assessment of Open Space Adequacy

As shown above in Table 3-4, the introduction of new worker population from the new Academy would result in a decrease in the open space ratio as compared to No-Build conditions. While the open space ratio would remain above the CEQR guidelines of adequacy (0.15 acres per 1,000 workers) in the future with the Proposed Action, the new population would have the potential to decrease the open space ratio by more than 5 percent. According to CEQR guidelines, a decrease of the open space ratio in excess of 5 percent is generally considered to be a substantial change, warranting a more detailed analysis. However, as described below, the Academy is not expected to result in the intensity of use prescribed by the *CEQR Technical Manual* analytical guidelines for open space resources.

While the new Academy would result in a significant new daytime population in this area, it must be noted that the Academy is a one-of-a-kind institution that would introduce a unique population to the study area. The purpose of the proposed Academy is to provide academic and physical training for recruits and in-service personnel. The proposed Academy itself would feature a variety of passive and active open space resources on-site. Active uses would include physical training components for recruit and in-service use, such as an approximately 283,000 sq. ft. physical training and tactics (field house) which would feature an indoor track, fitness facility space, several tactics gymnasiums (various sizes), and a pool. These proposed training facilities would accommodate the NYPD's physical training requirements on-site and would significantly reduce the Academy's demand on active open space resources in the area.

In terms of passive open space resources, the proposed Academy would have a variety of landscaped areas and benches throughout the campus that recruits, in-service trainees, instructors, and staff could utilize during lunch breaks or other down time. Landscaped areas are currently proposed along the drainage ditch, which would help to transform this challenging site element into a unique water

feature. An interior courtyard is proposed on the eastern half of the Academy site near the academic buildings, which would feature trees and also include sitting areas. Other prominent landscaping is proposed along 28th Avenue and Ulmer Street where the buildings would be set back from the streets. In addition to the abovementioned interior courtyard, the Academy would have a commencement entry on 28th Avenue in front of the proposed field house. This ceremonial entry and the area around the field house are envisioned to be open plazas, which could be utilized as on-site passive open space resources. Figure 1-3 shows the locations of the proposed open space resources.

As the new Academy would provide a variety of active and passive recreation features, the anticipated peak population is not expected to create significant new demands on local open space resources.

Additionally, as there would be an on-site dining facility (approximately 85,000 sq. ft.) available for the entire Academy population and as each population segment would have a limited lunch period, it is expected that most users would take advantage of the on-site cafeteria. Further, due to the currently proposed scheduling of the recruit and in-service populations (and the related instructor populations), it is anticipated that a majority of the on-site population would not have the opportunity to utilize the local open space resources, but are instead expected to stay on the Police Academy campus during their breaks.

The in-service population (nearly 1,000 people) would be divided into a morning and evening session as indicated in Table 1-1. Both of these shifts are offset from the recruit / trainee schedule and would result in a different lunch / break time. Further, as described above for the other populations, due to scheduling / convenience factors, it is expected that a majority of the in-service population would take advantage of the on-site accommodations and open space areas.

The central services and related support staff is comprised of approximately 1,000 people. While this population would be more likely to use the off-site open space resources during their break time, it is expected that this population would also utilize the new on-site open space resources, sitting areas, and dining facilities.

Table 3-4 shows the worst-case open space usage in the future with the proposed project and conservatively assumes that the proposed Police Academy would add a substantial number of new users to the local open spaces. As shown in the table, local open space resources would continue to operate above the City's minimum thresholds for open space adequacy in the future with the proposed action. However, as indicated above, the actual open space usage anticipated to result from the Police Academy's population is expected to be very low due to a variety of passive open space opportunities that would be available on the Police Academy site. Therefore, the anticipated population at the Academy would not overburden the local open space resources, and no significant adverse impacts are expected.

F. SHADOWS

According to *CEQR Technical Manual* criteria, shadow impacts generally occur if an action would result in new structures, or additions to buildings that would exceed 50 feet in height that could cast shadows on natural features, publicly accessible open space, or on historic features that are dependent on sunlight. While the planned development would consist of buildings that would be taller than 50 feet in height, there are no existing sunlight-sensitive open space or historic resources that would be affected by the proposed development. Per *CEQR Technical Manual* guidelines, the longest shadow that a building can cast in New York City would be 4.3 times the total height of the building. For CEQR purposes, only new buildings or additions in excess of 50 feet in height warrant a closer look.

As the 155-foot tall fieldhouse would be the tallest proposed structure on the Police Academy campus, it was evaluated for its potential to cast shadows on the nearby College Point Sports Park. Additionally, the academic and administrative portions of the Academy (with a maximum height of 135 feet) were evaluated for their potential to cast shadows on the open space due to their closer proximity to the College Point Sports Park. At a height of 155 feet, the fieldhouse would cast a worst-case shadow of approximately 670 feet in length. As the southwestern boundary of the College Point Sports Park is approximately 850 feet from the field house (this measurement was taken from the property line to be conservative), no project-generated shadows would be cast onto the open space. Similarly, the proposed academic and administrative portions of the proposed Academy, at a height of approximately 135 feet, would cast a worst-case shadow of approximately 580 feet, which would fall well short of the open space, which is located over 640 feet to the north. As such, the proposed Academy does not have the potential to result in significant adverse shadows impacts.

G. CONCLUSION

According to the *CEQR Technical Manual*, a proposed action may result in a significant impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently result in overburdening existing facilities or further exacerbate deficiency in open space. The *CEQR Technical Manual* also states, "if the area exhibits a low open space ratio indicating a shortfall of open space, even a small decrease in the ratio as a result of the action may cause an adverse effect." A five percent or greater decrease in the open space ratio is considered to be "substantial", and a decrease of less than one percent is generally considered to be insignificant unless open space resources are extremely limited.

As noted above, the Proposed Action would not result in any direct displacement or alteration of existing open space resources in the study area.

According to the abovementioned *CEQR* criteria, the Proposed Action has the potential to result in a significant open space impact as it would result in the open space ratio by more than five percent. When the proposed development is operating at maximum occupancy, the Proposed Action would result in a five percent or greater decrease in the combined passive open space ratio. While *CEQR* criteria indicate that the combined passive open space ratio would reduce from 0.99 under No-Build conditions to 0.53 under Build conditions, it is unlikely that the open space facilities in the study area would experience significant adverse impacts as a result of the proposed Police Academy.

As noted above, the proposed development site is located within close proximity to College Point Sports Park. Table 3-2 indicates that this open space is lightly used during the midday when the proposed Academy's population would be highest. As the Academy would not be used on the weekends, the local open spaces would not be impacted during the neighborhood's peak usage. While it is expected that the new population resulting from the proposed Academy may use College Point Sports Park as their primary passive open space resource due to its close proximity, the Academy's population is not expected to heavily utilize any public open spaces. As explained above, the grounds of the Academy would be landscaped and would feature passive open space amenities such as seating areas and tables that would be for the use of the NYPD trainees and employees at the Academy. Such on-site amenities are expected to further ameliorate the potential effects that the anticipated population could have on the open space resources in the study area. Any project-related reduction of the combined passive open space ratio is not expected to noticeably diminish the ability of the study area's open spaces to serve its user populations in the future with the Proposed Action.

In addition, as noted above, several open space resources are located within approximately a half-mile radius of the proposed Academy site. As such, it is possible that area residents and workers would occasionally use these nearby open space resources and other local and regional open space resources, thereby minimizing the effect of increased populations on open space resources in the study area. Therefore, the Proposed Action is not anticipated to result in a significant adverse impact on open space resources.

A. INTRODUCTION

This chapter considers the potential for the Proposed Action to have a significant adverse effect on urban design and visual resources. As described in Chapter 1, "Project Description," the Proposed Action would include a site selection for approximately 35 acres of City-owned land, including a majority of the Department's Vehicle Impoundment Lot ("Tow Pound") in College Point, Queens. The proposed action would allow for the development of a modern training complex, to be operated by the NYPD, which would consolidate in one-campus facilities for civilians, recruits, and active police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet (gsf) and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an outdoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking facility of approximately 1,800 spaces ("proposed Academy" or "proposed development").

The *City Environmental Quality Review (CEQR) Technical Manual* states that urban design components and visual resources determine the "look" of a neighborhood—its physical appearance, including the size and shape of buildings, their arrangement on blocks, the street pattern, and noteworthy views that may give an area a distinctive character. As the Proposed Action would facilitate the development of a public facility, which would be notably different in height and scale from existing development, a detailed urban design and visual resources analysis was conducted to determine whether the Proposed Action would result in significant adverse impacts to these resources. This chapter analyzes existing conditions and the future without and with the Proposed Action for the 2014 analysis year. The study area for urban design and visual resources coincides with the land use and zoning study area, and is defined as extending a quarter-mile from the boundary of the proposed Academy site.

B. METHODOLOGY

In accordance with the *CEQR Technical Manual*, this analysis considers the effects of the Proposed Action on the following elements, which collectively form an area's urban design:

- *Block Form and Street Pattern.* This urban design feature refers to the shape and arrangement of blocks and surrounding streets, such as a grid pattern with regularly sized, rectangular blocks. These features set street views, define the flow of activity through an area, and create the basic format on which building arrangements can be organized.
- *Building Arrangement.* This term refers to the way that buildings are placed on zoning lots and blocks. The buildings can have small or large footprints, be attached or detached and separated by open space uses, and be varied in their site plans. This urban design feature helps to convey a sense of the overall form and design of a block or a larger area.
- *Building Bulk, Use, and Type.* Buildings are usually described by these characteristics. A building's bulk is created from an amalgam of characteristics that include its height, length, and width; lot coverage and density; and shape and use of setbacks and other massing elements. The general use of a building (e.g., residential, manufacturing, commercial office) gives an impression of its appearance and helps to convey visual and urban design character. Building type refers to a distinctive class of buildings and suggests distinguishing features of a particular

building. Examples of building type include: industrial loft, church, gas station, and walk-up tenement.

- *Streetscape Elements.* Streetscape elements are the distinctive physical features that make up a streetscape, such as street walls, building entrances, parking lots, fences, street trees, street furniture, curb cuts, and parking ribbons. These features help define the immediate visual experience of pedestrians.
- *Street Hierarchy.* Streets may be classified as expressways, arterials, boulevards, collector/distributor streets, or local streets, and they may be defined by their width, type of access, and the presence or absence of at-grade pedestrian crossings. Street hierarchy helps convey a sense of the overall form and activity level of a neighborhood.
- *Topography and Natural Features.* Topographic and natural features help define the overall visual character of an area and may include varied ground elevations, rock outcroppings and steep slopes, vegetation, and aquatic features.

This analysis also considers the potential effects of the Proposed Action on the area's visual resources, which the *CEQR Technical Manual* defines as unique or important public view corridors, vistas, or natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geologic formations.

As recommended by the *CEQR Technical Manual*, this technical analysis evaluates the potential for impacts in two areas—the proposed Academy site and a surrounding study area (see Figure 4-1). The proposed Academy site encompasses a total of approximately 35 acres and includes a majority of the NYPD's existing College Point Tow Pound, an existing vehicle service facility, and a vacant strip of land along College Point Boulevard.

The urban design study area extends an approximate quarter-mile radius from the proposed Academy site and for the assessment of urban design, has generally been divided into five distinct sub-areas: the area bounded by 28th Avenue, Ulmer Street, 25th Avenue, and Flushing Bay (north of the Site); the area east of Ulmer Street and north of 28th Avenue (northeast of the Site); the area to the east of the Whitestone Expressway (generally bounded by 29th Road, 31st Drive, and the Whitestone Expressway); the area generally bounded by Ulmer Street, the Whitestone Expressway, College Point Boulevard (south of the Site); and the area bounded by College Point Boulevard, 28th Avenue and Flushing Bay/Flushing River (west of the Site), as shown in Figure 4-1.

C. EXISTING CONDITIONS

Urban Design

Project Site

As noted above, the proposed Academy site encompasses a total of approximately 35 acres and is located in the College Point area of Queens, just to the north of the Whitestone Expressway as it crosses the Flushing River. The Site is generally bounded by the 28th Avenue to the north, Ulmer Street to the east, 31st Avenue to the south, and College Point Boulevard to the west (refer to Figure 4-1).

The Site, shaped like an arrowhead, is located at the southern limits of the College Point II Industrial Urban Renewal Area (see Figure 4-2). The Site consists largely of paved, unimproved land. The proposed Academy site includes a City-owned vehicle service station (the City leases the property to the vehicle service station on a month-to-month basis), a City-owned strip of vacant land that is located between the Tow Pound and College Point Boulevard, and the balance of the Proposed Academy site is comprised of the northern portion of the NYPD's College Point Tow Pound. On a

Figure 4-1
Urban Design Study Area

Site boundaries are approximate

Police Academy - College Point, Queens

Figure 4-2

College Point II Industrial Urban Renewal Area

daily basis, the Tow Pound contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts on a paved asphalt lot. All of the vehicles, motorcycles and parts are being relocated to other City-owned sites as the City reorganizes its citywide operations.

Current buildings at the College Point Tow Pound include the 2-story, approximately 17,000 square-foot main administrative building/garage at the 31st Avenue entrance and an outlying building, a one-story, approximately 1,125 square-foot structure which is located near its secondary access along Ulmer Street at the northeastern edge of the property. The southern five acres of the existing Tow Pound, including the main administrative building/garage, is located to the south of the proposed Academy's southern property line. As such, the main administrative building/garage is not located within the limits of the proposed Academy site.

As described in Chapter 1, "Project Description," an exposed drainage ditch (part tidal and part freshwater) in the shape of an inverted "L" bisects the proposed Academy site, separating the eastern third from the western two thirds of the site. The drainage ditch originates in the northeastern section of the proposed Academy site where two 84-inch storm sewers discharge drainage from offsite. The northern and central sections of the ditch are connected via two 84-inch culverts beneath the northern bridge. These culverts have tide gates constructed on the downstream end, limiting tidal flow to the central and southern sections of the ditch. The ditch ultimately drains offsite to the south via three 72-inch pipes located at the southern boundary at 31st Avenue. The structure provides drainage for upland areas of College Point via culverts to Flushing Bay to the south, emptying near the Whitestone Expressway (approximately 700 feet south of the proposed Academy site). The drainage structure was constructed by NYCEDC in the early 1980's. The tide gates were recently replaced by NYC EDC.

The approximately 35-acre proposed Academy site, consisting of the Tow Pound Site, the service station parcel, and the strip of land between the College Point Tow Pound and College Point Boulevard, would be developed as the Police Academy.

The proposed Academy site is located in the area of College Point, Queens that has become known by many as the College Point Corporate Park. Set on 550 acres in northern Queens, this area of College Point has been the focus of a City redevelopment effort for many years (refer to Figure 4-2). With over 175 companies, College Point Corporate Park has established itself as a major business center. Industries represented include office operations, light manufacturing, printing, distribution, and retail. Adding to the park's diversity are major retailers and consumer service operations including Home Depot, Staples, BJ's Wholesale Club, Target, the United States Postal Service, a multiplex cinema, and the New York Times printing plant. An MTA Bus Depot is located north of the proposed Academy site, and Coastal Oil is located southwest of the site. Other local uses include a cement manufacturer, a heavy equipment rental company, and a cable storage company. Municipal uses include a Department of Sanitation site and transfer station and a ConEdison facility.

The Site has frontage on College Point Boulevard, 28th Avenue and Ulmer Street. To the south of the Site, on the project block, to the east of the exposed drainage channel, are several commercial uses and a church. The Department of Motor Vehicles has an office located within this plaza.

As shown in Figure 4-3, the project site has limited streetscape elements. The entire Tow Pound portion of the Site (except for the main entry at 31st Avenue) is surrounded by a tall fence, which obstructs views into the Tow Pound. Similarly, the vacant strip of land between College Point Boulevard and the Tow Pound is also fenced and obstructs public views into the Site. Existing sidewalks around the project site vary from 12 to 16 feet wide. Street trees are planted along Ulmer Street, 28th Avenue and College Point Boulevard. Utility poles are located along the streets in the area, which carry various services throughout the College Point neighborhood. There are currently two curb cuts located on the Ulmer Street frontage, one on the 28th Avenue frontage, and two on the College

Point Boulevard frontage. Although the 31st Avenue frontage would not be included within the proposed project, it should be noted that there are two curb cuts providing access at the NYPD tow pound's primary entrance and a third curb cut which provides access to the adjacent drainage ditch (which would be part of the proposed Academy site).

Study Area

The approximate quarter-mile urban design study area extends north to 25th Avenue and south to the point where the Whitestone Expressway crosses the Flushing River. The eastern boundary is 29th Road, while the western boundary includes the entire coastline from a point south of 25th Avenue, south to the Whitestone Expressway. The study area is characterized by the outer edges of several distinct areas of College Point that do not have a strong connection to each other, as they are generally separated by broad thoroughfares and large transportation, commercial, manufacturing, and light industrial uses which visually and physically divide the study area into five subareas. As noted above, the five sub-areas include the following: the area to the north of 28th Avenue and west of Ulmer Street (Sub-Area I); the area north of 28th Avenue and east of Ulmer Street (Sub-Area II); the area to the southeast of the Whitestone Expressway (Sub-Area III); the area to the southeast of the project site that is generally bounded by College Point Boulevard, the Whitestone Expressway, Linden Place, and 28th Avenue (Sub-Area IV); and the area to the west of College Point Boulevard between 28th Avenue and the Whitestone Expressway (Sub-Area V). See Figure 4-4, "Photo Locations" for the sub-areas and identification of photo locations.

Topography, natural features, street hierarchy, street pattern, and block shapes are discussed below for the entire quarter-mile study area. Building bulk, use, type, and arrangement, as well as streetscape features are discussed separately and in more detail for each subarea listed above. Figure 4-4 shows the location of photographs referenced in the discussion below.

Overall, the urban design of the study area is defined by a number of large transportation, commercial, manufacturing, and light industrial facilities that occupy large sites surrounded by accessory parking lots, low-density residential areas featuring detached and semi-detached homes as well as some mid-density assisted living facilities along the waterfront to the north of 27th Avenue. Several big box commercial uses are located within the study area boundaries, including a Home Depot, which is located to the south of the proposed Academy Site, Toys 'R Us, and Office Depot which are to the east, along with a multiplex cinema. A variety of other low-rise commercial office buildings, warehouses and/or small manufacturing facilities are located to the west/southwest of College Point Boulevard.

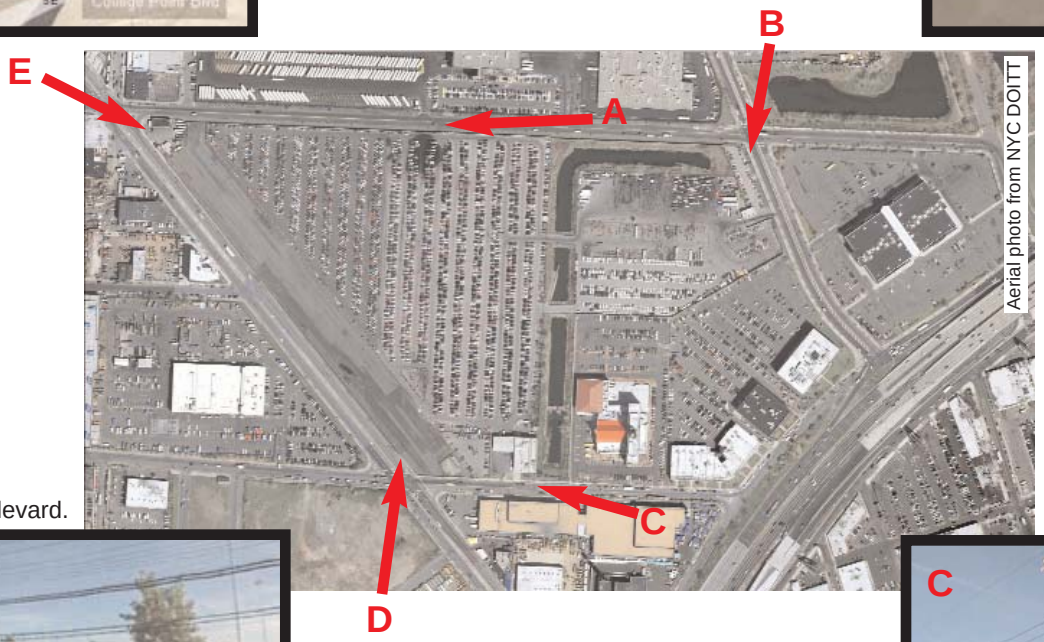
The nearest buildings to the proposed Academy site are the 2-story office building and the bus maintenance facility at the MTA's College Point Bus Depot, located immediately north of the proposed development site, across 28th Avenue. The remainder of the MTA property is occupied with at-grade bus parking. A variety of other light manufacturing, transportation and commercial uses are also located immediately to the north of the proposed Academy site. Detached residences are concentrated along the south side of 26th Avenue, west of 125th Street and on the north side of 26th Avenue, west of 127th Street.

The irregular street pattern consists of highly trafficked thoroughfares and side streets. Most of the buildings throughout the study area—including commercial, manufacturing, light industrial, and residential buildings—are low-lying buildings, though there are a few buildings and structures in the area that are over five stories tall (including a hotel which is located at 30th Avenue and College Point Boulevard and the 9-story church building which is located to the south of the proposed site, just east of the drainage ditch).

E. Southeast along College Point Boulevard.

A. West along 28th Avenue.

B. South along Ulmer Street.



D. North along College Point Boulevard.

C. West along 31st Avenue.

Street-level photos from Google Streetview.

Police Academy - College Point, Queens

Figure 4-3

Streetscape Elements

Site boundaries are approximate

Topography and Natural Features

Throughout the quarter-mile study area, the topography is generally level, though the land slopes slightly from north to south and towards the coastline of Flushing Bay and Flushing River. Flushing Bay is located approximately a quarter-mile west of the proposed Academy. The mouth of the Flushing River is also located approximately a quarter-mile to the south of the proposed Academy site. As described in greater detail in the Project Description, a man-made drainage ditch bisects the site. This structure helps to drain the Flushing Airport site, which is located to the northeast, along with the upland areas. The approximately 25-acre College Point Sports Park is located to the west of the former Flushing Airport site, within a quarter-mile of the proposed Academy site. Given the predominant manufacturing characteristics of the immediate area, including large at-grade parking lots, greenery is provided primarily by street trees. The residential areas in the northern portions of the study area consist of landscaped yards.

Block Form, Street Pattern and Street Hierarchy

The study area has a highly irregular street pattern that consists of a network of arterials, local streets and private roadways, as well as the Whitestone Expressway. In the vicinity of the proposed Academy site, the broad thoroughfares of College Point Boulevard and Ulmer Street establish the major north-south corridors. Generally, superblocks comprise the study area to the south of 26th Avenue, with the northern area comprised of a more typical street grid. Several large irregularly shaped superblocks have also had a strong impact on the street patterns and block shapes throughout most of the study area (the predominantly manufacturing sections). The study area also contains a number of short streets, which only extend for one, or just a few blocks, especially west of College Point Boulevard.

College Point Boulevard is the major north-south arterial along the western edge of the quarter-mile study area, with two travel lanes in each direction, plus exclusive left turn lanes at the approaches to intersections. Parking is restricted along the east and west curbs during all periods of the day, Monday through Sunday. College Point Boulevard is a NYCDOT-designated truck route.

Ulmer Street also runs north-south in the vicinity of the project site, which is located along the eastern edge of the proposed Academy site, and terminates at the Whitestone Expressway's northern service road (westbound traffic). Ulmer Street is one lane in each direction with No-Standing Anytime posted along both curbs.

Linden Place runs north-south with one travel lane in each direction and No-Standing Anytime along both the east and west curbs. This arterial primarily carries traffic between the Whitestone Expressway and Northern Boulevard.

The Whitestone Expressway (I-687), located approximately 400 feet to the southeast of the proposed Academy, isolates the College Point neighborhood from the Flushing neighborhood. The Whitestone Expressway is a limited access multi-lane highway with adjacent service roads. The expressway begins to the north on the Whitestone Bridge and terminates at the Van Wyck Expressway (I-678) interchange with the Grand Central Parkway. In the study area, the Whitestone Expressway has interchanges at 20th Avenue and Linden Place. The Linden Place interchange provides access directly to the southeast of the proposed Academy site. The northern service road carries traffic in the westbound direction with two travel lanes. The southern service road carries traffic in the eastbound direction with two travel lanes.

Both 28th Avenue and 31st Avenue carry a significant share of the local east-west traffic in the study area.

As mentioned above, the area north of the Whitestone Expressway and west of Linden Place is comprised of an irregular street grid. The street grid becomes more regular to the north of 26th Avenue. South of 26th Avenue, large transportation, commercial, manufacturing, light industrial and utility uses are sited on large, irregularly shaped blocks with on-site accessory parking lots. Most of the secondary streets in this area are narrow, one-way or two-way local streets.

Building Bulk, Use, Type and Arrangement

Sub-Area I: The area to the north of 28th Avenue and west of Ulmer Street

This sub-area, while not a distinct neighborhood, is located immediately to the north of the proposed Academy site. This sub-area is a transitional area that bridges the manufacturing areas to the south with the residential portion of the College Point neighborhood to the north. Land uses along the north side of 28th Avenue include the MTA's College Point Bus Depot, a nightclub, a gas station, and several commercial and light manufacturing businesses. The commercial and light manufacturing buildings are typically two-to-four stories tall with large footprints. At-grade accessory parking lots are located on-site around each of these buildings to accommodate staff and visitors.

To the west of College Point Boulevard, the area is comprised of residential uses. At 119th Street, several mid-rise assisted care facilities are located along the waterfront. This generally low-density residential sub-area primarily consists of one-and two-family detached and semidetached residential buildings in a variety of styles (see Figure 4-5, "Typical Views Within Sub-Area I"). The buildings are generally brick and wood-framed houses that are between one-to three-stories tall. They occupy narrow lots and are typically setback from the street, featuring shallow front yards and private driveways.

Uses along College Point Boulevard are varied and include local retail, institutional, and automotive services. However, residential uses are the primary land use along College Point Boulevard in this sub-area. The residential uses along College Point Boulevard are two to three story brick buildings. Many of the buildings are semidetached and some are attached. Generally, the buildings along College Point Boulevard are built to the street with no setback.

Floor area ratios (FARs) of 0.75 in this sub-area are based on residential zoning designations R4 and R4A, which result in predominantly low-density residential structures that are two-stories tall. The maximum lot coverage in an R4 district is 45 percent of the lot area. In an R4A district, lot coverage is governed through the yard requirements. Required front yards have to be at least 10 feet deep and at least as deep as an adjacent front yard up to a depth of 20 feet; rear yards of 30 feet are required; and two side yards are required that total at least 10 feet and a minimum width of two feet each.

The FAR in the R5-B portion of this sub-area is 1.35, which typically produces three-story row houses with a maximum street wall height of 30 feet, above which the building slopes or is set back to a maximum building height of 33 feet. The maximum lot coverage in an R5-B district is 55 percent of the lot area.

The FAR in the M1-1 portion of this sub-area is 1.0, which typically result in one and two-story warehouses studded with loading bays.

Sub-Area II: The area north of 28th Avenue and east of Ulmer Street

Sub-Area II is largely un-built. This sub-area includes the approximately 25-acre College Point Sports Park, an at-grade satellite parking lot for the multiplex cinema, and offices for a construction company

Typical Views Within Sub-Area I

1.
Mid-rise elder-care facility located at 120th Street and 26th Avenue.

2.
A bird's eye view of the MTA bus facility, located immediately to the north of the proposed Academy site.

3.
Typical housing in Sub-Area I.

(see Figure 4-6, "Typical Views Within Sub-Area II"). Additionally, the area includes a portion of the mapped Linden Place roadbed (un-built, but expected to be re-constructed), the former Flushing Airport site, and a portion of the New York Times property. A drainage area, which serves to drain the flood-prone former Flushing Airport site, is located to the south and east of the construction company's property.

As described in Chapter 3, "Open Space," College Point Sports Park is an approximately 25-acre facility that provides a roller hockey rink, two little league ball fields with bleachers, and floodlights for nighttime use of the facilities, benches, drinking fountains, and a comfort station. Reconstruction of the park began in the late 1990s. Today, the park is in excellent condition and is enjoyed by area residents.

The satellite parking lot provides at-grade parking for the exclusive use of movie theatre patrons and is only used occasionally, during peak movie times (nights and weekends). The lot, with approximately 300 parking spaces, remains vacant during the typical workday as it is only used during nights and weekends as needed.

The office building is a contemporary two-story brick building. The building is set back slightly from the street, allowing for a landscaped area between the public right-of-way and the building. There is one curb cut on Ulmer Street providing access to the accessory parking lot.

As mentioned above, Linden Place is mapped but not constructed north of 28th Avenue. The City intends to reconstruct Linden Place from 28th Avenue to 20th Avenue. Linden Place is a planned No-Build development and is expected to be constructed and open to vehicular traffic by the project's 2014 Build year.

The long-vacant former Flushing Airport site is currently not publicly accessible. No public views are available to the property from any public streets or sidewalks. While some buildings remain on the former airport property, they are in serious disrepair and are off limits to the public. Overall, the former Flushing Airport site is overgrown and is frequently flooded.

The portion of the New York Times property that is located within the study area consists of site access and a small accessory parking lot. There are no major structures located on the New York Times property within the quarter-mile radius.

This entire sub-area is located within an M1-1 zoning district. As described above, the FAR in the M1-1 portion of this sub-area is 1.0. This results in mostly low-rise one-to four-story industrial, manufacturing, and commercial buildings.

Sub-Area III: The area to the southeast of the Whitestone Expressway

The area located immediately to the southeast of the Whitestone Expressway, within a quarter-mile radius of the proposed Academy site, is comprised of a number of mid-rise residential buildings, a 6-story commercial office building, a variety of one-story local retail uses, and a Pathmark grocery store (see Figure 4-7, "Typical Views Within Sub-Area III"). Many of these uses have either shared or private parking lots immediately adjacent to the building. At the western limit of this sub-area, larger warehouses are located near the northbound Whitestone Expressway service road.

The mid-rise residential buildings, located at the eastern limits of this sub-area, along the west side of 137th Street, are mid-rise brick buildings. Three of these multi-family apartment buildings are located on the block bounded by 137th Street, 31st Road, Linden Place, and the northbound Whitestone Expressway service road. A surface parking lot occupies approximately half of the Linden Place

frontage. P.S. 242 is located at the southeast corner of this block. This brick building is four stories tall with a setback after the third floor. The school building is not built to the street, allowing for the side yard to be used as a playground. Immediately to the west of the school, nine attached apartment buildings comprise the southwestern part of this block. These three-story residential buildings are constructed with brick and there are two single car garages on the ground-floor level of each building.

The block located immediately to the west contains two buildings. This block is bounded by Linden Place to the east, 31st Road to the south, Farrington Road to the west, and the northbound Whitestone Expressway service road to the north. The northern of the two buildings contains a bowling alley. It is a one-story brick building that physically resembles a warehouse. A large accessory parking lot is located between the bowling alley and the office building to the south. The six-story brick office building is set back from the street on all sides, with accessory parking lots surrounding the building.

Other uses in this area include a car wash, a Pathmark supermarket, warehouses and local retail uses in small strip-malls. The area is characterized by one-story buildings with accessory parking, which is either provided on-site or off-site on an adjacent lot. Most of the buildings are constructed of masonry with glass storefronts and are simple, boxy buildings. Generally the buildings are built to the lot lines, though some buildings are set back from the street to accommodate accessory parking.

The roadways in the area are generally narrow local streets. On-street parking is typically permitted along the streets in this sub-area.

This sub-area is primarily zoned for high performance industrial use, except for the northeast portion, which is zoned for medium-density residential development (R6). Floor areas along the Whitestone Expressway are based on the M1-1 high performance industrial district, which permits a maximum FAR of 1.0. This results in mostly low-rise one-to four-story industrial and commercial buildings. The FAR in the R6 area ranges from 0.78 (for a single-family building) to 2.43 at a typical height of 13 stories; the open space ratio (OSR) ranges from 27.5 to 37.5. A taller building can usually be constructed when more open space is provided. Off street parking in this area is required for 70 percent of a building's dwelling units.

Sub-Area IV: The area to the southeast of the project site that is generally bounded by College Point Boulevard, the Whitestone Expressway, Linden Place, and 28th Avenue

The area located west of Linden Place, north of the Whitestone Expressway, east of College Point Boulevard, and south of the proposed Academy site comprises the fourth sub-area. This area includes the remainder of the block where the proposed Academy would be constructed, as well as one block to the east and one block to the south of the proposed Academy site. These three blocks consist of a variety of commercial, institutional, and light manufacturing uses, in addition to the portion of the College Point Tow Pound that is located to the south of the proposed Academy's southern boundary (see Figure 4-8, "Typical Views Within Sub-Area IV").

The block located to the east of Ulmer Street is comprised of a building that contains two big box retailers and a multiplex cinema. The building is surrounded on all sides by at-grade accessory parking. As such, the building is set back from all four adjoining streets. The building rises to a height of approximately 30 feet.

The buildings on the project block are mixed in style and size. There are four distinct buildings on the property located to the southeast of the Tow Pound. The three eastern buildings consist primarily of commercial offices and local retail uses. These buildings range from two to four stories. All three buildings are built near the lot line along the Whitestone Expressway service road, with accessory parking lots located at the rear of each building.

Typical Views Within Sub-Area II

1.
The 25.39-acre College Point Sports Park, located to the northeast of the proposed Academy site on Ulmer Street.

2.
Street view of the office building located on the east side of Ulmer Street between 28th Avenue and 25th Avenue.

3.
Aerial view of the College Point Sports Park, the southern portion of the former Flushing Airport site, and the New York Times facility. The north-south roadway in the center of the photo is Linden Place. The City intends to reconstruct Linden Place north of 28th Avenue.

Typical Views Within Sub-Area III

1.
Looking west from Linden Place, near 31st Road. This office building is surrounded by an accessory parking lot.

2.
View of a strip mall on 31st Road. The building is set back from the street to provide accessory parking.

3.
Aerial view of the mid-rise residential buildings located east of Linden Place and north of 31st Road.

A church complex is located immediately to the east of the Tow Pound. There are several different components of this facility, including a church, a conference center, and offices. The tallest building is a long and slender 9-story building. The facility also includes a lower church building. A small accessory parking lot is located between 31st Avenue and the building. Another larger parking lot is located behind the building to the north.

FARs in this sub-area are based on manufacturing zoning designations M1-1 and M3-1, which result in predominantly low-density manufacturing structures. The FAR in the M1-1 portion of this sub-area is 1.0 and the M3-1 zoning district has an FAR of 2.0 and a maximum base height before setback of 60 feet.

Sub-Area V: The area to the west of College Point Boulevard between 28th Avenue and the Whitestone Expressway

This sub-area comprises the southwestern portion of the study area and is also the southwestern limit of the College Point neighborhood (see Figure 4-9, "Typical Views Within Sub-Area V"). A variety of commercial, manufacturing, and light industrial uses are located in this area. Additionally, the northwestern corner of this sub-area contains low-density residential uses. This area contains a wide range of buildings that vary in use, type, bulk, and style.

There are several uses in the area that are noteworthy, including a Home Depot, an oil storage facility, and a cement plant, all of which are located south of 31st Avenue. These facilities occupy a majority of the land west of College Point Boulevard and south of 31st Avenue. The character of this area is predominantly industrial, with a few commercial buildings located between the Home Depot and the cement plant to the west. Most of the buildings are brick and masonry structures, and many are setback from the street with accessory parking.

Between 28th Avenue and 31st Avenue, uses of note include a Department of Sanitation facility, a ConEdison yard and offices, a hotel, a small marina, and an asphalt plant. A variety of other commercial and manufacturing uses are also located in this sub-area. The built character is varied, though the predominant character is the low warehouse-type building. The ConEdison property consists of an office building, which is surrounded on all sides by parking, vehicle storage, and parts storage.

As described above, FARs in this sub-area are based on manufacturing zoning designations M1-1 and M3-1, which result in predominantly low-density manufacturing structures. As described above, the FAR in the M1-1 portion of this sub-area is 1.0 and the M3-1 zoning district has an FAR of 2.0 and a maximum base height before setback of 60 feet.

Streetscape

Sub-Area I: The area to the north of 28th Avenue and west of Ulmer Street

The residential portions of this sub-area are generally well maintained, characterized by relatively uniform development with few retail uses. It is a transitional area that generally supports single-and two-family houses that face the street with shallow landscaped or grassy front yards and off-street parking (see Figure 4-5, "Typical Views Within Sub-Area I"). Additionally, many of the commercial, light manufacturing and transportation uses feature landscaping along the street frontage. There are numerous mature trees, both located along the street and within property lines, especially within the residential sections of this sub-area. Narrow public sidewalks, which are generally in good condition, flank the streets. Other street furniture includes traffic lights, stop signs and other standard metal street signs, and fire hydrants. Wood utility poles carry overhead lines through the area. On-street parallel

parking is provided along the curbline on one or both sides of most streets, especially within the residential areas.

The non-residential uses in this sub-area typically have some landscaping adjacent to the public sidewalk, as mentioned above. However, the large accessory parking lots are typically not landscaped and little screening is generally provided around parking areas.

Sub-Area II: The area north of 28th Avenue and east of Ulmer Street

Similar to Sub-Area I, street trees are located along the streets throughout Sub-Area II. As described above, there are few buildings in this sub-area. The 25-acre College Point Sports Park and the natural area surrounding the off-site drainage area both provide a sense of openness. Additionally, the landscaping in front of the construction company's building helps to screen the building and the on-site accessory parking lot. A chain-link fence separates the multiplex cinema parking lot from the adjacent sidewalk. As mentioned above, the portion of the New York Times property that is within this sub-area consists predominantly of driveway and parking areas. Street furniture in the study area includes traffic lights and stop signs, fire hydrants, trash receptacles, and wood utility poles. Street parking in this sub-area is typically restricted by "No Standing Anytime" signage.

Sub-Area III: The area to the southeast of the Whitestone Expressway

The residential portion of this sub-area is generally well maintained, characterized by relatively uniform development with no retail uses. It generally supports multi-family apartment buildings with shallow grassy front yards and off-street parking located behind the building. There are numerous mature trees located within property lines. Narrow public sidewalks, which are in good condition, flank the street. Street trees are typically planted in tree pits at regular intervals along the public sidewalk. Other street furniture includes traffic lights, stop signs and other standard metal street signs, and fire hydrants. On-street parallel parking is typically provided along the curbline on one or both sides of most streets.

The non-residential uses in this sub-area typically have some landscaping adjacent to the public sidewalk. However, the large accessory parking lots are not landscaped and little screening is typically provided around parking areas.

Sub-Area IV: The area to the southeast of the project site that is generally bounded by College Point Boulevard, the Whitestone Expressway, Linden Place, and 28th Avenue

Street trees are typically located along the streets throughout Sub-Area IV. As described above, this sub-area consists of large commercial, light manufacturing, and institutional uses. Most of these uses have expansive on-site accessory parking lots. Street trees are typically planted in tree pits at regular intervals along the public sidewalk. The church property is set back from 28th Avenue to accommodate on-site parking. However, a landscaped buffer with mature trees provides screening. Similarly, the properties with frontage along the Whitestone Expressway service road feature landscaped buffers. As shown in Photo #1 of Figure 4-8, the big box retail/multiplex cinema is surrounded by an expansive parking lot, which contains limited internal landscaping features. However, the property is planted along the public sidewalk. Street furniture in the study area includes traffic lights and stop signs, fire hydrants, trash receptacles, and wood utility poles. On street parking in this sub-area is typically restricted by "No Standing Anytime" signage.

Typical Views Within Sub-Area IV

1.
An aerial view from the west. Ulmer Street is in the foreground, 28th Avenue borders the property to the left in this photograph. This building accommodates a multiplex cinema and two big box retail chains.

2.
A bird's eye view of the church facility that is located on 31st Avenue, directly east of the NYPD's primary entrance to the College Point Tow Pound. The drainage ditch is seen along the left side of the photograph.

3.
A bird's eye view of the block located to the south of the proposed Academy site. The Crystal Windows manufacturing facility is located south of 31st Avenue. A self-storage facility is located in the white building shown at the bottom of the photograph. The College Point Town Pound's main building is located to the west of the drainage ditch, along 31st Avenue.

Typical Views Within Sub-Area V

1.
An aerial view showing the Queens Community District 7 DOS facility and a ConEdison facility. College Point Boulevard runs diagonally at the upper right corner of the photograph.

2.
A street-level view of the DOS facility. The photograph is taken from 122nd Street looking southwest.

3.
A bird's eye view of the Home Depot and accessory parking lot from the west. This is the southern portion of Sub-Area V.

Sub-Area V: The area to the west of College Point Boulevard between 28th Avenue and the Whitestone Expressway

This sub-area is largely comprised of non-residential uses. However, the northwestern corner of this area, the section south of 28th Avenue, and along 29th Avenue, west of 120th Street contains several detached residential buildings. This section of the sub-area contains mature street trees. The non-residential uses in this sub-area typically have limited landscaping adjacent to the public sidewalk, as mentioned above. This area is characterized by larger manufacturing, light industrial, and commercial uses. Many of the streets in this sub-area do not have street trees. However, some of the properties area landscaped at the street line. Street furniture in the study area includes stop signs, fire hydrants, trash receptacles, and wood utility poles. On street parking in this sub-area is typically restricted by "No Standing Anytime" signage as off-street parking spaces are generally provided.

Visual Resources

An area's visual resources are its unique or important public view corridors, vistas, or natural or built features. For the purposes of a CEQR analysis, this includes only views from public and publicly accessible locations and does not include private residences or places of business. Visual resources could include views of the waterfront, public parks, landmark structures or districts, or natural resources. Natural resources may be vegetation, topography, and geologic formations; and wetlands, rivers, or other water resources.

Based on the criteria outlined in the *CEQR Technical Manual*, three resources have been identified as having visual significance in the approximately quarter-mile study area. These resources include a New York City public park and the natural area that surrounds the drainage structure at 28th Avenue and Ulmer Street. Additionally, at the western limit of 29th Avenue, the street dead-ends near the Williamsburgh Yacht Club and Flushing Bay is visible. There are no other historic or architecturally significant landmark structures or districts, natural resources, or views of the waterfront within an approximate quarter-mile radius of the proposed Academy site. It should be noted that the drainage ditch that is located within the proposed Academy site is considered a natural resource; however, as it is located on the Tow Pound site, behind fences, it is not located within public view.

Table 4-1 lists the three visual resources (excluding the on-site drainage ditch), and Figure 4-10a and Figure 4-10b provide photographs of these resources. All of these visual resources are located outside of the Project Site. The on-site drainage ditch is not currently visible from any publicly accessible locations as a fence surrounds the entire site, and as such it is not considered a visual resource in the study area. The College Point Sports Park and the off-site drainage area and upland natural area are located to the northeast of the proposed Academy site, and the view of Flushing Bay at the 29th Avenue dead end is located at the western limit of the study area.

TABLE 4-1: Visual Resources in the Vicinity of the Proposed Academy Site

Key #	Visual Resource	Location	Resource Description	Description of Views
1	College Point Sports Park	East side of Ulmer Street from 26th Avenue to a point north of 25th Avenue	Baseball fields, roller hockey rink, seating areas, and a comfort station	Visible from immediate surroundings
2	Off-site Drainage Area and Natural Area	Runs east parallel to 28th Avenue to Linden Place	Drainage area supports a natural environment	Visible from immediate surroundings
3	View of Flushing Bay	Western limit of 29th Avenue	Flushing Bay can be viewed from the 29th Ave dead end	Visible from immediate surroundings

D. FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITION)

For conservative analysis purposes, it was assumed that the Project Site itself would remain largely unchanged in the future without the Proposed Action. The proposed Academy site would be vacant as the Police Department is expected to relocate its tow pound operations to other facilities throughout the City as the Department consolidates its citywide operations. The southern five acres of the tow pound property is not part of the proposed project. The auto service station (Corona Auto) could potentially continue its lease on a month-to-month basis.

As described in Chapter 2, "Land Use, Zoning, and Public Policy," 12 notable No-Build development sites have been identified within an approximate quarter-mile radius of the project site (refer to Figure 2-4 in Chapter 2). These include projects currently under construction, as well as planned developments that are expected to be completed by the 2014 build year. One of these No-Build developments is the Department of Sanitation's proposed expansion of its marine transfer station (Map No. 7 in Figure 2-4). Additionally, the City intends to extend Linden Place north from 28th Avenue, as described in Chapter 2. The other projects, defined in greater detail in Chapter 2, consist of new commercial, manufacturing, or light industrial uses. For analysis purposes, only those sites that would accommodate new aboveground construction will be discussed.

Urban Design

Overview

In the future without the Proposed Action, planned developments are not expected to significantly change the urban design character of the study area, and anticipated No-Build development sites are expected to either not yield significant changes or contribute site-specific improvements to the visual quality of the study area. Given the modest number and distribution of these developments within the study area, it is anticipated that overall conditions would remain essentially unchanged without the Proposed Action.

Project Site

There are not expected to be any new structures on the Project Site in the future without the Proposed Action, and therefore, no changes to height or bulk would be anticipated. The proposed development would remain largely unimproved and would be largely vacant, as the Tow Pound operations would be relocated to other City-owned sites. As mentioned above, the auto repair facility could potentially continue to extend its lease on a month-to-month basis.

Study Area

As noted above, the 12 notable construction projects within the study area include three new commercial or manufacturing uses on the five-acres located to the south of the Police Academy site, Ares Printing and Packaging, GGC Printing, the Linden Place extension, two new construction company headquarters and yards, a new approximately 120,000 sq. ft. commercial or industrial use, and the North Shore Marine Transfer Station.

To south of the proposed development site, abutting the southern property line of the proposed Academy site, three new uses are proposed, including an iron fabricator, an auto parts distributor, and a plumbing supply distributor. These three new businesses, consisting of approximately 87,000 sq. ft. of new buildings and nearly 70,000 sq. ft. of enclosed storage, would be constructed on the southern five acres of the College Point Tow Pound's existing site. It is expected that the new construction would resemble the existing commercial and manufacturing facilities in the area. The three new buildings would be typical manufacturing structures composed of steel, glass, and masonry materials that would complement the existing commercial and manufacturing buildings in the area.

Visual Resources in the Vicinity of the Proposed Academy Site

1. A birdseye view from the east of the off-site waterway that is located to the northeast of the proposed Academy site. The waterway is connected to the on-site drainage ditch via culverts that flow diagonally beneath Ulmer Street and 28th Avenue to the proposed Academy site.

2. An aerial view of the off-site waterway that is located to the northeast of the proposed Academy site. Linden Place will be reconstructed to the east of the waterway. A portion of the flooded former Flushing Airport site is visiblealong the right side of the photo.

Visual Resources in the Vicinity of the Proposed Academy Site

3. An aerial view of the College Point Sports Park.

4. A street view of Flushing Bay from the western end of 29th Avenue.

Similarly, two construction companies are expected to construct new buildings to the west of the site at 28th Avenue and 122nd Street. Combined, the new construction would total approximately 12,500 sq. ft. and nearly 15,000 sq. ft. of storage areas. It is expected that the new construction would resemble the existing commercial and manufacturing facilities in the area.

Ares Printing and Packaging and the GCC Printing facility are both proposed for the property that is located at the southwest corner of the 31st Avenue and College Point Boulevard intersection, north of the Home Depot. Ares Printing and Packaging would consist of approximately 107,000 square feet of new printing and packaging space and would include approximately 57 accessory parking spaces. Similarly, GCC Printing would consist of a 97,000 square-foot printing facility with 120 accessory parking spaces. The buildings would be typical manufacturing structures composed of steel, glass, and masonry materials that would complement the existing manufacturing character of the area.

A new commercial or industrial development is possible on the overflow parking lot for the multiplex cinema, located a short distance to the northeast of the proposed Academy site. While no specific proposal has been issued, it is possible that the site could be built to its full development potential (approximately 120,000 sq. ft.) by the 2014 build year with a commercial, manufacturing or light industrial use. As with the other anticipated developments in the area, new construction on this site would likely reflect the existing architecture of the area.

The Linden Place extension would not result in any new structures.

The North Shore Marine Transfer Station would be constructed at the western end of 31st Avenue on the water. Located at the western limits of the study area, isolated on the water, the marine transfer station would not be easily accessible or visible from many areas in the study area. As such, its new design would not have a substantial impact on the urban design characteristics of the study area. However, it is expected that the new construction would echo the built character of the existing commercial, manufacturing and light industrial buildings within the study area.

Visual Resources

In the future without the Proposed Action, existing views of visual resources are not expected to undergo substantial change. No changes are anticipated to existing view corridors within the study area and visual resources within the study area would not be affected in the future without the Proposed Action.

Project Site

No new development is anticipated on the Project Site in the 2014 future without the Proposed Action. As such, there would be no change to visual resources.

Study Area

None of the No-Build developments discussed above would result in major changes to existing structures, or alter views of any visual resources. Most of the No-Build developments involve site-specific additions to existing large-scale commercial and manufacturing developments in the form of new buildings added to areas that are already manufacturing in nature. None of the planned developments would be visible from areas that have been identified as visual resources.

E. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

Project Site

The Proposed Action would dramatically alter the urban design and general appearance of the proposed development site by replacing a largely un-built, approximately 35-acre site with a new public facility (the proposed Police Academy). The proposed Academy would consist of approximately 2.4 million gross square feet of academic, physical and tactical training facilities for police recruits and in-service training. An approximately 1,800-space accessory parking garage structure would also be constructed at the western edge of the Academy campus.

The proposed Police Academy would be a modern, architecturally distinctive campus with unique and traditional components. It is envisioned to have a variety of distinct building areas that vary in shape and height (refer to Figure 4-11 and Figure 4-12 for model views from the east and southeast). The Academy campus would be comprised of several different components, including: academic, student support, administration, library, central plant, service and screening, circulation, dining, tactical village, field house, tactical gyms, and parking. The master plan for the proposed Academy was developed around the idea of an enclosed courtyard on the eastern half of the Project Site surrounded by the academic, administration, paid student lodging, auditorium and dining functions. The proposed academic/administrative building is a long, mid-rise structure, which is proposed parallel to 28th Avenue overlooking the courtyard, lower Auditorium and dining functions on the south side of the site. The proposed field house is a freestanding oval structure west of the ditch, creating a powerful focal point at the end of the courtyard. Tactical gyms are proposed under the field house. The tactical village would be located to the south of the field house, and the firearms and tactics building, a linear structure proposed along the northern property line, would be located to the west of the field house. The proposed EVOC course, to be located along the College Point frontage above two levels of parking, would be west of the tactical village and field house.

The tallest proposed building would contain the academic uses and would consist of approximately eight stories above grade with an elevation of approximately 145 feet. However, a portion of the field house would reach an elevation of 165 feet (155 feet in height).

The campus would have one main pedestrian entrance on 28th Avenue near Ulmer Street. Additionally, the Academy would have a ceremonial pedestrian entrance on 28th Avenue that would be located mid-block in front of the field house. This access would be primarily used for commencement and other ceremonial occasions.

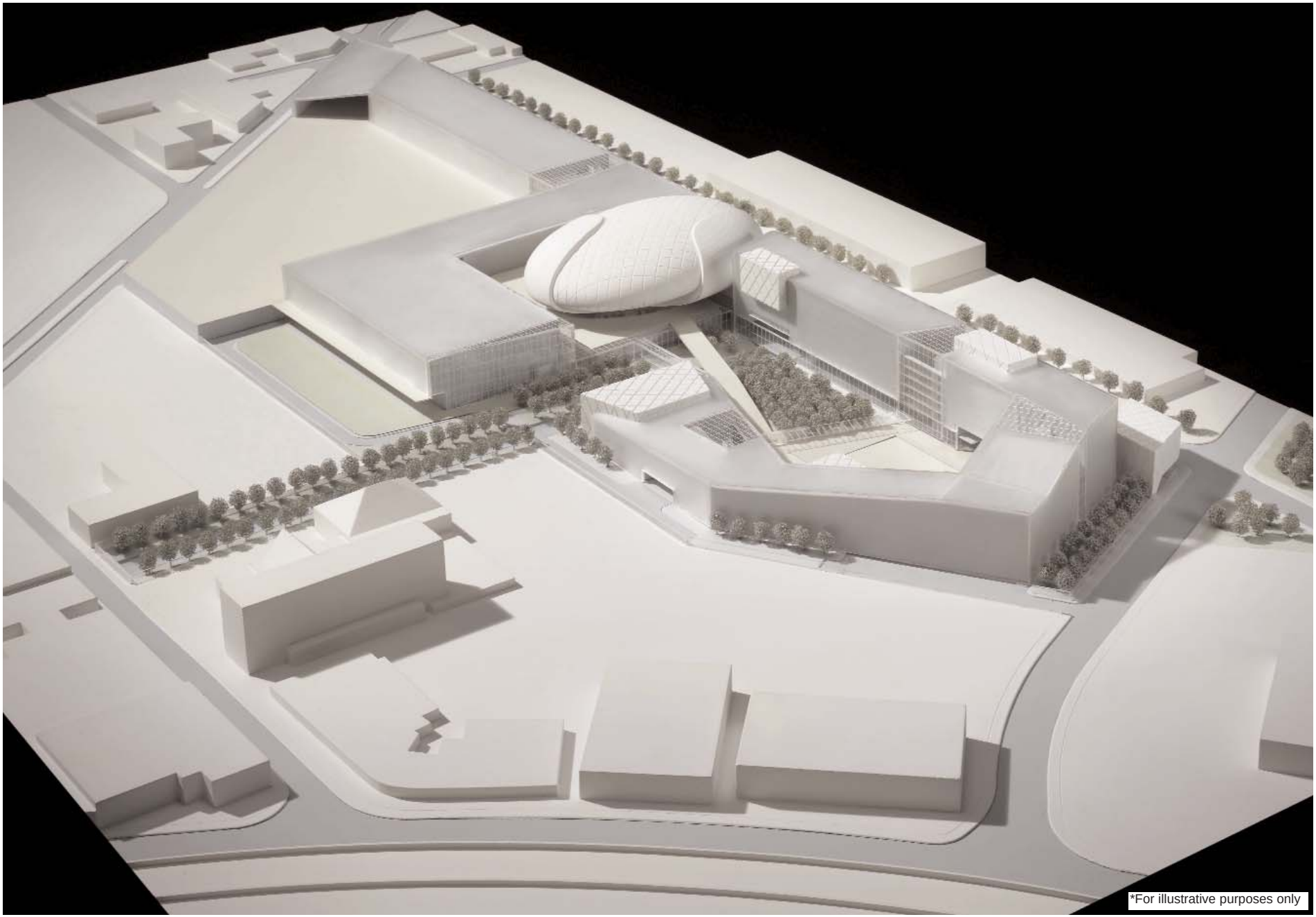
The accessory parking structure would be constructed at the western edge of the proposed Academy site. The proposed garage would accommodate approximately 1,800 vehicles. The accessory garage would reach an elevation of approximately 47 feet (35 feet above average curb height) in two levels of parking. A small security control office would be located on the ground floor of the new garage structure at each access point to house screening operations for incoming vehicles. The façade of the garage would be set back slightly from the street, with pockets of landscaping between the sidewalk and the garage façade.

The parking garage would be accessible from College Point Boulevard through two gated security entrances. The primary garage access is proposed at the intersection of College Point Boulevard and 30th Avenue. This intersection would be signalized to accommodate the new volumes of traffic at the garage. A secondary garage entry is proposed on College Point Boulevard to the north of the primary garage entrance, approximately 400 feet to the south of 28th Avenue. This secondary access would accommodate right turns into and out of the garage. A third driveway, limited to service vehicles only, is proposed at the southern limit of the proposed Academy site on College Point Boulevard. All deliveries would use this entry and then circulate through the campus on internal service roads as

Police Academy - College Point, Queens

Figure 4-11

Preliminary Model View of the Proposed Academy from the East



Police Academy - College Point, Queens

Figure 4-12

Preliminary Model View of the Proposed Academy from the Southeast

required and permitted by NYPD. The fourth and final vehicle access is proposed on Ulmer Street. This access, which leads to a proposed 20-space accessory parking lot, would be restricted to high-ranking officers.

Buildings would be setback from the 28th Avenue and Ulmer Street property lines. As shown in the site plan, a landscaped buffer would be planted between the public sidewalk and the adjacent buildings. On College Point Boulevard, the parking garage would also be set back from the property line by a landscaped buffer. As a parking garage would occupy nearly the entire College Point frontage on the project site, special consideration has been made to activate this frontage with architectural treatments. As College Point Boulevard is seen as a gateway to the residential areas located to the north, the exterior of the parking garage is being designed in a manner that breaks up the long façade. A variety of landscaping and architectural treatments are currently being considered.

Landscape improvements are also proposed on the upland portions of the on-site drainage ditch, which would be visible to the public along the 28th Avenue frontage. Improvements to the banks are proposed for structural and aesthetic purposes. The banks would be re-graded and re-stabilized and non-invasive trees and shrubs would be planted along the banks for both aesthetic purposes and to provide additional soil stabilization. Additionally, as described above, a landscaped interior courtyard is planned, which would not be visible from the street.

The materials envisioned for the exterior of the proposed Academy are expected to vary yet provide a unified facade and surface treatment. At present, it is expected that the main buildings would be clad in a pre-cast concrete system to accommodate the blast and ballistic requirements for this sensitive complex. An area of glass would punctuate the facades and a curtain wall system would be employed at the various atria, which form the lobbies to each component. The facade system would incorporate sun-shading devices as integral parts of the exterior wall system. The character of the complex would reflect the dignity of the proposed Academy, as well as the durability required of a major public building complex. As such, it is expected that Academy would complement the existing character of the area.

The proposed site is located in an easily accessible area. Given the size of the proposed Academy site and the layout of the property, the proposed Academy would lend itself to an enclosed campus. As a police use, the proposed Academy would require exterior security measures, including a buffer ("stand-off") zone adjacent to the sensitive academic, administrative, support services, and physical training facilities. The current site plan indicates sufficient space on all sides of the building, except for the proposed parking garage, which would be set back approximately 10 feet from the street in areas (the wall would undulate, creating both narrow and approximately 10-foot wide landscaping buffers along the public right-of-way). The proposed development would utilize the proposed buildings, in conjunction with the security setbacks, to provide a secure campus interior.

Due to the proposed site's relative isolation from adjacent development, and the nature of the immediately surrounding land uses and adjacent arterials, the introduction of the proposed development at this location is not expected to adversely affect land uses in the area. The area surrounding the proposed Academy site consists of a variety of land uses that generally occupy large properties. Each of the adjacent blocks contains one or more large buildings surrounded by at-grade accessory parking and/or landscaped areas. This area does not have cohesive neighborhood identity or defined urban design elements. It supports a wide range of commercial, light industrial, manufacturing, transportation, and institutional buildings, which vary in type, bulk, height and style. The proposed Police Academy is expected to add to this varied context.

The proposed Police Academy would consist of a campus with many interconnected buildings. Building elevations range up to approximately 165 feet (approximately 155 feet tall at its peak) at the

main academic building, with the field house rising to an elevation of approximately 165 feet (refer to Figure 4-13, "Site Plan")[1]. Along College Point Boulevard, the parking garage would rise to an elevation of approximately 47 feet (approximately 35 feet above average curb height). Along 28th Avenue, the Firearms and Tactics structure would consist of four levels and rise to an elevation of approximately 115 feet (a height of approximately 105 feet). The fieldhouse, to be located on a 46-foot tall base (the 2-level tactical gym), would rise to an elevation of approximately 165 feet (155 feet tall). To the east of the drainage ditch, the academic and administrative buildings, with frontage on 28th Avenue and Ulmer Street, would consist of 8 stories and an elevation of approximately 145 feet (a height of 135 feet). The proposed police museum would consist of 4 levels at the intersection of 28th Avenue and Ulmer Street with an elevation of approximately 70 feet (a height of 60 feet). Buildings along the southern property line to the east of the drainage ditch would range from approximately 75 feet (dining halls, assembly hall, and central services) to approximately 113 feet in elevation (paid student/guest lecturer facility).[2]

With the tallest of the proposed buildings expected to rise to an elevation of approximately 165 feet (a height of approximately 155 feet), the proposed Academy would introduce buildings that would be taller than existing buildings within the study area. The Academy would have a strong presence near the Whitestone Expressway, which is located a short distance to the southeast. Existing buildings that are located between the Whitestone Expressway and the project site would serve as a transition to the Academy's taller buildings. Additionally, the Academy would be setback from Ulmer Street to the east and 28th Avenue to the north, with abundant greenery and landscaping proposed between the proposed Academy and the adjacent roadways. Along College Point Boulevard, the proposed accessory parking garage would be set back ten feet from the lot line.

Study Area

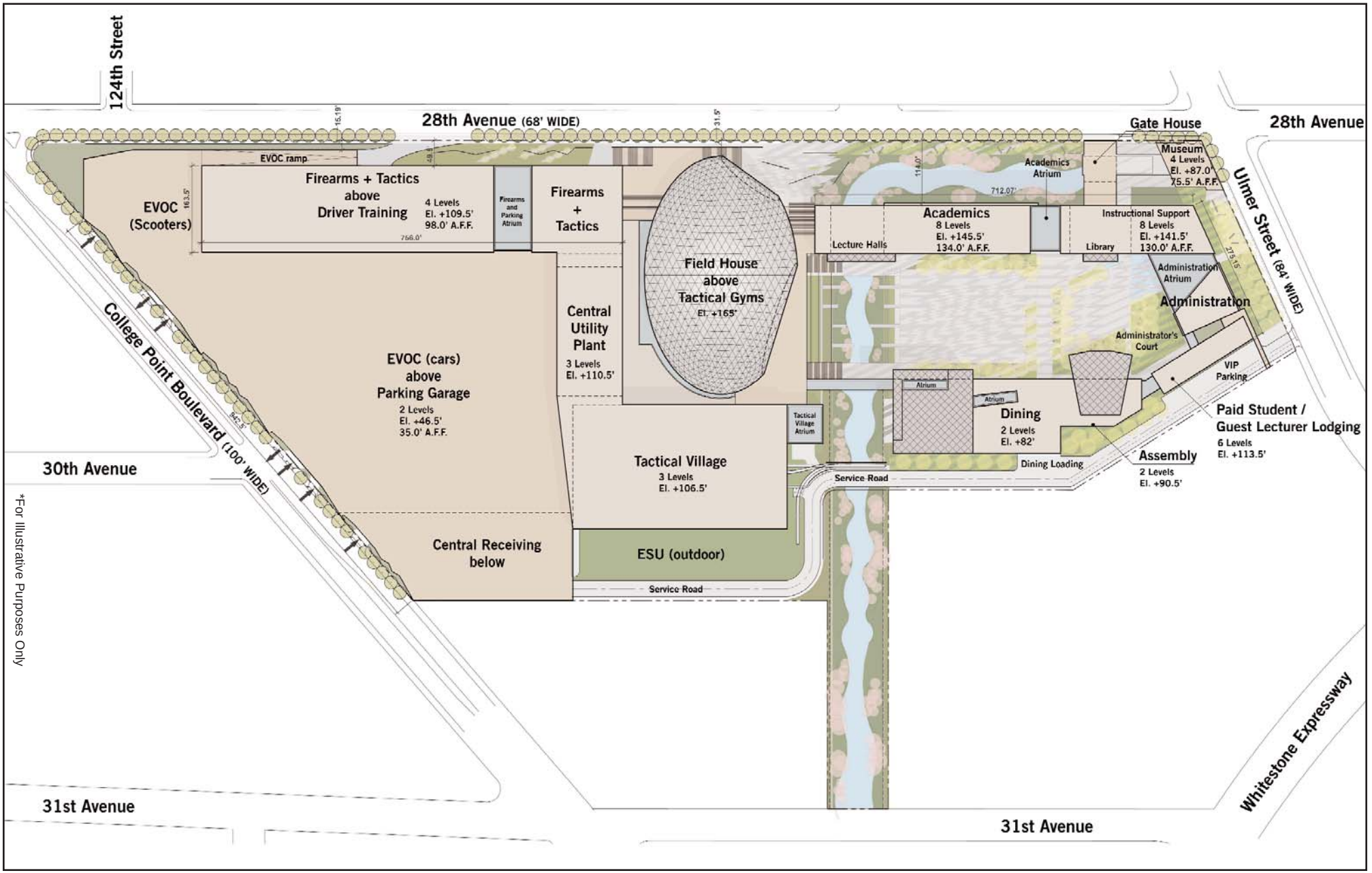
The proposed Police Academy would be prominent and on a very visible site in College Point, Queens. As described above, the Proposed Action would facilitate the construction of a substantial public facility that would be a considerably taller and more conspicuous development than existing and planned developments, and would develop a largely unimproved site. The proposed building would be a significant change to the area and a prominent addition to the cityscape, both within its immediate environment and from some distance away.

Topography and Natural Features

The proposed Police Academy would be built on a site that contains an exposed waterway. On-site natural resources are discussed at length in Chapter 5, "Natural Resources." No important topographic features are located on-site. Although the proposed development may necessitate the removal of some small trees within the upland areas of the on-site waterway to facilitate upgrades to the drainage structure, their removal would not constitute a significant adverse impact. The proposed project would be modified as described in Chapter 5 to improve drainage flow within the onsite portion of the drainage system, upgrade the tide gates, and improve aesthetics. The proposed landscape plan would introduce sustainable vegetation along the drainage ditch and along each street frontage. Abundant greenery and landscaping would also be planted within the interior courtyard. No significant changes would be made to the topography of the project site or the study area. Therefore, the Proposed Action would not result in significant adverse impacts on topography or natural features in the study area.

[1] Elevations describe level above mean sea level. For comparison purposes, adjacent sidewalk levels are also noted on the site plan.

[2] As noted on the site plan, all elevations refer to the Queens highway datum, which is 2.725 feet above sea level at Sandy Hook, NJ, as established by the US Coast and Geodetic Survey.



Police Academy - College Point, Queens

Figure 4-13
Illustrative Site Plan

Block Form and Street Pattern, and Street Hierarchy

The Proposed Action would not have significant adverse impacts on the block forms, street pattern, and street hierarchy. Primary vehicular access to the proposed Academy site, including all loading activities, would be via College Point Boulevard. Access to a small 20-space restricted-access parking garage is proposed on Ulmer Street. No new streets would be mapped as part of the Proposed Action. As such, the Proposed Action would not substantially alter the block shapes found in the study area or create new block forms, and would therefore maintain these existing urban design features.

Building Arrangements

Building arrangement refers to the way that buildings are placed on zoning lots and blocks. Similar to the immediately surrounding area, the proposed Police Academy would occupy a relatively large site. Similar to other developments in the area, the proposed buildings would be built to the lot line in the area of the museum and would otherwise be set back from the street. The proposed Academy would not result in new or different building arrangements than currently exist in the study area. There is no prevailing streetwall character; buildings in the vicinity of the proposed Academy site are arranged on large lots and generally set back from public streets with footprints of various shapes and sizes. Therefore, the Proposed Action would not have significant adverse impacts on building arrangements in the study area.

Building Use, Bulk, Height, Setbacks, and Density

The proposed Academy would introduce a NYPD museum and a paid student/guest lecturer lodging facility (dormitory) to the project site. These two uses would require mayoral overrides as they are not allowed on an as-of-right basis within the M3-1 district. However, these uses are small, but critical components of the proposed Academy, and not the primary on-site uses. The NYPD museum and paid student/guest lecturer lodging facility would be peripheral uses that would be incorporated to bolster the NYPD's main objectives at the proposed Academy. The NYPD Museum has traditionally been co-located with the Academy as the Department's heritage is considered a crucial component of police officer training. While the NYPD museum would be a new use, it is considered as an educational tool and it would be consistent with the prevailing land uses in the surrounding area, including commercial and institutional uses. The proposed paid student/guest lecturer lodging facility would not be a new use to the local area. A hotel is located at the northwest corner of 30th Avenue and College Point Boulevard, directly west of the proposed Academy site. As such, the proposed development is not expected to adversely affect surrounding building uses.

Although the proposed Academy would introduce buildings that would be generally similar in bulk to some of the larger commercial, institutional, transportation, manufacturing, and light industrial buildings in the quarter-mile study area (such as the adjacent church complex, the Crystal Windows manufacturing facility, the MTA bus facilities, and the big box retail/multiplex cinema building located to the east), its design would be unique. Certain elements of the proposed Academy would reflect the existing height, form, size and scale in the area; however, the proposed Academy would also have building components that are slightly different as compared to existing and planned buildings within the surrounding area.

As indicated above, the proposed building would be a modern police training facility that would have areas that are taller than the majority of the buildings within the study area. Due to its extensive program requirements and the existing and anticipated size of the police force (including recruits and in-service), the proposed Police Academy would contain buildings that are approximately 155 feet tall (a height limit that is imposed upon the site due to its proximity to La Guardia Airport) in order to adequately accommodate the anticipated population. It must be noted that subsurface conditions make

underground construction cost-prohibitive. As such, the entire building program, including all mechanical uses, would have to be accommodated above-grade.

As described above, there is no cohesive urban design character for the study area, which has been divided into five distinct sub-areas for analytical purposes. As a whole, urban design characteristics within the study area are quite varied, and include a variety of uses, building types and scales, including large manufacturing, transportation, and light industrial sites, low-density residential areas of one-to three-story detached homes and mid-rise apartment buildings (Sub-Area III), and low- and mid-rise commercial areas. The proposed development program would introduce a campus with several tall buildings to an area characterized by primarily low-rise office, warehouse, light industrial and factory buildings, as well as detached and semidetached residential homes and multi-unit apartment buildings. The proposed Academy would change the skyline by introducing a campus to a site that is predominantly un-built.

According to the *CEQR Technical Manual*, in terms of building use, bulk, type, and setbacks, a significant impact would result if an action would alter that aspect of land use that defines urban design character, or if the size and mass of the proposed action would be substantially different from that prevailing in the area. The proposed Academy would be located in a non-homogenous setting, one that is already quite varied, mixing a variety of uses, building types and heights within the quarter-mile study area. The proposed public facility is expected to be compatible with existing and anticipated manufacturing, light industrial, transportation, commercial, institutional, and residential uses in the study area. However, the introduction of a modern Police Academy that has building components that are taller than the surrounding buildings would modify the urban design of the study area, which is currently defined primarily by low-to-mid-rise buildings. Several larger buildings are scattered throughout the study area, as described above. However, the Police Academy would be visually distinctive because it would contrast with the lower buildings in the area. This change, though significant, would not be considered adverse to urban design. Therefore, the Proposed Action would not result in significant adverse impacts to the study area.

Streetscape

Streetscape elements are distinctive physical features, including street trees, street walls, street furniture, building entrances, fences, steps, and parked cars along a street.

The Proposed Action would introduce new streetscape elements that are expected to enhance the urban design of the study area. The Proposed Action would improve the appearance of the area's streetscape by upgrading adjacent sidewalks. Landscaping improvements are proposed along all three street frontages, including planted buffers between the public sidewalk and the proposed Academy buildings. Additionally, as compared to existing conditions, the Proposed Action would result in new public views to the on-site waterway, where new landscaping treatments are proposed along the upland areas. The new landscaping treatments and views are expected to encourage pedestrian activity and activate the streetscape. In addition, the Proposed Action would replace a vacant site with a vibrant campus.

Visual Resources (Quarter-Mile Study Area)

As described above under Existing Conditions, there are no historically significant landmark structures or districts within an approximate quarter-mile radius of the proposed Academy site. Additionally, waterfront views within the quarter-mile radius are limited to one location at the western limit of the study area. Local natural resources consist of the on-site drainage ditch and the immediately adjacent upland areas, as well as the off-site waterway (also part of the area's drainage system), which is located at the northeast corner of the intersection of 28th Avenue and Ulmer Street. Under existing and

No-Build conditions, the fence that surrounds the Tow Pound site would obstruct views to the on-site drainage ditch. Views to the off-site waterway would not be affected by the proposed Academy, as views are primarily available from the adjacent roadways. The introduction of the proposed Academy would not reduce the visibility of the off-site waterway and natural area. Therefore, the proposed Police Academy would not obstruct views to visual resources.

Additionally, the proposed development would be located within the vicinity of the College Point Sports Park, an approximately 25-acre New York City public park located near the northern limit of the quarter-mile study area. The proposed project would not obstruct views to the park, nor would it obstruct views from the park to nearby visual resources.

The proposed Academy campus, with buildings ranging in elevation from approximately 46 feet to approximately 165 feet, would be a prominent addition to the quarter-mile study area that would enhance the visual environment of the generally low-to mid-rise character of the surrounding area. The upper floors of the on-site buildings are expected to be visible from adjacent streets due to the expansive accessory parking lots that surround many of the local buildings. Some of the proposed Academy would be screened by adjacent buildings, including the 9-story (approximately 90-foot tall) church building and the commercial and manufacturing uses located to the southeast along the Whitestone Expressway. The lower buildings in the area and the lower elements of the proposed Academy would provide a transition to the taller elements of the proposed campus. Additionally, the bulk of the individual components of the Academy would be comparable to some of the surrounding institutional, commercial, manufacturing, and light industrial buildings, including the Crystal Windows building, the MTA bus facility, and the adjacent church.

Due to the height and scale of the proposed Police Academy, some of the low-rise, residential street corridors to the north (123rd Street through 127th Street) as well as the local east-west corridors, would include views of the taller portions of the proposed Academy from some vantage points. Typically, the density of the detached and semidetached houses and other local buildings and mature street trees along these streets, which create relatively uniform streetwalls on narrow streets, would obscure street-level views to the proposed development. Furthermore, the irregular street pattern of the study area, which contains a number of expansive superblocks that interrupt cross streets, creating short streets, which only extend for one, or just a few blocks would further obscure views of the proposed development. The upper stories of the proposed Police Academy would be visible from some areas located farther from the proposed development site, including passing traffic on portions of the Whitestone Expressway. However, the blocks and buildings that intervene between the proposed campus and the low-and mid-rise buildings along these view corridors would create a buffer that would limit the visibility and presence of the proposed Police Academy on these view corridors.

The proposed Police Academy would be located within a quarter-mile of the College Point Sports Park, which is located to the northeast of the proposed Academy site, along the east side of Ulmer Street. As seen from the College Point Sports Park, the proposed Academy would be prominent in the generally low-to mid-rise character of the immediately surrounding area, with only the MTA bus facility located between the park and the proposed Academy site. It is not expected to detract from the visual appreciation of the park or the landscaping, trees, seating areas, and ball fields that make the park a visual resource. The proposed Police Academy would not be located immediately adjacent to the College Point Sports Park, nor would it have any adverse shadow impacts on the play areas.

It is expected that the Proposed Action would make positive contributions to the visual resources in the study area with landscaping improvements to the 28th Avenue and Ulmer Street frontages. New views would be created to the on-site drainage system, which would be landscaped as part of the proposed project.

Although the proposed Police Academy would be a prominent addition to study area, which would be visible from a distance, it would not result in a significant adverse impact to the visual environment of the identified visual resources in the study area, and would not block any existing view corridors. As such, the proposed development is not expected to result in significant adverse impacts on visual resources.

F. CONCLUSION

In the 2014 future with the Proposed Action, significant changes would be made to the urban design conditions in the study area, but these changes would not be considered adverse. As the proposed Academy site is expected to remain predominantly un-built under No-Build conditions, the Proposed Action would dramatically alter the urban design and general appearance of the proposed development site by replacing a largely unimproved, approximately 35-acre site with a new public facility consisting of approximately 2.4-million gsf and an approximately 1,800-space accessory parking garage. The proposed Academy would be constructed on a large parcel and on a visible site in College Point, Queens, and is expected to result in a considerable visual change to the surrounding area and a prominent addition to the cityscape, both in its immediate environment and from some distance away. The proposed Police Academy would be a mid-rise, modern, and visually distinctive campus, as it would differ from the generally lower-rise buildings in the immediately surrounding area.

Similar to many buildings within the immediately surrounding area, the proposed Police Academy would occupy a relatively large site and would be setback slightly from the street by various landscaping treatments. The Proposed Action would not result in new or different building arrangements than currently existing in the study area. Buildings in the vicinity of the proposed Academy site are arranged on expansive properties and generally setback from public streets with variously shaped footprints; therefore, there is not a continuous streetwall.

The Proposed Action would not have significant adverse impacts on the block forms, street pattern, or street hierarchy. The Proposed Action would not substantially alter the block shapes found in the study area or create new block forms, and would therefore maintain these existing urban design features.

No adverse impacts upon visual resources are anticipated as a result of the Proposed Action. The Proposed Action would change views within the study area, but would not block significant public view corridors, vistas, or natural or built features.

A. INTRODUCTION

The *CEQR Technical Manual* defines a natural resource as a plant or animal species and any area that is "capable of providing habitat for plant and animal species or capable of functioning to support environmental systems and maintain the City's environmental balance." Included in these resources are surface and groundwaters, soils, wetlands, landscaped areas, gardens, parks, and built structures that are used by wildlife. This chapter characterizes existing terrestrial and marine ecology and other important natural features on and around the Project Site, based on field surveys, published information and agency consultation, and describes how these natural resources would change in the future, both with and without the Proposed Action.

New York State Department of Environmental Conservation (NYSDEC) and United States Army Corps of Engineers (USACE) permits will be required for construction work associated with the proposed Academy, specifically actions located near and within the "L-shaped" drainage ditch located on the eastern area of the Project Site. The drainage ditch, which is described in detail in this chapter and in Chapter 8, "Infrastructure," is the Project Site's sole non-structural, surface water feature and a critical component to the primary flood control and stormwater management system in the area. The ditch is part of the connection between Flushing Bay and the freshwater wetland area located approximately 0.3 miles northeast of the Project Site on the 78-acre former Flushing Airport site.

The purpose of this chapter is to:

- Identify and describe the Federal, State and New York City regulatory programs that may apply to the proposed Academy with respect to natural resources;
- Describe existing natural resources (e.g., plants, wildlife, and threatened or endangered species) on the Project Site; and
- Assess the potential impacts of the proposed Academy on natural resources on the immediate Project Site and the adjacent areas within a quarter-mile radius of the Project Site (Figure 5-1).

As mentioned in Chapter 1, "Project Description," the proposed Academy site is approximately 35 acres in size and is largely developed with the existing NYPD Tow Pound (Photograph 5-1), NYPD administration building, and features minimal natural resources. The Site also includes a 5.5 acre, City-owned strip of vacant land located between the Tow Pound and College by NYPD automobile Pound Lot and NYPD administrative building, an automotive repair and auto body shop and the drainage ditch. The proposed Academy would result in the construction of up to approximately 2.4 million gross square feet (gsf) of new development, which would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking facility for approximately 1,800 vehicles. In addition, the proposed Academy would remove two existing bridge crossings, culverts and two 84-inch tideflex valves (tide gates) currently located in the drainage ditch and construct a new pile supported bridge and a pedestrian bridge. The proposed Academy may include the installation of a new tide gate structure at another area of the ditch. In the event that the tide gate would be moved to the southernmost area of the ditch, the drainage ditch would become an entirely freshwater waterbody.

The analysis in this chapter concludes that the proposed Academy would not result in significant adverse impacts on natural resources. Further, development under the proposed Academy would offer

benefits to natural resources, including improved habitat for birds and other wildlife and improve stormwater management within the Project Site and adjacent areas. In addition, the proposed Academy will be required to achieve a Leadership in Energy and Environmental Design Silver-rating certificate for New Construction (LEED-NC) as outlined by the United States Green Building Council (USGBC), under the provisions of Local Law 86[1]. As a Silver-rated LEED-NC project, the proposed Academy would incorporate sustainable energy and water use systems and design elements including green roofs, onsite storage and treatment facilities, graywater recycling, and bioswales and other sustainable features to provide additional benefits to natural resources in and around the Project Site.

Methodology

Existing conditions within the Project Site were summarized from information identified in literature sources. Sources included the following documents (reports and maps):

- United States Geological Survey (USGS)—Topographic quadrangle map for Central Park Quad;
- New York State Department of Environmental Conservation (NYSDEC)—Breeding Bird Atlas, Bird Conservation Areas, Critical Environmental Areas (CEAs);
- Aerial photographs;
- United States Fish and Wildlife Service (USFWS [NY office]), National Marine Fisheries Service (NMFS), and New York Natural Heritage Program (NYNHP)—Information on rare, threatened, or endangered species within the vicinity of the Project Site.
- The future conditions with and without the proposed Academy were assessed by considering existing natural resources within the Project Site and assessing potential significant adverse impacts on these resources on the immediate Project Site and within a quarter-mile radius that are expected to occur independent of the proposed Academy by 2014, the projected Build year.

B. REGULATIONS AND PERMITS

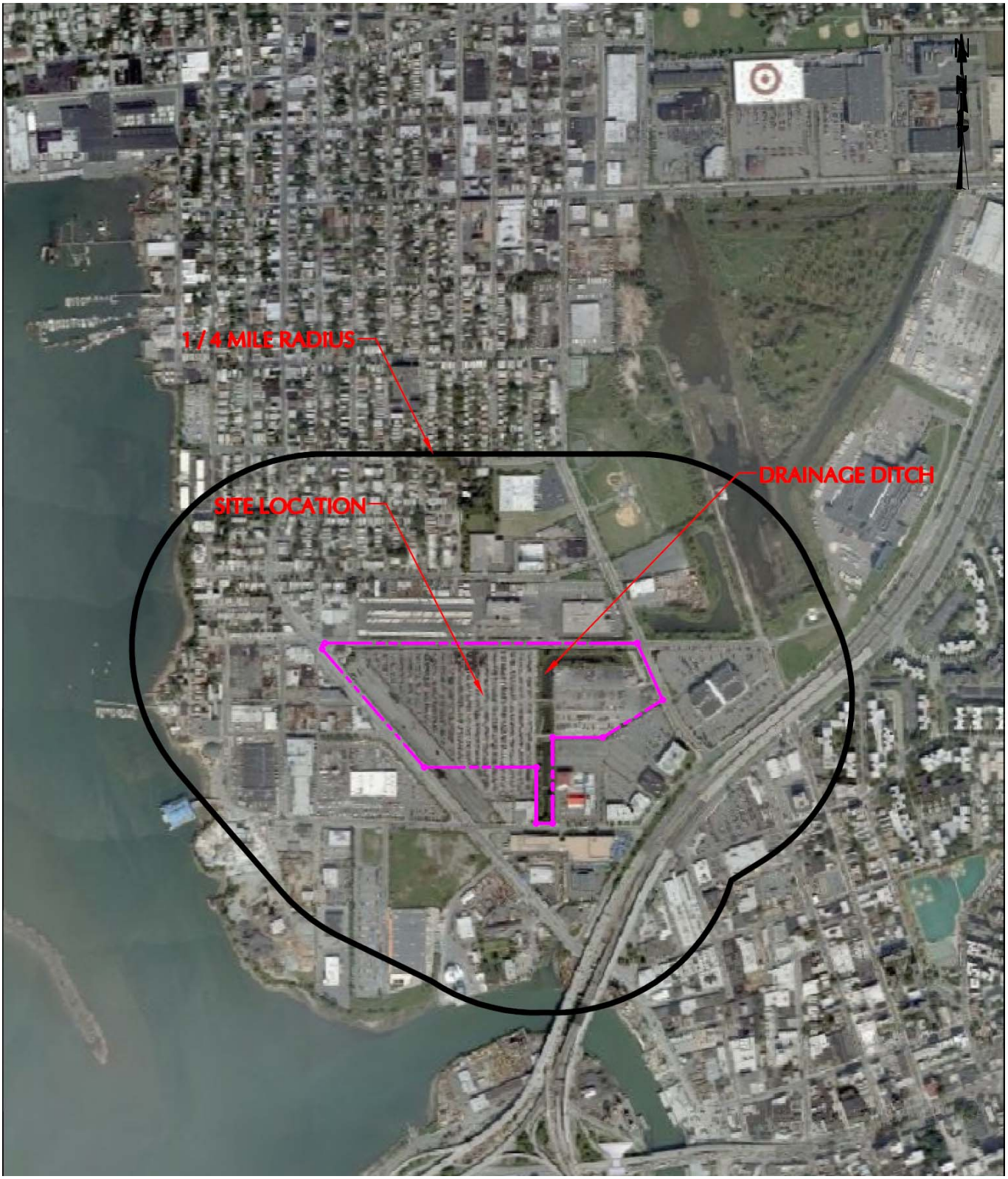
The following section briefly describes the federal, state and local laws, regulations and regulatory programs that may apply to the proposed Academy with respect to water quality and terrestrial and aquatic resources that are found within the study area. The regulations apply to the certain activities in coastal areas, surface waters and floodplains and protection of wildlife and species of special concern.

Federal Laws and Regulator Programs

Clean Water Act (33 USC §§ 1251 TO 1387)

The Federal Water Pollution Control Act, as amended, commonly referred to as the Clean Water Act (CWA), regulates point and non-point sources of water pollution and is designed to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The sections of the CWA with the potential to apply to the proposed Academy are Sections 401 and 404, which pertain to discharges of fill or dredged material in waters of the United States.

[1] Under New York City Local Law 86 (2005), which took effect in January 2007, persons who seek capital funds from New York City valued at either $10 million or 50% of the cost of the building construction or reconstruction must ensure the construction or reconstruction meets the Leadership in Energy and Environmental Design (LEED) green building guidelines of the United States Green Building Council (USGBC). In addition, new buildings and additions constructed by the City that cost more than $2 million must also be energy efficient and adhere to the LEED green building guidelines.



Map Reference: MSNLive Aerials

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AERIAL MAP
NYPD ACADEMY
COLLEGE POINT

QUEENS **NEW YORK**

JOB NO.	DATE	SCALE	FIGURE NO.
170015802	**03/18/08**	**1" = 1000'**	**5-1**

NJ Certificate of Authorization No: 24GA27996400
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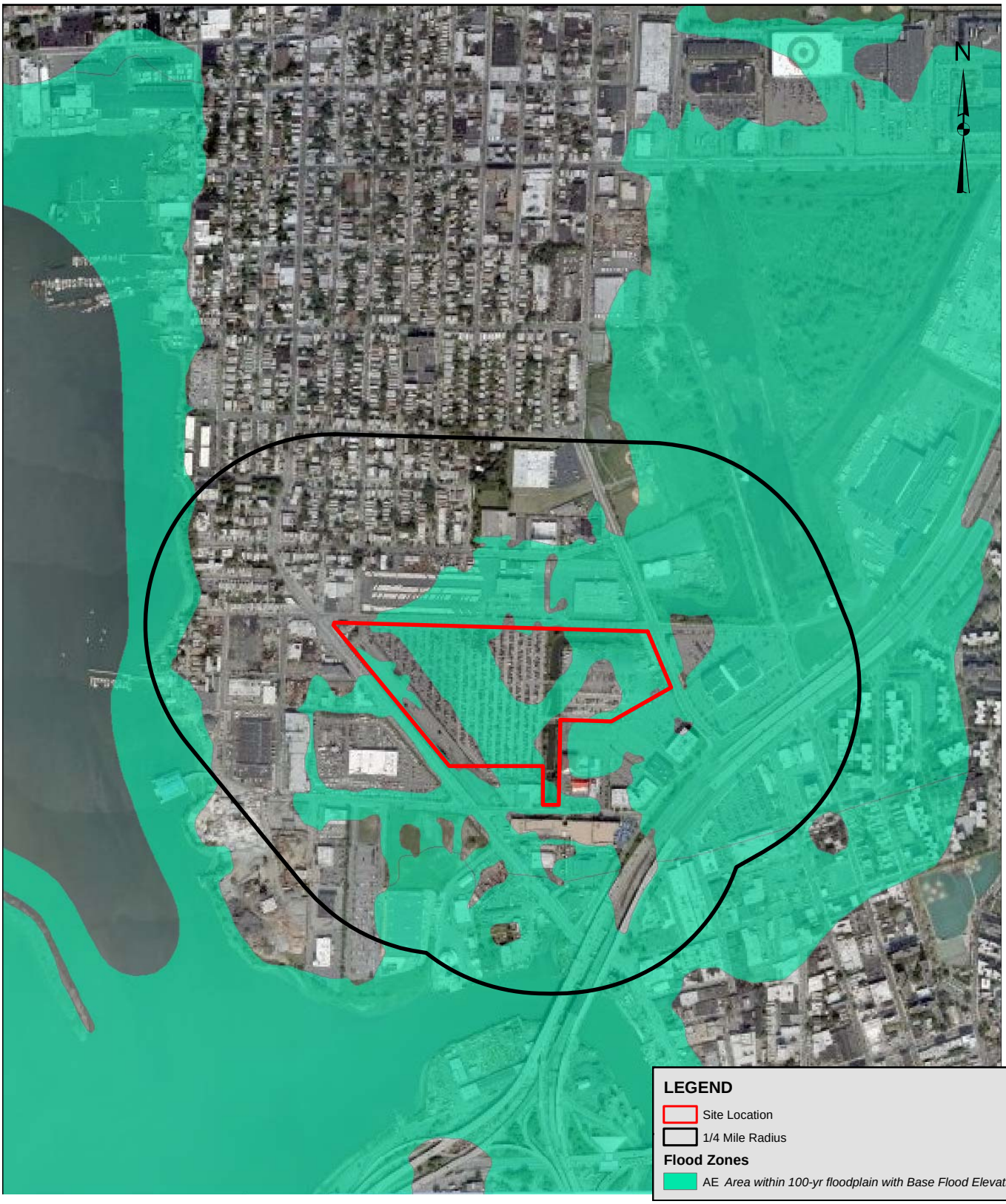

Map Reference: New York State 2000 Digitally Enhanced Ortho Imagery; FEMA Q-3 Data NYC

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FEMA MAP
NYPD ACADEMY
COLLEGE POINT

QUEENS **NEW YORK**

JOB NO.	DATE	SCALE	FIGURE NO.
170015802	**03/18/08**	**1" = 1000'**	**5-2**

NJ Certificate of Authorization No: 24GA27996400
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Map Reference: New York State 2000 Digitally Enhanced Ortho Imagery; NYSDEC 1974 Tidal Wetlands Inventory; NYSDEC 1999 Freshwater Wetlands – Queens County; USFWS 2007 National Wetlands Inventory Data

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NYSDEC WETLANDS MAP
NYPD ACADEMY
COLLEGE POINT

QUEENS **NEW YORK**

JOB NO.	DATE	SCALE	FIGURE NO.
170015802	**03/18/08**	**1" = 1000'**	**5-3**

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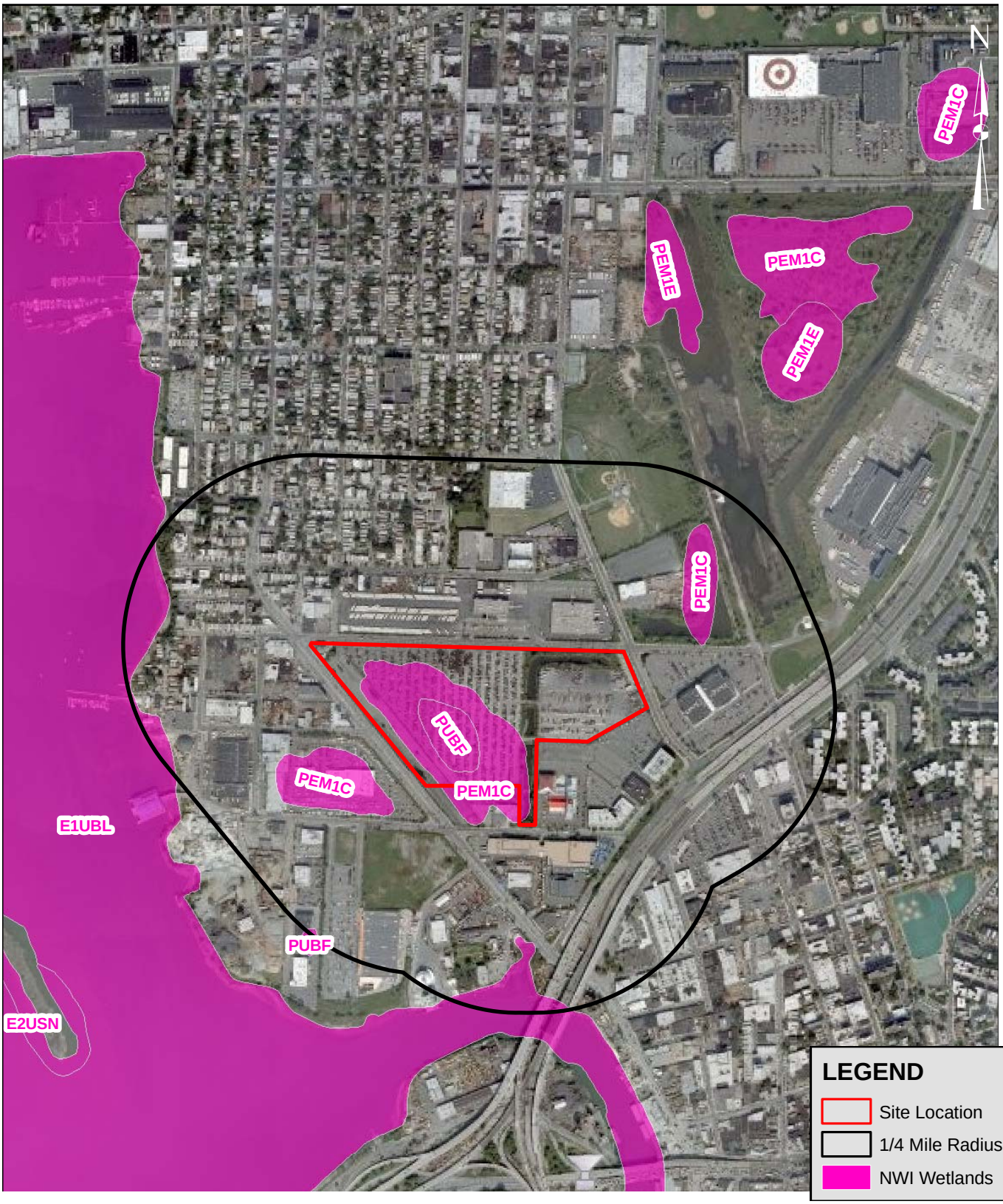

Map Reference: New York State 2000 Digitally Enhanced Ortho Imagery; USFWS 2007 National Wetlands Inventory Data

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NATIONAL WETLANDS INVENTORY MAP
NYPD ACADEMY
COLLEGE POINT

QUEENS **NEW YORK**

JOB NO.	DATE	SCALE	FIGURE NO.
170015802	03/18/08	1" = 1000'	5-4

NJ Certificate of Authorization No: 24GA27996400
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Map Reference: MSNLive Aerials

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DRAINAGE DITCH AERIAL MAP

NYPD ACADEMY

COLLEGE POINT

QUEENS **NEW YORK**

JOB NO.	DATE	SCALE	FIGURE NO.
170015802	12/18/08	NTS	5-5

NJ Certificate of Authorization No: 24GA27996400
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Section 401 of the CWA requires any applicant of a federal license or permit for an activity that may result in a discharge into navigable waters to provide a certification from the state in which the discharge would occur or from an interstate water pollution control agency, that the discharge would comply with Sections 301, 302, 303, 306, 307, and 316(b) of the Act. Applicants proposing discharges into waters in New York must obtain a Water Quality Certification from the NYSDEC.

Section 404 of the CWA regulates the permanent or temporary discharge of dredged or fill material into "waters of the United States". This Section is administered by the USACE. "Waters of the United States" are defined in 33 Code of Federal Regulations (CFR) 328.3 and includes all waters, currently and previously, used for interstate commerce; lakes; rivers; streams; mudflats; sandflats; wetlands; sloughs; prairie potholes; wet meadows; playa lakes; and natural ponds. Activities authorized under Section 404 of the CWA must comply with Section 401 of the CWA. Based on correspondence from the USACE, it is anticipated that the proposed Academy would require a Section 404 permit since the drainage ditch on site is under USACE jurisdiction as a "Water of the United States".

Rivers and Harbors Appropriations Act of 1899

Section 10 of the Rivers and Harbors Appropriations Act of 1899 requires authorization from the Secretary of the Army, acting through the USACE, for the construction of any structure in, under and over any navigable waters of the United States, the excavation from or deposition of material in these waters, or any obstruction or alteration in navigable waters of the United States. The purpose of this Act is to protect navigation and navigable channels.

The USACE has taken jurisdiction of the onsite drainage ditch as a navigable "Water of the United States". Therefore, a Section 10 permit is anticipated to be required for the proposed construction activities in and around the drainage ditch. These activities include the removal and replacement of outfalls, the removal of the existing tide gates and installation of a new tide gate apparatus at the southern end of the drainage ditch, the construction of water quality treatment facilities in the drainage ditch and various structural components of the proposed Academy that will span the drainage ditch.

Coastal Zone Management Act of 1972 (16 USC §§ 1451 TO 1465)

The Coastal Zone Management Act of 1972 (CZMA) established a voluntary program to encourage coastal states to develop and implement coastal zone management plans to effectively protect and manage development in coastal zones. Federal permits issued in states with an approved coastal management program must be accompanied by a Coastal Zone Consistency Determination. The applicable project policies of New York's federally approved coastal zone management program, the revised Local Waterfront Revitalization Program (WRP), are described in Chapter 6, "Waterfront Revitalization Program." In New York State, the New York State Department of State (NYSDOS) is responsible for the consistency review. Since the proposed development occurs within the Coastal Zone of New York and requires a Federal permit, coastal consistency review by the aforementioned agencies will be required.

Endangered Species Act of 1973 (PL 93-205; 16 USC 1531 ET SEQ.)

The Endangered Species Act of 1973 (ESA) provides for the conservation of threatened or endangered species and their habitats. The Act prohibits the importation, exportation, taking, possession, and other activities involving illegally taken species covered under the Act, and interstate or foreign commercial activities. The Act also provides for the protection of critical habitats on which endangered or threatened species depend for survival. The USFWS (non-marine plants and animals) and NMFS (marine plants and animals) are responsible for administering the Act. Section 7(a) of the Act requires federal agencies to consult with the Secretary of the Interior (through USFWS and/or NMFS) before project implementation.

Magnuson-Stevens Act

Section 305(b)(2)-(4) of the Magnuson-Stevens Act outlines the process for the NMFS and the Regional Fishery Management Councils (in this case the Mid-Atlantic Fishery Management Council) to comment on activities proposed by federal agencies (issuing permits or funding projects) that may adversely impact areas designated as essential fish habitat (EFH). EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC 1802(10)). The USACE, in their permitting process, must either incorporate NMFS recommendations for minimizing effects to EFH (measures to avoid, minimize, or mitigate), or provide an explanation for not adopting them. Under the Magnuson-Stevens Act, NMFS and the eight regional Fishery Management Councils were directed to describe and identify EFH in the fishery management plans developed by each Council to reduce the adverse effects of fishing on EFH and encourage the conservation and enhancement of EFH.

New York State Laws and Regulatory Programs

State Pollutant Discharge Elimination System, Article 17, Title 8, New York State Environmental Conservation Law (ECL), Implementing Regulations 6NYCRR Parts 750 Through 757

Title 8 of Article 17, ECL, *Water Pollution Control*, was enacted to protect and maintain surface and ground water resources and authorized the creation of the State Pollutant Discharge Elimination System (SPDES) to regulate discharges to the state's waters. The following activities require SPDES permits: constructing or using an outlet or discharge pipe (point source) that discharges wastewater into surface or ground waters of the State; constructing or operating a disposal system (sewage treatment plant); or discharge of stormwater. Because construction activities for the proposed Academy would disturb more than one acre of land and the proposed Academy includes discharge of stormwater into the man-made drainage ditch on the Project Site, a SPDES permit will be required.

Protection of Waters, Article 15, Title 5, ECL, Implementing Regulations 6 NYCRR Part 608

New York State's surface waters (rivers, streams, lakes, and ponds) are valuable for sources of drinking water, for bathing, agricultural, commercial, and industrial uses, for the fish and wildlife habitat they provide, and for educational and recreational opportunities. It is the State's policy, as set forth in Title 5 of Article 15, ECL to preserve and protect these waters. NYSDEC is responsible for administering the Protection of Waters regulations to prevent undesirable activities on waterbodies. Under this regulatory program, all waters of the state are provided a use classification (A or AA for drinking water source, B for best usage for swimming and other contact recreation, C for waters supporting fisheries and non-contact recreation, and D the lowest use classification), and a standard designation based on existing or expected best usage (such as T for those that may support trout, or TS for those that may support trout spawning). Flushing Bay is classified I for secondary contact recreation and fishing.

Streams and small waterbodies connected to streams that are designated as C(T) or higher (i.e., C(TS), B, or A) are protected streams that are subject to the stream protection provisions of the Protection of Waters regulations. The Protection of Waters Permit Program regulates five different categories of activities: disturbance of the stream bed or banks of a protected stream or other watercourse; construction, reconstruction, or repair of dams and other impoundment structures; construction, reconstruction, or expansion of docking and mooring facilities; excavation or placement of fill in navigable waters and their adjacent and contiguous wetlands; and Water Quality Certification for placing fill or other activities that result in a discharge to waters of the United States in accordance with Section 401 of the Clean Water Act. Since the NYSDEC has taken jurisdiction of the drainage ditch as a "Water of the United States" pursuant to Use and Protection of Waters regulations, a Use and Protection of Waters Permit is expected to be required for the proposed Academy.

Freshwater Wetlands, Article 24, ECL, Implementing Regulations 6 NYCRR Parts 663, 664, and 665

The NYSDEC regulates freshwater wetlands under 6 NYCRR Parts 663, 664, and 665. Freshwater wetlands include marshes, swamps, sloughs, bogs, and flats which support aquatic or semi- aquatic vegetation. Regulated freshwater wetlands; under 6 NYCRR Parts 663, 664, and 665; consist of an area of at least 12.4 acres (approximately 5 hectares). Wetlands smaller than 12.4 acres may be protected if they exhibit an unusual local importance as determined by the Commissioner pursuant to Article 24 of the ECL. A permit or letter of permission is also required for activities within or adjacent to wetlands (100 feet from the wetland boundary). There are no mapped freshwater wetlands on or within 100 feet of the proposed project. As such, approval under the freshwater wetland regulation is not required from a wetland boundary.

Tidal Wetlands, Article 25, ECL, Implementing Regulations 6 NYCRR Part 661

The NYSDEC regulates tidal wetlands under 6 NYCRR Part 661. Tidal wetlands include coastal freshwater marshes; intertidal marshes; coastal shoals, bars and flats; littoral zones; high marsh or salt meadows; and formerly connected tidal wetlands. A permit is required for regulated activities to tidal wetlands or adjacent areas proposed on or after August 20, 1977. Adjacent areas are defined as up to 300 feet landward from the tidal wetland boundary, or up to 150 feet landward from the tidal wetland boundary within the City of New York. The proposed Academy is not located within an adjacent area of a mapped wetland boundary. The NYSDEC has not taken jurisdiction of the drainage ditch under this regulation, therefore, a tidal wetland permit will not be required for proposed work in and adjacent to the ditch.

Waterfront Revitalization of Coastal Area and Inland Waterways Act (Sections 910-921, Executive Law, Implementing Regulations 6 NYCRR Part 600 ET SEQ.)

Under this Act, NYSDOS is responsible for conducting a Coastal Zone Consistency review and administering the Coastal Management Program (CMP) that contains legislatively enacted coastal area policies that must be complied with by New York State agencies. It also authorizes the state to encourage local governments to adopt WRPs that incorporate the state's policies. New York City has a WRP administered by the New York City Department of City Planning (DCP).

The WRP, originally adopted in 1982, included 44 State policies and 12 City policies. It established the City's policies for development and use of the waterfront. A revised WRP, which simplified and clarified the review process, was approved by the City Council in October 1999. The new WRP consists of 10 New York City coastal zone policies. Any activity subject to review under federal, state, and city laws must be assessed with respect to consistency with the state CMP and the state and city policies. A number of the policies deal with protection of water quality and natural resources. Chapter 6, "Waterfront Revitalization Program," addresses the general consistency of the proposed Academy with the 10 City policies.

The NYSDOS has designated 15 Significant Coastal Fish and Wildlife Habitats within New York City. None are located within or within close proximity to the Project Site; therefore, this portion of the regulation does not apply to the proposed Academy site.

The New York City WRP designates three Special Natural Waterfront Areas (SNWA): East River and Long Island Sound; Jamaica Bay; and Northwest Staten Island Harbor Herons. None are located within close proximity to potential operation or construction activities associated with the proposed Academy; therefore, this portion of the regulation does not apply to the proposed Academy.

Floodplain Management Criteria for State Projects (6 NYCRR 502)

In accordance with 6 NYCRR 502, all State agencies will insure that the use of State lands and the siting, construction, administration and disposition of State-owned and State-financed facilities are

conducted in ways that will minimize flood hazards and losses. Alternate sites, not containing flood hazard areas, should be considered during project design stages. Proposed projects shall be designed and constructed to minimize flood damage; prevent flotation, collapse or lateral movement; and provide adequate drainage to reduce exposure to flood hazards. All public utilities and facilities are to be located and constructed to minimize or eliminate flood damage. Additionally, under 6 NYCRR 502, all non-residential structures "shall have the lowest floor, including basement, elevated or flood-proofed to not less than one foot above the base flood level, so that below this elevation the structure, together with attendant utility and sanitary facilities, is watertight, with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy." Further, no project shall be undertaken unless the cumulative effect of the proposed project and existing developments would not cause any material flood damage to such existing development. No portion of a project shall be placed within an adopted regulated floodway that would result in any increase in flood levels. The majority of the proposed Academy site is located within the 100-year floodplain as determined by the Federal Emergency Management Agency (FEMA). The floodplain in the vicinity of the Project Site has been determined to be elevation 13' using National Geodetic Vertical Datum 1929 (NGVD 29) and elevation 10.275' using Queens Borough Datum (QBD). As a non-residential, public facility, the proposed Academy would be required to comply with 6NYCCRR 502.

The New York State Environmental Quality Review Act (6 NYCRR Part 617, SEQRA)

Under the State Environmental Quality Review Act (SEQRA), local agencies may designate specific geographic areas as Critical Environmental Areas (CEAs). Jamaica Bay, located approximately eight miles south of the Project Site, is the closest CEA to the project area. No CEAs are located within the project area; therefore, this portion of the regulation does not apply to the proposed Academy.

Fish and Wildlife Act, Article 11, Title 20, ECL

This legislation, enacted in 1997, authorizes the commissioners of NYSDEC, NYSDOS, and the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) to designate areas of state lands and waters that are particularly important to bird conservation. No Bird Conservation Areas (BCAs) are located in the study area; therefore, this portion of the regulation does not apply to the Proposed Project.

Endangered and Threatened Species of Fish and Wildlife; Species of Special Concern, ECL, Sections 11-0535[1]-[2], 11-0536[2], [4], Implementing Regulations 6 NYCRR Part 182

The Endangered and Threatened Species of Fish and Wildlife; Species of Special Concern regulations prohibit the taking, importing, transporting, possession, or selling of any endangered or threatened species of fish or wildlife, or any hide or other part of these species as listed in Section 182.6. Threatened, endangered, and special concern species with the potential to occur in the project area are discussed in the, "Existing Conditions" and "Probable Impacts of the Proposed Project" section of this chapter.

New York City Laws and Regulatory Programs

Local Law 33 of 1988

In New York City, building in the 100-year floodplain (elevation 13' feet above sea level NGVD 29) is governed by Local Law 33 of 1988. This law prohibits the building of habitable structures in the 100-year floodplain unless it is elevated above the floodplain or is flood-proofed. The law requires that roadway and utility construction be designed to minimize or eliminate damage from flooding. This law is applicable to the proposed Academy.

C. EXISTING CONDITIONS

The Project Site is located on approximately 35 acres of City-owned land in College Point, Queens (Figure 5-1). Other than the man-made drainage ditch located in the eastern portion of the site, which also includes the site's only vegetation, the Project Site is entirely developed with buildings and parking lots including the NYPD Tow Pound, Ulmer Street entrance guard house and office, City-owned administrative building with attached vehicle service station, and a private business operation; Corona Auto and Truck, located at the intersection of College Point Boulevard and 28th Avenue. Vegetation in the area near the man-made drainage ditch is typical of a disturbed, urban area. Wildlife that is expected to occur on the Project Site consists of species that are tolerant of urban conditions.

Terrestrial Resources

Vegetation

As stated previously, the majority of the Project Site is developed with parking lots and buildings and features very little vegetation. The Project Site features invasive upland plants and vegetation typical of a disturbed urban area with a dominance of impervious, paved surface. The drainage ditch described in the chapter introduction contains open water with upland vegetation along its edges (Photograph 5-2). The sloped banks of the ditch are sparsely vegetated with invasive, non-hydrophytic herbaceous and scrub/shrub vegetation. The vegetation was similar throughout the banks of the ditch. Trees are intermittently spaced along the top of the banks. Vegetative species on the banks include common mugwort (*Artemisia vulgaris*), tree-of-heaven (*Ailanthus altissima*r), common reed (*Phragmites australis*,), staghorn sumac (*Rhus typhina*), black cherry (*Prunus serotina*), and cottonwood (*Populus deltoids*). With the exception of black cherry, these species are common invasive upland plants that frequently grow in disturbed areas.

Wildlife

The potential for wildlife to use the Project Site is minimal due to the existing development on the site. Wildlife using the site are generally tolerant of urban conditions. The vegetation adjacent to the drainage ditch provides limited habitat for small mammals and song birds. Canada Geese (*Branta canadensis*) were observed during various site investigations. The New York Breeding Bird Atlas Block 5951C (2007) was reviewed to determine the potential of breeding birds within the Project Site. Table 5-1 lists birds identified as potentially breeding in urban habitats. Other wildlife observed on the Project Site includes various gull species typical of urban conditions.

Site Photograph 5-1: NYPD Tow Pound looking northeast.

Site Photograph 5-2: Northeast area of drainage ditch at the 90 degree bend looking east, showing upland vegetation.

Site Photograph 5-3: Looking south from the northern crossing of drainage ditch. Water in photo is tidally influenced. Southern crossing is in the distance.

Site Photograph 5-4: Looking north at the northern crossing of drainage ditch. Note attached tide gates.

Site Photograph 5-5: Drainage ditch at 90 degree bend looking east.

Site Photograph 5-6: Drainage ditch at the 90 degree bend looking south at northern crossing.

Site Photograph 5-7: Looking south from the southern crossing of drainage ditch.

Site Photograph 5-8: Outfall into drainage ditch from western portion of NYPD Tow Pound.

Photo 5-9: Culverts in “V-Shaped” detention pond northeast of Project Site.

Table 5-1: Birds With the Potential to Breed within the Project Site

Common Name	**Scientific Name**
Canada Goose	*Branta canadensis*
Killdeer	*Charadrius vociferous*
Rock Pigeon	*Columba livia*
Mourning Dove	*Zenaida macroura*
Chimney Swift	*Chaetura pelagica*
American Crow	*Corvus brachyrhynchos*
Barn Swallow	*Hirundo rustica*
American Robin	*Turdus migratorius*
Gray Catbird	*Dumetella carolinensis*
European Starling	*Sturnus vulgaris*
Song Sparrow	*Melospiza melodia*
Baltimore Oriole	*Icterus galbula*
House Finch	*Carpodacus mexicanus*
American Goldfinch	*Caruelis tristis*
House Sparrow	*Passer domesticus*
Sources: NYSDEC. *New York State Breeding Bird Atlas* [Internet]. 2008 [cited 2008 December 03]. http.//www.dec.ny.gov/animals/7312.html, Cornell Lab or Ornithology [Internet]. 2003 [cited 2008 December 03]. http://www.birds.cornell.edu/AllAboutBirds	

Geology and Soils

The U.S. Department of Agriculture, National Resources Conservation Service (NRCS) soil mapping identifies the Project Site as containing Urban Lands-Udorthents-Udipsamments. Soils in this classification are typically located on nearly level sites located in highly urbanized areas with more than 80 percent of the surface covered by impervious pavement and buildings. Soils onsite consist primarily of historic fill material located to a depth of between 16 to 32 feet below ground surface (bgs). The fill consists of multi-colored sand and gravel with some clay, brick, concrete, wood and asphalt fragments, plastic, and glass. Native soil identified beneath the fill layer is described as a gray/green/black silty clay.

The Project Site lies within the Atlantic Coastal Plain. The Atlantic Coastal Plain encompasses Long Island, a small portion of Staten Island, and all of southern New Jersey. The region is underlain by poorly consolidated sedimentary formations of Cretacious, Tertiary, and Quaternary age that gently dip seaward. The New York State Geological Survey Bedrock Geology for Lower Hudson indicates the predominant rock type beneath of the Project Site to be the Raritan Formation. The Raritan Formation consists of clay, sand, lignite, and gravels representing alluvial plains, coastal and nearshore marine environments. The surficial geology is mainly mapped as lacustrine delta with a small portion of the northwestern corner of the Project Site mapped as till. Lacustrine delta consists of stratified coarse to fine gravel and sand deposited at a lake shoreline with a thickness of 3-15 meters. Till consists of variable texture material (boulders to silt) deposited beneath glacier ice with a thickness 1-50 meters.

Groundwater

The Project Site is located within the Brooklyn-Queens Aquifer System. USGS investigations have shown that Queens County has an upper glacial aquifer which is underlain by two deeper aquifers, Jameco-Magothy and Lloyd. According to USGS descriptions, the upper glacial aquifer discharges into adjacent bays or the Long Island Sound. The USGS description of historical water resources in Queens County state that seeps and springs existed in the vicinity of the project area.

Phase II Environmental Site Investigations (ESIs) and other environmental studies conducted on the Project Site indicate groundwater depths ranging from approximately 9 to 15 feet bgs. Groundwater

under the Project Site flows in a southerly to southeasterly direction toward the Pound Lot. Groundwater samples indicated exceedences for VOCs, SVOCs, metals, PCBs, pesticides and New York City Department of Environmental Protection (NYCDEP) Limitations for Effluent to Sanitary or Combined Sewers. (See Chapter 7, "Hazardous Materials").

Historically, the Jamaica Water Supply Company supplied water to the southern portion of Queens County. In 1996, the City purchased the Queens portion of the Jamaica Water Supply Company and now provides drinking water to those communities previously served by the groundwater wells. Although groundwater is not used as a source of drinking water in the portion of Queens where the Project Site is located, it is the sole source of drinking water for Nassau and Suffolk Counties on Long Island and is protected as such in Kings and Queens Counties.

Floodplains

A majority of the Project Site and quarter -radius study area is located within a tidal floodplain associated with nearby water bodies including Flushing Bay, Flushing River and Mill Creek and the lower area of the former Flushing Airport site. As shown in Figure 5-2, the Project Site and adjacent areas to the north, east, south and southeast lie within Zone AE on the Flood Insurance Rate Map prepared by FEMA. Zone AE represents areas that have a 1% chance of flooding each year (100-year flood) that have been determined in the Flood Insurance Study by detailed methods of hydraulic analysis. The residential and commercial areas to the northeast of the Project Site are not located in the 100-flood plain. In the vicinity of the site, the 100-year floodplain elevation has been determined to be elevation 13' (NGVD 1929 [10.275' QBD]).

As mentioned above, in New York City, Local Law 33 of 1988 regulates construction in the 100-year floodplain, and requires that roadway and utility construction be designed to minimize or eliminate damage from flooding. In addition, habitable structures must have the lowest floor not less than one foot above the base flood level. This New York City Law applies to the proposed Academy.

Wetlands

As shown in Figure 5-3, no NYSDEC regulated freshwater or tidal wetlands are located on the Project Site. The closest mapped NYSDEC tidal wetland is Flushing Creek/Flushing Bay, located within the quarter -mile radius study area, approximately 700 feet south of the Project Site. The closest mapped NYSDEC freshwater wetland is the former Flushing Airport site located approximately 0.3 miles northeast of the Project Site. Portions of the southern area of the former Flushing Airport site are located within the proposed Academy's quarter -mile radius study area.

The National Wetland Inventory (NWI) Map (Figure 5-4) indicates that palustrine, unconsolidated bottom, semi-permanently flooded (PUBF) wetlands and palustrine, seasonally flooded (PEM1C) wetlands are located on the Project Site and within the quarter -mile radius study area. However, based on Site investigations, (as discussed below) and information obtained from various area studies, the Site does not exhibit wetland characteristics. Further, the NWI map is not used to designate wetlands for regulatory purposes.

An inspection of the Project Site was performed on 19 March 2008 by wetland scientists from Langan Engineering & Environmental Services (Langan) to identify any potential wetland areas. The methodology used by Langan to evaluate wetlands on the project site was consistent with the USACE guidelines as specifically referenced in the 1987 Corps of Engineers Wetlands Delineation Manual. This methodology utilizes a three parameter approach to identifying and delineating wetlands. The technical criteria include:

- A the dominance of hydrophytic vegetation;
- The presence of suitable wetland hydrology; and

- The presence of hydric soils for a positive determination.

Based on 6 June 2008 correspondence, the USACE confirmed through a Jurisdictional Determination (JD) that wetlands are not present on the site and identified the ditch as Jurisdictional Waters of the United States. A JD is the formal process of identifying and locating jurisdictional "Waters of the United States" (including wetlands) regulated by the USACE under Section 404 of the Clean Water Act. The NYSDEC confirmed through a JD that it will take jurisdiction of the drainage ditch pursuant to 6NYCRR Part 608 – Use and Protection of Waters regulations.

Although it is tidally influenced, the downstream area of the drainage ditch, the area south of the tide gates (Figure 5-5 Photograph 5-3), is not officially mapped as a state regulated tidal wetland. Further, the freshwater upstream end of the ditch, north of the tide gates, is not mapped under NYSDEC's Freshwater Wetland regulations. Based on correspondence with the NYSDEC, the drainage ditch will not be regulated under Tidal or Freshwater Wetland regulations. However, since it is anticipated that the proposed Academy would include minor discharges, pursuant to the USACE Nationwide Permit Program (Sections 401 and 401 of the CWA) it is anticipated that a Water Quality Certification will be also required from the NYSDEC.

As mentioned previously in this chapter, the onsite drainage ditch is the only non-structural feature on the Project Site. Site field observations showed a low-lying isolated, area of water present in the central, north part of the Tow Pound. However, the area is likely a temporary ponding resulting from poor drainage after heavy rain events and is not subject to agency regulation. The drainage ditch contains open water with upland vegetation along its edges (Photographs 5-2, 5-3, 5-5, 5-6, 5-7 & 5-8). The banks of the ditch are sparsely vegetated with invasive, non-hydrophytic herbaceous and scrub/shrub vegetation. Trees are intermittently spaced along the top of the banks. Vegetative species on the banks include common mugwort (Artemisia vulgaris), tree-of-heaven (Ailanthus altissima), common reed (Phragmites australis), staghorn sumac (Rhus typhina), black cherry (Prunus serotina), and cottonwood (Populus deltoids). With the exception of black cherry, these species are common invasive upland plants that frequently grow in disturbed areas. The banks of the ditch do not exhibit wetland hydrology and are composed of a fill material that is not considered a hydric soil. A more detailed description of the detention ditch is provided below.

Man-made Drainage Ditch

As shown in Figure 5-5, the northeastern portion of the Project Site features an inverted "L" shaped, man-made drainage ditch that begins at the intersection of 28th Avenue and Ulmer Street and flows west for approximately 500 feet, then turns to the south and flows for another approximately 1,100 feet to 31st Avenue at the southeastern area of the Project Site. The drainage ditch is approximately 44' to 60' wide and approximately 1,600 feet long. According to the National Oceanic and Atmospheric Administration (NOAA), Mean High High Water in the ditch is measured at 0.731' Queens Borough Datum (QBD). MHHW is the average of the higher high water height of each tidal day observed by the National Tidal Datum. Mean High Water (MHW) in the tidal portion of the ditch is 0.621' (QBD).

The drainage ditch and the adjoining "V-shaped" detention pond located northeast of the immediate Project Site and within the quarter-mile radius, were constructed in the 1980's by the NYCEDC to allow the discharge of water from the former Flushing Airport to flow to the Flushing River/ Flushing Bay, when the original Mill Creek, which previously flowed to the east of the Project Site to the Flushing River, was blocked by development and redirected into the drainage ditch to open water in Flushing Bay. The onsite drainage ditch is the sole egress of water from the former Flushing Airport site freshwater wetland system to the open water in the Flushing River/Flushing Bay.

As shown in Figure 5-5, the ditch contains two internal road bridges, referred to as the northern bridge (Photo 5-5) and southern bridge, (Photo 5-3) that cross over and separate it into northern, central and

southern sections. As further described in Chapter 8, "Infrastructure", at the upstream end of the ditch, near the intersection of 28th Avenue and Ulmer Street, twin 84-inch culverts/storm sewers discharge drainage from offsite open waters and wetlands located to the northeast.(Photo 5-6). The northern section of the ditch is connected via two 72-inch culverts located beneath the northern bridge (Photo 5-7). The tide gates are attached to these culverts on the downstream end of the crossing (Photo 5-5). The central and southern sections of the drainage ditch are connected via two 84-inch culverts located beneath the southern bridge (Photo 5-3). The ditch ultimately drains offsite via dual 56-inch by 81 inch pipes located at the southern boundary at 31st Avenue. Downstream and offsite, the drainage ditch is culverted for approximately 700 feet before it discharges to Flushing River/Flushing Bay (Photo 5-8).

Corrugated metal stormwater outfalls discharge stormwater runoff from the Pound Lot and other areas of the Project Site at several locations along the ditch (Photo 5-9). See Chapter 8 "Infrastructure" for an analysis of onsite stormwater runoff.

As mentioned above, the drainage ditch is an integral part of wetland maintenance, flood control and stormwater management in the Project Area, the adjacent development north of the Project Site and the area encompassing the former Flushing Airport site and the inverted "V" shaped detention pond located immediately northeast of the Project Site, north of 28th Avenue and east of Ulmer Street (Figure 5-1). The NYCEDC owns the entire drainage system located within College Point Industrial Park and has been responsible for its maintenance for approximately 30 years. The tide gates were previously located on the culverts beneath the southern ditch crossing. These were relocated to the current location in 2006 after they had become inoperable and allowed tidal water to flood areas north of the Project Site. Based on correspondence with NYCEDC officials, the 2006 tide gate relocation site was selected in part because it would be most effective and convenient to attach the new tide gate devices to the existing culverts at the new location. This action required Nationwide General Permit Numbers 3 and 7 from the USACE and an Environmental Conservation Law (ECL) Article 25 Tidal Wetlands Permit from the NYSDEC and met NYSDOS general consistency concurrence criteria.

In addition to run-off from the adjacent development north of the Project Site, the freshwater section of the drainage ditch located north of and "upstream" of the tide gate receives water from the former Flushing Airport Site wetland. This water flows through the "V-shaped" detention basin located north of 28th Avenue and Ulmer Street, and into the drainage ditch through 84" culverts (Photo 5-10). The volume of water in this section is dependent upon the opening and closing of the tide gate, which serves to prevent tidal waters from reaching upstream but allows the freshwater to drain downstream to Flushing River/Flushing Bay during low tide. Although this section of the drainage ditch is non-tidal, it has to some degree daily water level fluctuations. When the tide gates are closed at high tide, the freshwater does not flow, and the upper area of the drainage ditch becomes a stagnant water body. When the tide gates are open, the pressure in the freshwater section is relieved and water discharges downstream. However, when the tide gates are open, the water flow is slow due to the small size of the tide gate openings. The average daily water level variation due to the opening and closing of the gate, and alternation of restricted versus open-flow, is approximately 2 feet, and varies based on the amount of precipitation occurring in the watershed. It is estimated that downstream of the tide gate, where saltwater from Flushing River/Flushing Bay enters twice per day, the tidal delta (difference between high and low tide) is between 0 and 3 feet.

Water quality samples taken in October 2008 indicate that the water in the drainage ditch contains several contaminants listed in NYSDEC's *New York State Stormwater Management Design Manual*, including but not limited to, suspended solids, phosphorus, nitrogen, nitrite and nitrate, lead, oil and grease, biochemical oxygen demand (BOD), fecal coliform, fecal strep and chloride. However, the samples showed NYSDEC standards exceedences for total nitrogen, chloride and BOD.

Aquatic Resources

Surface drainage from the Project Site and off-site, upgradient areas drain to Flushing River, Flushing Bay, and the East River through the drainage ditch mentioned throughout this chapter. Because water quality within these water bodies could potentially be affected by the proposed Academy, the existing aquatic resources within these water bodies were examined to determine current conditions. A discussion of the general conditions, water quality, sediment quality and aquatic biota is provided below.

General Conditions

Flushing Bay is a tidal waterbody located on the south side of the upper East River. Historically the bay was much larger, but filling activities for the construction of LaGuardia Airport in the 1930's significantly lessened its size. The Bay primarily receives freshwater flows from the Flushing River and Mill Creek. The circulation and salinity of the bay are primarily determined by the conditions within the adjacent East River and the Long Island Sound. A salinity gradient exists along the East River due to the higher salinity content of the Long Island Sound.

In general, the water depths within Flushing Bay are shallow near the shore and approximately 15 feet near the Bay's confluence with the East River. A 150-foot wide artificial navigation channel is located in the center of the bay and maintained at a depth of 14.5 feet to promote the passage of boats to and from the East River. Water depth within the federal navigation channel of the East River is maintained at either 35 or 40 feet below the mean low water line depending on the section of the river. Portions of the East River are also much deeper than the maintained depth, in some cases reaching up to 100 feet deep. The Flushing Bay and East River shorelines are almost entirely bulkheaded or rip-rapped.

The East River is a tidal strait that connects New York Harbor with the western end of Long Island Sound. It is approximately 16 miles long and generally ranges from 600 to 4,000 feet in bank to bank width. Maximum current velocities in the East River range between approximately 5 and 6 knots (8 to 10 feet per second); however backwaters such as Flushing Bay typically have tidal currents that are considerably slower. The strong tidal currents in the East River are due to the differences in timing and amplitude of tides between Long Island Sound and the New York Harbor.

Water Quality

Sources of freshwater to the drainage ditch include the above-mentioned former Flushing Airport site, stormwater runoff from the site itself (currently the Tow Pound), stormwater from the off-site parking lot to the east, and runoff from streets north of 28th Avenue. The latter street runoff enters the drainage ditch via twin 84" culverts near to 28th Avenue at the 90° bend in the drainage ditch. All of these sources of water contribute sediment, nutrients and contaminants to the drainage ditch.

Flushing Bay is a shallow, highly impacted water body that has been greatly altered by human activities over the past century. The proposed Academy's impacts on stormwater management are described in Chapter 8, "Infrastructure". Given the fact that an undetermined drainage area flows through the site and directly into Flushing Bay, the Project Site is in a critical location to impact the quality of water that enters the bay.

The NYSDEC "Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations" (Title 6 of the NYCRR Part 703) provides surface water standards for each Use Class of New York surface waters. The Flushing Bay and Flushing River are classified as Use Classification I. The best usages for Class I waters are as secondary contact recreation and fishing. Water quality should be suitable for fish propagation and survival. Water quality standards for dissolved oxygen (DO) and total and fecal coliform for Use Class I waters are provided in Table 5-2 below. The NYSDEC does not have standards for chlorophyll or water clarity.

Table 5-2: NYSDEC Surface Water Standards for Use Class I

Class	Definition	Fecal Coliform	DO (never less than)	pH
I	Water quality should be suitable for fish propagation and survival.	The monthly geometric mean from a minimum of five examinations shall not exceed 2,000 colonies/100ml	Shall not be less than 4 milligrams per liter (mg/L).	The normal range shall not be extended by more than 0.1 of a pH unit.
Source: NYSDEC				

Water quality within the New York Harbor has been monitored by the NYCDEP for almost 100 years. The NYCDEP's "Harbor Survey" evaluates surface water quality in four regions: Inner Harbor Area, Upper East River-Western Long Island Sound, Jamaica Bay, and Lower New York Bay-Raritan Bay (DEP 2007). The Project Site is in the Upper East River-Western Long Island Sound, which includes the Flushing Bay and Flushing River area.

The most Recent Harbor Survey (DEP 2007) indicates that the water quality of New York Harbor has improved significantly since the 1970s as a result of measures undertaken by the City. These improvements are primarily attributed to regional decreases in municipal and industrial discharges that occurred through the construction and upgrading of Water Pollution Control Plants. While water quality continued to improve until the early 1990s, since that time improvements have been relatively small (DEP 2007).

Aerobic forms of aquatic life such as fish, crabs, clams, and worms require DO in the water column for respiration. The bacterial breakdown of high organic loads from various sources can deplete DO to low levels and persistently low DO can degrade habitat and cause a variety of sublethal or, in some cases, lethal effects. Consequently, DO is one of the most universal indicators of overall water quality in aquatic systems. Mean DO concentrations in the upper East River have increased over the past 30 years from an average that was below 3 mg/L in 1970 to above 5 mg/L in 2006, a value fully supportive of fishing and bathing (DEP 2007). In 2006, DO levels in the Upper East River and Western Long Island Sound were the lowest throughout the harbor. Summer DO averaged 5.3 mg/L and 4.9 mg/L for surface and bottom waters, respectively. These values are, however, above the 4 mg/L standard for Use Class I waters (DEP 2007).

When coliform bacteria is present in surface waters creates potential health impacts from human or animal waste, and elevated levels of coliform can result in the closing of bathing beaches and shellfish beds. In 2006, sanitary water quality continued to be good for Upper East River-Western Long Island Sound. Fecal coliform concentrations for all monitoring sites were in compliance with their specified best use classifications for fishing and bathing. The summer geometric mean for the region was 55 cells/100mL. Only two sites had summer geometric means greater than 100 cells/100 mL (DEP 2007). Overall, fecal coliform concentrations in this area have declined, significantly improving water quality from the early 1970s, when levels were well above 2,000 colonies/100 mL.

If nutrient levels become too high in the New York Harbor, it can lead to the excessive growth of phytoplankton, a minute free-floating aquatic plant that forms the basis of the food web. These organisms respond quickly to environmental changes and their abundance can serve as a measure of water quality and evidence of potential eutrophication and depletion of dissolved oxygen. Concentrations of the plant pigment chlorophyll-a in water can be used to estimate productivity and the abundance of phytoplankton. Chlorophyll-a concentrations greater than 20 micrograms per liter (µg/L) are often considered suggestive of eutrophic conditions. DEP is implementing a program to reduce

nitrogen loadings from wastewater treatment plants to the East River. Upgrades implemented at four upper East River treatment plants have decreased nitrogen discharges from these plants by over 30,000 pounds per day since 1993. In 2006, the average concentration of chlorophyll-a in the upper East River region was 6.67 µg/L, which is well below the 20 µg/L threshold (DEP 2007).

The DEP uses a Secchi disk to estimate the clarity of surface waters. A high Secchi transparency (greater than 5 feet) typically indicates clear water. Decreased clarity can be caused by high suspended solid concentrations or blooms of plankton. Secchi transparencies less than 3 feet are generally indicative of poor water quality conditions. Average Secchi readings in the upper East River have remained relatively consistent since measurement of this parameter began in 1986, ranging between about 3.5 and 6 feet. Average Secchi transparency near the project area in 2007 was approximately 5 feet or greater.

The New York City combined sewer system discharges stormwater and raw sewage into the New York Harbor from 460 permitted outfalls. These outfalls, known as combined sewage overflows (CSOs), drain approximately 200,000 acres within the City during rain events. The discharges can result in localized water quality problems such as periodic high levels of coliform bacteria, floatables, depressed dissolved oxygen, sediment mounds, and unpleasant odors. As a result of the deteriorating water quality, DEP entered into an Administrative Consent Order with DEC in 1992 to guide the DEP's obligations for the CSO program. It required DEP to implement CSO abatement projects in nine facility planning areas for those areas where dissolved oxygen and coliform standards were being exceeded. A new Consent Order was created in 2004 to bring all CSO related matters into compliance with the provisions of the Clean Water Act (CWA) and the New York State Environmental Conservation Law (ECL). The 2004 Consent Order contains requirements to evaluate and implement CSO abatement strategies on an enforceable timetable for 18 water bodies. Flushing Bay is one of these water bodies.

Given the high amount of urban runoff that enters Flushing Bay, including that which flows from the Project Site's man-made drainage ditch, dissolved oxygen and coliform levels within the bay are periodically in non-compliance with the water quality standards. As part of the City's long term CSO planning effort, a Comprehensive Watershed Plan was developed for Flushing Bay in 2007. The plan was created to take a first step toward development of a long term control plan (LTCP) for the bay, in accordance with the U.S. Environmental Protection Agency (USEPA) CSO Control Policy. The plan assesses the ability of the existing CSO Facility Plan for Flushing Bay and Flushing River to provide compliance with the existing water quality standards.

The DEC is attempting to reduce toxic chemicals in New York Harbor through a collaborative effort with New Jersey known as the Contamination Assessment and Reduction Project (CARP). The DEC developed a comprehensive, multi-media contaminant identification and trackdown program simultaneously with New Jersey and the CARP Work Group (a group of government, academic, and consultant experts). The states, together with the work group, are undertaking a variety of projects including studies of the water in the Harbor and tracking down contaminant sources in the surface water, groundwater, and wastewater of the Harbor. The overall goal of the initiative is to reduce the flow of contaminants to the Port of New York and New Jersey. The principal chemicals of concern include dioxins/furans, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), metals (mercury, cadmium, and lead), and pesticides (dieldrin and chlordane).

Sediment Quality

The highly urban areas that surround the Upper New York Bay, including the project study area, can contribute a large amount of sediment to the substrate of the bay. The distribution of the sediments within the bay is largely impacted by the strong tidal currents. The sediments in Flushing Bay vary from coarse sands and gravels in high energy areas to fine-grained silts and clays in low energy areas. The substrate of the upper East River is primarily a rock bottom consisting of gravel, cobble, rocks and

boulders that are covered with a shallow layer of sediment. The areas that do not have the high velocity tidal currents, such as Flushing Bay, tend to have a thicker layer of fine silts that are not washed away (USACE 1999).

Historically, the sediments within the New York Harbor have been considered highly contaminated due to the industrial and urban characteristics of the watershed. Contaminants of concern have typically been pesticides (chlordane and DDT), metals (mercury and copper), and PAHs. A USEPA study of the New York Harbor found that concentration of contaminants within the sediment was statistically higher than other coastal areas on the East Coast (Adams et al. 1998). The study examined sediment chemistry and toxicity and identified negative impacts on the benthic invertebrate community of the Harbor.

A benthic habitat mapping study was conducted in the New York/New Jersey Harbor in 1995 to assess the benthic habitat quality (Iocco et al. 2000). The study included Flushing Bay. The benthic habitat within Flushing Bay was classified as soft silt or as soft silt with infauna (organisms living within the sediments). Some sampled locations indicated the presence of "stressed silt", or silt with methane gas voids. The sediments in Flushing Bay were indicative of recently accumulated material that has limited potential to support a diverse benthic faunal community.

Aquatic Biota

As a result of the culverts, tide gates and other structural components that obstruct the connection between the Flushing Bay/Flushing River and the freshwater wetland at the Former Flushing Airport site, there is minimal opportunity for aquatic biota to survive in the onsite drainage ditch. Field observations at the Project Site indicated the occurrence of barnacles within the tidal area of the ditch and various parts of shellfish that may have been trapped within the culverts that connect the ditch with the Flushing Bay/Flushing River. A study of the marine biological resources in Flushing Bay was conducted in 1993 as part of an environmental impact analysis for a newly proposed New York City Department of Sanitation (DSNY) marine transfer station on the eastern shore of Flushing Bay (DSNY 2005). The study included monthly sampling for finfish eggs and larvae, and quarterly sampling for adult finfish, as well as benthic invertebrates. A total of eight species of finfish were collected during the study. The most abundant species were Atlantic silverside (Menidia menidia) and Atlantic herring (Clupea harengus). The most abundant finfish eggs collected were cunner (Tautogolabrus adspersus) and Atlantic menhaden (Brevoortia Tyrannus). The most abundant finfish larvae were a herring species (Clupea sp.), Atlantic menhaden, anchovy species (Anchoa sp.), winter flounder, and goby species (Gobiosoma sp.). The most abundant macroinvertebrate species collected were sevenspine bay shrimp (Crangon septemspinosa) and grass shrimp (Palaemonetes vulgaris). Two of the species that were collected are listed as having essential fish habitat for the adult life stages: Atlantic herring and winter flounder (Pleuronectes americanus).

As mentioned in the sediment quality section, a benthic habitat mapping project was conducted in 1995 to examine the overall condition of the benthic communities and sediments in Jamaica, Upper, Newark, Bowery, and Flushing Bays. The overall trends that were noted in all of the bays from June through October included increases in marine worm density, increasing depths at which sediments were oxidized, and changes in species dominance within communities. Within Flushing Bay, the benthic habitats were sampled in three areas; west of the main channel, east of the main channel, and the lower basin near the Flushing River. In all three areas, soft sediment habitats were predominately observed. Oyster beds, epifauna (organisms living upon the sediment) and infauna were present west of the main channel. Infaunal worms were observed east of the main channel. And the lower basin was dominated by bacteria habitats and associated gas void habitats. These gas void habitats typically contain a mixture of nitrogen and methane, are anaerobic, and are associated with high rates of bacterial metabolism. The high abundance of pollution-tolerant species and gas void habitats within Flushing Bay suggest that the benthic habitat quality within the bay is poor (Iocco et al. 2000).

Threatened, Endangered, and Special Concern Species

Requests for information on rare, threatened, or endangered species within the vicinity of the Project Site were submitted to the New York Natural Heritage Program (NYNHP) and the NOAA and National Marine Fisheries Service (NMFS). The NYNHP is a joint venture of NYSDEC and The Nature Conservancy (TNC) since 1985 that maintains an ongoing, systematic, scientific inventory on rare plants and animals native to New York State. The NYNHP database is updated continuously to incorporate new records and changes in the status or rare plants or animals.

According to NOAA, no endangered or threatened species are located in the immediate project area. However, diadromous and resident fish, forage and benthic species may occur in the general project area (this most likely refers to Flushing Bay/Creek). Also, according to NOAA, aquatic habitats in the project vicinity have been designated as Essential Fish Habitat (EFH) for one or more species. Once the permit applications have been submitted, it will be determined whether or not an EFH assessment will be required.

According to NYNHP, there are no records of known occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of the Project Site.

The United States Fish and Wildlife Service (USFWS) also maintains information on federally-listed threatened or endangered species in the vicinity of the Project Site. The USFWS species list for Queens County, NY contains two endangered species and two threatened species. Endangered species contained on the list consist of the roseate tern (Sterna dougallii dougallii) which typically inhabit rocky offshore islands, barrier beaches, and salt marshes; and the shortnose sturgeon (Acipenser brevirostrum) which primarily occurs in the Hudson River. Threatened species contained on the list consist of the piping plover (Charadrius melodus) which typically inhabit on sandy beaches; and the seabeach amaranth (Amaranthus pumilus) which typically grows on sandy beaches.

The NYSDOS Division of Coastal Resources on-line mapping system does not identify any Significant Coastal Fish and Wildlife Habitats in the vicinity of Flushing Bay, including the Project Site, or the adjacent portion of the upper East River (NYSDOS, 2008).

Essential Fish Habitat (EFH) is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity and "waters" include aquatic areas that are used by fish and may include aquatic areas that were historically used by fish where appropriate. Mapped information provided as part of the "Guide to Essential Fish Habitat Designations in the Northeastern United States" shows that there is EFH identified for a total of twenty federally managed fish and skate species that have been designated in the 10' x 10' square of latitude and longitude that contains the Project Site (Table 5-3). This area includes Atlantic Ocean waters within the Hudson River estuary affecting the following: Manhattan Island, New York City, College Point, Long Island City, Brooklyn, Port Morris, Unionport, Flushing Bay, Astoria, LaGuardia Airport, Badland Island, Rikers Island, Roosevelt Island, Wards Island, and Hell Gate, along with the East River, the Harlem River, and the Bronx River.

Table 5-3: Summary of Essential Fish Habitat (EFH) Designations

Species	Eggs	Larvae	Juveniles	Adults
Pollock (Pollachius virens)			X	X
Red hake (Urophycis chuss)		X	X	X
Winter flounder (Pleuronectes americanus)	X	X	X	X
Windowpane flounder (Scopthalmus aquosus)	X	X	X	X
Atlantic sea herring (Clupea harengus)		X	X	X
Bluefish (Pomatomus saltatrix)			X	X
Atlantic butterfish (Peprilus triacanthus)		X	X	X
Atlantic mackerel (Scomber scombrus)			X	X
Summer flounder (Paralicthys dentatus)		X	X	X
Scup (Stenotomus chrysops)	X	X	X	X
Black sea bass (Centropristus striata)	n/a		X	X
King mackerel (Scomberomorus cavalla)	X	X	X	X
Spanish mackerel (Scomberomorus maculatus)	X	X	X	X
Cobia (Rachycentron canadum)	X	X	X	X
Sand tiger shark (Odontaspis taurus)		X		
Dusky shark (Charcharinus obscurus)		X		
Sandbar shark (Charcharinus plumbeus)		X		X
Clearnose skate (Raja eglanteria)			X	X
Little skate (Raja erinacea)			X	X
Winter skate (Leucoraja ocellata)			X	X
Reference: NMFS, 2008				

D. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD)

There would be minimal changes to the use of the Project Site in the Future Conditions Without the Proposed Action. Elements of the New York/New Jersey Harbor Estuary Program (HEP) and other ongoing projects aimed at improving water quality and aquatic resources in New York that have the potential to result in water quality and aquatic habitat improvements in Flushing Bay, the Flushing River, and the freshwater wetland area at the former Flushing Airport site. These projects are independent of the proposed Academy that would occur without the proposed Academy and are expected to continue through the proposed construction in 2010 to full operation of the project in 2014.

New York/New Jersey Harbor Estuary Program Projects

Several of the future water quality improvement efforts in the Lower Hudson River Estuary will be coordinated by the New York/New Jersey Harbor Estuary Program (HEP). The Final Comprehensive Conservation and Management Plan ([CCMP] NY/NJ HEP 1996) for the HEP included a number of goals to improve water quality and aquatic resources in the area. The CCMP outlines objectives for the management of toxic contamination, dredged material, pathogenic contamination, floatable debris, nutrients and organic enrichment, and rainfall-induced discharges. The HEP Habitat Workgroup has developed watershed-based priorities for identifying acquisition, protection, and restoration sites for the preservation and enhancement of tidal wetlands that will provide improved habitat for fish and macroinvertebrates as well as the birds, mammals, and reptiles that depend on these habitats. No NY/NJ HEP Acquisition and Restoration Sites have been identified within the project area.

The CARP, sponsored by PANYNJ, is a component of HEP focused on understanding the fate and transport of contaminants discharged to the estuary, and using this information to develop measures that may be necessary to reduce sediment contamination. The principal chemicals of concern include dioxins/furans, PCBs, PAHs, metals (mercury, cadmium, and lead), and pesticides (dieldrin and chlordane). Continued research and monitoring programs are anticipated to play a role in the

development of future management strategies for Harbor sediments (NY/NJ HEP undated, US ACE 1999).

New York City Projects

USEPA's National CSO Strategy of 1989 requires states to eliminate dry weather overflows of sewers, meet Federal and State water quality standards for wastewater discharges, and minimize impacts on water quality, plant and animal life, and human health. CSOs are the largest single source of pollutants and pathogens to the New York Harbor. DEP has taken several steps in recent years to mitigate discharges from CSOs, which, in combination with improvements that have been made to WPCPs, and the on-going Comprehensive City-Wide Floatables Abatement Plan, are expected to result in future improvement in coliform, dissolved oxygen, and floatables levels in the New York Harbor area. The Multi-Year Intended Use Plan of the New York City Municipal Water Financing Authority has identified several CSO improvement and abatement projects, which will be completed by 2010. As required by EPA's CSO Control Policy, DEP initiated the development of the Long Term Control Plan (LTCP) Project in 2004. The LTCP Project will integrate CSO Facility Planning Projects and the Comprehensive City-Wide Floatables Abatement Plan, incorporate ongoing Use and Standards Attainment Program (USA) Project work, and will develop Waterbody/Watershed Facility Plan Reports and the LTCP for each waterbody area, including Flushing Bay. The LTCP Project monitors and assures compliance with applicable Administrative Consent Orders between DEC and New York City for the CSO Abatement Program. To date, several initiatives have been undertaken as part of the 2004 Order to improve the quality of Flushing Bay, including approval of the Flushing Bay Watershed Plan (previously described in Section C), as well as several infrastructure improvements. DEP also plans to increase identification and control of pollutants of concern, including mercury, PCBs, and solvents.

Former Flushing Airport Wetland Mitigation Plan

The NYCEDC has sponsored the former Flushing Airport Wetland Mitigation Plan (Plan) on the approximately 78-acre former Flushing Airport site located approximately 0.3 miles northeast of the Project Site. The Plan, which is a priority project for the New York City Wetlands Transfer Task Force[2], is designed to improve wetland functions and values by enhancing 8.6 acres of existing degraded wetlands and creating 11.8 acres of restored wetlands at the former Flushing Airport site. The Plan will enhance water quality, improve flood storage, increase wildlife habitat values and improve overall aesthetic value of the area. The Plan will also create 5.6 acres of scrub/shrub floodplain, 4.7 acres of forested upland and 6.3 acres of grassland.

The Plan is required under the NYSDEC Order of Consent due to unpermitted, historic filling activities that occurred within the wetland areas for most of the 20th Century. The Plan also proposes to mitigate impacts to wetlands anticipated in connection with the planned commercial or industrial development in the former Flushing Airport area. These activities will include removing historic fills, abandoned buildings, and debris and creating open water areas, emergent wetlands, and associated floodplain and forested habitats. The function of the site as a wetland has been impeded by disturbed site conditions including, poor soil quality caused by historic filling activities, the domination of invasive species (ie Phragmites), poor water quality, limited flood storage and accumulating debris.

The drainage ditch on the proposed Academy Site is the sole means of drainage from the former Flushing Airport site wetland to the Flushing River/Flushing Bay. Therefore, the drainage ditch landscaping and water quality enhancement efforts should be consistent with NYCEDC's and the City's objectives for the Flushing Airport Freshwater wetland restoration, and consistent with NYCEDC's existing management

[2] The New York City Wetlands Task Force inventories City-owned wetlands in the New York metropolitan area and determines the technical, legal, environmental and economical feasibility of transferring these wetlands to the jurisdiction of NYC Department of Parks and Recreation.

objectives for the drainage ditch. A Joint NYSDEC and USACE Permit Application was submitted in April 2008 to implement the mitigation and restoration measures proposed in the Plan.

Additional Proposed Projects

Other proposed projects located outside the proposed Academy study area, but within the drainage area serviced by the Bowery Bay Water Pollution Control Plant (WPCP), have the potential to affect aquatic resources of Flushing Bay in the vicinity of the Project Site without the proposed Academy. Such projects would include those that would result in development of new uses and uses with greater densities. These projects have the potential to result in greater water volume needs and sewage discharges to the combined sewer system than current uses, and have the potential to result in increased sewage discharge to Flushing Bay from CSOs, which may affect water quality in Flusing Bay/Flushing River.

The Bowery Bay Water Pollution Control Plant (WPCP) is a conventional secondary wastewater treatment plant that has been in service since 1939. Its receiving waterbody is the upper East River. The existing plant has treatment facilities designed and permitted to treat an annual average dry weather flow of 150 million gallons per day (mgd), which would produce approximately 40 dry tons per day (dtd) of dewatered sludge. The plant has hydraulic capacity to convey and to provide primary treatment for 300-mgd of wet weather flow. The dewatered sludge is hauled off-site and further processed in accordance with DEP's Sludge Management Program. The average daily flow rate at the plant for the period between January 2001 and December 2001 was 101 mgd. DEP's projected dry weather wastewater flow to the Bowery Bay WPCP in 2011 is 122 mgd. With the additional treatment of waste from projects proposed outside of the proposed Academy Project Area, including the proposed Citi Field, the WPCP would still be within its permitted capacity. Therefore, no adverse environmental impacts on the water quality of Flushing Bay or River, or the upper East River are expected.

Terrestrial Resources

Terrestrial conditions on the Project Site will remain the same if the proposed Academy is not constructed. The majority of the Project Site is developed with paved parking areas and existing buildings. The drainage ditch provides minimal habitat for small terrestrial mammals and song birds.

Wetlands and Waters of the United States

The majority of the Project Site is comprised of paved parking lots and buildings. The man-made drainage, the Project Site's only non-structural, surface water feature, is regulated by the USACE as a jurisdictional "Water of the United States". The ditch is also under jurisdiction of the NYSDEC as a "Water of the United States" under the Use and Protection of Waters regulations. In the Future Conditions Without the Proposed Project, the drainage ditch will continue to function as the sole connection between the Flushing Bay/Flushing River and freshwater wetlands located at the former Flushing Airport site and channel stormwater from onsite and adjacent urban areas and control tidal water from flooding into the adjacent freshwater wetland area. It will also continue to be maintained as both a tidally influenced and freshwater waterbody.

Floodplains

A majority of the Project Site and the area within the quarter -mile radius is within the FEMA 100-year floodplain and is highly developed. With the exception of the drainage ditch, the Project Site is dominated by asphalt parking lots and buildings. Under Future Conditions Without the Proposed Action, the majority of the Site would remain as asphalt and buildings and there would be no impacts to the existing floodplain.

Aquatic Resources

Under the Future Conditions Without the Proposed Action it is expected that the southernmost 5.5 acres of the Project Site will be redeveloped by a local manufacturing company based in accordance with the New York City Zoning Resolution and that the remainder of the Site (the Police Pound Lot) would also be developed according to permitted zoning. Under the existing conditions, the stormwater management facilities on the Project Site do not provide a high degree of pollutant removal prior to discharging runoff to Flushing Bay. The large number of automobiles on the site contribute non-point source pollutants (oil, grease, exhaust, leaking gas tanks, etc.) that are transported by overland flow and outflow pipes to the ditch, and then directly to Flushing Bay. Under the Future Conditions Without the Proposed Action, these conditions would likely improve assuming that the Site would not be used as a parking lot or a parking lot of similar size compared to the existing conditions. If the southern area of the Project Site is redeveloped by a local manufacturing company, stormwater management and the quality of runoff may also improve; however it would not likely be as beneficial as the Best Management Practices that are proposed by the proposed Academy and discussed below ("green roofs", bio-retention systems, bio-swales, and sediment removal devices).

Threatened, Endangered, and Special Concern Species

Since there are no threatened, endangered, and special concern species occurring on the vicinity of the Project Site, it is not expected that the Future Conditions Without the Proposed Action would result in any significant adverse impacts to these resources. Requests for information on rare, threatened, or endangered species within the vicinity of the Project Site were submitted to the NYNHP, NOAA and NMFS.

The NYNHP and USFWS have determined that there are no known occurrences of threatened or endangered species and there are no areas within the project area that are considered "critical habitat." According to the USFWS species list for Queens County, NY contains two endangered species and two threatened species. Endangered species contained on the list consist of the roseate tern (Sterna dougallii dougallii) which typically inhabit rocky offshore islands, barrier beaches, and salt marshes; and the shortnose sturgeon (Acipenser brevirostrum) which primarily occurs in the Hudson River. Threatened species contained on the list consist of the piping plover (Charadrius melodus) which typically inhabit on sandy beaches; and the seabeach amaranth (Amaranthus pumilus) which typically grows on sandy beaches.

As mentioned above, NOAA indicated that no endangered or threatened species are located in the immediate project area. However, diadromous and resident fish, forage and benthic species may occur in the general project area (this most likely refers to Flushing Bay/Creek). Also, according to NOAA, aquatic habitats in the project vicinity have been designated as Essential Fish Habitat (EFH) for one or more species. Once the permit applications have been submitted, it will be determined whether or not an EFH assessment will be required.

The NYSDOS Division of Coastal Resources on-line mapping system does not identify any Significant Coastal Fish and Wildlife Habitats in the vicinity of Flushing Bay or the adjacent portion of the upper East River (NYSDOS, 2008).

E. FUTURE CONDITIONS WITH THE PROPOSED ACTION (BUILD)

Proposed Action

Future conditions with the Proposed Action would result in the construction of up to approximately 2.4 million gsf of new development, which would include NYPD indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility. It would also include an above-grade parking facility for approximately 1,800 vehicles. The proposed Academy would also include

the removal of two existing culverted, earthern crossings of the ditch and replacing each with new pile supported, open span bridges. A new tide gate structure may be placed at or around the current location or may be placed at a different location along the drainage ditch. In the event that the tide gate is moved to its southernmost area, the drainage ditch would become an entirely freshwater waterbody. The proposed Academy will be certified as a Silver–Rated Leadership in Energy and Environmental Design New Construction (LEED-NC) project by the USGBC. As part of the USGBC requirements for LEED Silver Rating, the NYPD and NYCDDC will integrate several sustainable site planning features that would benefit natural resources within and in the vicinity of the Project Site. These include green roofs, on-site storage and treatment facilities, graywater recycling, and bioswales to address stormwater management. The following section discusses the potential for natural resource impacts to occur as a result of the proposed Academy.

Terrestrial Resources

Currently, the Project Site provides minimal wildlife habitat, including the man-made drainage ditch. Therefore, the Proposed Action is not expected to result in a significant loss of wildlife habitat. The proposed museum at the northeastern corner of the Proposed Academy would remove a small area of vegetation. However, this area is disturbed and contains a significant amount of invasive vegetation. Wildlife currently using the habitat on the Project Site are typical of urban areas.

The proposed Academy would construct a grove area which would consist of native vegetation to mitigate the loss of vegetation from construction of the museum. The Proposed Action would also provide native upland and wetland landscaping along the drainage ditch and adjacent to Ulmer Street and 28thAvenue. This enhanced landscaping would provide potential habitat for migratory songbirds during spring and fall migrations. Although the proposed Academy would temporarily displace wildlife using the Project Site, no significant adverse impacts to terrestrial or wildlife resources are anticipated as a result of the proposed Academy.

Wetlands and Waters of the United States

Under the Future Conditions With the Proposed Action, the entire drainage ditch would remain under the jurisdiction of the USACE as "water of the United States" under Section 10 and 404 regulations and under the jurisdiction of the NYSDEC under 6NYCRR Part 608 - Use and Protection of Waters regulations. Under the Proposed Action, the drainage ditch would continue draining the adjacent neighborhood and upstream areas, serving as a stormwater facility for on-site stormwater run-off, and controlling tidal waters from flooding areas north of the Project Site. However, under the Proposed Action the existing tide gates would be removed and a new tide gate structure would be placed in relatively the same location as the current tide gate, or relocated to another part of the drainage ditch. If the tide gate is moved to the southernmost portion of the drainage ditch, the drainage ditch would become a freshwater waterbody. The new tide gate structure would continue to allow flow from the upstream areas to drain to Flushing Bay during times of heavy precipitation and prevent tidal surges from traveling up the ditch and flooding the wetlands that are located on the former Flushing Airport site.

Under the Proposed Action, the southern crossover bridge would be replaced by a new pile supported bridge which would be constructed in relatively the same location as the existing crossing. The northern bridge crossover would be replaced with a pedestrian walkway structure just south of the existing crossing. The existing, attached 72"culverts would be removed and would not be replaced. A new tide gate structure would be constructed at relatively the same location of the existing structures or at another location along the ditch. If the tidal gate is relocated to the southernmost section of the ditch, just north of 31st Avenue, no portion of the drainage ditch would be influenced by the tide with the exception of a small area between the proposed tide gate structure and the existing 56-inch by 81-inch storm pipes just north of 31st Avenue. The culverted area of the drainage ditch, south of the

Project Site (south of 31st Avenue), which extends to Flushing Bay/Flushing River, would remain tidally influenced. In this scenario, as a result of the Proposed Action, flows to the ditch would only come from the Project Site, stormwater from the neighborhood north of the Project Site and the former Flushing Airport site. In addition, all existing outfalls that discharge site runoff to the drainage ditch would be removed. Site runoff would be treated with a combination of natural and mechanical systems before discharging into the drainage ditch. The environmental benefits of moving the tide gates to the southernmost location under the Future Conditions with the Proposed Action are discussed below.

Improved Maintenance

A uniform non-tidal freshwater system on the Project Site would require less maintenance than a combined water system. Other maintenance responsibilities in the freshwater system would include water quality treatment systems needed to improve the water quality in the drainage ditch. The proposed water quality treatment units would treat the incoming stormwater before entering the drainage ditch, which would decrease the opaqueness of the existing water, reduce the risk of odor, and contribute to the health of the proposed landscaping. In addition, in the Future with the Proposed Action, the replacement of the flex valve tidal gates will help facilitate water flow into the Flushing River/Flushing Bay, which in existing conditions, often restricts downstream flows at low tide.

Aesthetic Quality

Freshwater draining from the former Flushing Airport site and stormwater entering from offsite sources carries suspended silt, organic matter and other contaminants. Further, the water temperature of the run-off from the areas north of the Project Site is higher because it flows from shallow waterbodies at the former Flushing Airport site and the "V-shaped" drainage pond to northeast of the Project Site, and paved surfaces of onsite parking lots. As a result, the warm, nutrient rich and stagnant water becomes a prime host for algae blooms, which in turn leads to oxygen-depleted water, which appears opaque and brown in color. Under the Proposed Action, moving the tide gate structure to the southern end of the drainage ditch would provide variations in ground elevations within the drainage ditch which would foster different landscaping planting zones and offer more variety in wetland plant materials than existing conditions.

Air Quality Improvements

Under the current conditions, the drainage ditch often gives off unwanted odors. The source of unwanted odors is two-fold: in the tidal portion of the drainage ditch, the twice-per-day low tide occurrence can expose the drainage ditch bed, which releases a sulphurous, odor; while in the freshwater non-tidal portion of the drainage ditch, water tends to stagnate, fostering algal growth and releasing associated odors. With the Proposed Action, replacement of the tide gates would improve water flow, and the sources of sediment, contamination, and the nutrient inflow into the freshwater drainage ditch would be reduced or managed by proposed water quality systems.

Landscaping

The tidal section of the existing drainage ditch features very few saltwater plant species and few to none below the tide line. This indicates that landscaping the tidal drainage ditch with saltwater plants has less likelihood of successful plant establishment than the freshwater drainage ditch. Currently, a variety of native and non-native plants are established in the freshwater area of the ditch, upstream of the tidal gate. In the Future with the Proposed Action, the removal the existing tide gate and installation of a new tide gate structure at the southernmost area of the drainage ditch would create an entirely freshwater waterbody which would likely promote successful growth of freshwater plants. As mentioned under "Aesthetic", a freshwater non-tidal system would promote more wetland plant growth and provide a wider variety of wetland plants for landscaping purposes.

Environmental Benefits

The Future with the Proposed Action, which includes moving the tidal gates to the southernmost area of the drainage ditch would create a diverse non-tidal freshwater wetland and watercourse which is likely to provide more ecological benefits than a system that is part tidal and part non-tidal. Creating a diverse riparian corridor adjacent to the open water of the drainage ditch would aid in filtering runoff and water from the upland areas north of the Project Site prior to its discharge into Flushing Bay. The freshwater riparian corridor would also provide upland and wetland habitat for avian species. Given that there are few existing freshwater streams or wetlands in the region, this will be an important ecological contribution.

Further, it is unlikely that the tidal portion of the drainage ditch could be enhanced to provide similar values to the region. Although the Flushing River/Flushing Bay are both tidal and are the dominant features in the region, there is currently no evidence of marine life (finfish, shellfish nor vegetation) in the tidal section of the drainage ditch based on site visits and research materials. This is possibly because the Flushing River is heavily polluted, and because the water from Flushing Bay that moves upstream on the flooding tide is culverted for over 700 feet before reaching the southern portion of the drainage ditch. Thus, it is unlikely that an attempt at restoration of the tidal section of the drainage ditch would attract animal and plant species or would have any ecologically significant contribution to the Flushing River/Flushing Bay. Given that the tidal section of the existing drainage ditch does not provide a marine life habitat, converting this tidal zone to freshwater will have little to no negative effect on critical tidal marine habitat, but could significantly improve freshwater habitat opportunities. Therefore, creating a freshwater system in the Future with the Proposed Action is not anticipated to result in any adverse impacts to upon wetlands.

Floodplains

As discussed previously and shown in Figure 5-3, the majority of the Project Site is located within a 100-year tidal floodplain that is associated with nearby water bodies including Flushing Bay, Flushing River, and Mill Creek. In the vicinity of the site, the 100-year tidal floodplain elevation has been determined to be elevation 13' (NGVD 29 [10.275' QBD]). The development of the Project Site with the proposed Academy would occur within the 100-year floodplain. A majority of the current Project Site which exists as an asphalt Pound Lot and adjacent parking lot would be developed with buildings associated with the proposed Academy. The proposed Academy would comply with the New York City Building Code (Title 27, Subchapter 4, Article 10) and Local Law 33 of 1988 which regulates construction in the 100-year floodplain, and requires that roadway and utility construction be designed to minimize or eliminate damage from flooding. Under Local Law 33, habitable structures must have the lowest floor not less than one foot above the base flood level.

The proposed ground elevations would remain close to the existing elevations. As discussed above, this area is subjected to coastal flooding, not riverine flooding. Because a major component of coastal flooding is caused by tides, this type of flooding can be predicted. Typically, several days of notice are available for coastal flooding. In that time, the project site could be secured to prevent any damage from the flooding. The proposed Academy would not cause additional flooding because the proposed development would not block water from flowing around the area and would not reduce the ability of the floodplain to store water nor increase flooding risks to the surrounding area. Best engineering practices would be used to minimize flood damages to the buildings, roadways, and utilities located in the floodplain.

The capacity of the ditch would remain the same, but major improvements to the banks are proposed for structural and aesthetic purposes. The banks would be re-graded and re-stablized and non-invasive trees and shrubs would be planted along the banks for both aesthetic purposes and to provide additional soil stabilization. Given that tidal waters would no longer flow into the ditch and occupy a portion of its capacity, the ditch would have a greater flood storage capacity than it currently does.

Therefore, the proposed Academy is expected to partially alleviate the potential flood hazards that currently exist on the Project Site and on upstream properties.

Stormwater management techniques that would be constructed as part of the proposed Academy would also help to alleviate any potential flooding issues on the Project Site. The "green roofs" and the proposed tactical village and dining hall/central services area at the southeast portion of the Site, bio-retention system, bio-swales, and landscaped vegetation proposed in and around the drainage ditch area would reduce the quantity and rate of stormwater discharge entering the drainage ditch. During large storm events, these technologies would not only provide stormwater treatment but also manage stormwater runoff and provide a longer detention time than the existing conditions, which is sheetflow over asphalt. The proposed Academy would also reconfigure all of the existing on-site stormwater outfalls to the detention ditch so that stormwater would be managed more efficiently.

Although the proposed Academy would also result in impervious surfaces covering a large amount of the Project Site, the current conceptual plan includes landscaping and various stormwater management practices including bio-retention systems, bio-swales and water treatment units. These techniques are expected to increase the amount of evapo-transpiration and infiltration and improve existing water quality. Therefore, the proposed Academy is not expected to result in adverse floodplain impacts.

Aquatic Resources

Under the Future with the Proposed Action, the size and scope of the proposed Academy has the potential to affect the water quality of the drainage ditch and Flushing Bay at two different stages: construction, and final occupancy. During both stages, the project is not expected to result in any significant adverse impacts on aquatic resources.

Under the Proposed Action, activities which could result in potential water quality impacts include construction near the man-made drainage ditch, including removal and replacement of the tide gates, existing structural crossovers and culverts, construction of new structural crossovers, landscape enhancements along the drainage ditch, various water quality treatment facilities and new outfalls.

Construction activities also have the potential to result in temporary impacts to fish and benthic macroinvertebrates in Flushing Bay/Flushing River due to temporary localized increases in suspended sediment, potential release of contaminants from disturbed sediments, and noise associated with construction activities in and around the drainage ditch. Since the drainage ditch offers minimal habitat opportunities, these impacts would be localized and would not be expected to result in significant adverse impacts to aquatic biota.

During the construction of the proposed Academy, erosion and sediment control measures would be utilized to prevent the discharge of sediment-laden stormwater runoff to the drainage ditch and Flushing Bay. The construction of the proposed Academy may also result in the removal or capping of contaminated soils and historic fill. As discussed in Chapter 7, "Hazardous Materials," implementation of the remedial measures during construction activities would minimize the potential for significant adverse impacts to groundwater quality, adjacent wetland areas, and benthic and fish resources. Adverse impacts on groundwater flow patterns and aquatic resources are not expected.

For the final occupancy, a stormwater pollution prevention plan (SWPPP) will be designed to employ various best management practices that will minimize potential impacts on the drainage ditch and Flushing Bay that may be associated with stormwater runoff. The proposed SWPPP will comply with the New York Guidelines for Urban Erosion and Sediment Control and the New York State Management Design Manual. The SWPPP will also comply with the Flushing Bay Comprehensive Watershed Plan and would take into account that Flushing Bay is identified as an impaired waterbody. All discharges to Flushing River/Flushing Bay, vis-à-vis the drainage ditch, would be required to meet

applicable Class I quality standards. The projected discharges would not be expected to result in an adverse impact on the life stages of estuarine-dependent and anadromous fish species, bivalves and other macroinvertebrates found within the Bay.

As noted in this section, the proposed Academy will be pursuing a LEED silver-rating certification. As part of the effort to obtain this certification, the proposed Academy will be using a variety of sustainable design features and best management practices that would increase the quality and decrease the quantity of stormwater that leaves the Project Site and flows into Flushing River/Flushing Bay. These features would complement each other and provide numerous levels of stormwater treatment prior to discharge. Brief descriptions of the proposed features are provided below.

Stormwater management strategies would be employed under the Proposed Action, which are anticipated to improve water quality in the drainage ditch. The majority of the stormwater will fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means to satisfy the water quality requirements stipulated in the SPDES Statewide General Permit. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable. Although this stormwater post-treatment may still discharge into the drainage ditch, the runoff is expected to be considerably cleaner than existing conditions.

Although the exact area of rooftop has not been determined, the proposed Academy would use a green roof system (vegetated) to collect and utilize rainwater. The system would retain rainwater, promote evapotranspiration, decrease the amount of runoff from the Project Site, and provide treatment through biological means.

A bio-retention system is proposed on the north side of the Project Site, along 28th Avenue. It would include a shallow stormwater basin with underdrainage that utilizes engineered soils and vegetation to collect, convey and treat runoff. The system would slow the discharge of runoff from the site, promote infiltration, increase landscape aesthetics and provide stormwater treatment through biological means.

A bio-swale is proposed on the east side of the Project Site. The bio-swale consists of an open channel system with underdrainage which utilizes engineered soils and vegetation to collect, convey, and treat runoff. The bio-swale will also slow the discharge of runoff from the site, promote infiltration, and provide stormwater treatment through biological means.

Approximately five subsurface Water Quality Treatment Units would be installed throughout the site, once the water has passed through these units it would be conveyed through subsurface pipes that would discharge into the drainage ditch. These units provide a reinforced concrete mechanical system that removes finer sediment, particles, free oil, and debris from urban runoff. The units would provide the last step of treatment before stormwater is discharged to the detention ditch and is eventually conveyed to Flushing Bay/Flushing River.

With the design of the proposed Academy still in the conceptual stages, it is not possible to generate detailed stormwater runoff calculations for the proposed development. See Chapter 8 “Infrastructure”. As mentioned above, the quantity of stormwater runoff for proposed Academy is expected to be less than existing conditions because of the proposed increase of landscaping and the use of best management practices (BMPs). The use of these different management strategies and the alterations to the layout of the Project Site would require removal and/or numerous modifications to the existing outfalls. Prior to redevelopment of the site and in coordination with DEP, an amended drainage plan would be prepared to comprehensively address all the surface runoff and separate handling of the sanitary dry flow that would be generated as a result of the proposed Academy.

As discussed in Chapter 8 "Infrastructure", the Proposed Action would not require improvements to the existing sewer infrastructure to protect aquatic resources. The estimated sanitary sewer generation for the proposed development is expected to contribute an insignificant increase in the flow to the Tallman Island water pollution control plant. The Proposed Action would not have a significant adverse impact on the Tallman Island WPCP's ability to properly treat and discharge sanitary sewage. Please refer to Chapter 8 for a detailed description or the estimated sewage flow calculations.

Water quality changes associated with increases in suspended sediment and re-suspension of contaminated sediments from construction would be minimal and are expected to dissipate shortly after the outfall is installed. A SWPPP will be prepared for the proposed Academy in accordance with established engineering practices as part of the SPDES permitting process. Implementation of best management practices for erosion and sediment control and other measures of the SWPPP (described further below) would minimize potential water quality effects associated with the discharge of stormwater during construction activities and upon completion of the proposed Academy.

The potential impacts of construction activities on aquatic resources in Flushing River/Flushing Bay are also not expected to be significant. Life stages of estuarine-dependent and anadromous fish species, bivalves, and other macroinvertebrates have developed behavioral and physiological mechanisms for dealing with variable concentrations of suspended sediment, and thus are fairly tolerant of elevated suspended sediment concentrations (Birtwell et al. 1987; Dunford 1975; Levy and Northcote 1982 and Gregory 1990 in Nightingale and Simenstad 2001; LaSalle et al. 1991). Fish are mobile and generally avoid unsuitable conditions such as increases in suspended sediment and noise (Clarke and Wilber 2000), and also have the ability to expel materials that may clog their gills when they return to cleaner, less sediment-laden waters. Most shellfish are adapted to naturally turbid estuarine conditions and can tolerate short-term exposures by closing valves or reducing pumping activity. More mobile benthic invertebrates that occur in estuaries have been found to be tolerant of elevated suspended sediment concentrations.

As discussed above, the Proposed Action would result in substantial improvements to the Project Site, specifically in and around the man-made drainage ditch. Disturbance to benthic communities during construction activities would be minimal and would not significantly impact the food supply for fish foraging in the area.

Threatened, Endangered, and Special Concern Species

Since no threatened, endangered and special concern species are located on the Project Site, under Future Conditions With the Proposed Project it is not anticipated that the proposed Academy would result in any significant adverse impacts on these resources.

F. MITIGATION

As described above, best management practices would be employed to minimize the potential impacts on the existing stormwater system and natural resources in the project area. As required for construction activities that disturb one acre or more of land, a SWPPP would be prepared in accordance with established engineering practices. Implementation of BMPs for erosion and sediment control and other measures of the SWPPP would minimize potential water quality effects associated with the discharge of stormwater during upland construction activities and construction activities in the drainage ditch. BMPs would also be employed to prevent or minimize the potential disturbance from any work along and within the man-made drainage ditch including work below mean high water in the existing tidal area.

The proposed Academy is not anticipated to result in any significant adverse impacts to natural resources on the Project Site or study area. Further, development of the proposed Academy would offer benefits to natural resources, including improved habitat for birds and other wildlife and substantially improve stormwater management within the Project Site and adjacent areas. In addition, as a LEED Silver-rated project, the proposed Academy will include sustainable energy and water use systems and design elements including green roofs, onsite storage and treatment facilities, graywater recycling, and bioswales and other sustainable features which would provide additional benefits to natural resources in and around the Project Site.

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A. INTRODUCTION

This chapter examines the compliance of the Proposed Action with the City's Waterfront Revitalization Program (WRP). A review of the City's coastal zone boundary maps indicates that the entire project site is located within the designated NYC coastal zone boundary (refer to Figure 6-1). As such, the Proposed Action is subject to review for its consistency with the City's Waterfront Revitalization Program.

A local WRP, such as New York City's, is authorized under the State's Coastal Management Program, which, in turn, stems from federal coastal zone legislation. The Coastal Zone Management (CZM) Act of 1972 was established to encourage and assist the states in preparing and implementing management programs to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone." The Act stipulates that federal actions and federally funded actions within the coastal zone must be, to the maximum extent feasible, consistent with approved state management programs.

Consistency with waterfront policies is a key requirement of the coastal management program established in New York State's *Waterfront Revitalization and Coastal Resource Act* of 1981. The State program contains 44 coastal policies and provides for local implementation when a municipality adopts a local waterfront revitalization program (LWRP). The New York State Department of State administers the State's coastal management program, and is responsible for determining whether federal actions are consistent with the coastal policies. For actions directly undertaken by State agencies, including funding assistance, land transactions and development projects, the State agency with jurisdiction makes the consistency determination, which is filed with the Department of State.

The WRP is the city's principal coastal zone management tool, and is included as part of New York State's Coastal Zone Management Program. As originally adopted in 1982 and revised in 1999, it establishes the City's policies for development and use of the waterfront and provides the framework for evaluating the consistency of all discretionary actions in the coastal zone with those policies. When a proposed project is located within the coastal zone and it requires a local, state, or federal discretionary action, a determination of the project's consistency with the policies and intent of the WRP must be made before the project can move forward.

Local discretionary actions, including those subject to land use (ULURP), environmental (CEQR) and Board of Standards and Appeals (BSA) review procedures, are reviewed for consistency with the WRP policies. WRP review of local actions is coordinated with existing regulatory processes and in most instances occurs concurrently. For local actions requiring approval by the City Planning Commission, the Commission acting as the City Coastal Commission makes the consistency determination. For local actions that do not require approval by the City Planning Commission but do require approval by another city agency, the head of that agency makes the final consistency determination. For federal and state actions within the city's coastal zone, such as dredging permits, the Department of City Planning, acting on behalf of the City Coastal Commission, forwards its comments to the state agency making the consistency determination.

A proposed action or project may be deemed consistent with the WRP when it would not substantially hinder and, where practicable, will advance one or more of the ten WRP policies, dealing with: (1)

residential and commercial redevelopment; (2) water-dependent and industrial uses; (3) commercial and recreational boating; (4) coastal ecological systems; (5) water quality; (6) flooding and erosion; (7) solid waste and hazardous substances; (8) public access; (9) scenic resources; and (10) historical and cultural resources.

In accordance with the guidelines of the *CEQR Technical Manual*, a preliminary evaluation of the Proposed Action's potential for inconsistency with the WRP policies was undertaken. This preliminary evaluation requires completion of the Consistency Assessment Form, which was developed by the Department of City Planning to help applicants identify which Waterfront Revitalization Program policies apply to a specific action. The questions in the Consistency Assessment Form are designed to screen out those policies that would have no bearing on a consistency determination for a proposed action. For any questions that warrant a "yes" answer or for which an answer is ambiguous, an explanation should be prepared to assess the consistency of the proposed action with the noted policy or policies.

A Consistency Assessment Form (CAF) was prepared for the Proposed Action, and is appended to this chapter (Appendix A). As indicated in the form, the Proposed Action was deemed to require further assessment of Policies 1.1, 1.2, 5.1, 5.3, 6, 6.1, and 7.2 and 9.1. Most of the WRP policies relate to actions that would affect properties on or near the waterfront. While the proposed Academy site is located within close proximity to the waterfront, there is no visual access of the waterfront from the site, and many of the WRP policies are not applicable. The closest waterfront access is located approximately a quarter-mile from the site.[1] Therefore, Policies 1.1, 1.2, 5.1, 5.3, 6, 6.1, and 7.2 and 9.1 are discussed in detail below. As described below, the Proposed Action is consistent with applicable WRP policies.

Please note that the project site is located approximately 700 feet north of Flushing Bay/Flushing River, the closest waterfront area. There is no visual access from the site to the waterfront. Therefore, the project site is not considered a waterfront site. In addition to flood control, the onsite, man-made drainage ditch described on the CAF provides the only outlet for stormwater and drainage from adjacent areas surrounding the project site, including the freshwater wetland at the former Flushing Airport site located approximately a quarter mile northeast of the project site, to flow into the Flushing Bay/Flushing River. As mentioned in the CAF, the central and southern areas of the ditch are currently tidally influenced, and the northern area, above the tide gates, contains freshwater.

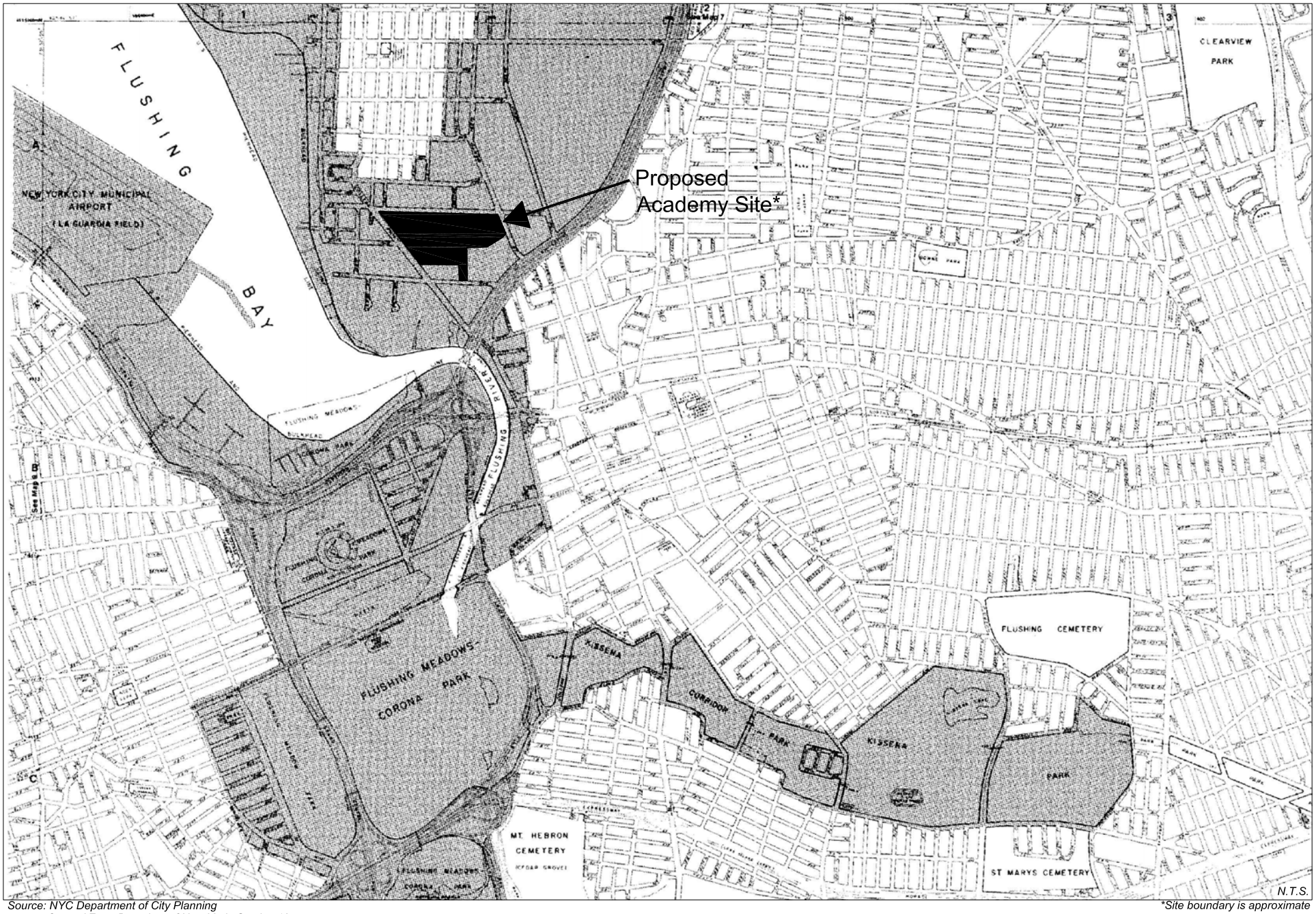
B. CONSISTENCY WITH LWRP POLICIES

New York City's WRP consists of 10 policies, which are intended to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among these objectives. Each of the policies that were identified in the CAF as requiring further assessment are presented below, followed by a discussion of the Proposed Action's consistency with the policy.

Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

1.1 Encourage commercial and residential redevelopment in appropriate coastal zone areas.

[1] The Flushing Bay waterfront is located approximately a quarter-mile west of the proposed Academy site and Flushing Creek is located approximately a quarter-mile to the south of the site.



Source: NYC Department of City Planning
Coastal Zone Boundary of New York: Section 10

**Site boundary is approximate*

Police Academy - College Point, Queens

Figure 6-1

NYC Coastal Zone Boundary Map

Compliance Statement:
The proposed 35-acre Academy site is located within the City's Coastal Zone boundary in College Point Corporate Park in the College Point neighborhood of the borough of Queens. Set on 550 acres in the northern area of the borough, this area has been the focus of a concentrated City redevelopment effort for many years. Recent amendments to the New York City Zoning Resolution have been implemented to foster new commercial and residential waterfront development in what has traditionally been an industrial area. The proposed Academy site is also located within the College Point II Industrial Urban Renewal Area (URA). The URA, similar to the goals of the WRP, intends to redevelop available land by removing blight and maximizing appropriate land uses. As a result of these policy measures, new businesses have been introduced to the area, including office operations, light manufacturing, printing, distribution, and retail.

While the proposed development site is not zoned for residential development, the area is zoned for commercial and public facility uses, such as the proposed Academy. The project site provides an ideal location for the proposed Academy in terms of its size, and compatibility of surrounding uses. Although it is not directly a waterfront site, the proposed Academy will improve area and site conditions by developing an underutilized coastal zone site which currently features a paved tow pound, with an attractive, modern, LEED-certified building and implementing landscaping improvements in and around the onsite man-made drainage ditch, the only natural feature on the site. Upon completion, the proposed Academy would be operable 24 hours a day, and accommodate in-service training and approximately 1,980 recruits per graduating class. In addition, the facility will include a police museum, which is expected to attract additional visitors (non-police recruits) to the area.

The proposed Academy is expected to encourage commercial and residential redevelopment in the area by substantially improving the physical and natural conditions on the Project site and attracting people into the area who in turn can be expected to use local businesses and add vitality and vibrancy to the coastal zone area in College Point, Queens.

As mentioned above, although the project site is not located on the immediate waterfront, the proposed Academy would encourage commercial and residential development in the area and enhance and diversify what has traditionally been an industrial area. Therefore, the proposed Academy would be consistent with this policy.

1.2 Encourage non-industrial development that enlivens the waterfront and attracts the public.

Compliance Statement:
Although it is not directly located on a waterfront site, the proposed Academy, as a non-industrial development, will improve area and site conditions by developing an underutilized site whose dominant feature is a paved tow pound with an attractive, modern, LEED-certified building, and implementing landscaping improvements in and around the man-made drainage ditch, the only natural feature on the site. Upon completion, the proposed Academy would be operable 24 hours a day, and accommodate over 2,000 recruits and staff. The facility will also include a police museum which is expected to attract additional visitors (non-police recruits) to the area. It is expected that the additional staff, recruits, in-service and visitors to the proposed Academy would use area commercial businesses, and add economic vitality to the area which would further encourage non-industrial development, enliven the waterfront and attract the public. Therefore, the proposed Academy would be consistent with this policy.

Policy 5: Protect and improve water quality in the New York City coastal area.

5.1 Manage direct or indirect discharges to waterbodies.

Compliance Statement:
The proposed Academy would protect and improve water quality in the New York City coastal area. As mentioned previously, the project site is currently dominated by a NYPD tow pound which contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts on a paved asphalt lot. Stormwater run-off containing untreated pollutants from the tow pound enters the onsite drainage ditch directly or through a series of culverts located along its banks. This untreated runoff is then drained into the Flushing Bay/Flushing River through a culvert that travels approximately 700 feet south of the project site.

By replacing the existing tow pound, the proposed Academy will protect and improve water quality by significantly reducing the amount of untreated, polluted, stormwater runoff entering the drainage ditch and the Flushing Bay/River. Further, as United States Green Building Council (USGBC) silver-rated LEED building, the proposed Academy would include several LEED-certified methods and eco-friendly elements, including green roofs, bio-swales, landscaped plazas and landscaping along the drainage ditch to manage, reduce and treat runoff and discharges from adjacent areas into area waterbodies.

The majority of the stormwater will fall on roofs of the buildings and on landscaped surfaces and would be collected and treated through a combination of natural and mechanical means to satisfy the water quality requirements stipulated in the SPDES Statewide General Permit. This treatment is expected to include removal of total suspended solids and total phosphorous, as applicable. Although this stormwater post-treatment may still discharge into the drainage ditch, the runoff is expected to be considerably cleaner than existing conditions.

The proposed Academy would also incorporate Best Management Practices for designing the stormwater systems on the Project site to control overflows into Flushing Bay/Flushing River which will protect and improve water quality in the coastal area. The proposed Academy does not propose any steam electric generating or industrial facilities, thereby further reducing the potential for direct or indirect discharges from entering the waterbody. Therefore, the proposed Academy would be consistent with this policy.

5.3 Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.

Compliance Statement:
The proposed Academy will require minor, localized excavation in and around the drainage ditch for the replacement of existing culverts, tide gates, and structural crossovers and implementing landscaping improvements. The project site does not contain any marshes, estuaries, tidal marshes or mapped wetlands. However, since the drainage ditch is under USACE jurisdiction as a regulated "water of the United States" under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, and is under NYSDEC jurisdiction pursuant to 6NYCRR Part 608 (Use and Protection of Waters), any excavation in the drainage ditch would need to comply with USACE and NYSDEC permitting requirements.

In addition to following procedures outlined by the USACE and NYSDEC for protecting water quality during excavating activities, the proposed Academy would incorporate Best Management Practices,

including LEED-certified methods, for designing the stormwater systems on the project site to control overflows into Flushing Bay/Flushing River. It would also include several eco-friendly elements, including green roofs, bio-swales, landscaped plazas and landscaping along the drainage ditch to reduce and treat runoff.

Excavating activities associated with the proposed Academy would not result in significant adverse impacts on water quality in any tidal freshwater wetlands in the vicinity or their ability to support aquatic wildlife, nor would it decrease refuge and nesting resources for birds, insects, amphibians, and other species. The proposed Academy would also include several improvements to the drainage ditch to help improve and protect the overall water quality. Therefore, the proposed Academy is consistent with this policy.

Policy 6: Minimize loss of life, structures and natural resources caused by flooding and erosion.

6.1 Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the condition and use of the property to be protected and the surrounding area.

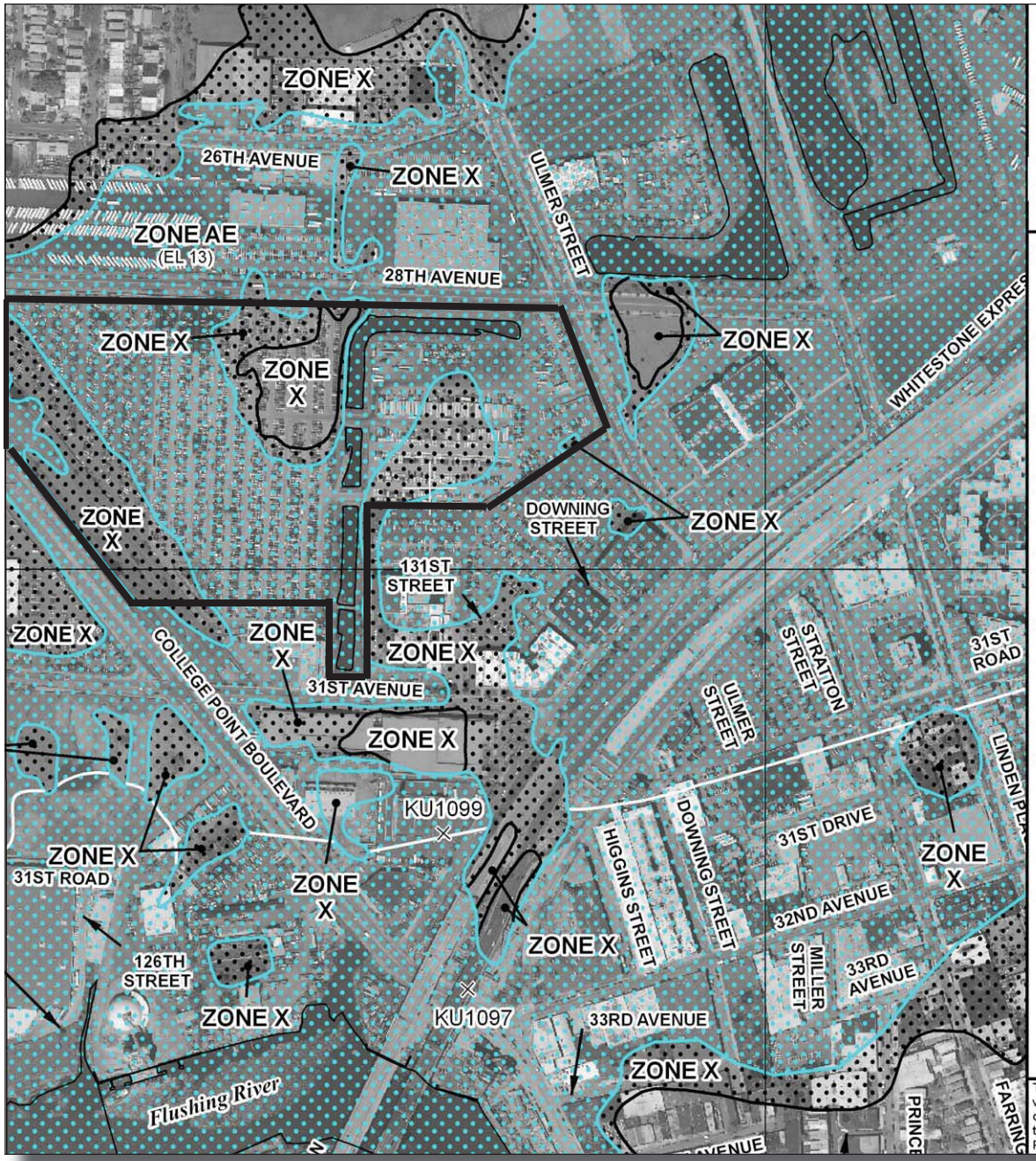
Compliance Statement:
The majority of the proposed Academy site is within the 100-year floodplain as determined by the Federal Emergency Management Agency (FEMA) (Figure 6-2). The floodplain in the vicinity of the project site has been determined to be elevation 13.0 using National Geodetic Vertical Datum 1929 (NGVD 29) and elevation 10.275' using Queens Borough Datum (QBD). The 100-year floodplain, or Special Flood Hazard Area (SFHA), has a one percent or greater chance of experiencing a flood in any single year. No portion of the proposed Academy site is subject to critical erosion. Although the majority of the proposed Academy would be located within the existing 100-year floodplain boundary, all new structures would comply with local laws.

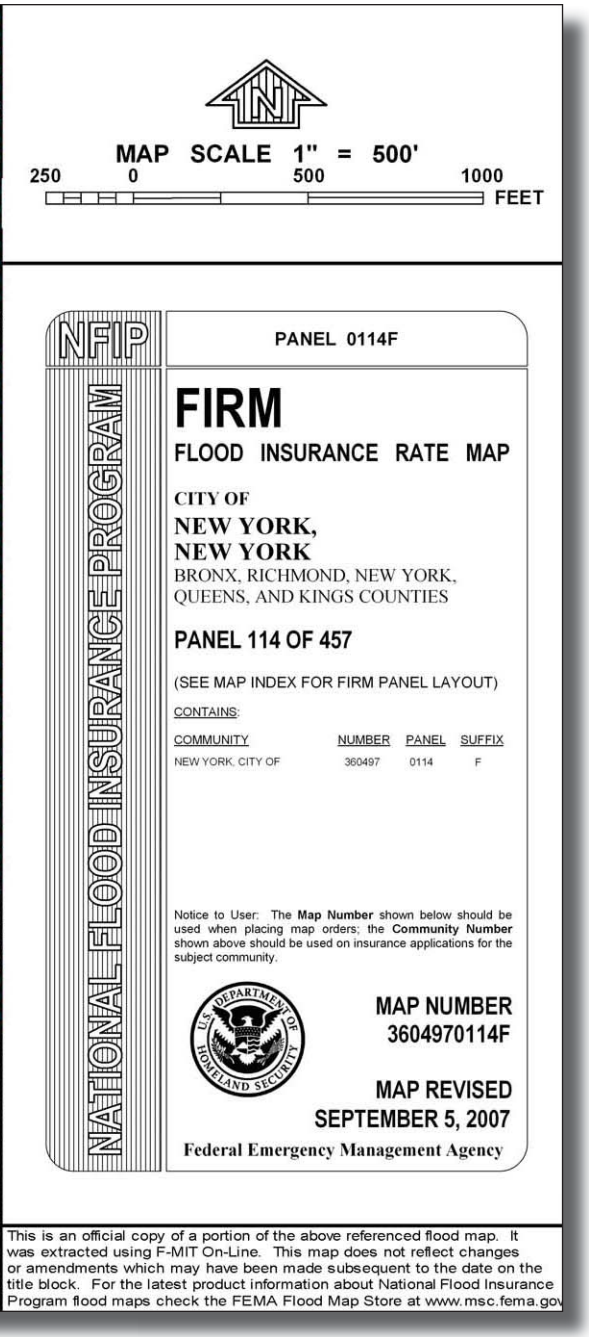
The City's Building Code contains required flood protection measures for all construction in SFHAs. Any new developments, expansions, or demolitions of existing buildings, would be subject to zoning and other applicable controls on building construction, height, and bulk in order to minimize the potential for damage caused by flooding and erosion. This includes, as applicable, permitting procedures, which adhere to FEMA's floodplain regulations (44 CFR 60.3).

All construction that would occur on the proposed Academy site, as with other locations in the surrounding area and throughout the City, would be in compliance with New York City Building Code requirements regulating construction within SFHAs. The lowest floor elevation of the proposed buildings would be at or above the base flood elevation (BFE), and the site would be graded to bring the proposed buildings above the flood elevation. All new habitable spaces, as per New York City Department of Buildings (NYCDOB) requirements, would also be located above the flood level.

Structural and non-structural improvements in and around the onsite drainage ditch will minimize losses from flooding and erosion in the Project site. These measures include green roofs, a weir, tide gate and culvert replacement, bio-swales, landscaped plazas and landscaping along the drainage ditch to manage, reduce and treat runoff and minimize the potential for erosion and flooding.

Further, since they are considered flood control devices, the replacement and/or relocation of the tide gates is not anticipated to have adverse impacts on flood prevention in the area. The new tide gate structure would continue to allow flow from the upstream areas to drain to Flushing Bay during times





Floodways in Zone AE
The 100 year flood zone (1% annual chance flood)

ZONE X
Other flood areas
Areas with 0.2% annual chance flood

Other Areas
ZONE X
Areas determined to be outside the 0.2% annual chance floodplain

Police Academy - College Point, Queens

Figure 6-2
FEMA Flood Insurance Rate Map

of heavy precipitation and prevent tidal surges from traveling up the ditch and flooding the wetlands that are located on the former Flushing Airport site.

The proposed Academy would not increase any current flooding conditions, as it would increase the permeable surfaces on the project site as compared to existing conditions. Design features in the drainage ditch would improve overall stormwater management, flood control and erosion prevention on the project site. As such, the proposed Academy would minimize losses resulting from flooding and erosion on the project site and is therefore consistent with this policy.

Policy 7: Minimize environmental degradation from solid waste and hazardous substances.

7.2 Prevent and remediate discharge of petroleum products.

Compliance Statement:
The project site is underlain by historic fill material that may be contaminated. Full regulatory compliance with the New York City Department of Environmental Protection (NYCDEP) and if necessary, the New York State Department of Environmental Conservation (NYSDEC), will be attained prior to construction of the Project to address the contamination. The project sponsors will follow the procedures outlined in the Remedial Action Plan (RAP) and Construction Health and Safety Plan that have been prepared for the proposed Academy to meet the objective of restricting and/or minimizing contaminant exposure pathways during construction, redevelopment and remedial activities and future use of the project site. These activities will ultimately result in protecting the coastal environment and the safety and general welfare of the public.

Policy 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.

9.1 Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.

Compliance Statement:
As mentioned above, the project site is located approximately 700 feet north of Flushing Bay/Flushing River in a developed, industrial area, and a majority of the site is currently screened from public view by tall fences. Therefore, there is no visual access from the site to the waterfront. Although it is not a waterfront site, the proposed Academy is expected to contribute to the visual quality of the New York City coastal area in College Point Queens. The proposed Academy will provide access into the site along 28th Avenue, in the area near the drainage ditch. Improvements and plantings in and around the drainage ditch will introduce a scenic element to the project site. Removal of the existing fence in conjunction with landscaping improvements along the banks of the drainage ditch would create a visual resource where none presently exists. New vegetation would also be planted along the entire length of 28th Avenue where the Academy is set back from the street.

As mentioned previously, the proposed Academy will develop an underutilized site that is dominated by an impervious, asphalt tow pound that contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts and features a man-made drainage ditch that contains minimal habitat opportunities and natural resources with a modern, LEED-certified, NYPD training facility. Therefore, the proposed

Academy would comply with this policy by improving the visual quality of College Point in an urban context and the nearby working waterfront.

C. CONCLUSION

As detailed above, the proposed Academy would result in the remediation of a site that has several recognized environmental concerns. A comprehensive RAP has been prepared for the site to address the site-specific environmental issues. Upon completion of the proposed remediation, the site would be ready for redevelopment. As described above, the Proposed Academy, in conjunction with the effort to obtain LEED Silver certification, incorporates a variety of sustainable design features and best management practices that would increase the quality and decrease the quantity of stormwater. As such, the proposed project would be consistent with the applicable WRP policies would comply with the City's Waterfront Revitalization Program

For Internal Use Only:
Date Received: _____

WRP no. _____
DOS no. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's designated coastal zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)*. The WRP was adopted as a 197-a Plan by the Council of the City of New York on October 13, 1999, and subsequently approved by the New York State Department of State with the concurrence of the United States Department of Commerce pursuant to applicable state and federal law, including the Waterfront Revitalization of Coastal Areas and Inland Waterways Act. As a result of these approvals, state and federal discretionary actions within the city's coastal zone must be consistent to the maximum extent practicable with the WRP policies and the city must be given the opportunity to comment on all state and federal projects within its coastal zone.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, other state agencies or the New York City Department of City Planning in their review of the applicant's certification of consistency.

A. APPLICANT

1. Name: New York City Police Department
2. Address: 620 Circle Drive, Suite B, Fort Totten, NY 11359
3. Telephone: (718) 281-1254 Fax: (718) 281-1593 E-mail: anthony.tria@nypd.org
4. Project site owner: New York City Police Department

B. PROPOSED ACTIVITY

1. Brief description of activity:
The proposed project is the development of an approximately 2.4 million gross square foot New York City Police Academy on an approximately 35 acre site in College Point, Queens. The proposed Academy would consolidate many of the NYPD's existing training facilities which are dispersed throughout the City, into one campus to better serve recruits, civilians, and active police officers. The proposed Academy will include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and above-grade parking facility for approximately 1,800 vehicles. The discretionary action requiring environmental review includes Site Selection for the proposed facility. The current project site is developed with a NYPD Vehicle Tow Pound, NYPD administrative building, and a small private auto-related business. A man-made, open drainage ditch, located on the eastern section, is the only non-structural feature on the project site.

2. Purpose of activity:
The purpose of the proposed action is to develop an approximately 35 acre, City-owned site, currently used as an NYPD Tow Pound, with a new, approximately 2.4 million square foot NYPD Police Academy that would consolidate many of the NYPD's recruit training facilities dispersed throughout the City into a state-of-the-art facility and campus. The proposed Academy would allow for maximum efficiencies in instructional use and operation for recruit, in-service, civilian, and cadet training programs while developing an underutilized site located within the Coastal Zone Area.

3. Location of activity: (street address/borough or site description):
The proposed Academy site is bounded by College Point Boulevard to the west, 28th Avenue to the north, Ulmer Street to the east, and 31st Avenue to the south. The site is located in College Point, Queens.

Proposed Activity Cont'd

4. If a federal or state permit or license was issued or is required for the proposed activity, identify the permit type(s), the authorizing agency and provide the application or permit number(s), if known:

   The United States Army Corps of Engineers (USACE) has taken jurisdiction of the on-site drainage ditch as a "water of the United States". It is anticipated that work within the ditch will require USACE Nationwide Permits. The ditch is also under the jurisdiction of the New York State Department of Environmental Conservation (NYSDEC) pursuant 6NYCRR Part 608 Use and Protection of Waters regulations. It is anticipated that a NYSDEC Use and Protection of Waters permit and Water Quality Certification will be required.

5. Is federal or state funding being used to finance the project? If so, please identify the funding source(s).

   N/A

6. Will the proposed project require the preparation of an environmental impact statement?
   Yes ✓ No _____ If yes, identify Lead Agency:

   New York City Police Department

7. Identify **city** discretionary actions, such as a zoning amendment or adoption of an urban renewal plan, required for the proposed project.

   The action requiring environmental review is the site selection for the proposed facility.

C. COASTAL ASSESSMENT

Location Questions:	**Yes**	**No**
1. Is the project site on the waterfront or at the water's edge?		✓
2. Does the proposed project require a waterfront site?		✓
3. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land underwater, or coastal waters?		✓

Policy Questions	**Yes**	**No**

The following questions represent, in a broad sense, the policies of the WRP. Numbers in parentheses after each question indicate the policy or policies addressed by the question. The new Waterfront Revitalization Program offers detailed explanations of the policies, including criteria for consistency determinations.

Check either "Yes" or "No" for each of the following questions. For all "yes" responses, provide an attachment assessing the effects of the proposed activity on the relevant policies or standards. Explain how the action would be consistent with the goals of those policies and standards.

4. Will the proposed project result in revitalization or redevelopment of a deteriorated or under-used waterfront site? (1)		✓
5. Is the project site appropriate for residential or commercial redevelopment? (1.1)	✓	
6. Will the action result in a change in scale or character of a neighborhood? (1.2)	✓	

Policy Questions cont'd	Yes	No
7. Will the proposed activity require provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (1.3)		✓
8. Is the action located in one of the designated Significant Maritime and Industrial Areas (SMIA): South Bronx, Newtown Creek, Brooklyn Navy Yard, Red Hook, Sunset Park, or Staten Island? (2)		✓
9. Are there any waterfront structures, such as piers, docks, bulkheads or wharves, located on the project sites? (2)		✓
10. Would the action involve the siting or construction of a facility essential to the generation or transmission of energy, or a natural gas facility, or would it develop new energy resources? (2.1)		✓
11. Does the action involve the siting of a working waterfront use outside of a SMIA? (2.2)		✓
12. Does the proposed project involve infrastructure improvement, such as construction or repair of piers, docks, or bulkheads? (2.3, 3.2)		✓
13. Would the action involve mining, dredging, or dredge disposal, or placement of dredged or fill materials in coastal waters? (2.3, 3.1, 4, 5.3, 6.3)		✓
14. Would the action be located in a commercial or recreational boating center, such as City Island, Sheepshead Bay or Great Kills or an area devoted to water-dependent transportation? (3)		✓
15. Would the proposed project have an adverse effect upon the land or water uses within a commercial or recreation boating center or water-dependent transportation center? (3.1)		✓
16. Would the proposed project create any conflicts between commercial and recreational boating? (3.2)		✓
17. Does the proposed project involve any boating activity that would have an impact on the aquatic environment or surrounding land and water uses? (3.3)		✓
18. Is the action located in one of the designated Special Natural Waterfront Areas (SNWA): Long Island Sound- East River, Jamaica Bay, or Northwest Staten Island? (4 and 9.2)		✓
19. Is the project site in or adjacent to a Significant Coastal Fish and Wildlife Habitat? (4.1)		✓
20. Is the site located within or adjacent to a Recognized Ecological Complex: South Shore of Staten Island or Riverdale Natural Area District? (4.1and 9.2)		✓
21. Would the action involve any activity in or near a tidal or freshwater wetland? (4.2)		✓
22. Does the project site contain a rare ecological community or would the proposed project affect a vulnerable plant, fish, or wildlife species? (4.3)		✓
23. Would the action have any effects on commercial or recreational use of fish resources? (4.4)		✓
24. Would the proposed project in any way affect the water quality classification of nearby waters or be unable to be consistent with that classification? (5)		✓
25. Would the action result in any direct or indirect discharges, including toxins, hazardous substances, or other pollutants, effluent, or waste, into any waterbody? (5.1)		✓
26. Would the action result in the draining of stormwater runoff or sewer overflows into coastal waters? (5.1)	✓	
27. Will any activity associated with the project generate nonpoint source pollution? (5.2)		✓
28. Would the action cause violations of the National or State air quality standards? (5.2)		✓

Policy Questions cont'd	Yes	No
29. Would the action result in significant amounts of acid rain precursors (nitrates and sulfates)? (5.2C)		✓
30. Will the project involve the excavation or placing of fill in or near navigable waters, marshes, estuaries, tidal marshes or other wetlands? (5.3)	✓	
31. Would the proposed action have any effects on surface or ground water supplies? (5.4)		✓
32. Would the action result in any activities within a federally designated flood hazard area or state-designated erosion hazards area? (6)	✓	
33. Would the action result in any construction activities that would lead to erosion? (6)		✓
34. Would the action involve construction or reconstruction of a flood or erosion control structure? (6.1)	✓	
35. Would the action involve any new or increased activity on or near any beach, dune, barrier island, or bluff? (6.1)		✓
36. Does the proposed project involve use of public funds for flood prevention or erosion control? (6.2)		✓
37. Would the proposed project affect a non-renewable source of sand ? (6.3)		✓
38. Would the action result in shipping, handling, or storing of solid wastes, hazardous materials, or other pollutants? (7)		✓
39. Would the action affect any sites that have been used as landfills? (7.1)		✓
40. Would the action result in development of a site that may contain contamination or that has a history of underground fuel tanks, oil spills, or other form or petroleum product use or storage? (7.2)	✓	
41. Will the proposed activity result in any transport, storage, treatment, or disposal of solid wastes or hazardous materials, or the siting of a solid or hazardous waste facility? (7.3)		✓
42. Would the action result in a reduction of existing or required access to or along coastal waters, public access areas, or public parks or open spaces? (8)		✓
43. Will the proposed project affect or be located in, on, or adjacent to any federal, state, or city park or other land in public ownership protected for open space preservation? (8)		✓
44. Would the action result in the provision of open space without provision for its maintenance? (8.1)		✓
45. Would the action result in any development along the shoreline but NOT include new water-enhanced or water-dependent recreational space? (8.2)		✓
46. Will the proposed project impede visual access to coastal lands, waters and open space? (8.3)		✓
47. Does the proposed project involve publicly owned or acquired land that could accommodate waterfront open space or recreation? (8.4)		✓
48. Does the project site involve lands or waters held in public trust by the state or city? (8.5)		✓
49. Would the action affect natural or built resources that contribute to the scenic quality of a coastal area? (9)		✓
50. Does the site currently include elements that degrade the area's scenic quality or block views to the water? (9.1)	✓	

Policy Questions cont'd	Yes	No
51. Would the proposed action have a significant adverse impact on historic, archeological, or cultural resources? (10)		✓
52. Will the proposed activity affect or be located in, on, or adjacent to an historic resource listed on the National or State Register of Historic Places, or designated as a landmark by the City of New York? (10)		✓

D. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's Waterfront Revitalization Program, pursuant to the New York State Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If the certification can be made, complete this section.

"The proposed activity complies with New York State's Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

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Applicant/Agent Signature: Anthony E Tria Date: 3/12/09

A. INTRODUCTION

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi volatile organic compounds, methane, polychlorinated biphenyls, and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the *City Environmental Quality Review (CEQR) Technical Manual*, the potential for significant adverse impacts from hazardous materials can occur when: a) hazardous materials exist on a site and b) an action would increase pathways to their exposure; or c) an action would introduce new activities or processes using hazardous materials.

This chapter evaluates the potential for hazardous contaminants on the project site in soil and groundwater resulting from previous and existing uses to impact the proposed Police Academy development. The project site and surrounding area currently and historically have been used for at-grade parking, commercial, manufacturing, institutional, transportation-related, and automotive-related uses. The project site consists of three distinct parts: the NYPD's College Point Tow Pound, a vacant lot that runs along College Point Boulevard and forms the Tow Pound's western boundary, and a vehicle service station that is located at the northwest corner of the site (at the southeast corner of College Point Boulevard and 28th Avenue). This chapter summarizes the investigations that have been undertaken to date with respect to hazardous materials, their conclusions, and the potential for significant adverse impacts under the CEQR.

To identify the potential for the presence of hazardous materials and contaminated media on the project site, Phase I Environmental Site Assessments (ESA) were prepared in February 2007 and January 2008 in accordance with the scope and limitations of ASTM Standard Practice E 1527-05 that included the following:[1]

- An evaluation of the land use history, using available historical fire insurance maps, topographic maps, and historical aerial photographs, as well as tenant searches;
- A review of land title records, environmental liens, and/or activity and use limitations;
- A review of existing data on geology and hydrology of the area;
- A visual inspection of the project site and a visual inspection of adjacent properties;
- Interviews with persons knowledgeable about the project site; and
- A review of federal and state environmental regulatory agency databases regarding releases or spills of potentially hazardous materials, facilities that emit hazardous materials to the air or the sewer system, and facilities that generate, treat, or store hazardous wastes.

The Phase I ESA concluded that there is potential for encountering hazardous materials at the project site, and recommended conducting a Phase II Environmental Site Investigation (Phase II ESI) to determine whether identified *recognized environmental conditions* have impacted the environmental integrity of the project site. Subsequently, a Limited Phase II ESI was prepared in March 2007 for the

[1] LiRo Engineers, Inc., *Phase I Environmental Site Assessment- Police Impoundment Area*, February 23, 2007; and, LiRo Engineers, Inc., *Phase I Environmental Site Assessment- NYPD Academy: Crystal Windows & Corona Auto and Truck Site*, January 31, 2008.
As the original boundaries of the proposed development site have changed since the project originally started, two Phase I ESA reports were prepared so that the entire final site boundaries were adequately studied.

Tow Pound portion of the site and a second Limited Phase II ESI was prepared in May 2008 for the vehicle service station and the vacant land along College Point Boulevard that assessed whether the identified *recognized environmental conditions* identified in the Phase I ESAs have the potential to impact the proposed development.[2] The Phase II ESIs summarize the results of the field investigation work and review the analytical results compared to their applicable standards and guidance values to evaluate environmental impacts, if any, to the project site. Summaries of the Phase I ESA, and Phase II ESI have been incorporated into the Existing Conditions section below.

B. EXISTING CONDITIONS

Project Site Location and Current Conditions

The proposed Academy site is located in northern Queens on the block bounded by 28th Avenue, Ulmer Street, 31st Avenue and College Point Boulevard (see Figure 7-1). The directly affected area ("site" or "proposed development site"), located in the College Point section of Queens, encompasses approximately 35 acres and consists of the following parcels: Block 4321, Lot 48; Block 4323, Lot 19; Block 4324 Lot 1; Block 4325 Lot 1, Block 4326 Lot 1, Block 4327 Lot 1, Block 4328 part of Lot 1, Block 4329 Lots 1 and 7, the southern portion of Block 4301 Lot 1 (south of 28th Avenue), Block 4359 part of Lot 1, Block 4358 part of Lot 1, Block 4357 part of Lot 1, Block 4356 part of Lot 30, and Block 4354 Lot 50.

As described in Chapter 1, "Project Description," an exposed drainage ditch (part tidal and part freshwater) in the shape of an inverted "L" bisects the proposed Academy site, separating the eastern third from the western two thirds of the site. The drainage ditch originates in the northeastern section of the proposed Academy site where two 84-inch storm sewers discharge drainage from offsite. The northern and central sections of the ditch are connected via two 84-inch culverts beneath the northern bridge. These culverts have tide gates constructed on the downstream end, limiting tidal flow to the central and southern sections of the ditch. The ditch ultimately drains offsite to the south via three 72-inch pipes located at the southern boundary at 31st Avenue. The structure provides drainage for upland areas of College Point via culverts to Flushing Bay to the south, emptying near the Whitestone Expressway (approximately 700 feet south of the proposed Academy site). The drainage structure was constructed by the NYCEDC in the early 1980's. The tide gates were recently replaced by NYCEDC.

The proposed development site consists predominantly of paved parking areas. Current buildings at the College Point Tow Pound include the two-story, approximately 17,000 square-foot main administrative building/garage at the 31st Avenue entrance and an outlying building, a one-story, approximately 1,125 square-foot structure which is located near its secondary access along Ulmer Street at the northeastern edge of the property. The southern five acres of the existing Tow Pound, including the main administrative building/garage, is located to the south of the proposed Academy's southern property line. As such, the main building is not located within the limits of the proposed Academy site.

The approximately 35-acre northern parcel, consisting of the service station parcel, the strip of land between the College Point Tow Pound and College Point Boulevard, would be developed as the Police Academy.

[2] LiRo Engineers, Inc., *Limited Phase II ESI - Police Impoundment Area*, March 2007; and *Limited Phase II ESI – Crystal Windows and Corona Auto and Truck Site*, May 2008.

Figure 7-1
Project Site Location

Site boundaries are approximate

Currently, a majority of the Site is an impoundment area used by the NYPD, which contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts on a paved asphalt lot. All of the vehicles, motorcycles and auto parts will be relocated to other City-owned sites throughout the City as the NYPD consolidates several existing Tow Pound Facilities and reorganizes its city-wide operations.

Surrounding Area Description

The proposed Academy site is located in the area immediately to the north / west of the Whitestone Expressway. This area is a mixed commercial and industrial zone, which consists of mostly manufacturing, and industrial uses, with various commercial uses mixed in. Further from the proposed development site, commercial and residential uses become more prevalent. The immediate area is typically urban with limited vegetation.

The MTA Bus College Point Depot is located directly to the north of the proposed development site located at 128-15 28th Avenue within the 400-foot study area. The College Point Depot, located on 28th Avenue near 124th Street in the College Point neighborhood of Queens, is a bus garage owned by the NYCDOT and leased to MTA Bus, and formerly leased to Queens Surface Corporation before it was taken over by MTA Bus. The facility comprises the majority of the block bounded by 28th Avenue, Ulmer Street, 26th Avenue, and 124th Street. This block also accommodates several residential units at the intersection of 124th Street and 26th Avenue. Several assisted care facilities are located along the waterfront to the northeast of the site. College Point Boulevard, as it proceeds north, changes character, with low intensity commercial giving way to mixed commercial and residential, which culminates in the commercial district of College Point and the charming town center.

The 78-acre former Flushing Airport is located approximately 0.3 miles northeast, at 25th Avenue and Linden Place. Flushing Airport opened in 1927 and was used until 1984. The frequent flooding problem at the Flushing Airport lead to the close of this airport in 1984. Currently the airport is a weed-ridden wetland. The airport was one of the busiest airports in New York City before the emergence of the larger LaGuardia Airport. LaGuardia Airport is located approximately 0.6 miles west of the site, across Flushing Bay.

A variety of commercial uses are located to the east/southeast of the site, within the Study Area. A commercial complex, which includes a multiplex cinema and two big-box retail establishments, is located to the east of Ulmer Street on the block bounded by Ulmer Street, 28th Avenue, Linden Place, and the southbound Whitestone Expressway Service Road. A construction company is located to the northeast of the Ulmer Street and 28th Avenue intersection. Immediately to the north of this building, is a satellite/overflow parking lot for the local movie theater. A local open space resource, the College Point Sports Park, is located to the north of this parking lot.

To the south of the site, on the project block, several commercial uses and a church are located to the east of the exposed drainage channel. The Department of Motor Vehicles has an office located within this plaza.

Crystal Windows, a window and door manufacturer is located on the block immediately to the south of 31st Avenue. A self-storage facility, a car wash, and several other manufacturing uses are also located on this block. Uses further to the south, west of College Point Boulevard and south of 31st Avenue, include a Home Depot, a concrete plant, and several other light-manufacturing and industrial uses. Additionally, construction of a new 82,000 sq. ft. building for Ares Printing and Packaging has begun on the property at the southwest corner of the 31st Avenue and College Point Boulevard intersection.

A hotel is located immediately to the west of the proposed development site. Other predominant uses to the southwest/west of the site include a New York City Department of Sanitation facility, including

a marine transfer station, a ConEd facility, a Daily News printing facility, an asphalt plant, a heavy equipment/machine rental company and a variety of other manufacturing and industrial uses.

The waterfront in the vicinity of the site is industrial and largely inaccessible; however, the Williamsburgh Marina is located on Flushing Bay, to the north of the Department of Sanitation marine transfer facility.

Project Site History

Historical information about the proposed development site was obtained from aerial photographs (1954, 1966, 1975, 1984, and 1994) and topographic maps (1897, 1947, 1955, 1966, 1979, and 1995), and the Property Clerk's Division. According to these sources, the proposed development site was located within a tidal marsh from 1897 up until at least 1947.

Topographic maps from 1947 continue to show wetlands, however, the presence of structures to the south of the proposed development site suggest that some marsh filling was underway in this area of College Point. The 1947 map continues to show an inlet from the Flushing River, which is located along the eastern edge of the site, and some of the surrounding area has been developed. In addition, the Whitestone Expressway has been constructed southeast of the site. Flushing Airport is shown as a wetland located west of the Whitestone Expressway and north of 20th Avenue. La Guardia Field is located west of the site, across Flushing Bay. An incinerator is shown approximately 350 feet southeast of the site.

The 1954 aerial photo and 1955 topographic map suggest that more of the marsh area had been at least partially filled. The 1955 map shows that Flushing Creek (formerly Flushing River) is no longer mapped through the site. Mill Creek is located immediately east of the site. Flushing Airport is also completely filled and located south of 20th Avenue between Linden Place and Whitestone Parkway. A playground is located near Flushing Airport, north of 20th Avenue. New York Municipal Airport on La Guardia Field is located west of the site across Flushing Bay. A US Military Reserve Base is located at the southern end of 130th Street, northeast of the site. In addition, the 1954 aerial photo shows an incinerator to the southeast of the site. A coal and oil company is also shown approximately one block southwest of the site.

The 1966 topographic map shows the site has remained largely unchanged from the 1954 map, with slight changes to adjacent properties. The New York Municipal Airport is referred to as La Guardia Airport. The playground north of 20th Avenue and the US Military Reserve Base both no longer exist.

In the 1979 and 1995 maps, the site has remained the same. The bus depot immediately north of the site first appears in the 1979 map. The aerial photograph of 1975 shows clearance of the northern and southern portions of the site. In the 1984 photograph, the site remains generally the same; with the addition of a retention pond located along the eastern portion of the police impound lot from 31st Avenue north to 28th Avenue. An inlet from the creek east of the site feeds into the retention pond. The 1994 photograph shows minor changes to a building, which is no longer present, 400 feet south of the auto repair shop.

The proposed development site was filled prior to 1972 to an elevation near its current grade, an elevation of approximately 10 feet above mean sea level (amsl). The thickness of fill in the immediate area was found to be as much as 20 feet. Subsequent filling of the proposed development site occurred in the 1980s based on the appearance of the drainage basin at the eastern edge of the site in the 1984 aerial photo. According to the NYPD, the College Point Tow Pound was established in 1991.

Geology and Hydrogeology

Physiographically, Kings and Queens Counties are part of the Long Island Hydrogeologic System. In a roughly north-south cross section, the geology can be characterized as a wedge-shaped layer of Cretaceous and Pleistocene age unconsolidated sediments, thickening to the south-southeast. Several impermeable clay layers are found within these sediments, generally creating three distinct aquifers. Groundwater is the sole source of drinking water for Nassau and Suffolk Counties and is protected as such in Kings and Queens Counties. Consolidated bedrock is of Precambrian and Paleozoic age. The thickness of the unconsolidated sequence ranges from zero to approximately 1,300 feet below ground surface from north to south. Outcrops of metamorphic bedrock can be found along the northwest portions of Queens County. The uppermost-unconsolidated unit, consists of Pleistocene glacial till and moraine deposits in the northern portions of the Queens and Kings Counties and glaciofluvial sediments derived from melt-water of the retreating glaciers to the south. These deposits constitute the Upper Glacial Aquifer. The depth to the water table varies but generally follows topography with flow from higher to lower elevation. In areas of higher topography associated with glacial moraine deposits, the water table is as great as 100 feet below sea level. Closer to sea level, groundwater can occur at depths of 5 to 10 feet below sea level. The terminal moraine deposits act as a groundwater divide with regional flow to the north, north of the moraine and o the south, south of the moraine.

The overlying Cretaceous age sediments are characterized by three periods of deposition separated by periods of erosions. The lowermost unit, known as the Raritan Formation, was deposited by streams and coalescing delta deposits. The formation has been divided into two units, the Lloyd Sand Member and a conformable overlying clay unit (the Raritan Confining Unit).

After the period of erosion, the Magothy Formation was deposited in an environment dominated by streams and coalescing deltas. The coarse basal unit indicates an environment of high energy that decreases rapidly, resulting in deposition of finer sands and silts that make up the majority of the formation.

Several episodes of Pleistocene glaciations by a southward advance from New England and the Hudson River valley eroded the Cretaceous deposits. The unconformity that extends across most of Queens and Kings Counties between the Cretaceous deposits and the overlying sediment represents glacial scouring and glaciofluvial activity. Evidence of ice contact with the underlying Cretaceous deposits is absent in the southern portion of Queens and Kings Counties, indicating the southernmost limit of the advancing ice sheets.

The oldest Pleistocene deposit, represented only on western Long Island and in Queens and Kings Counties is the Jameco Gravel (Jameco Aquifer). It is a channel filling of gravel and coarse sands, which may represent a paleo Hudson River.

The Harbor Hill Moraine represents the terminal moraine of the last glacial advance. The Moraine trends southwest to northeast through central Kings and Queens Counties. The moraine deposits consist of poorly sorted silts, clays, sands and boulders and form the topographic highs in the area.

Soil samples were screened and described in the field by a LiRo geologist. The soils encountered were described at all locations as re-graded or fill consisting of multi-colored sand and gravel with some clay, brick, concrete, wood and asphalt fragments, plastic and glass. The depth of fill ranged from 16 feet to 32 feet below grade (ftbg). Bedrock was not encountered. Native soil beneath the fill was described as gray/green/black silty clay at all locations across the site. These soils are consistent with the description of tidal marsh deposits. Based on historical documents, these deposits are a minimum of ninety (90) feet, thereby, occurring as natural barrier to downward contaminant migration.

During recent drilling activities at the adjacent property, groundwater was encountered at depths ranging from 9 to 14 ftbgs. Based on reports of previous investigations performed at the site, the groundwater flow direction is likely south/southeast.

Recognized Environmental Conditions (RECs)

Phase I ESA Report – Police Impoundment Area (LiRo 2007)
A Phase I Environmental Site Assessment (ESA) was performed by LiRo dated February 23, 2007 in accordance with the American Society for Testing Materials (ASTM) practice E-1527-05 Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process. Based on the Results of his Phase I ESA, LiRo identified the following RECs and potential environmental concerns.

- The current use of the site as a motor vehicle impoundment area where thousands of vehicles are stored on the site indicates the potential for petroleum release into the soil or groundwater. The Police Impoundment Area was reportedly established in 1991.

- Much of the site is a mapped federal wetland. However, U.S. Fish and Wildlife Service provided a verbal response to a letter commenting that based on site conditions; the site is not characteristic of a wetland. U.S. Fish and Wildlife Service informed LiRo that the U.S. Army Corps of Engineers (USACE) has jurisdiction over wetland protection and advised us to contact them for additional information. After the Phase I ESA was submitted, USACE contacted LiRo in reference to the listing of the site on the National Wetlands Inventory (NWI). According to both agencies, the NWI is not used to designate wetlands for regulatory purposes. It is only a general guide to areas that might involve wetland protection. Wetland delineation was subsequently performed and the findings are presented in Chapter 5, "Natural Resources."

- Based on historical information obtained form aerial photographs and topographic maps, site information obtained from Property Clerk Division, the site was initially filled into the 1940's and subsequently filled into the late 1940's/early 1950's, 1980's, and 1990's. According to previous investigations, the site was filled prior to 1972 to an elevation near its current grade. The fill reportedly included demolition debris, incinerator waste products, building construction excavation material, scrap metal and other types of miscellaneous debris. The thickness of fill in the area was found to be as much as 20 feet. Based on historic filling of the site, elevated levels of semi volatile organic compounds, metals and PCBs in soil and groundwater are likely.

- Additional facilities that represent an environmental concern to the site include the following three properties: MTA Bus Company's College Point Bus Facility, which is located at 124-15 – 128-15 28th Avenue (immediately north of site), the Corona Auto Repair, which is located at 28-11 College Point Boulevard (the northwest corner of the site) and Coastal Oil, which is located at 31-70 College Point Boulevard (0.09 mile southwest of site). All these properties have a history of petroleum bulk releases, hazardous waste generation of ignitable, tetrachloroethylene and benzene related waste and are located near the site. As a result, these facilities may be contributing sources to potential site soil and/or groundwater contamination.

- The historic land use and locations of the surrounding properties listed below may be a contributing source to potential soil and/or groundwater contamination.

    - The former Flushing Incinerator is located 350 feet southeast of the site. The property is identified on historical records from 1943-2004. The incinerator site is currently occupied by a

self-storage facility. Based on its proximity and potential contaminants associated with incinerator facility, such as metals and PAHs, this property is a potential environmental concern to the site.

- A coal and oil company (Fuel Oil Storage Terminal) containing oil tanks totaling 2,880,000 gallons was located approximately 1 block southwest from the site. The property is identified on historical records from 1943 – 2004. The facility is currently active. Based on its close proximity and potential petroleum release, this property is a potential environmental concern to the site.

- The former Flushing Airport is located approximately 0.3 miles northeast at 25th Avenue and Linden Place. The facility is identified on historical records from 1943-2004. The airport is currently inactive. Based on its upgradient location and potential petroleum release, this property is a potential environmental concern to the site.

- Based on the findings of the Phase I ESA, LiRo recommended further investigation (i.e., a Phase II report) to evaluate contamination associated with aforementioned RECs.

Phase I Environmental Site Assessment for Crystal Windows and Corona Auto and Truck Site (January 31, 2008)
Based on the information and data obtained during the Phase I ESA, LiRo developed the following conclusions regarding RECs and environmental concerns at the site.

- The Corona Auto and Truck portion of the site is impaired with petroleum contaminants. This is a REC as site remediation is on going. LiRo recommends that the status of and future responsibility for site remediation should be determined.

- The Crystal Windows portion of the site (the vacant strip of land that runs parallel to College Point Boulevard, which had previously been studied as a possible expansion site for Crystal Windows) was studied in 2003 with significant limitation. The results indicated petroleum impacts as well as PCBs in the site soil. However, only four borings were conducted and soil samples were not analyzed for metals or pesticides. Petroleum impacts from Corona Auto and Truck, the use of historic fill, and potential impacts from off-site sources are RECs for the Crystal Windows portion of the site.

- Previous sampling at the Corona Auto and Truck portion of the site has been limited to petroleum related organic compounds. No testing for metals, pesticides or PCBs has been conducted.

- Based on the age of the previous Phase II study for Crystal Windows and the limited scope of investigations at Crystal Windows and Corona Auto and Truck, LiRo recommended that a Phase II Investigation be conducted to more fully characterize current soil and groundwater conditions.

Based on the age of the abovementioned findings, it was determined that a Phase II Investigation was warranted to more fully characterize current soil and groundwater conditions at the site.

Hazardous Building Materials

Based on the age and appearance of the site buildings, the Phase I reports indicate that suspect asbestos containing materials and lead-based paint (LBP) may be present. Other than the fuel and oil in the vehicles stored at the site, there were no hazardous substances or petroleum products used in connection with operation of the impound lot.

Subsequent Environmental Studies

Phase II Environmental Site Investigation

Site Investigation and Subsurface Conditions – College Point Industrial Park (December 1977)
A geotechnical investigation that included test borings was conducted in this area to determine subsurface conditions for use as the basis for planning the overall development of the College Point Industrial Park. Several test borings were completed at the site. Subsurface conditions at the site consisted of brown to black fine to coarse sand, silty sand, gravel, brick, concrete, wood and cinders down to 20 feet.

According to the investigation, the strata identified resulted from the site being filled with a variety of items, possibly including: demolition debris, incinerator waste products, building construction excavation material, scrap metal, and other types of miscellaneous debris prior to 1972 to an elevation near its current grade. After 1972, the site was included in the "Early Fill Program" where fill included sand and gravel with some small boulders. According to the investigation, areas of the College Point Industrial site were used as a public dump, often illegally.

The area north of 20th Avenue, between 138th and 134th Streets, was the official City household dump. In this site, miscellaneous fill consists of gravel, cinders, sand, silt and household materials. During the boring program the thickness of this fill was found to be an average of 14 feet. The official City household dump was located approximately 0.65 miles northeast of the site.

ASTM Phase II Environmental Site Assessment – Undeveloped Parcel of Land, College Point Boulevard (November 2003)
Aneptek Corporation completed a Phase I report for the parcel between the Tow Pound Lot and College Point Boulevard (often referred to as the "Crystal Windows site") in June 2003. The report examined the potential for evidence indicating the presence of and/or potential for impact to the site soils and/or groundwater by oil or hazardous material from on-site and/or off-site contamination sources.

Subsequent soil test boring and groundwater monitoring wells were installed for laboratory analysis of soil and groundwater samples. The laboratory results showed that soil/fill material contained low levels of petroleum compounds, including Gasoline Range Organics/Diesel Range Organics (GRO/DRO), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), heavy metals and polychlorinated bi-phenyls (PCBs). PCBs in the soil ranged from 0.04 ppm to 0.32 ppm. The groundwater contained trace to elevated levels of petroleum compounds (including GRO/DRO), VOCs, SVOCs, and heavy metals.

Based on evaluation of laboratory analytical results and observations made during the subsurface investigation, the Aneptek report concluded that a mixed plume of gasoline and diesel fuel was present near 28th Avenue and College Point Boulevard. The plume was thought to be migrating in a southerly to southeasterly direction. The source of this petroleum plume was thought to be historical petroleum spills at the Corona Auto Repair site. An additional plume was identified near 31st Avenue and College Point Boulevard. The source of this plume is most likely from a historic undocumented petroleum release.

Quarterly Monitoring Report – Corona Auto Repair, EDC (July 2007)
LiRo reviewed a Quarterly Monitoring Report completed in July 2007 for the Corona Auto and Truck site. The recommended remedial approach for the subject site included a combination of bioremediation and Oxygen-Release Compound (ORC) injections to treat soil and groundwater

contamination and using a vacuum Enhanced Fluid Recovery (EFR) truck to collect free product. The New York State Department of Environmental Conservation (NYSDEC) approved the remedial approach in March 2002. Construction of the system started and ended in March 2003.

Using the NYSDEC-approved remedial approach, free product has been removed and groundwater contaminant levels reduced across much of the Corona Auto and Truck site. Relatively high dissolved phase VOC levels persisted along the western margin of the site. Based on the results from supplemental borings completed in 2004, soil contamination exists along the College Point Boulevard sidewalk and may be acting as a continuing source of groundwater contamination at the Corona Auto and Truck site. Therefore, remediation continued through the use of Bio-Rem LLC's H-10 product. The injection was completed December 2, 2005. The quarterly monitoring report indicated that groundwater quality had improved, but elevated VOC and SVOC levels persisted at the site.

Limited Phase II Environmental Site Investigation for Police Impoundment Area (March 12, 2007)
LiRo completed a Limited Phase II Investigation for the NYPD Impound Lot in March 2007. For the investigation, forty-five (45) Geoprobe borings were advanced throughout the site (see Figure 7-2, "Boring Location Plan"). Environmental soil samples were collected at each boring location. Eight (8) of the boring locations were completed with temporary well points for collecting groundwater samples. LiRo also conducted organic vapor screening using a PID, testing for lower explosive limit (LEL), and methane gas monitoring.

Based upon the Phase II investigation results, the soil and groundwater contamination present at the NYPD Impound Lot site appears to have resulted primarily from historic filling activities. This conclusion was supported by the type of contaminants detected (i.e. primarily SVOCs and metals), the widespread distribution of contamination, and the absence of on-site reported spills or indicators of on-Site sources. Petroleum groundwater contamination at the NYPD Impound Lot was attributed to impact from the Corona Auto and Truck site. One soil sample showed a lead concentration, which exceeded the hazardous waste limit.

LiRo recommended that, to comply with NYCDEP remedial requirements, the site would likely require a secure barrier or cap preventing direct exposure to site contaminants for future site users. Future site construction workers would be potentially exposed to soil contaminants during construction of the new building and during future construction activities requiring excavation. In order to protect site construction workers, the surrounding community, and the environment during the site construction phase, measures should be taken to ensure that any soil excavated for utilities or foundations are managed in accordance with applicable regulations. Based on the findings of the investigation, LiRo recommended that detailed site construction plans should be developed with provisions to address known site contaminants.

Soil Quality Investigation

Soil Description
Soil samples were screened and described in the field by a LiRo geologist. The soils encountered were described at all locations as re-graded or fill consisting of multi-colored sand and gravel with some clay, brick, concrete, wood and asphalt fragments, plastic and glass. The depth of fill ranged from 16 feet to 32 feet below grade (ftbg). Bedrock was not encountered. Native soil beneath the fill was described as gray/green/black silty clay at all locations across the site. These soils are consistent with the description of tidal marsh deposits. Based on historical documents, these deposits are a minimum of ninety (90) feet, thereby, occurring as natural barrier to downward contaminant migration.

Field screening for evidence of olfactory signs, staining and/or discoloration and PID readings, revealed suspect contamination at five locations in the subsurface fill material. Once the investigation had commenced, odors from decaying tidal marsh deposits and/or fill emanated from the boreholes. Subsequently, a methane-detecting meter was brought to the site for the balance of the investigation. Field screening revealed percent LEL of methane at various locations.

Laboratory Results for Soil and Groundwater Samples

Grab soil samples were collected form all boring locations for Target Compound List (TCL) VOC analysis by EPA Method 8260. Soils were also composited from the entire length of the soil column from most locations and analyzed for full list SVOCs by EPA Method 827OB, Target Analyte List (TAL) metal by EPA series 6000/7000, PCBs by EPA Method 8082 and Pesticides by EPA Method 8081.

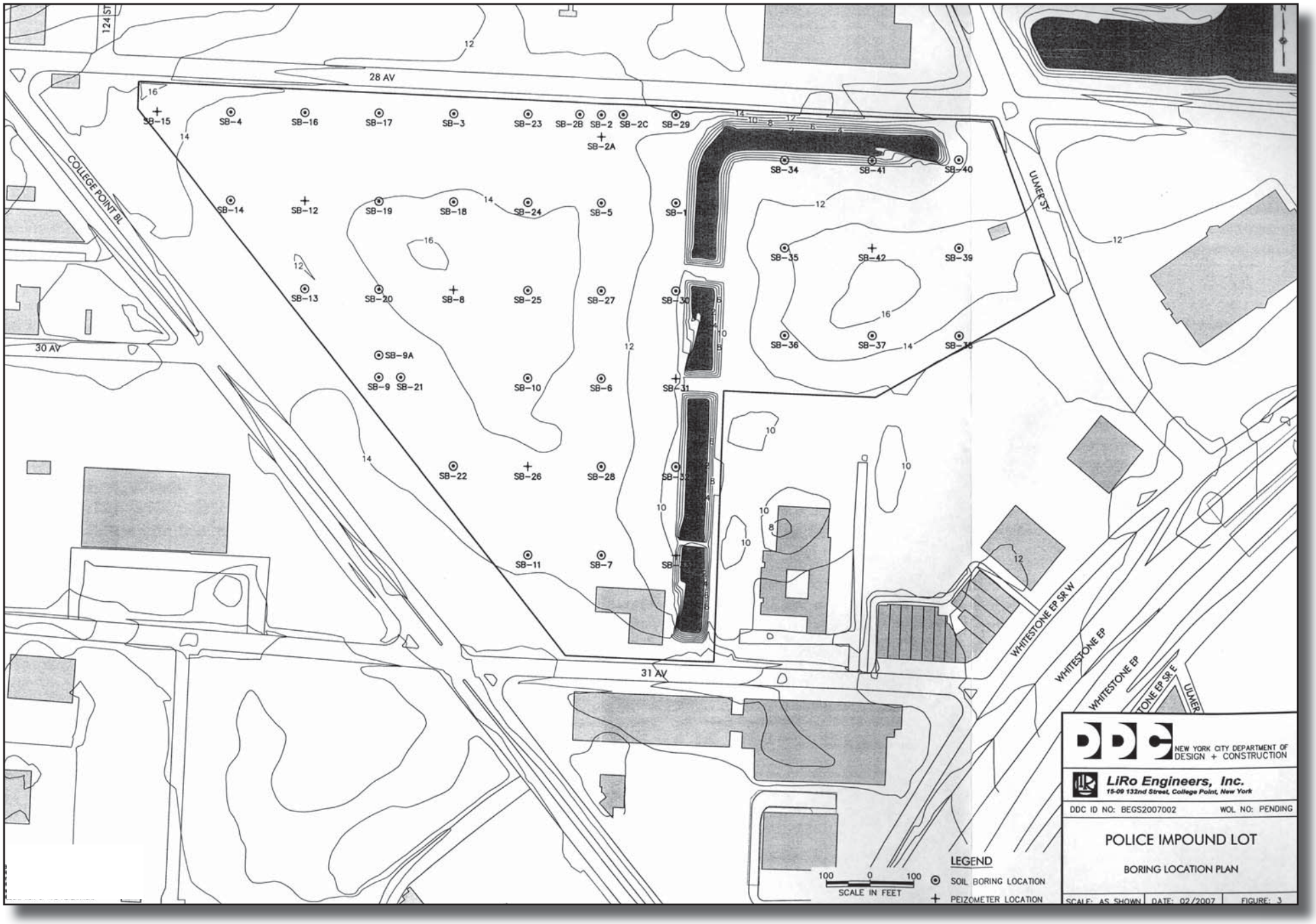
The analytical results of the grab and column composite soil samples have been compared to the NYSDEC STARS Memo #1 and the Recommended Soil Cleanup Objectives (RSCO) included in the NYSDEC TAGM 4046 dated 1994. Additionally, the results were compared to the criteria under the UNSDEC 56 NYCRR Subpart 375-6 Soil Cleanup Objectives as follows: 1) Unrestricted Use, along with 2) Restricted Use Objectives: a) Residential, b) Restricted Residential c) Commercial and d) Protections of Groundwater. TAGM 4046 provided guidance for remedial actions, based on health-related concerns and available clean-up technologies. The Subpart 375-6 Soil Cleanup Objectives are based on the New York State "Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document" dated September 2006.

As mentioned above, the grab and column composite soil analytical results have been compared to several criteria. However, for discussion, the results are only compared to NYSDEC TAGM 4046 RSCO guidance values. Comparison to NYSDEC 6 NYCRR Subpart 375-6 Soil Cleanup Objectives and NYSDEC STAS Memo #1 are not discussed because the site does not appear to fall into any of NYSDEC's defined spill or environmental restoration program categories. Criteria under NYSDEC TAGM 4946 RSCO are most applicable to site conditions and therefore will be discussed in the following sections.

Because of early analytical results being available, soil composite samples from SB-8, SB-12, SB-27, SB-36, SB-38 and SB-39 were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metal analysis and compared to NYSDEC 6 NYCRR Part 371 for toxicity characteristic.

Groundwater samples were collected from temporary well locations at borings SB-2A, SB-8, SB-12, SB-15, SB-26, SB-31, SB-33 and SB-42 and analyzed for full list VOC analysis by EPA Method 8260, for full list SVOCs by EPA Method 8270B and Target Analyte List (TAL) Metals by EPA series 6000/7000. Groundwater analysis results were compared to the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Guidance Values.

Groundwater samples collected from borings SB-12, SB-26 and SB-42 were analyzed for Non-polar material, pH, Temperature, Flash Point, Cadmium, Chromium (VI), Copper, Lead, Mercury, Nickel, Zinc, VOCs including [Benzene, Carbontetrachloride, Chloroform, 1,4 Dichlorobenzene, Ethylbenzene, MTBE (Methyl – Tert – Butyl- Ether), Naphthalene, Phenol, Tetrachloroethylene (Perc), Toluene, 1,2,4 Trichlorobenzene, 1,1,1 Trichloroethane, Xylenes (Total)] PCB's (Total), Total Suspended Solids (TSS), CBOD, Chloride, Total Nitrogen, and Total Solids. Groundwater analysis results were compared to the NYCDEP Limitations for Effluent to Sanitary or Combined Sewers. The purpose of the NYCDEP effluent parameter analysis is to evaluate the need for groundwater treatment during any future construction dewatering that may be necessary to support redevelopment.



Police Academy - College Point, Queens

Figure 7-2

Boring Location Plan for the Police Impoundment Lot

Volatile Organic Compounds (VOCs) in Soil
VOCs were detected above TAGM RSCO in eight of the 45 soil samples collected. The specific compounds detected above TAGM RSCO include acetone, isopropylbenzene, m+p xylene, n-propylbenzene and o xylene.

With the exception of acetone, the detection of the above mentioned compounds above TAGM RSCO were isolated to one soil sample (SB31). Numerous acetone results were flagged with a B, which indicates that the compound was detected. Acetone is a common laboratory contaminant used to clean glassware.

Total VOCs were detected above total TAGM RSCO in one of the 45 soil samples collected (SB31). The specific compounds contributing to the high total VOCs in SB31 are listed above.

Semi-volatile Organic Compounds (SVOCs) in Soil
SVOCs were detected above TAGM RSCO in 46 of the 49 soil samples collected. The specific compounds detected above TAGM RSCO include benzo(a)anthracene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno (1,2,3-cd)pyrene, bis)2-ethylhexyl)phthalate, di-n-octyl phthalate and phenol.

With the exception of phenol and bis(2-ethylhexyl)phthalate, all of the SVOCs detected are classified as polynuclear aromatic hydrocarbons (PAHs), which are a class of chemicals commonly found in tar, asphalt and combustion residues that are characteristic of typical New York City fill material. Phenol is also a compound typically found in New York City fill material. Bis(2ethylhexyl)phthalate is a common component of plastic and may be attributable to plastic fragments found in the fill.

Total SVOCs were detected above total TAGM RSCO in one (SB9) of the 49 soil samples collected. The compound contributing to the high total VOCs in SB9 is bis9(2ethlyhexyl)phthalate, which is a common component of plastic and may be attributable to plastic fragments found in the fill.

PCBs in Soil
PCBs were detected above TAGM RSCO in two (2) of the 49 soil samples collected. The specific compounds detected above TAGM RSCO include aroclor 1016, aroclor 1254 and aroclor 1260.

Analytical sampling of the soil showed that residual PCBs were present at numerous locations across the site. Based on the widespread distribution of PCBs at the site, observations of the physical characteristics of the fill that is present, and the absence in the site historical records of any features that might be associated PCB-bearing equipment use, storage or disposal, LiRo believes that the PCB residuals are a component of the existing fill. There is no evidence of any point source or “PCB spill” at the site.

Total PCBs were detected above total surface TAGM RSCO in seven (7) of the 49 soil samples collected. Total PCBs were detected above total subsurface and total surface TAGM RSCO in two (2) of the 49 soil samples collected. The specific compounds contributing to the high total PCBs are listed above.

Pesticides/PCBs in Soil
Only dieldrin was detected above TAGM RSCO in one (1) of the 49 soil samples collected.

Metals in Soil
Metals were detected above TAGM RSCO in all of the 45 soil samples collected. The specific metals detected above TAGM RSCO include arsenic, cadmium, chromium, copper, iron, lead, nickel, zinc,

magnesium, mercury, barium, vanadium, beryllium, calcium, selenium and cobalt. The metals detected are commonly found in New York City fill material.

Toxicity Characteristic Leaching Procedure (TCLP)
To determine if the metals present in the samples mentioned above are at hazardous levels, TLP analysis for Metals was performed on samples from SB-8, SB-12, SB-27 SB-36, SB-38 and SB-39. The results revealed that the leachable lead concentration in sample SB-12 exceeds the NYSDEC hazardous waste limit. There were no exceedances for the other metals in the TCLP results. In reviewing the results, LiRo observed that there is a very poor correlation between the lead total results and the TCLP results. This data suggests that the fill composition is highly variable at the site and, therefore, soil contaminant limits cannot be "delineated" with any degree of confidence. The conclusion of highly variable fill composition is also supported by the wide variation in results for organic compounds at the site and by the Phase I conclusion that the site fill was placed episodically over a number of years.

Groundwater Quality Investigation

Groundwater Description
Groundwater occurred in the Geoprobe boreholes at depths ranging from approximately 9 to 15 feet bgs at the site. Based on this information, the borings with lowest relative elevations are in the southern portion of the site. The groundwater flow direction is, therefore, estimated to be south.

NYCDEP Limitations for Effluent to Sanitary or Combined Sewers
Groundwater was collected for analysis of NYCDEP Limitations for Effluent to Sanitary or Combined Sewers from temporary wells installed at SB-12, SB-26 and SB-42. The laboratory analysis revealed that groundwater from SB-26 and SB-42 is suitable for discharge to sanitary or combined sewers without treatment from contaminant removal. However, any project requiring dewatering plans should include provisions for sediment removal (i.e. filtration or settling tanks). The sample from SB-12 revealed an exceedance of Methyl tert-butly ether (MTBE). Total Suspended Solids (TSS) were present at exceedance levels in the samples at SB-12 and SB-26, however, excess suspended sediment is inherently present in temporary wells, which results in artificially high TSS.

NYCDEP no longer regulates storm sewer discharge throughout NYC. Therefore, if discharge into storm sewers is required during dewatering, it must be done under the appropriate NYSDEC Industrial State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis will be required to satisfy NYSDEC requirements prior to discharge into storm sewers.

VOCS in Groundwater
VOCs were detected above NYSDEC TOGS in five (5) of the eight (8) groundwater samples collected. The specific compounds detected above NYSDEC TOGS include methyl tert-butyl ether, benzene, 1,4 dichlorobenzene, naphthalene, ethyl benzene, m+p xylene, o xylene, isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene and 1,2,4 trimethylbenzene.

The previous investigation from the adjacent Corona Auto Repair site showed similar total VOC levels. In November 2005, the downgradient monitoring well at the Corona Auto and Truck site showed similar total VOC levels (30 ppb) to the nearby temporary monitoring well point at the Police Impoundment site (127.4 ppb). Comparing these results suggest that groundwater contamination at the site is a result of the petroleum contamination at the Corona Auto site.

SVOCs in Groundwater
SVOCs were detected above NYSDEC TOGS in seven (7) of the eight (8) groundwater samples collected. The specific compounds detected above NYSDEC TOGS include pentachlorophenol, benzo(a)anthracene, chrysene, benzo(b)fluoroanthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, bis(2-ethylhexyl)phthalate, 1,4 dichlorobenzene, 2,4 dimethylphenol, naphthalene and phenol. The contaminants are likely attributable to a combination of suspended sediment, historic fill material used at the site and nearby historic fuel spills.

Metals in Groundwater
Metals were detected above NYSDEC TOGS in each of the two groundwater samples collected. The specific metals detected above NYSDEC TOGS include arsenic, barium, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and zinc. The contaminants are likely attributable to suspended sediment and historic fill material used at the site. Iron was detected above NYSDEC TOGS in three (3) of the eight (8) groundwater samples collected.

PCBs in Groundwater
PCBs were detected above NYSDEC TOGS for total PCBs in three (3) of the eight (8) groundwater samples collected. The specific compounds contributing to the total PCBs include aroclor 1254, aroclor 1260 and aroclor 1016.

Pesticides in Groundwater
Pesticides were detected above NYSDEC TOGS in four (4) of the eight (8) groundwater samples collected. The specific compounds detected above NYSDEC TOGS include delta-BHC, heptachlor epoxide, dieldrin, 4,4'DDT, alpha-BHC and heptachlor.

Soil Vapor Investigation

Based on the results of the field investigation and comparison of the analytical results to the following regulatory guidance values –1) NYSDEC TAGM 4046, 2) NYSDEC TOGS, and 3) NYSDEC 6 DYCRR Part 371 for toxicity characteristic, the following conclusions are presented:

- Field screenings of the borings revealed percent lower explosive limit (LEL) readings ranging from 1.3 percent to 594 percent. A reading of 100 percent LEL corresponds to a methane level of 5 percent methane per volume of air, which is the concentration at which methane is explosive. LEL readings greater than 100 percent indicate that methane concentrations are greater than 5 percent.
- The borings were also screened using a direct read gas analyzer for methane. This screening revealed downhole methane readings ranging from 2.5 percent to 59.4 percent.

All 20 temporary soil gas probes performed resulted in non-detectable (ND) levels of methane.

Phase II Environmental Site Investigation for Crystal Windows[3] and Corona Auto and Truck Site (May 20, 2008)
In May 2008 LiRo completed a Phase II Environmental Site Investigation for the area bounded by 28th Avenue to the north, 31st Avenue to the south, College Point Boulevard to the west and the NYPD vehicle impound facility to the east. The total land area was approximately 3 acres. Corona Auto and

[3] The vacant portion of land immediately to the south of the Corona Auto and Truck site became known as the Crystal Windows site because this local manufacturer had been in talks with the City to acquire this property. While that deal was never finalized, the Crystal Windows name remained associated with this parcel of land.

Truck occupies the northern portion of this site and the remaining portion of the site was vacant (formerly used by the NYPD as part of the impound operations).

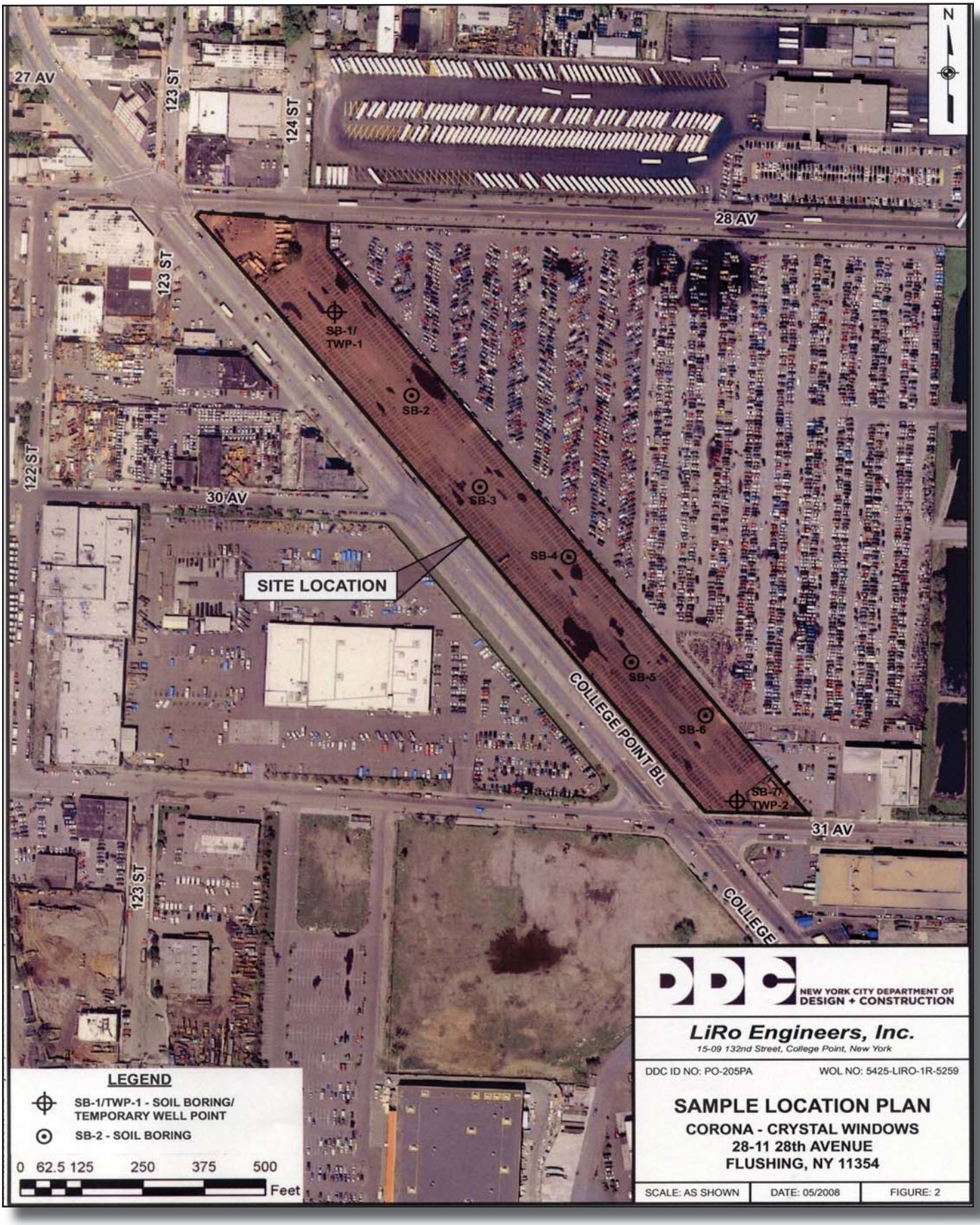
LiRo completed the Phase II field investigation on April 12, 2008. The Phase II was performed to evaluate soil and groundwater concerns identified during the Phase I ESA completed January 31, 2008 by LiRo. The Phase I ESA determined that an active petroleum spill (#9907006) remediation project was ongoing at the Corona Auto and Truck portion of the site and that more than 30 historical spills were recorded within an eighth of a mile of the site. A previous Limited Phase II Investigation at the "Crystal Windows" portion of the site was completed by Aneptek Corporation (Aneptek) in November 2003. The Aneptek investigation showed that soil and groundwater contained petroleum contaminants, PCBs and metals. Aneptek concluded that two plumes of fuel-related groundwater contamination were present – a northern plume near the corner of 28th Avenue and College Point Boulevard attributed to the Corona Auto and Truck spill and a southern plume near 31st Avenue and College Point Boulevard attributed to undocumented historical petroleum releases. Following the recommendations of LiRo's Phase I ESA, the Phase II ESI included the advancement of seven soil borings for the collection of soil samples and the installation of two temporary well points for the collection of groundwater samples. Seven soil borings (SB-1 through SB-7) were installed within the site boundaries (see Figure 7-3, "Boring Location Plan for the Corona and Crystal Portions of the Site"). Temporary monitoring wells TWP-1 and TWP-2 were installed in borings SB-1 and SB-7, respectively.

The analytical results of soil samples have been compared to the Recommended Soil Cleanup Objectives (RCSOs) included in the NYS DEC Technical and Administrative Guidance Memorandum (TAGM) #4046, dated 1994. Toxicity characteristic leaching procedure (TCLP) and hazardous waste characteristic test results were compared to Characteristics of Hazardous Waste published in the Resource Conservation and Recovery Act (RCRA) and NYS DEC Part 371. Groundwater sample results were compared to NYS DEC Technical and Operational Guidance Series (TOGS) 1.1.1.- Ambient Water Quality Standards and Guidance Values and to the NYCDEP Bureau of Wastewater Treatment (BWT) Limitations for Effluent to Sanitary or Combined Sewers.

Based on the results of the field investigation and a review of the analytical results compared to the aforementioned regulatory criteria, the following conclusions are presented:

- Field screening for evidence of olfactory signs, staining and/or discoloration and Photo-Ionization Detector (PID) readings showed historic fill to the bottom depth of all borings. Elevated PID readings were observed at borings SB-1, SB-2, and SB-4.
- Volatile organic compounds (VOCs) were not detected above TAGM #4046 RSCOs in any of the seven soil samples collected.
- Polycyclicaromatic hydrocarbons (PAHs) were detected in all seven soil samples collected. PAHs are a type of SVOC present in oil, coal, and tar. Exceedences of TAGM RSCOs for SVOCs were detected for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and dibenzo(a,h)anthracene. The contaminants may be a result of nearby historic fuel spills and historic fill material used at the site.
- Metals were detected above TAGM RSCOs in all of the soil samples and above their respective Eastern USA Background concentrations in six of the seven soil samples (all except SB-6) collected during this ESI. The specific metals detected above TAGM RSCOs include arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, magnesium, nickel, zinc, and mercury. The metals detected are commonly found in New York City fill material.
- Pesticides were detected in six of the seven soil samples (all except SB-6) collected during this ESI. No pesticides were detected above TAGM RSCOs in any of the samples collected. The pesticides detected are attributable to historic fill material.

Boring Location Plan for the Corona and Crystal Portions of the Lot



- PCBs were detected in six of the seven soil samples (all except SB-6) collected during this ESI. No PCBs were detected above TAGM RSCOs in any of the samples collected. The PCBs detected are attributable to historic fill material.
- TCLP and Waste Characterization results determined that the composite soil sample collected from borings SB-1 through SB-7 was non-hazardous.
- The concentrations detected for Total PCBs (0.0016 mg/L) and total Suspended Solids (860 mg/L) in a groundwater sample collected from SB-1/TWP-1 exceeded NYCDEP Limitations for Effluent to Sanitary or Combined Sewers. The PCB and TSS exceedances are likely a result of high levels of suspended sediment (typical of groundwater samples from undeveloped wells) in the samples.
- VOCs were detected above NYSDEC TOGS in each of the two groundwater samples collected.

The specific compounds detected above NYSDEC TOGS include methyl-tert butyl ether (MTBE) and benzene. The contaminants are likely attributable to the Corona Auto and Truck site spill, however, the Phase I report documented more than 30 historic spills within an eighth of a mile of the site so it is possible that the Corona contamination is co-mingled with these other potential sources:

- SVOCs were detected above NYSDEC TOGS in the groundwater sample collected from SB-7/TWP-2. 3+4-methylpenols were detected above NYSDEC TOGS as well as several PAHs including phenanthrene, benzo(a)anthracene, benzo(b)fluoroanthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, fluoranthene and pyrene. The contaminants are likely attributable to a combination of suspended sediment, historic fill material used at the site and nearby historic fuel spills. As noted above, the Corona Auto and Truck site spill contamination may be co-mingled with contamination related to other historic spills.
- Metals were detected above NYSDEC TOGS in each of the two groundwater samples collected. The specific metals detected above NYSDEC TOGS include arsenic, barium, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and zinc. The contaminants are likely attributable to suspended sediment and historic fill material used at the site.

Based on the results of this field investigation and the analytical testing, LiRo has made the following conclusions:

- VOCs, pesticides and PCBs were not detected above applicable RSCOs in any of the soil samples collected. SVOCs and metals were detected in all samples at levels exceeding RSCOs. Historic fill was observed at all boring locations completed during this ESI.
- Groundwater analytical results indicate relatively low levels of dissolved phase contamination across the site. Exceedances of NYSDEC Groundwater Quality Standards were detected for VOCs (both wells), SVOCs (SB-7/TWP-2) and metals (both wells). Based on LiRo's Phase II results, it appears that VOC/SVOC groundwater contamination is relative wide-spread throughout the site at relatively low levels.
- Groundwater analytical results showed exceedances of NYCDEP Limitations for Effluent to Sanitary or Combined Sewers for Total PCBs and Total Suspended Solids in the sample collected from SB-1/TWP-1.

The soil contamination present in the Phase II ESI borings appears to have resulted primarily from the historic fill material used at the site. This conclusion is supported by the type of contaminants detected (i.e. primarily SVOCs and metals) and the widespread distribution of contamination. LiRo's Phase II results were generally consistent with the previous (Aneptek) Limited Phase II Investigation that was completed in 2003. The Aneptek report showed widespread low-level soil impacts with petroleum-related VOCs and SVOCs as well as low-level (relative to TAGM RSCOs) PCBs in soil.

The Corona Auto and Truck portion of the site is impaired with petroleum contaminants resulting from active spill #9907006. As of the date of publication for this LiRo document, the City of New York was remediating the spill under Consent Order with NYSDEC and soil and groundwater contamination persists. LiRo recommended that the status of and future responsibility for the site should be determined.

Due to the historic fill source and level of contamination in the portion of the site that is currently being used for the NYPD vehicle impoundment, this area does not appear to fall into any of NYSDEC's defined spill or environmental restoration program categories. As such, there is no requirement to remove contaminated soil from the impoundment area or to treat soil to any cleanup standard. Any contaminated soil which is being excavated during the course of building construction is defined by NYSDEC as a solid waste and that material will be subject to applicable regulations for transport and disposal.

NYCDEP is typically responsible for overseeing construction at contaminated properties in New York City. To comply with NYCDEP remedial requirements, the site will likely require a secure barrier or cap preventing direct exposure to site soil contaminants for future site users. Future site construction workers will be potentially exposed to soil and groundwater contaminants during construction of the proposed Academy and during future construction activities requiring excavation. In order to protect the site construction workers, the surrounding community, and the environment during the site construction phase, measures should be taken to ensure that any soils excavated for utilities or foundations are managed in accordance with the applicable regulations. Based on the findings in the Phase II investigation, site construction plans will likely require the following provisions to address known site contaminants.

- A Construction Health and Safety Plan (CHASP) will be required to ensure that on-site construction workers and the surrounding community are not exposed to site contaminants. The CHASP should include a Community Air Monitoring Plan to mitigate potential exposure via fugitive dust.
- A Remedial Action Plan (RAP) will be required to ensure that any contaminated soil excavated for building foundation structures or subsurface utilities is properly characterized, transported, and disposed of at an off-site facility permitted to accept contaminated soil. The components of the RAP would include proper management (excavation, handling, and disposal) of excavated material, including soil, to allow for the installation of utilities and the foundation components (pile caps, slab, etc.).
- Based upon the detection of VOCs and SVOCs in soil and groundwater, any site redevelopment should include engineering controls to mitigate vapor intrusion. Future site building designs should include vapor barriers and sub-slab ventilation systems.
- If dewatering activities will be required for site redevelopment, groundwater should be characterized for compliance with NYCDEP discharge parameters. Based on the Phase II NYCDEP discharge analysis, a treatment approach may be required for PCBs and suspended solids. Groundwater treatment requirements for dewatering should also include provision for the disposal of contaminated sediment.
- The NYCDEP will likely require that a minimum of 2 feet of "TAGM certified clean" fill cap (i.e. composition of fill below TAGM 4046 guidance values) be placed over landscaped, non-paved areas for the entire site.
- NYCDEP typically requires that clean fill must be certified by laboratory analysis for VOCs, SVOCs, Metals, PCBs and Pesticides at a sample frequency of 1 sample per 250 cubic yards of material. Results are submitted to NYCDEP for approval prior to import to the site.

- A Deed Restriction should be incorporated for the property to ensure that future site intrusive construction or maintenance work will include the practices described above to prevent accidental exposure to contaminants.
- A Closure Report certified by a Professional Engineer or Registered Architect, documenting that the activities identified in the RAP have been completed is also required by NYCDEP.

NYCDEP Response to the Submitted Phase I and Phase II ESA Material (November 13, 2008)
All Phase I and Phase II reports were submitted to NYCDEP for review and comment. NYCDEP issued a comment letter dated November 13, 2008 responding to the submitted documents. The NYCDEP comments were consistent with LiRo's list of anticipated NYCDEP requirements for the proposed development site. NYCDEP made the following comments:

- As a result of on-site/off-site soil and groundwater impacts, presence of urban fill material, methane gas, etc. that would negatively impact the proposed project, a RAP is required for the site.
- The RAP must include adequate mitigation measures to address off-site soil disposal in accordance with all federal, state, and local regulation; vapor barrier requirements (min. 20-mil thickness) and passive sub-slab depressurization system (SSDS) with the ability to be retrofitted to an active system in the future (if warranted), beneath all on-site structures; dewatering operation/applicable permits during construction; demolition requirements in accordance with al applicable federal, state, and local regulations for existing buildings that may include the presence of asbestos containing material, lead-base paint, mercury/PCB containing electrical components, etc.; two feet of certified clean fill/top soil capping in any proposed landscaped areas not capped with concrete or asphalt; submission of P.E certified Remedial Closure Report upon completion of all DEP remedial requirements; and a site-specific CHASP for the on-site workers during soil disturbance/initial construction while excavated soils are exposed.
- The RAP and CHASP must be submitted to DEP for review/approval prior to soil disturbance/construction.

As described below under conditions in the Future With the Proposed Action (Build Conditions), a CHASP and RAP were submitted to NYCDEP on December 1, 2008 for comment and review. Details of the NYCDEP-approved, site-specific CHASP and RAP are included below.

C. FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITIONS)

In the future without the Proposed Action, it is assumed that there would be minimal changes in the use of the Project Site. As described in Chapter 2, "Land Use, Zoning, and Public Policy," in absence of the Proposed Action, it is expected that the northwestern portion of the proposed development site (the Corona Auto and Truck Site) would continue to be used as an automotive service facility. It is expected that the remainder of the site, most of which is currently used as the College Point Tow Pound, would be vacant. Tow pound operations will be relocated to a new location by 2014 as the NYPD consolidates and reorganizes its citywide operations.

As discussed in detail in Chapter 2, the southern 5-acres of the College Point Tow Pound site would not be included in the proposed Academy's site boundaries. It is expected that these five acres would be developed by 2014. This development is expected to occur regardless of the Proposed Action.

The exposed on-site drainage ditch that bisects the property is expected to remain unchanged in the future without the Proposed Action.

In the 2014 future without the Proposed Action, no in-ground disturbance or excavation is anticipated within the boundaries of the proposed Academy site. Historic fill material is not likely to be exposed, and therefore, no remedial activities would be required at the site. Because the site will generally continue in its current condition, there will be no exposure pathways for hazardous materials.

D. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITIONS)

The potential for significant adverse impacts in the future with the Proposed Action is determined by a number of factors including the types and locations of hazardous materials and wastes, the proposed uses of the Project Site, and the potential for human and environmental exposure to site contaminants at each location where present. To determine if a significant adverse impact would result relative to human exposure, exposure pathways must be evaluated. According to NYSDEC guidance, "An exposure pathway has five elements: (1) a contaminant source; (2) contaminant release and transport mechanisms; (3) a point of exposure; (4) route of exposure; and (5) a receptor population. An exposure pathway is complete when all five elements are documented. A potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway is not documented. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway has not existed in the past, does not exist in the present, and will never exist in the future."[4]

Human exposure considers construction workers, those persons on-site at present and future times (occupants and visitors), as well as persons off-site (neighborhood population). Potential and complete human exposure pathways must be evaluated for the construction phase, and after redevelopment is complete for all persons that may be exposed to site contaminants.

The Proposed Action would facilitate the construction of a new Police Academy for the city of New York. The proposed facility would consist of an approximately 2.4 million gsf and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade 1,800-space parking facility.

The Proposed Action would represent a change in land use and an increase in density on the proposed development site, replacing the northern portion of the NYPD's College Point Tow Pound, an auto service facility, and a City-owned vacant parcel along College Point Boulevard with a new NYPD Academy and training facilities. The proposed development would consolidate and replace many of the NYPD's disbursed training facilities into one centralized location. The proposed Academy is expected to become a world-class police training facility, which would accommodate both recruit and in-service training.

The Proposed Action would involve below-grade disturbance with soil excavation, as necessary, to drive piles, to construct building foundations, and install subsurface utilities on the proposed development site and within the public street. However, below-grade disturbance is expected to be limited. Due to the high water table in the area and the propensity of the area to retain water, the proposed development would employ an extensive pile system to support the proposed buildings on the Police Academy site. Additionally, the proposed Academy would incorporate a design that is mindful of the area's propensity to flood, resulting in the ground level to be raised above the flood zone with certified clean fill that would be imported for site grading and landscaping.

[4] DEC-10 Technical Guidance for Site Investigation and Remediation, Appendix 3B, (December 2002).

There is a potential for adverse impacts during construction activities resulting from the presence of possible subsurface contamination due to historic and existing uses at the Project Site. The ESA reports prepared for the Project Site, referenced above under existing conditions, have identified *recognized environmental conditions* (e.g., hazardous materials and/or petroleum product contamination) that could have the potential to impact the proposed development. Excavation and construction activities on the Project Site could disturb potential hazardous materials and increase pathways for human exposure. However, it is anticipated that impacts would be avoided by performing construction activities in accordance with all applicable regulations related to the removal and/or containment of contaminated soil.

As discussed in Chapter 17, "Mitigation," a Construction Health and Safety Plan (CHASP) and Remedial Action Plan (RAP) have been prepared in accordance with the applicable requirements set forth by the Occupational, Safety and Health Administration (OSHA), NYSDOH, NYCDEP, and any other applicable regulations to address the recognized environmental concerns on-site. The CHASP identifies the possible locations and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that would be utilized to mitigate concerns. The RAP addresses the implementation of remedial measures that would be required to safely construct the proposed project on-site. NYCDEP has reviewed and approved the CHASP and RAP for the proposed project.

Recognized Environmental Conditions

Soil Contamination

The development of the proposed Police Academy would include the construction of a new campus, the related infrastructure, and utilities – all of which would involve intrusive activities such as excavation. It is likely that contaminated soil would be encountered during construction exposing workers and potentially occupants and neighboring population to contaminants. The complete human exposure pathway resulting from intrusive activities would be considered a significant adverse impact, but can readily be mitigated.

In order to evaluate the subsurface soil and soil from debris piles, laboratory analytical results and field measurements were compared with the United States Environmental Protection Agency (EPA) and NYSDEC regulatory standards identified in:

- NYSDEC: Spill Technology and Remediation Series (STARS) Memo #1 establishes statewide criteria for re-use of petroleum-contaminated soil, provides guidance for specific petroleum-related VOCs and SVOCs, odors, and other nuisance factors, and provides Toxicity Characteristic leaching Procedure (TCLP) Alterative Guidance Values (AGVs) for waste characterization purposes;
- USEPA: Maximum Concentration of Contaminants for the Toxicity Characteristic (Resource Conservation and Recovery Act [RCRA] Regulatory Limits for TCLP), published in 40 Code of Federal Regulations (CFR) 261.24, provides solid waste toxicity standards for compounds using the TCLP procedure, Test Method 1311, to determine if the material tested can be considered hazardous (1993);
- NYSDEC: Identification and Listing of Hazardous Wastes regulation, Toxicity Characteristic section as per 6 New York Codes, Rules and Regulations (NYCRR) Subpart 371 (3)(e), stipulates the same requirements as dictated in the federal standard 40 CFR 261.24 listed above (2006);
- NYSDEC: Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs), as per 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives, represent the concentration of a contaminant in soil which, when achieved at a site will require no use restrictions on the site

for the protection of public health, groundwater and ecological resources due to the presence of contaminants in soil (2006);

- NYCDEC: Technical and Administrative Guidance Memorandum #4046 (TAGM) Recommended Soil Cleanup Objectives (RSCOs) provide guidance for remedial actions at NYSDEC Inactive Hazardous Waste and Spill sites, based on health-related concerns and available clean-up technologies (1994).

The Phase II ESI results indicated fill soil throughout the Project Site has elevated levels of various VOCs and SVOCs, which are characteristic of urban fill. The elevated concentrations of SVOCs are common constituents of urban fill material. Metals were detected above TAGM RSCO in most of the soil samples collected. The specific metals detected above TAGM RSCO are described above under the description of Existing Conditions. The metals detected are commonly found in New York City fill material. Elevated metal levels are mainly attributed to contaminants historic filling activities on-site and may be partially attributed to spills in the local area.

As described above, PCBs were detected above TAGM RSCO in two (2) of the 49 soil samples collected. The specific compounds detected above TAGM RSCO include aroclor 1016, aroclor 1254 and aroclor 1260. Analytical sampling of the soil showed that residual PCBs were present at numerous locations across the site. Based on the widespread distribution of PCBs at the site, observations of the physical characteristics of the fill that is present, and the absence in the site historical records of any features that might be associated PCB-bearing equipment use, storage or disposal, LiRo believes that the PCB residuals are a component of the existing fill. There is no evidence of any point source or "PCB spill" at the site. Total PCBs were detected above total surface TAGM RSCO in seven (7) of the 49 soil samples collected. Total PCBs were detected above total subsurface and total surface TAGM RSCO in two (2) of the 49 soil samples collected. The specific compounds contributing to the high total PCBs are listed above.

Human exposure can be reduced or eliminated using proven remedial technologies and/or institutional and engineering controls discussed in Chapter 17, "Mitigation." Impacted soils in the area of proposed excavation should be removed and disposed of in accordance with all applicable local, state and federal laws. Unpaved or landscaped surfaces should be covered with at least two feet of certified, clean fill and vegetative topsoil. Due to the presence of VOC, SVOC and metal concentrations above applicable standards at several sampling locations, dust control procedures are recommended during excavation activities to minimize the creation and dispersion of fugitive airborne dust. A Community Air Monitoring Plan (CAMP) should be developed in accordance with NYSDEC DER-10 Regulations. The CAMP requires real-time monitoring for VOCs and particulates (i.e., dust).

Groundwater Contamination

The applicable groundwater standards in New York are the Ambient Water Quality Standards and Guidance Values in 6 NYCRR Part 703. The groundwater standards are not based on land use categories, as are soil cleanup objectives, but rather pertain to specific classes of fresh and saline waters for the protection of "best uses" assigned to each class. The groundwater is classified as GA- a source of drinking water even though groundwater is not currently used as a potable water supply.

The Phase II ESI results also indicated VOCs were detected above NYSDEC TOGS in five (5) of the eight (8) groundwater samples collected. The specific compounds detected above NYSDEC TOGS are described above under the discussion of Existing Conditions. Additionally, SVOCs were detected above NYSDEC TOGS in seven (7) of the eight (8) groundwater samples collected. The specific compounds detected above NYSDEC TOGS are also described above under the discussion of Existing Conditions. The contaminants are likely attributable to a combination of suspended sediment, historic fill material used at the site and nearby historic fuel spills.

Metals were detected above NYSDEC TOGS in each of the two groundwater samples collected. The specific metals detected above NYSDEC TOGS are described above under the discussion of Existing Conditions. The contaminants are likely attributable to suspended sediment and historic fill material used at the site. Iron was detected above NYSDEC TOGS in three (3) of the eight (8) groundwater samples collected.

PCBs were detected above NYSDEC TOGS for total PCBs in three (3) of the eight (8) groundwater samples collected. The specific compounds contributing to the total PCBs include aroclor 1254, aroclor 1260 and aroclor 1016.

Pesticides were detected above NYSDEC TOGS in four (4) of the eight (8) groundwater samples collected. The specific compounds detected above NYSDEC TOGS include delta-BHC, heptachlor epoxide, dieldrin, 4,4'DDT, alpha-BHC and heptachlor.

At areas of the Project Site where contaminants are found in excess of groundwater quality standards, the groundwater must be addressed prior to or during redevelopment. Human exposure pathways can be reduced or eliminated during construction and for the future with the Proposed Action by the use of engineering controls and by prohibiting groundwater use for potable purposes in the future; however, at areas with significant concentrations of contaminants in groundwater, remediation may be required prior to construction. The time required to effectively remediate groundwater could impact development plans. Groundwater contaminated with volatile organic compounds is also a source of contaminated soil vapor.

If water would be discharged to a NYCDEP combined sanitary and storm sewer, the water must be sampled for NYCDEP sewer discharge parameters. Based on the above findings, a NYCDEP sewer discharge permit may be required, and prior to discharge into sanitary and combined sewers, sampling, laboratory analysis, and pretreatment of water from this location would be required. A NYSDEC SPDES permit may also be required to discharge into a storm sewer.

Soil Vapor Contamination

To evaluate methane levels generated by an organic layer beneath the urban fill, a soil gas survey was conducted on the project site. Contaminated soil vapor entering the proposed buildings would result in complete human exposure pathway to these contaminants – a significant adverse impact if the concentrations are high enough. As described above, soil gas sample points were performed for the Phase II ESI within the boundaries of the project site. All 20 temporary soil gas probes performed resulted in non-detectable (ND) levels of methane. Therefore, methane does not appear to pose an issue to the proposed construction site and therefore, no human exposure would result.

Introduction of Hazardous Materials from Proposed Police Academy

The proposed Police Academy development may introduce hazardous materials to the site; specifically, storage of petroleum products for on-site generators that could result in future spills that could impact soil and groundwater. Preventative measures required by various environmental regulations include, but are not limited to, secondary containment for storage tanks; preparation of spill and emergency response plans; proper labeling, storage and manifesting of hazardous wastes, and proper training of personnel that handle hazardous materials and wastes. Each of these preventative measures help to reduce the likelihood of future hazardous materials incidents on the proposed Academy site. However, the proposed Police Academy is not expected to introduce new hazardous materials such that significant adverse impacts would result.

E. CONCLUSION

The subsurface investigations involved extensive testing throughout the project site. The Phase II ESI results indicated fill soil throughout the project site has elevated levels of various VOCs and SVOCs, which are characteristic of urban fill. The results also indicated elevated levels of a variety of contaminants in the groundwater, which can be attributed to the fill and the turbid nature of the groundwater samples that were collected.

Human exposure to existing on-site hazardous materials could be reduced or eliminated using proven remedial technologies and/or institutional and engineering controls discussed in Chapter 17, "Mitigation." Measures for addressing areas of identified contamination are outlined in the NYCDEP-approved CHASP and RAP, which are both summarized in Chapter 17. All remediation measures would be undertaken pursuant to the NYCDEP-approved RAP. The measures described in the CHASP and RAP would ensure that no significant adverse impact related to hazardous materials would occur.

A. INTRODUCTION

For City Environmental Quality Review (CEQR) analysis purposes, the City's "infrastructure" comprises the physical systems supporting its population, including water supply, wastewater treatment, and stormwater management. Given the size of New York City's water supply system and the City's commitment to maintaining adequate water supply and pressures, few actions have the potential to cause significant impacts on this system. Other infrastructure components, such as solid waste management, energy and transportation, are addressed separately under CEQR and are assessed in separate chapters of this document.

This chapter examines the capacity of the City's water supply, sanitary sewer, and storm sewer to handle the additional loads generated by the Proposed Action. As discussed in Chapter 1, "Project Description," the proposed Academy would result in approximately 2.4 million gsf of total program, including academic space, physical training facilities, administrative and support components, an indoor shooting range, a field house, a tactical village, a drivers training course, a police museum, and a visiting officer/lecturer housing facility. Additionally, an accessory-parking garage of 1,800-spaces would be provided on-site. The Proposed Action would allow for the development of a modern academic complex, to be operated by the NYPD, which would consolidate facilities for recruits, civilians, and active police officers that are currently spread across the City. The new recruit, in-service, and worker populations introduced to the Project Site and the surrounding area as a result of the Proposed Action are expected to place new demands on New York City's water supply and sewage treatment/disposal systems.

The *CEQR Technical Manual* also states that detailed analysis of wastewater treatment is needed for those actions with very large flows that have the potential for significant adverse impacts on sewage treatment. As such, the Proposed Action is analyzed for the volumes of wastewater it would generate in relation to the State Pollutant Discharge Elimination System (SPDES) permitted capacity of the water pollution control plant servicing the project area.

In addition, the *CEQR Technical Manual* states that a detailed analysis of stormwater management is warranted if a proposed action involves certain types of industrial activities (e.g., manufacturing, processing, or raw materials storage), actions that would greatly increase the amount of paved area, actions that would be served by a separate storm system and that would involve construction activities, or construction of a new stormwater outfall. As the Proposed Action would entail one or more of the above conditions, an assessment of stormwater management is provided in this chapter.

The analysis in subsequent sections concludes that the Proposed Action would not result in any significant adverse impacts to the existing water supply, sewage treatment, and stormwater discharge systems. The existing municipal services have adequate capacity to meet the increases in demands. Further, as the proposed Academy would meet LEED Silver requirements, at minimum, the campus incorporates a variety of design features that minimize the project's impacts on local infrastructure.

B. EXISTING CONDITIONS

Water System

Water Supply

The New York City water supply system comprises three watersheds north and northwest of the city: the Delaware, Catskill, and Croton. From these watersheds, water is conveyed as far as 125 miles to the City via a system of reservoirs, aqueducts, and tunnels. The system has 19 collecting reservoirs, two balancing reservoirs, aqueducts, and tunnels, with several dams, 3 major aqueducts, 2 large water distribution tunnels, with a third major tunnel under construction and partially in use, and a system of water mains and other facilities. The watersheds of the three systems encompass almost 2,000 square miles, with a storage capacity of about 550 billion gallons. The water flows to the City through aqueducts, reaching most consumers by gravity alone, although some four percent of the City's water must be pumped to its final destination.

Neither the groundwater beneath Queens nor the waters of the East River are used as a source for potable water or other uses, such as irrigation or industrial processes. The current average daily water consumption for the City as a whole is approximately 1.3 billion gallons per day (gpd) according to NYCDEP, the municipal agency that operates the system.

The NYC potable water supply is treated with a variety for chemicals for various reasons, including fluoride added for dental hygiene. NYCDEP conducts regular water quality monitoring to check the levels of treated water and to document compliance with federal and state water quality regulations. The City does not filter its drinking water supply; however, under a consent decree with the US Environmental Protection Agency (EPA) and the NY State Department of Health it is constructing a filtration plant in Van Cortlandt Park in the Bronx to filter water from the Croton system. Currently, the City is not required and is not planning to filter water from the Catskill and Delaware systems.[1]

The Croton system collects water from watershed areas in Westchester and Putnam Counties and delivers it to the Jerome Park Reservoir in the Bronx. From there, it is distributed to the Bronx and Manhattan through the New Croton Aqueduct. The remaining two surface water systems, the Delaware and Catskill systems, collect water from watershed areas in the Catskill Mountains and deliver it to the Hillview Reservoir in Yonkers. From there, it is distributed to the City through three tunnels: City Water Tunnel No. 1, which goes through the Bronx and Manhattan; City Water Tunnel No. 2, which goes through the Bronx, Queens, and Brooklyn (and from there through the Richmond Tunnel to Staten Island); and City Water Tunnel No. 3, which currently serves the Bronx, upper Manhattan, and Roosevelt Island. The construction of City Water Tunnel No. 3 was begun in 1970 and is scheduled for completion in 2020. The addition of City Water Tunnel No. 3 is intended to improve the City's water supply while allowing for the inspection and repair of City Water Tunnels Nos. 1 and 2. The next phases of City Water Tunnel No. 3, currently under construction, are intended to provide service to Midtown Manhattan, Lower Manhattan, Brooklyn, and Queens. City Water Tunnel No. 3 is anticipated to be a supplemental water source and to provide redundancy and improve reliability of future water service delivery to these areas.

Within the City, a grid of pipes distributes water to consumers. Large mains—up to 96 inches in diameter—feed smaller mains, such as 8, 12 and 20-inch mains, that distribute water to individual locations. These mains also provide water to fire hydrants along many of the City's streets. Pressure regulators control water pressure throughout the City's water supply system.

[1] Ascher, Kate, *The Works: Anatomy of a City*, 2005.

City Water Tunnel No. 2 serves the primary water supply to the area surrounding the Project Site. The larger 20-inch mains feed the smaller 6-inch to 12-inch mains that currently exist in the area. Buildings drawing upon the water supply connect into the smaller distribution mains for their water needs.

Based on the available information received to date, the water infrastructure includes the following:

- 12-inch main is located in the north side of 31st Avenue with four fire hydrants located on the north side of the street, spaced approximately 300 feet apart. This water main was installed in 1990.
- 12-inch main is located perpendicular to 28th Avenue, approximately 470 feet west of Ulmer Street, which continues south to the former 30th Avenue. This water main was installed in 1960.
- 12-inch main is located in the west side of College Point Boulevard with six fire hydrants located on the east side, spaced approximately every 300 feet. This water main was installed in 1990. 20-inch main is located in the east side of College Point Boulevard, with six fire hydrants located on the east side, spaced approximately every 300 feet. This water main was installed in 1990.
- 8-inch main perpendicular to 31st Avenue, approximately 340 feet west of the Whitestone Expressway, which continues north to former 30th Avenue. This water main was installed in 1960.
- 12-inch main is located in the east side of Ulmer Street with fire hydrants located on the east side spaced approximately every 250 feet. This water main was installed in 1992.
- 12-inch main appears in NYCDEP records within the former Higgins Street, 30th Avenue, and 131st Street right-of-ways. NYCDEP indicated that this water main could be terminated and capped at the lot line between the adjacent church and the proposed Academy site. NYCDEP further advised that a hydrant would need to be installed at the point of termination (immediately before the cap) to facilitate flushing the service line in the future.

Additionally, there is evidence of a water main in 28th Avenue via the existing fire hydrants and valves, which are spaced approximately every 340 feet. Reportedly, the water main extends from College Point Boulevard to 28th Avenue and was installed in 1990 by NYCEDC. No information was available from NYCDEP with respect to this water main and the NYCDEP was not aware of its existence.

Water Consumption

The New York City water supply system provides approximately 1.3 to 1.4 billion gpd, with consumption reaching upwards to 1.5 billion gpd during the summer months. Because of the size of the water supply system, little variation in water pressure occurs from hour to hour, except within the local distribution network.

Project Site

As the Academy site is partially occupied by vacant land, partially occupied by at-grade parking for the College Point Tow Pound and partially occupied by vehicle service station, on-site water demand is very low. According to the *CEQR Technical Manual*, the current on-site water consumption is estimated at approximately 620 gpd at a conservative rate of 0.17 gpd/sq. ft. for both domestic and HVAC uses. The proposed development site does not generate a regular demand on the local water supply.

Sanitary Sewage

According to the *CEQR Technical Manual*, for assessment purposes, estimates of an area's daily sanitary sewage generation are typically equivalent to the domestic water usage rates. Wastewater from air conditioning systems is not included in the overall volumes used for analysis, as minimal

volumes of wastewater are generated from the re-circulation and evaporation processes involved in the air-cooling process.

New York City's sewer system consists of a grid of more than 6,000 miles of sewer pipes beneath the streets that send wastewater flows to 14 different treatment plants, known as "water pollution control plants," or "WPCPs," which have a combined capacity to treat a total of approximately 1.77 billion gallons of sewage per day. The areas served by each of these plants are called "drainage basins." For the most part, this system is not a "combined" sewer system (a NYCDEP operated and maintained system that carries both sanitary sewage and site storm water from buildings and stormwater collected in catch basins and storm drains). This area of the City, similar to Staten Island, predominantly operates with separate systems for sanitary sewage and stormwater. In addition, small areas of Staten Island, Brooklyn, and Queens use septic systems to dispose of sanitary sewage. Also, some developments in Staten Island use small privately owned and operated sewage treatment plants to treat sanitary sewage.

Sewers beneath the City's streets collect sewage from the buildings along the streets. Collection sewers can be one to two feet in diameter on side streets, and three or four feet in diameter under larger roadways. They connect to trunk sewers, generally five to seven feet in diameter, which bring the sewage to interceptor sewers. These large interceptor sewers (often up to 10 or 12 feet in diameter) bring the wastewater collected from the various smaller mains to the water pollution control plants for treatment.

Combined sewers collect both "dry-weather" wastewater (primarily sanitary sewage as well as wastewater from industries) and stormwater. During dry weather, combined sewers function as sanitary sewers, conveying all flows to the WPCPs for treatment. During wet weather, however, large volumes of rainfall runoff (10 to 50 times the dry-weather flow) can enter the system through catch basins along the City's streets. If this water were conveyed to local treatment plants, it would exceed their design capacity, as the plants are designed to handle only twice their average design dry-weather flow for limited periods. To avoid flooding the plants, "regulators" are built into the combined sewers to act as relief valves. These are chambers generally set to allow two times the average design dry-weather flow into the interceptor. During storms, if a greater amount of wastewater reaches the regulator, the excess is directed to outfalls into the nearest waterway (e.g., the Hudson River, East River, etc.). During such heavy storm periods, a portion of the sanitary sewage entering or already in the combined sewers discharges into the waterway along with the stormwater and debris washed from the streets. This untreated overflow is known as "combined sewer overflow," or "CSO." Combined sewer overflow is a concern because it contains oil and gasoline from street traffic, floating debris (also called "floatables," and usually consisting primarily of street litter), various pollutants from industrial facilities (both pollutants discharged into the sewer system and pollutants in the runoff from these facilities), and untreated sewage.

A typical combined sewer has regulators that divert the wastewater flow to interceptors, which deliver wastewater to the WPCP. The regulators are generally designed to allow two times the mean dry weather flow into the interceptor. Thus, in dry weather, all sewage from the trunk sewers flows into the interceptor. During storm events, twice the mean dry weather sewage is diverted to interceptors. Excess diluted combined flows divert to the CSOs, which discharge directly to adjacent waterways.

The proposed Academy site is located in the service area of the Tallman Island WPCP, located on Powell's Cover Road in the College Point neighborhood of Queens. The Tallman Island WPCP, which is currently undergoing an upgrade, serves a population of approximately 400,000 people in approximately 17,400 acres of the northeastern section of Queens. It provides secondary treatment of sanitary sewage, including: primary settling, aeration, final settling, and disinfection for a minimum of 1.5 times the design flow (120 mgd). In addition, the plant is required to provide primary treatment

(primary settling) and disinfection for the wastewater in excess of 120 mgd up to two times the design flow (160 mgd). The facility is undergoing upgrades to ensure continued compliance with permit limitations, to maintain a safe working environment for the future, and meet the recently mandated citywide nitrogen removal program.

The Tallman Island WPCP has a SPDES permitted capacity of 80 million gallons per day (mgd). SPDES permits are issued by NYSDEC. The average actual monthly flow rate at the plant for the latest 12 months of records available (May 2007 to April 2008) are shown in Table 8-1. As shown in the table, during this 12 month period the Tallman Island WPCP had an average flow of 58 mgd average dry weather flow, which is below the SPDES permit allowable limit. The plant handles greater volumes during storm events due to stormwater inflows to the plant.

The Tallman Island WPCP, as mentioned above, serves the northeast section of Queens in which the proposed Academy site is located. Tallman Island, along with three other nearby WPCP's, discharges into the upper East River. There are also numerous CSO locations in the vicinity of the proposed Academy site, which discharge into Flushing Bay (and ultimately the East River) during heavy rainstorms, which overload the local WPCP's.

TABLE 8-1: Monthly Average Daily Flows at the Tallman Island WPCP

Year	Month	Flow (mgd)
2007	May	53
	June	60
	July	62
	August	61
	September	53
	October	60
	November	55
	December	61
2008	January	57
	February	60
	March	59
	April	55
12-Month Average		**58**
SPDES Permitted Capacity		**80**
Source: NYCDEP		

The existing sanitary sewer infrastructure in the vicinity of the site is owned and operated by NYCDEP. There is a 50-foot wide permanent easement in Ulmer Street, adjacent to the site of the proposed Academy. Based on the available information received to date, the sanitary sewer infrastructure includes the following:

- 10-inch diameter Ductile Iron Pipe (DIP) sanitary sewer in the east side of College Point Boulevard, starting at a point 120 feet north of 31st Avenue, extending northerly to 28th Avenue.
- 7-foot by 7-foot Corrugated Metal Pipe (CMP) sanitary sewer is located in Ulmer Street.
- 12- to 18-inch diameter Extra Strength Vitrified Clay Pipe (ESVP) encased in concrete sanitary sewer is located in the center of 28th Avenue between College Point Boulevard and 129th Street.

- 38-inch by 24-inch sanitary sewer is located in the center of 28th Avenue between 129th Street and Ulmer Street that connects to the 7-foot by 7-foot sewer in Ulmer Street.
- 24-inch diameter DIP sanitary sewer is located in 31st Avenue starting at a point 150 feet east of College Point Boulevard, extending easterly to the Whitestone Expressway.
- 24-inch diameter sanitary sewer is located in the Whitestone Expressway that extends to the north and appears to terminate at Ulmer Street.
- 10-inch diameter sanitary sewer is located in College Point Boulevard between 123rd Street and 30th Avenue.
- A possible 8- and 12-inch sanitary sewer may be located 291 feet east of the site within a utility easement at the property line and Block 4362.

Stormwater Runoff

The proposed Academy site is currently served by a network of storm sewers. Stormwater runoff is collected in catch basins along the streets, and channeled to the storm sewer system. Adjacent storm sewers range in size from three to seven feet in diameter.

The existing stormwater drainage infrastructure in and around the site includes piped storm sewers as well as a drainage ditch that bifurcates the site. The drainage ditch is located in the middle of the project site and forms an inverted "L" shape, starting at the intersection of 28th Avenue and Ulmer Street and extending south to 31st Avenue. The drainage ditch flows west for 500 feet and then turns to the south and flows for another 1,100 feet to 31st Avenue. The ditch is approximately 50 feet wide by 1,600 feet long. Two internal road bridges, referred to as the northern bridge and southern bridge, cross over the ditch. The bridges separate the ditch into a northern section, a central section, and a southern section. The ditch contains open water with swatches of wetland vegetation along the edge of the ditch.

From the northeast corner of the site, twin 84-inch diameter storm sewers convey flow into the drainage ditch, and to the south, two 89-inch diameter storm sewers convey flow out of the drainage ditch. Water from the drainage ditch flows under 31st Avenue and then continues underground and crosses under College Point Boulevard until it discharges out to Flushing Bay/Flushing Creek, just south of the College Point Boulevard bridge which is located approximately 700 feet south of the site. Also in the south near the two 89-inch storm sewers, an 87-inch by 63-inch diameter storm sewer conveys flow into the drainage ditch from off-site areas. At the 90-degree bend at the northern section of the ditch, twin 64-inch by 43-inch diameter storm sewers, with an end section that merges the two pipes together, conveys flow into the drainage ditch from off-site areas.

The drainage ditch is a jurisdictional "Waters of the United States" under the USACE Section 10 and Section 404 programs, based on: the presence of wetlands determined by the occurrence of hydrophytic vegetation, hydric soils and wetland hydrology according to criteria established in the 1987 "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 that are either adjacent to or part of a tributary system; the presence of a defined water body (e.g. stream channel, lake, pond, river, etc.) which is part of a tributary system; and the fact that the location includes property below the ordinary high water mark, high tide line, or mean high water mark of a water body as determined by known gage data or by the presence of physical markings including, but not limited to, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter or debris or other characteristics of the surrounding area. As such, USACE concluded that there is one principal water area on the Project Site that is part of the tributary system, and is considered to be waters of the United States. It is also subject to the jurisdiction of the NYSDEC pursuant to 6NYCRR Part 608 – Protection of Waters.

The majority of the site is paved and slopes towards the existing drainage ditch located within the site. It appears that the stormwater runoff from the site is discharged via piped and overland flow into the drainage ditch.

Based on the available information received to date, the non-ditch related storm infrastructure owned and operated by the NYCDEP includes the following:

- 57-inch by 38-inch, 68-inch by 43-inch, and 87-inch by 63-inch storm sewer in College Point Boulevard with catch basins; a 42-inch storm sewer in 30th Avenue connecting to an 87-inch by 63-inch storm sewer in College Point Boulevard; 87-inch by 63-inch storm sewer continues south to 31st Street then continues east on 31st Street via a 63-inch by 87-inch diameter CIP storm sewer into the southern section of the drainage ditch.
- 36-inch diameter storm sewer is located in the south side of 31st Avenue from the Whitestone Expressway then connecting to the two 89-inch diameter storm sewer outflow pipes which discharges into the Flushing River.
- Dual 56-inch by 81-inch storm sewers drain the southern portion of the ditch, cross 31st Street and continue south to College Point Boulevard. The 56-inch by 81-inch dual storm sewer then continues southwest, crossing College Point Boulevard and then continues south where it discharges into the Flushing River.
- Catch basins and manholes are located in 28th Avenue and Ulmer Street; no storm sewer piping is shown on the survey; however, it is anticipated that storm sewers exist in this area.
- Dual 72-inch storm sewers cross under the 7-foot by 7-foot sanitary trunk sewer, which is located in Ulmer Street (also known as "the inverted siphon") at the intersection of 28th Avenue and Ulmer Street, then continues south and discharges into the northern section of the drainage ditch. An inverted siphon is a pipe that conducts water (storm effluent in this case) beneath a depression or other obstruction (sanitary sewer in this case) and operates under hydraulic head.
- 12-inch storm sewer collects street runoff from Ulmer Street and 28th Avenue and then crosses over the 7-foot by 7-foot sanitary trunk sewer at the intersection of 28th Avenue and Ulmer Street and discharges into the northern section of the ditch.
- 60-inch storm sewer runs down the center of former 129th Street perpendicular to 28th Avenue. The sewer then connects to a 72-inch CMP storm sewer which continues 170 feet east on 28th Avenue until it takes a 90 degree turn and discharges into the bend at the northern section of the ditch.
- 15-inch storm sewer starting approximately 73 feet east of the first bridge crossing at the drainage ditch and continues approximately 261 feet east to the manhole junction. From the manhole junction, the sewer becomes a 24-inch storm sewer and continues in a southerly course.

As with demand for potable water, the proposed Academy site is not currently generating large wastewater flows, though it is predominantly covered by a paved parking lot or buildings, both impermeable surfaces. The drainage ditch and the immediate areas along the upper banks are the only areas of the site that can be identified as permeable surfaces. The drainage ditch, described above, receives much of the runoff from the on-site paved lots and also receives stormwater flows from adjacent upland areas.

Current Capital Projects

As mentioned above the New York City DEP intends to upgrade the Tallman Island WPCP. The upgrades intend to meet the following objectives[1]:

[1] Tallman Island TI-2/TI-3 Water Pollution Control Plant – Plant Upgrade EAS, February 2006. Prepared for NYCDEP by BBL, Inc. and TAMS Consultants, Inc.

- Ensure that the Tallman Island WPCP can treat incoming wastewater flow through primary treatment and disinfection during wet-weather at twice the design dry weather flow (160 mgd) while meeting the mandated treatment efficiencies.
- Ensure that at least 150 percent (120 mgd) of the mean design dry weather flow can be processed through the secondary treatment facilities.
- Prevent flooding nuisances to the adjoining neighborhood.
- Increase the reliability and efficiency of the various process systems.
- Improve the reliability and economics of the sludge treatment system.
- Improve instrumentation and process control.
- Provide facilities and treatment modifications to provide step-feed Biological Nutrient Removal (BNR).

The overall purpose of the Tallman Island plant upgrade program is to provide more efficient and reliable wastewater treatment and ensure compliance with the SPDES permit criteria.

Sewer and water pipe repair and replacement is commonly coordinated with major roadway reconstruction, as reconstruction activities are generally coordinated with the various utilities located beneath the roadway to avoid the inconvenience and expense of repeated street excavation. No upgrades are ongoing in the immediate area.

C. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD)

As mentioned in Chapter 1, "Project Description," the Project Site includes a City-owned vehicle service station (the City holds a month-to-month lease with the service station), a City-owned strip of vacant land that is located between the Tow Pound and College Point Boulevard, and the balance of the Site is comprised of the northern portion of the NYPD's College Point Tow Pound. All of the vehicles, motorcycles and parts currently located on the College Point Tow Pound site will be relocated to other City-owned sites as the City reorganizes its citywide operations. Additionally, the City would likely continue the month-to-month lease that it currently holds with the vehicle service station at the northwest corner of the proposed Academy site. As such, under the No-Build condition, the water consumption and sewage generation would therefore be slightly lower than the rates under existing conditions.

As noted above, NYCDEP is currently upgrading the Tallman Island WPCP to provide more efficient and reliable wastewater treatment and ensure compliance with the SPDES permit criteria.

D. THE FUTURE WITH THE PROPOSED ACTION (BUILD)

The Proposed Action would not require improvements to existing water and sewer infrastructure. However, multiple service connections would need to be made to the existing infrastructure. Additionally, new water consumption demands and sewage generation would result from proposed Academy uses. Compared to the No-Build Condition, the Proposed Action would result in approximately 2.4 million gsf of uses, including: indoor training facilities, classrooms, administrative space, indoor pistol ranges, a tactical village, an indoor track, a police museum, a drivers training course, a visiting police/lecturer housing facility, and an above-grade parking facility which would accommodate the anticipated parking demand on-site.

Water System

The *CEQR Technical Manual* has established the general threshold for demand on the City's water supply systems of one million gallons of water per day. An increase of demand of less than this threshold is not considered to result in a significant adverse impact on the City's water system. If an increase in water demand is projected to exceed this threshold, a detailed analysis of the City's ability to supply water to a project site is required.

The expected water demand for the proposed development is provided below, and is based on the types of uses that are proposed for the site. As per the *CEQR Technical Manual* guidelines (Table 3L-2 of the *CEQR Technical Manual*, "Water Usage and Sewage Generation Rates for Use in Impact Assessment"), office uses are expected to create a demand for domestic water at a rate of 25 gpd per worker; education uses are expected to have a demand of approximately 30 gpd per student; food service is expected to create a demand of approximately 10 gpd per meal; the proposed visiting officer/lecturer facility, expected to operate similar to a hotel, is expected to create a demand for approximately 150 gpd per room per occupant; the assembly space is expected to create a demand of 0.17 gpd/sq. ft.; and the service areas are expected to create a demand of 0.17 gpd/sq. ft. As such, under Build conditions the proposed development would accommodate up to 6,000 recruits, in-service officers, instructors, and other employees, which would generate a domestic water demand of up to approximately 347,000 gpd. The proposed development would also create an additional demand of 0.10 gpd (for education, lodging, and office areas) to 0.17 gpd (for food service, assembly, and service areas) per square foot of building area for air conditioning systems according to CEQR guidelines. As such, it is estimated that the proposed Academy would utilize an additional approximately 220,000 gpd of water for air conditioning. Therefore, at maximum population, the proposed development would generate a total water demand of approximately 567,000 gpd. As the proposed Academy's generated water demand would be below the CEQR impact threshold of one million gpd of water, the Proposed Action is not expected to adversely affect the City's water supply or local water pressure.

Compared to the average daily water demand in New York City of about 1.3 billion gpd, the maximum increase in water demand resulting from the proposed Academy represents less than 0.01 percent of the City's total daily consumption, which is an insignificant increase. The water supply system has adequate capacity to support the proposed development and would not experience a significant adverse impact.

In addition, multiple service connections would be required from the adjoining streets to provide domestic water and fire protection for the development. Based on the existing infrastructure and preliminary site layout, connections to 28th Avenue and College Point Boulevard seem to be most feasible. New connections to the 12-inch main which, is located in the east side of Ulmer Street would be fairly complicated as the connection would need to cross the existing 7-foot by 7-foot sanitary sewer.

As described above, the water main in the former 131st Street right-of-way would be extinguished in a related, non-ULURP action. As part of the proposed Academy project, the existing water main would need to be terminated (capped) at the lot line between the proposed Police Academy site and church properties. The NYCDEP indicated that a hydrant would need to be installed at the point of termination (immediately before the cap) to facilitate flushing the service line in the future.

No additional improvements or changes to the existing water infrastructure are anticipated based on the survey and record mapping information.

Sanitary Sewage

The estimated sanitary sewer generation for the proposed development would be the same as the estimated domestic water demand (excluding air conditioning demand). Typical day-to-day operations at the proposed development would generate approximately 347,000 gallons of sanitary sewage. This generation rate represent less than one tenth of a percent of the SPEDES permitted flow of 80 mgd to the Tallman Island WPCP, and are considered to be insignificant increases. The Proposed Action would not have a significant adverse impact on the Tallman Island WPCP's ability to properly treat and discharge sanitary sewage.

Improvements to the existing sanitary sewer infrastructure around the proposed Academy site are not anticipated. It should be noted that NYCDEP would not permit direct connections to the 7-foot by 7-foot sanitary sewer in Ulmer Street. Also note that a new connection to the 10-inch sanitary sewer in the west side of College Point Boulevard would be very complicated and potentially not feasible due to the existing and adjacent 57-inch by 38-inch storm sewer. As such, connection would most likely be made to the existing infrastructure in 28th Avenue and College Point Boulevard.

The proposed development would not exceed the capacity of the local sewer system, and is not expected to result in significant adverse impacts on the City's existing sewer system.

Stormwater Runoff

The proposed Academy would decrease the amount of paved area on the proposed development site resulting in approximately 1,089,000 sq. ft. (25 acres) of building roof area, internal circulation, and associated impervious areas, and approximately 461,000 sq. ft. (10 acres) of pervious area, including the landscaped buffers, the courtyard, the drainage structure and upland areas, and green roofs. As part of the LEED Silver certification for the project, it is expected that the proposed Academy site would retain and/or detain stormwater on-site, as described below.

Due to the extensive site work that would be required in conjunction with the environmental remediation and foundation construction, all existing outfalls that discharge site runoff to the drainage ditch would be removed. Construction of the proposed Academy would also result in the reconfiguration of the existing on-site stormwater outfalls to the detention ditch so that stormwater would be managed more efficiently.

The project's stormwater management approach has been aimed at preventing untreated stormwater from running off the site by encouraging infiltration or collection/treatment for all stormwater before it leaves the site. Several techniques for managing stormwater are being considered, including:

- Stormwater falling on ground surfaces would be directed towards pervious surfaces (e.g., permeable pavement, open grid paving) or vegetated areas (e.g., bioswales, rain gardens, etc.) for slow infiltration into the water table or into cisterns for reuse.
- Stormwater falling on roof surfaces would be "harvested" by capturing, collecting and storing rainwater.
- A green roof is proposed on the proposed tactical village and on the dining hall/central services area at the southeast portion of the proposed Academy site to help reduce site storm water runoff.

During large storm events, these approaches would not only provide stormwater treatment but also manage stormwater runoff and provide a longer detention time than the existing conditions, which is sheetflow over asphalt.

Furthermore, it is expected that water quality improvement measures would be provided on-site to help improve the water quality of the storm flow exiting the site, including the use of hydrodynamic separators or similar measure for removing suspended solids. The proposed water quality treatment units would treat the incoming stormwater before it enters the drainage ditch, which would decrease the opaqueness of the existing water, reduce the risk of odor, and contribute to the health of the proposed landscaping.

Currently no off-site improvements are required to the storm sewer infrastructure to accommodate the proposed Academy. However, potential improvements to the drainage ditch may be required, depending on the details of the final design.

The proposed Academy would be designed in accordance with a Stormwater Pollution Prevention Plan (SWPPP) in order to minimize potential water drainage effects associated with the discharge of stormwater during and after completion of construction activities. The SWPPP would incorporate stormwater management practices (SMP's) consistent with the SPDES General Permit for Construction Activities (GP-02-01) and with the New York State Stormwater Management Design Manual. All runoff would be in accordance with design parameters established for the NYCDEP Amended Drainage Plan or Drainage Proposal for this project. Therefore, as outlined above, the proposed Academy would lessen the site's burden on the Queens sewer infrastructure, as compared to Existing and No-Build conditions, by reducing the rate and quantity of stormwater.

Tide Gate Replacement / Improvements to the Drainage Ditch

Under the Proposed Action, the drainage ditch would continue draining the adjacent neighborhood and upstream areas, serving as a stormwater facility for on-site stormwater run-off, and controlling tidal waters from flooding areas north of the Project Site. Improvements to the banks of the drainage ditch are proposed for structural and aesthetic purposes. The banks would be re-graded and re-stabilized and non-invasive trees and shrubs would be planted along the banks for both aesthetic purposes and to provide additional soil stabilization.

The project team is considering the possibility of removing and replacing the existing crossings and the tide gates. Under the Proposed Action a new tide gate structure may be upgraded and replaced in its current location. The new tide gate structure would continue to allow flow from the upstream areas to drain to Flushing Bay during times of heavy precipitation and prevent tidal surges from traveling up the ditch and flooding the wetlands that are located on the former Flushing Airport site.

The southern crossover bridge may be replaced by a new pile supported bridge, which would be constructed in relatively the same location as the existing crossing. The northern bridge crossover may be replaced with a pedestrian walkway structure just south of the existing crossing. The existing, attached 72-inch culverts would be removed and would not be replaced. A new tide gate structure would be constructed at its current location if a new pile supported bridge were constructed.

Maintenance responsibilities in the drainage ditch would include water quality treatment systems needed to improve the water quality in the drainage ditch. The proposed water quality treatment units would treat the incoming stormwater before entering the drainage ditch, which would decrease the opaqueness of the existing water, reduce the risk of odor, and contribute to the health of the proposed landscaping. As mentioned above, in the Future with the Proposed Action, the proposed design includes the replacement of the flex valve tidal gates to help facilitate water flow into the Flushing River/Flushing Bay, which often restricts downstream flows at low tide in existing conditions.

Freshwater draining from the former Flushing Airport site and stormwater entering from offsite sources carries suspended silt, organic matter and other contaminants. Further, the water temperature

of the run-off from the areas north of the Project Site is higher because it flows from shallow waterbodies at the former Flushing Airport site and the "V-shaped" drainage pond to northeast of the Project Site, and paved surfaces of onsite parking lots. As a result, the warm, nutrient rich and stagnant water becomes a prime host for algae blooms, which in turn leads to oxygen-depleted water, which appears opaque and brown in color. Different landscaping planting zones would be introduced on the upland sections of the drainage ditch to offer more variety in wetland plant materials than existing conditions.

Under the current conditions, the drainage ditch often gives off unwanted odors. The source of unwanted odors is two-fold: in the tidal portion of the drainage ditch, the twice-per-day low tide occurrence can expose the drainage ditch bed, which releases a sulphurous, odor; while in the freshwater non-tidal portion of the drainage ditch, water tends to stagnate, fostering algal growth and releasing associated odors. The proposed replacement of the tide gates would improve water flow, and the sources of sediment, contamination, and the nutrient inflow into the freshwater drainage ditch would be reduced or managed by proposed water quality systems.

E. CONCLUSION

The Proposed Action would not result in significant adverse impacts on existing infrastructure systems. The existing city infrastructure has sufficient capacity to accommodate the proposed Academy without having a significant adverse impact on other users.

The proposed Academy is expected to generate a maximum demand of 567,000 gpd of water when it is operating at full capacity. As this is well below the CEQR impact threshold of one million gallons of water per day, the proposed Academy is not expected to overburden the city's water supply system, and would not result in a significant adverse impact to the city's water supply or water pressure.

When the proposed development is operating at full capacity, the Tallman Island WPCP would receive up to approximately 347,000 gpd of additional sanitary sewage, which represents less than one tenth of one percent of the plant's treatment capacity. Consequently, there would be adequate treatment capacity at the Tallman Island WPCP to handle the increased sanitary flows from the proposed Academy, and the Proposed Action would not result in a significant adverse impact to the City's sanitary sewer system.

As described above, to reduce stormwater generation and/or provide increased water quality treatment, green roof and bioswale features would be provided on-site. This would reduce the amount of stormwater that the proposed development would discharge into the on-site drainage ditch. The stormwater discharges are not expected to have a significant adverse impact on the sewer system or on the water quality of the Flushing Creek. As compared to existing and No-Build conditions, the proposed project would represent significant stormwater management improvements.

A. INTRODUCTION

According to the *City Environmental Quality Review (CEQR) Technical Manual*, actions involving construction of housing or other development generally do not require evaluation for solid waste impacts unless they are unusually large (a generation rate of less than 10,000 pounds per week, for example, is not considered large). Compliance with applicable requirements generally eliminates possible significant adverse impacts. In accordance with these guidelines, this chapter analyzes the effects of the Proposed Action and subsequent development on solid waste and sanitation services. The results of the analysis indicate that the Proposed Action would not result in significant adverse impacts to existing solid waste and sanitation disposal services.

As discussed in Chapter 1, "Project Description," the Proposed Action would facilitate the construction of a modern complex, to be operated by the NYPD, which would consolidate in one-campus facilities for civilians, recruits, and active police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet and would include indoor physical training facilities, classrooms and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a paid student/guest lecturer housing facility and an above-grade parking facility to accommodate on-site parking demand ("proposed development").

In order to determine whether the Proposed Action conforms to the City's Comprehensive Solid Waste Management Plan (SWMP), a quantitative assessment was conducted. This entails the calculation of the existing solid waste generation on the proposed development site, as well as a comparison of equivalent calculations in the future with and without the Proposed Action.

B. EXISTING CONDITIONS

Description of Current Sanitation Services

In New York City, the Department of Sanitation (DSNY) is the agency responsible for the collection and disposal of solid waste and recyclable materials generated by residences, some nonprofit institutions, tax-exempt properties, and City agencies (including the Tow Pound portion of the Project Site). DSNY also collects waste from street litter baskets, and handles street-sweeping operations and lot cleaning activities. Private carters handle solid waste from other uses, e.g., commercial retail, office, and industrial operations. Fresh Kills Landfill, which was New York City's last operating landfill, was officially closed in March 2001. DSNY continues to collect residential and institutional solid waste and recyclables (the municipal waste stream), which are now transported out of the City. Currently, most of the City's municipal solid waste is collected and delivered to transfer stations for sorting and transfer to larger "hopper" trucks, and then transported out of the City. Likewise, municipal solid waste from the project area is collected and trucked via transfer stations to out-of-State landfills and waste-to-energy facilities. Private carters also consolidate solid waste from commercial and industrial operations and haul it to waste transfer facilities both inside and outside New York City, where it is then transported to out-of-City disposal facilities. It is estimated that DSNY collects more than 12,000 tons of residential and institutional refuse and recyclables (solid waste) per day. It is also estimated that the non-residential (commercial/industrial) waste stream is approximately 13,000 tons

per day (tpd). The total solid waste generated in the City, therefore, averages approximately 25,000 tpd.

The City's solid waste management services are undertaken in accordance with the City's SWMP. The DSNY developed a new Draft SWMP in October 2004 to address anticipated future demands for solid waste management for the City. The Draft SWMP was subsequently revised in July 2006 and approved by the New York City Council on July 19, 2006. The new SWMP is effective for the next 20 years and is expected to be fully operational by the end of 2009. The new SWMP addresses and recognizes the interdependency of the systems for managing recycling, residential waste, and commercial waste. The new SWMP introduces a shift from the current mode of truck-based export to export by barge and/or rail. The City intends to commit to a long-term (20-year) contract with the Hugo Neu Corporation for the processing and marketing of metal, glass, and plastic (MGP). An MGP processing facility will be developed in the City at the 30th Street Pier in South Brooklyn Marine Terminal. The plant will be barge-fed from Hugo Neu Corporation sites in Queens and the Bronx and a potential DSNY location in Manhattan.

The new SWMP includes a Long-Term Export Program for waste handled by the DSNY. The City's Long- Term Export Program is anticipated to be implemented through: (1) the development of four new converted marine transfer stations (MTS); (2) the award of up to five contracts with private transfer stations for barge or rail export of DSNY-managed waste for disposal; and (3) an intergovernmental agreement to dispose of a portion of Manhattan's DSNY-managed waste at a Port Authority waste-to-energy facility in New Jersey. Solid waste would be consolidated, containerized, and barged or railed out of the City from the converted MTSs or the five existing private transfer stations. The barges currently used at MTS facilities will be replaced or retrofitted with new sealed containers or "intermodal containers" capable of being transported on barge or rail. The four converted MTS facilities will be designed to each process up to 4,290 tons per day and accommodate 30 collection vehicles per hour. In the interim, all municipal solid waste will be trucked out of the City.

Local Law 19 of 1989 requires that DSNY and private carters collect recyclable materials and deliver them to material recovery facilities. New York City residents are required to separate aluminum foil, glass, plastic and metal containers, and newspapers and other paper wastes from household waste for separate collection. The SWMP also mandates that commercial and industrial establishments be subject to recycling requirements. Businesses must source-separate certain types of paper wastes, cardboard, metal items, and construction wastes. Food and beverage establishments must recycle metal, glass, and plastic containers, and aluminum foil, in addition to meeting the commercial recycling requirements.

The proposed Police Academy site is located within the DSNY service area covering Queens Community District 7, and the Proposed Action is only expected to affect municipal solid waste services in this service area. DSNY trucks serving this service area are housed and maintained at a garage located at 120-15 31st Avenue between College Point Boulevard and 122nd Street, less than a quarter mile west of the Site.

Under existing conditions, the 35-acre Academy Site is essentially comprised of three distinct areas: the northern portion of the College Point Tow Pound, the auto repair shop at the southeast corner of 28th Avenue and College Point Boulevard, and the vacant strip of property on the eastern side of College Point Boulevard between 28th Avenue and 31st Avenue. These three components of the Site generate a negligible amount of solid waste compared to the capacity of the system. A private carter services the auto repair shop. The western portion of the site is entirely un-built and vacant and generates no solid waste. The balance of the Site, consisting of the NYPD's College Point Tow Pound, generates a very small amount of municipal waste, as the intake/central services/administrative building is located outside of the proposed Site boundaries. The second Tow Pound building, located

at the northeastern corner of the Site, is only utilized during auction activities and does not have a fulltime staff. As such, this outlying building is not a significant source of solid waste generation. All of the on-site vehicles are stored, on a temporary basis, at the College Point Tow Pound and generate no municipal wastes. Therefore, a private carter collects the negligible waste generated by the service station portion of the Site; DSNY collects the waste generated at the Tow Pound.

C. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITION)

The changes to the solid waste handling system mandated by the new SWMP are described above. As mentioned in the Project Description, the College Point Tow Pound property would be vacated in the future without the proposed action as the NYPD consolidates its vehicle impound operations. The Tow Pound portion of the proposed development site is not expected to be redeveloped in the absence of the Proposed Action. However, it is expected that the service station could potentially continue to function in its present capacity if the Academy were not constructed at the currently proposed location. It is expected that the City would extend the service station's current lease on a month-to-month basis. As such, it is assumed that the volumes of solid waste generated at the Site would reduce under future No-Build conditions. Private carters would continue to provide sanitation services to the vehicle service station.

D. THE FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

The Proposed Action and subsequent public facility development would increase the volume of solid waste generation at the site. The proposed development would be required to comply with the City's recycling program. This includes source separation of solid waste in conformance with City recycling regulations and state solid waste laws. Materials to be separated include paper, cardboard, metal, glass, and certain plastics, all of which reduces stream of wastes to landfills. To be conservative, the following analysis does not include that reduction.

As described in Chapter 1, "Project Description," the Proposed Action would facilitate the construction of a modern complex, to be operated by the NYPD, which would consolidate in one-campus facilities for civilians, recruits, and active police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking garage of approximately 1,800 spaces. On a typical day, the proposed development is expected to have a maximum population of approximately 5,500 people. The facility would be staffed on a 24-hour basis, though the second and third shifts would be the busiest and the overnight shift would consist primarily of service staff.

Table 9-1 provides solid waste projections for the proposed development under Build Conditions. These projections are based on the Citywide average rate for waste generation of a college, at a rate of one pound per week per pupil (includes in-service population); a hotel (similar to the proposed visiting guest facility), at a rate of 75 pounds per week per employee; and an office building, at a rate of 13 pounds per week per employee (includes all staff and instructors, as well as the museum population), all of which are listed in Table 3M-1 of the *CEQR Technical Manual*. As shown in Table 9-1, the typical day-to-day operations at the proposed development would generate approximately 32,900 pounds of solid waste per week (approximately 16.45 tons).

Table 9-1: Projected Solid Waste Generation on the Proposed Development Site in the Future With the Proposed Action (Weekly)

	2014 Build Condition			
	Recruits / Trainees [1]	**Employees / In-Service [2]**	**Visiting Police/Lecturer Facility [3]**	**Museum [4]**
Population	3,400	2,150	100 beds 20 employees	35 visitors 6 employees
Generation Rate (Pounds per week)	1 lbs/week per pupil	13 lbs/week per employee	75 lbs/week per employee	13 lbs/week per employee
Generation (Pounds per week)	3,400 lbs/week	27,950 lbs/week	1,500 lbs/week	78 lbs/week

Notes:

1 The recruit / trainee population was analyzed as an equivalent to the "College" rate described in Table 3M-1 of the CEQR Technical Manual.

2 The employee / in-service population was analyzed as an equivalent to the "Office Building" rate described in Table 3M-1 of the CEQR Technical Manual.

3 The visiting student population was analyzed as an equivalent to the "Hotel" rate described in Table 3M-1 of the CEQR Technical Manual. As such, the 75-pound per employee ratio was used. The visiting students were not double counted in the recruit / trainee population for the purposes of solid waste generation estimates.

4 The museum population was analyzed as an equivalent to the "Office Building" rate described in Table 3M-1 of the CEQR Technical Manual. As such, the 13-pound per employee ratio was used. The museum visitors were not counted in the museum population for the purposes of solid waste generation estimates.

Source: Rates from the *CEQR Technical Manual*, December 2001

Given that the proposed development is a public facility, it is expected that the DSNY would handle any generated waste. The proposed development is expected to generate a maximum of 16.45 tons of solid waste per week at maximum utilization. This represents only a very small percentage of the estimated 84,000 tons of refuse collected by the DSNY per week in the City. According to the *CEQR Technical Manual*, the typical DSNY collection truck carries approximately 12.5 tons of waste material. Under the typical day-to-day operations, the proposed development would be expected to generate solid waste equivalent to approximately 0.19-truck load per day (assuming a seven-day week). As such, the proposed development is not expected to burden the DSNY's solid waste handling services, nor would the Proposed Action have a significant adverse impact on the City's solid waste and sanitation services.

It is expected that the proposed development would be served by existing DSNY collection routes with the DSNY adjusting appropriate collection levels to meet the additional demand and adequately service the community. It should be noted that the students and staff of the proposed development would also be required to participate in the City's ongoing recycling program for paper, metals, and certain types of plastics, and glass, which would reduce the stream of waste generated. As mentioned above, the above analysis conservatively overestimates the waste generation as it does not include that reduction.

E. CONCLUSION

The Proposed Action is not expected to result in significant adverse solid waste impacts. Development pursuant to the Proposed Action would occur in an area that is currently served by DSNY trash and recycling pick-ups. The proposed action would not affect the delivery of these services, or place a significant burden on the City's solid waste management system. The proposed development would normally generate approximately 16.45 tons of solid waste per week under typical day-to-day operations.

Therefore, the increase in solid waste to be picked up by the DSNY is relatively small (a maximum of 2.35 tons per day assuming a 7-day week) when compared to the estimated 12,000 tons of residential and institutional refuse and recyclables collected by the DSNY per day. Therefore, it is concluded that in the future with the Proposed Action in 2014, there would be no significant adverse impacts on residential or commercial solid waste collection and disposal services, nor would the Proposed Action conflict with, or require any amendments to, the City's solid waste management objectives as stated in the SWMP.

A. INTRODUCTION

This chapter describes the effects that the Proposed Action may have on energy consumption. The proposed public facility development resulting from the Proposed Action would create new energy demands. The potential for impacts on these services is discussed below. As discussed in this chapter, although the proposed development would create new demands on energy, the additional demand is not expected to overburden the energy generation, transmission and distribution systems and would not be large enough to constitute significant adverse impacts on these services. All new structures requiring heating and cooling are subject to the New York State Energy Conservation Construction Code, which reflects State and City energy policy. Therefore, actions that would result in new construction would not create adverse energy impacts, and would not require a detailed energy assessment.

As discussed in Chapter 1, "Project Description," the Proposed Action would facilitate the construction of a modern police-training complex, to be operated by the NYPD, which would consolidate in one-campus facilities for civilians, recruits, and active police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet and would include indoor training facilities, classrooms and related support space, an indoor pistol range, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking garage consisting of approximately 1,800 spaces ("proposed development").

B. EXISTING CONDITIONS

The Energy Supply System

Consolidated Edison (Con Edison), along with other transmission companies, delivers electricity to New York City and almost all of Westchester County. The electricity is generated by a number of independent power companies as well as Con Edison. For the project site and its vicinity, NY Power Authority supplies electricity and Con Edison supplies natural gas.

The New York Power Authority (NYPA) is the governing authority responsible for overseeing power distribution across the state. The recent deregulation of the energy market across New York State has led to the transition of formerly government-regulated utilities to independently owned energy generators. As a result, Con Edison has sold many of its power generating facilities and is now primarily involved in energy distribution.

Electrical energy in New York City is supplied from a variety of sources that originate both within and outside the City. These sources include non-renewable sources such as oil, natural gas, and coal fuel, and renewable sources such as hydroelectric, and, to a much lesser extent, biomass fuels, solar, and wind power. New York City's electrical demands are met by a combination of sources including electricity generated within New York City, at locations across the Northeast, and from places as far away as Canada. Once electrical energy is generated as high voltage electrical power, a transmission grid conveys this power to New York City for distribution. An interconnected high voltage power grid extending across New York State and the Northeast allows for power to be imported from other

regions, as demand requires. Substations located throughout New York City convert high-voltage electrical power to low-voltage electrical power for distribution to end-users. Annual electric usage reaches almost 55 billion kilowatt hours (KWH) in Con Edison's overall service area. This is equivalent to approximately 188 trillion British Thermal Units (BTUs) and does not include the energy content in natural gas, steam, and other energy sources used in the City. A total of an estimated 50 billion kilowatt hours (KWH) or 170.75 trillion British Thermal Units (BTUs) of electricity are consumed in the City annually.

According to the New York Independent System Operator (NYISO) *Summer 2007* Electricity report, the peak electrical demand for New York City in Summer 2007 was 11,100 megawatts (MW).[1] Typically, electricity generated within the City is sufficient to satisfy demand. However, during the summer peak demand period, the transmission grid across the Northeast must supplement needed electricity. Con Edison's distribution grid has a finite capacity and during heavy demand periods, the transmission grid is strained. As a result, there is an ongoing service and distribution improvement program for Con Edison infrastructure, which upgrades localized areas that are continually high demand zones. Electricity required for these local "hot" zones is supplied by other zones in New York City, or from sources elsewhere within the larger grid, if necessary.

Con Edison distributes power throughout the City. Transmission substations receive electricity from the regional high voltage transmission system and reduce the voltage to a level that can be delivered to area substations. Area substations further reduce the voltage to a level that can be delivered to the distribution system, or street "grid." Within the grid, voltage is further reduced for delivery to customers. Each area substation serves one or more distinct geographic areas, called networks, which are isolated from the rest of the local distribution system. The purpose of the networks is that if one substation goes out of service the problem can be isolated to that network and not spread to other parts of the City. Substations are designed to have sufficient capacity for the network to grow. A number of power plants are located in the five boroughs, providing electric generation resources to New York City. According to NYISO's *Revised Locational Installed Capacity Requirements Study* for the 2006-2007 capability year, New York City has an existing installed generating capacity of 10,364 MW.[2]

National Grid Energy provides natural gas service to more than 1.1 million customers and operates more than 4,000 miles of gas mains in New York City. The company also owns and operates electrical generating plants on Long Island and within New York City, with a total generating capacity of more than 6,600 MW.

Con Edison's service area in Queens consists of about 108 square miles and includes approximately 2.3 million residents.

Energy Initiatives

In 2001, New York State began taking measures to address the increasing electrical power capacity needs of the metropolitan New York City region. NYISO implemented the Emergency Demand Response and the Day-Ahead Demand Bidding Programs to reduce utility electrical power demand during peak load periods. The New York State Governor's Executive Order No. 111 (EO 111) was introduced in June of 2001, directing state agencies, state authorities, and other affected entities to address energy efficiency, renewable energy, green building practices, and alternate fuel vehicles. EO 111 identified the New York State Energy Research and Development Authority (NYSERDA) as the organization responsible for coordinating and assisting agencies and other affected entities with their responsibilities. NYSERDA and the utilities have implemented programs to encourage businesses to

[1] New York Independent System Operator *Summer 2007 Electricity Review*, www.nyiso.com/

[2] NYISO *Revised Locational Installed Capacity Requirements Study Covering the New York Control Area For the 2006-2007 Capability Year*, March 28, 2006.

reduce energy usage and increase energy efficiency. In addition to the energy conservation techniques, NYPA constructed 11 new 44-MW, natural gas-fired, simple cycle turbine generating units, 10 of which are located within New York City, for emergency power generation (the other facility is on Long Island).

The independent, non-profit New York State Reliability Council (NYSRC) has determined that a minimum of 80 percent of the City's peak load must be provided by generating sources within the City to maintain compliance with the criteria established by the regional and national reliability councils. Currently, there is sufficient capacity within the City to meet this 80 percent local energy generation requirement. However, as energy demand increases over time, additional in-City generation may be needed.

Existing Demand at the Project Site

Existing uses at the site, including the northern portion of the on-site College Point Tow Pound and the vacant strip of City-owned land along College Point Boulevard, do not generate significant energy consumption. However, the existing vehicle service station at the northwest corner of the project site has existing energy consumption. In estimating the existing annual energy consumption at the vehicle service station, the rates provided in Table 3N-1 of the *CEQR Technical Manual* were utilized. One measure of energy is a BTU. One BTU is the quantity of heat required to raise the temperature of one pound of water by one degree Fahrenheit. This unit of measurement is often used to compare consumption of energy from different sources, taking into account how efficiently those sources are converted to energy. Use of BTUs allows for a common unit of measurement for different energy sources (e.g., horsepower, kwh, etc.) and consumption rates (e.g., tons per day, cubic feet per minute, etc.). One kilowatt (kw) is the equivalent of 3,413 BTUs per hour. Based on the rates of the *CEQR Technical Manual*, current annual energy use at the vehicle service station is estimated to be approximately 38,800 million BTUs, as shown in Table 10-1.

Table 10-1: Existing Energy Consumption on the Project Site

Existing Use	Sq. Ft. of Use	BTUs / Sq. Ft. / Year	Million BTUs / Year
Tow Pound (Garage)	1,306,800 [1]	27,400	35,806
Other [2] (Vehicle service station)	20,315	145,500	2,996
Total			**38,802**

Notes:
[1] Assumes approximately 30-acres for the northern portion of the Tow Pound.
[2] Includes miscellaneous auto uses

Source:
Table 3N-1 in the CEQR Technical manual for energy demand rates.

C. FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITION)

In the future without the Proposed Action, the northern portion of the NYPD's Tow Pound is assumed to be vacant as the Tow Pound would be closed and all vehicle relocated to other NYPD tow pound facilities throughout the City. The vehicle service facility located at 28th Avenue and College Point Boulevard could potentially continue in operation should the Academy not be constructed. Further, the vacant strip of land along College Point Boulevard is expected to remain vacant.

D. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

This section discloses the anticipated future demand for energy of the proposed development for the 2014 build year. The energy assessment applies *CEQR Technical Manual* methodology, using square footage figures of the proposed office building and accessory garage structure.

The proposed development, which would use electricity, natural gas and/or fuel oil for its HVAC systems, would create new energy demands at the project site. Electrical services to the proposed Police Academy would be serviced from existing infrastructure. The existing infrastructure would be extended up College Point Boulevard from the existing 27kV service in 31st Avenue to provide service for the site. Based on preliminary discussions with Con Edison, a minimum of two primary manholes would be required at the property line. Service would be extended from these manholes into the Site to a substation or multiple transformer vaults.

According to the *CEQR Technical* Manual, all new structures requiring heating and cooling are subject to the New York State Energy Conservation Construction Code (NYS ECC), which reflects state and city energy policy and takes into account any estimated amount of new construction that will occur over time. The NYS ECC governs performance requirements of heating, ventilation, and air-conditioning systems, as well as the exterior building envelope. The Code, instituted on January 1, 1979, pursuant to Article Eleven of the Energy Law of the State of New York, requires that new and recycled buildings (both public and private) must be designed to ensure adequate thermal resistance to heat loss and infiltration. In addition, it provides requirements for the design and selection of mechanical, electrical, and illumination systems. In compliance with NYS ECC, the basic designs would incorporate all required energy conservation measures, including meeting the NYS ECC requirements relating to energy efficiency and combined thermal transmittance. The current version of the NYS ECC is 2007, which was adopted on January 1, 2008.

The proposed development would incorporate measures to achieve Leadership in Energy and Environmental Design (LEED) certification—Silver rating at a minimum as per New York City Local Law 86—with a goal of a higher LEED rating where feasible and practicable. Green building design, or sustainable design, strives to reduce a building's impact on its occupants and the environment. Sustainable design integrates architectural elements and engineering systems to optimize performance of a proposed buildings and their interaction with the environment. The LEED rating system, developed by the non-profit U.S. Green Building Council, is a standard ensuring a high degree of environmental stewardship, considering energy efficiency, minimization of waste sent to landfills, and other sustainability best practices in building design and construction.

The New York Power Authority (NYPA) would supply electricity for the site. Consolidated Edison would supply gas, which would be used to provide heating, cooling, and lighting to the proposed Academy. Based on energy use index averages from standard reference tables provided in Table 3N-1 of the *CEQR Technical Manual*, the long-term operation of the proposed development is expected to consume about 138,680 million British Thermal Units (BTUs) per year (see Table 10-2, below). Consolidated Edison and NYPA could supply this energy without disruption to the main distribution system.

Table 10-2: Estimated Annual Energy Consumption of the Proposed Police Academy Development

Existing Use	Sq. Ft. of Use [1]	BTUs / Sq. Ft. / Year	Million BTUs / Year
Education [2]	425,300	76,400	32,493
Assembly	315,000	65,300	20,570
Food Service	80,000	113,800	9,104
Lodging	39,000	145,500	5,675
Office	172,300	77,900	13,422
Mercantile and Service[3]	727,752	55,800	40,609
Parking / Loading	613,400	27,400	16,807
TOTAL	**1,665,100**	**--**	**138,680**

Notes:
[1] Square footage is approximate, based on preliminary program analysis.
[2] Includes the proposed museum use, student support, and library.
[3] Includes firearms training, tactical village, and central services.

Source:
Table 3N-1 in the *CEQR Technical Manual* for energy demand rates.

The improvements in local connections that are necessary to provide these services to the proposed Academy would not adversely impact the local energy system. In addition, the Proposed Action would include a number of energy conservation measures, which would decrease overall energy demand on the Academy site. Therefore, no significant adverse energy impacts are expected from the proposed development.

A. INTRODUCTION

This chapter of the EIS describes the traffic and parking characteristics and potential impacts associated with the proposed Policy Academy, which is located on an approximately 35 acre site in College Point, Queens bounded generally by 28th Avenue to the north, Ulmer Street to the east, 31st Avenue to the south, and College Point Boulevard to the west (see Figure 1-1 in Chapter 1, "Project Description"). As described in detail in earlier chapters of this EIS, the proposed action would allow for the development of a modern complex that would consolidate on one campus the academic facilities for recruits, active police officers and civilians that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking facility of approximately 1,800 spaces.

The study area selected for the traffic analysis is shown in Figure 11-1 and was selected to encompass the principal roadways most likely to be used by the majority of persons and goods traveling by vehicle to and from the site. The traffic study area is generally bounded on the north by 20th Avenue, on the east by Ulmer Street, and on the west by College Point Boulevard. Fourteen intersections are analyzed for vehicular traffic for the weekday 6:00-7:00 AM and 3:00-4:00 PM peak hours, the periods when project-generated demand is expected to be heaviest. It should be noted that the transportation demand at the Academy has an early start, with turnover in the mid-afternoon for in-service training. The study area consists of 14 intersections, 11 are signalized and three are unsignalized. It should be noted that the intersection of Linden Place and 28th Avenue currently has no stop control, however in the 2014 No-Action condition it is expected to become stop controlled in conjunction with the Linden Place reconstruction project.

This chapter describes in detail the existing traffic and parking conditions in the study area. Future conditions in the year 2014 without the proposed action (the No-Action condition) are then determined, including additional transportation system demand and any changes in the roadways and parking supply expected by the year 2014. The increase in travel demand resulting from the proposed action is then projected and added to the No-Action condition to develop the 2014 future with the proposed action (the With-Action condition). Significant adverse impacts from project-generated trips are then identified.

B. EXISTING CONDITIONS

Data Collection

Manual turning movement counts were conducted at 14 locations in the College Point study area in May 2007, 12 intersections and two driveways. In addition, ATR (Automatic Traffic Recorder) counts were conducted at key locations along major roadway corridors. Vehicle classification counts and travel speed surveys were also conducted at that time, as were field surveys of parking regulations, lane configurations and other physical and operational characteristics of the street network. Three additional intersections identified during the scoping process were counted in May 2008. Weekday on-street parking utilization within quarter-mile of the proposed action area was also surveyed in May 2008. Signal timing plans for signalized intersections within the study area were obtained from the

New York City Department of Transportation (NYCDOT). Traffic data collected in 2007 and 2008 was combined together to the 2008 existing baseline network. Data collected 2007 was adjusted reflect an increase in background growth. Figures 11-2 and 11-3 show the 2008 base traffic volumes in the 6:00-7:00 AM and 3:00-4:00 PM peak hours, respectively.

Vehicular Traffic

Study Area Street Network

The project study area encompasses a large segment of the College Point Corporate Park. The area to the northwest of the project site is primarily residential, while all other areas contain a mix of light industrial, manufacturing, and commercial buildings. The street network is composed of north-south streets and east-west avenues. The Whitestone Expressway (I-687), which is to the south of the project site, is the major east-west artery. Generally, streets running north-south carry traffic to and from the Expressway, while east-west avenues primarily carry local traffic. The major arterials through College Point are College Point Boulevard, Linden Place and Ulmer Street. These streets are discussed more in detail below.

College Point Boulevard is the major north-south arterial along the western edge of the study area that typically operates with two travel lanes in each direction, with exclusive left turn lanes at the approaches. Parking is restricted along the east and west curbs during all periods of the day, Monday through Sunday. College Point Boulevard adjacent to the project site, carries approximately 900 vehicles per hour (vph) (two-way) and 1,000 vph in the AM and PM peaks hours, respectively. College Point Boulevard is a designated truck route and generally carries truck traffic ranging from 9 to 16 percent of the total vehicle volumes. One area of note along the corridor is the intersection of Roosevelt Avenue where the depressed tracks of NYC Transit's Flushing Line (the No. 7 train) divides the eastbound and westbound travel lanes of Roosevelt Avenue. As a result, two separate traffic signals control vehicular flow thought the intersection (north side-south side). The Q65 bus runs along College Point Boulevard with a typical frequency of 12 and 6 buses per hour during the AM and PM peak hours, respectively.

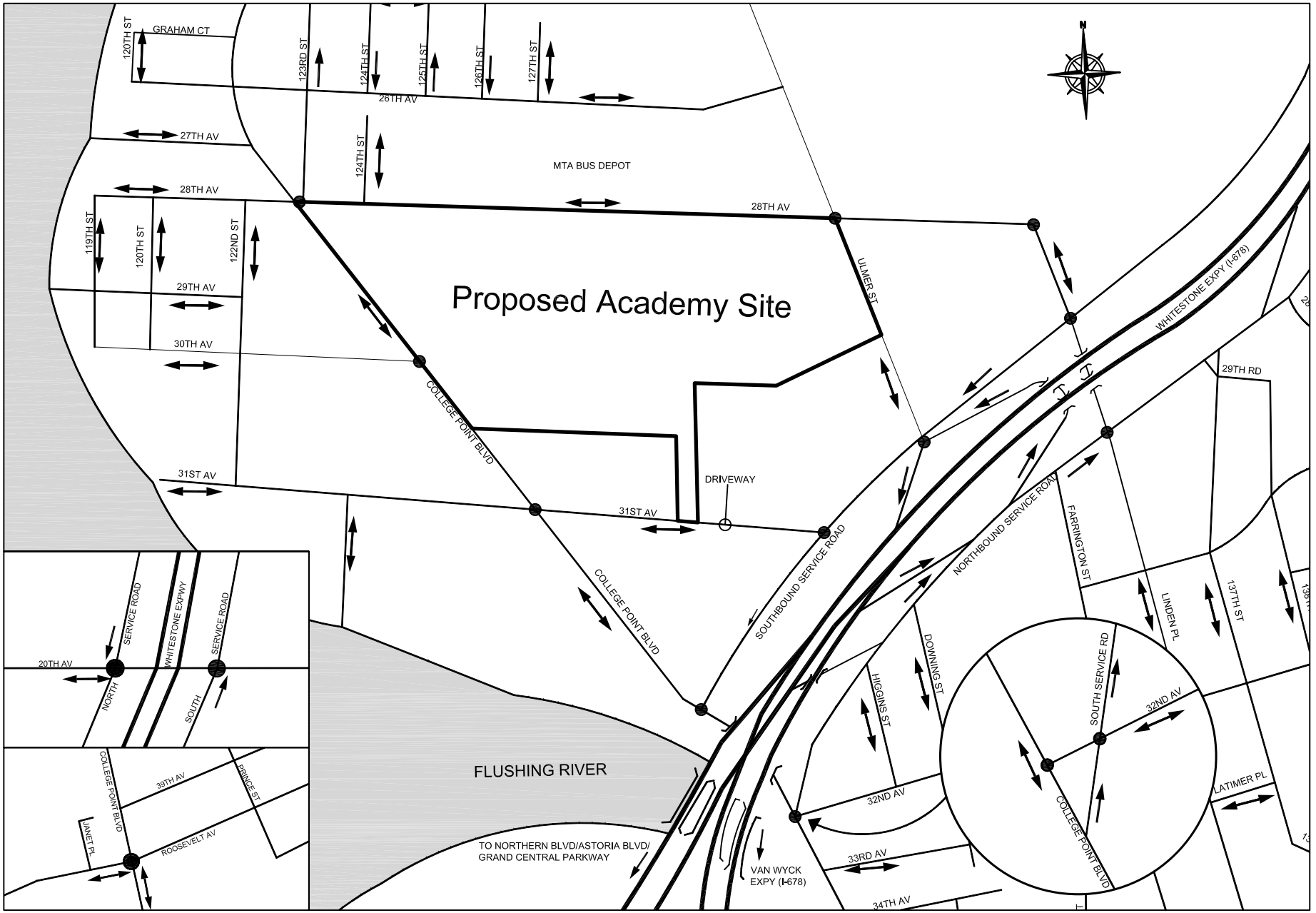
North-south Ulmer Street, bordering the project site on the east, operates with one moving lane in each direction and No-Standing regulations along both curbs, and terminates at the Southbound Whitestone Expressway Service Road. Two-way traffic volumes are approximately 850 and 900 vph in the AM and PM peak hours, respectively. Q25 buses operate on Ulmer Street within the study area, with 11 and 5 buses per hour during the AM and PM peak hours, respectively.

Linden Place runs north-south with one travel lane in each direction and No-Standing Anytime regulations posted along both the east and west curbs. This arterial primarily carries traffic between the Whitestone Expressway and Northern Boulevard. Traffic volumes are typically 1,050 and 850 vph in the AM and PM peak hours, respectively. Within the study area, Q25 buses operate along Linden Place, connecting with Ulmer Street via 28th Avenue.

The Whitestone Expressway (I-687) is an east-west limited access multi-lane highway with adjacent service roads. The expressway begins to the north at the Whitestone Bridge and terminates at the Van Wyck Expressway (I-678) interchange with the Grand Central Parkway. Within the study area, the Whitestone Expressway has interchanges at 20th Avenue and Linden Place. The Southbound Service Road carries traffic in the westbound direction with two travel lanes in the vicinity of the project site. Traffic volumes, east of Ulmer Street, were observed to be 600 and 450 vph in the AM and PM peak hours, respectively. The Northbound Service Road carries traffic in the eastbound direction with two travel lanes in the vicinity of the project site. Traffic volumes on the service road east of Linden Place were observed to be 1,400 and 800 vph in the AM and PM hours, respectively.

Figure 11-1

Traffic Study Area

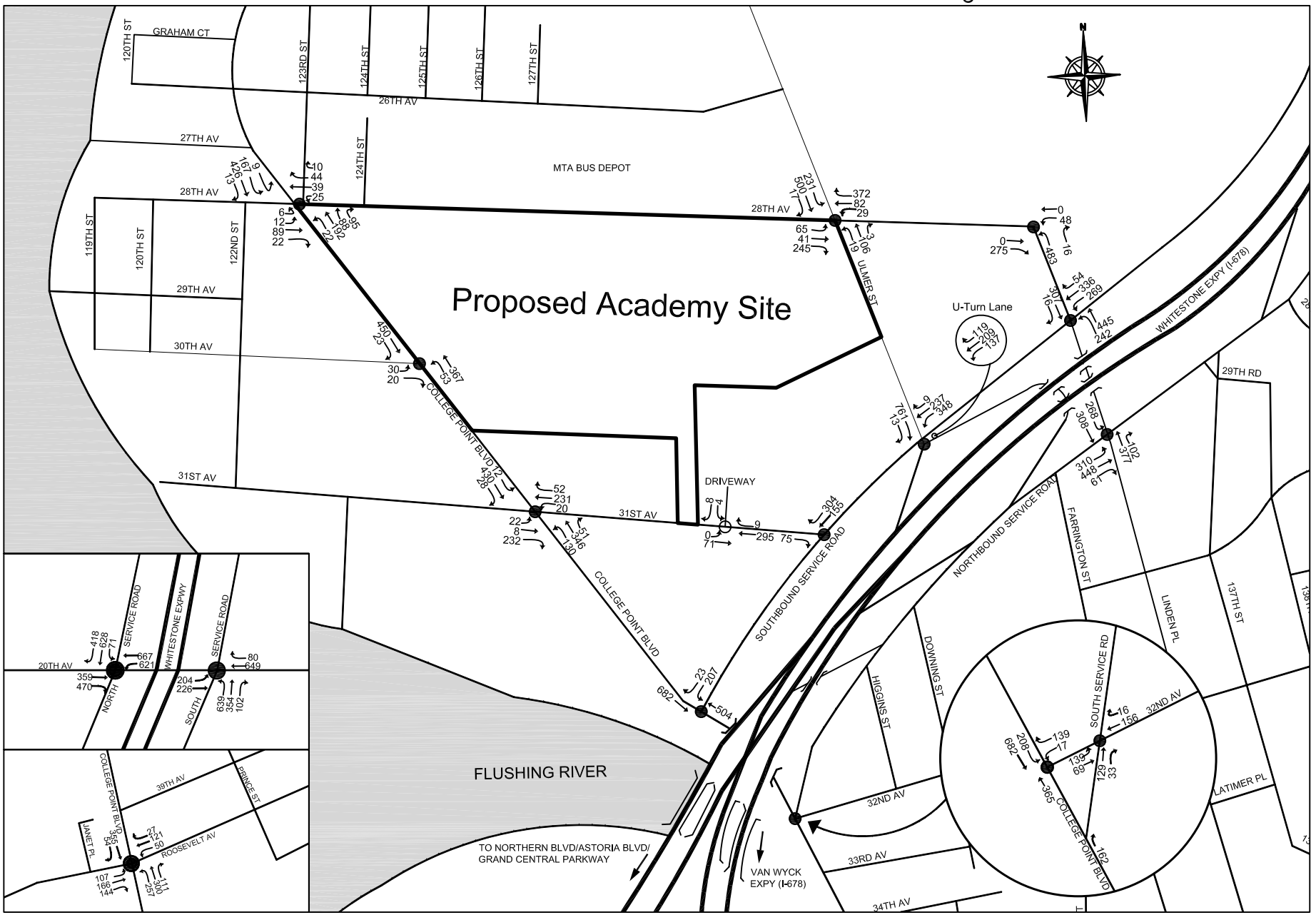


Legend:

● - Analyzed Intersection ⟷ - Street Direction

Not to Scale

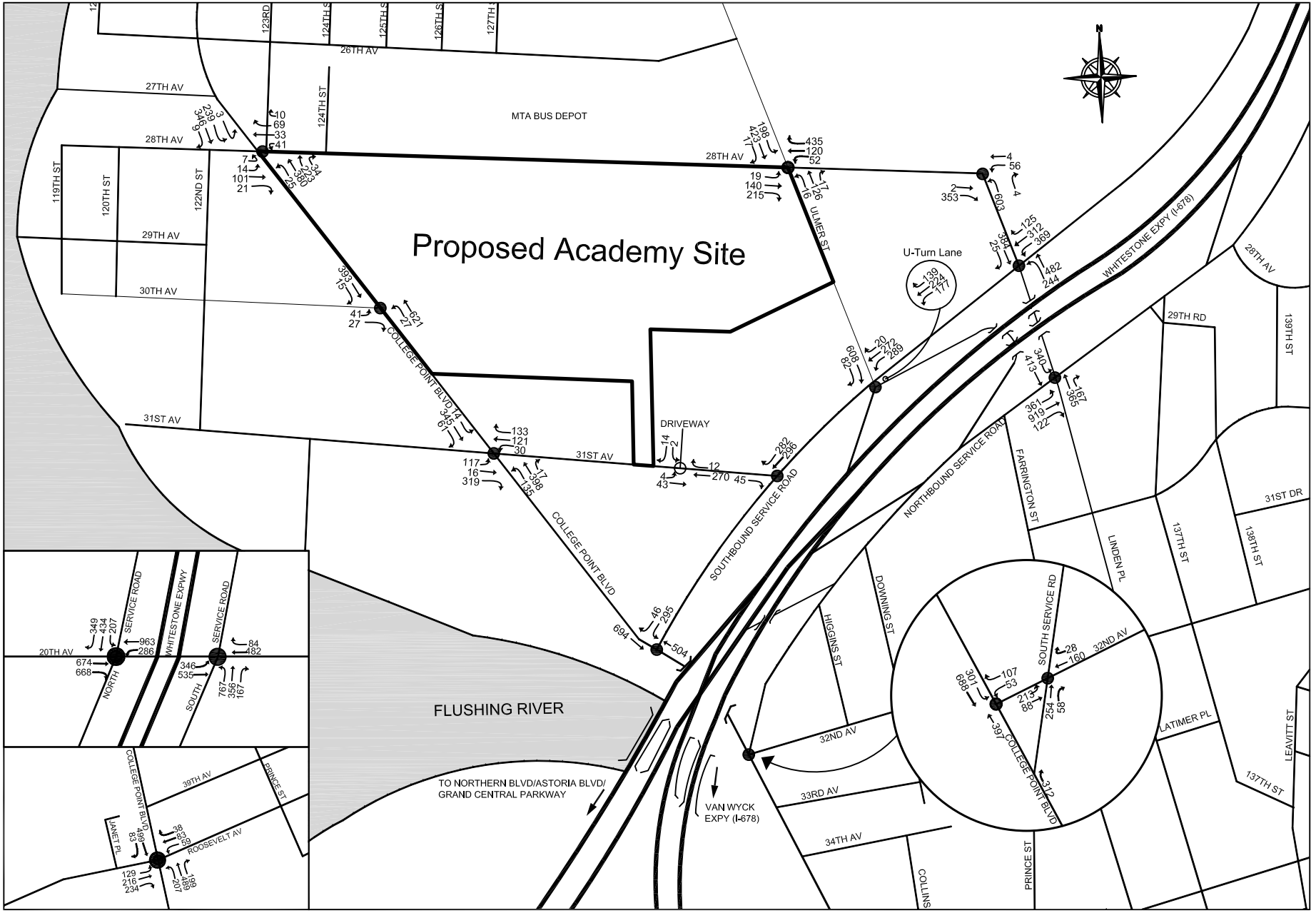
2008 Existing AM Peak Hour Traffic Volumes



Legend:
● - Analyzed Intersection

Not to Scale

2008 Existing PM Peak Hour Traffic Volumes



Legend:
● - Analyzed Intersection

Not to Scale

A location of note is the intersection of the Southbound Service Road and Ulmer Street. This intersection has a total of three approaches, each of which is controlled by its own separate signal phase. In addition to the southbound Ulmer Street and westbound Southbound Service Road approaches, drivers on the Northbound Service Road wishing to travel westward can utilize a U-turn and underpass beneath the Whitestone Expressway to reach the Southbound Service Road.

The entrance to the existing NYPD tow pound is located on the mid-block of Ulmer Street between 28th Avenue and Southbound Service Road. Traffic volumes were observed to be light with one or less vehicles per hour accessing the site during the AM 6-7 and 3-4 PM peak hours.

Intersection Capacity Analyses

Methodology

The capacity analyses at study area intersections are based on the methodology presented in the *Highway Capacity Manual (HCM) Software HCS+ Release 5.3*. Traffic data required for these analyses include volumes on each approach and various other physical and operational characteristics. As previously discussed, traffic volumes used for these analyses are based on manual turning movement and ATR counts conducted in May 2007 and May 2008. Signal timing plans for each signalized intersection were obtained from NYCDOT. Field inventories were conducted to document curbside parking regulations, vehicle classifications, shared lane usage, and other relevant characteristics needed for the analysis.

The HCM methodology provides a volume-to-capacity (v/c) ratio for each signalized intersection approach. The v/c ratio represents the ratio of traffic volumes on an approach to the approach's carrying capacity. A ratio of less than 0.90 is generally considered to be non-congested conditions in dense urban areas; when higher than this value, congestion increases. At a v/c ratio of between 0.95 and 1.0, near-capacity conditions are reached and delays can become substantial. Ratios of greater than 1.0 indicate saturated conditions with queuing.

The HCM methodology also expresses quality of flow in terms of level of service (LOS), which is based on the amount of delay that a driver typically experiences at an intersection. Levels of service range from A, with minimal delay (10 seconds or less per vehicle), to F, which represents long delays (greater than 80 seconds per vehicle).

For unsignalized intersections, the HCM methodology generally assumes that major street traffic is not affected by minor street flows. Left turns from the major street are assumed to be affected by the opposing, or oncoming major street flow. Minor street traffic is obviously affected by all conflicting movements. Similar to signalized intersections, the HCM methodology expresses the quality of flow at unsignalized intersections in terms of level of service based on the amount of delay that a driver experiences. This relationship differs somewhat from the criteria used for signalized intersections, primarily because drivers expect different levels of performance from the two different kinds of transportation facilities. For unsignalized intersections, levels of service range from A, with minimal delay (10 seconds or less per vehicle), to F, which represents long delays (over 50 seconds per vehicle).

Table 11-1 shows the LOS/delay relationship for signalized and unsignalized intersections using the HCM methodology. Levels of service A, B and C generally represent highly favorable to fair levels of traffic flow; at LOS D the influence of congestion becomes noticeable; LOS E is considered to be the limit of acceptable delay; and LOS F is considered to be unacceptable to most drivers. In this study, a

signalized lane grouping operating at LOS E or F or a v/c ratio of 0.90 or above is identified as congested. For unsignalized intersections, a movement with LOS E or worse is also identified as congested.

Table 11-1: Roadway Level of Service Criteria

Level of Service (LOS)	Average Delay per Vehicle (seconds)	
	Signalized Intersections	Unsignalized Intersections
A	less than 10.1	less than 10.1
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	greater than 80.0	greater than 50.0

Source: *2000 Highway Capacity Manual*

Table 11-2 shows the results of the capacity analysis at the 12 signalized and 2 existing unsignalized intersections, respectively, in the two peak hours analyzed. The tables highlight those intersection movements that operate at LOS E or F and/or have a high v/c ratio (generally above 0.90 and above). The following describes conditions at those intersections experiencing congestion in one or more peak hours.

Signalized Intersections

Table 11-2 shows that four of the 12 signalized intersections analyzed have at least one congested movement in one or both peak hours. As shown in the table, two analyzed intersections experience congestion during the weekday AM peak hour and four in the PM peak hour. In general, movements that where congested in the AM peak hour where also congested in the PM. Neither unsignalized intersection experience congestion in either analyzed peak hour. Congested movements are discussed in more detail below.

Along the College Point Boulevard corridor, the eastbound movement on 31st Avenue operates at LOS F (delay of 83.0 seconds) in the PM peak hour with a v/c ratio of 1.04.

At the intersection of Ulmer Street and the Southbound Service Road the southbound approach is congested with LOS E conditions in both the AM and PM peak hours with v/c ratios of 1.05 in each period and delays of 78.6 seconds and 79.8 seconds, respectively.

At the intersection of Linden Place and the Northbound Service Road, the eastbound movement is congested with a LOS E (delay of 67.0 seconds) in the PM peak hour and a v/c ratio of 1.05.

To the east at the intersection of 20th Avenue and the Whitestone Expressway Service Roads, the Southbound service road experiences congestion in both peak hours. The southbound exclusive right-turn lane operates at LOS F (delay of 96.6 seconds) in the AM peak hour and a v/c ratio of 1.02. In the PM

Table 11-2: 2008 Existing Conditions Level of Service

SIGNALIZED INTERSECTIONS	LANE GROUP	AM PEAK HOUR V/C RATIO	AM PEAK HOUR Delay (sec.)	AM PEAK HOUR LOS		PM PEAK HOUR V/C RATIO	PM PEAK HOUR Delay (sec.)	PM PEAK HOUR LOS	
College Point Boulevard									
College Point Blvd. (N-S) @ 28th Ave. (E-W)	EB-LTR	0.37	17.7	B		0.36	17.4	B	
	WB-LTR	0.24	15.8	B		0.31	16.6	B	
	NB-L	0.07	7.2	A		0.06	7.2	A	
	NB-T	0.20	7.7	A		0.41	9.3	A	
	SB-L	0.44	11.8	B		0.88	42.3	D	
	SB-TR	0.31	8.5	A		0.23	7.9	A	
College Point Blvd. (N-S) @ 31st Ave. (E-W)	EB-LTR	0.46	29.8	C		1.04	83.0	F	*
	WB-LTR	0.43	28.8	C		0.45	29.6	C	
	NB-L	0.33	10.1	B		0.30	9.3	A	
	NB-T	0.20	8.0	A		0.22	8.2	A	
	SB-L	0.04	13.0	B		0.04	13.1	B	
	SB-T	0.33	15.5	B		0.24	14.6	B	
College Point Blvd. (N-S) @ Whitestone Expressway Southbound Service Road (WB)	WB-L	0.51	20.3	C		0.64	23.6	C	
	WB-R	0.05	13.9	B		0.10	14.3	B	
	NB-T	0.33	8.6	A		0.30	8.4	A	
	SB-T	0.49	10.0	A		0.43	9.3	A	
College Point Blvd. (N-S) @ 32nd Avenue (WB)	WB-L	0.03	13.7	B		0.09	14.1	B	
	NB-T	0.43	18.0	B		0.44	18.0	B	
	SB-L	0.45	13.0	B		0.57	16.4	B	
	SB-T	0.50	10.2	B		0.44	9.5	A	
College Point Blvd. (N-S) @ Roosevelt Ave. (E-W) **(North)**	WB-LTR	0.30	33.9	C		0.19	28.9	C	
	NB-L	0.49	18.6	B		0.44	24.0	C	
	NB-T	0.17	9.6	A		0.31	13.1	B	
	SB-TR	0.32	27.1	C		0.45	32.5	C	
College Point Blvd. (N-S) @ Roosevelt Ave. (E-W) **(South)**	EB-LTR	0.57	38.9	D		0.66	38.0	D	
	NB-L	0.64	32.0	C		0.69	44.1	D	
	NB-TR	0.33	17.5	B		0.67	29.1	C	
	SB-T	0.26	26.4	C		0.37	31.2	C	
32nd Avenue									
32nd Avenue (E-W) Northbound Service Road (NB)	EB-LT	0.28	8.0	A		0.46	10.0	A	
	WB-TR	0.41	17.9	B		0.38	17.5	B	
	NB-TR	0.34	17.7	B		0.61	22.8	C	
Ulmer Street									
Ulmer St. (N-S) @ 28th Ave. (E-W)	EB-LTR	0.49	14.3	B		0.39	12.7	B	
	WB-LTR	0.45	13.4	B		0.56	14.9	B	
	NB-LTR	0.11	10.4	B		0.14	10.6	B	
	SB-LTR	0.78	20.3	C		0.68	17.3	B	
Ulmer St. (EB) @ Whitestone Expressway Southbound Service Road (SB)	WB-TR	0.57	23.1	C		0.51	25.1	C	
	SB-R	1.05	78.6	E	*	1.05	79.8	E	*
Service Road U-Turn (SB)	WB-TR	0.67	35.4	D		0.70	36.1	D	

* - Denotes Congested Movement

Table 11-2:(Continued) 2008 Existing Conditions Level of Service

SIGNALIZED INTERSECTIONS	LANE GROUP	AM PEAK HOUR V/C RATIO	AM PEAK HOUR Delay (sec.)	AM PEAK HOUR LOS		PM PEAK HOUR V/C RATIO	PM PEAK HOUR Delay (sec.)	PM PEAK HOUR LOS	
Linden Place									
Linden Pl. (N-S) @ Whitestone Expressway Southbound Service Road (WB)	WB-L	0.66	36.1	D		0.83	46.8	D	
	WB-TR	0.50	29.3	C		0.54	30.2	C	
	NB-L	0.46	21.4	C		0.45	22.5	C	
	NB-T	0.50	11.5	B		0.50	11.6	B	
	SB-TR	0.64	33.0	C		0.74	37.1	D	
Linden Pl. (N-S) @ Whitestone Expressway Northbound Service Road (EB)	EB-LT	0.72	28.5	C		1.05	67.0	E	*
	EB-R	0.13	19.5	B		0.25	21.0	C	
	NB-T	0.68	34.3	C		0.71	35.2	D	
	SB-L	0.59	27.4	C		0.73	33.7	C	
	SB-T	0.21	11.8	B		0.30	12.7	B	
20th Avenue									
20th Ave. (E-W) @ Whitestone Expressway Southbound Service Road (SB)	EB-T	0.39	37.9	D		0.51	35.3	D	
	EB-R	0.93	68.0	E	*	0.91	56.2	E	*
	WB-L	0.96	56.3	E	*	0.50	27.4	C	
	WB-T	0.38	14.5	B		0.52	14.9	B	
	SB-LTR	1.02	77.2	E	*	0.93	62.0	E	*
	SB-R	1.02	96.6	F	*	0.88	69.8	E	*
20th Ave. (E-W) @ Whitestone Expressway Northbound Service Road (NB)	EB-L	0.61	38.7	D		0.78	45.8	D	
	EB-T	0.15	11.6	B		0.32	15.7	B	
	WB-TR	0.58	29.3	C		0.51	31.7	C	
	NB-L	0.86	54.1	D		0.85	49.1	D	
	NB-LT	0.61	36.1	D		0.54	31.3	C	
	NB-R	0.26	30.7	C		0.35	28.9	C	

UNSIGNALIZED INTERSECTIONS	LANE GROUP	AM PEAK HOUR V/C RATIO	AM PEAK HOUR Delay (sec.)	AM PEAK HOUR LOS	PM PEAK HOUR V/C RATIO	PM PEAK HOUR Delay (sec.)	PM PEAK HOUR LOS
31st Avenue							
31st Ave. (WB) @ Whitestone Expressway Southbound Service Road (SB)	WB-R	0.12	10.8	B	0.07	10.9	B
College Point Boulevard							
College Point Blvd. (N-S) @ 30th Ave. (E-W)	EB-LTR	0.16	17.6	C	0.24	18.3	C
	NB-L	0.07	9.5	A	0.03	8.7	A

* - Denotes Congested Movement

peak hour the approach operates at LOS E (delay of 69.8 seconds) and a v/c ratio of 0.88. The southbound approach operates at LOS E in both the AM and PM peak hours, with delays of 77.2 seconds (a v/c ratio of 1.02) and 62.0 seconds (a v/c ratio of 0.93), respectively. The eastbound exclusive right-turn operates at LOS E in both the AM and PM peak hours, with delays of 68.0 seconds (a v/c ratio of 0.93) and 56.2 seconds (a v/c ratio of 0.91), respectively. The westbound exclusive left-turn lane operates at LOS E (delay of 56.3 seconds) in the AM peak hour and a v/c ratio of 0.96.

Unsignalized Intersections

As also shown in Table 11-2, of the two unsignalized intersections analyzed, none were congested during any peak hour under Existing conditions.

Parking

Off-Street Parking

A baseline field inventory of study area parking conditions was conducted in May 2008. There are no licensed public off-street parking facilities in the study area. While some businesses and housing developments provide on-site accessory parking, most residents and workers in College Point must rely on available curbside parking where on-site accessory parking is full or not provided.

On-Street Parking

Curbside parking regulations within a quarter-mile of the project site were surveyed in May 2008 and are shown in Figure 11-4. Generally, curbside parking is not permitted throughout much of the study area. Curbside parking is typically restricted within industrial and commercial areas on both weekdays and weekends. As shown in Figure 11-4, all of the major roadways in the vicinity of the project site have "No Standing Anytime" regulations. No metered curbside parking spaces exist, and commercial uses typically have their own private accessory parking lots for employees and customers. In the residential areas to the north of the project site, curbside parking is allowed with typical alternate side parking regulation for street cleaning. However, it was observed that many of these residential streets do not have any parking regulation signs posted, as shown in Figure 11-4.

As previously mentioned, field surveys of weekday utilization of on-street parking capacity were conducted in May 2008. The surveys focused on the weekday overnight and midday periods, and included all legal curbside spaces within quarter-mile of the proposed action area. During the weekday overnight period, the total number of curbside parking spaces within this area was approximately 1,141. Utilization during this period was found to be approximately 73 percent, with an average of approximately 312 spaces available.

During the weekday midday, there are approximately 1,141 total spaces available for curbside parking. Utilization in the midday was observed to reach approximately 69 percent, with about 349 spaces available within quarter-mile of the project site. It should be noted that the number of available spaces fluctuates somewhat by time of day and day of week, depending on the prevailing parking regulations. The capacities quoted here are typical for the time period examined. Available spaces during both periods are concentrated in the residential areas to the north of the project site.

C. THE FUTURE WITHOUT THE PROPOSED ACTION

NYPD is undertaking a consolidation of their vehicle storage facility citywide. As such under No-Action conditions, the project site would be vacant with the present tow-pound having been relocated elsewhere. Between 2008 and 2014, it is also expected that traffic and parking demands in the study area would increase due to long-term background growth. In addition, nearby development is expected to consist of approximately 7,600 new dwelling units and 4.8 million square feet of new commercial/retail/community space. In order to forecast the future conditions without the proposed action, any residential development project with 200 or more new housing units and any development with a retail/commercial component shown in Figure 2-4 in Chapter 2, "Land Use, Zoning and Public Policy," were considered. Additionally, an annual background growth rate of one percent per year was applied to existing traffic and parking demands. This background growth rate is applied to account for these smaller projects and general increases in travel demand not attributable to specific development projects. Overall, travel demand from a total of 13 No-Action developments expected in the study area by 2014 were considered for the transportation analyses. These include:

- Directly south of the project site three new developments are planned on the 5-acre site located at the northeast corner of College Point Boulevard and 31st Avenue. The combined developments would contain approximately 155,600 gross square feet of new manufacturing and commercial space. It is expected that they will be constructed and fully operational by 2011.

- Two developments planned for the vacant property located at the southwest corner of 31st Avenue and College Point Boulevard. Ares Printing and Packaging is currently constructing a 107,000 square foot printing and packaging facility. The second site will contain GGC Printing, which will consist of a 97,000 square foot printing facility with 120 accessory parking spaces on 31st Avenue. These developments are both expected to be completed by 2010.

- The recently completed expansion of the New York Times' College Point printing facility, which added an additional 70,600 gross square feet onto the existing facility. As construction was completed after the traffic data was collected for Existing conditions, this project has been included to account for new vehicular trips to the study area.

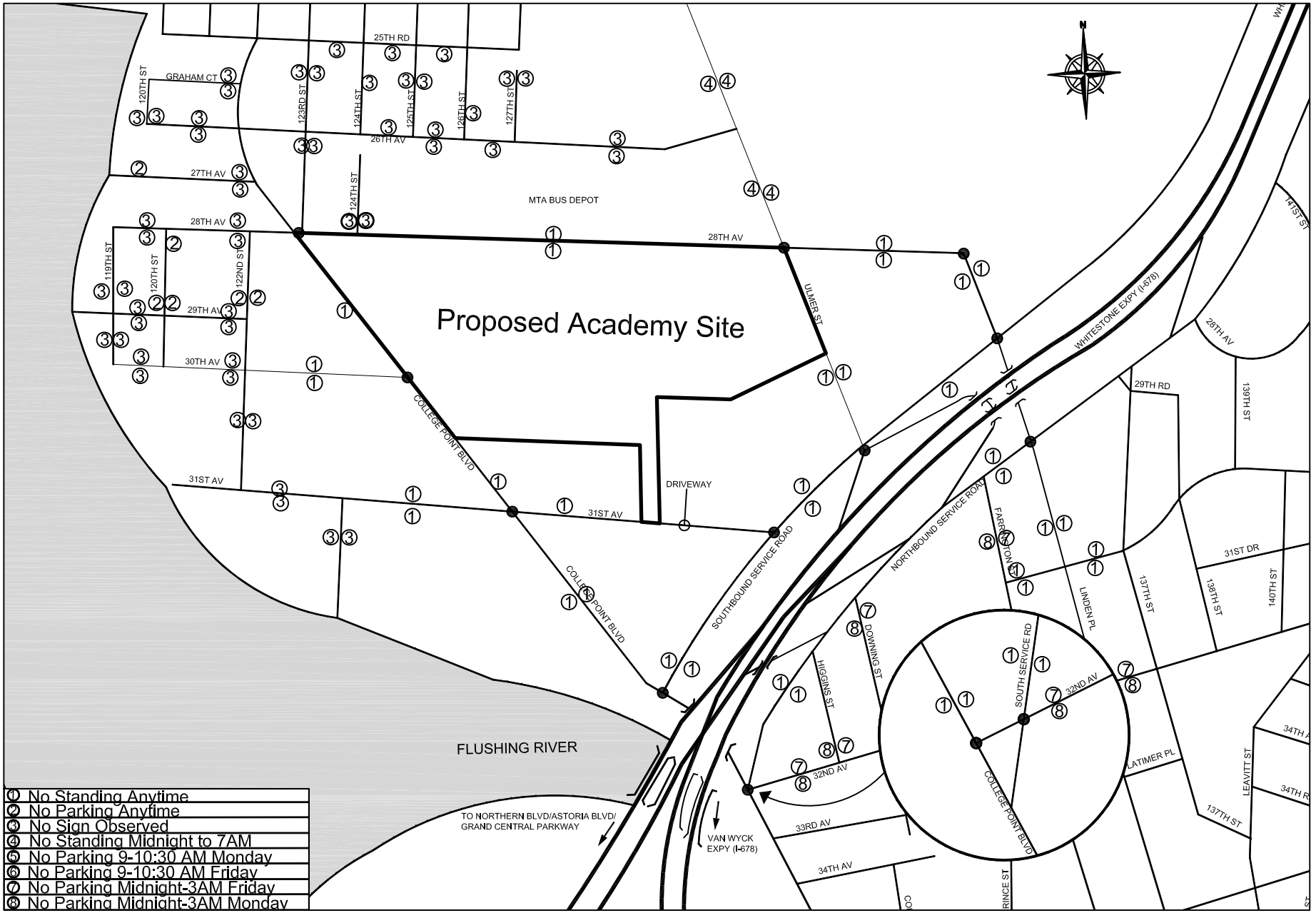
- The North Shore Marine Transfer Station which will be located at the western limits of the study area on 31st Avenue at 122nd Street. The converted marine transfer station will be utilized by the Department of Sanitation (DSNY) to export waste by barge from Queens Community Districts 7 through 14. The facility was originally proposed for operation in 2006, but is now expected to begin operating in 2011.

- Two adjacent developments planned to the south of the study area located on Roosevelt Avenue west of Main Street. The first is Sky View Parc, which will consist of 750 residential units, 760,000 square feet of retail and an accessory garage with 3,000 spaces, with completion expected by 2008. The second is River View Park which will consist of 475 residential units, 10,200 square feet of retail, 251,000 square feet of office space, 1,500 square feet of community facility space, and either 175 hotel rooms or an additional 96,500 sq ft of office space. Construction is expected to be finished by 2011.

- NYCEDC's proposed reconstruction of Linden Place, including construction of a northward extension to 20th Avenue. As described in Table 2-2 (Chapter 2 Land Use, Zoning and Public Policy) the work will be done in two phases, with the first phase expected to be finished in 2009 and completion of the second phase anticipated by spring of 2011.

Figure 11-4

Parking Regulations



Not to Scale

- North of the project site, a new commercial/industrial development is planned at the southeast corner of Ulmer Street and 26th Avenue. This new development would consist of approximately 121,200 gross square feet of commercial or industrial uses. It is expected to be constructed and fully operational by 2011.

- Two developments are planned to the north of the study area, near the southeast corner of 142nd Street and 15th Avenue. The first would consist of approximately 60,000 square feet of commercial or industrial space. The second would be an office expansion of approximately 17,000 square feet. Both are expected to be constructed and fully operational by 2010.

Traffic generated and changes due to these 13 No-Action developments and one new roadway installation in the 6-7 AM and 3-4 PM peak hours was combined with Existing traffic volumes and background growth to yield a 2014 No-Action traffic network. Figures 11-5 and 11-6 show the resulting AM and PM peak hour traffic volumes at study area intersections in the 2014 future without the proposed action.

Vehicular Traffic

Study Area Street Network

Between 2008 and 2014 it is expected that the street network in the study area will remain largely unchanged, with one exception. Linden Place will be extended north from 28th Avenue to 23rd Avenue and 132nd Street at 20th Avenue will be extended south to connect with Linden Place at 23rd Avenue. The intersection of Linden Place and 28th Avenue currently operates without any vehicle control. Under future conditions, a stop control would be introduced on the 28th Avenue approach (as per recommendation in the *Linden Place Reconstruction and 132nd Street Construction Traffic Study*.) The primary effect of the extension of this road would result in a shift of some southbound traffic from Ulmer Street to Linden Place.

Signalized Intersections

Figures 11-5 and 11-6 show the anticipated AM and PM traffic volumes under No-Action conditions. Table 11-3 shows traffic conditions at signalized and unsignalized intersections, respectively, in the future without the proposed action. As shown in Table 11-3 with continued growth in travel demand, intersections that were congested under existing conditions would worsen, and additional locations would become congested in one or more peak hours by 2014. Table 11-3 shows that in the 2014 future without the proposed action, five intersections (four signalized and one unsignalized) would experience congestion on one or more approaches in the AM peak hour and eight intersections (seven signalized and one unsignalized) would be congested in the PM peak hour. This compares with three and five congested intersections during these respective periods under existing conditions. In 2014, there would be several signalized intersections with one or more movements with a v/c ratio of 1.00 or greater. In the AM peak hour, there would be two such intersections. There would be four such intersections with a v/c ratio or 1.00 or greater in the PM peak period versus three in existing conditions.

At College Point Boulevard and 28th Avenue during the PM peak hour, the southbound exclusive left turn lane deteriorates from an exiting LOS D (42.3 seconds of delay and v/c ratio 0.88) to LOS E (66.6 seconds of delay and v/c ratio of 0.99).

At College Point Boulevard and Roosevelt Avenue (south side) during the AM peak, the northbound exclusive left turn lane deteriorates from an existing LOS C (32.0 seconds of delay and v/c ratio 0.64) to LOS E (79.8 seconds of delay and v/c ratio of 0.99). In the PM peak hour the same movement deteriorates from an existing LOS D (44.1 seconds of delay and v/c ratio of 0.69) to LOS F (145.8 seconds of delay and v/c ratio of 1.15).

At 20th Avenue and the Whitestone Expressway Service Roads, the Northbound Service Road experiences congestion during both peak hours. During the AM peak hour the northbound exclusive left turn deteriorates from an existing LOS D (54.1 seconds delay and v/c ratio 0.86) to LOS E (60.4 seconds of delay and a v/c ratio of 0.91). During the PM peak hour the eastbound exclusive left turn deteriorates from an existing LOS D (45.8 seconds of delay and a v/c ratio of 0.78) to LOS E (56.9 seconds of delay and a v/c ratio of 0.87).

Unsignalized Intersections

As shown in Table 11-3, of the unsignalized intersections analyzed, only the intersection of Linden Place and 28th Avenue is expected to be congested in the future without the proposed action during both peak hours. The eastbound left-thru approach lane in the AM peak hour would operate at LOS E with a v/c ratio 0.40 and delay of 40.6 seconds. While during the PM peak hour the same approach would operate at LOS F with a v/c 0.20 and delay of 84.4 seconds. As previously noted this intersection has no stop control under existing conditions, and becomes stop controlled under No-Action conditions, therefore there can no comparison in control delay or v/c ratio between Existing and No-Action conditions. The rather high control delay results from the extension of Linden Place, which would allow for southbound traffic at this intersection, which would, in turn, conflict with the eastbound left-turn.

Parking

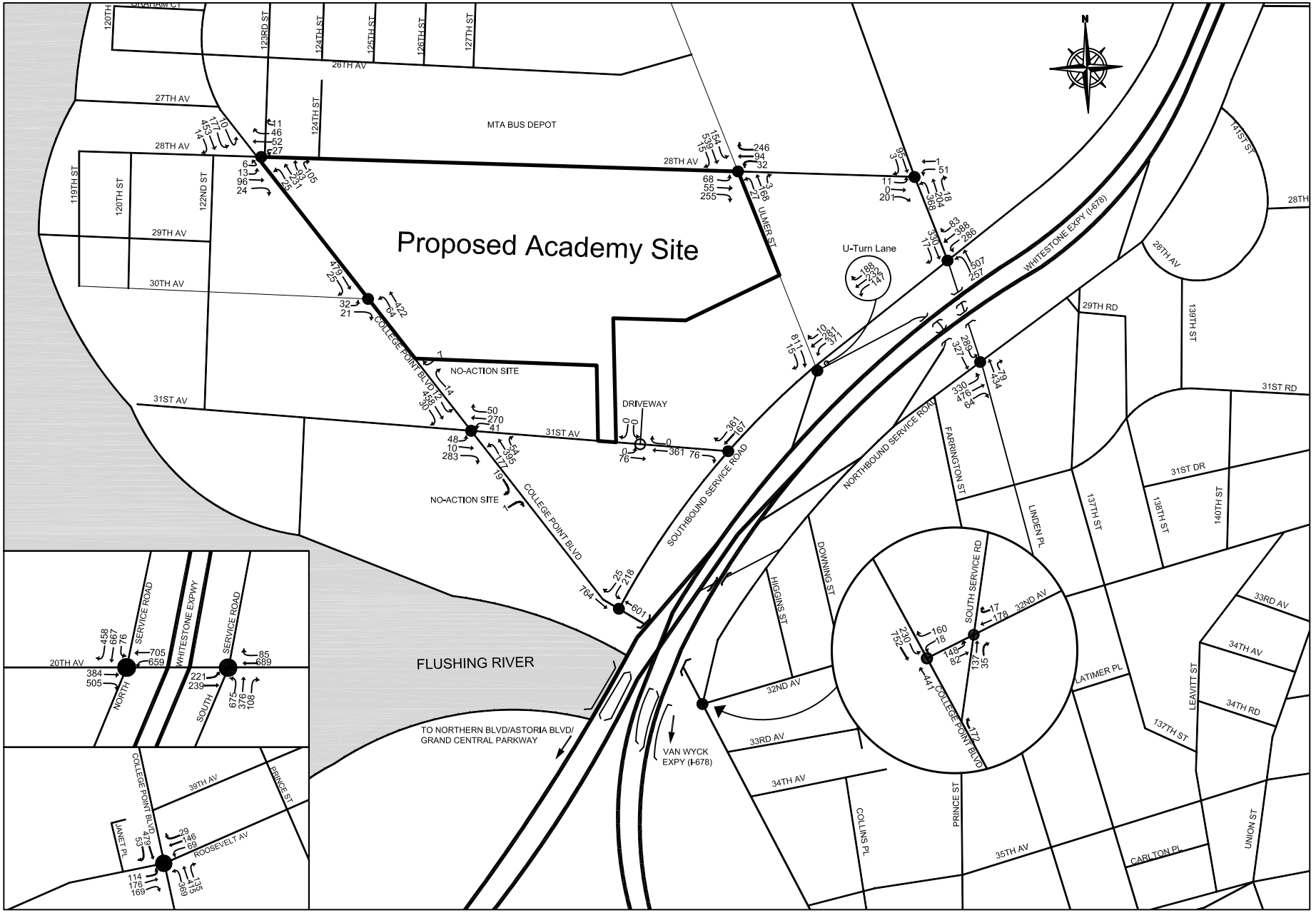
Off-Street Parking

In the future without the proposed action, new developments expected to be completed by 2014 would generate new demand for parking spaces in the study area. As these projects are expected to comply with parking requirements put forth in the NYC Zoning Resolution, it is anticipated that the anticipated No Build site demand will be accommodated by accessory parking spaces included as part of these new developments. No new public off-street facilities are expected to be developed within the quarter-mile parking study area by 2014.

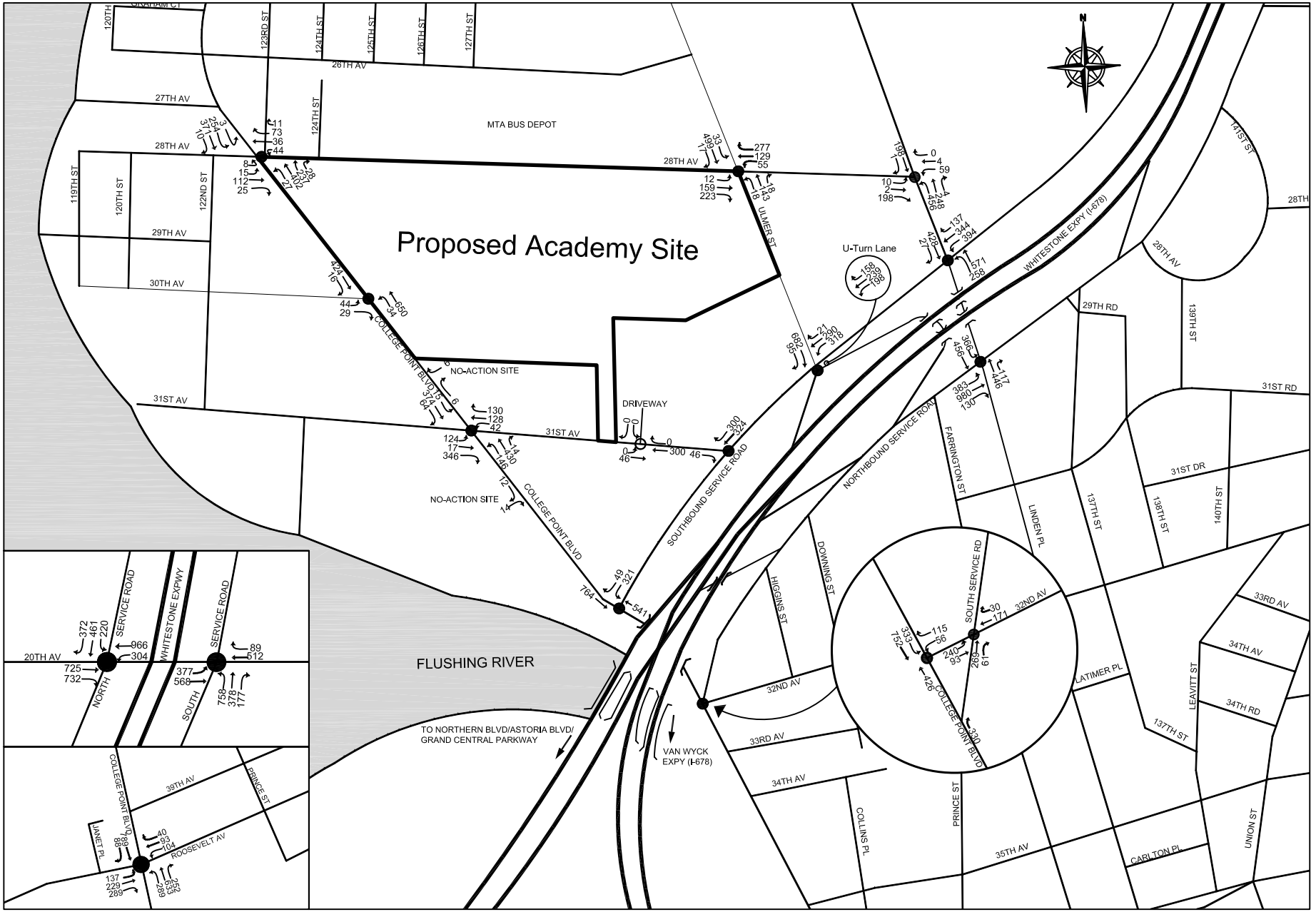
On-Street Parking

In the future without the proposed action, it is anticipated that demand for on-street parking would increase due to new developments and general background growth. Some existing capacity may be displaced as curbside regulations are adjusted to accommodate new developments and changes in curbside usage. The study area, characterized mainly by low-density residential, commercial, manufacturing or light industrial uses, would continue to have adequate parking supply throughout the day. During weekdays, it is estimated that demand would reach approximately 77 percent of capacity in the AM peak hour. There would be approximately 261 on street parking spaces available in the AM in the 2014 future without the proposed action. While during PM peak hour it is estimated that demand would reach 73 percent of capacity with approximately 301 on street parking spaces available.

2014 No-Action AM Peak Hour Traffic Volumes



2014 No-Action PM Peak Hour Traffic Volumes



Legend:
● - Analyzed Intersection

Not to Scale

Table 11-3: 2014 No-Action Conditions Level of Service

SIGNALIZED INTERSECTIONS	LANE GROUP	EXISTING AM PEAK HOUR V/C RATIO	EXISTING AM PEAK HOUR Delay (sec.)	EXISTING AM PEAK HOUR LOS	NO-ACTION AM PEAK HOUR V/C RATIO	NO-ACTION AM PEAK HOUR Delay (sec.)	NO-ACTION AM PEAK HOUR LOS	EXISTING PM PEAK HOUR V/C RATIO	EXISTING PM PEAK HOUR Delay (sec.)	EXISTING PM PEAK HOUR LOS	NO-ACTION PM PEAK HOUR V/C RATIO	NO-ACTION PM PEAK HOUR Delay (sec.)	NO-ACTION PM PEAK HOUR LOS
College Point Boulevard													
College Point Blvd. (N-S) @ 28th Ave. (E-W)	EB-LTR	0.37	17.7	B	0.39	18.1	B	0.36	17.4	B	0.40	18.0	B
	WB-LTR	0.24	15.8	B	0.27	16.1	B	0.31	16.6	B	0.32	16.7	B
	NB-L	0.07	7.2	A	0.08	7.4	A	0.06	7.2	A	0.07	7.2	A
	NB-T	0.20	7.7	A	0.23	7.9	A	0.41	9.3	A	0.44	9.5	A
	SB-L	0.44	11.8	B	0.50	13.3	B	0.88	42.3	D	0.99	66.6	E *
	SB-TR	0.31	8.5	A	0.33	8.6	A	0.23	7.9	A	0.25	8.0	A
College Point Blvd. (N-S) @ 31st Ave. (E-W)	EB-LTR	0.46	29.8	C	0.65	34.6	C	1.04	83.0	F *	1.13	114.3	F *
	WB-LTR	0.43	28.8	C	0.54	30.9	C	0.45	29.6	C	0.54	31.5	C
	NB-L	0.33	10.1	B	0.46	12.2	B	0.30	9.3	A	0.33	9.7	A
	NB-T	0.20	8.0	A	0.23	8.2	A	0.22	8.2	A	0.24	8.3	A
	SB-L	0.04	13.0	B	0.04	13.1	B	0.04	13.1	B	0.05	13.2	B
	SB-T	0.33	15.5	B	0.35	15.8	B	0.24	14.6	B	0.26	14.8	B
College Point Blvd. (N-S) @ Whitestone Expressway Southbound Service Road (WB)	WB-L	0.51	20.3	C	0.54	20.9	C	0.64	23.6	C	0.70	25.8	C
	WB-R	0.05	13.9	B	0.06	14.0	B	0.10	14.3	B	0.10	14.3	B
	NB-T	0.33	8.6	A	0.39	9.1	A	0.30	8.4	A	0.33	8.5	A
	SB-T	0.49	10.0	A	0.55	10.6	B	0.43	9.3	A	0.47	9.8	A
College Point Blvd. (N-S) @ 32nd Avenue (WB)	WB-L	0.03	13.7	B	0.03	13.7	B	0.09	14.1	B	0.09	14.2	B
	NB-T	0.43	18.0	B	0.53	19.3	B	0.44	18.0	B	0.47	18.4	B
	SB-T	0.45	13.0	B	0.52	16.1	B	0.57	16.4	B	0.64	19.3	B
	SB-L	0.50	10.2	B	0.56	10.8	B	0.44	9.5	A	0.48	9.9	A
College Point Blvd. (N-S) @ Roosevelt Ave. (E-W) **(North Side)**	WB-LTR	0.30	33.9	C	0.37	35.0	C	0.19	28.9	C	0.25	29.7	C
	NB-L	0.49	18.6	B	0.71	32.9	C	0.44	24.0	C	0.69	41.2	D
	NB-T	0.17	9.6	A	0.23	10.1	B	0.31	13.1	B	0.40	14.2	B
	SB-TR	0.32	27.1	C	0.41	28.5	C	0.45	32.5	C	0.68	37.1	D
College Point Blvd. (N-S) @ Roosevelt Ave. (E-W) **(South Side)**	EB-LTR	0.57	38.9	D	0.69	42.6	D	0.66	38.0	D	0.76	41.7	D
	NB-L	0.64	32.0	C	0.99	79.8	E *	0.69	44.1	D	1.15	145.8	F *
	NB-TR	0.33	17.5	B	0.43	19.0	B	0.67	29.1	C	0.86	38.1	D
	SB-T	0.26	26.4	C	0.36	27.7	C	0.37	31.2	C	0.59	35.0	C
32nd Avenue													
32nd Avenue (E-W) @ Northbound Service Road	EB-LT	0.28	8.0	A	0.32	8.4	A	0.46	10.0	A	0.52	10.9	B
	WB-TR	0.41	17.9	B	0.46	18.8	B	0.38	17.5	B	0.41	17.9	B
	NB-TR	0.34	17.7	B	0.36	18.0	B	0.61	22.8	C	0.64	23.8	C

* - Denotes Congested Movement

Table 11-3:(Continued) 2014 No-Action Conditions Level of Service

SIGNALIZED INTERSECTIONS	LANE GROUP	EXISTING AM PEAK HOUR V/C RATIO	Delay (sec.)	LOS		NO-ACTION AM PEAK HOUR V/C RATIO	Delay (sec.)	LOS		EXISTING PM PEAK HOUR V/C RATIO	Delay (sec.)	LOS		NO-ACTION PM PEAK HOUR V/C RATIO	Delay (sec.)	LOS	
Ulmer Street																	
Ulmer St. (N-S) @ 28th Ave. (E-W)	EB-LTR	0.49	14.3	B		0.52	14.6	B		0.39	12.7	B		0.40	12.8	B	
	WB-LTR	0.45	13.4	B		0.35	12.9	B		0.56	14.9	B		0.43	13.2	B	
	NB-LTR	0.11	10.4	B		0.12	10.8	B		0.14	10.6	B		0.15	10.7	B	
	SB-LTR	0.78	20.3	C		0.72	18.3	B		0.68	17.3	B		0.49	13.7	B	
Ulmer St. (EB) @ Whitestone Expressway Southbound Service Road (SB)	WB-TR	0.57	23.1	C		0.63	27.4	C		0.51	25.1	C		0.55	25.8	C	
	SB-R	1.05	78.6	E	*	1.12	103.1	F	*	1.05	79.8	E	*	1.18	128.1	F	*
Service Road U-Turn (SB)	WB-TR	0.67	35.4	D		0.84	43.1	D		0.70	36.1	D		0.77	38.9	D	
Linden Place																	
Linden Pl. (N-S) @ Whitestone Expressway Southbound Service Road (WB)	WB-L	0.66	36.1	D		0.70	37.9	D		0.83	46.8	D		0.89	53.0	D	
	WB-TR	0.50	29.3	C		0.61	31.5	C		0.54	30.2	C		0.60	31.3	C	
	NB-L	0.46	21.4	C		0.50	22.9	C		0.45	22.5	C		0.48	24.2	C	
	NB-T	0.50	11.5	B		0.57	12.8	B		0.50	11.6	B		0.59	13.2	B	
	SB-TR	0.64	33.0	C		0.68	34.7	C		0.74	37.1	D		0.82	41.9	D	
Linden Pl. (N-S) @ Whitestone Expressway Northbound Service Road (EB)	EB-LT	0.72	28.5	C		0.77	30.0	C		1.05	67.0	E	*	1.11	91.4	F	*
	EB-R	0.13	19.5	B		0.14	19.6	B		0.25	21.0	C		0.26	21.3	C	
	NB-T	0.68	34.3	C		0.72	35.5	D		0.71	35.2	D		0.73	35.7	D	
	SB-L	0.59	27.4	C		0.65	30.4	C		0.73	33.7	C		0.79	38.6	D	
	SB-T	0.21	11.8	B		0.22	11.9	B		0.30	12.7	B		0.33	13.0	B	
20th Avenue																	
20th Ave. (E-W) @ Whitestone Expressway Southbound Service Road (SB)	EB-T	0.39	37.9	D		0.42	38.3	D		0.51	35.3	D		0.54	36.0	D	
	EB-R	0.93	68.0	E	*	1.00	83.0	F	*	0.91	56.2	E	*	0.99	72.4	E	*
	WB-L	0.96	56.3	E	*	1.03	75.5	E	*	0.50	27.4	C		0.55	29.9	C	
	WB-T	0.38	14.5	B		0.40	14.8	B		0.52	14.9	B		0.52	14.9	B	
	SB-LTR	1.02	77.2	E	*	1.09	98.8	F	*	0.93	62.0	E	*	0.99	73.7	E	*
	SB-R	1.02	96.6	F	*	1.12	127.8	F	*	0.88	69.8	E	*	0.93	80.2	F	*
20th Ave. (E-W) @ Whitestone Expressway Northbound Service Road (NB)	EB-L	0.61	38.7	D		0.68	44.4	D		0.78	45.8	D		0.87	56.9	E	*
	EB-T	0.15	11.6	B		0.16	11.7	B		0.32	15.7	B		0.33	15.9	B	
	WB-TR	0.58	29.3	C		0.62	30.2	C		0.51	31.7	C		0.54	32.4	C	
	NB-L	0.86	54.1	D		0.91	60.4	E	*	0.85	49.1	D		0.84	48.1	D	
	NB-LT	0.61	36.1	D		0.65	37.1	D		0.54	31.3	C		0.56	31.6	C	
	NB-R	0.26	30.7	C		0.27	30.9	C		0.35	28.9	C		0.37	29.3	C	

* - Denotes Congested Movement

Table 11-3:(Continued) 2014 No-Action Conditions Level of Service

UNSIGNALIZED INTERSECTIONS	LANE GROUP	EXISTING AM PEAK HOUR V/C RATIO	EXISTING AM PEAK HOUR Delay (sec.)	EXISTING AM PEAK HOUR LOS	NO-ACTION AM PEAK HOUR V/C RATIO	NO-ACTION AM PEAK HOUR Delay (sec.)	NO-ACTION AM PEAK HOUR LOS		EXISTING PM PEAK HOUR V/C RATIO	EXISTING PM PEAK HOUR Delay (sec.)	EXISTING PM PEAK HOUR LOS	NO-ACTION PM PEAK HOUR V/C RATIO	NO-ACTION PM PEAK HOUR Delay (sec.)	NO-ACTION PM PEAK HOUR LOS	
31st Avenue															
31st Ave. (WB) @ Whitestone Expressway Southbound Service Road (SB)	WB-R	0.12	10.8	B	0.12	11.1	B		0.07	10.9	B	0.04	8.5	A	
College Point Boulevard															
College Point Blvd. (N-S) @ 30th Ave. (E-W)	EB-LTR NB-L	0.16 0.07	17.6 9.5	C A	0.19 0.08	19.9 9.7	C A		0.24 0.03	18.3 8.7	C A	0.28 0.04	20.3 8.9	D A	
Linden Place															
Linden Pl (N-S) @ 28th Ave. (E-W)	EB-LT EB-TR NB-LT SB-LT	**NA**			0.40 0.25 0.29 0.00	40.6 11.0 8.8 7.8	E B A A	*	**NA**			0.20 0.28 0.40 0.00	84.4 11.7 9.9 7.8	F B A A	*

* - Denotes Congested Movement

D. THE FUTURE WITH THE PROPOSED ACTION

This section provides an analysis of traffic and parking conditions in the future with the proposed action (the With-Action condition). As discussed in Chapter 1, "Project Description," the proposed action is the development of an approximately 2.4 million square foot police academy for the NYPD. The new facility would accommodate approximately 1,980 recruits, 650 traffic enforcement/ school safety trainees, 1,500 police offices for in-service training, 1,369 training staff and security, 143 maintenance staff, 100 visiting trainees and 50 museum visitors on a typical weekday.

The project would have curb cuts along College Point Boulevard and Ulmer Street for site access. The primary garage entrance is expected to be on College Point Boulevard and 30th Avenue, as shown in the site plan presented in Figure 1-4 in Chapter 1 "Project Description." An overflow garage entrance would be located 600 feet north of the primary entrance to accommodate inbound traffic during peak periods. This access would be closed during off-peak hours. A separate driveway is proposed on Ulmer Street that would serve as an entrance to the senior staff's parking area. This small parking area would accommodate approximately 20 vehicles. There would be no new curb cuts along 28th Avenue as part of the proposed action. For pedestrian access, the primary entrance to the proposed Academy would be located on 28th Avenue, west of Ulmer Street. A ceremonial pedestrian entrance is proposed to the west of the primary campus access.

As part of the proposed action, the unsignalized intersection of College Point Boulevard and 30th Avenue would be signalized. A 10-foot wide southbound exclusive left-turn lane would be installed in the existing median similar to that in the northbound approach to this intersection. The signal timing would be consistent with other intersections along College Point Boulevard in the study area.

Trip Generation

Table 11-4 shows the attendants and time of arrival for each of the various uses of proposed Academy. Table 11-5 shows the transportation planning assumptions that were used to estimate the weekday travel demand for each of the project's components. The table shows the overall daily trip generation rates, hourly peaking patterns, mode choice and vehicle occupancy. The planning assumptions in Table 11-5 are based data from previous studies for similar uses, existing NYPD facilities and reverse journey-to-work data from the 2000 Census.

Table 11-6 shows the peak hour person-trip and vehicle-trip forecasts for each component of the proposed project during the two analyzed peak hours. As the project site is assumed to remain vacant under No-Action conditions, for analysis purposes there is no credit for removing previous uses or uses that could developed as-of-right in the future without the proposed action. As shown in Table 11-7 the proposed project would generate an estimated 514 and 573 vehicle trips (in and out combined) in the AM and PM peak hours, respectively. As Table 11-7 demonstrates, recruits typically generate the highest amount of travel demand in the AM and PM peak periods. Peak hour transit and pedestrian trips are discussed in Chapter 12 "Transit and Pedestrians."

As noted in Table 11-6, an auto occupancy of 1.9 persons per auto is assumed for recruits based on data from the *New York City Police Training Facility DEIS 1991*. However, as discussed previously, any recruits arriving in a vehicle with fewer than three persons would not be permitted to park in the proposed on-site accessory parking garage as per NYPD policy. This restriction, meant to encourage use of mass-transit and ride sharing among the recruit population, would likely result in higher auto occupancy than assumed for the analysis, and therefore fewer total vehicle trips. The project's traffic forecast and impact analysis should therefore be considered somewhat conservative as they do not reflect the higher auto occupancy that would likely result from the high occupancy vehicle requirement for recruits using the proposed on-site garage.

Table 11-4: Maximum Weekday Population at the Proposed Police Academy[1]

Population Group	1-Hour Periods Throughout the Typical Weekday[2]																							
	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Police Recruits	0	0	0	0	0	99	1,881	1,980	1,980	1,980	1,980	1,980	1,980	1,980	1,980	198	0	0	0	0	0	0	0	0
Other Police Trainees	0	0	0	0	0	0	0	221	880	880	880	880	880	880	880	880	313	0	0	0	0	0	0	0
Visiting Police / Lecturer	0	0	0	0	0	0	0	0	0	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
In-Service Training	0	0	0	0	0	0	0	0	136	543	543	543	543	543	543	543	543	53	0	0	0	0	0	0
In-Service Re-Qualification A	0	0	0	0	0	0	0	0	0	126	499	499	499	499	499	499	499	499	51	0	0	0	0	0
In-Service Re-Qualification B	0	0	0	0	0	0	0	0	0	0	0	0	0	126	500	500	500	500	500	500	500	500	51	0
Staff	2	2	2	2	2	2	84	282	495	823	964	964	964	924	924	810	645	444	387	312	304	304	32	2
Central Services / Plant Maintenance	80	80	80	80	80	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60	80	80	80
Academy Visitors	0	0	0	0	0	0	0	10	25	25	25	25	25	25	25	25	10	0	0	0	0	0	0	0
Museum Visitors[3]	0	0	0	0	0	0	0	0	0	0	5	10	10	10	10	10	5	0	0	0	0	0	0	0
Total	82	82	82	82	82	131	1,995	2,523	3,546	4,507	5,026	5,031	5,031	5,117	5,491	3,595	2,645	1,526	968	842	864	884	163	82

Notes:

[1] Based on NYPD's anticipated peak populations at the proposed Academy.

[2] Times listed represent the hour ending.

[3] Includes only the public visitors to the proposed museum.

Table 11-5, Project Component Trip Generation Assumption

		RECRUITS	TRAINING STAFF & SECURITY	MUSEUM VISITORS
APPROXIMATE FACILITY SIZE:			2,400,000 GSF	
TOTAL POPULATION:(1) PERSONS (1)		1,980	1,369	50
PEOPLE PER SHIFT: (2)				
1st PLATOON		0%	2%	0%
2nd PLATOON		100%	68%	70%
3rd PLATOON		0%	30%	30%
TOTAL:		100%	100%	100%
TRIPS PER PERSON:		2	2	2
TEMPORAL DISTRIBUTION (%):		(2)	(2)	(3)
AM PEAK	IN	90%	9%	0%
(6:00 TO 7:00 AM)	OUT	0%	0%	0%
AFTERNOON PEAK	IN	0%	0%	0%
(3:00 TO 4:00 PM)	OUT	90%	12%	50%
MODAL SPLIT:		(4)	(5)	(5)
AUTO		50%	67%	51%
TAXI		1%	1%	1%
PUBLIC BUS (ONLY)		5%	11%	9%
SUBWAY TO BUS		39%	20%	15%
WALK / OTHER		5%	1%	1%
TOTAL:		100%	100%	100%
AUTO OCCUPANCY:		(6) 1.9	(5) 1.6	(6) 3.1
TRUCK TRIPS: (7) PER 1000 SF			0.15	
TRUCK TEMPORAL DISTRIBUTION: (8)				
AM			0.1%	
PM			9.9%	
IN / OUT SPLIT		IN		OUT
AM / AFTERNOON / NIGHT		50%		50%

NOTES:

(1) INCLUDES NYPD AND SUPPORT PERSONNEL UNDER EXPECTED MAXIMUM OCCUPANCY CONDITIONS

(2) PER STANDARD NYPD PLATOON STAFFING.

(3) BASED ON MoMA EXPANSION FEIS, OCTOBER 6, 2000.

(4) PHA ASSUMPTION. BASED ON 2000 CENSUS DATA FOR TRAVEL PATTERNS IN VICINITY OF PROJECT SITE.

(5) BASED ON 2000 CENSUS DATA FOR TRAVEL PATTERNS IN VICINITY OF PROJECT SITE.

(6) BASED ON NEW YORK CITY POLICE TRAINING FACILITY DEIS, 1991.

(7) BASED ON EXISTING NYPD FACILITIES.

(8) FEDERAL HIGHWAY ADMINISTRATION, "CURBSIDE PICKUP AND DELIVERY AND ARTERIAL TRAFFIC IMPACTS," 1981.

Table 11-6, Project Component Trip Generation

	RECRUITS*		TRAINING STAFF & SECURITY		MUSEUM VISITORS		TOTAL		
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	TOTAL
AM PEAK (6:00 TO 7:00 AM)	1,693	0	118	0	0	0	**1,811**	**0**	**1,811**
AFTERNOON PEAK (3:00 TO 4:00 PM)	0	1,693	0	162	0	25	**0**	**1,879**	**1,879**

PEAK HOUR PERSON TRIPS-BY MODE:
AM PEAK

	IN	OUT	IN	OUT	IN	OUT	IN	OUT	TOTAL
AUTO	846	0	79	0	0	0	**925**	**0**	**925**
TAXI	17	0	1	0	0	0	**18**	**0**	**18**
PUBLIC BUS (ONLY)	85	0	13	0	0	0	**98**	**0**	**98**
SUBWAY TO BUS	660	0	8	0	0	0	**668**	**0**	**668**
WALK / OTHER	85	0	1	0	0	0	**86**	**0**	**86**
TOTAL	**1,693**	**0**	**102**	**0**	**0**	**0**	1,795	**0**	1,795
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	TOTAL
AUTO	0	846	0	108	0	13	**0**	**967**	**967**
TAXI	0	17	0	2	0	0	**0**	**19**	**19**
PUBLIC BUS (ONLY)	0	85	0	18	0	2	**0**	**105**	**105**
SUBWAY TO BUS	0	660	0	32	0	2	**0**	**694**	**694**
WALK / OTHER	0	85	0	2	0	0	**0**	**87**	**87**
TOTAL	**0**	**1,693**	**0**	**162**	**0**	**23**	**0**	1,878	1,878

PEAK HOUR VEHICLE TRIPS:
AM PEAK

	IN	OUT	IN	OUT	IN	OUT	IN	OUT	TOTAL
AUTO	445	0	49	0	0	0	**494**	**0**	**494**
TAXI (BALANCED)	9	9	1	1	0	0	**10**	**10**	**20**
TRUCK TRIPS (PER 1000 SF)							**0**	**0**	**0**
TOTAL**	**454**	**9**	**50**	**1**	**0**	**0**	504	10	514

	IN	OUT	IN	OUT	IN	OUT	IN	OUT	TOTAL
AUTO	0	445	0	68	0	4	**0**	**517**	**517**
TAXI (BALANCED)	9	9	1	1	0	0	**10**	**10**	**20**
TRUCK TRIPS							**18**	**18**	**36**
TOTAL**	**9**	**454**	**1**	**69**	**0**	**4**	28	545	573

*Typical Average daily attendance of 95% is used for police academy recruits in the analysis.
**Equals the sum of Auto + Taxi (Balanced)

It should also be noted that there is an additional peak of outbound demand during the 10-11 PM period. This overnight peak is attributed to the remaining in-service staff and training staff populations exiting the project site. Overall traffic on the study area street network is typically substantially lower during this period. For example two-way traffic volumes on College Point Boulevard are generally 72 percent lower during the 10-11 PM period compared to the analyzed 3-4 PM peak hour. Two-way traffic volumes on Ulmer Street are 76 percent lower during the 10-11 PM period compared to the 3-4 PM peak hour.

Vehicular Traffic

Project-generated vehicle trips would consist of those made by auto, taxi, truck and charter bus. These vehicle trips were assigned to study area portals and to study area intersections based on their likely origins and destinations and logical routes of travel. A majority of the auto trips were assigned to the project site's primary garage entrance on College Point Boulevard, with two thirds of the total trips utilizing the primary entrance at 30th Avenue and the remaining one third utilizing the overflow entrance to the north. This assumption is based on the proximity of the parking spaces relative to the garage access locations. Taxi trips were assumed to drop-off/pick-up at the pedestrian entrance on 28th Avenue. Truck trips were assigned to designated truck routes within the study area, then via the most direct path on the local street network to and from project site delivery access points on College Point Boulevard.

Figures 11-7 and 11-8 show the incremental vehicular traffic (auto, taxis and trucks) generated by the proposed project during the weekday AM and PM peak hours, where as Figures 11-9 and 11-10 show the total 2014 With-Action condition traffic volumes at analyzed intersections during these peak hours. These total volumes are a combination of the incremental project traffic and the traffic volumes under future No-Action conditions.

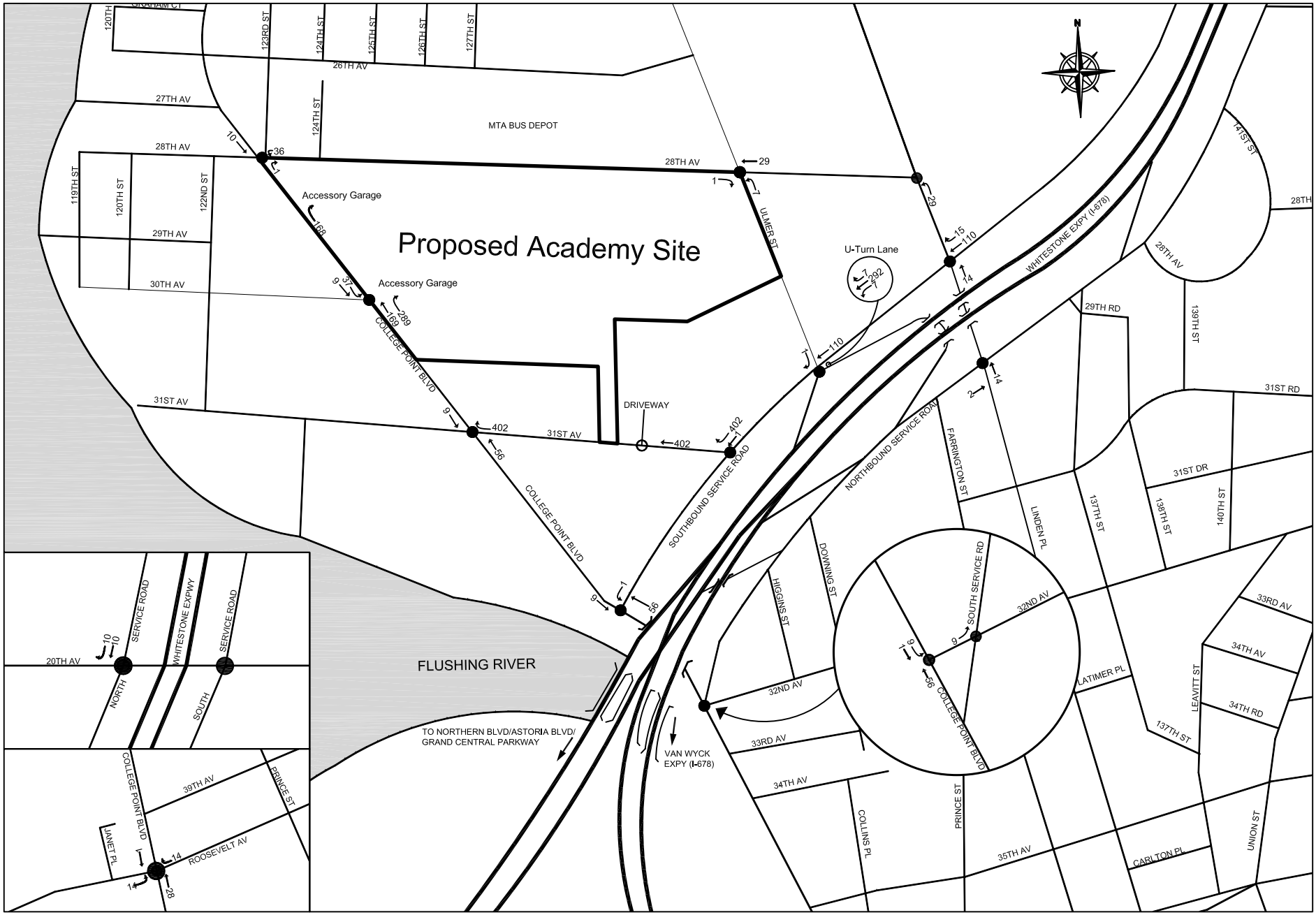
According to *CEQR Technical Manual* criteria, if levels of service deteriorate from LOS A, B or C in the No-Action condition to marginally unacceptable mid-LOS D or unacceptable LOS E or F in the With-Action condition, then a significant adverse traffic impact has occurred. *CEQR Technical Manual* criteria further specify that for a No-Action LOS A, B or C which declines to mid-LOS D (45 seconds of delay for signalized intersections and 30 seconds of delay for unsignalized intersections) or worse in the With-Action condition, mitigation to mid-LOS D is required. For No-Action LOS D, an increase of five or more seconds in a lane group in the With-Action condition should be considered significant if the With-Action delay exceeds mid-LOS D. For No-Action LOS E, an increase in delay of four seconds should be considered significant. For No-Action LOS F, three seconds of delay should be considered significant, however, if the No-Action LOS F condition already has delays in excess of 120 seconds, an increase of one second in delay should be considered significant, unless the proposed action would generate fewer than five vehicles through that intersection in the peak hour (signalized intersections) or fewer than five passenger car equivalents (PCE) in the peak hour along the critical approach (unsignalized intersections). In addition, for unsignalized intersections, for the minor street approach to generate a significant impact, 90 PCEs must be identified in the With-Action condition in any peak hour.

Table 11-7 identifies, with an asterisk (*), significantly adversely impacted intersections in the two analyzed peak hours based on the criteria previously noted. As shown in the tables, there would be five intersections with one or more impacted movements in both AM and PM peak hours. The following provides a discussion of these impacted locations.

College Point Boulevard

The westbound approach at 31st Avenue would be impacted in AM peak hour, with LOS F conditions, 127.3 seconds of delay and a v/c ratio of 1.18 with the proposed action compared to LOS C, 30.9

2014 Increment AM Peak Hour Traffic Volumes



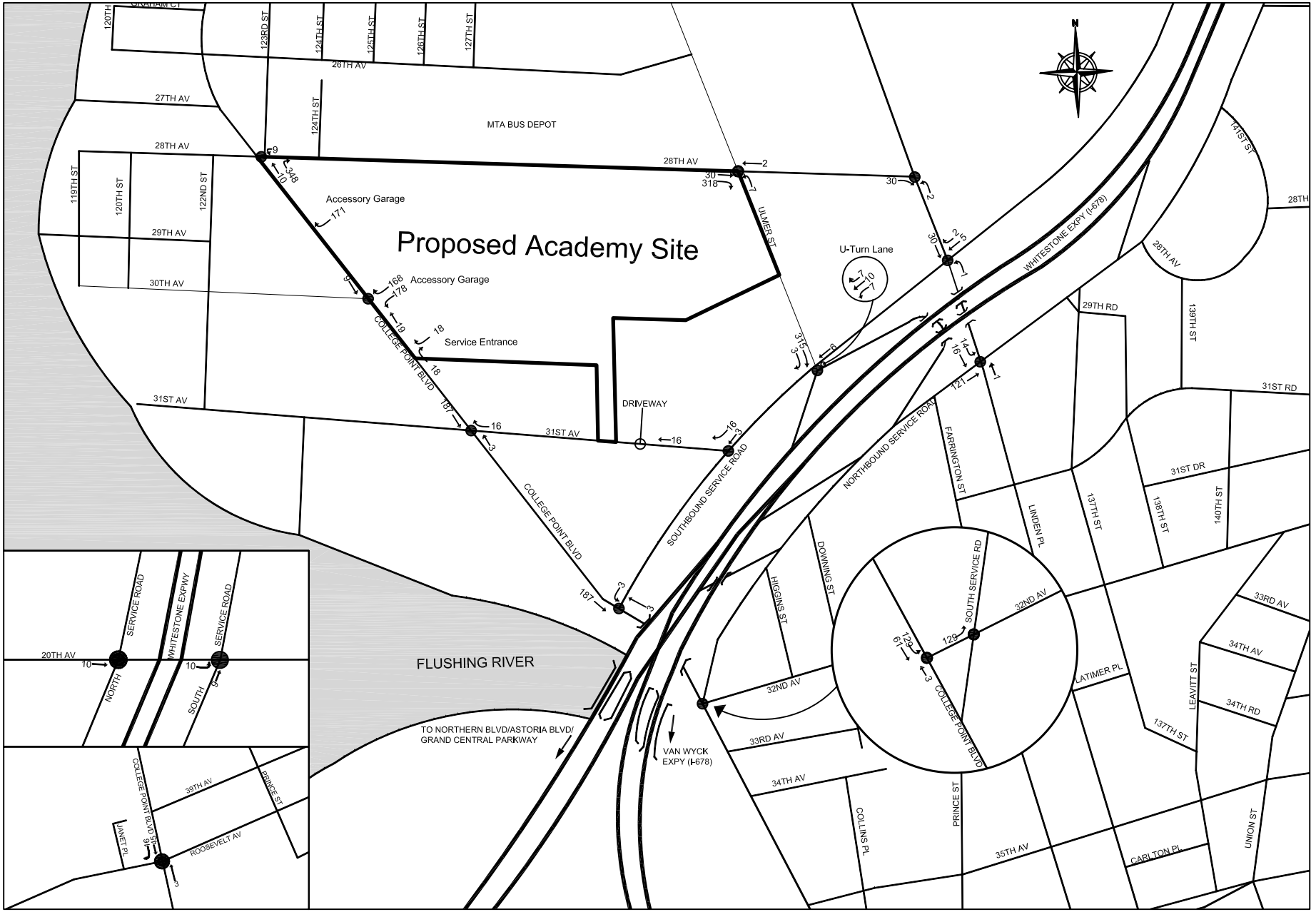
Legend:
● - Analyzed Intersection

Not to Scale

Police Academy - College Point, Queens

Figure 11-8

2014 Increment PM Peak Hour Traffic Volumes

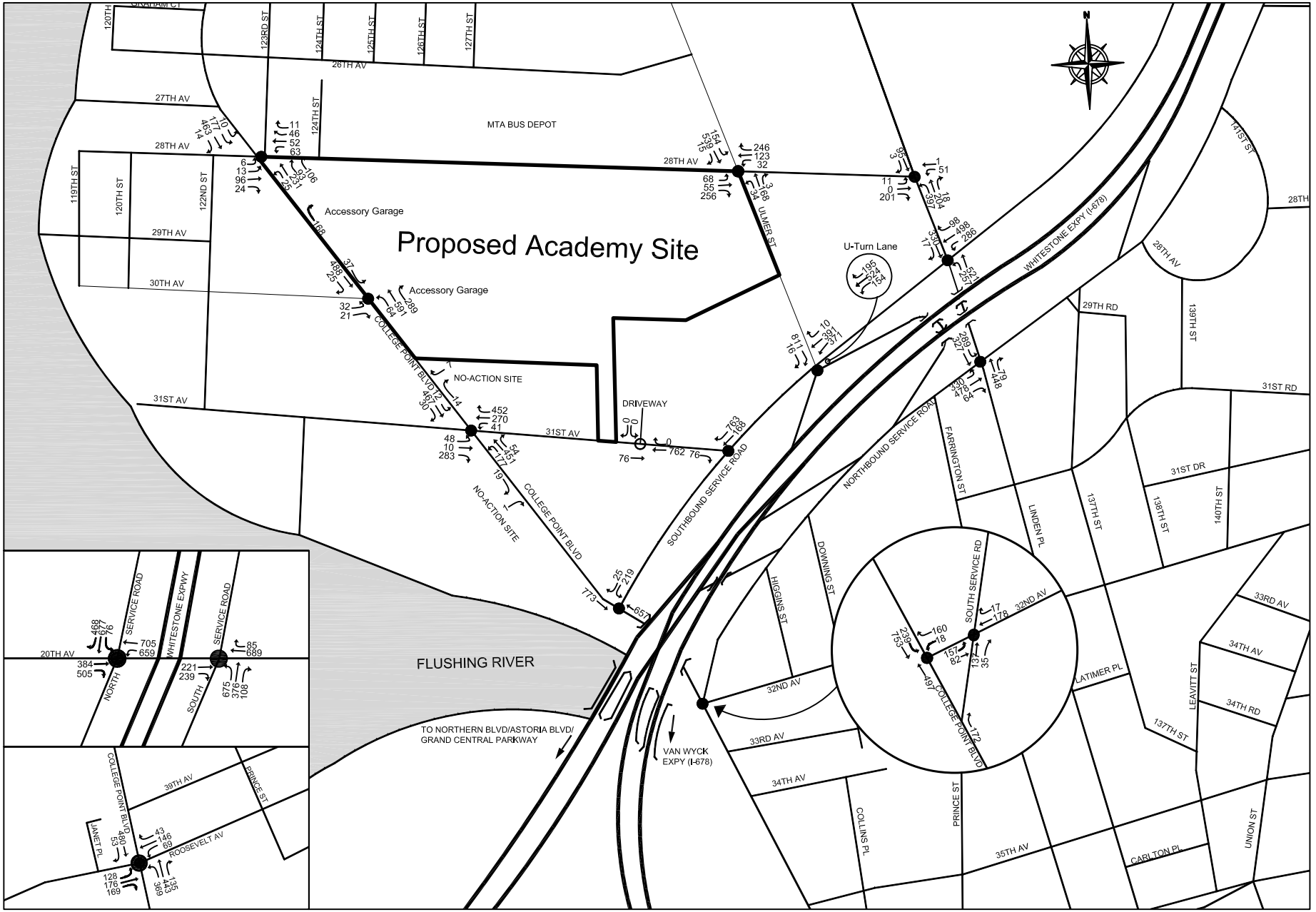


Legend:

● - Analyzed Intersection

Not to Scale

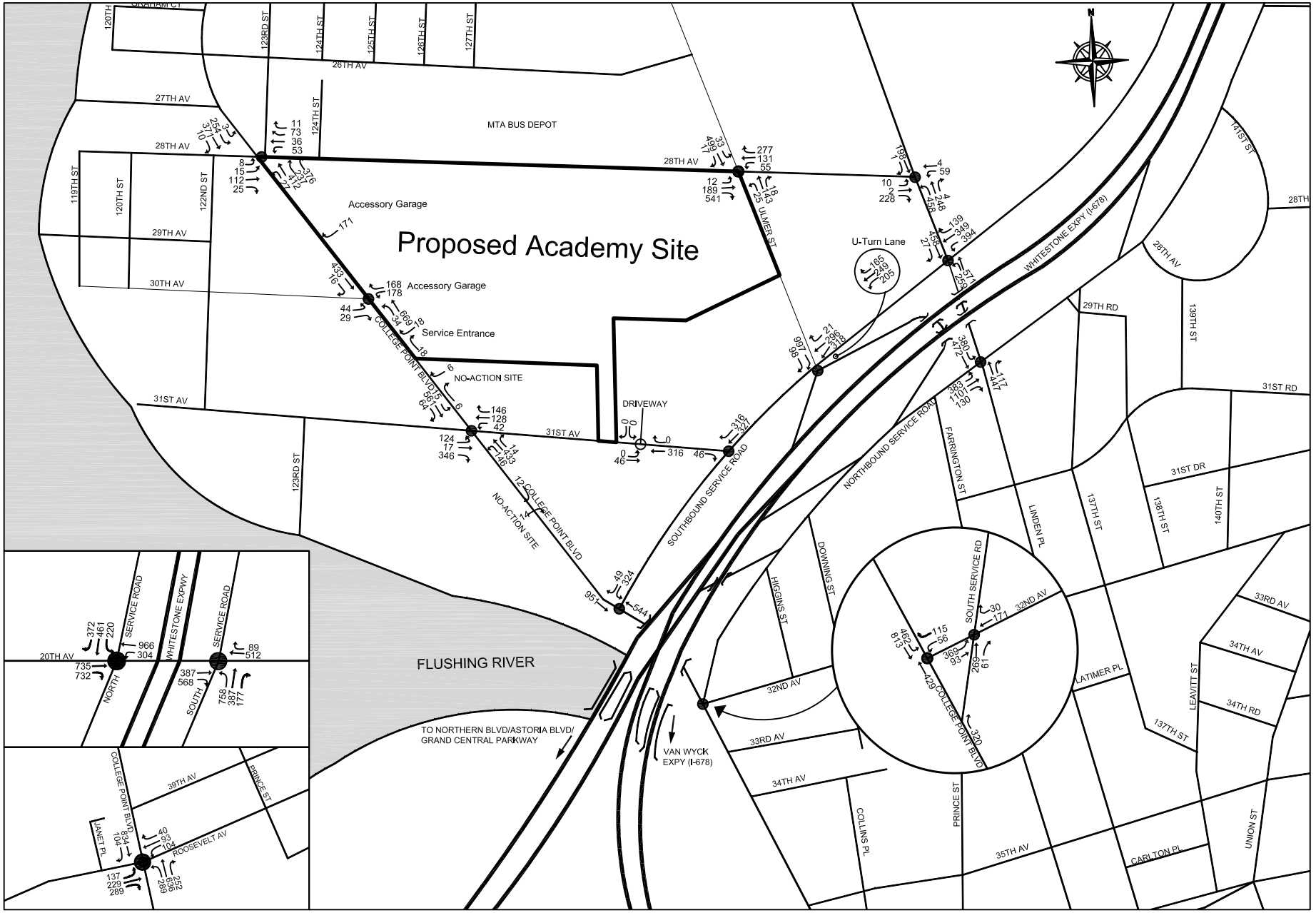
2014 With-Action AM Peak Hour Traffic Volumes



Legend:
● - Analyzed Intersection

Not to Scale

2014 With-Action PM Peak Hour Traffic Volumes



Legend:
● - Analyzed Intersection

Not to Scale

Table 11-7: 2014 With-Action Conditions Level of Service

SIGNALIZED INTERSECTIONS	LANE GROUP	NO-ACTION AM PEAK HOUR V/C RATIO	NO-ACTION AM PEAK HOUR Delay (sec.)	NO-ACTION AM PEAK HOUR LOS	WITH-ACTION AM PEAK HOUR V/C RATIO	WITH-ACTION AM PEAK HOUR Delay (sec.)	WITH-ACTION AM PEAK HOUR LOS		NO-ACTION PM PEAK HOUR V/C RATIO	NO-ACTION PM PEAK HOUR Delay (sec.)	NO-ACTION PM PEAK HOUR LOS	WITH-ACTION PM PEAK HOUR V/C RATIO	WITH-ACTION PM PEAK HOUR Delay (sec.)	WITH-ACTION PM PEAK HOUR LOS	
College Point Boulevard															
College Point Blvd. (N-S) @ 28th Ave. (E-W)	EB-LTR	0.39	18.1	B	0.40	18.1	B		0.40	18.0	B	0.40	18.0	B	
	WB-LTR	0.27	16.1	B	0.37	17.5	B		0.32	16.7	B	0.34	17.1	B	
	NB-L	0.08	7.4	A	0.08	7.4	A		0.07	7.2	A	0.07	7.2	A	
	NB-T	0.23	7.9	A	0.23	7.9	A		0.44	9.5	A	0.44	9.5	A	
	SB-L	0.50	13.3	B	0.50	13.3	B		0.99	66.6	E	1.00	69.8	E	
	SB-TR	0.33	8.6	A	0.34	8.7	A		0.25	8.0	A	0.25	8.0	A	
College Point Blvd. (N-S) @ 31st Ave. (E-W)	EB-LTR	0.65	34.6	C	0.65	34.6	C		1.13	114.3	F	1.13	114.3	F	
	WB-LTR	0.54	30.9	C	1.18	127.3	F	*	0.54	31.5	C	0.57	32.2	C	
	NB-L	0.46	12.2	B	0.47	12.3	B		0.33	9.7	A	0.40	11.4	B	
	NB-T	0.23	8.2	A	0.26	8.4	A		0.24	8.3	A	0.24	8.3	A	
	SB-L	0.04	13.1	B	0.04	13.1	B		0.05	13.2	B	0.05	13.2	B	
	SB-T	0.35	15.8	B	0.35	15.8	B		0.26	14.8	B	0.39	16.3	B	
College Point Blvd. (N-S) @ Whitestone Expressway Southbound Service Road (WB)	WB-L	0.54	20.9	C	0.54	21.0	C		0.70	25.8	C	0.70	26.1	C	
	WB-R	0.06	14.0	B	0.06	14.0	B		0.10	14.3	B	0.10	14.3	B	
	NB-T	0.39	9.1	A	0.43	9.4	A		0.33	8.5	A	0.33	8.5	A	
	SB-T	0.55	10.6	B	0.55	10.7	B		0.47	9.8	A	0.58	11.1	B	
College Point Blvd. (N-S) @ 32nd Avenue (WB)	WB-L	0.03	13.7	B	0.03	13.7	B		0.09	14.2	B	0.09	14.2	B	
	NB-T	0.53	19.3	B	0.59	20.3	C		0.47	18.4	B	0.47	18.4	B	
	SB-L	0.52	16.1	B	0.57	18.4	B		0.64	19.3	B	0.89	36.2	D	
	SB-T	0.56	10.8	B	0.56	10.8	B		0.48	9.9	A	0.52	10.3	B	
College Point Blvd. (N-S) @ Roosevelt Ave. (E-W) **(North Side)**	WB-LTR	0.37	35.0	C	0.40	35.5	D		0.25	29.7	C	0.25	29.7	C	
	NB-L	0.71	32.9	C	0.71	32.9	C		0.69	41.2	D	0.70	43.1	D	
	NB-T	0.23	10.1	B	0.25	10.3	B		0.40	14.2	B	0.40	14.3	B	
	SB-TR	0.41	28.5	C	0.41	28.5	C		0.68	37.1	D	0.72	38.5	D	
College Point Blvd. (N-S) @ Roosevelt Ave. (E-W) **(South Side)**	EB-LTR	0.69	42.6	D	0.71	43.3	D		0.76	41.7	D	0.76	41.7	D	
	NB-L	0.99	79.8	E	0.99	79.8	E		1.15	145.8	F	1.18	158.5	F	*
	NB-TR	0.43	19.0	B	0.45	19.4	B		0.86	38.1	D	0.86	38.3	D	
	SB-T	0.36	27.7	C	0.36	27.7	C		0.59	35.0	C	0.62	35.7	D	
College Point Blvd. (N-S) @ 30th Avenue (EB) **(New Signal Under Build Conditions)**	EB-LTR	**NA**			0.12	14.5	B		**NA**			0.24	16.1	B	
	WB-L				0.00	13.5	B					0.48	19.9	B	
	WB-TR				0.00	13.5	B					0.36	17.3	B	
	NB-L				0.22	9.0	A					0.10	7.5	A	
	NB-T				0.39	9.0	A					0.43	9.3	A	
	SB-L				0.14	8.2	A					0.00	6.6	A	
	SB-TR				0.35	8.7	A					0.28	8.2	A	

Key: * Impacted intersection under With-Action Conditions (asterisk, shading)

Table 11-6:(Continued) 2014 With-Action Conditions Level of Service

SIGNALIZED INTERSECTIONS	LANE GROUP	NO-ACTION AM PEAK HOUR			WITH-ACTION AM PEAK HOUR				NO-ACTION PM PEAK HOUR			WITH ACTION PM PEAK HOUR			
		V/C RATIO	Delay (sec.)	LOS	V/C RATIO	Delay (sec.)	LOS		V/C RATIO	Delay (sec.)	LOS	V/C RATIO	Delay (sec.)	LOS	
32nd Avenue															
32nd Avenue (E-W) @	EB-LT	0.32	8.4	A	0.32	8.5	A		0.52	10.9	B	0.73	16.0	B	
Northbound Service Road	WB-TR	0.46	18.8	B	0.46	18.8	B		0.41	17.9	B	0.41	17.9	B	
	NB-TR	0.36	18.0	B	0.36	18.0	B		0.64	23.8	C	0.64	23.8	C	
Ulmer Street															
	EB-LTR	0.52	14.6	B	0.54	15.1	B		0.40	12.8	B	0.78	19.9	B	
Ulmer St. (N-S) @	WB-LTR	0.35	12.9	B	0.46	13.8	B		0.43	13.2	B	0.48	13.9	B	
28th Ave. (E-W)	NB-LTR	0.12	10.8	B	0.19	11.0	B		0.15	10.7	B	0.16	10.7	B	
	SB-LTR	0.72	18.3	B	0.73	18.6	B		0.49	13.7	B	0.50	13.8	B	
Ulmer St. (EB) @															
Whitestone Expressway Southbound	WB-TR	0.63	27.4	C	0.74	30.2	C		0.55	25.8	C	0.56	26.0	C	
Service Road (SB)	SB-R	1.12	103.1	F	1.12	103.6	F		1.18	128.1	F	1.62	317.0	F	*
Service Road U-Turn (SB)	WB-TR	0.84	43.1	D	1.25	159.2	F	*	0.77	38.9	D	0.82	42.0	D	
Linden Place															
Linden Pl. (N-S) @	WB-L	0.70	37.9	D	0.70	37.9	D		0.89	53.0	D	0.89	53.0	D	
Whitestone Expressway Southbound	WB-TR	0.61	31.5	C	0.77	36.5	D		0.60	31.3	C	0.60	31.5	C	
Service Road (WB)	NB-L	0.50	22.9	C	0.50	22.9	C		0.48	24.2	C	0.48	24.3	C	
	NB-T	0.57	12.8	B	0.59	13.1	B		0.59	13.2	B	0.59	13.2	B	
	SB-TR	0.68	34.7	C	0.68	34.7	C		0.82	41.9	D	0.87	46.9	D	
Linden Pl. (N-S) @	EB-LT	0.77	30.0	C	0.83	32.9	C		1.11	91.4	F	1.21	123.0	F	*
Whitestone Expressway Northbound	EB-R	0.14	19.6	B	0.14	19.6	B		0.26	21.3	C	0.26	21.3	C	
Service Road (EB)	NB-T	0.72	35.5	D	0.74	36.2	D		0.73	35.7	D	0.73	35.8	D	
	SB-L	0.65	30.4	C	0.66	30.9	C		0.79	38.6	D	0.80	38.9	D	
	SB-T	0.22	11.9	B	0.22	11.9	B		0.33	13.0	B	0.30	12.7	B	
20th Avenue															
	EB-T	0.42	38.3	D	0.42	38.3	D		0.54	36.0	D	0.55	36.1	D	
	EB-R	1.00	83.0	F	1.00	83.0	F		0.99	72.4	E	0.99	72.4	E	
20th Ave. (E-W) @	WB-L	1.03	75.5	E	1.03	75.5	E		0.55	29.9	C	0.55	30.2	C	
Whitestone Expressway Southbound	WB-T	0.40	14.8	B	0.40	14.8	B		0.52	14.9	B	0.52	14.9	B	
Service Road (SB)	SB-LTR	1.09	98.8	F	1.10	104.6	F	*	0.99	73.7	E	0.99	73.7	E	
	SB-R	1.12	127.8	F	1.14	136.2	F	*	0.93	80.2	F	0.93	80.2	F	
20th Ave. (E-W) @	EB-L	0.68	44.4	D	0.68	44.4	D		0.87	56.9	E	0.90	60.3	E	
Whitestone Expressway Northbound	EB-T	0.16	11.7	B	0.16	11.7	B		0.33	15.9	B	0.33	15.9	B	
Service Road (NB)	WB-TR	0.62	30.2	C	0.62	30.2	C		0.54	32.4	C	0.54	32.4	C	
	NB-L	0.91	60.4	E	0.91	60.4	E		0.84	48.1	D	0.84	48.1	D	
	NB-LT	0.65	37.1	D	0.65	37.1	D		0.56	31.6	C	0.57	31.8	C	
	NB-R	0.27	30.9	C	0.27	30.9	C		0.37	29.3	C	0.37	29.3	C	

Key: * Impacted intersection under With-Action Conditions (asterisk, shading)

Table 11-6:(Continued) 2014 With-Action Conditions Level of Service

UNSIGNALIZED INTERSECTIONS	LANE GROUP	NO-ACTION AM PEAK HOUR			WITH-ACTION AM PEAK HOUR			NO-ACTION PM PEAK HOUR			WITH-ACTION PM PEAK HOUR		
		V/C RATIO	Delay (sec.)	LOS	V/C RATIO	Delay (sec.)	LOS	V/C RATIO	Delay (sec.)	LOS	V/C RATIO	Delay (sec.)	LOS
31st Avenue													
31st Ave. (WB) @ Whitestone Expressway Southbound Service Road (SB)	WB-R	0.12	11.1	B	0.16	13.6	B	0.04	8.5	A	0.04	8.5	A
Linden Place													
Linden Pl (N-S) @ 28th Ave. (E-W)	EB-LT	0.40	40.6	E	0.15	62.0	F	0.20	84.4	F	0.20	84.4	F
	EB-TR	0.25	11.0	B	0.25	11.0	B	0.28	11.7	B	0.32	12.4	B
	NB-LT	0.29	8.8	A	0.36	9.2	A	0.40	9.9	A	0.41	10.0	A
	SB-LT	0.00	7.8	A	0.00	7.8	A	0.00	7.8	A	0.00	7.8	A

Key: * Impacted intersection under With-Action Conditions (asterisk, shading)

seconds of delay and a v/c ratio of 0.54 in the No-Action. The northbound exclusive left-turn at Roosevelt Avenue (south side) would be impacted in the PM peak hour, with LOS F conditions, 158.5 seconds of delay and a v/c 1.18 with the proposed action compared to LOS F, 145.8 seconds of delay and a v/c ratio of 1.15 in the No-Action.

Ulmer Street

The Southbound Whitestone Expressway Service Road would be impacted at Ulmer Street in both the AM and PM peak hours. In the AM peak hour, the westbound (U-turn) approach would deteriorate from LOS D with 43.1 seconds of delay and a v/c ratio of 0.84 to LOS F with 159.2 seconds of delay and a v/c ratio of 1.25. In the PM peak hour, the southbound approach would deteriorate from LOS F with 128.1 seconds of delay and a v/c ratio of 1.18 to LOS F with 317.0 seconds of delay and a v/c ratio of 1.62.

Linden Place

At the Whitestone Expressway Northbound Service Road, the eastbound approach would be impacted in the PM peak hour, with LOS F conditions, 123.0 seconds of delay and a v/c ratio of 1.21 in the With-Action condition, compared to LOS F conditions with 94.6 seconds of delay and a v/c ratio of 1.12 in the No-Action.

20th Avenue

At the Whitestone Expressway Southbound Service Road the southbound left-through-right movement would be impacted in the AM peak hour, with LOS F conditions, 104.6 seconds of delay and a v/c ratio of 1.10, compared to LOS F, 98.8 seconds of delay and a v/c ratio of 1.09 in the No-Action. The southbound exclusive right-turn lane would be significantly impacted in the AM peak hour, with LOS F conditions, 136.2 seconds of delay and v/c ratio of 1.14, compared to LOS F, 127.8 seconds of delay and v/c ratio of 1.12 in the No-Action.

Overall, five of the 14 analyzed intersections in the study area would be significantly impacted in one or both of the analyzed peak hours in the future with the proposed action. Table 11-8 provides a summary of these impacted locations. Mitigation measures for these significant adverse traffic impacts are presented in Chapter 17, “Mitigation.”

Table 11-8: Summary of Impacted Intersections

Impacted Intersections	Impacted Movement	
	AM	**PM**
College Point Boulevard & 31st Avenue	WB-LTR	-
College Point Boulevard & Roosevelt Avenue	-	NB-L SB-T
Linden Place & Northbound Whitestone Expressway Service Road	-	EB-LT
Ulmer Street & Southbound Whitestone Expressway Service Road	WB-TR (U-Turn)	SB-R
20th Avenue & Southbound Whitestone Expressway Service Road	SB-LTR SB-R	-

Parking

The proposed project would provide approximately 1,800 accessory parking spaces for use by recruits, staff, in-service officers and visitors. As discussed in Chapter 2, "Land Use Zoning and Public Policy," under current zoning, a total of approximately 5,702 accessory parking spaces would be required for the proposed project. However, as discussed in detail below, sufficient capacity would be available in the proposed accessory garage and on-street within quarter-mile of the project site to accommodate all project-generated parking demand, and no significant adverse parking impacts are anticipated.

As noted in the Existing Conditions section of this chapter, on-street parking spaces are generally concentrated in the residential areas to the north of the project site, while the streets bordering the project site are typically governed by no standing anytime regulations.

It is anticipated that the proposed 1,800-space on-site accessory parking garage would accommodate approximately 87 percent of the parking demand generated by the proposed project. Table 11-8 shows the expected parking demand and accumulation for a typical weekday in the future with the proposed action. As shown in Table 11-8, a parking shortfall would be expected between 2PM and 3PM, when approximately 259 vehicles would have to seek on-street parking. This shortfall is based on a conservative assumption of 1.9 recruits per vehicle. However, as noted previously, recruits arriving by auto would be required to have a minimum of three persons per vehicle in order to park in the proposed garage. The NYPD will strictly enforce this policy. Any recruits arriving in an auto with fewer than three persons would therefore have to find legal on-street parking. As such, assuming that recruits who choose to travel via vehicle to the Police Academy would arrange ride shares of at least three people per vehicle to take advantage of the on-site parking, the parking shortfall would be reduced to approximately 97 spaces during the peak garage utilization. As discussed above, there would be a total of 274 and 301 legal on-street parking spaces available during the AM and PM peak hours, respectively, within a quarter-mile of the project site to accommodate any project-generated parking demand not otherwise accommodated in the proposed on-site garage; however, mitigation measures are presented in Chapter 17, "Mitigation" to increase overall supply of on-street parking space in the vicinity of the proposed project.

As described in Chapter 17, it is proposed to modify the curbside parking regulations under the proposed action on the periphery of the Proposed Academy Site along 28th Avenue (between Ulmer Street and College Point Boulevard to read "No Standing Except Authorized Vehicles 7AM to 4PM Monday thru Friday". This proposed change to the parking regulations along 28th Avenue would create approximately 86

Table 11-9: Project Component Parking Demand

	Recruits			TrafficEnforcement/ School Safety			In-Service			Training Staff & Security			Maintenance & Cleaning Staff			Visiting Trainees			Museum Visitors			Total Parking Demand		
	In	Out	accum	In	Out	accum	In	Out	accum	In	Out	accum	In	Out	accum	In	Out	accum	In	Out	accum	In	Out	accum
12-1 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60
1-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60
2-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60
3-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60
4-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60
5-6	25	0	25	0	0	0	0	0	0	0	0	0	0	36	24	0	0	0	0	0	0	25	36	49
6-7	**445**	**0**	**470**	**0**	**0**	**0**	**0**	**0**	**0**	**49**	**0**	**49**	**0**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**494**	**0**	**543**
7-8	25	0	495	43	0	43	0	0	0	117	0	166	0	0	24	0	0	0	0	0	0	185	0	728
8-9	0	0	495	128	0	171	0	0	0	127	0	293	0	0	24	8	0	8	0	0	0	263	0	991
9-10	0	0	495	0	0	171	101	0	101	195	0	488	0	0	24	0	0	8	0	0	0	296	0	1,287
10-11	0	0	495	0	0	171	303	0	404	84	0	572	0	0	24	0	0	8	4	0	4	391	0	1,678
11-12	0	0	495	0	0	171	0	0	404	0	0	572	0	0	24	0	0	8	4	0	8	4	0	1,682
12-1 PM	0	0	495	0	0	171	0	0	404	0	0	572	0	0	24	0	0	8	0	0	8	0	0	1,682
1-2	0	0	495	0	0	171	101	0	505	0	0	572	23	0	47	0	0	8	0	0	8	124	0	1,806
2-3	0	0	495	0	0	171	303	0	808	0	26	546	0	24	23	0	0	8	0	0	8	303	50	2,059
3-4	**0**	**445**	**50**	**0**	**0**	**171**	**0**	**0**	**808**	**0**	**68**	**478**	**0**	**0**	**23**	**0**	**0**	**8**	**0**	**4**	**4**	**0**	**517**	**1,542**
4-5	0	50	0	0	0	171	0	0	808	0	134	344	0	0	23	0	0	8	0	4	0	0	188	1,354
5-6	0	0	0	0	151	20	0	0	808	0	93	251	0	0	23	0	8	0	0	0	0	0	252	1,102
6-7	0	0	0	0	20	0	0	404	404	0	23	228	0	0	23	0	0	0	0	0	0	0	447	655
7-8	0	0	0	0	0	0	0	0	404	0	46	182	0	0	23	0	0	0	0	0	0	0	46	609
8-9	0	0	0	0	0	0	0	0	404	0	0	182	23	0	46	0	0	0	0	0	0	23	0	632
9-10	0	0	0	0	0	0	0	0	404	0	0	182	14	0	60	0	0	0	0	0	0	14	0	646
10-11	0	0	0	0	0	0	0	404	0	0	182	0	0	0	60	0	0	0	0	0	0	0	586	60
11-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60
Total	**495**	**495**		**171**	**171**		**808**	**808**		**572**	**572**		**60**	**60**		**8**	**8**		**8**	**8**		**2122**	**2122**	

Sources/Notes:
(1) NYPD Facility Counts

additional spaces to satisfy the anticipated parking demand on a street that is immediately adjacent to the proposed Academy, reducing the parking shortfall to approximately 11 spaces. This would preserve a majority of the anticipated No-Action parking supply for the general public.

E. CONCLUSION

The Proposed Action would create new travel demand by NYPD recruits, in-service officers, training staff, security and other staff. The analysis conservatively assumes that in the future without the proposed action, the Project Site would remain vacant. This serves as the baseline for comparing the effects of the No-Action and With-Action conditions. Overall, the proposed Academy is expected to generate an estimated 514 and 573 new vehicle trips in the weekday AM and PM peak hours, respectively. This increased travel demand would result in significant adverse traffic impacts at five analyzed intersections during one or both of the analyzed peak hours. Chapter 17 "Mitigation" describes mitigation measures that would be implemented to address the anticipated traffic impacts. The parking analysis found that the proposed project would generate parking demand in excess of the accessory parking spaces that would be provided on-site. However, there would be sufficient on-street public parking spaces available within a quarter-mile radius of the project site to accommodate the project-generated parking demand not otherwise accommodated on-site. As such, no parking impacts would be expected as a result of the proposed project.

A. INTRODUCTION

This chapter of the EIS describes the transit and pedestrian travel characteristics and potential impacts associated with the Proposed Action. As described in Chapter 1 "Project Description," the total development size would consist of approximately 2.4 million gross square feet and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking facility to accommodate on-site parking demand. The primary pedestrian entrance would be located 28th Avenue, approximately 500 feet west of Ulmer Street.

The proposed Academy is located approximately one and one-quarter miles to the north of the Flushing/ Main Street subway station, which is located at Roosevelt Avenue and Main Street. This is the last station on the Flushing Line that services No. 7 trains. As this is the closest subway station to the project site, it is anticipated that all project generated subway trips would be concentrated at the Flushing/Main Street subway station. As shown previously in Table 11-7 in Chapter 11, "Traffic and Parking" the proposed project would generate 668 and 694 subways trips in the 6-7 AM and 3-4 PM peak hour peak hours, respectively. According to the *CEQR Technical Manual*, projects that generate more then 200 subways trips at a station require a detailed analysis. As the Proposed Action is expected to generate more than 200 trips during the AM and PM peak hours, a detailed subway analysis is warranted at the Flushing/Main Street station for both peak hours. In addition, a line haul analysis is provided for each peak hour.

As presented above the proposed Academy is located one and one-quarter miles from the Flushing/ Main Street subway station. It is anticipated that all subway trips would also utilize the bus service in the area of the Flushing/Main Street station to access the site. As shown in Table 11-7 in Chapter 11 "Traffic and Parking," the Proposed Action is expected to generate approximately 98 and 105 new bus trips in the AM and PM peak hours, respectively. However, as mentioned above, it is expected that all subway users would use buses to and from the Flushing/Main Street station and the proposed Academy site. As such, the total combined number of new subway and bus trips is expected to be approximately 766 and 799 during the AM and PM peak hours respectively.

Two local bus routes operate within close proximity to the proposed Academy site: the Q65 and the Q25. In the vicinity of the project site, the Q65 route runs to the west of the main pedestrian entrance, along College Point Boulevard; the Q25 route runs along 28th Avenue and Ulmer Street. As the Q25 bus has a bus stop (both in-bound and out-bound) near the proposed main pedestrian entry, at 28th Avenue, near Ulmer Street, it is conservatively assumed that many bus users would prefer to take the Q25 bus to and from Flushing. As shown in Figure 12-1, in the vicinity of the project site the Q25 bus line stops closest to the project site's pedestrian entrance located on 28th Avenue and Ulmer Street.

B. EXISTING CONDITIONS

Data Collection

Counts at the primary subway station stairways and fare arrays were conducted during the weekday AM and PM peak periods in May 2008 at the Flushing/Main Street Station on the No. 7 subway line. AM and PM peak period pedestrian counts were also conducted at the same time along the sidewalks that border the site, including: the east sidewalk along College Point Boulevard; the south sidewalk along 28th Avenue; and the west sidewalk along Ulmer Street. Crosswalks counts were also conducted at this time at the intersection of College Point Boulevard and 28th Avenue and Ulmer Street and 28th Avenue, the two intersections that would be expected to experience the highest increase in pedestrian volumes in the future with the proposed action.

Subway Station

One subway line serves the study area in College Point. The Flushing Line, which carries the No. 7 train, terminates at the Flushing/Main Street Station, approximately one and quarter miles south of the project site. The Flushing Line runs east/west from the 42nd Street/Times Square station in Manhattan to the Flushing/Main Street station in Queens. In general, tracks are underground in Manhattan, and elevated in Queens. During weekdays from 6:30 AM to 12:00 PM, express trains run on a dedicated track from Main Street to Queensboro Plaza. From noon until 10:00 PM, express trains reverse directions and run from Queensboro Plaza to Main Street.

Table 12-1 shows the average weekday-entering turnstile counts at the Flushing/Main Street station from 2005 through 2007, as well as the 2007 ranking of the station based on average weekday ridership relative to all 422 stations system-wide. As shown in Table 12-1, based on 2007 data, the Flushing/Main Street station is one of the most heavily used stations in the entire subway system. It is ranked 12th out of 422 based on an average of 57,426 persons entering on a typical weekday. Demand at this station increased by 3.8 percent from 2005 to 2006, and by 1.3 percent from 2006 to 2007.

Table 12-1: Average Weekday Entering Turnstile Counts

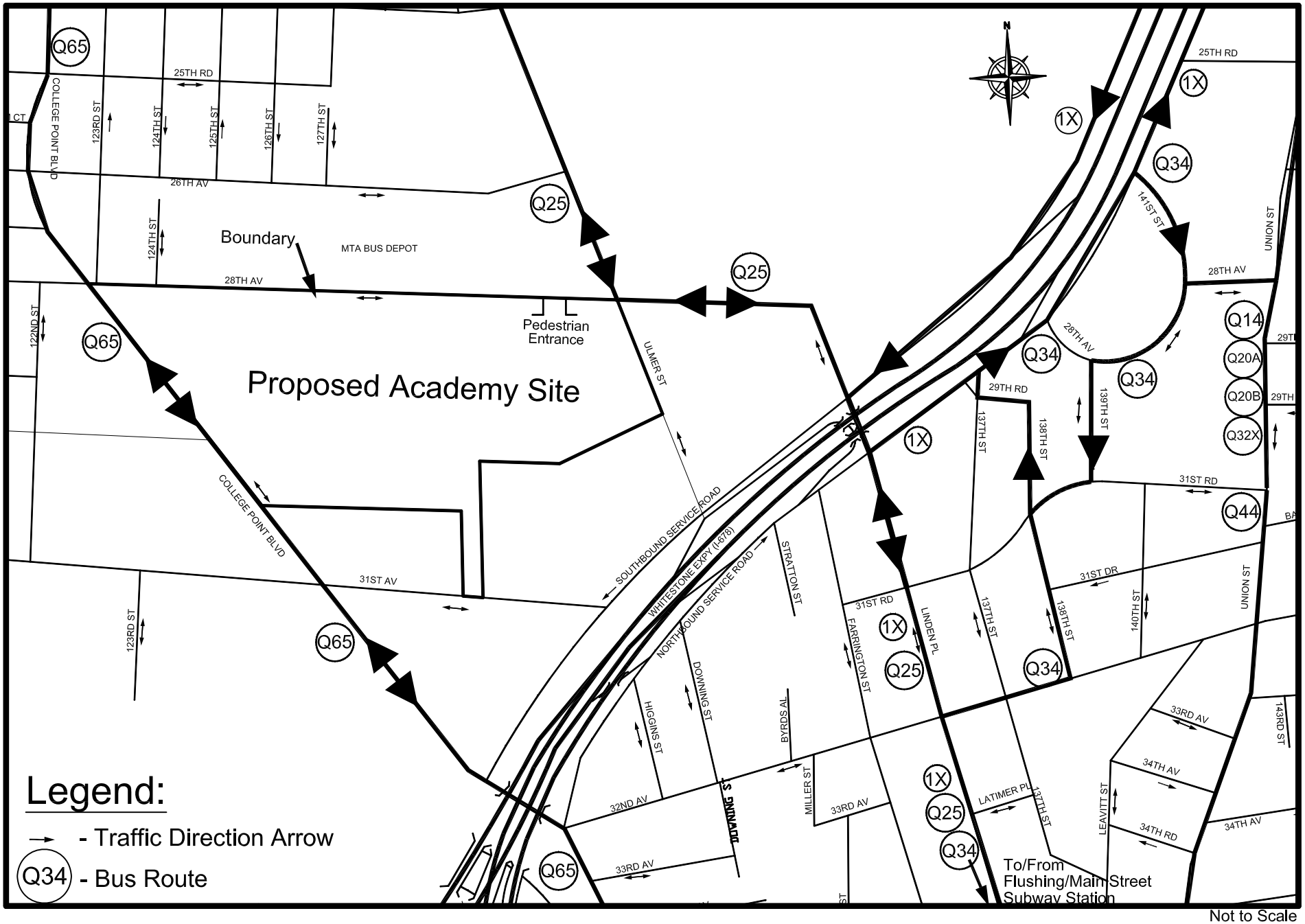
Station	Rank	2005	2006	2007	Percent Change	
					2005-2006	2006-2007
Flushing-Main Street (7)	12	54,591	56,671	57,426	3.8%	1.3%

Notes:
Rank out of 422 stations system-wide.

Source:
NYC Transit 2006 Subway and Bus Ridership Report with the Supplemental 2007 Ridership Report.

The examination of conditions at the analyzed station focuses on those station elements (street stairways and fare arrays) with the potential to be affected in the future with the Proposed Action. The analyses were prepared using the design capacities for stairs, escalators, turnstiles, and high-wheel exits specified in the *CEQR Technical Manual* and *NYCTA Station Planning and*

Figure 12-1
Local Bus Routes



Design Guidelines, as well as procedures set forth in *Pedestrian Planning and Design* by John J. Fruin. All analyses reflect peak 15-minute conditions in the AM and PM peak hours. The stairway analyses were conducted using the Fruin pedestrian level of service (LOS) methodology, which equates pedestrian flow per minute per foot of stairway width with qualitative measures of pedestrian comfort. Based on the calculated values of pedestrian volumes per foot width of stairway per minute, Fruin defines six levels of service with letters A through F, as shown in Table 12-2. LOS A is representative of free flow conditions without pedestrian conflicts and LOS F depicts significant capacity limitations and inconvenience.

Table 12-2: Stairway Level of Service Definitions

Level of Service	Pedestrians/Foot/ Minute (PFM)	Comments
A	Up to 5	Free flow conditions
B	5 - 7	Minor reverse flow will cause minor conflicts.
C	7 - 10	Slight restrictions in speed and difficulties in reverse flows.
D	10 - 13	Significant restriction in speed and difficulties in reverse flows.
E	13 - 17	Reductions of speeds, serious reverse traffic conflicts, and intermittent stoppages.
F	More than 17	Complete breakdown in traffic flow.

Practical capacities were calculated for each stairway analyzed by multiplying service volumes at LOS C/D, which is 10 persons per foot width per minute (PFM), by the effective stair width and an adjustment factor to account for two-directional friction. Peak 15-minute volumes were then compared with the capacities to obtain a v/c ratio for each peak hour. Using this methodology, LOS A, B, and C correspond to volume-to-capacity ratios of less than 1.0. LOS D, E, and F represent demand levels that exceed capacity, and hence, the v/c ratios are greater than 1.0.

Levels of service for turnstiles and high-wheel exits are also described in terms of volume-to-capacity ratios, with LOS A being less than 0.2, LOS B from 0.2 to 0.4, LOS C from 0.4 to 0.6, LOS D from 0.6 to 0.8, LOS E from 0.8 to 1.0 and LOS F over 1.0. Any volume-to-capacity ratio greater than 1.0 signifies volumes beyond capacity and extended queues.

The Flushing/Main Street station is located beneath Roosevelt Avenue and Main Street, is comprised of a double island platform with one full-time access mezzanine. The mezzanine is reached via stairs on all four corners of the intersection above, and is controlled by 2 large fare arrays (H-9) with sixteen entry/exit turnstiles. Figure 12-2 shows the layout of this station's elements. It is anticipated that new peak hour subway trips generated by the proposed Academy would utilize two (S1 and S2) of the five street stairs at this station, which are closest to the Q25 bus stop. As described above, all of the demand traveling to/from the Academy are assumed to ride the Q25 bus because it is most convenient to the main campus entry (see Figure 12-3, "Local

Bus Stops" for locations of the bus stops in the vicinity of the project site). Table 12-3 shows existing conditions of station stairs and fare arrays in the 6-7 AM and 3-4 PM peak hours, respectively. As shown in 12-3 the fare array and both analyzed stairs operate at LOS A in both the AM and PM peak hours, respectively.

Table 12-3: 2008 Existing Subway Station Stairway Analysis-Flushing Main Street (7) Line

Station Elements	Peak Hour (1)	Effective Width in Feet (2)	Maximum 15 Minute Capacity (3,7)	Peak 15 Minute Volume (4)	PFM(5)	Volume to Capacity Ratio	LOS (6,8)
Stairway at NW Corner of Roosevelt Avenue - Main Street (S1)	AM	8.8	1,320	367	2.78	0.28	A
	PM	8.8	1,320	348	2.64	0.26	A
Stairway at SW Corner of Roosevelt Avenue - Main Street (S2)	AM	8.8	1,320	324	2.45	0.24	A
	PM	8.8	1,320	359	2.71	0.27	A
Fare Arrays - 16 Turnstiles (combined)	AM	N/A	7,680	1,120	N/A	0.15	A
	PM		7,680	1,333		0.17	A

Notes:

(1) Existing Peak hours 6-7 AM and 3-4 PM

(2) Effective width measured as stairwell width less one foot to account for handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.

(3) Stair capacity in persons per 15 minutes based on NYC Transit guild lines of 10 PFM. (see note 5)

(4) Source: PHA Field Counts conducted in May 2008.

(5) PFM = Persons per foot of stairway per minute.

(6) Refer to Table 12-2 Stairway Level of Service Definition

(7) Analysis assumes capacities of 32 per minute for turnstiles.

(8) Level of Service for turnstiles: LOS A: v/c < 0.2; LOS B: v/c = 0.2 to 0.4; LOS C: v/c = 0.4 to 0.6; LOS D: v/c = 0.6 to0 .8; LOS E: 0.8 to 1.0; LOS F: v/c > 1.0.

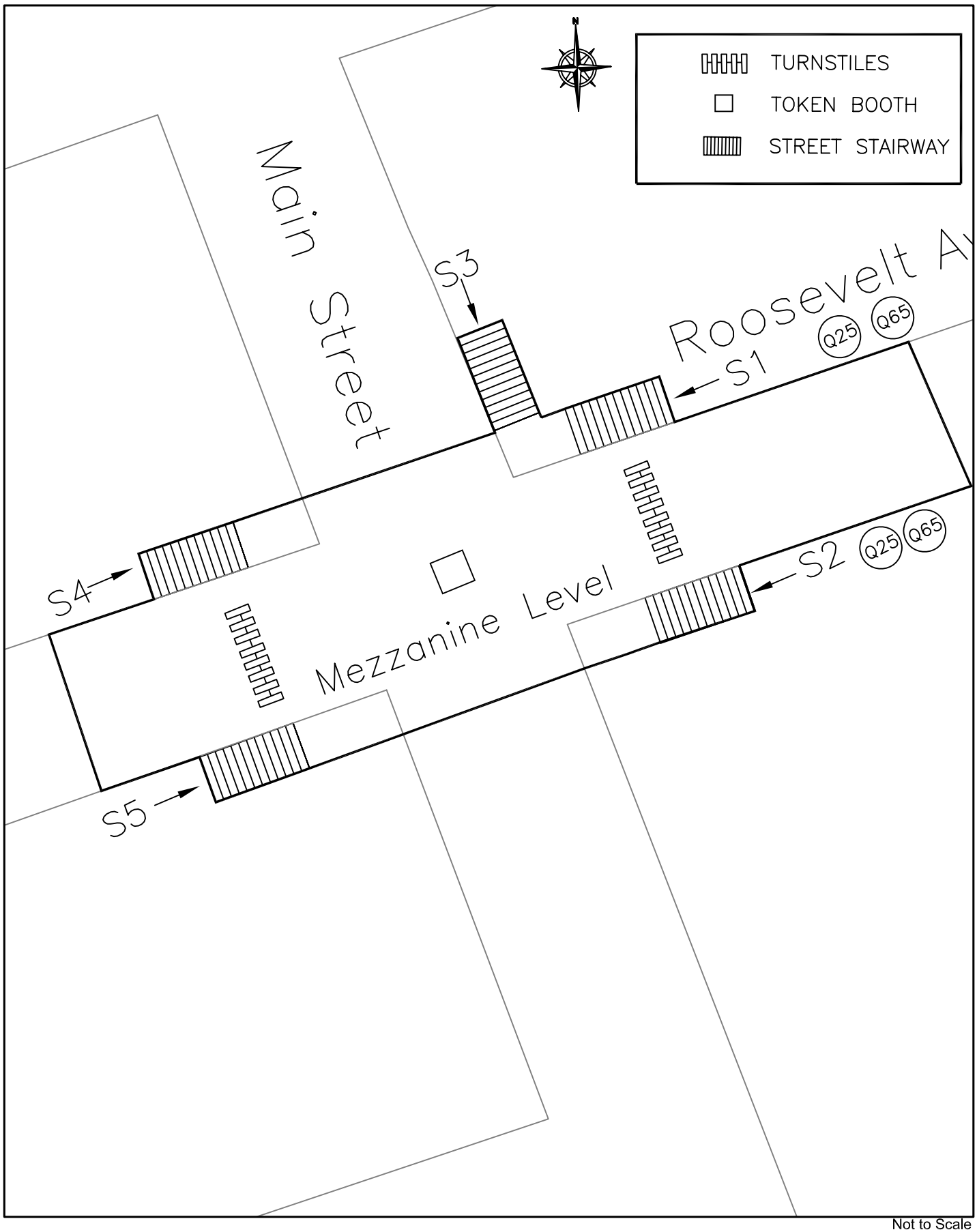
Subway Line Haul

Line haul is the volume of subway riders passing a defined point (usually the point of maximum demand or "peak load point") on a given subway line. The line haul capacity of a given subway line is a factor of the number of trains scheduled, the number of cars per train, and the per-car capacity. The line haul analysis for the Proposed Action focuses on the Flushing-Main Street Line, as this is the only route serving the study area.

An analysis of Existing Conditions subway line haul on the Flushing Line is provided in Table 12-4. In the AM peak hour the peak load points are in the Manhattan-bound direction at the 40th Street and Woodside/61st Street stations for the local and express lines respectively. In the PM the peak load points are in the Queens-bound direction at the 74th Street/Broadway and Queensboro Plaza stations for the local and express lines, respectively. As shown in Table 12-4, under Existing Conditions, local trains operate under capacity while express trains operate over

Figure 12-2

Main Street Station Mezzanine Level



Not to Scale

capacity in the peak Manhattan-bound direction in the AM peak hour with a volume-to-capacity (v/c) ratio of 0.85 and 1.05 for the local and express lines respectively. During the PM peak hour, trains typically operate under capacity with a v/c ratio of 0.65 and 0.75 for the local and express lines respectively in the peak Queens-bound direction and on which project-generated demand will converge.

Table 12- 4: Existing Subway Line Haul Conditions

Route	Peak Hour	Peak Direction	Service	Trains per Hour (1)	Cars per Hour (1)	Available Capacity (2)	Passengers per Hour (1)	V/C Ratio (3)
Flushing Line	AM	Manhattan-Bound	Local	13	143	15,730	13,380	0.85
			Express	13	143	15,730	16,472	1.05
	PM	Queens-Bound	Local	12	132	14,520	9,452	0.65
			Express	25	275	30,250	22,630	0.75

Notes:

(1) Source: NYC Transit 2007 peak load point data.

(2) Capacity based on 110 passengers/car for 50' cars as per NYC Transit subway car loading guidelines. Trains operate with 11 50'-cars.

(3) Volume-to-capacity ratio.

Bus Service

Two MTA bus route connects the proposed Academy in College Point with the Flushing/Main Street subway station. As shown earlier in Figure 12-1, the principal bus corridors in the area include College Point Boulevard, Main Street and Roosevelt Avenue. The highest concentration of bus services in the area can be found in the vicinity of the Flushing/Main Street subway station that is the terminus for the Flushing Line. Figure 12-1 shows the bus routes in the vicinity of the project site. As noted above, it is expected that all of project-generated subway demand would use the MTA buses to access the new academy.

Q25

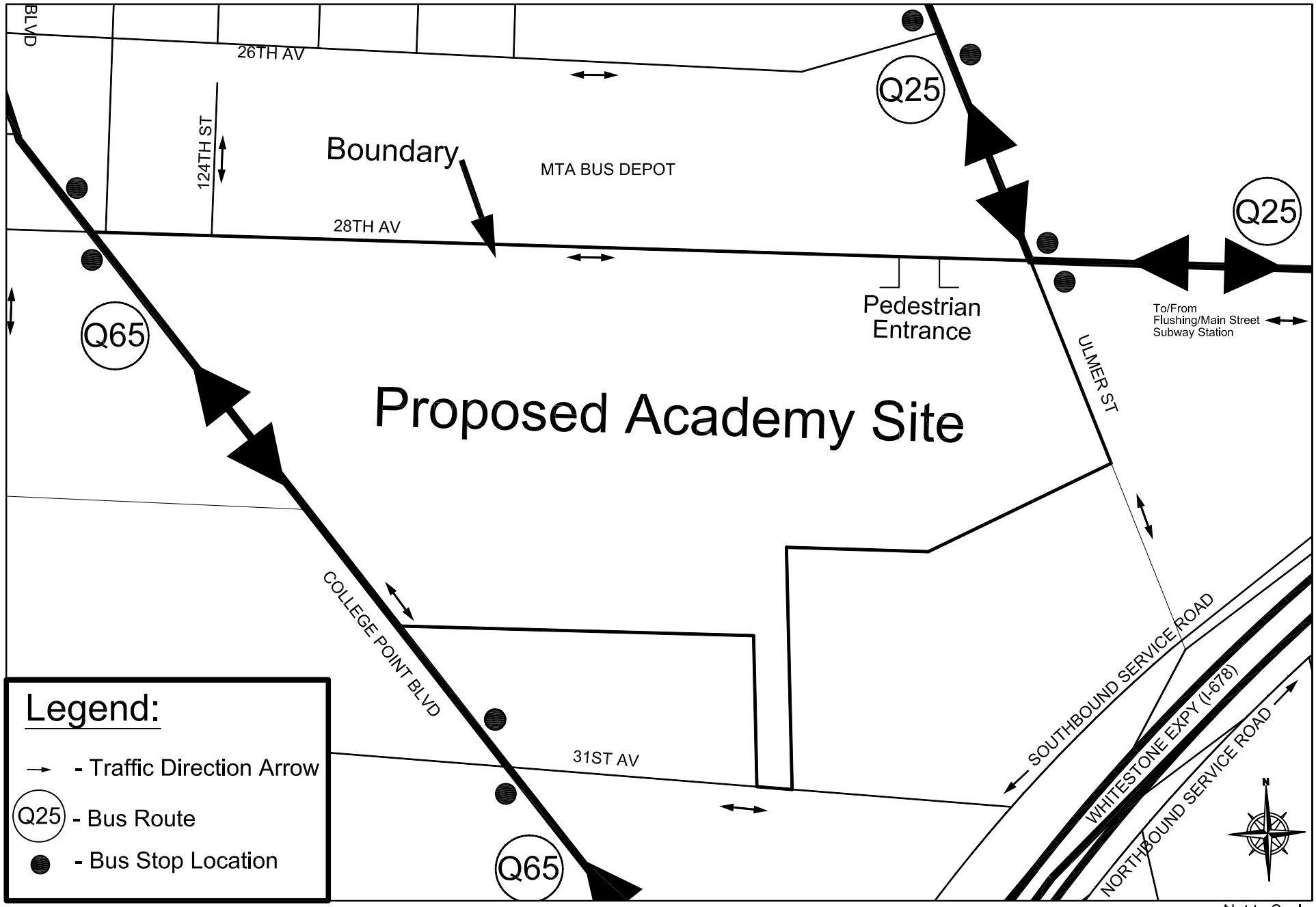
The Q25 provides local service in Queens from a terminus at Supthin Boulevard/Archer Avenue to Poppenhusen Avenue in College Point. In the vicinity of the proposed Academy site, the Q25 buses run along 28th Avenue and Ulmer Street. During the AM peak hour buses run every 10 minutes, while in the PM peak buses run every 15 minutes. Limited-Stop Service is also provide during both peak periods however does not stop at the location of the proposed action.

Q65

The Q65 provides local service in Queens from a terminus at Supthin Boulevard/Archer Avenue to 110Street/14 Avenue in College Point. In the vicinity of the proposed Academy site, the Q65 runs along College Point Bloulevard. During the both the AM and PM peak hours buses run every 10 minutes.

It should be noted that with AM, the peak ridership direction is southbound towards the Flushing/Main Street station, with a reversed peak direction in the PM peak hour. As such

Figure 12-3
Local Bus Stops



Not to Scale

project generated demand between the station and the Academy would be utilizing the Q25 and Q65 bus in the off-peak direction in peak periods.

Pedestrians

The analysis of pedestrian conditions focuses on representative pedestrian elements where new trips generated by projected developments are expected to be most concentrated. These elements include the southern sidewalk along 28th Avenue between College Point Boulevard and Ulmer Street, the two southern corners at the intersection of 28th Avenue and Ulmer Street, and the eastern and southern crosswalks at 28th Avenue and Ulmer Street. Sidewalks in the area typically range from 12 to 16 feet in width. Crosswalks in the area generally range from 11 to 14 feet in width.

Among analyzed pedestrian facilities in this area, demand counted in May 2008 was found to be very light in the immediate vicinity of the proposed Academy site in all directions during AM and PM peak hours. This is due to the land-uses in the area, which are predominately industrial or manufacturing on large tracts of land. These types of land uses do not generate many person trips throughout the day. Two-way pedestrian volumes on crosswalks along 28th Avenue at Ulmer Street were found to range from only 7 to 9 persons per hour in the AM, and from 4 to 8 persons per hour during the PM peak period. The proximity to the Q25 bus stop does not add measurable pedestrian demand at these intersections.

As discussed earlier in this chapter, the Proposed Action would generate few new walking trips only. However many new bus and subway trips would be generated during the AM or PM peak hours. Bus trips are primarily from the Flushing/Main Street station on the Flushing Line to the proposed Academy site. The net increase in combined walk and bus trips would total 852 in the AM peak hour and 886 in the PM peak hour. Therefore, transit-related pedestrian trips would comprise 90 percent of walk trips.

Peak 15-minute pedestrian flow conditions during the AM and PM peak hours were analyzed using the *Highway Capacity Manual* methodology. Under this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volumes, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity and developing a ratio of existing volume flows to capacity conditions. The resulting ratio is then compared with level of service standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corner areas is more complicated as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. To effectively evaluate these facilities, a "time-space" analysis methodology is employed which takes into consideration the traffic light cycle at intersections. In analyzing corner areas, allowance is also made for the presence of light poles, waste receptacles, and other pieces of sidewalk furniture that may occupy space otherwise available for pedestrian queuing and movement.

Level of service standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. Level of service (LOS) grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian

conflicts and LOS F depicting significant capacity limitations and inconvenience. Table 12-5 defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the *Highway Capacity Manual*.

Table 12-5: Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions

Level of Service		Crosswalk / Corner Area Criteria (sq. ft./ped.)	Sidewalk Criteria (ped./min./ft.)
A	Unrestricted	≥ 60	≤ 5
B	Slightly restricted	≥ 40	≤ 7
C	Restricted but fluid	≥ 24	≤ 10
D	Restricted, need to continuously alter walking stride and direction	≥ 15	≤ 15
E	Severely restricted	≥ 8	≤ 23
F	Forward progress only by shuffling; no reverse movement possible	< 8	> 23

Notes:
Based on average conditions for 15 minutes.

Source:
Highway Capacity Manual 2000

The analysis of sidewalk conditions includes a "platoon" factor in the calculation of pedestrian flow to more accurately estimate the dynamics of walking. "Platooning" is the tendency of pedestrians to move in bunched groups or "platoons" once they cross a street where cross traffic required them to wait. Platooning generally results in a level of service one level poorer than that determined for average flow rates.

Table 12-6 shows the results of the analyses of existing sidewalk, corner area and crosswalk conditions for the AM, and PM peak hours. As shown in table 12-6, all analyzed sidewalks, corners and crosswalks operate at LOS A in both the AM and PM peak hours, due to the very low existing demand. A minimum of five pedestrians was assumed for the 15-minute peak period analysis (in-bound and out-bound), though even that low level of demand does not occur.

Accidents

The annual number of pedestrians and bicyclists injured or killed in motor vehicle accidents from 2005 through 2007 at study area intersections is summarized in Table 12-7. The accident data do not distinguish injuries from fatalities. Accidents resulting in injuries or fatalities to pedestrians or bicyclists often involve turning vehicles, with failure to yield the right-of-way to pedestrians in crosswalks frequently cited as a causal factor. The NYCDOT considers any intersection at which five or more pedestrians or cyclists are killed or injured per year as a high accident location. As shown in Table 12-7, no intersections experienced more than three pedestrians or bicyclists accidents during the 2005 to 2007 study period. Therefore, the proposed Academy would not be located within a high-accident location and a more detailed safety analysis is not warranted.

Table 12-6: 2008 Existing Sidewalk, Corner and Crosswalk Level of Service

Sidewalk

Facility Number	Location	Effective Width (feet)	Peak 15-Min Volumes		Average Conditions				Platoon Conditions			
					AM		PM		AM		PM	
			AM	PM	PFM	LOS	PFM	LOS	PFM	LOS	PFM	LOS
S1	South Side of 28th Ave. Between College Point Blvd & Ulmer St.	9.5	6	5	0.04	A	0.04	A	0.04	A	0.04	A

Corners

Facility Number	Location	Corner	Peak 15-Min Volumes		Average Conditions			
					AM		PM	
			AM	PM	SF/Ped	LOS	SF/Ped	LOS
C1	28th Avenue @ Ulmer Strest	Southeast	5	5	1,804.9	A	1,804.9	A
C2	28th Avenue @ Ulmer Street	Southwest	5	5	371.1	A	568.3	A

Crosswalk

Facility Number	Location	Street Width (feet)	Crosswalk Width (feet)	Peak 15-Min Volumes		Avgerage Conditions (w/Conflicting Vehicles)			
						AM		PM	
				AM	PM	SF/Ped	LOS	SF/Ped	LOS
X1	28th Ave @ Ulmer St - South	68.0	10.0	10	10	859.5	A	874.1	A
X2	28th Ave @ Ulmer St - East	57.0	12.0	10	10	867.8	A	858.2	A

Notes:

AM - weekday 6-7 AM

PM - weekday 3-4 PM

PFM - persons per foot of effective width per minute.

SF/Ped - average square feet per pedestrian.

LOS - level of service.

Table 12-7: Accident Data Summary (2005-2007)

Intersection		Bicyclists Killed / Injured			Pedestrians Killed / Injured		
		2005	2006	2007	2005	2006	2007
College Point Blvd at	Roosevelt Ave.	0	0	0	2	0	1
	32nd Avenue	0	0	0	1	0	0
	Whitestone Expressway	0	0	0	0	0	0
	31st Ave.	0	0	0	0	0	0
	30th Ave.	0	0	0	0	0	0
	28th Ave.	0	0	0	0	0	0
Ulmer Street at	Whitestone Expressway	0	0	0	0	0	0
	28th Ave.	1	0	0	0	2	0
Linden Place at	Whitestone Expressway	0	0	0	1	0	0
	28th Ave.	0	0	0	0	0	0
31st Avenue at	Whitestone Expressway	0	0	0	0	0	1
20th Avenue at	Whitestone Expressway	0	0	0	1	3	1

Source:
NYCDOT

C. THE FUTURE WITHOUT THE PROPOSED ACTION

Subway

In the 2014 future without the project (No-Action), no significant physical changes are anticipated at the analyzed street stairs. Under No-Action conditions, passenger volumes at the analyzed stairways are expected to increase gradually. A one percent per year growth in existing demand is assumed to account for background growth. In addition, increments of major No-Action developments that are expected to generate demand at these stairways, based on their location, are also accounted for in identifying passenger volumes at these locations.

Table 12-8 shows the 2014 No-Action AM and PM peak hour conditions at the two station elements analyzed. As shown in the table, the two stairways (S1 and S2) would continue to operate at acceptable levels of service. Stairway S1 would operate at LOS A with V/C ratios of 0.36 and 0.40 in the AM and PM peak hours, respectively. Stairway S2 would also continue to operate at LOS A with V/C ratio of 0.33 and 0.40 in the AM and PM peak hours, respectively. The fare array would operate at LOS B, verses LOS A under existing conditions, with a V/C ratio of 0.21 and 0.28 in the AM and PM peak hours, respectively

Table 12-8:
2014 No-Action Subway Station Stairway Analysis-Flushing/Main Street on the Flushing Line

Station Elements	Peak Hour (1)	Effective Width in Feet (2)	Maximum 15 Minute Capacity (3,6)	Peak 15 Minute Volume	PFM(4)	Volume to Capacity Ratio	LOS (5,7)
Stairway at NW Corner of Roosevelt Avenue - Main Street (S1)	AM	8.8	1,320	476	3.61	0.36	A
	PM	8.8	1,320	523	3.96	0.40	A
Stairway at SW Corner of Roosevelt Avenue - Main Street (S2)	AM	8.8	1,320	432	3.27	0.33	A
	PM	8.8	1,320	534	4.04	0.40	A
Fare Array - 16 Turnstiles	AM	N/A	7,680	1,644	N/A	0.21	B
	PM		7,680	2,185		0.28	B

Notes:

(1) Existing Peak hours 7-8 AM and 3-4 PM

(2) Effective width measured as stairwell width less one foot to account for handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.

(3) Stair capacity in persons per 15 minutes based on NYC Transit guild lines of 10 PFM. (see note 5)

(4) PFM = Persons per foot of stairway per minute.

(5) Refer to Table 12-2 Stairway Level of Service Definition

(6) Analysis assumes capacities of 32 per minute for turnstiles.

(7) Level of Service for turnstiles: LOS A: v/c < 0.2; LOS B: v/c = 0.2 to 0.4; LOS C: v/c = 0.4 to 0.6; LOS D: v/c = 0.6 to 0.8;LOS E: 0.8 to 1.0; LOS F: v/c > 1.0.

Bus

Under No-Action conditions, bus service is expected to remain unchanged, with no additional bus routes anticipated within the study area. Demand for existing local buses is expected to increase as a result of new development in the area. As a standard practice, MTA Bus routinely conducts periodic ridership counts and increases service where operationally warranted and fiscally feasible. It is therefore anticipated that in the future conditions without the proposed action, MTA Bus would increase frequency, where necessary, to address any capacity shortfalls. However, for this analysis it is assumed that the current 2008 bus frequency would continue into the future No-Action conditions

Pedestrian

Under No-Action conditions, pedestrian volumes in the vicinity of the project are expected to remain very low with no congestion. To account for some general growth in the area, a background rate of 1 percent per year was applied to the 2008 existing volumes to identify the 2014 No-Action volumes. As shown in Table 12-9, all analyzed pedestrian elements would continue to operate at LOS A.

Table 12-9: 2014 No-Action Sidewalk, Corner and Crosswalk Level of Service

Sidewalk

Facility Number	Location	Effective Width (feet)	Peak 15-Min Volumes		Average Conditions				Platoon Conditions			
					AM		PM		AM		PM	
			AM	PM	PFM	LOS	PFM	LOS	PFM	LOS	PFM	LOS
S1	South Side of 28th Ave. Between College Point Blvd & Ulmer St.	9.5	6	5	0.04	A	0.04	A	0.04	A	0.04	A

Corners

Facility Number	Location	Corner	Peak 15-Min Volumes		Average Conditions			
					AM		PM	
			AM	PM	SF/Ped	LOS	SF/Ped	LOS
C1	28th Avenue @ Ulmer Strest	Southeast	5	5	1,804.7	A	1,804.9	A
C2	28th Avenue @ Ulmer Street	Southwest	5	5	371.1	A	568.3	A

Crosswalk

Facility Number	Location	Street Width (feet)	Crosswalk Width (feet)	Peak 15-Min Volumes		Avgerage Conditions (w/Conflicting Vehicles)			
						AM		PM	
				AM	PM	SF/Ped	LOS	SF/Ped	LOS
X1	28th Ave @ Ulmer St - South	68.0	10.0	10	10	854.4	A	870.1	A
X2	28th Ave @ Ulmer St - East	57.0	12.0	10	10	867.8	A	857.6	A

Notes:

AM - weekday 6-7 AM

PM - weekday 3-4 PM

PFM - persons per foot of effective width per minute.

SF/Ped - average square feet per pedestrian.

LOS - level of service.

D. THE FUTURE WITH THE PROPOSED ACTION

Subway

As shown in Table 11-7 in Chapter 11 "Traffic and Parking," the proposed project is expected to generate approximately 668 and 671 subway trips in the 6-7 AM and 3-4 PM peak hours, respectively in 2014. All trips would be expected to terminate at the Main Street station during the AM peak hour and commence at the Main Street station during the PM peak hour.

Project generated trips at the Main Street station would likely use two street stairs for access and egress. For example, many passengers traveling between the project site and the stations would use the Q25 bus, given the distance between the project site and the bus stop. Therefore, passengers would use the street stair S2 closest to the Q25 bus stop on Main Street. Figure 12-2 shows the layout of the Main Street /Flushing Station with five stairways to the street level. It is anticipated that all outbound subway trips (primarily during the AM peak hour) exiting the station would use Stair S1, which is closest to the Q25 bus stop (traveling toward the project site). Subway trips (primarily in the PM peak hour) are expected to utilize Stair S2, which is the closest stairway to the Q25 bus stop (traveling away from the project site).

The *CEQR Technical Manual* identifies a significant impact for stairways in terms of the number of inches of effective stairway widening that be would be needed to restore conditions to there No-Action state. Significant stairway impacts are considered to have occurred once the following thresholds are reached: for a Build LOS D condition, a required widening of 6 inches or more is considered significant: for a Build LOS E conditions 3 to 6 inches is considered significant; and for Build LOS F, a 1 to 3 inches widening is considered significant.

For turnstiles, the *CEQR Technical Manual* defines a significant impact as an increase from a No-Action volume-to-capacity ratio of below 1.00 to a v/c ratio of 1.00 or greater under With-Action conditions. Where a facility is already at a v/c ratio of 1.00 or greater, a 0.01 change in v/c ratio is also considered significant.

Table 12-10 shows the results of the impact assessments for analyzed stairways and fare array at the Main Street/Flushing subway station. As shown in the table, Stairway S1 would operate at LOS B with a v/c ratio of 0.51 in the AM peak hour. The PM peak the stairway would operate at LOS A with a v/c ratio of 0.39. Stairway S2 would operate at LOS A with a v/c ratio of 0.32 in the AM peak hour, while in the PM peak hour the stairway would operate at LOS B with a v/c ratio 0.56. The fare array would operate at LOS B with a v/c ratio of 0.23 to 0.31 during the AM and PM peak hours, respectively.

Table 12-10: 2014 With-Action Subway Station Stairway Analysis - Flushing Main Street (No. 7) Line

Station Elements	Peak Hour (1)	Effective Width in Feet (2)	Maximum 15 Minute Capacity (3,6)	Peak 15 Minute Volume	PFM(4)	Volume to Capacity Ratio	LOS (5,7)
Stairway at NW Corner of Roosevelt Avenue - Main Street (S1)	AM	8.8	1,320	685	5.19	0.52	B
	PM	8.8	1,320	523	3.96	0.40	A
Stairway at SW Corner of Roosevelt Avenue - Main Street (S2)	AM	8.8	1,320	423	3.20	0.32	A
	PM	8.8	1,320	751	5.68	0.57	B
Fare Array - 16 Turnstiles	AM	N/A	7,680	1853	N/A	0.24	B
	PM		7,680	2402		0.31	B

Notes:

(1) Existing Peak hours 6-7 AM and 3-4 PM

(2) Effective width measured as stairwell width less one foot to account for handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.

(3) Stair capacity in persons per 15 minutes based on NYC Transit guild lines of 10 PFM. (see note 5)

(4) PFM = Persons per foot of stairway per minute.

(5) Refer to Table 12-2 Stairway Level of Service Definition

(6) Analysis assumes capacities of 32 per minute for turnstiles.

(7) Level of Service for turnstiles: LOS A: v/c < .02; LOS B: v/c = .2 to .4; LOS C: v/c = .4 to .6; LOS D: v/c = .6 to .8;LOS E: .8 to 1.0; LOS F: v/c > 1.0.

Bus

The proposed action would generate approximately 766 new bus trips in the AM peak hour and 799 new trips in the PM peak hour. These project-generated trips would include approximately 668 subway to bus trips and 98 bus-only trips in the AM peak hour, and 694 and 105, respectively in the PM. These trips would be all inbound to the project site in the AM and outbound in the PM. Most are expected to utilize the first bus that arrives, though the Q25 would be preferred due to the close proximity of the Q25 bus stop to the main pedestrian entry. However, due to the anticipated demand for bus service, it is expected that the bus riders would take the first bus that arrives. Although the Q65 bus stop would be a 7 to 10 minute walk from the gatehouse (main pedestrian entrance to the Academy), limited bus service to the area would necessitate that people use the Q65 bus. These two routes are operated by MTA Bus, which has indicated that maximum load point data is currently unavailable.

However, field observations indicate that the peak direction on these routes is typically southbound en route to the Flushing-Main Street subway station in the AM peak hour and northbound from the Flushing-Main Street station in the PM. Therefore, the majority of project-generated demand would typically occur in the non-peak direction as most trips would be en route northbound (from the Flushing-Main Street station) in the AM peak hour and southbound (to the subway) in the PM. As mentioned previously in section B, "Existing Conditions," the Q25 line operates approximately 5 and 4 buses in each direction during AM and PM peak periods, respectively, while the Q65 operates approximately 6 buses in each direction during the both the AM and PM peak periods. The proposed action would generate an average of approximately 70 and 89 new trips per bus in the AM and PM peak hours, respectively, on the tow routes combined. As a standard practice, MTA Bus routinely

conducts periodic ridership counts and increases service where operationally warranted and fiscally feasible. It is therefore anticipated that in the future conditions with the proposed action, MTA Bus would increase frequency, where necessary, to address any capacity shortfalls.

Pedestrians

The proposed project would potentially add approximately 848 and 847 pedestrian trips to the study area during the 6-7 AM and 3-4 PM peak hours, respectively. These include walk-only trips as well as trips en route to and from the bus stops. Pedestrians are expected to be concentrated on the south side of 28th Avenue (to and from the Q25 bus and the main pedestrian entrance on 28th Avenue). It is expected that sidewalk widths adjacent to the site would not be significantly changed as a result of the proposed project.

Table 12-11 shows total peak 15-minute pedestrian volumes and conditions at the analyzed sidewalks, corners areas and crosswalks under the 2014 With-Action conditions. According to CEQR criteria, a significant impact to a sidewalk occurs when the platoon flow rate increases by two or more pedestrians per foot per minute (PFM) over No-Action conditions characterized by flow rates over 15 PFM (the threshold of LOS D/E). As shown in Table 12-10, the analyzed sidewalk would operate at an acceptable LOS B under platoon conditions in the AM and PM peak hours. For corner areas and crosswalks, CEQR criteria defines a significant adverse impact as a decrease in pedestrian space of one or more square feet per pedestrian (SF/ped) when the No-Action condition has an average occupancy of 15 SF/ped (LOS D/E threshold) or less. As shown in Table 12-10, all analyzed corner areas would operate at an acceptable LOS B or better during both the AM and PM peak hours. Also shown in Tab1e 12-10 all analyzed crosswalks would operate at an acceptable LOS D or better during the AM and PM peak hours. As such, the proposed project is not expected to have any significant adverse impacts on pedestrian flow in the future with the proposed Academy.

E. CONCLUSION

The Proposed Action would generate new subway, bus, and pedestrian trips in the area during the 6-7 AM and 3-4 PM peak hours. Trips made to and from the proposed Academy are expected to be primarily via bus (including subway to bus) due to the location of the project site. A detailed analysis of subway stairway conditions at the Main Street/Flushing station, the location that would process the greatest number of project-generated trips, found that the addition of trips due to the proposed Academy would not result in any significant adverse impacts. Project-generated bus trips would exceed the threshold for detailed analysis. However, as described above, MTA Bus has been consulted and they indicated that adequate capacity would be added to the Q25 and Q65 bus lines to accommodate the anticipated ridership to and from the proposed Academy site.

Project-generated subway and bus trips, together with "walk only" trips would increase pedestrian volumes on nearby sidewalks. The greatest concentration on project-generated pedestrian demand would be on the sidewalks, street corners, and crosswalks between the main pedestrian entrance on 28th Avenue and the Q25 bus stop (east of Ulmer Street on 28th Avenue). A detailed analysis found that the proposed project would not result in any

Table 12-11: 2014 With-Action Sidewalk, Corner and Crosswalk Level of Service

Sidewalk

Facility Number	Location	Effective Width (feet)	Peak 15-Min Volumes		Average Conditions				Platoon Conditions			
					AM		PM		AM		PM	
			AM	PM	PFM	LOS	PFM	LOS	PFM	LOS	PFM	LOS
S1	South Side of 28th Ave. Between College Point Blvd & Ulmer St.	9.5	273	282	1.92	A	1.98	A	1.92	B	1.98	B

Corners

Facility Number	Location	Corner	Peak 15-Min Volumes		Average Conditions			
					AM		PM	
			AM	PM	SF/Ped	LOS	SF/Ped	LOS
C1	28th Avenue @ Ulmer Strest	Southeast	271	282	52.4	B	74.3	A
C2	28th Avenue @ Ulmer Street	Southwest	271	282	81.0	A	74.3	A

Crosswalk

Facility Number	Location	Street Width (feet)	Crosswalk Width (feet)	Peak 15-Min Volumes		Avgerage Conditions (w/Conflicting Vehicles)			
						AM		PM	
				AM	PM	SF/Ped	LOS	SF/Ped	LOS
X1	28th Ave @ Ulmer St - South	68.0	10.0	276	287	27.5	C	22.0	D
X2	28th Ave @ Ulmer St - East	57.0	12.0	276	10	27.5	C	857.6	A

Notes:

AM - weekday 6-7 AM

PM - weekday 3-4 PM

PFM - persons per foot of effective width per minute.

SF/Ped - average square feet per pedestrian.

LOS - level of service.

significant adverse impacts on pedestrian conditions. In summary, the proposed project would not have any significant adverse impacts on transit and pedestrian and in the study area.

A. INTRODUCTION

The proposed Police Academy would provide facilities for civilians, recruits, and active police officers, including academic and indoor/outdoor physical training facilities, classrooms, an indoor pistol training facility, a tactical village, an outdoor track, a police museum, a visiting police/lecturer housing facility, and an above-grade parking facility. As such, the Proposed Action, which would result in the proposed Academy, is expected to be complete and operational by 2014. The proposed Academy would allow sensitive land uses (such as the museum and dormitory) in an area where existing zoning permits only commercial, manufacturing and industrial activity.

Air quality, which is a general term used to describe pollutant levels in the atmosphere, would be affected by these changes. Emissions generated by proposed facilities at the Academy would affect air quality levels within the campus as well as the existing sensitive land uses. In addition, toxic air emissions generated by existing industrial sources may affect the proposed sensitive land uses.

The air quality impacts that are addressed in this analysis of the Proposed Action are:

1. Impacts associated with mobile (vehicular related) sources including project-generated vehicles and emissions from the proposed approximately 1,800-space parking facility;
2. Impacts from emissions of the proposed central heating plant (i.e., a cogeneration unit and supplemental boilers) on existing and proposed sensitive land uses;
3. Impacts from "major" existing emission sources (i.e., heating, ventilation, and air conditioning [HVAC] systems with 20 or more million Btu/hr heat input) on the proposed sensitive land uses; and
4. Impacts of the air toxic emissions generated by nearby existing industrial sources on proposed sensitive land uses.

Air quality analyses were conducted, following the procedures outlined in the New York City Environmental Quality Review (*CEQR) Technical Manual*, to determine whether the Proposed Action would result in violations of ambient air quality standards or health-related guideline values. The methodologies and procedures utilized in these analyses are described below.

B. POLLUTANTS OF CONCERN

Criteria Pollutants

The following air pollutants, known as criteria pollutants, have been identified by the U.S. Environmental Protection Agency (EPA) as being of concern nationwide: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone, particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), and lead. National Ambient Air Quality Standards (NAAQS) are concentrations set for each of the criteria pollutants specified by the United States Environmental Protection Agency (USEPA) that have been developed to protect human health and welfare. New York has adopted the NAAQS as state ambient air quality standards. These standards, together with their health-related averaging periods, are presented in Table 13-1.

Table 13-1: Applicable National and State Ambient Air Quality Standards

Pollutant	Averaging Period	National and NY State Standards	
		Primary	Secondary
Ozone	8 Hour	0.075 ppm (147 µg/m^3)	Same as Primary Standard
Carbon Monoxide	8 Hour	9 ppm (10 mg/m^3)	Same as Primary Standard
	1 Hour	35 ppm (40 mg/m^3)	Same as Primary Standard
Nitrogen Dioxide	Annual Average	0.053 ppm (100 µg/m^3)	Same as Primary Standard
Sulfur Dioxide	Annual Average	80 µg/m^3 (0.03 ppm)	-
	24 Hour	365 µg/m^3 (0.14 ppm)	-
	3 Hour	-	1300 µg/m^3 (0.5 ppm)
Suspended Particulate Matter (PM_{10})	24 Hour	150 µg/m^3	Same as Primary Standard
Suspended Fine Particulate Matter ($PM_{2.5}$)	24 Hour	35 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	15.0 µg/m^3	Same as Primary Standard
Lead	Calendar Quarter	0.15 µg/m^3	Same as Primary Standard

Notes: *ppm: parts per million*
µg/m^3: micrograms per cubic meter
Source: *US Environmental Protection Agency, "National Primary and Secondary Ambient Air Quality Standards." (49 CFR 50). New York State Department of Environmental Conservation.*

In addition to federal standards, incremental impact criteria have been established by New York State Department of Environmental Conservation (NYSDEC) and New York City Department of Environmental Protection (NYCDEP) to measure the impact significance of estimated incremental increases of concentrations. Applicable "significant threshold values" (STVs) are:

1. **NYSDEC.** Significant $PM_{2.5}$ thresholds:
   - Predicted impacts of 5 µg/m3 averaged over a 24-hour (daily) period at discrete locations of public access, either at ground or at elevated levels; and
   - Predicted maximum annual impacts at discrete locations of 0.3 µg/m3.
2. **NYCDEP.** Significant CO increments:
   - An increase of 0.5 ppm or more for the 8-hour period, when baseline concentrations are above 8.0 ppm; or
   - An increase of one-half the difference between the baseline and the standard concentration (9 ppm) for the 8-hour period, when baseline concentrations are below 8 ppm.
3. **NYCDEP.** Significant $PM_{2.5}$ thresholds:
   - Predicted impacts between 2 and 5 µg/m3 averaged over a 24-hour (daily) period at discrete locations of public access, either at ground or at elevated levels; and
   - Predicted annual impacts at discrete locations (from stationary sources only) of 0.3 µg/m3.

Project-related impacts less than these threshold values are considered not significant. Quantitative analyses were conducted to determine whether the potential impacts of the project would exceed these thresholds.

The following air pollutants were considered for this analysis:

- CO and $PM_{2.5}$ for localized impacts of project-generated mobile source emissions; and
- SO_2, PM_{10}, and NO_2 for impacts of project-related HVAC emissions.

Air Toxic Pollutants

In addition to criteria pollutants, small quantities of a wide range of the non-criteria air pollutants, known as toxic air pollutants, which are emitted from nearby industrial and commercial facilities, are also of concern. These pollutants can be grouped into two categories: carcinogenic air pollutants, and non-carcinogenic air pollutants. These include hundreds of pollutants, ranging from high to low toxicity. No federal standards have been promulgated for toxic air pollutants. However, the USEPA and the NYSDEC have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure criteria.

In order to evaluate short-term and annual impacts of carcinogenic and non-carcinogenic toxic air pollutants, the NYSDEC has established short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) for exposure limits. These are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public. Based on SGCs and AGCs, USEPA also developed methodologies that can be used to estimate the potential impacts of air toxic pollutants from multiple emission sources. The "Hazard Index Approach" can be used to estimate the potential impacts of non-carcinogenic pollutants. If the combined ratio of estimated pollutant concentrations divided by the respective SGCs or AGCs value for each of the toxic pollutants is found to be less than 1, no significant air quality impacts are predicted to occur. Estimated overall incremental cancer risk should be compared with one-to-one million threshold established by USEPA to determine if significant air quality impacts are predicted.

C. MOBILE SOURCE ANALYSIS

Localized increases in pollutant levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the Proposed Action. According to the *CEQR Technical Manual* screening threshold criteria for this area of the City, if more project-generated vehicles pass through a signalized intersection in any given peak period than the following screening thresholds, there is a potential for mobile air quality impacts and a detailed analysis is required.:

- For CO -- 100 vehicles
- For $PM_{2.5}$ -- 12 or more heavy duty diesel vehicles (HDDV) for paved roads with average daily traffic fewer than 5,000 vehicles; 19 or more HDDV for collector roads; 23 or more HDDV for principal and minor arterials; or 23 or more HDDV for expressways and limited access roads.

The trip generation conducted for the proposed Academy development indicates that the number of project-generated vehicles would be above *CEQR* screening threshold values during peak periods at the affected intersections. Therefore, a detailed microscale modeling analysis was conducted that estimated CO and $PM_{2.5}$ levels near the intersections in the study area that are anticipated to be affected by the Proposed Action. The project's first year of operation (2014) was considered, and pollutant levels were estimated for Existing conditions and for future 2014 conditions with and without the Proposed Action.

Analysis Sites

In order to select these analysis sites, traffic volumes, the traffic levels of service, and travel speeds at the major signalized intersections were evaluated with and without the Proposed Action. Analysis of the site selection was based on a screening analysis that was conducted using the *CEQR Technical Manual* screening threshold criteria to determine where the air quality levels would most greatly be affected by the Proposed Action. The screening analysis used total traffic volumes at intersections, changes associated with speeds, and project-generated trips from the traffic analysis to make the final determination on the analysis sites for all pollutants of concern in the microscale intersection analysis.

Two intersections were selected for analysis – the intersection of 30th Avenue and College Point Boulevard (Site 1), and the intersection of Ulmer Street and the Whitestone Expressway (Site 2). Site 1 was selected because it is the intersection that will see the greatest number of project-induced trips; Site 2 was selected because it is the intersection with the greatest number of total (i.e., future No Build plus project induced) vehicles.

Receptors

The locations at which pollutant concentrations are estimated are known as "receptors." Following guidelines established by the EPA, receptors were located where the maximum concentration is likely to occur and where the general public is likely to have access. For this analysis, receptors were distributed along sidewalks near the intersections selected for analysis.

Traffic Data

Traffic data for the air quality analysis were derived from traffic counts and other information developed as part of the traffic study analysis, using CEQR guidelines. Weekday AM and PM peak periods were considered. These are the periods when the maximum changes in pollutant concentrations are expected based on overall traffic volumes and anticipated changes in traffic patterns.

The 2000 Highway Capacity Manual and HCS+ software (HCS Version 5.3) were used to develop the traffic data necessary for the air quality analysis. The vehicle classification was determined through field data collection. Existing vehicle speeds were obtained from field measurements for the area, and adjusted to estimate future free flow speeds.

Vehicle Classification Data

Vehicle classification data required to determine composite emission factors were based on traffic survey data for the following categories: light-duty gasoline vehicles (LDGVs), sport utility vehicles (SUVs), medallion taxis, light-duty trucks, heavy-duty trucks, and buses. Light-duty gasoline trucks were divided into four groups (LDGT1 LDGT2, LDGT3 and LDGT4) based on local registration data. Based upon current CEQR guidelines, SUVs were classified as light-duty gasoline trucks with 75 percent of emissions considered as LDGT1 and LDGT2, with the remaining 25 percent as LDGT3 and LDGT4. The split between LDGT1 and 2 and LDGT3 and 4 and heavy-duty gasoline vehicles (HDGVs) and HDDVs was based on NYSDEC's 2007 registration data in MOBILE 6 for each appropriate analysis year. All buses were analyzed using urban transit bus emission factors.

Vehicular Emissions

CO and $PM_{2.5}$ emission factors were estimated using EPA's MOBILE 6.2.03 (EPA420-R-03-010), the most current updated version of the mobile emission factor algorithm model. This version includes the effects of the new vehicle standards, vehicle turnover, and emission factors for particulate matter. The latest NYSDEC modeling inputs and assumptions were applied.

Dispersion Analysis

Mobile source dispersion models are the basic analytical tools used to estimate pollutant concentrations from the emissions generated by motor vehicles as expected under given conditions of traffic, roadway geometry, and meteorology. CAL3QHC Version 2 is a line-source dispersion model that predicts pollutant concentrations near congested intersections and heavily traveled roadways. CAL3QHC input variables include free flow and calculated idle emission factors, roadway geometries, traffic volumes, site characteristics, background pollutant concentrations, signal timing, and meteorological conditions. CAL3QHC predicts inert pollutant concentrations, averaged over a one-hour period near roadways. This model was used to predict concentrations at the intersections.

CAL3QHC predicts peak one-hour pollutant concentrations using assumed meteorology and peak-period traffic conditions. Different emission rates occur when vehicles are stopped (idling), accelerating, decelerating, and moving at different average speeds. CAL3QHC simplifies these different emission rates into the following two components:

1. Emissions when vehicles are stopped (idling) during the red phase of a signalized intersection.
2. Emissions when vehicles are in motion during the green phase of a signalized intersection.

The analyses followed the EPA's Intersection Modeling Guidelines (EPA-454/R-92-005) for CO modeling methodology and receptor placement. All major roadway segments (links) within approximately 1,000 feet from each analysis site (i.e., congested intersection) were considered.

Results

A summary of the results of the mobile source air quality modeling analysis for the 2014 Future with the Proposed Action is provided in Table 13-2, Table 13-3 and Table 13-4. The values shown are the maximum CO concentrations estimated near each analysis site and the worst-case $PM_{2.5}$ incremental concentrations (with and without the Proposed Action).

TABLE 13-2: 2008 EXISTING MAXIMUM 8-HOUR CO LEVELS

Site #	Analysis Site	CO Analysis	
		8-hour CO Level (ppm) (AM)	8-hour CO Level (ppm) (PM)
1	30th Ave & College Point Blvd	2.6	2.7
2	Ulmer St. & Whitestone Expressway	4.2	4.1

Notes:
NAAQS:
CO = 9 ppm
All values are the maximum estimated concentrations under all time periods considered and include an 8-hour background concentration of 2.3 ppm.

Concentrations were estimated for the following time periods:
AM - AM peak period (6-7 AM)
PM - PM peak period (3-4 PM)

TABLE 13-3: 2014 FUTURE WITH AND WITHOUT THE PROPOSED ACTION MAXIMUM 8-HOUR CO LEVELS

Site #	Analysis Site	CO Analysis			
		8-hour CO Level (ppm) (W/out PA)	8-hour CO Level (ppm) (With PA)	8-hour CO Increment (ppm)	Peak Time Period
1	30th Ave & College Point Blvd	2.5	2.8	0.3	AM
2	Ulmer St. & Whitestone Expressway	4.4	4.5	0.1	AM

Notes:
NAAQS:
CO = 9 ppm
All values are the maximum estimated concentrations under all time periods considered and include an 8-hour background concentration of 2.3 ppm.

Concentrations were estimated for the following time periods:
AM - AM peak period (6-7 AM)
PM - PM peak period (3-4 PM)

TABLE 13-4: MAXIMUM $PM_{2.5}$ INCREMENTAL IMPACTS

Site #	Analysis Site	24-Hour Results	Annual Results
		24-hour Increment (µg/m3)	Neighborhood Increment (µg/m3)
1	30th Ave & College Point Blvd	0.84	0.079

Notes:
Significant Threshold Values:
(NYSDEC) 24-hour = 5 ug/m3
(NYCDEP) 24-hour = 2 to 5 ug/m3
Annual at Discrete Receptor= 0.3 ug/m3
Neighborhood Average = 0.1 ug/m3

Time periods for which concentrations were estimated:
AM - AM peak period (6-7 AM)
PM - PM peak period (3-4 PM)

The results of this analysis are summarized as follows:

1. CO levels would not exceed the 8-hour standard. The highest estimated concentration (4.5 ppm) would occur at the intersection of Ulmer Street and Whitestone Expressway under the PM peak period.
2. The DEP CO *de minimis* criteria would not be exceeded at any of the analysis sites, indicating that the Proposed Action would not have the potential to cause CO impacts that are considered to be significant.
3. The Proposed Action would not cause increases above the 24-hour $PM_{2.5}$ STV or the annual $PM_{2.5}$ STV and would not result in any significant adverse impacts at any of the analysis sites based on both NYSDEC and NYCDEP criteria.
    - The highest estimated 24-hour incremental neighborhood concentration (0.84 µg/m^3) would occur at the intersection of 30th Avenue and College Point Boulevard.

- The highest estimated annual incremental neighborhood concentration (0.079 µg/m^3) would occur at the intersection of 30th Avenue and College Point Boulevard.

The result of this analysis is that the mobile source impacts of the Proposed Action would not significantly impact local air quality levels.

Analysis of Parking Facility

An analysis was conducted to determine if the proposed parking facility would affect CO levels at adjacent receptors. The analysis was based on the methodology recommended in the 2001 *CEQR Technical Manual*. Emissions from vehicles traveling into and out of the facility, idling emissions from vehicle start up as well as adjacent roadway sources were considered in the evaluation. Results indicate that emissions generated from the proposed parking facility would not result in a significant adverse impact to CO levels at adjacent receptors.

In addition, the impacts of these emissions would occur within the proposed campus and not on public streets. The impacts of these emissions, therefore, would not add to the maximum estimated mobile source intersection impacts.

D. STATIONARY SOURCE ANALYSIS

Heating System Emissions

A central utility plant (CUP) is proposed to provide for the heating, electrical, and hot water needs of the entire campus. Separate boilers in the individual buildings are not anticipated. The CUP will include a 1,400 kW co-generation unit with gas-fired turbines and five supplemental dual-fuel boilers (4 operational and 1 standby boilers), each at 1,250 BPH input. The co-generation unit would provide a portion of electric needs of the campus, with the remainder coming from emergency generators, the power grid and other on-site (non-polluting) renewable sources. The electricity generated by the unit would be solely for campus needs, and would not be sold to the power grid.

Gases from both the co-generation unit and the boilers would be exhausted into the atmosphere via one common stack that would be approximately 140 ft tall (approximately 35 feet higher than the roof of CUP building).

Emissions from CUP have the potential to affect both proposed and nearby existing sensitive land uses. Analyses were therefore conducted, using the EPA AERMOD dispersion model and EPA/CEQR recommended dispersion options, to determine whether these impacts would be significant.

The following analyses were conducted:

1. An analysis to estimate the potential impacts of CUP emissions on the Police Academy's sensitive land uses;
2. An analysis to estimate the potential impacts of the CUP emissions on surrounding existing land uses; and
3. An analysis to estimate the potential impacts of existing "major" sources (i.e., those with 20 or more MMBtu/hr heat input) on the proposed sensitive land uses.

Analyses were conducted as follows:

- The pollutants considered for the analyses are SO_2, NO_2, PM_{10}, and $PM_{2.5}$.

- Analyses were conducted with and without building downwash using latest five consecutive years of meteorological data from LaGuardia Airport (2002-2006). While pollutant concentrations were estimated at all receptor sites, only the highest concentrations are reported.
- Estimated short-term and annual pollutant concentrations were added to appropriate background levels, and maximum total pollutant concentrations were compared with NAAQS to determine whether there would be the a potential violation of these standards.

"Major" Existing Emission Source

Following *CEQR Technical Manual* guidelines, a survey of land uses and building heights was conducted to determine whether there are any existing "major" sources of combustion emissions (i.e., emissions with heat inputs 20 million Btu per hour or greater) located within 400 feet of the project site.

The survey identified one "major" combustion emission source (College Point Asphalt Plant located west of the project area, at 120-01 31st Street). This facility has a State Facility Permit (# 2-6302-00083/00005), which was issued on 1/08/02, for an estimated heat input rating of 125 million Btu/hr. A detailed dispersion analysis was conducted to estimate the potential impacts of this plant on project sensitive land uses.

The survey also identified another potential source of emissions – a cement distribution terminal located at the border of 1,000 feet south of the proposed Academy site. However, this facility was not considered for analysis as a "major" source because it has no State Facility permit or Title V permit and is not listed in the EPA Envirofacts database.

An additional examination was also conducted to determine if there is any "large" combustion emission source (e.g., power plant, co-generation facility, etc.) located within 1,000 feet of the proposed Academy site. The result of this survey is that no such sources are located within 1,000 feet of the project site and therefore no further analysis is required.

Dispersion Analyses

Dispersion Model

The EPA AERMOD model was used for all stationary source dispersion analyses. AERMOD is a steady-state plume model applicable in rural and urban areas, in flat and complex terrain, for surface and elevated releases, and for multiple emission sources (including point, area, and volume sources). It can be used to calculate pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data, and has the capability of calculating pollutant concentrations in a cavity region and at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures.

Regulatory default options of the AERMOD model were used. Following CEQR guidelines, analyses were conducted assuming stack tip downwash, urban dispersion and surface roughness length, with and without building downwash, and the elimination of calms. The AERMOD downwash algorithm was utilized to estimate the potential affects of the multiple building structures on the plume dispersion.

Pollutant Emission Rates and Stack Parameters

CUP Operations

While the dual-fuel boilers could use either natural gas or fuel oil #2, it was conservatively assumed, for the purpose of this analysis, that the higher emitting fuel oil #2 would be used. The heat input of the boilers and co-generation unit were converted to an energy basis by multiplying by 33,446 Btu/hr per boiler horsepower. Emission factors for pollutants were obtained from EPA's "Compilation of Air Pollutant Emission Factors" (AP-42, 2000) for stationary gas-fired combustion turbines and fuel oil-fired boilers, based on heat input rating.

The following assumptions were made to estimate pollutants emission rates from CUP operations:

- Four boilers would be operating for the whole year (with one unit on standby);
- All emissions from boilers would be uncontrolled;
- The sulfur content of the fuel oil # 2 would be 0.2 percent;
- Emissions of NOx from turbines would be controlled with water-steam injection;
- Emissions of SO_2, PM_{10}, and $PM_{2.5}$ from turbines would be uncontrolled; and
- The CUP boilers would operate at 100 percent load 2,400 hours per year.

Emission rates for the co-generation unit and each boiler were summed up to estimate total emission rates for all units combined. Because pollutants would be released from a single stack, emissions of each pollutant were modeled using a generic emission rate of 1 grams per second, and the estimated normalized pollutant concentrations were converted to the 3-hour, 24-hour, and annual concentrations (corresponding to the respective NAAQS averaging time periods) using actual pollutant emissions rates.

The following stack parameters were used in the analysis:

- Stack height = 140 feet
- Stack diameter = 7 feet 6 inches
- Stack temperature = 420 ^{o} Fahrenheit
- Exit velocity = 1,700 feet/minute

Asphalt Plant Operations

The nearby asphalt plant manufactures hot mix asphalt paving materials, including liquid asphalt cement. Emission factors were obtained from EPA's AP-42 for a bath mix plant with a fuel oil-fired dryer. These factors (in tons per ton of material produced) were converted to emission rates using the plant's projected output of 500,000 tons of asphalt per year.

The following stack parameters were obtained from the State permit:

- Stack height = 25 feet
- Release shaft cross-sectional area of 72 by 42 inches (based on this, an equivalent stack diameter was estimated to be 4 feet 11 inches)
- Stack temperature = 423 ^{o} Fahrenheit
- Stack exit velocity = 2,000 feet/minute (approximated based on heat input)

Emissions from this facility were modeled assuming that they would be released from a single stack of equivalent diameter using generic emission rate of 1 gram per second. The estimated normalized pollutant concentrations were converted to the 3-hr, 24-hr, and annual concentrations, corresponding to the respective pollutants NAAQS averaging time periods, using actual pollutant emissions rates, as described above.

Meteorological Data

Analyses were conducted using five consecutive years of meteorological data (2002-2006). Surface data were obtained from La Guardia Airport and upper air data were obtained from Brookhaven station, New York. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. Data were developed using the EPA AERMET processor. The land use around the proposed Academy site was classified using defined categories to determine surface parameters used by the AERMET program.

Receptor Locations

In order to estimate the potential impacts of the CUP emissions, and for conservative purposes of this

analysis, it was assumed that operable windows of each project building and each nearby existing residential building would be a sensitive receptor. To estimate maximum pollutant concentrations, receptors were placed on each potentially affected project building and each nearby existing building at regular intervals around all facades. These receptors were located at top-roof levels of each building that is shorter than the height of the nearby stack and at the stack height of each building is taller than the stack height. Receptors were placed at these locations because the highest impacts would occur along stack plume centerlines, and receptors located further from these centerlines would be impacted less than receptors considered. A total of 678 receptor locations were considered in the analysis.

On-Site Receptors

The following sensitive receptor sites associated with the proposed buildings were considered for the analysis of the CPU emissions:

- Site 1: Firearms/Driver Training (EVOC) area (Block 4321, Lot 48; Block 4324, Lot 1; Block 4325, Lot 1; and Block 4326, Lot 1), with a 92-foot tall building.
- Site 2: Academic/Student Support/Library area (Block 4329, Lot 7, and Block 4301, Lot 1), with a 140-foot tall building.
- Site 3: Tactical Village area (Block 4327, Lot 1; Block 4328, Lot 1; Block 4358, Lot 1; and Block 4359, Lot 1), with a 79-foot tall building.
- Site 4: Tactical Gym/Field House area (Block 4327, Lot 1; Block 4328, Lot 1), with a 140-foot tall building.
- Site 5: Central Service area (Block 4326, Lot 1), with a 93-foot tall building.
- Site 6: Dining, Lodging, Assembly, and Banquet (Block 4329, Lot 1, Block 4301, Lot 1), with a 90-foot tall building, and
- Site 7: Museum (Block 4301, Lot 1), with a 54-foot tall building.

For the analysis of the asphalt plant emissions, receptors were placed on each proposed building at the height corresponding to the height of the asphalt plant stack.

Off-Site Receptors

A survey of existing land uses within 400 feet of the project area was conducted using the New York City Open Accessible Space Information System Cooperative (OASIS) database to identify sensitive land uses and determine the size and location of existing buildings. The survey identified commercial and industrial establishments, 1 and 2 family homes, multi-family homes, and mixed-use residential buildings.

Residential buildings located on Block 4292, Lot 11-12; Block 4294, Lot 26; and Block 4295, Lot 26 were selected as nearby receptor sites for the analysis of the CPU emission impacts on existing land uses.

Background Values

Background concentrations (i.e., pollutant levels from other sources in the study area) for the pollutants of concern were obtained from monitoring data collected by the NYSDEC in 2006 for Queens, the latest year of compiled data. These values were added to estimated project impacts, and the resulting total concentrations were compared with appropriate NAAQS.

Results

Impacts of CUP Emissions on Proposed Buildings

The result of the analysis of CUP emission impacts on proposed buildings, which are summarized in Table 13-5, is that the maximum total estimated 24-hour and annual SO_2 concentrations, 24-hour PM_{10} concentrations, and annual NO_2 concentrations are all expected to be below the applicable NAAQS. In addition, the maximum $PM_{2.5}$ impacts are less than the STVs. Emission estimates are also provided.

While analyses were conducted with and without the consideration of downwash effects on plume dispersion (i.e., affects caused by wind flow obstructions around buildings), these maximum values were all estimated as a result of direct plume impacts (i.e., without plume downwash).

The result of this analysis, therefore, is that no exceedances of the NAAQS for all applicable pollutants are predicted as a result of the CUP emission impacts on proposed- buildings.

Impacts of the CUP Emissions on Existing Land Uses

The potential impacts of CUP emission impacts on existing land uses are also summarized in Table 13-5. The result of this analysis is that maximum estimated pollutant concentrations are all below the applicable NAAQS. In addition, the maximum $PM_{2.5}$ impacts of CUP emissions are less than the applicable NYSDEC/NYCDEP STVs – with an estimated maximum 24-hour impact of 0.45 ug/m^3 (compared to the STV of 2 to 5 ug/m^3) and an estimated maximum annual impact of 0.1 ug/m^3 (compared to the STV of 0.3 ug/m^3).

As such, the CUP emissions are not predicted to significantly impact existing nearby land uses.

Table 13-5: Maximum Estimated Impacts of CUP Emissions (ug/m^3)

Pollutants	Averaging Time	Actual Pollutant Emission Rates	Maximum Estimated Impact	Background Concentration	Maximum Total Estimated Conc.	NAAQS (STV)
Impacts on Project-induced Buildings						
NO_2	Annual	1.017	9.4	53	62	100
SO_2	3-hr	3.441	323.0	202	525	1300
	24-hour	3.441	249.1	84	333	365
	Annual	0.943	8.8	18	27	80
PM_{10}	24-hour	0.329	23.8	90	114	150
Impacts on Existing Land Uses						
NO_2	Annual	1.017	0.2	53	53	100
SO_2	3-hr	3.441	10.1	202	212	1300
	24-hour	3.441	5.2	84	89	365
	Annual	0.943	0.2	18	18	80
PM_{10}	24-hour	0.329	0.5	90	91	150

Impacts of the Asphalt Plant Emissions on Proposed Buildings

The potential impacts of Asphalt Plant combustion emissions on proposed buildings are summarized in Table 13-6. The maximum impact was found (with downwash effects) at the Firearms / Driver Training (EVOC) area (near Block 4321, Lot 49), at a distance of approximately 500 feet from asphalt plant. The total maximum estimated pollutant concentrations at any of the receptor sites are below the applicable NAAQS standards. As such, the asphalt plant emissions are not predicted to significantly impact the proposed project buildings.

Table 13-6: Maximum Estimated Impacts of Asphalt Plant Emissions, (ug/m^3)

Pollutants	Averaging Time	Maximum Estimated Normalized Conc.	Actual Pollutant Emission Rates	Maximum Estimated Actual Conc.	Bkgd Conc.	Maximum Total Estimated Conc.	National Air Quality Standards
Impacts of Asphalt Plant Emissions							
NO2	Annual	4.45E+00	0.949	4	53	57	100
SO2	3-hr	4.27E+01	2.150	92	202	294	1300
	24-hour	2.23E+01	2.150	48	84	132	365
	Annual	4.45E+00	0.696	3	18	21	80
PM10	24-hour	2.23E+01	0.484	11	90	101	150

E. INDUSTRIAL SOURCE IMPACT ANALYSIS

Introduction

The proposed Action would allow development of sensitive land uses within existing manufacturing and industrial zones. As such, emissions of toxic pollutants from the operation of existing industrial emission sources might affect proposed sensitive land uses.

An analysis was therefore conducted to determine whether the impacts of these emissions would be significant. Data necessary to perform this analysis, which include facility type, source identification and location, pollutant emission rates, and exhaust stack parameters, were obtained from regulatory agencies (e.g., from existing air permits). All existing industrial facilities located within 400 feet of the Academy site that are permitted to exhaust toxic pollutants were considered in this analysis.

Air Toxics Analysis

An air toxics analysis process was conducted as follows:

- An analysis area within 400 feet around the area to be developed was identified using Geographic Information System (GIS) shape files;

- Air permits for all industrial facilities within this analysis area on NYSDEC, NYCDEP Clean Air Tracking System, and EPA Environfacts databases were acquired and reviewed;
- Dispersion analyses were conducted to determine the potential of the toxic emissions released from the permitted emission sources to adversely affect the new Academy, as follows:
- The dispersion modeling analysis was conducted using NYSDEC's DAR-1 software and database to determine whether the existing currently operating permitted facilities within the air toxics study area would have the potential to adversely affect the sensitive receptors at the development sites. Each toxic pollutant concentrations were determined and compared to short-term or annual health-related guideline values (i.e., SGCs or AGCs). Total non-carcinogenic pollutants hazard indexes was summed up and compared to the EPA's Hazard Index Threshold. Impacts of carcinogenic pollutants were estimated using unit risk factors.

Data Sources

Information regarding emissions of toxic air pollutants from existing industrial sources was obtained from New York State and New York City databases as follows:

- The boundaries of the Police Academy site were used to identify the extent of the study area for determining air quality impacts associated with the Proposed Action. All permitted industrial toxic air pollutant emission sources located within a 400-foot radius of the Academy site were included in this analysis.
- The New York City OASIS data base, which is an interactive mapping and data analysis application, was used to identify existing industrial uses located within the analysis area;
- A search was performed to identify NYSDEC Title V permits and permits listed in the EPA Envirofacts database.
- Air permits for active (currently permitted) industrial facilities within the analysis area that are included in the NYCDEP Clean Air Tracking System database were acquired and reviewed to obtain pollutant emission rates and stack parameters. The data on these permits, which include source locations, stack parameters, pollutant emission rates, etc., are considered to be the most current and served as the primary basis of data for this analysis. This information was compiled into DAR-1 software format for use in the following analyses.

Assessment Methodology

Toxic air pollutants can be grouped into two categories: carcinogenic air pollutants, and non-carcinogenic air pollutants. These include hundreds of pollutants, ranging from high to low toxicity. While no federal standards have been promulgated for toxic air pollutants, EPA and NYSDEC have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure criteria.

In order to evaluate short-term and annual impacts of non-carcinogenic toxic air pollutants, the NYSDEC has established short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) for exposure limits. These are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public.

Dispersion Analyses

Dispersion analyses were conducted to determine the potential of the toxic emissions released from the permitted emission sources to adversely affect the new Police Academy uses. NYCDEC DAR-1 database and modeling software (modified version of the SCREEN model and enhanced version of USEPA's ISCLT2 model) was employed to estimate maximum cumulative short-term (1-hour) and annual impacts for each air toxic pollutant and determine whether facilities have the potential to exceed short-term or annual guidelines values (i.e., SGCs or AGCs). If the results of the screening-level analysis exceed any of

the guideline values, a more refined and less conservative analysis was followed.

Emission sources for the dispersion analysis were located using GIS software and the Universal Transverse Mercator coordinate system with appropriate projection information (Datum NAD83, UTM Zone 18).

The dispersion analysis was performed by modeling the emissions of all identified toxic air pollutants from the existing industrial facilities in one modeling run. The estimated ambient concentrations of each air toxic pollutant were then compared with the guideline concentrations established by the NYSDEC and EPA and contained in the DAR-1 database.

Industrial Source Emissions

Nine (9) industrial facilities with NYCDEP permits were identified within a 400-foot radius of the Police Academy site. Of these, permits for two facilities were cancelled (Permit PA100988 for Flushing Central Service, and Permit PA060783 for North American Specialties). Permits for the following three facilities contain no information on pollutant emission rates and stack parameters and these facilities, therefore, were not included in the analysis:

- F & R Enterprises (Permit PA042671);
- Express Auto Corp (Permit PB042107); and
- Crystal Windows & Doors System (Permits PB012302, PB014906, and PB027706).

Analyses were conducted for the following four active permitted facilities, which have eight permitted emission sources:

- College Point Bus facility (Permits PA008098 and PA008198);
- F & R Enterprises Cofire facility (Permit PA020771);
- S &S NPropeller Co, Inc (Permits PA007893 and PA007993); and
- N.A.S Interplex Inc. (Permits PA 065382, PA065398, and PA065183)

The permits for these four existing facilities identify eight active emission sources – seven (7) sources of non-carcinogenic pollutants and one (1) source of carcinogenic pollutants. According to these permits, five (5) toxic non-carcinogenic air pollutants and one carcinogen (trichloroethylene) are released from these emission sources.

Results of the Cancer Risk and Hazard Index Evaluation

Non-Carcinogens

Table 13-7, entitled "Analysis of the Non-Carcinogenic Toxic Pollutants," lists the identified facilities that emit non-carcinogenic pollutants together with the type and location of each facility and its permit number, emission point(s), contaminant name, and CAS registry number. Also provided are the respective pollutant guidelines values, estimated pollutant concentrations (short-term and long-term), and hazard indexes.

As shown on the Table 13-7, a screening-level analysis with DAR-1 SCREEN model identified the potential exceedances of short-term guideline concentration (SGC) for particulate matter and annual guideline concentrations (AGC) for trichloroethylene. The maximum estimated concentrations of other non-carcinogenic toxic contaminants were below the NYSDEC short-term guideline concentrations (SGCs).

The maximum estimated short-term 1-hour concentrations of particulate matter from each of the two emission sources of the College Point Bus facility were 932 ug/m^3 and 380.9 from the sources X9NI0001 and X9NI0002, respectively, which are above the SGC of 380 ug/m^3. The maximum estimated annual concentration of trichloroethylene from the source X2GU0003 of the N.A.S. Interplex facility was 0.905 ug/m^3, which is above the AGC of 0.5 ug/m^3.

As these values exceed the guideline concentrations, more detailed, less conservative analyses were conducted using the EPA SCREEN model. The resulting concentrations from the College Point Bus facility were 21 and 8 ug/m^3 (from X9NI0001 and X9NI0002 sources, respectively), which are below the SGC of 380 ug/m^3. Similarly, a refined analysis was conducted for the N.A.S. Interplex facility using the DAR-1 ISCLT2 model. The resulting maximum trichloethylene concentration was estimated to be 0.0187 ug/m^3 that is below AGC of 0.5 ug/m^3.

The total hazard index caused by the non-carcinogenic pollutants emitted from all of the sources combined is estimated to be 0.610×10^{-2}. This value is below the level (1.0) that is considered by EPA to be significant. Therefore, the analysis has demonstrated that the cumulative health risk posed by non-carcinogenic pollutants emitted from existing emission sources would not cause significant air quality impacts that exceed threshold levels established by the EPA.

Carcinogens

Table 13-8, entitled "Analysis of the Carcinogenic Toxic Pollutants," lists the identified facilities that emit carcinogenic pollutants together with the type and location of each facility and its permit number, emission point(s), contaminant name, and CAS registry number. Also provided are the estimated annual concentration and incremental cancer risks. As shown on this table, the maximum estimated incremental cancer risk caused by trichloroethylene is estimated to be 3.75×10^{-2} per million. This value is below the level of one per million that is considered by EPA to be significant.

Summary of Results

The result of this analysis is that no exceedance of either the NYSDEC SGC or AGC acceptable limits or EPA's incremental risk threshold limit is predicted.

Facility Name	Facility Address	Type of Business	NYCDEP Permit No.	Emission Point	CAS Registry No.	Compound	Permitted Emission Rates		Est. Short-Term Conc.	NYSDEC SGC	Est. Short-Term Conc.	Est. Annual Av. Conc.	NYSDEC AGC
							lb/hr	lb/year	ug/m^3	ug/m^3	% of SGC	ug/m^3	ug/m^3
N.A.S. INTERPLEX	120-12 28 Avenue, Queens	Grinding of Metal Parts	PA065382	X2GU0002	NY075-00-0	PM10	0.002	2.4	2.1159	380	0.5568	0.264E-04	50
N.A.S. INTERPLEX	120-12 28 Avenue, Queens	Metal Stamping	PA065183	X2GU0004	08012-95-1	Mineral Oil (Mist)	0.025	5.0	26.449	380	6.9603	0.500E-02	12
F & R Enterprises Cofire, Inc	120-30 28 Avenue, Queens	Asphalt Batching Plant	PA020771	X6GW0001	NY075-00-0	PM10	0.043	1.35	0.386	380	0.1016	0.215E-06	50
College Point Bus Facility	120-30 28 Avenue, Queens	Asphalt Batching Plant	PA008098	X9NI0001	NY075-00-0	PM10	0.881	1412	932.0731	380	245.2824	0.219+00	50
College Point Bus Facility	120-30 28 Avenue, Queens	Spray Booth	PA008198	X9NI0002	NY075-00-0	PM10	0.360	517.7	380.8698	380	100.2289	0.785E-01	50
S & S Npropeller Co, Inc	26-15 123 Street, Queens	Grinding of Metal Parts	PA007893	X5000002	NY075-00-0	PM10	0.267	300.0	53.651	380	14.1187	0.681E-02	50
S & S Npropeller Co, Inc	26-15 123 Street, Queens	Spray Booth	PA007993	X5000001	NY075-00-0	PM10	0.015	3.120	15.869	380	4.1762	0.781E-04	50
					00108-88-3	Toluene	0.4	640	49.7248	37,000	0.1344	2.51E-03	400
					00067-63-0	Isopropyl Alcohol	0.10	2.080	10.5797	98,000	0.0108	0.534E-03	7,000
					00067- 64-1	Acetone	0.015	3.120	15.8695	180,000	0.0088	0.800E-03	28,000

Table 13-8: Analysis of the Carcinogenic Toxic Pollutants

Facility Name	NYCDEP Permit No.	Emission Point	CAS Registry No.	Compound	Permitted Emission Rates		NYSDEC AGC	Estimated Annual Conc.
					lb/hr	lb/year	ug/m^3	ug/m^3
N.A.S. Interplex Inc.	PA065398	X2GU0003	00079-01-6	Trichloetylene	0.045	18	0.5	1.87E-02

F. SUMMARY OF RESULTS

The result of these analyses is the Proposed Action would not result in a violation of any applicable air quality standard or cause an exceedance of the significant threshold value. As such, the potential air quality impacts of the Proposed Action are not considered to be significant.

A. INTRODUCTION

A detailed analysis of noise levels may be appropriate if a Proposed Action would generate any mobile or stationary sources of noise or be located in an area with high ambient noise levels. Under the City *Environmental Quality Review (CEQR) Technical Manual* guidelines, an assessment of noise is typically carried out if the Proposed Action would increase noise levels by 3 dBA or result in exterior noise levels that exceed the Noise Exposure Guidelines for Acceptable General External Exposure. These situations could occur if the Proposed Action would:

- generate or reroute vehicular traffic,
- be located near a heavily trafficked thoroughfare,
- be a receptor within one mile of an existing flight path,
- be within 1,500 feet of existing rail activity and have a direct line of site to that facility,
- result in a playground within 1,500 feet of a stationary source,
- include unenclosed mechanical equipment for manufacturing or building ventilation purposes,
- be located in an area with high ambient noise levels from stationary sources, or
- result in construction equipment operating within 1,500 feet of a sensitive receptor for an extended period of time.

As discussed in Chapter 1, Project Description, the NYPD proposes to construct a new Police Academy to incorporate many of the NYPD's existing training facilities throughout the City into one consolidated campus that would be located on approximately 35 acres of City-owned land. Currently, the Project Site is used as the NYPD's College Point Vehicle Impoundment ("the Tow Pound"). As described in Chapter 1, "Project Description," the Tow Pound consists of a paved asphalt lot. Under No-Build conditions, Tow Pound operations would be relocated to other City-owned sites. Therefore, the proposed Academy site would be vacant in the future without the Proposed Action. The NYPD proposes to redevelop the site with a modern complex that would consolidate the facilities for civilians, recruits, and active police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an above-grade parking facility of approximately 1,800 spaces ("proposed development").

The proposed development would be situated on a portion of the block bounded by 28th Avenue to the north, Ulmer Street and the Whitestone Expressway Service Road to the east, 31st Avenue to the South, and College Point Boulevard to the west.

B. NOISE FUNDAMENTALS

Noise is measured in sound pressure level (SPL), which is converted to a decibel scale. The decibel is a relative measure of the sound level pressure with respect to a standardized reference quantity. Decibels on the A-weighted scale are termed "dBA." The A-weighted scale is used for evaluating the effects of noise in the environment because it most closely approximates the response of the human ear. On this scale, the threshold of discomfort is 120 dB, and the threshold of pain is about 140 dB. Table 14-1 shows the range of noise levels for a variety of indoor and outdoor noise levels.

Because the scale is logarithmic, a relative increase of 10 decibels represents a sound pressure level that is 10 times higher. However, humans don't perceive a 10 dBA increase as 10 times or louder; they perceive it as twice as loud. The following is typical of human responses to relative changes in noise level:

- 3 dBA change is the threshold of change detectable by the human ear,
- 5 dBA change is readily noticeable, and
- 10 dBA increase is perceived as a doubling of noise level.

The SPL that humans experience typically varies from moment to moment. Therefore, a variety of descriptors are used to evaluate environmental noise levels over time. Some typical descriptors are defined below:

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating sound pressure levels is averaged over time to create a single number describing the mean energy or intensity level. High noise levels will have greater effect on the L_{eq} than low noise levels. The L_{eq} has an advantage over other descriptors because L_{eq} values from different noise sources can be added and subtracted to determine cumulative noise levels.
- L_{max} is the highest SPL measured during a given period of time. It is useful in evaluating L_{eq}s for time periods that have an especially wide range of noise levels.
- L_{10} is the SPL exceeded 10 percent of the time. Similar descriptors are the L_{50}, L_{01}, and L_{90}.

Vehicular traffic volumes can be converted into Passenger Car Equivalent (PCE) values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed to generate the noise equivalent of 13 cars, one bus (capable of carrying more than nine passengers) is assumed to generate the noise equivalent of 18 cars, and one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, as summarized below from the *CEQR Technical Manual*.

- autos and light trucks = 1 passenger car,
- medium trucks = 13 passenger cars,
- heavy trucks = 47 passenger cars, and
- public buses = 18 passenger cars.

Thus, Passenger Car Equivalents (PCEs) are the numbers of autos that would generate the same noise level as the observed vehicular mix of autos, medium trucks, and heavy trucks. PCEs are useful for comparing the effects of traffic noise on different roadways or for different future scenarios.

Table 14-1: Sound Pressure Level and Loudness of Typical Noises in Indoor and Outdoor Environments

Noise Level (dBA)	Subjective Impression	Typical Sources		Relative Loudness (Human Response)
		Outdoor	Indoor	
120-130	Uncomfortably Loud	Air raid siren at 50 feet (threshold of pain)	Oxygen torch	32 times as loud
110-120	Uncomfortably Loud	Turbo-fan aircraft at take-off power at 200 feet	Riveting machine Rock band	16 times as loud
100-110	Uncomfortably Loud	Jackhammer at 3 feet		8 times as loud
90-100	Very Loud	Gas lawn mower at 3 feet Subway train at 30 feet Train whistle at crossing Wood chipper shredding trees Chain saw cutting trees at 10 feet	Newspaper press	4 times as loud
80-90	Very Loud	Passing freight train at 30 feet Steamroller at 30 feet Leaf blower at 5 feet Power lawn mower at 5 feet	Food blender Milling machine Garbage disposal Crowd noise at sports event	2 times as loud
70-80	Moderately Loud	NJ Turnpike at 50 feet Truck idling at 30 feet Traffic in downtown urban area	Loud stereo Vacuum cleaner Food blender	Reference loudness (70 dBA)
60-70	Moderately Loud	Residential air conditioner at 100 feet Gas lawn mower at 100 feet Waves breaking on beach at 65 feet	Cash register Dishwasher Theater lobby Normal speech at 3 feet	½ as loud
50-60	Quiet	Large transformers at 100 feet Traffic in suburban area	Living room with TV on Classroom Business office Dehumidifier Normal speech at 10 feet	1/4 as loud
40-50	Quiet	Bird calls, Trees rustling, Crickets, Water flowing in brook	Folding clothes Using computer	1/8 as loud
30-40	Very quiet	Quiet rural area, daytime	Walking on carpet Clock ticking in adjacent room	1/16 as loud
20-30	Very quiet	Quiet rural area, nighttime	Bedroom at night	1/32 as loud
10-20	Extremely quiet		Broadcast and recording studio	
0-10	Threshold of hearing			

Sources: Noise Assessment Guidelines Technical Background, by Theodore J. Schultz, Bolt Beranek and Newman, Inc., prepared for the US Department of Housing and Urban Development, Office of Research and Technology, Washington, D.C., undated; Sandstone Environmental Associates, Inc.; Highway Noise Fundamentals, prepared by the Federal Highway Administration, US Department of Transportation, September 1980; Handbook of Environmental Acoustics, by James P. Cowan, Van Nostrand Reinhold, 1994.

Where traffic volumes are projected to change, proportional modeling techniques, as described in *The CEQR Technical Manual*, typically are used to project incremental changes in traffic noise levels. This technique uses the relative changes in traffic volumes to project changes between (e.g.) No-Build and Build noise levels. The change in future noise levels from the present condition is calculated using the following equation:

$$FNL=ENL + 10 \times \log_{10} (FPCE/EPCE),$$

where:

FNL= Future Noise Level
ENL= Existing Noise Level
FPCE= Future PCEs
EPCE= Existing PCEs

Because sound levels use a logarithmic scale, this model proportions logarithmically with traffic change ratios. For example, assume that traffic is the dominant noise source at a particular location. If the existing traffic volume on a street is 100 PCEs, and if the future traffic volume were increased by 50 PCEs to a total of 150 PCEs, the noise level would increase by 1.8 dBA. If the future traffic were increased by 100 PCEs, (i.e., doubled to a total of 200 PCEs), the noise level would increase by 3.0 dBA.

C. NOISE STANDARDS AND GUIDELINES

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Quality Review (CEQR) noise standards for exterior noise levels. These standards are the basis for classifying noise exposure into four categories based on the L_{10} descriptor: Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable, as shown in Table 14-2.

Table 14-3 shows the required attenuation for sensitive uses within the last three categories. For example, an L_{10} may approach 80 dBA provided that buildings are constructed of materials that reduce exterior to interior noise levels by at least 35 dBA.

In determining potential impacts to a community from a proposed action, NYCDEP considers a significant impact to be:

- An increase of 3 dBA or more where the no action L_{eq} is 62 dBA or more; or
- An increase of up to 5 dBA where the no action noise L_{eq} is below 62 dBA, providing the total resulting L_{eq} is equal to or less than 65 dBA; or
- A noise level that exceeds the marginally acceptable levels, where the proposed action is a sensitive receptor (see Table 14-2). However, they are applicable only to mobile sources of noise; i.e., tire, wheels, and or engine noise from autos, trucks, rail cars, and aircraft. They are not intended to include emergency sirens on fire trucks and ambulances.

The New York City Noise Control Code defines sound-level standards for motor vehicles, compressors, and pavement breakers; the code requires all exhausts be muffled; and prohibits all unnecessary noise adjacent to schools, hospital, or courts. That code further limits construction activities to weekdays between 7:00 AM and 6:00 PM.

Table 14-2: Noise Exposure Guidelines for Use in City Environmental Impact Review [1]

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1.Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	Ldn ≤ 60 dBA		Ldn ≤ 60 dBA		Ldn ≤ 60 dBA		Ldn ≤ 75 dBA
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		$55<L_{10}\leq 65$ dBA		$65<L_{10}\leq 80$ dBA		$L_{10}>80$dBA	
3. Residence, residential hotel or motel	7 am to 10 pm	$L_{10}\leq 65$dBA		$65<L_{10}\leq 70$dBA		$70<L_{10}\leq 80$ dBA		$L_{10}>80$dBA	
	10 pm to 7 am	$L10\leq 55$dBA		$55<L_{10}\leq 70$dBA		$70<L_{10}\leq 80$ dBA		$L_{10}>80$dBA	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM- 10 PM)		Same as Residential Day (7 AM –10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM –10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;

1 Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

2 Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.

3 One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

4 External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

Source: New York City Department of Environmental Protection (adopted policy 1983).

Table 14-3: Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Acceptable	Marginally Unacceptable		Clearly Unacceptable		
Noise level with proposed action	$65 < L_{10} \leq 70$	$70 < L_{10} \leq 75$	$75 < L_{10} \leq 80$	$80 < L_{10} \leq 85$	$85 < L_{10} \leq 90$	$90 < L_{10} \leq 95$
Attenuation	25 dBA	(I) 30 dBA	(II) 35 dBA	(I) 40 dBA	(II) 45 dBA	(III) 50 dBA

Source: New York City Department of Environmental Protection.

D. NOISE MONITORING

Noise monitoring was carried out at four perimeter locations to establish existing noise levels in the vicinity of the proposed Academy site. Shown in Figure 1, "Noise Monitoring Locations," they included:

1) 31st Avenue midblock between College Point Boulevard and Whitestone Service Road West, which is the southern boundary,

2) the intersection of College Point Boulevard and 28th Avenue, which is at the northwest boundary of the grounds,

3) Ulmer Street midblock between 28th Avenue and the Southbound Whitestone Expressway Service Road, which is the eastern boundary of the grounds, and

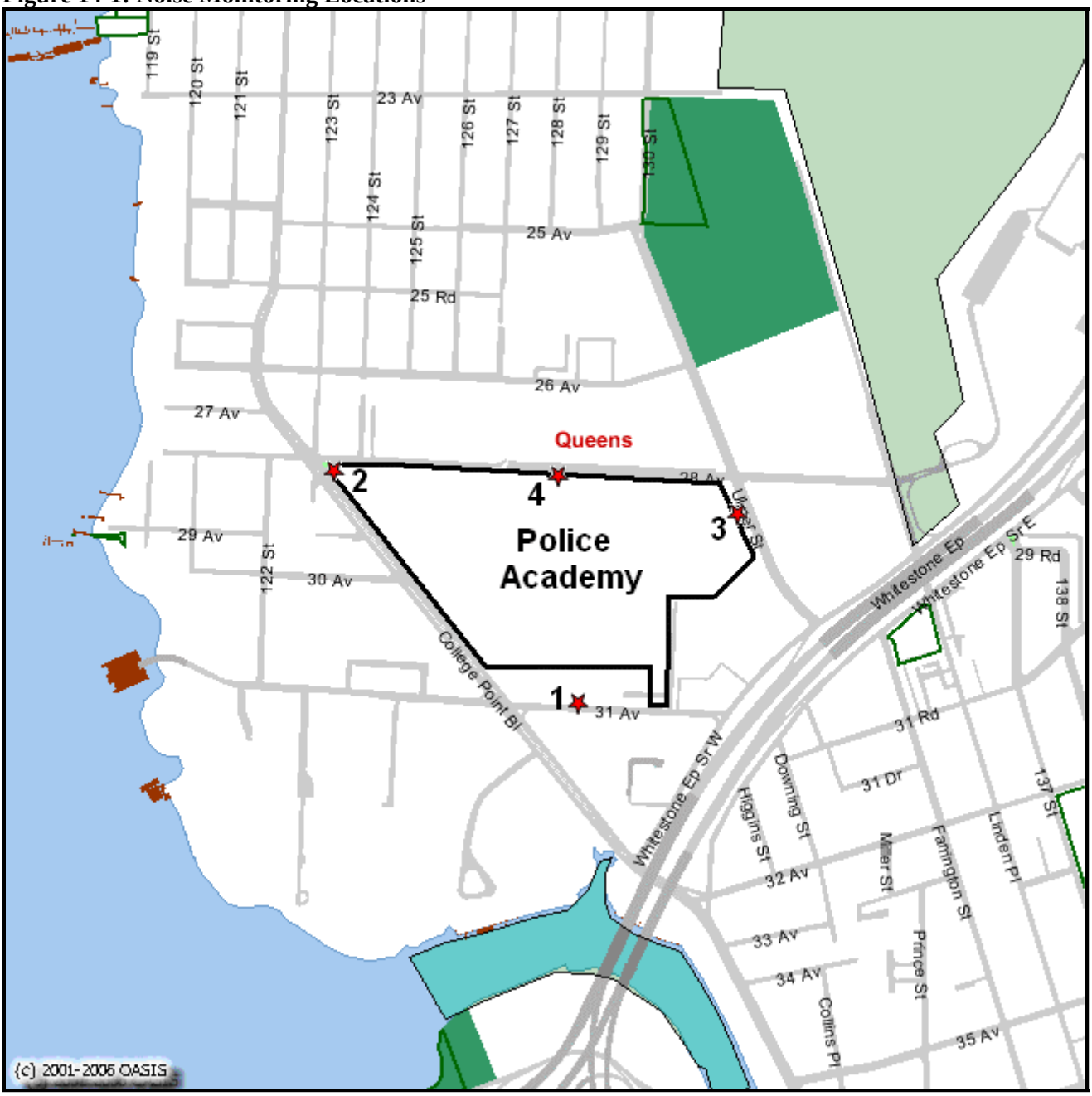
4) 28th Avenue midblock between College Point Boulevard and Ulmer Street, which is the on the site's northern boundary.

Noise monitoring for the peak AM traffic period (7:00 AM – 8:00 AM) was conducted on May 10, 2007 and May 15, 2007. The peak Midday traffic period (12:00 PM – 1:00 PM) and the peak PM traffic period (3:00 PM – 4:00 PM) were monitored on May 10, 2007. Noise monitoring for off-peak periods was carried out as well. The instruments used were a Bruel & Kjaer Sound Level Meter Type 2236 and a Bruel & Kjaer Sound Level Meter Type 2250, which were each mounted on a tripod at a height of 5 feet above the ground. The sound level meters were calibrated before and after use. A wind screen was used for each device during all sound measurements except for calibration. All measurement procedures conformed to the requirements of ANSI Standard S1.13-1971 (R1976) and the NYC *CEQR Technical Manual*. The temperatures were in the mid 70s (°F). The conditions were calm and clear on both days.

The primary sources of noise along 28th Avenue were vehicular traffic and aircraft flyovers to nearby LaGuardia Airport, which is located west of the site. For noise monitoring locations along Ulmer Street and 31st Avenue, the primary sources of noise were auto traffic, aircraft flyovers, and distant noise from the Whitestone Expressway, approximately 650 feet away. Of all the monitored sites, the intersection of 28th Avenue and College Point Boulevard had the largest number of aircraft flyovers.

Table 14-4 displays the noise monitoring results. Noise levels at each site were substantially similar throughout the day. The worst-case L_{10} value was 79.5 dBA at 31st Avenue between College Point Boulevard and Whitestone Service Road West during the peak AM period.

Figure 14-1: Noise Monitoring Locations



Source: Sandstone Environmental Associates, Inc.

★ = Noise Monitoring Locations.

Table 14-4: Monitored Noise Levels (dBA)

ID	Location	Time of Day	L_{eq}	L_{10}	MinL	MaxL	L_{01}	L_{90}
1	31st Ave. bet. College Point Blvd. & Service Rd.	7:25-7:45 AM	76.4	79.5	57.5	95.1	87.5	61.5
		11:35-11:55 AM	73.6	76.0	56.7	89.5	85.0	61.5
		12:30-12:50 PM	76.0	78.5	57.4	92.6	87.5	62.0
		3:03-3:23 PM	71.8	75.5	58.8	89.8	81.5	62.0
2	College Point Blvd. & 28th Ave.	7:34-7:54 AM	73.5	76.0	61.1	91.1	83.3	64.7
		11:05-11:25 AM	74.3	78.0	57.3	88.2	84.5	63.5
		12:00-12:20 PM	78.0	79.0	62.7	94.3	90.5	65.5
		3:35-3:55 PM	73.6	75.5	59.8	92.7	84.0	64.0
3	Ulmer Street bet. 28th Ave & Service Rd.	7:40-8:00 AM	71.6	75.1	58.3	88.2	81.2	61.5
		11:37-11:57 AM	69.4	72.6	56.2	83.8	79.5	59.7
		12:03-12:23 PM	71.4	73.7	56.0	87.1	82.9	59.5
		3:06-3:26 PM	72.4	74.6	58.3	90.6	83.2	61.7
4	28th Ave. bet. College Point Blvd & Ulmer St.	7:05-7:25 AM	72.8	76.1	58.0	88.3	83.8	61.3
		11:07-11:27 AM	71.6	74.6	51.1	90.9	82.9	56.1
		12:29-12:49 PM	72.4	76.0	54.5	87.3	83.1	57.5
		3:35-3:55 PM	72.6	76.1	53.5	91.1	82.3	58.8

Source: Sandstone Environmental Associates, Inc.

E. EXISTING CONDITIONS

The monitored noise levels were adjusted to reflect the traffic volumes developed for 2008 Existing Conditions. PCEs for projected 2008 Existing traffic volumes were calculated using both the vehicular mix observed during the monitoring periods and the traffic movement totals provided for Existing Conditions. The proportionality equation was used to compare PCEs for traffic observed during the monitoring periods with traffic volumes for Existing Conditions[1]. The field volumes generally corresponded well with the volumes documented in the Existing Conditions, and the adjustments, all below 2 dBA, were considered minor. Only the peak AM and PM periods are of interest because these are the only periods which would experience increased traffic due to the Proposed Action.

Table 14-5 shows the resulting noise levels for the monitored sites under Existing Conditions. Based on Table 14-5, the southern perimeter of the site is in the Clearly Unacceptable CEQR category and the remaining boundaries are in the Marginally Unacceptable II category. The resulting L_{10} values range from 75.4 dBA to 80.3 dBA. Currently, the site is partially vacant (the slender strip of land along College Point Boulevard), though a majority of the proposed Academy site is utilized as the NYPD's College Point Tow Pound. Aircraft flyovers were a substantial contributor to the noise levels.

[1] In some cases, the observed traffic volumes during noise monitoring may be slightly higher than those used for the traffic study, but these differences usually are not significant and the resulting noise levels are substantially similar to those monitored.

Table 14-5: Existing Noise Levels (dBA)

ID	Site	Peak Period	Field Volumes	Existing Volumes	Noise Adjust-ment	Observed Noise Levels		Existing Noise Levels	
						L_{eq}	L_{10}	L_{eq}	L_{10}
1	31st Ave. bet. College Point Blvd. & Service Rd.	AM	318	383	0.8	76.4	79.5	77.2	80.3
		PM	354	342	-0.1	71.8	75.5	71.7	75.4
2	College Point Blvd. & 28th Ave.	AM	1,128	1,248	0.4	73.5	76.0	73.9	76.4
		PM	1,125	1,542	1.4	73.6	75.5	75.0	76.9
3	Ulmer Street bet. 28th Ave & Service Rd.	AM	801	975	0.9	71.6	75.1	72.5	76.0
		PM	885	1,066	0.8	72.4	74.6	73.2	75.4
4	28th Ave. bet. College Point Blvd & Ulmer St.	AM	312	464	1.7	72.8	76.1	74.5	77.8
		PM	489	523	0.3	72.6	76.1	72.9	76.4

Source: Philip Habib & Associates, Sandstone Environmental Associates, Inc.

F. FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITION)

In the absence of the Proposed Action, the NYPD would continue to utilize their existing training facilities. The NYPD is expected to relocate their current Tow Pound operations to other City-owned property. No other on-site development is expected in the future without the Proposed Action.

Table 14-6 shows the No-Build traffic volumes for the peak AM and PM periods at the monitored sites with the resulting noise level increases in comparison to the Existing Conditions for the monitored locations. The analysis assumes that the relative mix of vehicular types (i.e., autos, medium trucks, heavy trucks) would be the same for both Existing and No-Build Conditions. Table 14-7 shows the results based on the proportionality equation for the PCEs for Existing and No-Build Conditions. The noise levels are similar to Existing Conditions and the relative changes would not be perceptible. All four sites would be in the same CEPO-CEQR categories as for Existing Conditions except for the peak PM period at Ulmer Street, where the projected reduction in traffic volume would place the site in the Marginally Unacceptable I category instead of the Marginally Unacceptable II category.

Table 14-6: No-Build Noise Levels (dBA)

ID	Site	Peak Period	Existing Volumes	No Build Volumes	Noise Increase	Existing Noise Levels		No Build Noise Levels	
						L_{eq}	L_{10}	L_{eq}	L_{10}
1	31st Ave. bet. College Point Blvd. & Service Rd.	AM	383	451	0.7	77.2	80.3	77.9	81.0
		PM	342	371	0.4	71.7	75.4	72.0	75.7
2	College Point Blvd. & 28th Ave.	AM	1,248	1,324	0.3	73.9	76.4	74.2	76.7
		PM	1,542	1,606	0.2	75.0	76.9	75.1	77.0
3	Ulmer Street bet. 28th Ave & Service Rd.	AM	975	899	-0.4	72.5	76.0	72.1	75.6
		PM	1,066	921	-0.6	73.2	75.4	72.6	74.8
4	28th Ave. bet. College Point Blvd & Ulmer St.	AM	464	485	0.2	74.5	77.8	74.7	78.0
		PM	523	545	0.2	72.9	76.4	73.1	76.6

Source: Philip Habib & Associates, Sandstone Environmental Associates, Inc.

G. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

The new NYPD Police Academy would incorporate many of the NYPD's existing training facilities throughout New York City into one consolidated campus in College Point, Queens. The total size of the proposed development is approximately 2.4 million gross square feet, consisting of both academic and indoor/outdoor physical and tactical training facilities, a police museum, drivers training, visiting police/lecturer housing facility and accessory parking garage. Sources of potential concern include adverse effects of noise levels from increased traffic near residential neighborhoods, on-site noise levels experienced by personnel in office and classroom areas, potential noise from the indoor shooting range, and noise during active sessions on the EVOC (driver's training) course.

Traffic Noise

To assess the potential for vehicular traffic to cause a noise impact at intersections within the study area, a preliminary evaluation of key intersections was carried out. Based on the NYC *CEQR Technical Manual* and subsequent revisions to its procedures, if the Proposed Action would increase traffic volumes by 100 percent or more, resulting in an increase of 3 dBA or more, then the affected intersections may warrant further analysis.

Table 14-7 compares the No-Build and Build volumes at each intersection. As shown in Table 14-7, no intersection would experience a 100 percent increase in traffic volume due to the project-generated vehicles. Therefore, none of the intersections would require additional study. The remaining analysis will instead focus on the noise levels at the site as experienced by nearby sensitive receptors.

Table 14-8 shows the PCEs and noise levels for Build Conditions at the monitored sites. Based on the projected noise levels for No-Build Conditions, an impact would occur if noise levels were to increase by 3.0 dBA. All of the project-generated vehicles would be passenger cars. The relative increases in noise level are low. In comparison to No-Build Conditions, the noise levels at the monitored sites range from 0.0 dBA to 0.3 dBA. These increases would not be perceptible. In addition, the sites would fall into the same CEPO-CEQR noise categories as for No-Build Conditions. Thus no noise impacts due to increased traffic are anticipated.

Table 14-9 presents a comparison between No-Build and Build noise levels.

Table 14-7: Traffic Volume Screening Analysis for Noise Increments

Intersection	Period	No-Build	Build	Percent Increase
Whitestone Exp. NB Service Rd @ Linden Pl	AM	1,935	1,951	0.8%
	PM	2,776	2,928	5.2%
Whitestone Exp. SB Service Rd @ Linden Pl	AM	1,787	1,926	7.2%
	PM	2,081	2,119	1.8%
28th Ave @ Ulmer St	AM	1,496	1,533	2.4%
	PM	1,449	1,807	19.8%
28th Ave / College Point Blvd / 123rd	AM	1,324	1,371	3.4%
	PM	1,606	1,974	18.6%
30th Ave @ College Point Blvd	AM	998	1,502	33.6%
	PM	1,162	1,708	32.0%
31st Ave @ College Point Blvd	AM	1,792	2,259	20.7%
	PM	1,803	2,010	10.3%
31st Ave @ Whitestone Exp., SB Service Rd	AM	604	1,007	40.0%
	PM	659	679	2.9%
Whitestone Exp. SB Service Rd @ Ulmer St	AM	2,747	3,165	13.2%
	PM	2,616	3,285	20.4%
Whitestone Exp. SB Service Rd @ College Point Blvd	AM	1,573	1,639	4.0%
	PM	1,632	1,825	10.6%
Whitestone Exp. NB Service Rd / 32nd Ave @ College Point Blvd	AM	1,752	1,818	3.6%
	PM	1,987	2,180	8.9%
Roosevelt Ave @ College Point Blvd	AM	2,082	2,140	2.7%
	PM	2,870	2,935	2.2%
20th Ave @ Whitestone Exp. SB Service Rd	AM	3,336	3,356	0.6%
	PM	3,665	3,675	0.3%
20th Ave @ Whitestone Exp. NB Service Rd	AM	2,316	2,316	0.0%
	PM	2,786	2,805	0.7%

Source: Sandstone Environmental Associates, Inc.

Table 14-8: Traffic Noise Increments at Site Boundaries, Build Conditions

ID	Site	Peak	Passenger Car Equivalents			Noise Increment (dBA)
			No-Build	Build	Project Increment	
1	31st Ave. bet. College Point Blvd. & Service Rd.	AM	5,225	5,627	402	0.3
		PM	1,720	1,737	17	0.0
2	College Point Blvd. & 28th Ave.	AM	3,198	3,245	47	0.1
		PM	13,573	13,941	368	0.1
3	Ulmer Street bet. 28th Ave & Service Rd.	AM	4,820	4,894	74	0.1
		PM	6,174	6,358	184	0.1
4	28th Ave. bet. College Point Blvd & Ulmer St.	AM	1,695	1,698	3	0.0
		PM	3,140	3,203	63	0.1

Source: Sandstone Environmental Associates, Inc.

Table 14-9: Traffic No-Build / Build Noise Levels (dBA)

ID	Site	Peak	No-Build Noise Levels		Build Noise Levels	
			L_{eq}	L_{10}	L_{eq}	L_{10}
1	31st Ave. bet. College Point Blvd. & Service Rd.	AM	77.9	81.0	78.2	81.3
		PM	72.0	75.7	72.0	75.7
2	College Point Blvd. & 28th Ave.	AM	74.2	76.7	74.3	76.8
		PM	75.1	77.0	75.3	77.2
3	Ulmer Street bet. 28th Ave & Service Rd.	AM	72.1	75.6	72.2	75.7
		PM	72.6	74.8	72.7	74.9
4	28th Ave. bet. College Point Blvd & Ulmer St.	AM	74.7	78.0	74.7	78.0
		PM	73.1	76.6	73.2	76.7

Source: Sandstone Environmental Associates, Inc.

On-Site Activities

Emergency Vehicles Operators Course (EVOC)

EVOC training is intended to prepare students with basic emergency vehicle driver training. The driving courses typically include emergency vehicle driving, accident avoidance, proper driving techniques, backing up procedures, proper stopping procedures, radius driving and advance backing, pursuit driving, and cone and flare placement. At the current site on Floyd Bennett Field in Brooklyn, individual exercises are carried out twice a week between 9:00 AM and 9:30 PM. The number of training vehicles typically ranges between eight and nine per drill with sirens engaged in consecutive fashion for 1.5 minutes per vehicle. For the Proposed Action, the primary sources of noise during the EVOC training would be squealing tires during vehicular maneuvers and siren noise. Since the exercises in Brooklyn occur during a half-hour morning period, the proposed action is assumed to follow a similar schedule.

The Firearms and Tactics facility would be located along 28th Avenue near the northwest portion of the site, as shown in Figure 14-2. This segment of the building would rise to approximately 115 feet above ground elevation. The EVOC driver-training track would cover eight acres on a rooftop behind (to the south of) the Firearms and Tactics facility and it would rise to approximately 47 feet above ground elevation. Therefore the Firearms and Tactics facility, which rises nearly 70 feet above the level of the EVOC track, would act as a barrier between the anticipated EVOC noise source and the residential neighborhoods to the north and northwest. However, no walls or buildings would shield noise to the south and west.

Sensitive receptors in the vicinity of the proposed EVOC course would include residences to the north and northwest. Five residential areas, shown in Figure 14-3, "Residential Uses in Proximity to EVOC Site," may experience noise from the EVOC activities. Representative residential buildings in these areas are listed below. Their distances from the EVOC training range from 480 to 575 feet (see Figure 14-3).

R1) 120-35 28th Avenue,
R2) 27-20 College Point Boulevard,
R3) 26-12 123rd Street,
R4) 123-14 26th Avenue, and
R5) 124-02 26 Avenue.

Sensitive receptors to the south of the site include the All Nations Church at 26-25 123rd Street. In addition to Sunday services, the church may have funerals and other activities during the daytime, and it also runs the Full Gospel Christian School for Kindergarten through 8th grade. The rear of the church, which is the nearest building, is at least 550 feet southeast of the EVOC activities.

The Fairfield Inn is a sensitive receptor west of the site. It is located at the corner of College Point Boulevard and 30th Avenue, which is across from the EVOC site. At this location, the building design provides minimal protection to the inn from the EVOC noise levels. The inn is about 100 feet from the EVOC activities.

East of the EVOC activities, the heights of the Tactical Village and Fieldhouse would shield the dining halls, academic building, and student support services from noise.

Tire squeal. Squealing tires during EVOC activities can create noise level spikes above ambient noise levels. Tire squeal is usually created when the frictional forces that maintain the interaction between the tire tread and road surface (an interface known as the contact patch) are overcome by accelerational and decelerational forces put on the wheels by the engine and transmission. A change in the frictional coefficient of either surface, such as the pavement becoming wet or tire treads wearing off during operation, also can contribute to the characteristics of the noise.

Observed tire squeal noise levels can vary due to factors such as the type of vehicle used, the travel speed, the direction of movement, and the location of the observer. For deceleration exercises on road courses, SPL values can average 84 dBA. Rapid vehicle acceleration could create noise levels in the 77-to 81-dBA range. As a conservative approach, the maximum noise level of 84 dBA was assumed to occur at the northwest corner of the EVOC rooftop. This is a conservative assumption because most exercises, for safety reasons, would occur towards the center of the course and would avoid the periphery. Based on the locations of the residential units, and their relationship to the EVOC course, noise would attenuate in a manner similar to a point source (6 dBA). Without any intervening barriers, the tire noise at a distance of 480 feet, which is the distance to the nearest home to the north, would be 64.4 dBA. The wall of the Firearms and Tactics facility, however, would create an approximate 70-foot high barrier and is estimated to reduce noise levels by at least 20 dBA, resulting in a noise level of 44.4 dBA at 480 feet.

To analyze noise levels at the Fairfield Inn and the church/school site, the maximum tire noise levels were placed in the center of the EVOC site. Without any barriers to mitigate the noise, the Inn would experience a noise level of 74.8 dBA, and the rear of the church would experience a noise level of 63.2 dBA.

Sirens. Sirens would be used for some exercises to simulate real-world situations. Variables include operating uses, siren characteristics, and timing of the procedures. Typical SPL values for vehicle sirens range from 90 dBA to 100 dBA at a distance of 50 feet, depending on which siren option is used in the vehicle. Considering a vehicle with its siren on as a point source, a constant L_{eq} of approximately 95 dBA at a distance of 50 feet was assumed for analysis purposes. As a conservative assumption for analyzing noise levels in residential neighborhoods, the siren origin was located at the northwest corner of the EVOC course, which is the location closest to a residence. At a home 480 feet away, for example, the siren noise would be approximately 75.4 dBA with no barrier. The height of the Firearms and Tactics facility would be expected to reduce the noise levels by at least 20 dBA, resulting in a noise level of 55.4 dBA at this nearest home.

To analyze noise levels at the Fairfield Inn and the church/school site, the maximum siren noise levels were placed in the center of the EVOC site. Without any barriers to mitigate the noise, the Inn could experience a noise level of 85.8 dBA, and the rear of the church could experience a noise level of 74.2 dBA.

Shooting Range. The shooting range would be indoors, and noise mitigation measures would be incorporated into the design and construction so that the activities would not interfere with on-site office and classroom uses. Therefore, no noise from the shooting range would be audible at nearby residences.

Total EVOC Noise Levels. Table 14-10 depicts the total noise levels calculated for nearby sensitive receptors during EVOC activities. Noise levels from the EVOC training include the barrier effect of the wall for the Firearms and Tactics facility. Resulting noise levels range from 54.1 to 86.1 dBA. As mentioned previously, the EVOC activities would occur for a brief period of approximately ½ hour during the weekday mornings.

Table 14-10: Total Leq Noise Levels (dBA), EVOC Training

Location	Distance (ft) from EVOC	EVOC Training		
		Tire Squeal	Sirens	Total
R1 – 120-35 28th Avenue	530	43.5	54.5	54.8
R2 – 27-20 College Point Blvd.	480	44.4	55.4	55.7
R3 – 26-12 123rd Street	575	42.8	53.8	54.1
R4 – 26-12 123rd Street	530	43.5	54.5	54.8
R5 – 12-14 26th Avenue	485	44.3	55.3	55.6
Fairfield Inn	146	74.8	85.8	86.1
Rear of All Nations Church	550	63.2	74.2	74.5

Source: Sandstone Environmental Associates, Inc.

Airport Noise

The site is approximately 0.6 miles east of Runway 13-31 at LaGuardia Airport. Arriving aircraft typically approach this runway from the south, and most departing aircraft turn towards the south after taking off. Based on this pattern for annual average aircraft flight paths, which is evident in the available airport contours for 2003, the western edge of the project site is approximately 0.1 miles east of the 65 DNL contour. Aircraft flyovers were observed during noise monitoring and are included in the noise levels for Existing, No-Build, and Build Conditions. However, aircraft flyovers can vary considerably from day to day or throughout the day. The projected noise levels for this study cannot account for all possible variations in noise level due to aircraft from LaGuardia Airport.

Total Noise Levels for Build Conditions

The EVOC noise levels were added to the traffic noise levels, and the total noise was compared with noise levels for No-Build Conditions. Table 14-11 shows a comparison of No-Build and Build noise levels for the peak AM and PM periods at nearby sensitive receptors. No EVOC noise was included for the peak PM period because the activities would not occur during that time. Total L_{10} noise levels range from 63.0 to 75.6 dBA under No-Build Conditions and from 63.1 to 88.9 dBA under Build Conditions. The noise level increments would not cause the residential units to be classified into a higher CEQR noise exposure category. All increases in noise levels are below 3.0 dBA except for the Fairfield Inn and the rear wall of All Nations Church. The potential noise level increments of 12.2 and 9.8, respectively, would represent impacts temporarily during the EVOC activities approximately ½ hour per day. These noise level increments are conservatively high, as the 78-foot height of the tactical village building would shield the church from some of the EVOC noise. Therefore, no significant adverse impacts are projected for the Proposed Action.

Table 14-11: Comparison of Total Noise Levels With and Without the Proposed Action

Location	No-Build		Build		Build – No-Build
	L_{eq}	L_{10}	L_{eq}	L_{10}	
Peak AM Period					
R1 – 120-35 28th Avenue	63.9	66.4	64.5	67.0	0.6
R2 – 27-20 College Point Blvd.	65.7	68.2	66.2	68.7	0.5
R3 – 26-12 123rd Street	62.1	64.6	62.8	65.3	0.7
R4 – 26-12 123rd Street	61.9	64.4	62.7	65.2	0.8
R5 – 12-14 26th Avenue	60.8	63.3	62.0	64.5	1.2
Fairfield Inn	73.1	75.6	86.3	88.9	13.2
All Nations Church (rear)	65.3	68.4	75.1	78.2	9.8
Peak PM Period					
R1 – 120-35 28th Avenue	64.8	66.7	64.9	66.8	0.1
R2 – 27-20 College Point Blvd.	66.7	68.5	66.8	68.7	0.1
R3 – 26-12 123rd Street	63.1	64.9	63.2	65.0	0.1
R4 – 26-12 123rd Street	62.9	64.7	63.0	64.8	0.1
R5 – 12-14 26th Avenue	61.8	63.6	61.9	63.7	0.1
Fairfield Inn	73.4	75.3	73.5	75.4	0.1
All Nations Church (rear)	59.3	63.0	59.4	63.1	0.0

Source: Sandstone Environmental Associates, Inc.

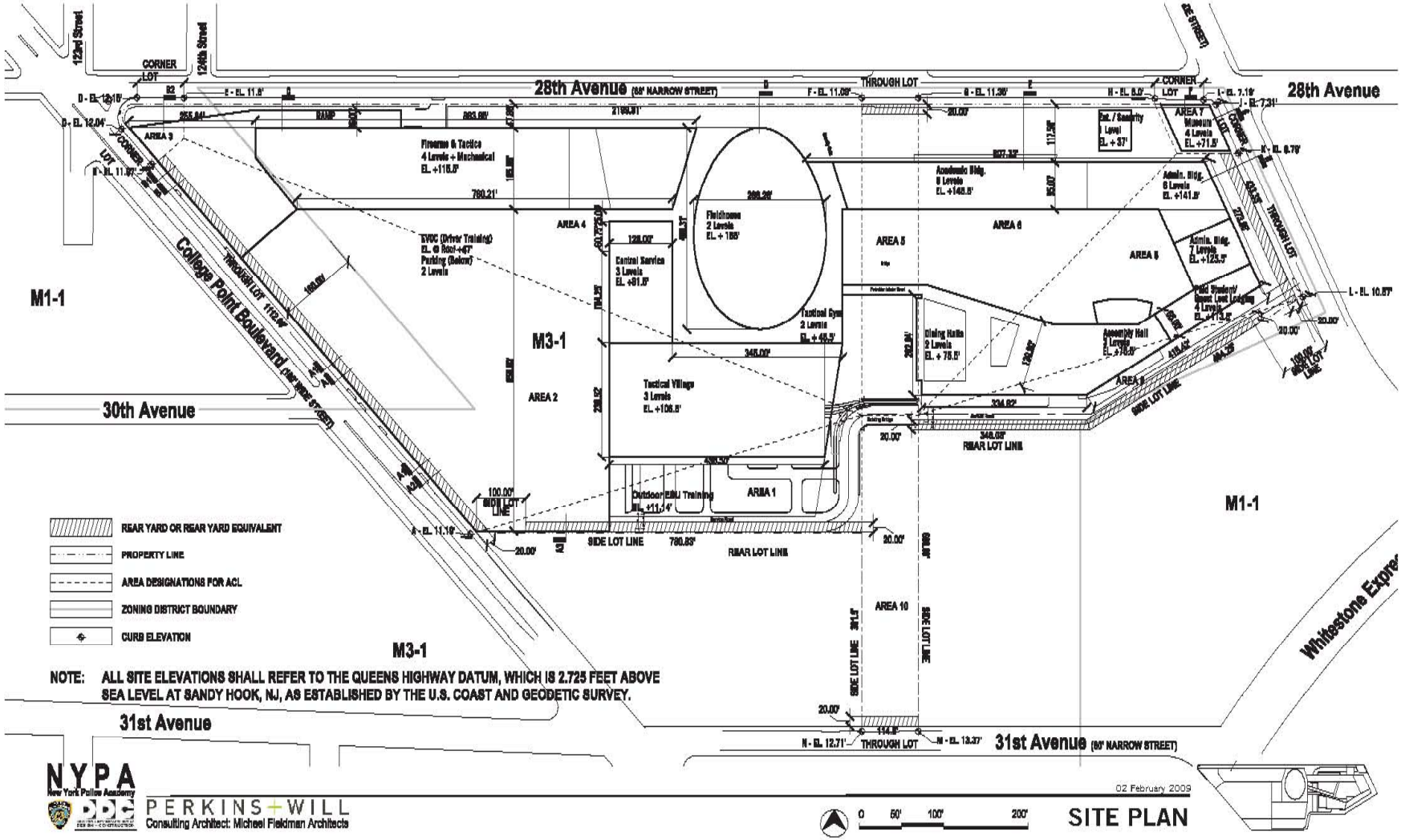
H. CONCLUSION

Based on the foregoing analyses, the Proposed Action would not create a significant noise level impact to residential areas to the north. Significant adverse impacts are projected for the Fairfield Inn west of the site and the All Nations Church and Christian Gospel School southeast of the site. These impacts are solely due to the brief periods of up to half an hour when EVOC activities would be in progress. During these periods, noise level increases would range from 9.8 dBA at the church/school to 13.2 dBA for the Fairfield Inn. These projections of impacts are conservative, as the walls along the EVOC area on the roof of the parking area would provide partial shielding.

Due to the configuration of building heights and segments, the office, academic, and lodging components of the Proposed Action would be protected from the EVOC noise levels. This is due to their distances of at least 100 feet from the EVOC location as well as the barrier effects of the Central Service and Tactical Village structures that would be higher than the EVOC rooftop by approximately 34 to 60 feet.

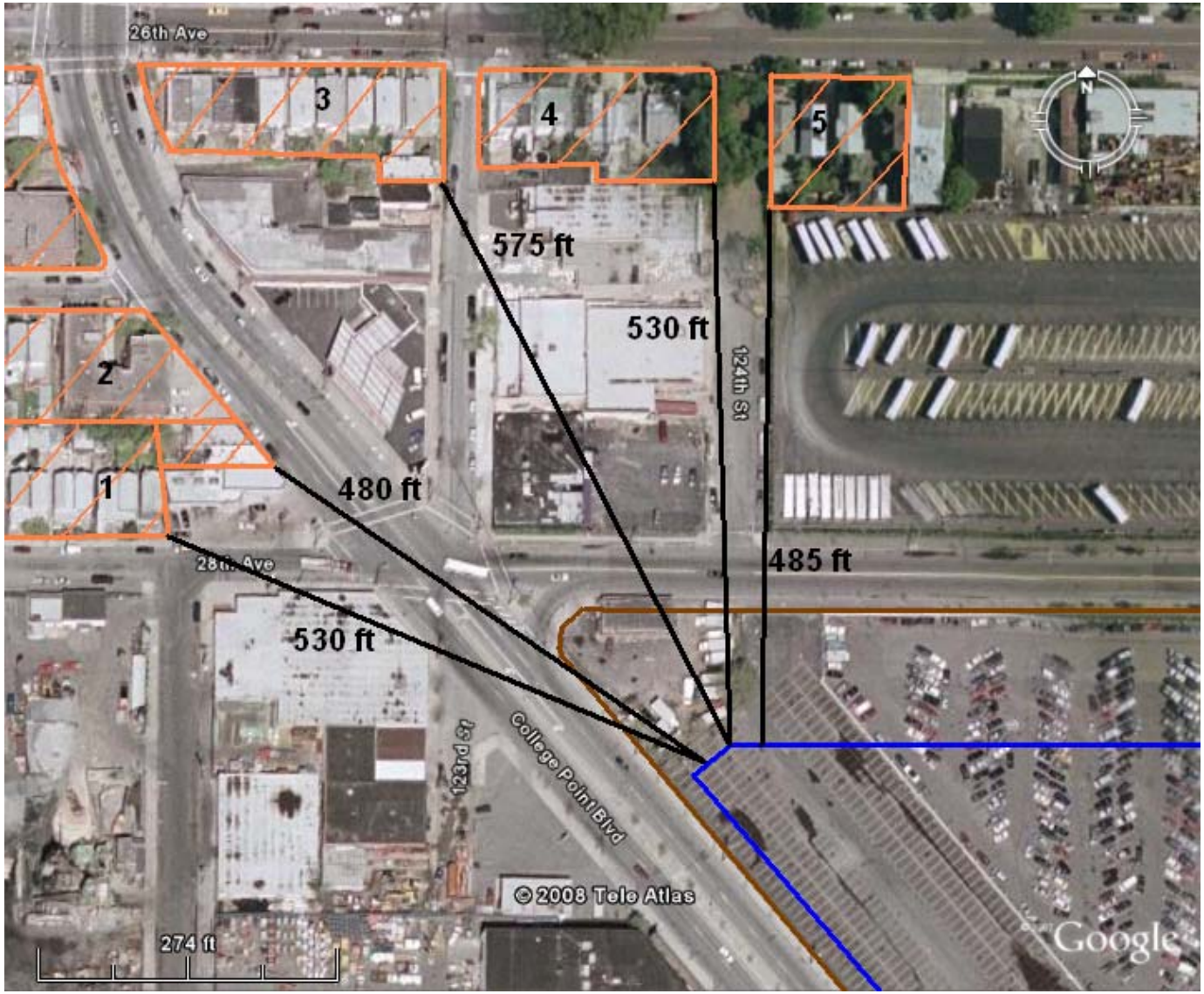
As shown in Table 14-9, L_{10} noise levels on the streets around the site would range from 74.9 dBA on Ulmer Street to 81.3 dBA on 31st Avenue. Since the site buildings would be approximately 400 feet from 31st Street, the traffic noise levels on the southern side of the site would be lower and similar to noise levels for the rear of the All Nations Church as shown in Table 14-11. Based on this information, noise levels at the exterior of the project buildings would generally fall into the 75.0 to 80.0 dBA range, which would place them in the Marginally Unacceptable II CEQR category. The recommended building attenuation would be 35 dBA as shown in Table 14-3. This attenuation can be achieved through installing double-glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass. The *NYC CEQR Technical Manual* states that when maximum L_{10} levels are greater than 70 dBA, alternate means of ventilation should be incorporated into building, and building attenuation is required. Since some of the buildings would be used for office purposes, more refined analyses during final design may indicate that a lower building attenuation value of 30 dBA may be suitable.

Figure 14-2: EVOC Training Area



Source: PERKINS+WILL

Figure 14-3: Residential Uses in Proximity to EVOC Site (R Locations)



Source: Sandstone Environmental Associates, Inc

A. INTRODUCTION

This chapter assesses the potential impacts of the construction of new buildings and infrastructure expected to result from the Proposed Action within and adjacent to the Project Site in College Point, Queens. Construction stages and activities are first described, followed by types of impacts likely to occur during construction, and an assessment of methods that may be employed to minimize those impacts. The following chapter discusses the potential impacts resulting from the construction of the proposed Police Academy on the approximately 35-acre site.

The Proposed Action involves a site selection of a public facility to facilitate the construction of a new Police Academy. A new Academy would allow the NYPD to consolidate their current training facilities, which are currently spread throughout the City, into one central location. The proposed Academy site, located in the College Point neighborhood of Queens, encompasses approximately 35 acres and consists of the following parcels: Block 4321, Lot 48; Block 4323, Lot 19; Block 4324 Lot 1; Block 4325 Lot 1, Block 4326 Lot 1, Block 4327 Lot 1, Block 4328 part of Lot 1, Block 4329 Lots 1 and 7, the southern portion of Block 4301 Lot 1 (south of 28th Avenue), Block 4359 part of Lot 1, Block 4358 part of Lot 1, Block 4357 part of Lot 1, Block 4356 part of Lot 30, and Block 4354 Lot 50.

As discussed in Chapter 1, "Project Description," the proposed Academy consists of approximately 2.4 million gsf, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training course, a police museum, and a visiting police/lecturer lodging facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site.

A Build year of 2014 is assumed for the Proposed Action, as it is expected that the entire project would be completed and occupied by then. For analysis purposes, all components of the Proposed Action would be implemented by 2014.

The conclusion of this analysis is that there would be occasional traffic disruption, due principally to the temporary addition of construction vehicles to the existing traffic network and some short-term construction-related noise. Other types of impacts would either be mitigated or restricted to areas within the Project Site boundaries.

B. DESCRIPTION OF CONSTRUCTION ACTIVITIES AND SCHEDULE

Construction of the proposed Police Academy is expected to last approximately three and a half years (60 months).

Proposed Development

This proposed project involves one discretionary action, consisting of site selection for a public facility ("the Proposed Action"). Approximately 2.4 million gsf of total program would be constructed on-site, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training course, a police museum, and a visiting police/lecturer lodging facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site.

Landscaping on-site would include an interior courtyard and muster area, landscaped buffers along 28th Avenue, Ulmer Street, and College Point Boulevard. Additionally, the on-site drainage ditch would be landscaped with a variety of native plants, resulting in an on-site open space amenity. As the project would incorporate a variety of sustainable design components, it is expected that the proposed development would meet or exceed LEED Silver requirements.

Construction would proceed in several stages, some of which would overlap, including: environmental remediation, site preparation, foundations, and below-grade construction (including excavation, grading and infrastructure connections); superstructure construction; and building finishes, parking, and final site finishes and improvements (e.g., sidewalks, landscaping, lighting).

Typical equipment used for excavation and pouring foundation would include cranes, jackhammers, loaders, pneumatic rock excavating rigs, and dump trucks. Equipment that would be used in construction would include excavators, cranes, dump trucks, pumps, exterior hoists, and concrete trucks. Trucks would remain in use for material supply and construction waste removal. It is expected that the construction of the core and shell would employ the greatest number of construction workers, and a wide variety of supplies would have to be delivered to the site.

Construction activities would typically take place Monday through Friday, although the delivery and installation of certain critical pieces of equipment could occur during off-peak hours (i.e., nighttime or weekend hours). Hours of construction are regulated by the New York City Department of Buildings (NYCDOB) and apply in all areas of the City. In accordance with those regulations, almost all work could occur between 7:00 AM and 6:00 PM on weekdays, although some workers would arrive and begin to prepare work areas before 7:00 AM. Typically, work would end at 3:30 PM, but could be extended until 6:00 PM for such tasks as completing the drilling of piles, finishing a concrete pour for a floor deck, or completing the bolting of a steel frame erected that day. Extended workday activities may not include all construction workers on site, but only those involved in the specific task. Extended workdays could potentially occur during foundation and superstructure tasks, and limited extended workdays could occur during other tasks over the course of construction.

Occasionally, Saturday or overtime hours would be required to complete some time-sensitive tasks. Weekend work requires a permit from the NYCDOB and, in certain instances, approval of a noise mitigation plan from the NYCDEP under the City's Noise Code. The New York City Noise Control Code, as amended December 2005 and effective July 1, 2007 limits construction (absent special circumstances as described below) to weekdays between the hours of 7:00 AM and 6:00 PM, and sets noise limits for certain specific pieces of construction equipment. Construction activities occurring after hours (weekdays between 6:00 PM and 7:00 AM and on weekends) may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of city agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday from 7:00 AM with worker arrival and site preparation to 5:00 PM for site cleanup.

Access to the proposed development site would be tightly controlled. The work area would be fenced off, and limited access points for workers and trucks would be provided. Security guards and flaggers would be posted, and all persons and trucks would have to pass through security points. Workers or trucks without a need to be on the site would not be allowed entry. After work hours, the gates would be closed and locked. Unauthorized access would be prevented after work hours and over the weekends. Material deliveries to the site would be highly controlled and scheduled. Unscheduled or

haphazard deliveries would not be allowed. To aid in adhering to the delivery schedules, flaggers would be employed at each of the entry and exit gates. The flaggers would control trucks entering and exiting the site, so that they would not interfere with one another and minimize disruptions to local on-street traffic.

Construction staging would most likely occur within the proposed development site itself. Due to the size of the proposed development site, construction efforts would not be expected to extend into adjacent streets or effect pedestrian circulation. Appropriate measures would be taken to maintain pedestrian access along College Point Boulevard, 28th Avenue, and Ulmer Street at all times.

Environmental Remediation

Construction of the proposed Police Academy would begin with environmental remediation to address hazardous materials currently existing on the site. The environmental remediation would be conducted under a Remedial Work Plan (RWP) and Health and Safety Plan (HASP), which have been reviewed and approved by the NYCDEP. The New York State Department of Environmental Conservation (NYSDEC) must also approve any remedial plans related to spill cleanup.

As described in Chapter 7, "Hazardous Materials" and in Chapter 17, "Mitigation," measures would be taken to avoid potential adverse impacts during construction activities due to the presence of subsurface soil and groundwater contamination resulting from on-and potentially off-site sources. Contaminated site soils, groundwater, and methane gas vapors are anticipated to be encountered during the proposed construction activities, as indicated in Chapter 7. Additionally, potentially contaminated materials such as asbestos containing material (ACM), lead-based paint (LBP), etc. pose hazards during proposed demolition activities, based on the Phase I assessments of the on-site buildings. Therefore, excavation and construction activities could disturb hazardous materials and create new pathways for human exposure. However, impacts would be avoided by performing construction activities in accordance with the following DEP-approved protocols:

- Demolition of existing on-site buildings and other site improvement structures (e.g. sidewalks, curbs, asphalt pavements, concrete slabs, fences, etc.);
- Collection, sorting, and disposal of any scattered concrete and debris (C&D) material on the ground, ACMs and/or LBP present at the Site in accordance with NYCDEP requirements (Title 15, Subchapter G) and all other applicable federal, state, and local regulations;
- USTs removal, if encountered;
- Soil excavation and on-site staging;
- Excavated materials handling, including transportation and off-site disposal;
- Construction dewatering and handling;
- Truck loading and unloading activities;
- Drilling and pile driving activities;
- Application of engineering controls, including the use of an impervious medium (i.e., concrete slab foundation, impermeable bituminous asphalt pavement, concrete sidewalks and curbs) and/or 24-inch soil cover media consisting of clean fill and vegetative top soil to cap the entire Site;
- Installation of a 20-mil vapor barrier beneath the floor slab and underlain by a sub-slab vapor venting system to prevent the migration and intrusion of methane gas and potential VOCs from soils and groundwater at the site and/or the surrounding area into the constructed buildings; and,
- Implementation of Institutional Controls, including a deed restriction to prevent accidental exposure to contaminants.

At the completion of remedial activities at the Site, a RAP, certified by a Professional Engineer or Registered Architect, will be completed to document that the activities identified in the RAP have been completed.

Site-wide Historic Fill

The presence of historic fill containing SVOCs and metals exceeding NYSDEC TAGM RSCOs has been identified throughout the Site. As the historic fill has been identified as the primary source of soil and groundwater contamination and based on the level of contamination documented at the Site, the Site does not appear to fall into any of NYSDEC's defined spill or environmental restoration program categories. As such, there is no requirement to remove contaminated soil from the Site or to treat soil to any cleanup standard. Any contaminated soil excavated during the course of building construction defined by NYSDEC criteria as a solid waste would not be re-used on-site. The excavated material would be transported off-site for disposal in accordance with applicable regulations. It is anticipated that a significant volume of soils, including historic fill material, would need to be excavated to install the foundation and utilities during construction of the NYPD Academy. Any historic fill remaining on-site would be addressed with either engineering and/or institutional controls. The proposed volume of soils to be excavated would be determined once the proposed redevelopment plans and details become available.

Typically, historic fill material remaining outside of the proposed building's footprint would be covered with an impervious layer (i.e. asphalt, pavement, or concrete). If there were any exposed areas of buried historic fill, a two-foot layer of clean fill, underlain by a geosynthetic membrane of fabric material, would be installed on the exposed ground surface to minimize inhabitants' exposure to contaminants present in the historic fill.

Underground Storage Tanks

No USTs have been identified on-site during the previous investigations. However, in the event that any UST is identified during demolition and construction activities at the Site, proper closure and/or removal methods would be employed in accordance with NYSDEC's UST closure requirements and all applicable local government regulation. If petroleum contaminated soil is encountered during construction activity, it would be segregated, stockpiled, classified, and ultimately taken to an off-site recycling or disposal facility. Under no circumstances would petroleum contaminated solid waste material be used on-site.

Dewatering

Based on previous investigations, the groundwater table has been noted to be approximately 11 to 14 feet bgs. As such, groundwater is not anticipated to be encountered during construction of the proposed Academy. However, in the unlikely event that groundwater is encountered during construction and dewatering is necessary, it would be pumped out, discharged onto the surface of on-site soils, and allowed to re-infiltrate to groundwater since there is no indication of gross groundwater contamination at the Site from previous sampling investigations. However, if visible contamination were to be observed, them groundwater shall be containerized, characterized and disposed of in accordance with all applicable regulations. If the volume of water that is pumped is too great to re-infiltrate into Site soils, then the water will be containerized, characterized and disposed of properly. No discharges shall reach any storm or sanitary sewer.

Site Restoration

The proposed construction of the Police Academy and associated utility structures, parking areas, curbs and sidewalks would serve as restoration for the majority of the Site. Upon completion of Site work activities, the entire project area would be capped with either an impervious medium (i.e., concrete slab foundation, impermeable bituminous asphalt pavement, concrete sidewalks and curbs) or a two-foot soil cover media consisting of clean fill and vegetative topsoil. A 20-mil vapor barrier will also be installed under the floor slab and underlain by a sub-slab vapor venting system to prevent the migration and intrusion of potential groundwater contaminants from the surrounding area into the constructed buildings.

Construction and Demolition Debris (Disposal of ACMS and LBP Material)

In order to construct the proposed Academy, any existing buildings or structures within the project boundaries would need to be demolished. Based on the results of the Phase I ESA reports, possible interior hazardous materials (i.e., ACM, LBP, etc.) may be encountered during the demolition phase.

All scattered C & D material would be collected, segregated, and sent to an authorized disposal or recycling facility. Should any suspect ACM and/or LBP be identified prior to pre-demolition construction and following a comprehensive building survey, it would be properly handled and disposed of in accordance with NYCDEP requirements (Title 15, Subchapter G) and all other applicable federal, state, and local regulations.

Engineering Controls

Since contaminated soil (i.e., soil containing SVOCs and metals exceeding NYSDEC TAGM RSCOs) would remain on the Site, engineering controls would be required to prevent unnecessary direct contact with the soil. In addition, since methane has been detected in the subsurface at the Site, engineering controls to prevent potential exposure to methane for future occupied structures would be necessary.

One or more of the following engineering controls would be used to cap the entire site during construction of the Police Academy:

- Building Foundation System – A minimum of eight inches of ¾-inch clean stone and eight inches of concrete;
- Sub-slab Venting System and Vapor Barrier – A 20-mil vapor barrier would also be installed underneath the floor slab and underlain by a sub-slab vapor venting system to prevent the migration and intrusion of potential groundwater contaminants from the surrounding area into the constructed buildings;
- Pavement – Four to six inches of ¾-inch quarry process stone and 1.5 to 2 inches of impermeable bituminous asphalt paving;
- Concrete Sidewalks and Curbs – Four inches of ¾-inch clean stone and four inches of concrete;
- Fill Cap – to feet of "TAGM-Certified Clean" fill cap (i.e., composition of fill below TAGM 4046 guidance values) be placed over landscaped, non-paved areas for the entire Site; and
- Grass Area (if applicable) – A visible barrier (landscape fabric / geosynthetic membrane), 18-inches of clean fill, and 6-inches of a vegetative topsoil medium.

The topsoil cover at the Site would consist of imported "clean fill" material with prior approval of the off-Site borrow area and would be devoid of any C & D material. The designated off-site borrow area would be subject to pre-construction characterization sampling as required by NYCDEP before any such material could be used on-site as backfill. Representative samples would be collected by qualified environmental personnel at a frequency of one sample for every 250 cubic yards of cover material sent to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory for analysis. Samples would be analyzed for TCL VOCs, TCL SVOCs, TAL Metals, PCBs and Pesticides and then compared to TAGM RSCOs. Results would be submitted to NYCDEP for approval prior to transporting cover material on-site. The location of the various types of engineering controls would conform to the proposed building development plans.

Institutional Controls

Since it is anticipated that a certain volume of soils exceeding the NYSDEC TAGM RSCOs would remain at the Site after completion of remedial and/or redevelopment activities, institutional controls may be required.

Memorandum of Understanding

In order to ensure that future remedial actions/construction work for this project are conducted in a controlled manner, a Memorandum of Understanding (MOU) will be implemented with NYCDEP before construction begins.

With the implementation of these measures, no significant adverse impacts related to hazardous materials would result from demolition and/or construction activities on the Project Site.

Site Preparation, Foundations, and Below-Grade Construction

Typically, soil excavation and foundation construction for a development of this size takes approximately seven to nine months to complete, and can be carried out concurrently with hazardous materials sampling, and, as required, remediation and disposal. Excavation and foundation work includes the use of bobcats, rockbreakers, loaders, pumps, motorized concrete buggies, concrete pumps, jackhammers, pneumatic compressors, and a variety of small, mostly handheld tools, as well as dump trucks and concrete trucks.

The Project Site would be excavated for site preparation and utilities. As mentioned above, all material that needs to be disposed of (e.g., excess/unsuitable fill) would be disposed of off-site in accordance with applicable federal, state, and local requirements. In addition, any contaminated soil encountered during excavation would be properly disposed of. The site would be graded so that the foundations could be excavated, and final elevations established. All buildings and structures on the proposed Academy site would be cleared.

Following grading, construction of the proposed accessory parking facility and proposed Academy's foundation and in-ground elements would begin. Foundation work would include pile driving and pouring concrete footings and foundation. Ready-mix concrete trucks would deliver concrete to the site. For structures of this type, the foundations would typically be slab on-grade with supporting piles. Blasting is not anticipated to occur during construction. This phase of work is expected to require approximately 12 to 18 months, depending on project sequencing, and can be carried out concurrently with hazardous materials sampling, and, as required, remediation and disposal. Construction equipment would include pneumatic rock excavating rigs, excavators, cranes, dump trucks, pumps, and concrete trucks.

Superstructure

Following installation of foundations, the construction of the parking facility and Academy's superstructures would commence, including the construction of building shell and core. Construction of the exterior enclosure or "shell" would include construction of the building's framework (installation of beams and columns), floor decks, facades (exterior walls and cladding) and roof construction. These activities would require the use of tower cranes, compressors, personnel and material hoists, front-end loaders, concrete pumps, on-site bending jigs, welding machines, and a variety of handheld tools, in addition to the delivery trucks bringing construction materials to the site.

Construction of the buildings' superstructures is anticipated to last approximately 24 to 36 months, depending on the project sequencing. As the frame is installed, work would commence on interior infrastructure— mechanical, electrical, and plumbing systems—and enclosure. This would include the installation of heating, ventilation, and air conditioning (HVAC) equipment and ductwork, the running of electrical lines within the building, and interior installation of water supply and wastewater pumping. Installation and checking of elevator and life safety systems would also take place at this stage. Interior construction would take approximately 12 to 18 months, depending on project sequencing. This work would be phased to overlap with the completion of the core and shell so that a

significant amount of interior work is performed before the core and shell are completed. Equipment used during interior construction would include exterior hoists, pneumatic equipment, delivery trucks, and a variety of small handheld tools.

Building Finishes and Sidewalks

This phase of building construction consists of exterior and interior finishes. The work would involve final roofing and finishing details on the exterior walls. While this construction is taking place, the sidewalks would be built. This phase would overlap with the superstructure phase and is anticipated to take about 12 to 18 months. Thus, between the superstructure and building finishes, these two phases of construction should take about three to four years. Equipment used during interior construction would include exterior hoists, pneumatic equipment, and delivery trucks.

C. POTENTIAL IMPACTS DURING CONSTRUCTION

Construction of the proposed Police Academy may be disruptive to the surrounding area during the construction period, depending on the project sequencing. In accordance with guidelines presented in the *CEQR Technical Manual*, the technical areas for which the potential for impact is assessed include land use and neighborhood character, socioeconomic conditions, community facilities, open space, historic resources, natural resources, hazardous materials, infrastructure, traffic and parking, transit and pedestrian, air quality, and noise impacts.

Land Use And Neighborhood Character

A construction impact analysis of land use and neighborhood character would typically be needed if construction requires continuous use of property for an extended duration, thereby affecting the nature of the land use and character of the neighborhood. This may occur, for example, if construction activity (such as staging) would occur on a particular site in a neighborhood for an extended period of time.

As is typical with large construction projects, the proposed development would cause some disruptions to activities in the surrounding area, particularly during periods of peak construction activity. These disruptions would be temporary in nature. Construction would not alter surrounding land uses. The adjacent roadways (College Point Boulevard, 28th Avenue and Ulmer Street) generally sever the proposed development site from adjacent uses. Additionally, residential areas are not located within close proximity to the proposed Academy site, and therefore, the area of the proposed construction is largely separated from the community, and such disruptions would not be significant. Other uses on the project block are buffered from the proposed development site by either the drainage ditch or the accessory parking lots that serve the various adjacent uses. The adjacent church would not be adversely affected as construction activities (7 AM to 3 PM) would generally not occur during peak church hours. Additionally, in the latter stages of construction, when work would take place primarily within building shells, effects on surrounding uses would be substantially reduced. Vehicular access on adjacent roadways would be maintained at all times when the proposed street is being built.

An appropriate protective barrier (fence) would be installed on the perimeter of the proposed development site to protect the public. This fencing would reduce potentially undesirable views of the construction site and buffer noise emitted from construction activities. All construction-staging activities, including the storage of materials and equipment would occur within the development site, therefore disruptions to the surrounding area would be minimized and would not alter surrounding land uses or intrude on neighborhood character. The construction of the proposed development would

be similar to construction at any other site in the city, and the NYCDOB would regulate the hours of construction operation.

There would be a temporary increase in noise levels in the immediate vicinity of the site due to the operation of the on-site construction equipment and construction trucks and construction workers coming to and from the site, and loading and unloading, but this would not result in a significant change in neighborhood character given the current nature of the manufacturing, commercial, light-industrial/warehousing and transportation uses in the immediate vicinity of the proposed development site.

The Proposed Action would not result in significant or long-term adverse impacts on the local land use patterns or the character of the nearby area, as construction activities would be temporary in nature with external construction lasting approximately three years.

Socioeconomic Conditions

A detailed analysis may be conducted if a proposed action would entail construction of a long duration that could affect the access and therefore viability of a number of businesses, and could cause the failure of those businesses and affect neighborhood character.

Construction of the proposed Academy would not result in any temporary or long-term significant adverse impacts on socioeconomic conditions in the study area. The proposed development site is relatively severed from the surrounding area, bounded by College Point Boulevard, 28th Avenue, and Ulmer Street. Additionally, there are no businesses immediately adjacent to the proposed development site on the project block. As mentioned above, all of the uses located on the project block are offset from the proposed development site by either expansive accessory parking lots or the on-site drainage ditch. As all construction activities and staging would take place within the boundaries of the project site, commercial businesses located in the vicinity of the Project Site would not be disrupted due to such construction activities. As noted above, access to businesses near the Project Site would not be impeded as all staging will occur onsite, and most businesses are not expected to be significantly affected by any temporary reduction in the amount of pedestrian foot traffic that could occur as a result of construction activities.

It should be noted that construction of the proposed development would have direct, positive economic impacts resulting from expenditures on labor, materials, and services as well as generated indirect benefits created by expenditures by material suppliers, construction workers, and others involved in development on the proposed Academy site.

As a result of the direct expenditure associated with the proposed development, the direct employment is estimated at approximately 1,325 people. In addition to direct employment, the total employment resulting from construction expenditures would also include jobs in business establishments providing goods and services to the contractors and resulting indirect and generated employment. The total direct and generated jobs from the construction of proposed Police Academy would help to support a variety of existing businesses in New York City.

Community Facilities

A construction impact analysis may be conducted for any community facility that would be directly affected by construction (e.g., if construction would disrupt services of the facility, change an entrance, or close the facility temporarily, etc.).

As mentioned above, there is a church located on the project block, immediately adjacent to the drainage ditch on 31st Avenue. No construction impacts are anticipated at this facility during its Sunday church services, as construction is typically not expected to occur on Sundays. There are no other community facilities within or immediately adjacent to the Project Site.

Construction of the proposed Academy would not block or restrict access to any facilities in the area, and would not affect emergency response times significantly. NYPD and FDNY emergency services and response times would not be significantly affected due to the geographic distribution of the police and fire facilities and their respective coverage areas. Although community facilities in the area may be affected by construction noise, they would not experience significant adverse impacts.

Open Space

According to the *CEQR Technical Manual*, a construction impacts analysis for open space may be conducted if an open space resource would be used for an extended period of time for construction-related activities, such as construction staging, or if access to the open space would be impeded during construction activities.

Construction activities would not displace any existing open spaces, nor would any open space be sued for construction staging. Construction of the proposed Police Academy would occur approximately 650 feet from the nearest mapped open space. As such, no construction impacts are expected. The open space would remain open during the entire construction period, and access to all open spaces in the area would not be compromised at any time.

Construction activities would be conducted with the care mandated by the close proximity of open spaces to the proposed development site. Dust control measures—including watering of exposed areas and dust covers for trucks—would be implemented to ensure compliance with Section 1402.2-9.11 of the New York City Air Pollution Control Code, which regulates construction-related dust emissions.

During heavier periods of construction, construction activities on the site would at times be disruptive or noticeable to users of the College Point Sports Park, which is located approximately 650 feet northeast of the proposed Police Academy. Construction activities are noisy at times (e.g., pile driving, truck traffic), and this noise may be perceptible at the College Point Sports Park (see discussion under "Noise"). However, the impacts associated with the construction of the proposed development would be temporary, and therefore, would not be considered significant adverse impacts to park users.

Historic Resources

Construction impacts may occur on historic resources if in-ground disturbances or vibrations associated with project construction undermines the foundation or structural integrity of nearby historic resources. These impacts are typically assessed for any action involving construction activities within 400 feet of a historic resource. There are no known architectural resources on the proposed Academy site, nor are there any historic structures within a 400-foot radius of the site. Therefore, development on the proposed Academy site would not to have any direct, physical effects on these off-site resources.

The New York City Landmarks Preservation Commission (NYCLPC) has determined that the proposed Academy site is not sensitive for archaeological resources and therefore, construction would not result in any significant adverse impacts on archaeological resources.

Hazardous Materials

The construction-period hazardous materials impacts of the proposed Police Academy are described above in "Environmental Remediation."

Infrastructure

Infrastructure impacts may occur if project construction would affect or disrupt infrastructure service for extended or intermittent periods over a long period of time—for example, if in-ground construction would disturb a water main causing a long-term interruption in service. Another example for a large project would be the extensive number of construction-related heavy trucks and their effect on pavement conditions. If such disruptions were expected, a more detailed analysis would be warranted.

No disruptions of existing services are expected (except to make connections, typically carried out overnight or during off-periods). All infrastructure improvements would meet the standards and specifications of NYCDEP and would have to be approved by that agency. NYCDEP regularly repairs, relocates, and replaces water and sewer lines without disruption to service. Therefore, no significant adverse impacts to the infrastructure systems or to users are expected.

As with the water and sewer lines, new electrical and telecommunication service lines would have to be connected to the proposed development. Energy and telecommunications suppliers regularly repair, relocate and replace lines without disruption to service. Therefore, no significant adverse impacts to the systems or to its users are expected.

Traffic and Parking

A construction impact analysis of traffic is typically conducted when construction activity is expected to be long term and would generate sufficient traffic from employees and trucks to cause potential traffic impacts, or would result in lane closings or traffic diversions, disrupting area traffic flow. Construction of the proposed development is not expected to create extensive or long-term construction-related impacts on traffic or parking conditions in the surrounding area.

It is anticipated that all construction staging for the proposed development would be accommodated on-site, and no street closures are expected. As described above, vehicular flow would not be disrupted on adjacent streets during the construction of the proposed Academy.

During construction, there would be new vehicle trips to and from the Project Site, including trips generated by construction workers, and truck trips associated with the movement of material and equipment, as well as construction waste. The number of construction workers on-site at any one time, and the number of daily truck trips to and from the site would vary, depending on the stage of construction. Although a detailed construction plan has yet to be finalized, based on preliminary information provided by the construction coordinator, it is estimated that the average number of construction workers on-site would be as follows:

- The below-grade work, including excavation, grading, and foundations, would require up to approximately 175 workers on-site depending on the exact tasks being performed.
- Work required for the superstructure would require up to approximately 225 workers on-site.
- Work required for the construction of the core and shell and interior fit-out work would require up to approximately 475 workers.

- Exterior work would require up to approximately 500 workers.[1]

Constructed-related pedestrian and transit trips would be fewer than the *CEQR Technical Manual* threshold requiring quantitative analysis; therefore, the proposed development would not result in significant adverse transit or pedestrian impacts and no further analysis is necessary. It is expected that on-site parking for construction workers would be provided along the western portion of the site. Prior to the construction of the garage, sufficient parking would be provided on-site to accommodate construction worker vehicles.

Table 15-1 shows the trip generation assumptions for the peak construction period for the Police Academy. Based on 2000 Census reverse journey to work data, approximately 77.1 percent of construction workers in the surrounding area drive to work. Assuming a vehicle occupancy of 1.9 persons per auto it is estimated that construction workers would generate approximately 162 vehicle trips during the weekday 6:00 to 7:00 AM and 3:00 to 4:00 PM hours during periods of peak construction. It should be noted that worker trips during construction are expected to occur during the same peak hours as would trips by the Academy's recruit population once the proposed development is completed.

As noted above, in addition to auto and taxi trips by construction workers, construction of the proposed development would generate truck trips associated with the movement of material and equipment, as well as construction waste. Truck movements would typically be spread throughout the day on weekdays, and would generally occur between the hours of 7:00 AM and 3:00 PM, depending on the period of construction. When possible, the scheduling of deliveries and other construction activities would take place during off-peak travel hours. Truck holding and staging would typically be accommodated on the development site.

Trucks en route to and from the proposed development during construction would use NYCDOT-designated truck routes to access the Project Site, such as College Point Boulevard. Based on data from other construction projects in New York City, it is anticipated that construction of the proposed Police Academy would generate an average of approximately 125 truck trips over the course of a weekday during periods of peak construction activity. Conservatively assuming that roughly 25 percent of these trips occur during each peak hours, approximately 32 peak hour truck trips would occur during periods of peak construction.

Overall, it is anticipated that during periods of peak construction activity, upwards of approximately 200 auto and truck trips would be generated in each peak hour. As discussed in Chapter 11, "Traffic and Parking," under the typical operating conditions, the proposed Police Academy would generate an estimated 514 vehicle trips in the weekday AM peak hour and 573 vehicle trips in the PM peak. As the net increase in vehicle trips at analyzed intersections during construction would be substantially smaller than the net increase resulting from the Proposed Action (about 30 to 35 percent of the proposed Action), it is anticipated that traffic impacts during construction would be fewer in number and of lesser magnitude than with the typical operating condition of the proposed Police Academy. As shown in Chapter 11, "Traffic and Parking," the proposed project would have significant adverse impacts at five different intersections (3 in the AM and 3 in the PM), as shown in Table 11-8. A review of the LOS analysis results of Table 11-7 shows that all five impacted intersections with the built development would also be impacted during construction. Locations where mitigation measures were developed to address the Proposed Action's significant adverse traffic impacts (refer to Chapter 17, "Mitigation") would fully mitigate traffic impacts from vehicle trips at the Project Site during construction of the proposed Police Academy. As such, some or all of these measures need to be

[1] The average number of construction workers for construction phases is based on data from the construction coordinator for the Police Academy development.

TABLE 15-1:
Trip Generation Planning Demand Assumptions for the Peak Construction Period for the Police Academy

Land Use:	**Construction**		
	(1)		
Size/Units:	500 workers		
Trip Generation:	(1)		
Weekday	2		
	trips per worker		
Temporal Distribution:	(2)		
AM (6:00 - 7:00)	40.0%		
PM (3:00 - 4:00)	40.0%		
	(3)		
Modal Splits:	AM	PM	
Auto	77.1%	77.1%	
Taxi	1.0%	1.0%	
Subway	15.3%	15.3%	
Bus	3.5%	3.5%	
Walk/Ferry/Other	3.1%	3.1%	
	100.0%	100%	
	(4)		
In/Out Splits:	In	Out	
AM	97.0%	3.0%	
PM	5.0%	95.0%	
Vehicle Occupancy:	(4)		
Auto	1.90		
Taxi	1.40		
Truck Trip Generation:	(2)		
	125.00		
	trips per day		
	(5)		
AM	25.0%		
PM	25.0%		
	In	Out	
AM/PM	50.0%	50.0%	

Notes :

(1) Estimate for peak construction period workers provided by project contractor.
(2) Public Saftey Anwsering Center (PSAC II), FEIS
(3) 2000 Census reverse journey to work for project area
(4) Atlantic Yards Arena EIS
(5) Hunters Point South FEIS

TABLE 15-1 (continued)
Trip Generation Planning Demand Assumptions for the
Peak Construction Period for the Police Academy

Land Use:		**Construction**		
Size/Units:		500	workers	
Peak Hour Trips:				
	AM	400		
	PM	400		
Person Trips:				
		In	Out	
AM	**Auto**	299	9	
	Taxi	4	0	
	Subway	59	2	
	Bus	14	0	
	Walk/Ferry/Other	12	0	
	Total	388	11	
		In	Out	
PM	**Auto**	9	299	
	Taxi	0	4	
	Subway	2	59	
	Bus	0	14	
	Walk/Ferry/Other	0	12	
	Total	11	388	
Vehicle Trips :				
		In	Out	
AM	**Auto (Total)**	157	5	
	Taxi Balanced	3	3	
	Truck	16	16	
	Total	176	24	
		In	Out	
PM	**Auto (Total)**	5	157	
	Taxi Balanced	3	3	
	Truck	16	16	
	Total	24	176	
	Total Vehicle	In	Out	Total
	AM	176	24	200
	PM	24	176	200

implemented during the proposed development's construction phase. The anticipated volume of vehicle traffic during the AM and PM peak periods would likely warrant mitigation only at 31st Avenue at College Point Boulevard and Ulmer Street at the southbound Whitestone Expressway Service Road. As such, these intersections may warrant mitigation after the site soil mitigation (in conjunction with NYCDEP) and foundations have been completed (late 2010). Locations that cannot be mitigated for the proposed project would likely remain unmitigable during construction.

Transit and Pedestrians

A construction impact analysis of transit and pedestrian facilities may be conducted when construction activity is expected to result in a long-term closure, relocation or narrowing of a pedestrian facility (sidewalk, walkway or stairway) or transit access (bus stop or subway entrance) to allow for construction related activity.

Construction activity at the proposed Academy site is not expected to impact any existing transit facilities. Appropriate measures would be taken to maintain pedestrian access between the site and 28th Avenue, which the Q25 bus route travels along, and the Q65 bus route which runs along College Point Boulevard during all construction efforts. In all cases, pedestrian access would be maintained, with provisions for pedestrian safety (such as barriers, signage, sidewalk sheds, etc.) implemented as required by City building codes and NYCDOT.

Considering that walk trips generated by construction workers would occur during off-peak hours, primarily along pedestrian routes with low to moderate background pedestrian traffic, no significant adverse impacts associated with the projected increment of construction-related pedestrian trips are anticipated. Appropriate measures for maintaining temporary sidewalks and overhead protections would be provided throughout construction.

Air Quality

Possible impacts on local air quality during construction of the proposed development on the Project Site include:

- Fugitive dust (particles and particulate matter) emissions from land clearing operations, excavation, materials transfer, and vehicle travel on paved and unpaved roads;
- Mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

New York City Local Law 77 was passed in December 2003 in order to reduce air pollutants emitted by non-road construction equipment used on City projects. This law requires the use of ultra-low sulfur diesel (ULSD) and "best available technology" (BAT) for reducing emissions from non-road equipment greater than 50 horsepower. The law applies to "any diesel-powered non-road vehicle that is owned by, operated by or on the behalf of, or leased by a City Agency." Therefore, construction projects undertaken by city agencies, either directly or through contractors, would be required to meet the requirements of Local Law 77. Adherence to Local Law 77 would reduce the level of emissions from the on-site construction equipment and from the trucks transporting material to and from the construction sites.

Fugitive Emissions

Fugitive dust emissions could occur from land clearing, excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over paved and unpaved areas. Actual quantities of emissions depend on the extent and nature of the land clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and type of fugitive dust control methods employed. The USEPA has suggested, in

general, an overall emission rate of about 1.2 tons of particulate matter per acre per month of active construction from all phases of land clearing operations with no fugitive dust control measures. However, this is a national estimate and actual emissions would vary widely depending on may factors, including the intensity and type of land clearing operations.

Much of the fugitive dust generated by construction activities consists of relatively large-size particles (greater than 100 microns in diameter), which are expected to settle within a short distance (within 20 to 30 feet) from the construction site and to not significantly impact nearby buildings or people. All appropriate fugitive dust control measures—including watering of exposed areas and dust covers for trucks—would be employed during construction of the proposed Police Academy on the Project Site. As a result, no significant air quality impacts from fugitive dust emissions would be anticipated during construction.

Mobile Source Emissions

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. Localized increases in mobile source emissions would be minimized by following standard traffic maintenance requirements, such as:

- Construction requiring temporary street closings would be performed during off-peak houses wherever possible;
- The existing number of travel lanes would be maintained to the maximum extent possible;
- Idling of delivery trucks or other equipment would not be permitted during unloading or other inactive times.

While it would be expected that there would be a localized increase in mobile source emissions, these emissions are not expected to significantly impact air quality. Moreover, any such impacts, while minimal, would also be temporary. Therefore, no significant air quality construction impacts from mobile sources are anticipated.

Noise

Impacts on noise levels during construction of the proposed Police Academy include noise and vibration from construction equipment operation, and noise from construction and delivery vehicles traveling to and from the site. The severity of impact from these noise sources would depend on the noise characteristics of the equipment and activities involved, the construction schedule, and the distance to potentially sensitive noise receptors. Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, as well as the distance from the construction site. Typical noise levels of construction equipment that may be employed during the construction process are listed in Table 15-1. Noise levels caused by construction activities would vary widely, depending on the phase—land clearing and excavations, foundation and capping, erection of structural steel, construction of exterior walls, etc—and the specific task being undertaken.

Increased noise levels caused by construction activities can be expected to be most significant during the early stages of construction. The most significant noise source associated with the construction equipment would be the use of jackhammers, paving breakers, and pile drivers. This noise would be intrusive and would be heard by the employees at surrounding businesses and the residents that live within several blocks of the Project Site. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. Small increases in noise levels are expected to be found near a few defined truck routes and the streets in the immediate vicinity of the Project Site.

Construction noise is regulated by the New York City Noise Control Code and by USEPA noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. These regulations would be carefully followed. In addition, appropriate low-noise emission level equipment and operational procedures would be used. Directives to the construction contractor would ensure compliance with noise control measures. Therefore, construction noise at the Project Site would be similar to other development projects in the city, and would not result in significant adverse impacts.

TABLE 15-2: Typical Noise Emission Levels for Construction Equipment

Equipment Item	Noise Level at 50 feet (dBA)
Air Compressor	81
Asphalt Spreader (paver)	89
Asphalt Truck	88
Backhoe	85
Bulldozer	87
Compactor	80
Concrete Plant	83 (1)
Concrete Spreader	89
Concrete Mixer	85
Concrete Vibrator	76
Crane (derrick)	76
Delivery Truck	88
Diamond Saw	90 (2)
Dredge	88
Dump Truck	88
Front End Loader	84
Gas-driven Vibro-compactor	76
Hoist	76
Jack Hammer (Paving Breaker)	88
Line Drill	98
Motor Crane	83
Pile Driver/Extractor	101
Pump	76
Roller	80
Shovel	82
Truck	88
Vibratory Pile Driver/Extractor	89 (3)

Notes:

[1] Wood, E.W. and A.R. Thompson, Sound Level Survey, Concrete Batch Plan; Limerick Generating Station, Bolt Beranek and Newman Inc., Report 2825, Cambridge, MA, May 1974.

[2] New York State Department of Environmental Conservation, *Construction Noise Survey, Report No. NC-P2*, Albany, NY, April 1974.

[3] F.B. Foster Company, Foster *Vibra Driver/Extractors, Electric Series Brochure*, W-925-10-75-5M.

Sources: Patterson, W. N., R. A. Ely, and S. M. Swanson, *Regulation of Construction Activity Noise*, Bolt Beranek and Newman Inc., Report 2887, for the Environmental Protection Agency, Washington DC, November 1974, except for notated items.

Public Health

During construction of the proposed Police Academy, traffic associated with passenger vehicles, as well as heavy-duty trucks, is expected to increase, potentially contributing to increases in particulate matter (PM) levels in the area. However, these emissions are not expected to significantly affect public health. Most of the increase in vehicle trips associated with the proposed development would be from gasoline vehicles, which emit relatively little PM. The total peak number of heavy-diesel vehicles generated by the proposed development during construction at any intersection is below the threshold

(21 trucks per hour at any intersection) currently being used on projects sponsored by the NYCDEP to determine whether an air quality impact analysis of PM smaller than 2.5 microns is necessary.

D. CONCLUSION

Construction of the proposed Police Academy would create some disruptions and inconveniences on surrounding land uses, but these would be temporary in nature and would be minimized, as the proposed development is required to comply with various regulations. The proposed Police Academy will also coordinate with the NYCDEP to ensure that hazardous materials concerns are addressed and therefore impacts related to hazardous material will be avoided. In addition, effects of the proposed construction on traffic are addressed by implementing the project's mitigation measures midway during the construction period, while air quality is governed by applicable government regulations. Therefore, no impacts related to these areas are expected to occur.

Accordingly, with its compliance to applicable regulations and construction management practices, the Proposed Action would not result in significant adverse impacts during project construction.

A. INTRODUCTION

This chapter assesses the potential for public health related impacts associated with the Proposed Action. For determining whether a public health assessment is appropriate, the *CEQR Technical Manual* lists the following as public health concerns for which a public health assessment may be warranted:

- Increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts;
- Increased exposure to heavy metals (e.g. lead) and other contaminants in soil/dust resulting in significant adverse impacts;
- The presence of contamination from historic spills or releases of substances that might have affected or might affect ground water to be used as a source of drinking water;
- Solid waste management practices that could attract vermin and result in an increase in pest populations (e.g. rats, mice, cockroaches, and mosquitoes);
- Potentially significant adverse impacts to sensitive receptors from noise or odors;
- Vapor infiltration from contaminants within a building or underlying soil (e.g., contamination originating from gasoline stations or dry cleaners) that may result in significant adverse hazardous materials or air quality impacts;
- Actions for which the potential impact(s) result in an exceedance of accepted federal, state, or local standards.

The Proposed Action would facilitate the construction of a new Police Academy on an approximately 35-acre site in the College Point neighborhood of Queens. The proposed Academy consists of approximately 2.4 million gsf, including academic space, physical training facilities, administrative and support components, an indoor pistol range, a field house, a tactical village, a drivers training course, a police museum, and a visiting police/lecturer lodging facility. Additionally, an accessory-parking garage of approximately 1,800 spaces would be provided on-site. The proposed Academy is expected to advance recruit and in-service training in New York City, and therefore improve public safety throughout the City by providing state-of-the-art training facilities.

B. ASSESSMENT

The *CEQR Technical Manual* states that a public health assessment may not be necessary for many proposed actions but indicates that a thorough consideration of health issues should be documented. In determining whether the Proposed Action has the potential to adversely affect public health, the following has been considered:

- ***Whether increased vehicular traffic or emissions from stationary sources would result in significant air quality impacts.***

  The potential for these impacts was examined in Chapter 13, "Air Quality." As described in Chapter 13, a detailed microscale modeling analysis was conducted that estimated CO and $PM_{2.5}$ levels near intersections in the study area that are anticipated to be affected by the Proposed

Action. The Academy's first year of operation (2014) was considered, and pollutant levels were estimated for Existing conditions and for future 2014 conditions with and without the Proposed Action. In order to select these analysis sites, traffic volumes, the traffic levels of service, and travel speeds at the major signalized intersections were evaluated with and without the Proposed Action. Analysis of site selection was based on a screening analysis that was conducted using the CEQR Technical Manual screening threshold criteria to determine where the air quality levels would most greatly be affected by the Proposed Action. The screening analysis used total traffic volumes at intersections, changes associated with speeds, and project-generated trips from the traffic analysis to make the final determination on the analysis sites for all pollutants of concern in the microscale intersection analysis. Two intersections were selected for analysis – the intersection of 30th Avenue and College Point Boulevard, and the intersection of Ulmer Street and the Whitestone Expressway southbound service road.

The results of this analysis are summarized as follows:

1. CO levels would not exceed the 8-hour standard. The highest estimated concentration (4.5 ppm) would occur at the intersection of Ulmer Street and Whitestone Expressway under the AM peak period.
2. The DEP CO *de minimis* criteria would not be exceeded at any of the analysis sites, indicating that the Proposed Action would not have the potential to cause CO impacts that are considered to be significant.
3. The Proposed Action would not cause increases above the 24-hour $PM_{2.5}$ STV or the annual $PM_{2.5}$ STV and would not result in any significant adverse impacts at any of the analysis sites based on both NYSDEC and NYCDEP criteria.

- The highest estimated 24-hour incremental neighborhood concentration (0.84 $\mu g/m^3$) would occur at the intersection of 30th Avenue and College Point Boulevard.
- The highest estimated annual incremental neighborhood concentration (0.079 $\mu g/m^3$) would occur at the intersection of 30th Avenue and College Point Boulevard.

The result of this analysis is that the mobile source impacts of the Proposed Action would not significantly impact local air quality levels.

An analysis was conducted to determine if the proposed parking facility would affect CO levels at adjacent receptors. The analysis was based on the methodology recommended in the 2001 *CEQR Technical Manual*. Emissions from vehicles traveling into and out of the facility, idling emissions from vehicle start up as well as adjacent roadway sources were considered in the evaluation. Results indicate that emissions generated from the proposed parking facility would not result in a significant adverse impact to CO levels at adjacent receptors.

A central utility plant (CUP) is proposed to provide for the heating, electrical, and hot water needs of the entire campus. Separate boilers in the individual buildings are not anticipated. The CUP will include a 1,400 kW co-generation unit with gas-fired turbines and five supplemental dual-fuel boilers (4 operational and 1 standby boilers), each at 1,250 BPH input. The co-generation unit would provide a portion of electric needs of the campus, with the remainder coming from emergency generators, the power grid and other on-site (non-polluting) renewable sources.

Gases from both the co-generation unit and the boilers would be exhausted into the atmosphere via one common stack that would be approximately 140 ft tall (approximately 35 feet higher than the roof of CUP building).

Emissions from CUP have the potential to affect both proposed and nearby existing sensitive land uses. Analyses were therefore conducted, using the EPA AERMOD dispersion model and

EPA/CEQR recommended dispersion options, to determine whether these impacts would be significant.

The following analyses were conducted:

1. An analysis to estimate the potential impacts of CUP emissions on the Police Academy's sensitive land uses;
2. An analysis to estimate the potential impacts of the CUP emissions on surrounding existing land uses; and
3. An analysis to estimate the potential impacts of existing "major" sources (i.e., those with 20 or more MMBtu/hr heat input) on the proposed sensitive land uses.

Analyses were conducted as follows:

- The pollutants considered for the analyses are SO_2, NO_2, and PM_{10}.
- Analyses were conducted with and without building downwash using latest five consecutive years of meteorological data from LaGuardia Airport (2002-2006). While pollutant concentrations were estimated at all receptor sites, only the highest concentrations are reported.

Estimated short-term and annual pollutant concentrations were added to appropriate background levels, and maximum total pollutant concentrations were compared with NAAQS to determine whether there would be the a potential violation of these standards. The result of the analysis of CUP emission impacts on proposed buildings is that the maximum total estimated 24-hour and annual SO_2 concentrations, 24-hour PM_{10} concentrations, and annual NO_2 concentrations are all expected to be below the applicable NAAQS. The result of this analysis, therefore, is that no exceedances of the NAAQS for all applicable pollutants are predicted as a result of the CUP emission impacts on proposed- buildings. Additionally, the CUP emissions are not predicted to significantly impact existing nearby land uses.

The potential impacts of Asphalt Plant combustion emissions on proposed buildings are analyzed in Chapter 13. As discussed in detail in that chapter, maximum impact was found (with downwash effects) at the Firearms / Driver Training (EVOC) area (near Block 4321, Lot 49), at a distance of approximately 500 feet from asphalt plant. The total maximum estimated pollutant concentrations at any of the receptor sites are below the applicable NAAQS standards. As such, the asphalt plant emissions are not predicted to significantly impact the proposed project buildings.

As discussed in detail in Chapter 13, the Proposed Action would not result in a violation of any applicable air quality standard or cause an exceedance of the significant threshold value. As such, the potential air quality impacts of the Proposed Action are not considered to be significant.

- ***If there is an increased potential for exposure to contaminants in soil or dust or vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts.***

The Proposed Action has this potential, although the magnitude of the impact is not expected to be substantially beyond what occurs at most urban sites. The hazardous materials assessment presented in Chapter 7, "Hazardous Materials" identified the presence of subsurface contamination due to historic and existing uses at the Project Site and the surrounding area that require remediation in the future with the Proposed Action. The subsurface investigations involved extensive testing throughout the project site. The Phase II ESI results indicated fill soil

throughout the project site has elevated levels of various VOCs and SVOCs, which are characteristic of urban fill. The results also indicated elevated levels of a variety of contaminants in the groundwater, which can be attributed to the fill and the turbid nature of the groundwater samples that were collected.

Standard measures for addressing areas of contamination identified thus far are outlined in Chapter 17, "Mitigation." Typical mitigation measures include remedial activities (remediation) such as excavation of contaminated soil or installation of a groundwater pump and treat system, as well as institutional and engineering controls that may already be in place or may be inherent to the planned redevelopment (e.g., paving an area for parking results in a "cap" that prevents direct contact with contaminated soil below). Intrusive activities (construction) at most previously developed urban sites would involve mitigation in the form of proper soil handling and management, preparation and adherence to a site-specific Health and Safety Plan (HASP) that considers the presence of contaminants, and implementation of a Community Air Monitoring Plan (CAMP). NYCDEP must approve any Remedial Action Plans and construction HASPs prior to undertaking mitigation (remedial) activities at the Project Site. NYSDEC must also approve any remedial plans related to spill cleanup. Any necessary remediation would be performed in accordance with all City, state, and federal regulations and protocols prior to the commencement of construction. As a result, the Proposed Action would not result in significant adverse impacts related to hazardous materials.

- ***Whether solid waste management practices could attract vermin and result in an increase in pest populations.***

No solid waste management practices are proposed beyond those that occur at most other non-residential uses found in the City. These practices would include all contemporary solid waste collection and containment practices and conformance with the laws of the New York City Board of Health. The proposed development would occur in an area that is currently served by both private commercial carters (for non-residential uses) and the New York City Department of Sanitation residential and municipal trash and recycling pickups. The Proposed Action would not affect the delivery of these services, or place a significant burden on the City's solid waste management system.

- ***Potentially significant adverse impacts to sensitive receptors from odors.***

No new odor sources would be created as a result of the Proposed Action. In fact, the proposed Academy would include upgrades to the on-site drainage ditch, including water purification intended to eliminate existing odors due to the tidal influence of the waterway.

- ***Potentially significant adverse impacts to sensitive receptors from noise.***

The potential for these impacts was examined in Chapter 14, "Noise." A total of four noise receptor locations were analyzed immediately adjacent to the Project Site, including one on Ulmer Street, one on 28th Avenue, one at the intersection of 28th Avenue and College Point Boulevard, and one on 31st Avenue, near the primary access to the vehicle impoundment facility. The Proposed Action would result in changes to noise conditions in the study area, due to the development of the proposed Academy, which would generate increases in traffic. Additionally, the proposed EVOC course would create new noise in the area. As described in detail in Chapter 14, "Noise," the Proposed Action would not result in significant new sources of noise. Some temporary noise impacts may be created due to tire squeal and sporadic siren use on the EVOC course, but these noise sources are expected to be of short duration.

To assess the potential for vehicular traffic to cause a noise impact at intersections within the study area, a preliminary evaluation of key intersections was carried out. Based on the NYC *CEQR Technical Manual* and subsequent revisions to its procedures, if the Proposed Action would increase traffic volumes by 100 percent or more, resulting in an increase of 3 dBA or more, then the affected intersections may warrant further analysis. No intersection would experience a 100 percent increase in traffic volume due to the project-generated vehicles. Therefore, none of the intersections would require additional study. The remaining analysis will instead focus on the noise levels at the site as experienced by nearby sensitive receptors.

Based on the projected noise levels for No-Build Conditions, an impact would occur if noise levels were to increase by 3.0 dBA. As all of the project-generated vehicles would be passenger cars, the relative increases in noise level are low. In comparison to No-Build Conditions, the noise levels at the monitored sites range from 0.0 dBA to 2.8 dBA. These increases would not be perceptible. In addition, the sites would fall into the same CEPO-CEQR noise categories as for No-Build Conditions. Thus no noise impacts due to increased traffic are anticipated.

As the proposed shooting range would be located inside an insulated and soundproofed range, no sounds would be perceptible outside of the building. Therefore, the only other unique source of noise generated by the proposed Academy would be the EVOC course. The EVOC driver-training track would cover eight acres on a rooftop behind (to the south of) the Firearms and Tactics facility. Therefore the Firearms and Tactics facility, which rises nearly 70 feet above the level of the EVOC track, would act as a barrier between the anticipated EVOC noise source and the residential neighborhoods to the north and northwest. The number of training vehicles typically ranges between eight and nine per drill with sirens engaged in consecutive fashion for 1.5 minutes per vehicle. For the Proposed Action, the primary sources of noise during the EVOC training would be squealing tires during vehicular maneuvers and siren noise. Noise levels from the EVOC training include the barrier effect of the wall for the Firearms and Tactics facility. Total L_{10} noise levels range from 63.0 to 75.6 dBA under No-Build Conditions and from 63.1 to 88.9 dBA under Build Conditions. The noise level increments would not cause the residential units to be classified into a higher CEQR noise exposure category. All increases in noise levels are below 3.0 dBA except for the Fairfield Inn and the rear wall of All Nations Church. The potential noise level increments of 12.2 and 9.8, respectively, would represent impacts temporarily during the EVOC activities approximately ½ hour per day. These noise level increments are conservatively high, as the 78-foot height of the tactical village building would shield the church from some of the EVOC noise. Therefore, no significant adverse impacts are projected for the Proposed Action.

Based on projected L_{10} traffic noise levels along 28th Avenue and Ulmer Street, the office, academic, and lodging areas would fall within 75 to 80 dBA, which would place them in the Marginally Unacceptable II CEQR category. Therefore, the window-wall attenuation to be provided by the structure should be 35 dBA. This attenuation can be achieved through installing double-glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass. The *NYC CEQR Technical Manual* states that when maximum L_{10} levels are greater than 70 dBA, alternate means of ventilation should be incorporated into building, and building attenuation is required. Since some of the buildings would be used for office purposes, more refined analyses during final design may indicate that a lower building attenuation value of 30 dBA may be suitable.

In addition, mechanical equipment such as heating, ventilation, and air conditioning systems would be designed to meet all applicable noise regulations and requirements, and would be designed to produce noise levels which would not result in any significant increases in ambient noise levels.

No activities are proposed that would exceed accepted City, state, or federal standards with respect to public health.

For the reasons stated above, no significant adverse impacts are expected to public health as a result of the Proposed Action.

A. INTRODUCTION

The preceding chapters of the EIS discuss the potential for significant adverse impacts to result from the Proposed Action. Where such significant adverse impacts have been identified, pursuant to *CEQR Technical Manual* guidelines, measures are examined to minimize or eliminate the anticipated significant adverse impacts. This chapter provides a description of the measures needed to mitigate identified significant adverse impacts in the areas of hazardous materials and traffic.

B. HAZARDOUS MATERIALS

Human exposure to hazardous material can be reduced or eliminated using proven remedial technologies and/or institutional and engineering controls. Typical hazardous materials mitigation measures include remedial activities (remediation) such as excavation of contaminated soil or the installation of a groundwater pump and treat system. Mitigation also includes institutional and engineering controls that may already be in place or may be inherent to the proposed redevelopment (e.g., paving an area for parking results in a "cap" that prevents direct contact with contaminated soil below). As discussed in Chapter 7, "Hazardous Materials," there is a potential for adverse impacts during construction activities resulting from the presence of possible subsurface contamination due to historic and existing uses at the Project Site. The ESA reports prepared for the Project Site have identified *recognized environmental conditions* (e.g., hazardous materials and/or petroleum product contamination) that could have the potential to impact the proposed development. Excavation and construction activities on the Project Site could disturb potential hazardous materials and increase pathways for human exposure. However, it is anticipated that impacts would be avoided by performing construction activities in accordance with all applicable regulations related to the removal and/or containment of contaminated soil.

Intrusive activities (construction) at most previously developed urban sites would involve mitigation in the form of proper soil handling and management, preparation and adherence to a site-specific Construction Health and Safety Plan (CHASP) that considers the presence of contaminants, and implementation of a Community Air Monitoring Plan (CAMP) to minimize the creation and dispersion of fugitive airborne dust.

A CHASP and Remedial Action Plan (RAP) have been prepared in accordance with the applicable requirements set forth by the Occupational, Safety and Health Administration (OSHA), NYSDOH, NYCDEP, and any other applicable regulations to address the recognized environmental concerns on-site. The CHASP identifies the possible locations and risks associated with the potential contaminants that may be encountered during construction, and the administrative and engineering controls that would be utilized to mitigate concerns. The RAP addresses the implementation of remedial measures that would be required to safely construct the proposed project on-site. NYCDEP has reviewed and approved the CHASP and RAP for the proposed project. The New York State Department of Environmental Conservation (NYSDEC) must also approve any remedial plans related to spill cleanup.

The following measures would ensure that no significant adverse impact related to hazardous material would occur. Impacted soils in the area of proposed excavation should be removed and disposed of in accordance with all applicable local, state and federal laws. Application of engineering controls, including the use of an impervious medium (i.e., concrete slab foundation, impermeable bituminous asphalt pavement, concrete sidewalks and curbs) and/or a 24-inch soil cover media consisting of clean fill and vegetative topsoil to cap the entire site. The project would include installation of a 20-mil vapor barrier underneath the floor slab and underlain by a sub-slab vapor venting system (that will have that ability to be retrofitted to an active system) to prevent the migration and intrusion of methane gas and potential volatile organic compounds (VOCs) from soils and groundwater at the site and/or the surrounding area into the constructed buildings. Finally, implementation of institutional controls such as a deed restriction may be required to prevent accidental exposure to contaminants.

Due to the presence of VOC, SVOC and metal concentrations above applicable standards at several sampling locations, dust control procedures are recommended during excavation activities to minimize the creation and dispersion of fugitive airborne dust. A CAMP should be developed in accordance with NYSDEC DER-10 Regulations. The CAMP requires real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated site. The CAMP is intended to provide a measure of protection for the downwind community from potential airborne contaminant releases as a direct result of investigative and remedial work activities.

At areas of the Project Site where contaminants are found in excess of groundwater quality standards, the groundwater must be addressed prior to or during redevelopment. Human exposure pathways can be reduced or eliminated during construction and for the future with the Proposed Action by the use of engineering controls and by prohibiting groundwater use for potable purposes in the future; however, at areas with significant concentrations of contaminants in groundwater, remediation may be required prior to construction.

If water would be discharged to a NYCDEP combined sanitary and storm sewer, the water must be sampled for NYCDEP sewer discharge parameters. Based on the above findings, a NYCDEP sewer discharge permit may be required, and prior to discharge into sanitary and combined sewers, sampling, laboratory analysis, and pretreatment of water from this location would be required. A NYSDEC SPDES permit may also be required to discharge into a storm sewer.

Contract documents should identify provisions and a contingency plan for managing, handling, transporting and disposing of non-hazardous petroleum impacted soil and potentially hazardous soil. The Contractor should be required to submit a Materials Handling Plan, to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations. At the completion of remedial activities at the Site, a Remedial Action Report, certified by a Professional Engineer or Registered Architect, will be completed to document that the activities identified in the RAP have been completed.

With these precautions in place, development of the proposed Academy site would not have significant adverse impacts related to hazardous materials.

C. TRAFFIC AND PARKING

The Proposed Action's significant adverse traffic impacts are summarized in Chapter 11, "Traffic and Parking." As also described in Chapter 11, there are significant adverse traffic impacts at five different intersections. This chapter analyses feasible mitigation measures to address these traffic impacts. Significant adverse impacts to parking are not anticipated. The proposed 1,800-space accessory

parking facility would generally provide enough capacity to accommodate all of the anticipated demand generated by the proposed Police Academy at 100-percent occupancy; however, between 2 PM and 3 PM a parking shortfall of approximate 97 spaces could occur. As noted in Chapter 11, while this is not considered a significant adverse impact due to the presence of legal on-street parking capacity, this chapter identifies measures to better accommodating the anticipated parking demand in close proximity to the Project Site.

Traffic

As discussed in Chapter 11, the Proposed Action would result in significant adverse traffic impacts at a total of five intersections (three intersections which would be impacted in the AM, and three intersections that would be impacted in the PM) when the Academy is fully staffed and training classes are at their maximum. A traffic mitigation plan was therefore developed to address these impacts. This mitigation plan, summarized in Table 17-1, consists of minor geometric improvements, changes to signal timing and phasing, and changes to curbside parking regulations at impacted intersections.

According to the *CEQR Technical Manual*, a significant traffic impact can be considered mitigated if measures implemented return projected future conditions to what they would have been if the Proposed Action were not in place, or to an acceptable level. For a future No-Build LOS A, B or C, mitigating to mid-LOS D is required (45 seconds of delay for signalized intersection and 30 seconds for unsignalized intersections).

The effectiveness of the proposed traffic plan, in terms of addressing significant adverse impacts that would result from the proposed Police Academy when it is operating at full capacity is shown in Table 17-2. As discussed below, the proposed traffic mitigation measures would fully mitigate the traffic impacts that would occur as a result of the Proposed Action in both the AM (6:00 AM to 7:00 AM) and PM (3:00 PM to 4:00 PM) peak hours. These mitigation measures and their effectiveness are discussed below for each impacted intersection.

College Point Boulevard at 31st Street

The mitigation plan for this intersection would provide a new dedicated 11-foot wide westbound right-turn lane approaching College Point Boulevard by re-striping 31st Street for approximately 200 feet east of the intersection. As such, the westbound approach would have on 11-foot wide left-turn/thru/right-turn lane and a right-turn-only lane. The mitigation plan also calls for changes to signal timing as described in Table 17-1. As shown in Table 17-2, under this mitigation plan, the westbound movement (aggregate) would operate with approximately 44.7 seconds of delay (LOS D) compared to 127.3 seconds of delay (LOS F) under the No-Build condition in the AM peak hour, fully mitigating the project's impact in the AM peak hour.

College Point Boulevard at Roosevelt Avenue (Southside)

The mitigation plan for this intersection would consist of minor signal timing changes in the PM peak hour as shown in Table 17-2. Under this mitigation plan, the northbound exclusive left-turn approach would operate with approximately 139.7 seconds of delay (LOS F) compared to 145.8seconds of delay (LOS F) under the No-Build condition in the PM peak hour.

Ulmer Street and Southbound Whitestone Expressway Service Road

The mitigation plan for this intersection would redesign the Ulmer Street approach as well as modify the cycle length to 120 seconds. As shown in Table 17-1, the Ulmer Street approach would be re-aligned to more efficiently process the traffic movement headed to the Whitestone Expressway on-ramp (presently it is an inefficient right-turn) as shown in Figure 17-1. The approach lanes would be widened to 13 feet each. The proposed configuration is also more efficient for large trucks that try to

make the right turn from Ulmer Street onto the service road (see Figure 17-1). As shown in Table 17-2, with this mitigation plan, the significant adverse impact at the westbound (u-turn) movement in the AM peak hour would be fully mitigated, with the delay declining from 159.2 seconds of delay (LOS F) under No-Build conditions to 44.4 seconds of delay (LOS D) under Build conditions. Also under this mitigation plan, the southbound Ulmer Street movement would operate with approximately 123.3 seconds of delay (LOS F) compared to 128.1 seconds of delay (LOS F) under the No-Build condition in the PM peak hour.

Linden Place and Northbound Whitestone Expressway Service Road

The mitigation plan for this intersection consists of minor signal timing changes in the PM peak hour as shown in Table 17-1. This signal timing adjustment would fully mitigate the significant adverse impact at the eastbound service road approach in the PM peak hour. Under this mitigation plan, the eastbound approach would operate with 85.9 seconds of delay (LOS F), compared to 91.4 seconds of delay (LOS F) under the No-Build condition in the PM peak hour.

20th Avenue and the Southbound Whitestone Expressway Service Road

At the intersection of 20th Avenue and the southbound service road, the proposed Academy would result in the addition of 20 vehicles in the AM peak hour. As shown in Table 11-6, several movements at this intersection operate at LOS E and F under No-Build and Build conditions. Between the DEIS and FEIS, alternate mitigation concepts will be reviewed with NYCDOT for feasibility. Alternative measures that could potentially mitigate the intersection include:[1]

- Widening of the Southbound Service Road from 30 feet (three 10 foot lanes) to 33 feet (three 11 foot lanes).

- Introducing an additional phase that permits the westbound left-turn movement along with the southbound right-turn movement. The green time for this phase would be taken from the existing westbound only phase that permits both the thru and left-turn movements.

Should no feasible mitigation plan be developed, this impact would remain non-mitigable.

Parking

As noted in Chapter 11, "Traffic and Parking," the peak demand at a fully utilized Police Academy with an HOV-restriction of 3-persons per vehicle on recruits would exceed supply by approximately 97 spaces at midday. In order to address this potential exceedance, it is proposed to modify the curbside parking regulations on the periphery of the Project Site along 28th Avenue between College Point Boulevard and Ulmer Street to read "No Standing Except Authorized Vehicles 7 AM to 4 PM Monday thru Friday". This new regulation would increase supply by approximately 86 spaces (1,900 sq. ft. frontage divided by 22). The intent of this proposed change is to satisfy the anticipated parking demand on a street that is immediately adjacent to the proposed Academy, reducing the anticipated parking shortfall to approximately 11 spaces. It is proposed that this measure be implemented only after the campus becomes fully occupied and the parking garage demand begins to exceed 1,800 spaces. This would minimize the potential demand for on street parking within the quarter-mile study area.

[1] The potential mitigation measures for 20th Avenue and the Southbound Whitestone Expressway Service Road are still being studied.

Table 17-1: Proposed 2014 Traffic Mitigation Measures

Intersection	Approach	No-Build Signal Timing (Seconds) (1)	Proposed Mitigation	
			Mitigation Signal Timing (Seconds) (1)	Description of Mitigation
College Point Blvd. (N-S) @	NB/SB	47.7 (all times)	40.7/47.7	Restripe WB appoach for exculsive right-turn only and left-thur-right
31st Ave (E-W)	EB/WB	29.7 (all times)	36.7/29.7	Transfer 7 seconds from NB / SB phase to EB / WB in AM
	NB + LT	12.6 (all times)	12.6 (all times)	
College Point Blvd. (N-S) @	NB/SB	50/45	50/45	Transfer 1 second from EB/WB phase to NB+LT in the PM
Roosevelt Ave. (E-W)	NB+LT	17/14	17/15	
	NB+LT (cl)	13/16	13/16	
	EB/WB	40/45	40/44	
Ulmer Street (N-S) @	SB	27 (all times)	37/44	Change Signal Cycle length from 90 seconds to 120 seconds
Southbound Service Road (WB) &	WB	36 (all times)	43/38	Reconfigure the SB Ulmer Street approach of this intersection as shown in Figure 17-1
U-Turn (WB)	WB (U-Turn)	27 (all times)	40/38	
Linden Place (NB/SB) @	NB/SB	29 (all times)	29/27	Transfer 2 seconds from NB / SB phase to EB in PM
Northbound Service Road (EB)	NB+LT	23 (all times)	23 (all times)	
	EB	38 (all times)	38/40	

Notes:

(1) Signal timings shown indicate green plus yellow (including all-red) for each phase. AM/PM

n/c - no change.

(cl) - clearance phase.

ped. - pedestrian phase.

Table 17-2a, 2014 AM Mitigation Traffic Conditions

SIGNALIZED INTERSECTIONS	LANE GROUP	NO-BUILD AM PEAK HOUR V/C RATIO	NO-BUILD AM PEAK HOUR Delay (sec.)	NO-BUILD AM PEAK HOUR LOS	BUILD AM PEAK HOUR V/C RATIO	BUILD AM PEAK HOUR Delay (sec.)	BUILD AM PEAK HOUR LOS		MITIGATION AM PEAK HOUR V/C RATIO	MITIGATION AM PEAK HOUR Delay (sec.)	MITIGATION AM PEAK HOUR LOS
College Point Boulevard											
College Point Blvd. (N-S) @	EB-LTR	0.65	34.6	C	0.65	34.6	C		0.49	25.4	C
31th Ave. (E-W)	WB-LTR	0.54	30.9	C	1.18	127.3	F	*	0.87	44.7	D
	WB-R								0.85	44.8	D
	NB-L	0.46	12.2	B	0.47	12.3	B		0.57	19.0	B
	NB-T	0.23	8.2	A	0.26	8.4	A		0.30	12.1	B
	SB-L	0.04	13.1	B	0.04	13.1	B		0.05	17.3	B
	SB-T	0.35	15.8	B	0.35	15.8	B		0.43	21.0	C
Ulmer Street											
Ulmer St. (N-S) @											
Whitestone Expressway Southbound	WB-TR	0.63	27.4	C	0.74	30.2	C		0.80	44.0	D
Service Road (WB)	SB-R	1.12	103.1	F	1.12	103.6	F		1.09	103.0	F
Service Road U-Turn	WB-TR	0.84	43.1	D	1.25	159.2	F	*	0.80	44.4	D

Table 17-2b, 2014 PM Mitigation Traffic Conditions

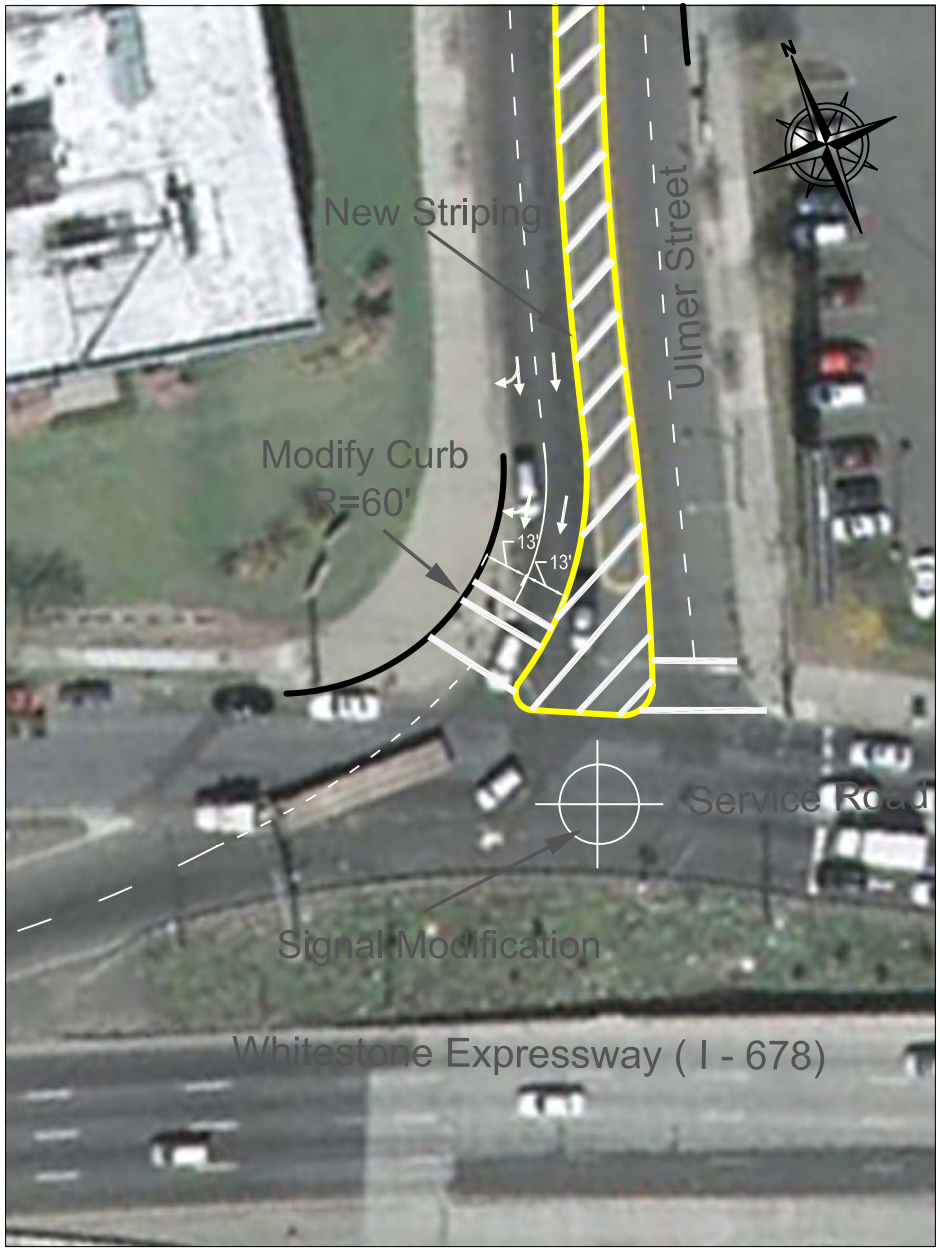
SIGNALIZED INTERSECTIONS	LANE GROUP	NO-BUILD PM PEAK HOUR V/C RATIO	NO-BUILD PM PEAK HOUR Delay (sec.)	NO-BUILD PM PEAK HOUR LOS	BUILD PM PEAK HOUR V/C RATIO	BUILD PM PEAK HOUR Delay (sec.)	BUILD PM PEAK HOUR LOS		MITIGATION PM PEAK HOUR V/C RATIO	MITIGATION PM PEAK HOUR Delay (sec.)	MITIGATION PM PEAK HOUR LOS
College Point Boulevard											
College Point Blvd. (N-S) @	WB-LTR	0.25	29.7	C	0.25	29.7	C		0.26	30.5	C
Roosevelt Ave. (E-W)	NB-L	0.69	41.2	D	0.70	43.1	D		0.69	41.4	D
(North Side)	NB-T	0.40	14.2	B	0.40	14.8	B		0.39	13.7	B
	SB-TR	0.68	37.1	D	0.72	38.5	D		0.72	38.5	D
College Point Blvd. (N-S) @	EB-LTR	0.76	41.7	D	0.76	41.7	D		0.78	43.4	D
Roosevelt Ave. (E-W)	NB-L	1.15	145.8	F	1.18	158.5	F	*	1.13	139.7	F
(South Side)	NB-TR	0.86	38.1	D	0.86	38.3	D		0.84	36.5	D
	SB-T	0.59	35.0	C	0.62	35.7	D		0.62	35.7	D
Ulmer Street											
Ulmer St. (N-S) @											
Whitestone Expressway Southbound	WB-TR	0.55	25.8	C	0.56	26.0	C		0.70	43.6	D
Service Road (WB)	SB-R	1.18	128.1	F	1.66	317.0	F	*	1.16	123.3	F
Service Road U-Turn	WB-TR	0.76	38.2	D	0.80	40.6	D		0.73	44.8	D
Linden Place											
Linden Pl. (N-S) @	EB-LT	1.12	94.6	F	1.22	135.4	F	*	1.10	85.9	F
Whitestone Expressway Northbound	EB-R	0.26	21.3	C	0.26	21.3	C		0.25	19.7	B
Service Road (EB)	NB-T	0.73	35.7	D	0.73	35.8	D		0.80	40.8	D
	SB-L	0.79	38.6	D	0.80	38.9	D		0.83	43.2	D
	SB-T	0.33	13.0	B	0.30	12.7	B		0.32	13.9	B

Key: * Impacted intersection under With-Action Conditions (asterisk, shading)

Figure 17-1

Ulmer Street Mitigation Design

Existing Conditon



Proposed Mitigation

D. NOISE

As noted in Chapter 13, "Noise," significant adverse impacts are projected for the Fairfield Inn west of the site and the All Nations Church and Christian Gospel School southeast of the site. These impacts are solely due to the brief periods of up to half an hour when EVOC activities would be in progress. During these periods, noise level increases would range from 9.8 dBA at the church/school to 13.2 dBA for the Fairfield Inn. These projections of impacts are conservative, as the walls along the EVOC area on the roof of the parking area would provide partial shielding. It is unlikely that these temporary noise impacts could be mitigated.

Due to the configuration of building heights and segments, the office, academic, and lodging components of the Proposed Action would be protected from the EVOC noise levels. This is due to their distances of at least 100 feet from the EVOC location as well as the barrier effects of the Central Service and Tactical Village structures that would be higher than the EVOC rooftop by approximately 34 to 60 feet.

As shown in Table 14-9, L_{10} noise levels on the streets around the site would range from 74.9 dBA on Ulmer Street to 81.3 dBA on 31st Avenue. Since the site buildings would be approximately 400 feet from 31st Street, the traffic noise levels on the southern side of the site would be lower and similar to noise levels for the rear of the All Nations Church as discussed in Chapter 14. Based on this information, noise levels at the exterior of the project buildings would generally fall into the 75.0 to 80.0 dBA range, which would place them in the Marginally Unacceptable II CEQR category. The recommended building attenuation would be 35 dBA as shown in Table 14-3. This attenuation can be achieved through installing double-glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass. The *NYC CEQR Technical Manual* states that when maximum L_{10} levels are greater than 70 dBA, alternate means of ventilation should be incorporated into building, and building attenuation is required. All buildings will be serviced by central HVAC systems. Since some of the buildings would be used for office purposes, more refined analyses during final design may indicate that a lower building attenuation value of 30 dBA may be suitable.

E. CONCLUSION

As described above in the discussion of Hazardous Materials, the Project Site contains identified *recognized environmental conditions* (e.g., hazardous materials and/or petroleum product contamination) that have the potential to impact the proposed development. Excavation and construction activities on the Project Site could disturb potential hazardous materials and increase pathways for human exposure. Intrusive activities would involve mitigation in the form of proper soil handling and management, preparation and adherence to a site-specific CHASP and RAP that consider the presence of contaminants, and implementation of a CAMP in accordance with NYSDEC DER-10 Regulations to minimize the creation and dispersion of fugitive airborne dust. With these precautions in place, construction of the proposed Academy would not result in significant adverse impacts to Hazardous Materials.

As discussed above, the Proposed Action would result in significant adverse traffic impacts at a total of five intersections (three intersections which would be impacted in the AM, and three intersections that would be impacted in the PM) when the Academy is fully staffed and training classes are at their maximum. A traffic mitigation plan was therefore developed to address these impacts. As discussed above, the proposed traffic mitigation measures would fully mitigate the traffic impacts that would occur as a result of the Proposed Action in both the AM (6:00 AM to 7:00 AM) and PM (3:00 PM to 4:00 PM) peak hours. Application and implementation of the traffic engineering improvements described above would require the approval of NYCDOT and coordination with NYCDOT would be

undertaken in order to implement the proposed mitigation measures. In the absence of the implementation of the mitigation plans discussed above, a total of up to five signalized intersections (three in the AM and three in the PM) would remain unmitigated. In addition, as discussed above, the significant adverse impact at the intersection of 20th Avenue and the Southbound Whitestone Expressway Service Road is still being studied and efforts to develop a potential mitigation plan will be undertaken with the NYCDOT between the DEIS and FEIS.

As described above in the parking analysis, the proposed mitigation would ensure that the parking shortage is addressed. The proposed modification to the on-street parking regulations would provide new on-street parking capacity on 28th Avenue, immediately adjacent to the Academy, reducing the demand for available on-street parking elsewhere.

Intermittent noise from tire squeal and occasional siren use would result in temporary noise impacts on sensitive uses to the south and west for short periods of time. These impacts are thought to be unmitigable. Potential noise impacts to on-site uses would be mitigated with the appropriate building attenuation value by installing double-glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass.

A. INTRODUCTION

This chapter considers and evaluates a range of alternatives to the proposed site selection for a public facility, as described in Chapter 1, "Project Description." According to the *City Environmental Quality Review (CEQR) Technical Manual*, alternatives considered should reduce or eliminate impacts of an action while substantively meeting the goals and objectives of the action. The range of alternatives to be considered, which include a No Action Alternative, is determined by the nature of the specific action, its potential impacts, the objectives and capabilities of the project sponsor, and feasibility. In addition to considering alternatives that would avoid or reduce Action-related significant adverse impacts, this chapter considers alternate sites that were considered for the proposed Police Academy.

The analysis first considers the No Action Alternative, in which the proposed acquisition of property, site selection, mapping and other land use actions are not undertaken. A No Impacts Alternative is also assessed, in which there is a change in density or program design in order to avoid the potential impacts associated with the Proposed Action and the resultant Police Academy development. The third alternative considered is an Alternate Site Location Alternative, which evaluates the possibility of locating the proposed Police Academy development elsewhere in the City.

The chapter discusses the likely environmental effects of each of these three alternatives, and compares them to the anticipated effects of the Proposed Action, where applicable.

B. NO ACTION ALTERNATIVE

The No Action Alternative assumes that the proposed site selection would not be implemented. This alternative is discussed and analyzed as the "Future Without the Proposed Action" (i.e., "No-Build Condition") in each of the technical areas addressed in Chapters 2 through 16. It is used as a basis for comparison with the environmental conditions with the Proposed Action and conservatively assumes that the Proposed Action does not move forward.

This analysis compares conditions under the No Action Alternative to conditions with the Proposed Action. The No Action Alternative assumes the City would not construct the proposed Police Academy. Under this alternative, it is assumed that the proposed development site would not be developed by the analysis year of 2014. As described throughout this document, it is expected that the NYPD's vehicle impound operations would be relocated to other City-owned sites and that this portion of the proposed Academy site would remain vacant. The Corona Auto and Truck facility is expected to continue operating at their current location on a month-to-month lease in the No Action condition and the vacant strip of land along College Point Boulevard is expected to remain un-built. The No Action Alternative would not require any discretionary actions. The effects of this alternative are summarized below and compared to those of the Proposed Action, where applicable.

Land Use, Zoning, and Public Policy

In the future without the Proposed Action, no major land use changes are anticipated for the Project Site. No new public facility uses would be developed at the site, nor would any new employees be introduced to the site. As mentioned above, Corona Auto and Truck would continue to operate on the northwestern portion of the proposed development site, and the balance of the proposed development

site is expected to remain vacant. The NYPD's vehicle impound operations would have been relocated to other City-owned sites.

Within the surrounding study area, it is expected that the current land use trends and general development patterns would continue, characterized by an increase in the development of as-of-right commercial and manufacturing space and extensions and improvements to area roadways. No major changes to zoning or public policy are anticipated under the No Action Alternative.

The No Action Alternative would not result in some of the benefits expected to result from the Proposed Action—improvement of adjacent sidewalks, increased landscaping along the public right of way, and the introduction of a development on underutilized City property. Additionally, this alternative would not result in upgrades to the on-site drainage system and reduction of impervious surfaces through sustainable design approaches. As such, the water quality within the drainage system would not be expected to improve under this alternative.

As discussed in Chapter 2, "Land Use, Zoning, and Public Policy," the Proposed Action would require a mayoral override for relief from various zoning controls. Unlike the Proposed Action, the No Action Alternative would not require any zoning overrides.

Open Space

Under the No Action Alternative, no new workers would be introduced to the proposed development site, nor would new open space facilities be added. In the surrounding area, anticipated new manufacturing construction and general background growth would increase the study area's worker and residential populations.

Passive open space ratios under both the No Action Alternative and the Proposed Action would remain below the NYCDCP guideline ratios for open space adequacy. Under the No Action Alternative, both the passive open space ratio for the quarter-mile study area's worker population and the combined open space ratio for the area's residents and workers would be lower than that with the Proposed Action. The passive open space ratio for the study area's workers would be 1.27 acres per 1,000 workers in the No Action Alternative, compared to 0.61 acres per 1,000 workers with the proposed Academy. The recommended weighted average ratio under the No Action Alternative would be 0.15 acres per 1,000 residents and workers, and the combined passive open space ratio would be 0.99 acres per 1,000 residents and workers (compared to the ratio of 0.55 for the Proposed Action).

Shadows

Without any new buildings or structures on the proposed development site under the No Action Alternative, no new shadows would be cast on the open spaces in the study area. While the Proposed Action would result in increased shadows, no significant adverse shadow impacts are anticipated.

Urban Design

With the No Action Alternative, the proposed development site would remain largely unchanged and dramatically different from the Proposed Action, which would add a new substantial public facility development.

Unlike the Proposed Action, the No Action Alternative would not alter the urban design and general visual character of proposed development site by replacing a largely un-built, underutilized approximately 35-acre site with a development consisting of an approximately 2.4 million gsf police

training facility and an 1,800-space accessory parking structure. The proposed development would be substantial and on a visible site in College Point, and is expected to be a considerable change to the surrounding area and a prominent addition to the cityscape, both in its immediate environment and from some distance away. The proposed Academy would be modern and visually distinctive structure in the area, as it would differ from the generally low-to mid-rise existing and anticipated buildings in the immediately surrounding area. Furthermore, like the No Action Alternative, the Proposed Action would not block significant public view corridors, vistas, or natural or built features.

Neighborhood Character

Under the No Action Alternative, no major changes would occur to the Project Site. No new buildings or uses would be added to the proposed development site, and the site would continue to be a generally underutilized parcel of land.

Within the surrounding study area, the various developments that are planned for construction by the 2014 build year under the No Action Alternative would not be expected to create substantial changes to the character of the area. Most of these anticipated developments are improvements and expansions to existing manufacturing uses that occupy large lots. With the exception of the Linden Place extension, they would not significantly alter any natural features, street patterns, or block forms. While these developments could result in changes to the character of the areas immediately surrounding the Project Site, under the No Action Alternative, the overall neighborhood character of the area encompassing the Project Site would remain substantially the same as it is today.

Hazardous Materials

Under the No Action Alternative, as the proposed development site would continue in its current condition, there would be no exposure pathways for hazardous materials, nor would there be any cleanup at the proposed development site. Compared with the No Action Alternative, a greater amount of ground disturbance would occur under the Proposed Action in areas where soil is contaminated from hazardous materials, as more in-ground disturbance is expected to occur with the Proposed Action. However, development under the Proposed Action would be subject to requirements that include subsurface investigations, remediation, and construction in accordance with applicable city, state and federal requirements and under site-specific Sampling and Remediation Work Plans and Health and Safety Plans.

Waterfront Revitalization Program

Unlike the Proposed Action, the No Action Alternative would not result in any new development within the Coastal Zone boundary, nor would it further the goal of encouraging appropriate development in coastal zone areas.

Infrastructure

Under the No Action Alternative, the proposed development site would remain predominantly un-built and the current NYPD vehicle impound operations would be relocated to other City-owned sites. As such, demands on local infrastructure systems, including water supply and sewage treatment, would remain generally the same as existing conditions. As with the Proposed Action, no significant adverse infrastructure impacts would occur under the No Action Alternative.

Solid Waste and Sanitation Services

Demands on solid waste and recycling services would remain generally the same as existing conditions. As with the Proposed Action, no significant adverse solid waste/sanitation impacts would occur under the No Action Alternative.

Energy

Demands on local utility systems, including energy, would remain generally the same as existing conditions. As with the Proposed Action, no significant adverse energy impacts would occur under the No Action Alternative.

Traffic and Parking

In the No Action Alternative, traffic and parking demand levels in the study area would increase as a result of general background growth and future developments in the study area.

Under the No Action Alternative, five intersections would experience congestion on one or more approaches in the weekday AM peak hour, and eight intersections would experience congestion on one or more approaches in the PM peak hour. This compares with two and four congested intersections during these respective peak periods under existing conditions. Under the No Action Alternative, it is anticipated that demand for on-street and off-street parking would increase due to new developments and general background growth in the study area. In general, it is anticipated that there would be sufficient on-street and off-street parking spaces in the study area.

Unlike the No Action Alternative, the Proposed Action would result in significant adverse traffic impacts at three signalized intersections in the AM peak hour and three signalized intersections in the PM peak period (a total of five different intersections). The implementation of the proposed mitigation plan is expected to eliminate some, but not all, of the identified traffic impacts associated with the Proposed Action. No significant adverse impacts to on-street or off-street parking conditions would result from either the Proposed Action or the No Action Alternative.

Transit and Pedestrians

Under the No Action Alternative, the NYPD vehicle impoundment facility would be relocated from the Project Site and, as a result, a slight reduction in transit or pedestrian activity could occur. Neither the No Action Alternative nor the Proposed Action would result in significant adverse subway or bus impacts, or result in significant adverse impacts to pedestrian facilities.

Air Quality

The No Action Alternative would result in less vehicular traffic than the Proposed Action, and would have lower mobile source emissions. No violations of the National Ambient Air Quality Standards (NAAQS) are predicted to occur either under the No Action Alternative or with the Proposed Action, and both would be consistent with the New York State Implementation Plan (SIP) for the control of ozone and carbon monoxide (CO). Neither the Proposed Action nor the No Action Alternative would result in significant adverse mobile or stationary source air quality impacts.

Noise

As the No Action Alternative would not result in any new uses on the development site, it would not result in any permanent mobile or stationary noise sources. As with the Proposed Action, the No Action Alternative would not create any significant adverse noise impacts on nearby noise sensitive uses.

The noise levels at the monitoring sites in the vicinity of the development site are moderately high and are fairly typical of similar areas in this area of College Point. With the No Action Alternative, the Leq noise levels at these locations would be slightly higher, with increases of less than 1.0 dBA. Changes of this magnitude would be insignificant and imperceptible as 3 dBA change is the threshold of change that is detectable by the human ear. As the No Action Alternative would not introduce a noise sensitive use in this area, it would not result in significant adverse noise impacts as with the Proposed Action.

Construction

Since there would be no development under the No Action Alternative, it would not generate the temporary construction disruptions attributable to the proposed development. However, the economic benefits attributable to construction expenditures and construction jobs under the Proposed Action would not occur under this alternative.

Public Health

Neither the No Action Alternative nor the Proposed Action would result in significant adverse public health impacts.

Assessment

While the No Action Alternative would not result in any of the impacts associated with the Proposed Action and resulting Police Academy, the benefits expected from the Proposed Action relative to land use, urban design, natural resources, and WRP consistency, would not be realized under this alternative. The No Action Alternative would not improve the City's police training capabilities and would result in continued use of the NYPD's current overcrowded facilities. This alternative would fall short of the objectives of the NYPD to overhaul the police training facilities throughout the City and the current facilities would have to be supplemented to continue to meet the NYPD's increasing training demands.

C. NO IMPACTS ALTERNATIVE

It is the City's practice to include, whenever feasible, a "No Impacts" alternative that avoids, without the need for mitigation, all significant environmental impacts of the Proposed Action. As presented in Chapters 2 through 16, the Proposed Action is anticipated to result in significant adverse impacts in the following two (2) CEQR technical areas: hazardous materials and traffic. Additionally, a zoning override is required for several aspects of the project that would not be permitted on an as-of-right basis.

The proposed project would result in significant adverse impacts at intersections within the study area that may not be fully alleviated with practical mitigation measures. Because of existing congestion at a

number of these intersections, even a minimal increase in traffic would result in unmitigated impacts at some locations. Based on a sensitivity analysis of intersections within the study area, it was determined that the addition of 5 vehicles or less at certain intersection approaches during both the AM and PM peak periods would trigger an impact that cannot be fully mitigated due to high volumes under existing conditions and future No Action conditions. Thus, almost any new development on the project site, including that which would be allowed as-of-right, would result in unmitigated traffic impacts, and no reasonable alternative could be developed to completely avoid such impacts.

As described in detail in Chapter 7, "Hazardous Materials," recognized environmental conditions have been identified on substantial portions of the proposed development site through soil and groundwater testing. As the site contamination was encountered site-wide, any feasible site development, including as-of-right construction would require additional testing and cleanup. Therefore, any construction resulting in in-ground disturbance would result in a hazardous materials impact that would have to be mitigated in compliance with a DEP-approved protocol.

As discussed in Chapter 2, "Land Use, Zoning, and Public Policy," several mayoral overrides are required for the proposed Police Academy. To avoid the required overrides, the proposed Academy facility would have to be re-designed to avoid encroachment in the rear yard equivalent areas, would have to be set back so as to avoid the applicable sky exposure plane areas, the proposed museum and visiting guest and lecturer facilities would not be included in the building program, and the parking garage would have to be expanded to accommodate all of the required parking (the proposed project requires approximately 5,600 parking spaces on-site to accommodate all proposed uses). A parking garage of this size would not be feasible due to site constraints and the high cost of building a garage that size.

Assessment

The No Impacts Alternative would avoid the Proposed Action's identified significant adverse impacts. However, a No Impacts Alternative is not a feasible alternative in the case of the Police Academy as it would not meet the NYPD's key objectives for a new Police Academy (namely consolidating entry-level, in-service, and civilian training facilities into one central location). As described above, there are traffic and hazardous materials impacts related to the development of the site that could not be avoided by making minor modifications or reductions to the building program. Any new on-site construction would result in hazardous materials impacts that would require mitigation. Further, as noted above under the description of the No Action Alternative, five intersections would experience congestion on one or more approaches in the weekday AM peak hour, and eight intersections would experience congestion on one or more approaches in the PM peak hour. No practical reduction in the building program would eliminate new traffic impacts at these congested intersections. As such, this alternative would not meet the goals and objectives of the Proposed Action, and accordingly, it is not considered for purposes of further analysis.

C. ALTERNATE SITE LOCATION ALTERNATIVE

This alternative assumes that the proposed public facility, the Police Academy, would be located at an alternative location within the City.

The programmatic requirements for a new Police Academy necessitate a large development site to accommodate approximately 2.4 million gsf of new development and accessory parking for approximately 1,800 vehicles. The proposed development would accommodate a comprehensive Police Academy facility for recruit and in-service training and would consolidate training facilities that

are currently spread across the City into one central location. Given the variety of uses that comprise the Academy program and the sensitive nature of the proposed facility, a large site is required to accommodate the entire building program and the various security measures (including a setback from adjacent roadways). According to preliminary NYPD specifications for the individual program elements, the selected site would need to exceed 30 acres in order to accommodate all training components at optimal layouts.

Since conceptual planning for a new Academy began, several alternative sites have been considered for the proposed Police Academy, many of which are located outside of Queens. The proposed site (the NYPD's College Point Vehicle Impoundment facility) was among seven locations considered by representatives of the City's site selection committee for the proposed Academy. Other sites included (1) Oak Point, a privately-owned parcel in the Bronx; (2) the City-owned former Flushing Airport site (also in Queens Community Board 7); (3) a portion of the Aqueduct Racetrack site in Queens; (4) the City-owned Ridgewood Reservoir site in Queens; (5) the City-owned Rossville Prison site in Staten Island; (6) the City-owned Seaview Hospital site and Farm Colony in Staten Island. These sites consisted of both private and publicly owned property. None of these alternate locations proved viable for the reasons detailed below.[1]

Each of these six alternative locations for the proposed Police Academy was found to be unsuitable, as each site failed to meet one or more of the selection criteria for siting the proposed public facility. These criteria include:

- Size of the site and ability to accommodate the entire development program;
- Accessibility by mass transit and vicinity to main arterial roadways;
- Community context; and
- Feasibility.

The following provides a qualitative description of each of the alternative sites listed above:

Alternate Locations Considered

1. Oak Point, Bronx

Oak Point is an approximately 28-acre property located in the Hunts Point section of the Bronx to east of the Bruckner Expressway (I-278). Located on the waterfront at the southern tip of the Bronx in Community District 2, the site is relatively secluded. The Oak Point site would be suitable for development because it is predominantly un-built. However, a portion of the Oak Point property is privately owned and would have to be purchased from the current landowner or condemned.

The zoning for the waterfront site restricts lot coverage to 30 percent. A building on this site would be limited to a maximum 60-foot base height with a maximum width of 100 feet above the 60-foot base. A maximum height of 150 feet is allowed pursuant to current zoning.

The site also has waterfront requirements, including a public esplanade and a 40-foot minimum setback from the shoreline for new buildings. A minimum of 15 percent of the entire lot area must be dedicated as a supplemental public access area. Therefore, much of the available property would not be available for the Academy's programmatic needs.

[1] Readers should understand that there is a limitation on the ability to disclose information on matters that relate to security concerns and analyses leading to the site selection for this public facility.

As the site is located immediately to the south of a rail yard, and the Bruckner Expressway is located immediately adjacent to the rail yard, there is limited access to the site. The Oak Point Site is located midway between the Number 6 subway station at East 149th Street and Southern Boulevard and the Number 6 subway station at Longwood Avenue and Southern Boulevard. Each subway station is over a half-mile from the site. The nearest bus route is the Bx19, which travels along Southern Boulevard in the vicinity of the project site, and is also approximately a half-mile from the Oak Point Site.

Locating the proposed Police Academy at the Oak Point site would prevent the site from being developed for other uses. For example, *Sustainable South Bronx* has voiced a desire to develop an "ecoindustrial park" on a portion of this site that would include a construction and demolition debris recycling plant as well as facilities for wood salvage and re-milling, plastics recycling and manufacturing, and processing glass powder for concrete and masonry blocks. Finally, as the City would have to acquire the land from a private owner, and the available property would not accommodate the entire building program, it would not be feasible to pursue this site for the Police Academy.

2. Former Flushing Airport Site, Queens

The approximately 20-acre former Flushing Airport property is located in the College Point neighborhood of Queens on the eastern side of Linden Place, between 20th Avenue and 26th Avenue. Flushing Airport opened in 1927 and was used until 1984. The frequent flooding problem lead to the closure of this airport in 1984.

The former Flushing Airport site is predominantly un-built. The former airport property is now overgrown, and there are a variety of wetland issues on-site. In fact, a portion of the site is located within a tidal floodplain, designated Zone AE on the FEMA Flood Insurance Rate Maps. Zone AE represents areas that have a 1 percent chance of flooding each year (100-year flood) that has been determined in the Flood Insurance Study be detailed methods of hydraulic analysis. Additionally, a portion of the Flushing Airport site is mapped as a NYSDEC Freshwater Wetland.

In recognition of the various water-related issues on the Flushing Airport site, the City is evaluating the feasibility of setting aside portions of the site as dedicated wetland restoration areas. As described in Chapter 5, "Natural Resources," NYCEDC has sponsored the Former Flushing Airport Mitigation Plan (Plan) on the approximately 78-acre former Flushing Airport site. The Plan, which is a priority project for the New York City Wetlands Transfer Task Force,[2] is designed to improve wetland functions and values by enhancing 8.6 acres of existing degraded wetlands and creating 11.8 acres of wetlands at the former Flushing Airport site. The Plan will enhance water quality, improve flood storage, increase wildlife habitat values, and improve overall aesthetic value of the area. The Plan will also create 5.6 acres of scrub/shrub floodplain, 4.7 acres of forested upland and 6.3 acres of grassland.

As described in Chapter 2, "Land Use, Zoning, and Public Policy," the surrounding area consists primarily of commercial, manufacturing, and open space uses. Residential uses are located to the west of 130th Street and to the east/southeast of the Whitestone Expressway. There is limited local bus and subway service. The Q20A and Q76 bus routes travel along 20th Avenue to the north. The site is accessible by vehicle from 20th Avenue.

The Flushing Airport site has long been a source of contention within the local community. While a variety of diverse projects have been proposed for the site since the airport was officially closed in the

[2] The NYC Wetlands Task Force inventories City-owned wetlands in the NY metropolitan area and determines the technical, legal, environmental and economical feasibility of transferring these wetlands to the jurisdiction of NYC Department of Parks and Recreation.

mid-1980s, the community has expressed a desire to convert the property to public park. As mentioned in above and described in great detail in Chapter 2, the Flushing Airport Site is surrounded by a mix of commercial, manufacturing, and open space uses, with residential uses located beyond. Therefore, while the Police Academy would be a contextual use within the community, the selection of this site would likely be a source of contention.

With a maximum of 20 acres available, the former Flushing Airport site is not ideal for the proposed Academy, as the entire building program could not be accommodated on-site. In addition, the siting of the proposed Police Academy at the Flushing Airport site would likely result in significant adverse natural resources impacts. Therefore, the NYPD determined that this site would not adequately meet their selection criteria.

3. A Portion of the Aqueduct Racetrack Site, Queens

This approximately 26-acre portion of the Aqueduct Racetrack site is located in the South Ozone Park neighborhood of Queens in Community District 10. The Aqueduct property is located at 110-00 Rockaway Boulevard and is generally bounded by Rockaway Boulevard to the north, 114th Street to the east, and North Conduit Avenue and the Belt Parkway (or Southern State Parkway) to the west and south.

While the land is City-owned, it is leased to the Port Authority of New York and New Jersey ("Port Authority"). The parcel, known as Parking Area "C", is currently used as satellite parking for John F. Kennedy International Airport (JFK) employees. Some limited Aqueduct Racetrack parking demand is occasionally accommodated on this lot. The property would not be available for recapture by the City until May 2010. Additionally, other City agencies have expressed possible interest in the site for future use.

Site access is available via the "A" subway line, which runs adjacent to the southwest boundary of the site. The North Conduit station is located near the intersection of Aqueduct Road and North Conduit Avenue. Several NYCT bus lines operate within close proximity to the Aqueduct Racetrack site, but only the Q11 and the B15 stop adjacent to the portion of the site that would be available for development. To reduce conflicts with other Aqueduct uses, vehicular access to this site would likely be limited to the North Conduit Avenue entrance, which is located to the south.

The project site is zoned C8-1 which allows a commercial floor area of 1.0. C8 districts typically bridge commercial and manufacturing uses and provide for automotive and other heavy commercial services that often require large amounts of land. As such, development of the Proposed Academy at this site would be contextual.

While the total site area is approximately 26 acres, only 10 acres of the total parcel would be available for non-aviation related use. Even if all 26 acres were made available, the site would be too small to fit all of the programmatic elements of the proposed Academy and as such the site would not be feasible.

4. Ridgewood Reservoir, Queens

Ridgewood Reservoir is a decommissioned 19th century reservoir that is located in southwestern Queens on the Queens-Brooklyn border. Originally built in the late 1850s to provide potable drinking water to the city of Brooklyn, the Ridgewood Reservoir served as part of the City's water supply until it was decommissioned and then drained in the late 1980s.

This site comprises more than 50-acres and is part of Highland Park and under the jurisdiction of the New York City Department of Parks and Recreation (NYCDPR). The reservoir and park comprise more than 141 acres and are roughly bounded on the north by the Jackie Robinson Parkway, on the south by Highland Boulevard and Jamaica Avenue, on the west by Bulwer Place and Warwick Street, and on the east by Cypress Hills National Cemetery. Following its decommissioning, the Ridgewood Reservoir has naturally became forested land and a grassy march, which has attracted a wide variety of fauna. The reservoir's outer basins are filled and completely vegetated, while the middle basin contains a fresh water pond. A bicycle trail along the perimeter of the reservoir has also become part of the 40-mile Brooklyn-Queens Greenway.

The surrounding area consists primarily of cemeteries to the north and east; low-to mid-density residentially zoned areas to the south, and parkland to the west. There is limited local bus and subway service. The B13 bus route travels along Cypress Hill Street to the west, and the Q56 bus route runs on Jamaica Avenue to the south. The B13 bus route provides a connection to the Fresh Pond Road and Forest Avenue station serving the M subway line and the Crescent Street station serving the J and Z subway lines, and the Q56 bus route provides a connection to the Broadway Junction subway station. The site is accessible by vehicle from the Jackie Robinson Parkway and Vermont Place. The city is currently working to revitalize Highland Park and make it a destination park.

This site is mapped parkland and therefore, state-enabling legislation would be required for the alienation of publicly accessible open space to permit the construction of the proposed Police Academy. In addition, the siting of the proposed Police Academy at the Ridgewood Reservoir would likely result in significant adverse natural resources impacts. As this site is predominantly comprised of parkland and low-density residential uses, community opposition was expected to be strong. It is expected that the Police Academy would not be considered a contextual use in this area.

The physical characteristics of the site, including the abundant natural resources, the sharp grade changes, and limited access through parkland would complicate site planning and efficient layout of the various program components. As such, the NYPD determined that the Ridgewood Reservoir site was not a suitable location for the Police Academy.

5. Rossville Prison Site, Staten Island

Located in the Rossville area of Staten Island in Community District 3, the approximately 31-acre site is located on Arthur Kill Road and Bloomingdale Road. It is a City-owned site that is predominantly comprised of industrial uses. In the late-1980s the City considered using this site for a new prison, dubbed the Rossville Prison, which was never constructed; however, the prison label continues to be associated with this parcel.

The site is accessible by public transit; the S55, S74, and S84 buses provide access to the site, along Arthur Kill Road. Additionally, the S55 provides connection to the Pleasant Plains Staten Island Railway (SIR) station, which is located approximately two miles to the south of the site. Vehicle traffic can access the site from Arthur Kill Road via the West Shore Expressway. As the site is located at the southwestern limits of Staten Island, it would not be easily accessible to police recruits and in-service personnel who travel from all five boroughs.

The surrounding area to the north of the West Shore Expressway is sparsely developed, supporting mostly industrial uses. In the vicinity of the Rossville Prison Site, the area to the south of the West Shore Expressway is densely populated with residential uses and Clay Ponds State Preserve is also located in this area. With the industrial character of the immediate area, and a highway separating the site from the residential area to the southeast, the project would be considered contextual in this area.

While this site is predominantly un-built and at approximately 31 acres it is of adequate size for the Police Academy Program, the presence of on-site hazardous materials was a concern for the NYPD. Two other secondary issues were related to other City interest in the site: NYCEDC expressed interest in waterfront development on a portion of the site; and the NYC Department of Sanitation has indicated that it intends to evaluate the feasibility of constructing a new facility on a portion of the site that has frontage on Arthur Kill Road. However, the primary concern with the site was accessibility from other areas of the City. As the Rossville Prison site is located in southwestern Staten Island, the NYPD did not feel as though this site was centrally located or easily accessible to other critical NYPD facilities.

6. Seaview Hospital site and Farm Colony, Staten Island

The Seaview Hospital site and Farm Colony is located in central Staten Island in the Willowbrook neighborhood (Community District 2). The site is generally bounded by Colonial Avenue to the west, Walcott Avenue and Brielle Avenue to the north, Manor Road to the east, and Rockland Avenue and Eastman Avenue to the south.

Approximately 40 acres of the 98-acre Farm Colony site and 280-acre Seaview Hospital site were considered to be available for the Police Academy. A site of 40 acres would accommodate the NYPD's entire development program.

In 1985, the New York City Landmarks Preservation Commission (NYCLPC) designated the Farm Colony – Seaview Hospital Historic District. The site contains 11 historically significant but dilapidated buildings that must be maintained and/or restored. The 25-acre southwestern portion of the Farm Colony site, known as "The Great Swamp," is now under the jurisdiction of the NYCDPR.

With the exception of two local bus routes, there is limited public transit. The S57 and S54 bus routes travel along Brielle Avenue. The S57 bus route provides a connection to the New Dorp SIR station. The site is located a short distance from the Staten Island Expressway and accessible by vehicle from Manor Road, Brielle Avenue, and Forest Hill Road.

The site is zoned R3-2 and much of the immediately adjacent land is residential, parkland, or institutional (hospital). The close proximity of the site to residential and hospital uses was a potentially contentious issue. Additionally, the local community would like this site to be reactivated in a manner that would provide access to the community.

Impediments to developing this site with the Police Academy were the proximity to a residential area and hospital, likely landmark impacts, extensive on-site wetlands and natural resources, and GreenBelt boundaries. To a lesser degree, a 50 to 80 foot grade change throughout the site poses site-planning challenges. Finally, the City has issued RFPs for portions of the site to encourage re-activation of the site and public access. Altogether these issues, and lack of accessibility to the site from other areas of the City, eliminated this site from consideration.

7. College Point Vehicle Impound Facility, Queens

The approximately 35-acre College Point Vehicle Impound Facility (Tow Pound) property is located in the College Point neighborhood of Queens. The site consists primarily of the NYPD's College Point Tow Pound. Also included are a vehicle service station (the City owns the land and holds a month-to-month lease with the operator of the service station), and a City-owned strip of vacant land that is located between the Tow Pound and College Point Boulevard. On a daily basis, the Tow Pound contains approximately 3,000 vehicles, 1,300 motorcycles and 600 auto parts on a paved asphalt lot.

All of the vehicles, motorcycles and parts are being relocated to other City-owned sites as the City consolidates several vehicle impound facilities and reorganizes its citywide operations.

The proposed development site is bordered by 28th Avenue to the north, Ulmer Street to the east, and College Point Boulevard to the west. Land uses in the immediate area consist predominantly of commercial and manufacturing uses on large lots. Residential uses are located to the west of 130th Street and to the east/southeast of the Whitestone Expressway. As the Academy would be an as-of-right use within the M1-1 and M3-1 zones, the proposed use would be contextual.

Two bus lines provide access from the number 7-subway line in Flushing to the project site. The Q25 bus route travels along 28th Avenue and the Q65 bus route runs along College Point Boulevard. Both bus lines have bus stops within close proximity to this site. The site is also easily accessible from the Whitestone Expressway, a limited access multi-lane highway that connects to the Van Wyck Expressway and the Grand Central Parkway. Additionally, College Point Boulevard is a vital north-south arterial that typically operates with two travel lanes in each direction, providing connection to Flushing.

The Tow Pound site, consisting of 35-acres of paved parking lots in an urban environment, is adequate in terms of its size, availability of utilities and highway access, and compatibility with surrounding land uses. The site is appealing because it is already occupied by a police use; therefore, no other City agencies or private interests would be impacted. Further, while site remediation would be required for the removal of on-site hazardous materials (as is the case with many of the other site alternatives), little demolition or site clearing is required. No parkland or natural areas would be disturbed as the site is already paved.

While many reasons have been listed as justification for selecting the NYPD's College Point Vehicle Impound site for the proposed Academy above the others, City officials sited its size, its likelihood of fitting into the surrounding community, its proximity to public transportation, and its likelihood of being built at this location as reasons for ultimately selecting the College Point Tow Pound site.

Assessment

As described above, none of the six alternate sites met all of the necessary selection criteria, and therefore, they were determined to be unsuitable for the proposed Police Academy. The site requirements necessary to accommodate the large building program and security provisions for the Police Academy require the selection of a site comprising approximately 30 acres of land, at a minimum, to fit the entire Police Academy program. As described above, some of the sites have extremely limited public transit access, or are located too far from major roadways. Other sites contain active uses or alternate uses are proposed for the sites and as such, they could not readily accommodate the proposed Police Academy. Some sites would be extremely difficult to develop and are located within either public parkland, residentially zoned areas, or recognized historic districts.

The selected site meets the logistical and functional criteria necessary to ensure the proper operation of the proposed facility, with minimal disruption to the surrounding area. The 35-acre Tow Pound site is adequately sized to accommodate the entire building program. Aside from the on-site drainage ditch, the Tow Pound is predominantly paved and located within an urban environment. The site is easily accessible from the Whitestone Expressway and two bus lines provide a short connection to the No. 7 subway line in Flushing. As the site is entirely City-owned and tow pound operations are being relocated to other sites throughout the City, the College Point Tow Pound site is readily available to be repurposed as a modern police training facility. The NYPD determined that this site best met the selection criteria and would be the most ideal location of the available options.

D. CONCLUSION

The No Action Alternative would not result in any of the impacts associated with the Proposed Action and resulting Police Academy, nor would it result in any of the benefits expected from the Proposed Action relative to land use, urban design, natural resources, and WRP consistency. The No Action Alternative would not improve the City's police training capabilities and would result in continued use of the NYPD's current overcrowded and dispersed facilities. This alternative would fall short of the objectives of the NYPD to overhaul the police training facilities throughout the City and the current facilities would have to be supplemented to continue to meet the NYPD's increasing training demands.

The No Impacts Alternative would avoid the Proposed Action's identified significant adverse impacts. However, as described above, a No Impacts Alternative is not a feasible alternative in the case of the Police Academy, as it would not be possible to consolidate entry-level, in-service, and civilian training facilities into one central location with no impacts. Traffic and hazardous materials impacts related to the development of the site that could not be avoided by making minor modifications or reductions to the building program. As such, this alternative would not meet the goals and objectives of the Proposed Action, and accordingly, it is not considered for purposes of further analysis.

As discussed above in the analysis of the Alternate Site Location Alternative, the proposed development site is the most suitable of the available site options in terms of its size, access to major arterial roadways and public transportation, compatibility with surrounding land uses, and overall feasibility. As none of the alternate sites listed above met all of the necessary selection criteria, the Alternate Site Location Alternative would fall short of the objectives of the Proposed Action. Moreover, the Alternate Site Location Alternative may result in the same or additional significant adverse impacts as the Proposed Action.

A. INTRODUCTION

Unavoidable adverse impacts occur when a proposed action would result in significant adverse impacts for which there are no reasonably practicable mitigation measures, and for which there are no reasonable alternatives.

B. TRAFFIC

As mentioned in Chapter 11, "Traffic and Parking" and Chapter 17, "Mitigation," at the intersection of 20th Avenue and the southbound Whitestone Expressway service road, the proposed Academy would result in the addition of 20 vehicles in the AM peak hour. As shown in Table 11-6, several movements at this intersection operate at LOS E and F under No-Build and Build conditions. Between the DEIS and FEIS, alternate mitigation concepts will be reviewed with NYCDOT for feasibility. Alternative measures that could potentially mitigate the intersection include:

- Widening of the Southbound Service Road from 30 feet (three 10 foot lanes) to 33 feet (three 11 foot lanes).

- Introducing an additional phase that permits the westbound left-turn movement along with the southbound right-turn movement. The green time for this phase would be taken from the existing westbound only phase that permits both the thru and left-turn movements.

Should no feasible mitigation plan be developed, this impact would remain non-mitigable.

C. NOISE

To analyze noise levels at the Fairfield Inn and the church/school site, the maximum siren noise levels were placed in the center of the EVOC site. Without any barriers to mitigate the noise, the Inn could experience a noise level of 85.8 dBA, and the rear of the church could experience a noise level of 74.2 dBA.

Significant adverse impacts are projected for the Fairfield Inn west of the site and the All Nations Church and Christian Gospel School southeast of the site. These impacts are solely due to the brief periods of up to half an hour when EVOC activities would be in progress. During these periods, noise level increases would range from 9.8 dBA at the church/school to 13.2 dBA for the Fairfield Inn. These projections of impacts are conservative, as the walls along the EVOC area on the roof of the parking area would provide partial shielding. The potential noise impacts would represent a temporary condition during the EVOC activities approximately a half hour per day. This is seen as an unmitigable noise impact.

D. CONCLUSION

As described in previous chapters of this EIS, it is anticipated that all other potential significant adverse impacts of the Proposed Action could be avoided or mitigated by implementing a broad range of measures.

As set forth in the *CEQR Technical Manual,* growth-inducing aspects of a proposed action generally refer to "secondary" effects of a proposed action that trigger further development. Proposals that add substantial new land use, new residents, or new employment could induce additional development of a similar kind or of support uses (e.g., stores to serve new residential uses). Actions that introduce or greatly expand infrastructure capacity (e.g., sewers, central water supply) might also induce growth, although this could be an issue only in limited areas of Staten Island and perhaps Queens, since in most areas of New York City infrastructure is already in place and its improvement or expansion is usually proposed only to serve existing or expected users.

The NYPD is proposing to construct a new Police Academy to incorporate many of the NYPD's existing training facilities throughout the City into one consolidated campus, which would be located on approximately 35 acres of City-owned land, including a majority of the Department's Tow Pound site in College Point, Queens. The proposed action would allow for the development of a modern complex, to be operated by the NYPD, which would consolidate in one-campus facilities for civilians, recruits, and active police officers that are currently spread across the City. The total development size would consist of approximately 2.4 million gross square feet and would include indoor training facilities, classrooms, and related support space, an indoor pistol training facility, a tactical village, an indoor track, a police museum, a visiting police/lecturer housing facility and an 1,800-space above-grade parking facility ("proposed development").

The Proposed Action would introduce a new land use and an increase in density on the proposed development site, replacing primarily undeveloped land with a substantial public facility development. It would not involve a change in the site's zoning or affect public policy. Located in the College Point, neighborhood of Queens Community District 7, the proposed development would be located on a portion of the block bounded by 28th Avenue to the north, Ulmer Street and the Whitestone Expressway Service Road to the east, 31st Avenue to the south, and College Point Boulevard to the west. The Proposed Action is not likely to foster any additional development in the surrounding area, as the College Point neighborhood is well established. Therefore, no significant development is expected to occur in the surrounding area as a result of the Proposed Action

The proposed development would introduce a sizeable recruit and worker population to the area. The expected secondary impacts of this include additional utilization of open spaces and mass transit in the surrounding area. As the proposed development would include a cafeteria and on-site passive open space areas, the proposed Academy is expected to accommodate the needs brought by the additional population. It is anticipated that some retail stores and services in the area would benefit from the additional population but the needs would not be so large as to require additional retail development.

Therefore, the Proposed Action is not expected to induce notable growth outside of the proposed development site. While the Proposed Action would improve existing infrastructure on and immediately adjacent to the Project Site, the infrastructure in the study area is already well-developed, such that improvements associated with the Proposed Action would not induce additional growth.

CHAPTER 21: IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

There are a number of resources, both natural and man-made, that would be expended in the construction and operation of the proposed public facility. These resources include the materials (including concrete, wood, metal, glass and asphalt) used in construction of the proposed Police Academy; energy in the form of gas and electricity consumed during construction and operation of the proposed development by various mechanical and processing systems; and the human effort (time and labor) required to develop, construct, and operate various components of the proposed development. They are considered irretrievably committed because their reuse for some purpose would be highly unlikely.

The land use changes associated with the development of the proposed Academy site may also be considered a resource loss. The proposed development constitutes an irreversible and irretrievable commitment of the development site for a public facility use, thereby rendering the use of this land for other purposes infeasible. Further, funds committed to the design, construction, and operations of the proposed development are not available for other projects.

The public services provided in connection with the proposed development under the Proposed Action (e.g., police training and community protection) also constitute resource commitments that might otherwise be used for other programs or projects.

Despite the commitments identified above, the proposed Police Academy would result in a public benefit, due to the expansion of recruit and in-service training capabilities within the City.